

# Timber Sale Appraisal Sunset Rest

Sale fg-341-2020-w00548-01

**District: Forest Grove** 

Date: June 24, 2019

# **Cost Summary**

i	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,061,234.06	\$15,881.39	\$2,077,115.45 -
		Project Work:	(\$71,095.00)
		Advertised Value:	\$2,006,020.45



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**District: Forest Grove** 

Date: June 24, 2019

## **Timber Description**

Location: Portions of Sections 28, 29 & 32, T4N, R6W, W.M., Clatsop County, Oregon

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	98
Western Hemlock / Fir	17	0	98
Alder (Red)	22	0	95

Volume by Grade	28	3S & 4S 6"- 11"	Camprun	Total
Douglas - Fir	2,523	786	0	3,309
Western Hemlock / Fir	940	634	0	1,574
Alder (Red)	0	o	49	49
Total	3,463	1,420	49	4,932

Comments: LOCAL POND VALUES USED, MAY2019

WESTERN REDCEDAR AND OTHER CEDARS: STUMPAGE PRICE = POND VALUE - LOGGING COST

\$689.42/MBF = \$909/MBF - \$219.58/MBF

BRANDING AND PAINTING ALLOWANCE =\$2.00/MBF

FUEL COST ALLOWANCE = \$3.00/GAL

HAULING COST ALLOWANCE = \$950 DAILY TRUCK COST

OTHER COSTS (PROFIT & RISK TO BE ADDED): N/A

OTHER COSTS (NO PROFIT & RISK TO BE ADDED):

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

MACHINE TIME TO PILE LANDING SLASH: 20 HRS @ \$150/HR = \$3,000

SLASH TREATMENT: 40 AC @ \$200/AC = \$8,000

TOTAL OTHER COSTS (NO P&R) = \$14,000

**ROAD MAINTENANCE:** 

MOVE IN: \$3,000

ROAD MAINTENANCE: 2.6 MILES @ \$1,200/MI = \$3,120

TOTAL: \$6,120/4,932MBF = \$1.24/MBF



## Timber Sale Appraisal Sunset Rest

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## **Logging Conditions**

Combination#: 1

Douglas - Fir

100.00%

Western Hemlock / Fir

100.00%

Alder (Red)

100.00%

Logging System: Shovel

Process: Feller Buncher

yarding distance:

Short (400 ft)

downhill yarding: No

tree size:

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

loads / day:

\$92.13

bd. ft / load: 4800

cost / mbf:

machines: Feller Buncher w/ Delimber

6/25/19 4



# Timber Sale Appraisal Sunset Rest

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**District: Forest Grove** 

Date: June 24, 2019

## **Logging Costs**

**Operating Seasons: 1.00** 

Profit Risk: 10%

Project Costs: \$71,095.00

Other Costs (P/R): \$0.00

Slash Disposal: \$0.00

Other Costs: \$14,000.00

Miles of Road

Road Maintenance:

\$1.24

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	4.8
Alder (Red)	\$0.00	2.0	4.8



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# **Logging Costs Breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas -	Fir								_
\$92.13	\$1.26	\$0.89	\$100.94	\$0.00	\$19.52	\$0.00	\$2.00	\$2.84	\$219.58
Western H	emlock	/ Fir							
\$92.13	\$1.26	\$0.89	\$100.94	\$0.00	\$19.52	\$0.00	\$2.00	\$2.84	\$219.58
Alder (Red	l)				<del>_</del>				
\$92.13	\$1.30	\$0.89	\$103.91	\$0.00	\$19.82	\$0.00	\$2.00	\$2.84	\$222.89

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$685.44	\$465.86	\$0.00
Western Hemlock / Fir	\$0.00	\$549.76	\$330.18	\$0.00
Alder (Red)	\$0.00	\$547.00	\$324.11	\$0.00



# Timber Sale Appraisal Sunset Rest

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Date: June 24, 2019

## **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	3,309	\$465.86	\$1,541,530.74
Western Hemlock / Fir	1,574	\$330.18	\$519,703.32
Alder (Red)	49	\$324.11	\$15,881.39

## **Gross Timber Sale Value**

Recovery:

\$2,077,115.45

Prepared By: Nate Hunter

Phone: 503-359-7434

Timber Sale: Sunset Rest
Sale Number: FG-341-2020-W00548-01

_	Road Segment	Length	Cost
<del>-</del>	B to C	35+25	\$25,167.34
	D to E	23+70	\$14,349.82
_	F to G	14+40	\$9,135.40
<del>-</del>		73+35 stations	
		1.39 miles	
Total Rock =			
	48 cy	1½" - 0	
	5,550 cy	4" - 0	
	24 cy	Riprap	
		Move-in =	\$3,837.05

<u>TOTAL PROJECT NO. 1 COST =</u> \$52,489.61

#### PROJECT NO. 2: DIRT ROAD CONSTRUCTION

Road Segment	Length	Cost
H to I	10+80	\$3,035.30
	10+80 stations	
	0.20 miles	
	Move-in =	\$239.38

TOTAL PROJECT NO. 2 COST = \$3,274.68

#### **PROJECT NO. 3: ROAD IMPROVEMENT**

_	Road Segment	Length	Cost
_	A to B	9+15	\$1,719.40
_	J		\$12,490.62
_		9+15 stations	
		0.17 miles	
Total Rock =			
	177 cy	1½" - 0	
	74 cy	4" - 0	
	24 cy	Riprap	
		Move-in =	\$1,120.69
	<u>TOTAL</u>	PROJECT NO. 3 COST =	\$15,330.71
		-	

**TOTAL CREDITS** \$71,095.00

	Timber Sale:		Sunset F	Rest	Sal	e Number:	FG-341-202	:0-W00548-01
	Road Segment:		A to E	3	Imp	rovement:	9+15 0.17	stations miles
PROJECT NO. 3								
Improvement								
Install Gate		1	ea@	\$1,200.00	per ea =		\$1,200.00	
Grade, ditch, & roll		9.15	sta @	\$36.00	per sta =		\$329.40	
					TOTAL IMP	ROVEME	NT COSTS =	\$1,529.40
CULVERTS							_	
Markers & Stakes								
Culvert Markers		1	ea @	\$10.00	per ea =		\$10.00	
					<u>TOT/</u>	AL CULVER	RT COSTS =	\$10.00
ROCK								
		Rock	Base	Haul Cost	Placement/			
		Size	Cost	\$/cy	Processing	Total CY	Rock Cost	
			\$/cy		Cost \$/cy			
Surfacing rock			4			1		
Spot rock		4" - 0	\$0.97	\$1.41	\$1.22	50	\$180.00	
					Subtotal =	50	\$180.00	
				Totals	All Rock =	50		
				- 10110	4" - 0 =			

TOTAL ROCK COSTS = \$180.00

TOTAL PROJECT COST = \$1,719.40

Road Segment:   B to C   Construction:   36.25   stations   miles		Timber Sale:	Sunset Rest		Sale Number:		FG-341-2020-W00548-01		
PROJECT NO.1		Road Segment:	B to C		Construction:		35+25 stations		
Construct product						_		0.67	miles
Construct product	PPO JECT NO. 1								
Clearing & grubbing (scatter)									
Balanced road construction 18.25 sla @ \$110.00 per sla = \$2,007.50 Road widening (drift) 17.00 sla @ \$100.00 per sla = \$2,007.50 Road widening (drift) 17.00 sla @ \$100.00 per sla = \$1,700.00  Excavate & load Endhaul unsuitable fill material 59 cy @ \$0.88 per cy = \$51.48 Compact waste area 69 cy @ \$0.80 per cy = \$17.55 Drift, Place and Compact fill 117 cy @ \$2.90 per cy = \$17.55 Drift, Place and Compact fill 117 cy @ \$2.90 per cy = \$150.00 Contruct Turnouts 3 ea @ \$86.00 per ca = \$198.00 Construct Turnouts 1 ea @ \$2.50 per ea = \$198.00 Construct Turnounds 1 ea @ \$2.50 per ea = \$14.00 Grade, ditch, & roll 35.25 sta @ \$36.00 per sla = \$1.269.00  FOULVERTS  Culverts and Bands 18* Diameter 180 LF @ \$20.00 per LF = \$3,600.00 36* Diameter 40 LF @ \$29.00 per LF = \$3,600.00  Markers & Stakes Culvert Markers 8 ea @ \$10.00 per ea = \$80.00  ROCK  Rock Rock Size Cost Size Cost Size Sixe Sixe Sixe Sixe Sixe Sixe Sixe Six		tter)	0.81	ac @	\$1.078.00	per ac =		\$873.18	
Road widening (drift)									
Culvert No. 2   Excavate & load									
Excavate & load			17.00	Ola O	Ψ100.00	por ota –		ψ1,7 00.00	
Endhalul unsuitable fill material   59			59	cv @	\$1.64	per cv =		\$95.94	
Compact waste area   59	Endhaul unsuitable f	ill material						-	
Drift, Place and Compact fill									
Pump culvert installation									
Construct Turnouts			1		\$150.00			\$150.00	
Construct Landing	Contruct Turnouts		3	ea @		•		\$198.00	
Construct Landing	Construct Turnarounds		1	ea@	\$82.50	per ea =		\$82.50	
TOTAL RECONSTRUCTION COSTS =   \$7,098.45	Construct Landing		1	ea@	\$314.00			\$314.00	
Total Culverts and Bands	Grade, ditch, & roll		35.25	sta @	\$36.00	per sta =		\$1,269.00	
Total Culverts and Bands					TO	TAL DECONST	DUCTIO	NI COSTS -	¢7 009 45
Culverts and Bands	CULVERTS				10	TAL NECONST	NOCTIC	<u> </u>	Ψ1,090.43
18" Diameter 24" Diameter 24" Diameter 24" Diameter 30									
Markers & Stakes   Stakes   Culvert Markers & 8   ea @ \$10.00   per LF = \$870.00   \$2,000.00		18" Diameter	180	LF @	\$20.00	per LF =		\$3.600.00	
Markers & Stakes   Culvert Markers   8   ea @ \$10.00   per a = \$80.00									
Culvert Markers & Stakes   Culvert Markers & ea @ \$10.00 per ea = \$80.00									
ROCK   Rock   Size   Society   Size   Society   Size   Society   Size   Society   Size   Society   Socie	Markers & Stakes				·	•		. ,	
Rock   Size   Base   Cost   S/cy   Placement/   Processing   Cost   S/cy   Rock Cost   Cost   S/cy   Rock Cost   S/cy   S/cy   S/cy   S/cy   S/cy   Rock Cost   S/cy   Rock Cost   S/cy   S/cy   S/cy   S/cy   S/cy   S/cy   Rock Cost   S/cy   S/cy   S/cy   S/cy   S/cy   Rock Cost   S/cy   S/cy		Culvert Markers	8	ea@	\$10.00	per ea =		\$80.00	
Rock   Size   Base   Cost   S/cy   Placement/   Processing   Cost   S/cy   Rock Cost   Cost   S/cy   Rock Cost   S/cy   S/cy   S/cy   S/cy   S/cy   Rock Cost   S/cy   Rock Cost   S/cy   S/cy   S/cy   S/cy   S/cy   S/cy   Rock Cost   S/cy   S/cy   S/cy   S/cy   S/cy   Rock Cost   S/cy   S/cy						TOTAL		T COSTS	¢c
Rock   Size   Cost   S/cy   Placement/   Processing   Cost \$/cy   Rock Cost	ROCK					TOTAL	CULVER	<u> </u>	\$6,550.00
Nock   Size   S/cy   S/cy   Processing   Cost   S/cy   Processing   Proce	1.COR					T			
Size   S/cy   S/cy   Processing   Cy   Rock Cost			Rock		Haul Cost		Total		
Subgrade rock   Bedding and backfill   1½" - 0   \$2.47   \$8.87   \$0.50   48   \$568.32						Processing		Rock Cost	
Bedding and backfill				\$/cy	, ,	Cost \$/cy			
Surfacing rock   Subtotal = 72 \$679.20									
Subtotal = 72 \$679.20									
Surfacing rock   Base rock   4" - 0   \$0.97   \$1.90   \$1.22   2,292   \$9,374.28	Energy dissipator		Riprap	\$0.97	\$2.05				
Base rock	Surfacing rock					Subtotal =	72	\$679.20	
Junction			<b>∕</b> 1" - ∩	\$0.97	\$1.00	\$1.22	2 202	\$0 37 <i>1</i> 28	
Turnout 4" - 0 \$0.97 \$1.90 \$1.22 87 \$355.83  Turnaround 4" - 0 \$0.97 \$1.90 \$1.22 20 \$81.80  70' Landing 4" - 0 \$0.97 \$1.90 \$1.22 180 \$736.20  Subtotal = 2,591 \$10,597.19  Totals All Rock = 2,663  1½" - 0 = 48  4" - 0 = 2,591  Riprap = 24   EROSION CONTROL  Grass seed & fertilizer 0.41 ac @ \$500.00 per ac = \$202.50  Straw Mulch Bale 4 ea @ \$10.00 per ea = \$40.00  TOTAL EROSION CONTROL COSTS = \$242.50									
Turnaround 4"-0 \$0.97 \$1.90 \$1.22 20 \$81.80 70' Landing 4"-0 \$0.97 \$1.90 \$1.22 180 \$736.20 Subtotal = 2,591 \$10,597.19  Totals All Rock = 2,663 1½"-0 = 48 4"-0 = 2,591 Riprap = 24  EROSION CONTROL Grass seed & fertilizer 0.41 ac @ \$500.00 per ac = \$202.50 Straw Mulch Bale 4 ea @ \$10.00 per ea = \$40.00  TOTAL EROSION CONTROL COSTS = \$242.50									
Totals							_		
Totals  All Rock = 2,663  1½" - 0 = 48  4" - 0 = 2,591  Riprap = 24   TOTAL ROCK COSTS = \$11,276.39  EROSION CONTROL  Grass seed & fertilizer Straw Mulch Bale  0.41 ac @ \$500.00 per ac = \$202.50  Straw Mulch Bale  TOTAL EROSION CONTROL COSTS = \$242.50	70' Landing		4" - 0				180		
1½" - 0 = 48   4" - 0 = 2,591   Riprap = 24				-		Subtotal =	2,591	\$10,597.19	
1½" - 0 = 48   4" - 0 = 2,591   Riprap = 24							_	•	
## - 0 = 2,591   Riprap = 24    TOTAL ROCK COSTS = \$11,276.39    EROSION CONTROL     Grass seed & fertilizer   0.41   ac @ \$500.00   per ac = \$202.50     Straw Mulch Bale   4   ea @ \$10.00   per ea = \$40.00     TOTAL EROSION CONTROL COSTS = \$242.50					Totals		_		
Riprap = 24									
TOTAL ROCK COSTS = \$11,276.39           EROSION CONTROL           Grass seed & fertilizer Straw Mulch Bale         0.41 ac @ \$500.00 per ac = \$202.50 per ea = \$40.00           TOTAL EROSION CONTROL COSTS = \$242.50									
EROSION CONTROL           Grass seed & fertilizer         0.41 ac @ \$500.00 per ac = \$202.50           Straw Mulch Bale         4 ea @ \$10.00 per ea = \$40.00           TOTAL EROSION CONTROL COSTS = \$242.50						Kiprap =	= 24		
EROSION CONTROL           Grass seed & fertilizer         0.41 ac @ \$500.00 per ac = \$202.50           Straw Mulch Bale         4 ea @ \$10.00 per ea = \$40.00           TOTAL EROSION CONTROL COSTS = \$242.50						<u>TOT</u>	AL ROC	CK COSTS =	\$11,276.39
Grass seed & fertilizer       0.41 ac @ \$500.00 per ac = \$202.50         Straw Mulch Bale       4 ea @ \$10.00 per ea = \$40.00         TOTAL EROSION CONTROL COSTS = \$242.50	EDOCION CONTROL								· · ·
Straw Mulch Bale         4         ea @ \$10.00 per ea =\$40.00			0.44	30 M	\$500.00	ner 20 –		\$202 E0	
TOTAL EROSION CONTROL COSTS = \$242.50									
	Straw Mulcii Dale		4	€a ⊌	ψ10.00	pei ea –		ψ+υ.υυ	
TOTAL PROJECT COST = \$25,167.34					<u>TO</u>	TAL EROSION (	CONTRO	DL COSTS =	\$242.50
						TOTAL	PROJE	CT COST =	\$25,167.34

Timber Sale:	Sunset Rest		Sale Number:		FG-341-20	20-W00548-01	
Road Segment:		D to E		Construction:		23+70	stations
_				_		0.45	miles
PROJECT NO. 1							
CONSTRUCTION							_
Clearing & grubbing (scatter)	1.64	ac @	\$1,078.00	per ac =		\$1,767.92	
Balanced road construction	16.20	sta @	\$110.00	•		\$1,782.00	
Road widening (drift)	7.50	sta @	\$100.00	•		\$750.00	
Turnouts	1	ea @	\$66.00	per ea =		\$66.00	
Turnarounds	1	ea @	\$82.50	per ea =		\$82.50	
70' Landing	1	ea @	\$314.00	•		\$314.00	
Grade, ditch, & roll	23.70	sta @	\$36.00	per sta =		\$853.20	
				TOTAL CONST	RUCTIO	N COSTS -	- \$5,615.62
CULVERTS			•	TOTAL CONCT	1100110	<u> </u>	ψ5,015.02
Culverts and Bands	•						
18" Diameter	30	LF @	\$20.00	per LF =		\$600.00	
Markers & Stakes				•			
Culvert markers	1	ea @	\$10.00	per ea =		\$10.00	
				TOTAL	CUI VEI	RT COSTS =	\$610.00
ROCK				TOTAL	OOLVL	111 00010 =	φοτο.σσ
		ı	1	I Di	1 1		7
	Rock	Base	Haul Cost	Placement/	Total	D - 1 O - 1	
	Size	Cost \$/cy	\$/cy	Processing	CY	Rock Cost	
		·	•	Cost \$/cy			_
Surfacing rock	4" 0	<u> </u>	<b>CO 44</b>	<b>M4.00</b>	14 544	ФС COC OO	٦
Base rock	4" - 0 4" - 0	\$0.97	\$2.11	\$1.22	1,541	\$6,626.30	4
Junction	4" - 0	\$0.97 \$0.97	\$2.11 \$2.11	\$1.22 \$1.22	24 29	\$103.20 \$124.70	4
Turnoround	4" - 0	\$0.97	\$2.11	\$1.22	29	\$86.00	-
Turnaround 70' Landing	4" - 0	\$0.97	\$2.11	\$1.22	180	\$774.00	+
70 Landing	4 - 0	ψ0.31	ΨΖ.11	Subtotal =	1,794	\$7,714.20	1
				Subtotal =	1,734	Ψ1,114.20	
			Totals	All Rock =	1 794		
			rotaio	4" - 0 =			
					.,		
				<u>TO1</u>	TAL RO	CK COSTS =	\$7,714.20
EROSION CONTROL							
Grass seed & fertilizer	0.82	ac @	\$500.00	per ac =		\$410.00	
				•	-		<del>-</del>
			<u>TOT</u>	AL EROSION (	CONTR	OL COSTS =	\$410.00
				TOTAL	_ PROJI	ECT COST =	\$14,349.82

Timber Sale: Sunset Rest				e Number:	FG-341-20	20-W00548-01	
Road Segment:		F to G		Co	nstruction:	14+40	stations
_				=		0.27	miles
PROJECT NO. 1							
CONSTRUCTION							
Clearing & grubbing (scatter)	1.00	ac @	\$1,078.00	per ac =		\$1,078.00	
Balanced road construction	14.40	sta @	\$110.00	per sta =		\$1,584.00	
Turnouts	1	ea @	\$66.00	per ea =		\$66.00	
Turnarounds	1	ea@	\$82.50	per ea =		\$82.50	
70' Landing	1	ea@	\$314.00	per ea =		\$314.00	
Grade, ditch, & roll	14.40	sta @	\$36.00	per sta =		\$518.40	
				TOTAL CONS	TRUCTIO	N COSTS =	\$3,642.90
ROCK							
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Surfacing rock		l		. ,			ļ
Base rock	4" - 0	\$0.97	\$2.31	\$1.22	936	\$4,212.00	
Turnout	4" - 0	\$0.97	\$2.31	\$1.22	29	\$130.50	
Turnaround	4" - 0	\$0.97	\$2.31	\$1.22	20	\$90.00	
70' Landing	4" - 0	\$0.97	\$2.31	\$1.22	180	\$810.00	
				Subtotal =	1,165	\$5,242.50	
			Totals	All Rock = 4" - 0 =			
				TC	TAL ROCI	K COSTS =	\$5,242.50
EROSION CONTROL Grass seed & fertilizer	0.50	ac @	\$500.00	per ac =		\$250.00	
			TC	TAL EROSION	CONTRO	L COSTS =	\$250.00
				TOTA	AL PROJE	CT COST =	\$9,135.40

Timber Sale:		Sunset Re	est	_	Sale Number:	FG-341-20	)20-W00548-01
Road Segment:		H to I		_	Construction:	10+80	stations
•				-		0.20	miles
PROJECT NO. 2							
CONSTRUCTION							
Clearing & grubbing (scatter)	0.75	ac @	\$1,078.00	per ac =		\$808.50	
Balanced road construction	10.80	sta @	\$110.00	per sta =		\$1,188.00	
Turnouts	1	ea @	\$66.00	per ea =		\$66.00	
Turnarounds	1	ea @	\$82.50	per ea =		\$82.50	
70' Landing	1	ea @	\$314.00	per ea =		\$314.00	
Grade, ditch, & roll	10.80	sta @	\$36.00	per sta =		\$388.80	<u>-</u>
				TOTAL C	ONSTRUCTION	N COSTS =	\$2,847.80
EROSION CONTROL							
Grass seed & fertilizer	0.38	ac @	\$500.00	per ac =		\$187.50	-
			<u>TC</u>	TAL EROS	SION CONTRO	L COSTS =	\$187.50
				]	TOTAL PROJEC	CT COST =	\$3,035.30

 Timber Sale:
 Sunset Rest
 Sale Number:
 FG-341-2020-W00548-01

 Point:
 J

DDG IFCT NG 2							
PROJECT NO. 3 IMPROVEMENT							
Culvert No. 10	_						
Remove and stage road surfacing	47	cy @	\$4.80	per cy =		\$223.20	
Remove and stage fill armor	12	cy @	\$1.60	per cy =		\$19.20	
Excavate & load or place existing fill material	243	cy @	\$1.64	per cy =		\$398.52	
Endhaul unsuitable fill material	92	cy @	\$1.25	per cy =		\$114.48	
Compact waste area	92	cy @	\$0.30	per cy =		\$27.48	
Stage material locally	151	cy @	\$0.70	per cy =		\$105.99	
Excavate additional fill material	214	cy @	\$1.64	per cy =		\$350.77	
Haul fill material	278	cy @	\$2.30	per cy =		\$639.52	
Place and Compact fill	365	cy @	\$2.90	per cy =		\$1,059.37	
Pump culvert installation	1	day @	\$150.00	per day =		\$150.00	
Cleanout Pads							
Construct pad	1	ea@	\$150.00	per ea =		\$150.00	
Improve existing pad	1	ea@	\$100.00	per ea =		\$100.00	
Excavate additional material	54.00	cy @	\$1.64	per cy =		\$88.56	
Haul material	54	cy @	\$2.30	per cy =		\$124.20	
			Τ/	OTAL RECONST	EDI ICTI	ON COSTS =	\$3,551.29
CULVERTS			10	JIAL KLOONS	INOCII	<u> </u>	φ3,331.29
Culverts and Bands	_						
60" Diamete	er 50	LF @	\$134.00	per LF =		\$6,700.00	
60" Ban		ea @		per ea =		\$321.60	
00 24	_	<b>5</b> 4 0	ψ.σσ.σσ	•	•		
				<u>TOTAL</u>	CULVE	RT COSTS =	\$7,021.60
ROCK	_						
				Placement/			
	Rock		Haul Cost	Processing	Total	Rock Cost	
	Size	\$/cy	\$/cy	Cost \$/cy	CY		
Culvert rock			ļ	1		<u> </u>	
Bedding, backfill	1½" - 0	-	-	\$2.90	47	\$134.85	
Fill armor	Riprap	-	-	\$1.60	12	\$19.20	
Rock beaver analog	Riprap	\$0.97	\$2.05	\$1.60	12	\$55.44	
				Subtotal =	71	\$209.49	
Surfacing rock			_				
Spot rock	1½" - 0		\$8.15	\$1.22	130	\$1,539.20	
Maintenance Pads	4" - 0	\$0.97	\$1.52	\$1.22	24	\$89.04	
				Subtotal =	154	\$1,628.24	
						-	
			Totals	All Rock =			
				1½" - 0 =	_		
				4" - 0 =			
				Riprap =	= 24		
				TO	TAL RO	OCK COSTS =	\$1,837.73
				<u>10</u>	.,,_,		ψ1,001.10
EROSION CONTROL	_						
Straw Mulch Bale	8	ea @	\$10.00	per ea =		\$80.00	
			TO	TAL EROSION	CONTD	OI COSTS =	\$80 00
			<u>10</u>			_	\$80.00
				IUIA	LPKU	JECT COST =	\$12,490.62

Timber Sale: Sunset Rest Sale Number: FG-341-2020-W00548-01

MOVE-IN, WITHIN AREA MOVE, & EQUIPMENT CLEANING COSTS	

Equipment	Total
Grader	\$670.68
Roller (smooth/grid) & Compactor	\$430.87
Excavator (Large) - Equipment Cleaning	\$1,675.58
Dozer (Large) - Equipment Cleaning	\$1,714.72
Dump Trucks (10cy +)	\$564.12
Water Truck (2,500 Gal)	<u>\$141.15</u>

TOTAL MOVE-IN COSTS = \$5,197.12

#### STOCKPILE COST SUMMARY

Timber Sale: Sunset Rest
Sale Number: FG-341-2020-W00548-01

Stockpile Name: West Mac Stockpile and Quarry

West Mac Stockpile and Quarry

4" - 0: 5,624 cy (truck measure)
Riprap: 48 cy (truck measure)

Total truck yardage: 5,672 cy

Rip / gather Riprap \$2.10 / cy x 48 cy cy = \$100.80 Load dump truck \$0.80 / cy x 5,672 cy cy = \$4,537.60

Subtotal: \$4,638.40

Within Area Move - excavator \$186.32 Move in loader \$651.79

Subtotal: \$838.11

TOTAL PRODUCTION COST = \$5,476.51

**ROCK DEVELOPMENT COST =** \$0.97/cy

#### STOCKPILE COST SUMMARY

Timber Sale: Sunset Rest
Sale Number: FG-341-2020-W00548-01

Stockpile Name: Lower Rock Creek Stockpile

1 1/2" - 0: 225 cy (truck measure)

Total truck yardage: 225 cy

Load dump truck \$0.80 / cy x 225 cy = \$179.60

Subtotal: \$179.60

Move in loader \$374.66

Subtotal: \$374.66

TOTAL PRODUCTION COST = \$554.26

ROCK DEVELOPMENT COST = \$2.47/cy

Timber Sale:
Sale Number: F

Sunset Rest FG-341-2020-W00548-01

#### PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

Road Segment	Length	Cost
B to C	35+25	\$25,167.34
D to E	23+70	\$14,349.82
F to G	14+40	\$9,135.40
	70.05 / //	

73+35 stations 1.39 miles

Total Rock =

48 cy 1½" - 0 5,550 cy 4" - 0 24 cy Riprap

Move-in =

\$3,837.05

TOTAL PROJECT NO. 1 COST =

\$52,489.61

#### PROJECT NO. 2: DIRT ROAD CONSTRUCTION

Road Segment	Length	Cost
H to I	10+80	\$3,035.30
	10+80 stations	
	0.20 miles	

Move-in =

\$239.38

TOTAL PROJECT NO. 2 COST =

\$3,274.68

#### PROJECT NO. 3: ROAD IMPROVEMENT

_	Road Segment	Length	Cost
	A to B	9+15	\$1,719.40
_	J		\$12,490.62
		9+15 stations	
		0.17 miles	
Total Rock =			
	177 cy	1½" - 0	
	74 cy	4" - 0	
	24 cy	Riprap	
		Move-in =	\$1,120.69
	TOTAL P	ROJECT NO. 3 COST =	\$15,330.71

**TOTAL CREDITS** 

\$71,095.00

	Timber Sale:		Sunset F	Rest	_ Sa	ıle Number:	FG-341-202	0-W00548-01
	Road Segment:		A to E	3	_ Im	provement:		stations
							0.17	miles
PROJECT NO. 3								
Improvement								•
Install Gate		1	ea @				\$1,200.00	
Grade, ditch, & roll		9.15	sta @	\$36.00	per sta =		\$329.40	
					TOTAL IM	PROVEME	NT COSTS =	\$1,529.40
CULVERTS								
Markers & Stakes								
Culvert Markers		1	ea @	\$10.00	per ea =		\$10.00	
BOOK					<u>101</u>	AL CULVE	RT COSTS = _	\$10.00
ROCK								
		Rock	Base	Haul Cost	Placement	1		
		Size	Cost	\$/cy	Processing		Rock Cost	
	and the second s	0,20	\$/cy	4.0,	Cost \$/cy			
Surfacing rock					2	I		
Spot rock		4" - 0	\$0.97	\$1.41	\$1.22	50	\$180.00	
					Subtotal =	50	\$180.00	
				Totals	All Rock =	50	1	
				iolais	4" - 0			
					0	1 00	I	

TOTAL ROCK COSTS = \$180.00

TOTAL PROJECT COST = \$1,719.40

	Timber Sale:		Sunset Re	est	Sale	Number:	FG-341-20	20-W00548-01
	Road Segment:		B to C		Con	struction:		stations
							0.67	miles
PROJECT NO. 1								
CONSTRUCTION	1 811 11							
Clearing & grubbing (sca	atter)	0.81	ac @	\$1,078.00			\$873.18	
Balanced road construct	tion	18.25	sta @	\$110.00	per sta =		\$2,007.50	
Road widening (drift)		17.00	sta @	\$100.00	per sta =		\$1,700.00	
Culvert No. 2								
Excavate & load		59	cy @	\$1.64	per cy =		\$95.94	
Endhaul unsuitable	fill material	59	cy @	\$0.88	per cy =		\$51.48	
Compact waste area	a	59	су @	\$0.30	per cy =		\$17.55	
Drift, Place and Con	npact fill	117	су @	\$2.90	per cy =		\$339.30	
Pump culvert installa	ation	1	day @	\$150.00	per day =		\$150.00	
Contruct Turnouts		3	ea@	\$66.00	per ea =		\$198.00	
Construct Turnarounds		1	ea @	\$82.50	per ea =		\$82.50	
Construct Landing		1	ea @	\$314.00	per ea =		\$314.00	
Grade, ditch, & roll		35.25	sta @	\$36.00	per sta =		\$1,269.00	
					•			
OLU VEDTO				10	TAL RECONS	IRUCTIO	N COSTS =	\$7,098.45
CULVERTS								
Culverts and Bands								
	18" Diameter	180	LF @				\$3,600.00	
	24" Diameter	30	LF@				\$870.00	
	36" Diameter	40	LF@	\$50.00	per LF =		\$2,000.00	
Markers & Stakes				`				
	Culvert Markers	8	ea @	\$10.00	per ea =		\$80.00	
					TOTAL	CHIVEE	T COSTS =	\$6,550.00
ROCK					TOTAL	COLVEN	1 00313 -	Φ0,550.00
NOOK				¥-	_			•
		Rock	Base	Haul Cost	Placement/	Total		
		Size	Cost	\$/cy	Processing	CY	Rock Cost	
		Size	\$/cy	<b>⊅/Су</b>	Cost \$/cy	01		
Subgrade rock			•					1
Bedding and backfill		1½" - 0	\$2.47	\$8.87	\$0.50	48	\$568.32	
Energy dissipator		Riprap	\$0.97	\$2.05	\$1.60	24	\$110.88	
<u> </u>			,	,	Subtotal =		\$679.20	
Surfacing rock					higher benefit in the comment to a first or may also be a graying may be in-		•	
Base rock		4" - 0	\$0.97	\$1.90	\$1.22	2.292	\$9,374.28	
Junction		4" - 0	\$0.97	\$1.90	\$1.22	12	\$49.08	
Turnout		4" - 0	\$0.97	\$1.90	\$1.22	87	\$355.83	
Turnaround		4" - 0	\$0.97	\$1.90	\$1.22	20	\$81.80	
70' Landing		4" - 0	\$0.97	\$1.90	\$1.22	180	\$736.20	
			<u> </u>		Subtotal =		\$10,597.19	
					and the last transfer of transfer of the last trans			l
				Totals	All Rock	= 2.663		
					1½" - 0			
						= 2,591		
					Riprap			
					<u>TO</u>	TAL ROC	K COSTS =	\$11,276.39
EROSION CONTROL								
Grass seed & fertilizer		0.41	ac @	\$500.00	per ac =		\$202.50	
Straw Mulch Bale		4	ea @		per ea =		\$40.00	
			~	•	•	-		
				TOT	AL EROSION			\$242.50
					<u>TOTA</u>	<u>L PROJE</u>	CT COST =	\$25,167.34

	Timber Sale:		Sunset Re	est	_ Sale N	lumber:	FG-341-20	341-2020-W00548-01		
	Road Segment:		D to E		Const	ruction:	23+70	stations		
		•			-		0.45	miles		
PRO.	JECT NO. 1				· · · · · · · · · · · · · · · · · · ·					
	STRUCTION									
Clear	ing & grubbing (scatter)	1.64	ac @	\$1,078.00	per ac =		\$1,767.92			
Balar	nced road construction	16.20	sta @	\$110.00	per sta =		\$1,782.00			
Road	widening (drift)	7.50	sta @	\$100.00	per sta =		\$750.00			
Turno	outs	1	ea @	\$66.00	per ea =		\$66.00			
Turna	arounds	1	ea@	\$82.50	per ea =		\$82.50			
70' La	anding	1	ea @	\$314.00	per ea =		\$314.00			
Grade	e, ditch, & roll	23.70	sta @	\$36.00	per sta =		\$853.20			
					TOTAL CONST	RUCTION	ON COSTS =	\$5,615.62		
CUL	/ERTS									
Culve	erts and Bands									
	18" Diameter	30	LF @	\$20.00	per LF =		\$600.00			
Marke	ers & Stakes									
	Culvert markers	1	ea @	\$10.00	per ea =		\$10.00			
					TOTAL	CHLVE	RT COSTS =	\$610.00		
ROCI	Κ				101710	<u> </u>		4010.00		
			<u> </u>		Discoment	1 1		1		
		Rock	Base	Haul Cost	Placement/	Total	Dook Cook			
		Size	Cost \$/cy	\$/cy	Processing	CY	Rock Cost			
			-		Cost \$/cy			]		
	Surfacing rock Base rock	4" - 0	\$0.97	\$2.11	64.00	1 5 1 1	<b>ee ene an</b>	1		
	Junction	4" - 0	\$0.97	_	\$1.22	1,541	\$6,626.30	-		
	Turnout	4" - 0	\$0.97	\$2.11 \$2.11	\$1.22 \$1.22	24 29	\$103.20 \$124.70	-		
	Turnaround	4" - 0	\$0.97	\$2.11	\$1.22	20	\$86.00			
	70' Landing	4" - 0	\$0.97	\$2.11	\$1.22	180	\$774.00			
	To Landing	<del></del>	ψυ.στ	ΨΖ. ι ι	- \$ubtotal ≡ ∈		\$7,714.20			
					- ouoioiai		- <b>V</b> IS 213:2V=			
				Totals	All Rock =	1 794				
				101010	4" - 0 =					
					<u> </u>	<del></del>				
					<u>TOT</u>	AL RO	CK COSTS =	\$7,714.20		
FROS	SION CONTROL									
	s seed & fertilizer	0.82	ac @	\$500.00	per ac =		\$410.00			
			•		,					
				<u>TOT</u>	AL EROSION (	CONTRO	OL COSTS =	\$410.00		
					TOTAL	. PROJI	ECT COST =	\$14,349.82		

Timber Sale:				Sal		FG-341-2020-W00548-0			
Road Segment:		F to G		Co	nstruction:	14+40	stations		
				-		0.27	miles		
PROJECT NO. 1									
CONSTRUCTION	••••								
Clearing & grubbing (scatter)	1.00	ac @	\$1,078.00	per ac =		\$1,078.00			
Balanced road construction	14.40	sta @	\$110.00	per sta =		\$1,584.00			
Turnouts	1	ea @	\$66.00	per ea =		\$66.00			
Turnarounds	1	ea @	\$82.50	per ea =		\$82.50			
70' Landing	1	ea @	\$314.00	per ea =		\$314.00			
Grade, ditch, & roll	14.40	sta @	\$36.00	per sta =		\$518.40			
				TOTAL CONS	TRUCTIO	N COSTS =	\$3,642.90		
ROCK									
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost			
Surfacing rock		1					L		
Base rock	4" - 0	\$0.97	\$2.31	\$1.22	936	\$4,212.00			
Turnout	4" - 0	\$0.97	\$2.31	\$1.22	29	\$130.50			
Turnaround	4" - 0	\$0.97	\$2.31	\$1.22	20	\$90.00			
70' Landing	4" - 0	\$0.97	\$2.31	\$1.22	180	\$810.00			
				Subtotal =	1,165	\$5,242.50			
			Totals	All Rock = 4" - 0 =					
				<u>TC</u>	TAL ROC	K COSTS =	\$5,242.50		
EROSION CONTROL Grass seed & fertilizer	0.50	ac @	\$500.00	per ac =		\$250.00			
			<u>TO</u>	TAL EROSION	CONTRO	L COSTS =	\$250.00		
				<u>TOT</u>	AL PROJE	CT COST =	\$9,135.40		

Timber Sale:		Sunset Re	est	_	Sale Number:	FG-341-20	020-W00548-01
Road Segment:		H to I		_	Construction:	10+80	stations
	·					0.20	miles
PROJECT NO. 2							
CONSTRUCTION							
Clearing & grubbing (scatter)	0.75	ac @	\$1,078.00	per ac =		\$808.50	
Balanced road construction	10.80	sta @	\$110.00	per sta =		\$1,188.00	
Turnouts	1	ea @	\$66.00	per ea =		\$66.00	
Turnarounds	1	ea @	\$82.50	per ea =		\$82.50	
70' Landing	1	ea @	\$314.00	per ea =		\$314.00	
Grade, ditch, & roll	10.80	sta @	\$36.00	per sta =		\$388.80	
				TOTAL C	<u>ONSTRUCTIO</u>	N COSTS =	\$2,847.80
EROSION CONTROL							
Grass seed & fertilizer	0.38	ac @	\$500.00	per ac =		\$187.50	
			<u>TO</u>	TAL EROS	SION CONTRO	L COSTS =	\$187.50
				וַ	OTAL PROJE	CT COST =	\$3,035.30

Timber S	ale:		Sunset Re	est	Sale Ni	umber:	FG-341-2020	-W00548-01
P	oint:		J		-			
PROJECT NO. 3								
IMPROVEMENT								
Culvert No. 10								
Remove and stage road surfacing		47	cy @	\$4.80	per cy =		\$223.20	
Remove and stage fill armor		12	cγ @	\$1.60	per cy =		\$19.20	
Excavate & load or place existing fill material		243	cy @	\$1.64	per cy =		\$398.52	
Endhaul unsuitable fill material		92	cy @	\$1.25	per cy =		\$114,48	
Compact waste area		92	cy @	\$0.30	per cy =		\$27.48	
Stage material locally		151	cy @	\$0.70	per cy =		\$105.99	
Excavate additional fill material		214	cy @	\$1.64	per cy =		\$350.77	
Haul fill material		278	cy @	\$2.30	per cy =		\$639.52	
Place and Compact fill		365	cy @	\$2.90	per cy =		\$1,059.37	
Pump culvert installation	,	1	day @		per day =		\$150.00	
Cleanout Pads		'	uay w	Ψ100.00	per day –		Ψ100.00	
Construct pad		1	ea @	\$150.00	per ea =		\$150.00	
Improve existing pad		1	ea @	•	per ea =		\$100.00	
Excavate additional material	5	4.00	cy @	\$1.64	per cy =		\$88.56	
Haul material		54	cy @	\$2.30	per cy =		\$124.20	
Hadi material		J-7	cy ce	Ψ2.50	per cy –		Ψ124.20	
				<u>TC</u>	TAL RECONST	RUCTI	ON COSTS =	\$3,551.29
CULVERTS							_	
Culverts and Bands								
60" Diam	eter	50	LF@	\$134.00	per LF =		\$6,700.00	
60" B	and	2	ea @	\$160.80	per ea =	_	\$321.60	
					TOTAL	- -	DT 000T0	47 444 44
DOOK					IOIAL	CULVE	RT COSTS = _	\$7,021.60
ROCK								
					Placement/			
		lock	Base Cost		Processing	Total	Rock Cost	
	۱۶	ize	\$/cy	\$/cy	Cost \$/cy	CY		
Culvert rock						<u> </u>		
Bedding, backfill		z" - 0	-	_	\$2.90	47	\$134.85	
Fill armor		prap	-	_	\$1.60	12	\$19.20	
Rock beaver analog		prap	\$0,97	\$2.05	\$1.60	12	\$55.44	
Trook boarer analog	110	P. 4P.	ψο.σ.	Ψ2.00	Subtotal≡	71	\$209.49	
Surfacing rock						THE STATE OF S		
Spot rock	11/	<u>'" - 0</u>	\$2.47	\$8.15	\$1.22	130	\$1,539.20	
Maintenance Pads		" - 0	\$0.97	\$1.52	\$1.22	24	\$89.04	
	<u> </u>		40.01	<del>+</del>	Subtotal =	154	\$1,628.24	
				Totals	All Rock ≡	225		
					1½" - 0 =	177		
					4" - 0 =	24		
					Riprap =	24		
					<u> TOT</u>	AL RO	<u> CK COSTS = </u>	\$1,837.73
EROSION CONTROL								
Straw Mulch Bale	<del></del>	8	ea @	\$10.00	per ea =		\$80.00	
		_	~~ ~	7.0.00	F • • •		400.00	

TOTAL EROSION CONTROL COSTS = \$80.00

TOTAL PROJECT COST = \$12,490.62

Timber Sale: Sunset Rest Sale Number: FG-341-2020-W00548-01

MOVE-IN, WITHIN AREA MOVE,	& EQUIPMENT CLEANING COSTS
"	

Equipment	Total
Grader	\$670.68
Roller (smooth/grid) & Compactor	\$430.87
Excavator (Large) - Equipment Cleaning	\$1,675.58
Dozer (Large) - Equipment Cleaning	\$1,714.72
Dump Trucks (10cy +)	\$564.12
Water Truck (2,500 Gal)	<u>\$141.15</u>

TOTAL MOVE-IN COSTS = \$5,197.12

#### STOCKPILE COST SUMMARY

Timber Sale: Sunset Rest

Sale Number: <u>FG-341-2020-W00548-01</u>

Stockpile Name: West Mac Stockpile and Quarry

4" - 0: 5,624 cy (truck measure)
Riprap: 48 cy (truck measure)

Total truck yardage: 5,672 cy

Rip / gather Riprap \$2.10 / cy x 48 cy cy = \$100.80Load dump truck \$0.80 / cy x 5,672 cy cy = \$4,537.60

Subtotal: \$4,638.40

Within Area Move - excavator \$186.32 Move in loader \$651.79

Subtotal: \$838.11

TOTAL PRODUCTION COST = \$5,476.51

ROCK DEVELOPMENT COST = \$0.97/cy

#### STOCKPILE COST SUMMARY

Timber Sale:

Sunset Rest

Sale Number:

FG-341-2020-W00548-01

Stockpile Name:

Lower Rock Creek Stockpile

1 1/2" - 0: 225 cy (truck measure)

Total truck yardage: 225 cy

Load dump truck

\$0.80 / cy x 225 cy = \$179.60

Subtotal: \$179.60

Move in loader

\$374.66 \$374.66 Subtotal:

TOTAL PRODUCTION COST =

\$554.26

ROCK DEVELOPMENT COST =

\$2.47/cy

#### CRUISE REPORT Sunset Rest FG-341-2020-W00548-01

#### 1. LOCATION:

Portions of sections 28, 29 and 32, T4N, R6W, W.M. Clatsop County, Oregon.

#### 2. CRUISE DESIGN:

The cruise was designed using an estimated coefficient of variation (CV) of 65%, average stand diameter of 17 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 2019 with 35 variable radius grade plots using a 40 BAF prism. Plots were laid out on a  $500' \times 200'$  grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

#### 4. CRUISE RESULTS

222 trees were measured and graded producing a cumulative SE of 7.9% on the Basal Area and 8.4% on the 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. 40 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.

#### 5. DATA PROCESSING:

- a) **Volumes and Statistics**, Cruise estimates and sampling statistics, were derived from Super Ace 2008 cruise software.
- b) Deductions: For conifers, two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage. For hardwoods, five percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.
- 6. CRUISERS: The sale was cruised by Kenton Burns, Mark Savage, Adrian Torres and Nate Hunter.

Nate Hunte	er	6-12-19
Cich Erik Marcy	Mary	<i>6-25-19</i> Date
	Cik	Nate Hunter  Cik Morry Erik Marcy

TC PST.	ATS					OJECT ROJECT		STICS NREST			PAGE DATE	1 6/19/2019
ГWР	RGE	SC T	RACT	,	ГҮРЕ		AC	CRES	PLOTS	TREES	CuFt	BdFt
04N	06	29 S	UNREST		0001			88.00	35	222	S	W
			<u> </u>			TREES		ESTIMATED TOTAL		ERCENT SAMPLE		
		PLO	STC	TREES		PER PLOT	Γ	TREES		TREES		
TOTA	L		35	222		6.3						
CRUIS DBH C REFOR COUN BLAN 100 %	COUNT REST NT IKS		35	222		6.3		10,849		2.0		
					STA	ND SUM	MARY					
		SAM TRI		TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG	i FIR		143	68.3	20.9	126	35.7	163.4	38,755	38,377	7,801	7,801
	MLOCK		72	52.8	16.9	118	20.0	82.3	17,215	17,107	3,717	3,717
NOB F			4	.8	32.2	127	0.8	4.6	1,182	1,166	221	221
R ALD			3	1.4	21.6	96	0.7	3.4	599 57.753	599	122	122
IUIA	L		222	123.3	19.4	122	57.6	253.7	57,752	57,249	11,861	11,861
CONF	FIDENC 68			HE SAMPI FOF 100 T		ME WILL	BE WIT	HIN THE SAM	MPLE ERRO	)R		
CL	68.1		COEFF			SAMPL	E TREE	S - BF	#	OF TREES	REQ.	INF. POP.
	1.0	1	VAR.%	S.E.%	L	OW	AVG	HIGH		5	10	1.
DOUG			61.7	5.2		862	909	957				
NOB F	MLOCK		65.8 39.2	8.0 22,4		478 1,199	520 1,545	562 1,891				
R ALD			63.6	44.0		297	530	763				
TOTA			68. I	4.7		757	794	831		185	46	2.
CL	68.1		COEFF			SAMPI	E TREE	S - CF	#	OF TREES	REO.	INF. POP.
SD:	1.0		VAR.%	S.E.%	L	OW .	AVG	HIGH	"	5	10	1:
DOUG			54.9	4.7		172	180	188				
WHEN	MLOCK		58.2	7.1		103	111	119				
NOB F			26.7	15.3		243	287	330				
R ALD			58.4	40.4		63	107	150				
TOTA	<u></u>		60.0	4.1		153	159	166		144	36	10
CL	68.1	(	COEFF			TREES	ACRE		#	OF PLOTS	REQ.	INF. POP.
	1.0	•	VAR.%	S.E.%	L	OW	AVG	HIGH		5	10	1:
DOUG			73,2	12.4		60	68	77				
NOB F	ALOCK		110.6 360.7	18.7 60.9		43 0	53	63				
R ALD			349.5	59.0		1	1 1	1 2				
TOTA			61.2	10.3		111	123	136		150	37	I
CI	<i>C</i> 0 1								ш			
CL (	1.0		COEFF VAR.%	S.E.%	T a	OW OW	AREA/A AVG	CRE HIGH	#	OF PLOTS I	REQ. 10	INF. POP.
21.1		-	52.9	8.9	L	149	163	178		<i>J</i>	10	1.
SD: DOUG			102.7	17.4		68	82	97				
DOUG WHEM	ALUCK			59.7		2	5	7				
DOUG WHEM NOB F	TR.		353.3									
DOUG WHEM NOB F R ALD	TR DER	2	331.4	56.0		2	3	5				
DOUG WHEM NOB F	TR DER	2				2 234	3 254	274		86	22	10
DOUG WHEM NOB F R ALD	TIR DER JL		331.4	56.0			254		#	86 OF PLOTS I		INF. POP.
DOUG WHEM NOB F R ALD TOTA CL ( SD:	FIR DER L L 68.1 1.0		331.4 46.5 COEFF /AR.%	56.0 7.9 S.E.%	L	234	254	274 HIGH	#			
DOUG WHEM NOB F R ALD TOTA  CL G SD: DOUG	FIR DER L 68.1 1.0	(	331.4 46.5 COEFF /AR.% 59.4	56.0 7.9 S.E.% 10.0	3-	234 NET BF OW 4,530	254 VACRE AVG 38,377	274 HIGH 42,224	#	OF PLOTS I	REQ.	INF. POP.
DOUG WHEM NOB F R ALD TOTA  CL G SD: DOUG	FIR DER L 68.1 1.0 FIR MLOCK	(	331.4 46.5 COEFF /AR.%	56.0 7.9 S.E.%	3-	234 NET BF OW 4,530	254 VACRE AVG	274 HIGH	#	OF PLOTS I	REQ.	INF. POP.

TC PST	TATS		<del></del> ,		PROJECT PROJECT		ISTICS NREST			PAGE DATE	<b>2</b> 6/19/2019
TWP	RGE	SC	TRACT	TY	PE	A	CRES	PLOTS	TREES	CuFt	BdFt
04N	06	29	SUNREST	000	1		88.00	35	222	S	W
CL	68.1		COEFF		NET	BF/ACRE			# OF PLOT	S REQ.	INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
тот	AL		49.9	8.4	52,420	57,249	62,078		100	25	11
CL	68.1		COEFF		NET	CUFT FT/	ACRE		# OF PLOTS I	REQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15
DOU	G FIR		58.2	9.8	7,034	7,801	8,567				
WHE	MLOCK		105.2	17.8	3,057	3,717	4,377				
NOB	FIR		348.4	58.8	91	221	351				
R AL	DER		334.2	56.4	53	122	191				
TOT	AL		50.4	8.5	10,851	11,861	12,871		102	25	11

тс	PSPCSTGR		Sı	pecies,	Sort G	rade - Boar	d Foot	Vo	lum	es (P	roject	:)							
ТО	4N R06W S29	9 Ty000	1 :	88.00		Project: SUNREST Acres 88.00								Page 1 Date 6/19/201 Time 6:21:07			19		
<u> </u>		%				<del> -</del>	Dorcont	t of i	Net Bo	vard E	oot Volu	me	_			Avera	ge I o	o	Logs
	S So Gr	Net	Bd. F	t. per Acre	;	Total			le Dia.	Juliu I v	101	Log L	ength		Ln			CF/	Per
Spp	T rt ad	BdFt	Def%	Gross	Net	Net MBF	<b>4-</b> 5 6-1			17+	12-20			36-99	Ft	•	Ft	Lf	/Acre
WH	CU														4	12		0.00	.4
WH	2M	57	.9	9,914	9,824	864			67	33	0		20	80	1	14	305	1.62	32.2
WH	3M	36	.3	6,260	6,242	549	9	92	8				8	92	39	8	107	0.64	58.1
WH	4M	7		1,041	1,041	92	10	00			45	25	5	25	22	6	29	0.35	36.5
WH	Totals	30	.6	17,215	17,107	1,505	4	40	41	19	3	2	15	81	34	9	135	0.86	127.2
						-									_				
DF	CU														8	15		0.00	2.2
DF	2M	76	1.2	29,621	29,263	2,575			37	63	1	7	15	77		16	421	2.11	69.5
DF	3M	20	.3	7,679	7,659	674		93	7			2	12	86	38	9	111	0.69	69.2
DF	4M	4		1,455	1,455	128	10	00			31	36	17	16	23	6	31	0.38	47.2
DF	Totals	67	1.0	38,755	38,377	3,377	2	22	30	48	2	7	15	77	34	11	204	1.22	188.1
RA	CU														4	27		0.00	.2
RA	CR	100		599	599	53	1	14	55	32		8	6	86	35		282	1.64	2.1
RA	Totals	1		599	599	53	1	14	55	32		8	6	86	32	15	252	1.61	2.4
						1			•					_					
NF	2M	91	1.5	1,079	1,063	94			14	86	10		17	73	37	21	695	3.31	1.5
NF	3M	8		92	92	8	] 2	26	74			10		90	36	9	138	1.22	.7
NF	4M	1		11	11	1	10	00			38	62			22	6	30	0.70	.4
NF	Totals	2	1.4	1,182	1,166	103		3	18	79	9	1	16	74	35	16	454	2.49	2.6
Tota	ls		0.9	57,752	57,249	5,038	2	.7	33	40	2	5	15	78	34	10	179	1.09	320.1

										_							1 ime	9:	21:07AN1
	s	So Gr				Def	Net	%		]	Net Vol				eter in l	nches			
Spp	T	rt de	Lei	1	MBF	%	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39 40+
WH	ł	2M	[ 2	0.	4		4	.3						4					
WH		2M	1 3	2	173	2.	2 169	11.2			}			25	5	75	33	31	
WH		2M	1 3	6	12		12	.8	ļ					12					
WH		2M	[ 4	0	683		679	45.1					<u></u>	253	183	163	60	20	
WH		3M	1 3	2	30		30	2.0				17	13						
WH		3M	1 3	4	15		15	1.0				9	7						
WH		3M	[ 3	6	30		30	2.0			9	17	4						
WH		3M	[ 4	0	476		<b>4</b> 74	31.5			85	148	200		42			ĺ	
WH		4M	[ ]	6	31		31	2.0			31								
WH		4M	[ 2	:0	11		11	.7			11							į	
WH		4M	[ 2	:4	6		6	.4			6							•	
WH		4M	r 2	6	7		7	.4			7								
WH		4M	1 3	0	11		11	.7			11								
WH		4M	[ 3	2	4		4	.3			4								
WH		4M	[ 3	6	5		5	.3			5								
WH		4M	I 4	0	18		18	1,2			18								
WH		Total	s		1,515		1,505	29.9			185	191	224	294	230	237	94	51	
DF		2M	1	6	9		9	.3										9	
DF		2M	[ 2	:0	5		5	.2			ł					5			
DF		2M	i 2	.4	163		163	4.8								21	67	74	
DF		2M	1 3	0	15	21.	I 11	.3									11		
DF		2M	3	2	376		376	11.1						21		126	182	31	15
DF		2M	[ 3	4	21		21	.6						12		9			
DF		2M	3	6	31		31	.9						11		12	8		
DF		2M	[ 4	0	1,986	1.	1,958	58.0						250	445	696	477	71	19
DF		3M	[ 2	4	3		3	.1					3						-
DF	-	3M	2	6	9		9	.3						9					
DF		3M	3	2	64		64	1.9			12	11	37	4					
DF	1	3M	3	4	20		20	.6			10	5	5						
DF		3M	3	6	46		46	1.4			15	12	18						
DF		3M	4	0	534		532	15.8			71	163	264	35					
DF	ľ	4M	1	6	31		31	.9			31								
DF		4M	2	0	9		9	.3			9								
DF		4M	2	4	19		19	.6			19								
DF	1	4M	2	6	13		13	.4			13								
DF	Ī	4M	3	0	13		13	.4			13							,	

TC PL	TC PLOGSTVB Log Stock Table - MBF																
T04N	R06W S29	Ty000	01 88	3.00		Proj Acre		SUN	REST 88	.00					Page Date Time	6/1	2 9/2019 21:07AM
	So Gr	Log	Gross	Def	Net	%			Net Volu	ıme by	Scaling	<u>Dian</u>	eter in 1	Inches			
Spp 7	rt de	Len	MBF	%	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39 40+
DF	41	A 32	19		19	.6			19						ŀ		
DF	4N	<b>/</b> 34	2		2	.1			2								
DF	41	A 36	21		21	.6			21								
DF	Tota	ls	3,410		3,377	67.0			236	192	326	343	445	870	746	185	34
RA	CF	₹ 24	4		4	7.9			ì		4						
RA	CI	R 32	3		3	5.8					3						
RA	CI	R 40	46		46	86.3					]	12	17		17		
RA	Tota	ls	53		53	1.0					7	12	17		17		
NF	2N	1 16	9		9	8.8											9
NF	2N	1 32	16		16	15.5										16	
NF	2N	40	70	2.0	69	66.8							8	14	31	16	
NF	3N	1 26	1		1	.8				1			·				
NF	3N	40	7		7	7.1			1				6				
NF	41	1 20	0		0	.4			0								
NF	4N	1 24	1		1	.6			1			j					
NF	Tota	ls	104	1.4	103	2.0			2	1			14	14	31	32	9
Total	All Spec	ies	5,082		5,038	100.0			423	383	557	649	706	1121	887	268	43

TC PSTNDSUM	Stand Table Summary	Page 1 Date: 6/19	/2019
T04N R06W S29 Ty0001 88.00	Project SUNREST		1:08AM
	Acres 88.00	Grown Year:	

							Acres 88,00				Grown Year:				
S Spc T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/	BA/ Acre	Logs Acre	Averag Net Cu.Ft.	e Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Totals Cunits	MBF
DF	8	1	84	60	3,274	1.14	3,27	3.7	20.0	.35	12	65	30	11	6
DF DF	10	2	88	84	4.191	2.29	4.19	12.8	60.0	1.52	53	251	134	47	22
DF	11	1	88	99	1.732	1.14	3.46	10.4	50.0	1.03	36	173	91	32	15
DF	12	1	88	111	1.455	1.14	2.91	13.4	60.0	1,11	39	175	98	34	15
DF	13	2	90	116	2.480	2.29	4.96	16.6	75.0	2.35	83	372	207	73	33
DF	14	4	89	112	4.276	4.57	9.62	17.2	77.8	4.71	165	748	415	145	66
DF	15	4	89		3.725	4.57	8.38	21.5	97.8	5.13	180	820	452	158	72
DF	16	5	88		4.093	5.71	9.82	20.8	90.8	5.82	204	892	512	180	
DF	17	7	89		5.075	8.00	13.78	24.8	111.6	9.74	342	1,537	857	301	135
DF	18	2	88		1,293	2.29	3.88	28.0	133.3	3.10 7.99	109	517	273 703	96 247	
DF	19	5 12	89 89		2.902 6.286	5.71 13.71	8.71 17.81	32,2 35.4	151.3 156.5	17.95	280 630	1,318 2,787	1,580	554	116 245
DF	20 21	3	88		1.425	3.43	3.80	43.I	201.2	4.67	164	765	411	144	243 67
DF <sub>.</sub> DF	22	7	88		3.031	8.00	9.52	41.3	196.4	11.22	394	1,870	987	346	
DF DF	23	4	89		1.584	4.57	5.15	45.6	224.6	6.69	235	1,157	589	207	102
DF	24	4	88		1.455	4.57	4.73	47.8	220.0	6.44	226	1,040	567	199	
DF DF	25	7	90		2.347	8.00	7.38	53.0	259.1	11.14	391	1,911	980	344	168
DF	26	15	88		4.650	17.14	16.43	52,4	261.9	24.53	861	4,302	2,159	757	379
DF	27	5	88	147	1,437	5.71	5.17	57.2	291.1	8.44	296	1,506	743	261	133
DF	28	11	88	146	2.940	12.57	10.16	63.9	319.7	18.49	649	3,247	1,627	571	286
DF	29	7	88	149	1.744	8.00	6.73	61.3	322.2	11.75	412	2,168	1,034	363	191
DF	30	15	88	150	3.492	17.14	13.04	69.1	356.6	25.69	901	4,649	2,261	793	409
DF	31	5		151	1.090	5.71	3.92	77.5	391.1	8.67	304	1,535	763	268	135
DF	32	4	89		.819	4.57	3.07	75.3	414.0	6.59	231	1,271	580	203	112
DF	33	1	90		.192	1.14	.77	82.4	482.5	1.81	63	371	159	56	33
DF	34	1		173	.181	1.14	.73	93.6	497.5	1.93	68	361	170	60	32
DF	35	1	84		.171	1.14	.68	82.9	462.5	1.62	57	316 713	142 318	50 112	28 63
DF	36 37	2 1	87 89		.323	2.29 1.14	1.29 .46	98.1 128.2	551.2 680.0	3.62 1.68	127 59	312	148	52	27
DF DF	38	1	86		.145	1.14	.58	98.1	515.0	1.62	57	299	143	50	26
DF DF	40	2		152	262	2.29	1.05	101.0	512.5	3.02	106	537	265	93	47
DF	44	1	90		.108	1.14	.43	154.0	900.0	1.90	67	390	167	59	34
DF	Totals	143	88	126	68.333	163.43	185.89	42.0	206,5	222,32	7,801	38,377	19,564	6,864	3,377
WH	10	4	91	90	8.382	4.57	10.48	11.2	54.0	3,77	118	566	331	104	50
WH	11	1		107	1.732	1.14	1.73	18.5	70.0	1.03	32	121	90	28	11
WH	12	2		114	2.910	2.29	4.37	18.8	80.0	2.62	82	349	231	72	31
WH	13	5	90	112	6.199	5.71	12.40	17.6	80.0	6.98	218	992	614	192	87
WH	14	1	94	143	1.069	1.14	3.21	19,1	96.7	1.96	61	310	172	54	27
WH	15	5		124	4.656	5.71	13.04	19.9	92.9	8.32	260	1,211	732	229	107
WH	16	9		130	7.367	10.29	22.10	21.9	98.5	15.50	484	2,177	1,364	426	192
WH	17	2		121	1.450	2.29	3.63	28.1	124.0	3.26	102	450	287	90	40
WH	18	5		130	3.234	5.71	9.70	28.6	130.0	8.86	277	1,261	780	244	111
WH	19	7		120	4.063	8.00	11.03	32.1	140.0	11.34	354	1,544	998	312	136
WH	20	7		126	3.667	8.00	9.95	38.8	177.4	12.34	386	1,765	1,086	339	155
WH	21	2		118	.950	2.29 3.43	2.38	45.1 20.0	200.0 200.9	3.43 5.04	107 186	475 957	302 523	94 163	42 84
WH	22	3		142	1,299 .792		4.76 2.38	39.0 44.2	200.9 196.7	5.94 3.36	105	957 467	523 296	93	84 41
WH	23 24	2 5		132 139	1.819	2.29 5.71	5.82	51.1	241.9	9.53	298	1,408	838	262	124
WH	25	3		122	1.006	3.43	3.02	51.1	220.0	5.00	156	664	440	137	58
WH WH	26	1		132	.310	1.14	.93	59.9	270.0	1.78	56	251	157	49	22
WH WH	27	2		110	.575	2.29	1.72	56.8	263.3	3.13	98	454	276	86	40
WH	29	3		122	.747	3.43	2.24	73.0	345.6	5.24	164	775	461	144	68
WH	32	1		102	.205	1.14	.61	79.4	410.0	1.56	49	252	137	43	22

TC 1	PSTNDSU	JM -				;	Stand	Table	Summa	ry			Page Date:	2 6/19/2	019
T04N	R06W S	29 Ty000	1	88.0	00	Project SUNREST Acres 88.00							Time: Grown Yea	6:21:0 r:	8AM
S Spc T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Averag Net Cu.Ft.	ge Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Totals Cunits	MBF
WH	34	2	93	133	.363	2.29	1.27	98.1	518.6	3.98	124	658	351	110	58
WH	Totals	72	90	118	52.794	82.29	126.76	29.3	135.0	118.94	3,717	17,107	10,466	3,271	1,505
NF NF NF NF	29 30 34 38	1 1 1 1	85 90 91 91	120 115	.249 .233 .181 .145	1.14 1.14 1.14 1.14	.75 .70 .54	78.0 95.0	373.3 363.3 526.7 597.5	1.39 1.31 1.24 1.38	54 52	279 254 286 347	122 115 109 121	51 48 45 50	25 22 25 31
NF	Totals	4	89	127	.808	4.57	2.57	<b>8</b> 6.1	453.7	5.31	221	1,166	467	195	103
RA RA RA	19 20 29	1 1 1 3	88 94 93		.580 .524 .249	1.14 1.14 1.14 3.43	.58 1.05 .50	42.6	240.0 225.0 450.0	1.23 1.21	45 44	139 236 224	81 108 107 296	30 39 39	12 21 20 53
Totals		222	89		123.289		317.34		180.4	349.92		57,249	30,793	10,438	5,038

#### TIMBER SALE SUMMARY Sunset Rest FG-341-2020-W00548-01

- 1. Location: Portions of Sections 28, 29 & 32, T4N, R6W, W.M., Clatsop County, Oregon.
- 2. <u>Type of Sale</u>: This timber sale is 88 net acres of Modified Clearcut. The timber will be sold on a recovery basis at a sealed bid auction.
- 3. Revenue Distribution: 100% BOF, Clatsop County.
- **4.** <u>Sale Acreage</u>: Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
- 5. Cruise: The Timber Sale was cruised by ODF Cruisers in June of 2019.
- **6.** <u>Timber Description</u>: The Timber Sale Area consists of a well stocked 70-year-old Douglas-fir and western hemlock stand with minor amounts of noble fir and red alder. The stand has an average of 254 ft² of basal area (all species), an average Douglas-fir DBH of 21 inches and an estimated average net Douglas-fir volume of approximately 38 MBF per acre. Western hemlock average DBH was 17 inches and an estimated average net volume of approximately 17 MBF per acre.

#### 7. Volume Summary:

#### **SALE TOTAL**

<u> </u>						
SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Douglas-fir		2,523	661	125	0	3,309
Western hemlock		848	538	87	0	1,473
Noble fir		92	8	1	0	101
Red alder		0	0	0	49	49
	NET TOTAL					4,932

- **8.** <u>Topography and Logging Method</u>: Slopes within the sale areas range from 0% to 40%, with a southern aspect. The timber sale is 100% ground-based. The average horizontal skid trail length is 400'.
- 9. Access: Access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 47 through Banks then merge onto Highway 26 westbound and continue for approximately 20 miles to McGregor Road, which is just before the 29-mile marker. Turn right and continue north for approximately 1 mile to vacated spur on left (Point A).

#### 10. Projects:

Project No. 1: Rocked Road Construction\$52,489.61Project No. 2: Dirt Road Construction\$3,274.68Project No. 2: Road Improvement\$15,330.71

Total credits \$71,095.00

#### **VOLUME SUMMARY**

(Shown in MBF)

#### Sunset Rest FG-341-2020-W00548-01 June 2019

#### AREA 1:MC (88 ACRES)

7 to t = 7 t	<u> </u>					
SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Douglas-fir	Cruise Volume	2,575	674	128	0	3,377
	Hidden D&B (2%)	(52)	(13)	(3)	(0)	(68)
	NET TOTAL	2,523	661	125	0	3,309
	% of Total	76	20	4	0	_

#### AREA 1:MC (88 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Western hemlock	Cruise Volume	865	549	89	0	1,503
	Hidden D&B (2%)	(17)	(11)	(2)	(0)	(30)
	NET TOTAL	848	538	87	0	1,473
	% of Total	58	37	6	0	

#### AREA 1:MC (88 ACRES)

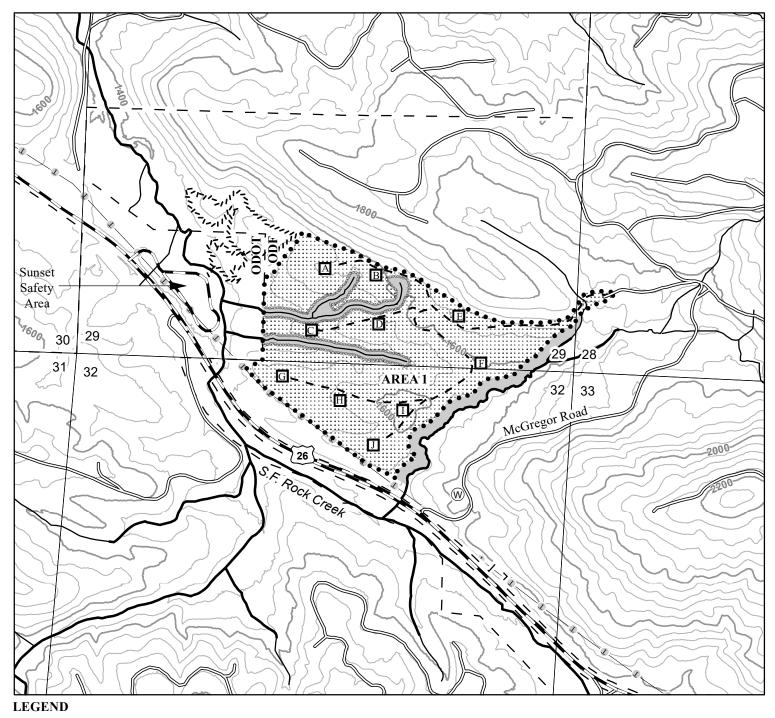
SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Noble fir	Cruise Volume	94	8	1	0	103
	Hidden D&B (2%)	(2)	(0)	(0)	(0)	(2)
	NET TOTAL	92	8	1	0	101
	% of Total	91	8	1	0	·

#### AREA 1:MC (88 ACRES)

	<u> </u>					
SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Red alder	Cruise Volume	0	0	0	52	52
	Hidden D&B (5%)	(0)	(0)	(0)	(3)	(3)
	NET TOTAL	0	0	0	49	49
	% of Total	0	0	0	100	<u>.                                      </u>

#### **SALE TOTAL**

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Douglas-fir		2,523	661	125	0	3,309
Western hemlock		848	538	87	0	1,473
Noble fir		92	8	1	0	101
Red alder		0	0	0	49	49
	NET TOTAL					4,932



- • Timber Sale Boundary
- Stream Buffer Boundary
- C\_\_ ODF Ownership Boundary
- Surfaced Road
- Paved Road
- New Road Construction
- "" Recreation Trail
- Type-F Stream
- Type-N Stream
- Stream Buffer
- Tractor Yarding Area
- ☐ Tractor Landing
- W Waste Area
- T Buried Electric Transmission Lines
- ---- 40 Foot Countour Band
- ---- 200 Foot Countour Band
- Section Line

### **LOGGING PLAN**

FOR TIMBER SALE CONTRACT #FG-341-2020-W00548-01 SUNSET REST PORTIONS OF SECTIONS 28, 29, & 32, T4N, R6W, W.M. CLATSOP COUNTY, OREGON

> Forest Grove District GIS June, 2019

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

# 0 250 500 1,000 1,500 2,000 Feet

APPROXIMATE NET ACRES

	TRACTOR	CABLE
AREA 1	88	0
TOTAL	88	0