Estimated Purchaser Cost for Slash Requirements:

The total estimated purchaser cost is estimated at $23,707 or $71.41 per acre for the 332 acres. This was estimated by the following and calculated on the spread sheet below.

Covering and re-piling of the landing piles with one laborer at $19.92 at 1 hour per day for 200 days for covering, redistibution and restacking is $3,984. One Loader with operator at $95.00 per hour for 200 hours is $19,000. Pile covering, chain saw fuel, 2 cycle oil and bar oil is estimated at $463.00. With 16 rolls of visqueen at $26.00 per roll for $416.00, 6 gallons saw fuel at $4.00 a gallon for $20.00, 1- 6/2.6 fl oz of 2 cycle mix at $14.00 per 6 for $14.00 and 1 gallons of bar oil at $13.00 per gallon for $13.00. For a total of $3429.48 or $35.34 per acre for the 97.1 acres

Direction felling for was calculated at $260.00

USDA - FOREST SERVICE | REPORT OF TIMBER SALE | R6-FS-2400-17 (04/10)
Stewardship: N | APPRAISAL SUMMARY CCF | Version 1331 (TEA 07-13)

Region:	06	Sale Name:	Chester	Appraisal Date:	08/31/13
Forest:	09 Olympic	Sale Number:	33200	Base Period Ending:	06/30/13
District:	03 Quinault	Appraise to:	Aberdeen, WA	Competition Factor:	20%
Salvage:	N	Appraiser:	McNealy	Essential KV Cost:	0

SELLING PRICES	1	2	3	4	5	6	7	Average	Total
1. Species	D-fir	W Hem							
2. Species Code	205	263							
3. Product/Unit	01-03	01-03							
4. Volume	5,189	10,235							15,424
5. Base Period Price	51.38	26.39						34.80	
6. Base Period Index	200.86	176.05						184.40	
7. Current Index	200.86	176.05						184.40	
8. Rapid Market Adj	5.20	2.60						3.47	
9. Market Adj BP Price	56.58	28.99						38.27	
10. Unusual Adjustment									
11. GBCv-Nonsaw Adj									
12. Product Quality Adj	15.00	11.28						12.53	
13. Adj Base Period Price	71.58	40.27						50.80	783,592.07

COSTS	Zone Avg Cost/UM	Est Sale Cost/UM	Adj to BP Cost	ROADS	Km	Miles	Cost
14. Stump to Truck	117.68	115.15	2.53	Specified Road Con			
15. Haul/Scale	29.89	38.56	-8.67	Specified Road Rec	7.57	4.70	206,775
16. Road Maintenance	9.76	11.59	-1.83	Temporary Road Con	3.01	1.87	102,080
17. Contract	4.67	6.47	-1.80	Haul Miles		55	
18. Development & Other	4.93	11.18	-6.25				
19. Road Const & Recon		13.41	-13.41		Br Disp/UM	Rd Mtc/UM	C(T)5.213#
20. Total (lines 14-19)	166.93	196.36	-29.43	DEPOSITS:	3.68	2.22	9,627.07

ADVERTISED RATES	1	2	3	4	5	6	7	Average	Total
21. Predicted Bid Rate	42.15	10.84						21.37	329,663.75
22. Competition Adjustment	8.43	2.17						4.28	65,953.22
23. Property Value									
24. Indicated Adv Rate	33.72	8.67						17.10	263,710.53
25. Base Rate	3.00	3.00						3.00	46,272.00
26. Adjustment									
27. Advertised Rate	33.72	8.67						17.10	263,710.53

CCF to MBF Rate Factors:	1.8112	1.8660						1.8472	
CCF to MBF Volume Factors:	.5521	.5359						.5414	
MBF to CCF Index Factors:	.52	.52							
CCF Base Index for A(T)5a:									
CCF Wtd Avg Del Log Price:	373.62	296.75							
MBF Volume:	2,865	5,485							8,350
Total Tons Removed:	15,805	33,201							49,006

Net CCF to Tons Conversion Factor for C8.3#(Option 1) or K-I.3.1#: 3.1773 DEPOSITS/Ton BD: 1.16 RM: .70

ITEM NO.	DESCRIPTION		METHOD of MEAS.	UNIT
20401	Roadway Excavation		CQ	Cubic Yard

100 C.Y. In Place
0.8 Factor for Loose

Material	Rate	C.Y.	Cost
Import Haul Cost	$8.09	125	$1,011.25

Equipment	Rate	Hrs	Cost
Excavator	$52.36	4	$209.44
Dozer	$36.69	4	$146.76

Labor	Rate	Hrs	Cost
Excavator	$41.85	4	$167.40
Dozer	$41.49	4	$165.96
Labor	$35.67	4	$142.68

Total Cost			$1,843.49
POR (only apply to work, no material)	Haul + Placement		**25%**
Adjusted Cost			$2,304.36

Pay Method			C.Y.
Quantity			100
Unit Cost			$24.00
Total Cost			$2,400.00

4 Hours should be enough time to complete all excavation.

Multiple locations near project area for disposal site, no need to haul if one of those areas can be used

2011 Cost Guide

FSR 2220	FSR 2280
1.3 mi.	2.9 mi.
Total	4.2 mi.

Excavating and Hauling to Newberry Pit

Loading

Description	Equip $/Hr	Oper. $/Hr	C.Y./Hr	$/C.Y.
Excavtor	$52.36	$41.85	60	$1.57

Haul

Description	Equip $/Hr	Oper. $/Hr	Cost
12 C.Y. Truck	$41.70	$39.44	$81.14

Fix Rate (Loading/Unloading)

$/Hr	X	Total Time	/(	Min/Hr	X	Eff Factor)	/ Load Size	$/C.Y.
$81.14	X	4	/(	60	X	85%	/10	$0.64

Variable Rate (Forest Road Travel)

$/Hr	/[(	MPH	X	Eff Factor/	Round Trip	)X	Load Size]	$/C.Y.
$81.14	/[(	20	X	85%/	2	)X	10]	$0.95

Adjustments

Loading	+	Haul Fixed	+	(Haul	X	Miles)
$/C.Y.		$/C.Y.		Variable		One way
$1.57	+	$0.64	+	(0.42	X	14)

Adj. $/C.Y.	**$8.09**

This work consists of furnishing and placing government source riprap for bank protection, slope protection, drainage structures and erosion control

ITEM NO.	DESCRIPTION		METHOD of MEAS.	UNIT
25101	Placed Riprap, Class IV		CQ	Cubic Yard

50 C.Y. In Place
0.8 Factor for Loose

Material	Rate	C.Y.	Cost
Import Haul Cost	$8.09	63	$509.67

Equipment	Rate	Hrs	Cost
Excavator	$52.36	4	$209.44
Dozer	$36.69	4	$146.76

Labor	Rate	Hrs	Cost
Excavator	$41.85	4	$167.40
Dozer	$41.49	4	$165.96
Labor	$35.67	4	$142.68

Total Cost			$1,341.91
POR (only apply to work, no material)	Haul + Placement		**25%**
Adjusted Cost			$1,677.39

Pay Method			C.Y.
Quantity			50
Unit Cost			$36.00
Total Cost			$1,800.00

4 Hours should be enough time to place all the riprap.

2011 Cost Guide

FSR 2220	FSR 2280
1.3 mi.	2.9 mi.
Total	4.2 mi.

Importing Material From Newberry Pit

Loading

Description	Equip $/Hr	Oper. $/Hr	C.Y./Hr	$/C.Y.
Excavtor	$52.36	$41.85	60	$1.57

Haul

Description	Equip $/Hr	Oper. $/Hr	Cost
12 C.Y. Truck	$41.70	$39.44	$81.14

Fix Rate (Loading/Unloading)

$/Hr	X	Total Time	/(	Min/Hr	X	Eff Factor)	/ Load Size	$/C.Y.
$81.14	X	4	/(	60	X	85%	/10	$0.64

Variable Rate (Forest Road Travel)

$/Hr	/[(	MPH	X	Eff Factor/	Round Trip	)X	Load Size]	$/C.Y.
$81.14	/[(	20	X	85%/	2	)X	10]	$0.95

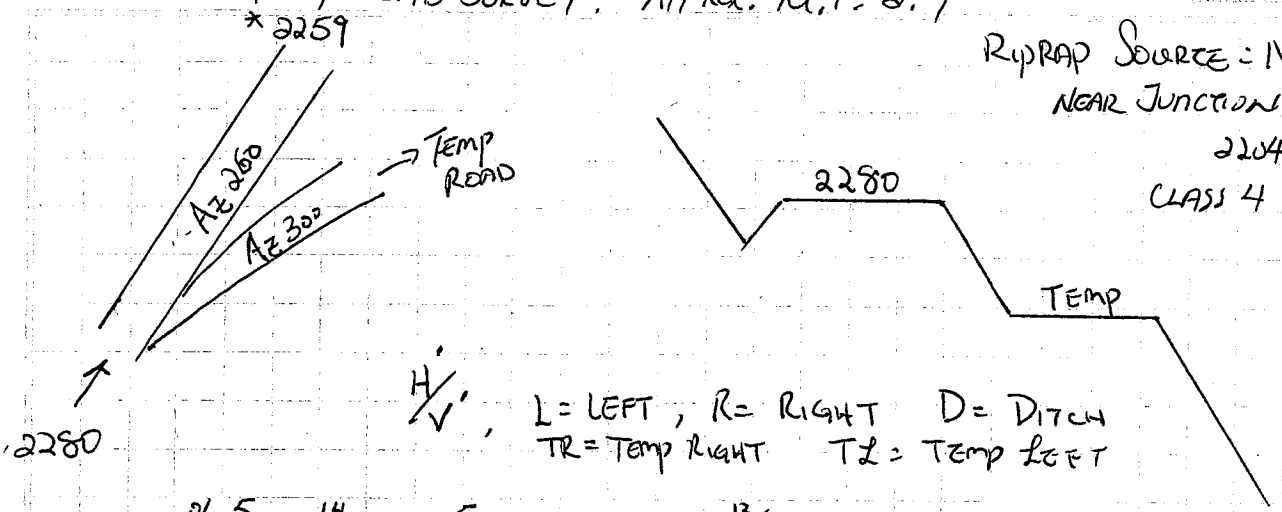
Adjustments

Loading	+	Haul Fixed	+	(Haul	X	Miles)
$/C.Y.		$/C.Y.		Variable		One way
$1.57	+	$0.64	+	(0.42	X	14)

Adj. $/C.Y.	**$8.09**

FSR 2280 TEMP ROAD SURVEY. APPROX. M.P. 2.9

RIPRAP SOURCE: NEWBERRY PIT NEAR JUNCTION 2204 & 2220 CLASS 4 RIPRAP



H/V, L = LEFT, R = RIGHT D = DITCH
TR = TEMP RIGHT TL = TEMP LEFT

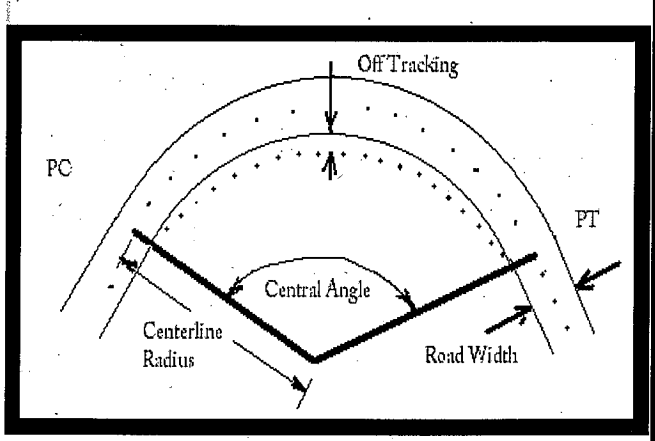
*2220 +100% 5/-2 π 14/0 π 5/0 π 0-30 13/0 π -100% — TIE IN w/2280
D 2280L 2280R TR
Az 300
+100% 5/-2 π 14/0 π 5/0 π 0-14 10/0 π -100% — BEGIN RIPRAP
D 2280L 2280R TR
Az 300
+100% 5/-2 π 14/0 π 5/0 π 8/6 π 5/0 π 0+00 6/0 π -100% — EXISTING FLAGGED TEMP BUP
D 2280L 2280R ~~2280~~ TL TR
Az 280
+100% 5/-2 π 14/0 π 5/0 π 14.5/13 π 8/0 π 0+29 7/0 π -100%
D 2280L 2280R TL TR
-10% Az 292
+100% 5/-2 π 14/0 π 3/0 π 17.5/13 π 9/0 π 0+50 8/0 π -100% — END RIPRAP
D 2280L 2280R TL TR
-17% Az 328
+100% 5/-2 π 14/0 π 6/0 π 25.5/19.5 π 9/0 π 0+66 7/0 π -100%
D 2280L 2280R TL TR
-10% Az 326
+100% 5/2 π 14/0 π 5/0 π 25.5/21.5 π 5/0 π 0+82 13/0 π -100%
D 2280L 2280R TL TR
-14% Az 2
+100% 5/-2 π 14/0 π 8/0 π 30.5/24.5 π 7/0 π 1+01 11/0 π -100%
D 2280L 2280R TL TR
-18% Az 10
1+38

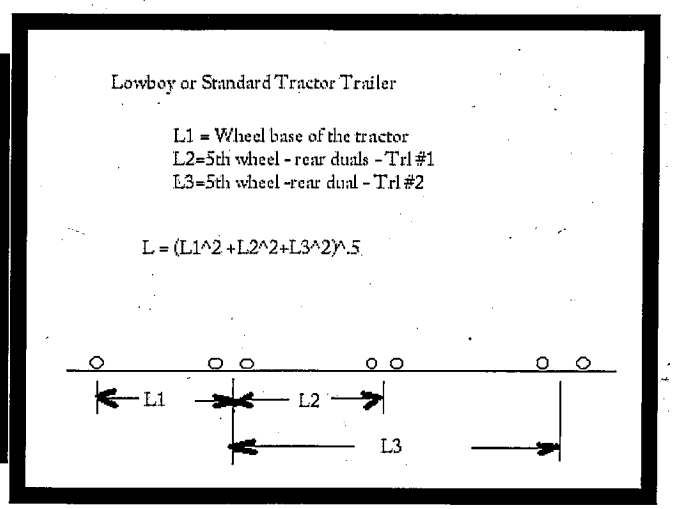
Minimum Lane Widths for Log Trucks

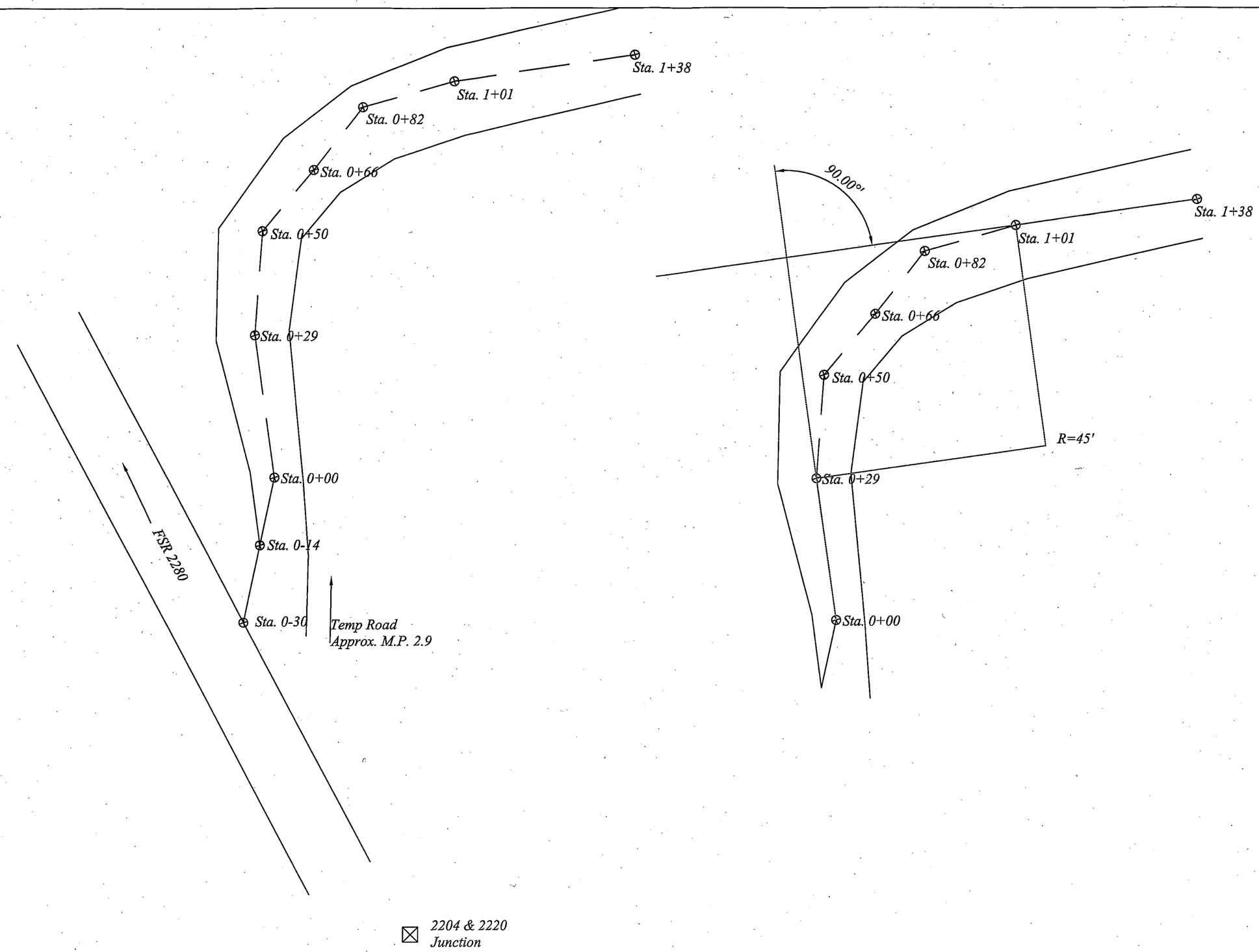
Lowboy and standard Tractor-trailer combinations and Stinger Steer Trucks

Sheldon & Brooks

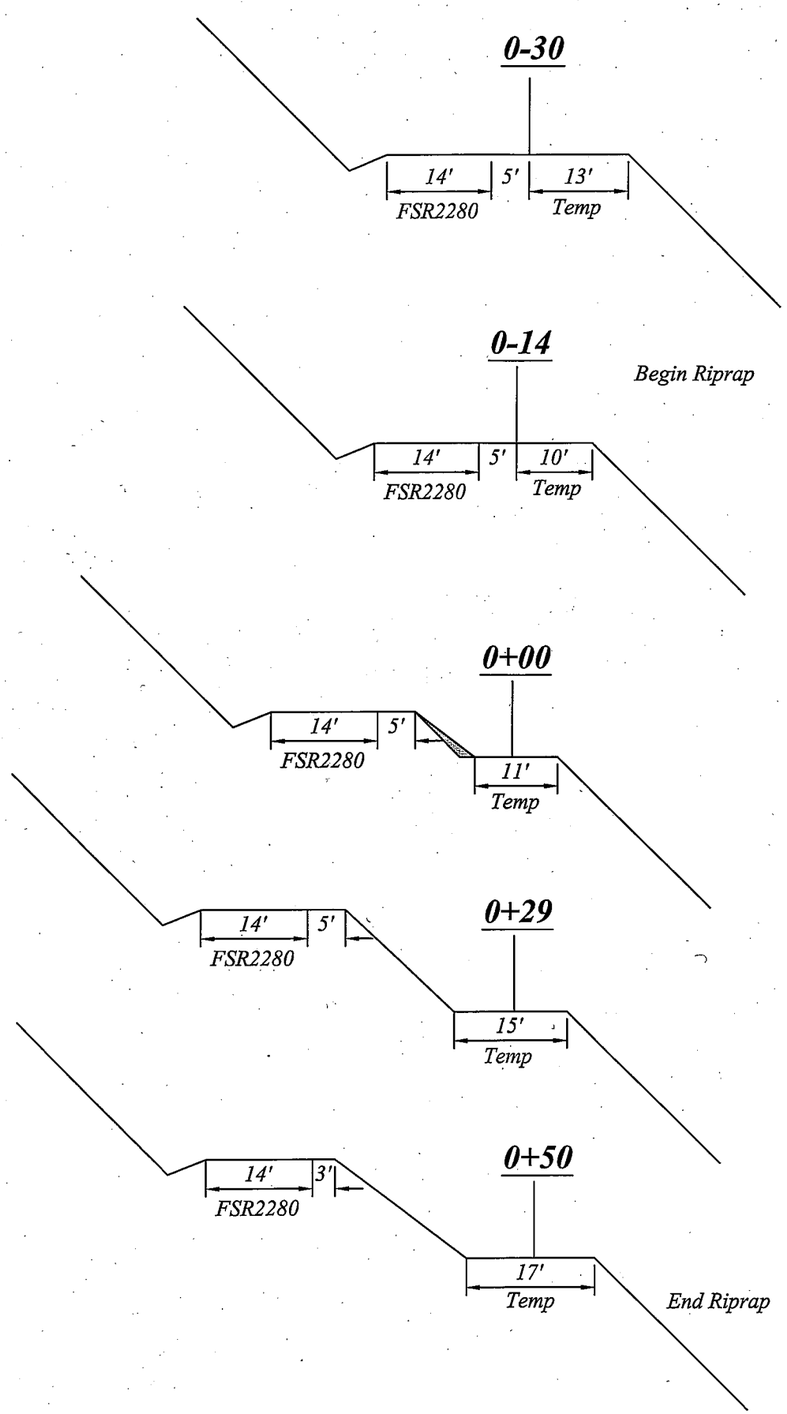
Keep units consistent either English or Metric	Stinger Steer
Centerline Radius of Road	45
Central Angle of the Road Curve in Degrees	90
TRACTOR	
Wheel Base of Tractor (L1)	18.0
LOWBOY TRAILER	
Distance from fifth wheel to center of rear duals (L2)	
Distance from fifth wheel to center of rear duals (L3) (L3 is 0 on standard lowboy/t-t combinations)	
STINGER & TRAILER	
Distance from fifth wheel to end of stinger (L2)	10.0
Distance from stinger to center of trailer duals (L3)	18.0
Basic Road Width	12
L (Calculated) =	23.41
Off Tracking	6.0
Minimum Lane Width (Basic Road Width + Off track) =	18.0

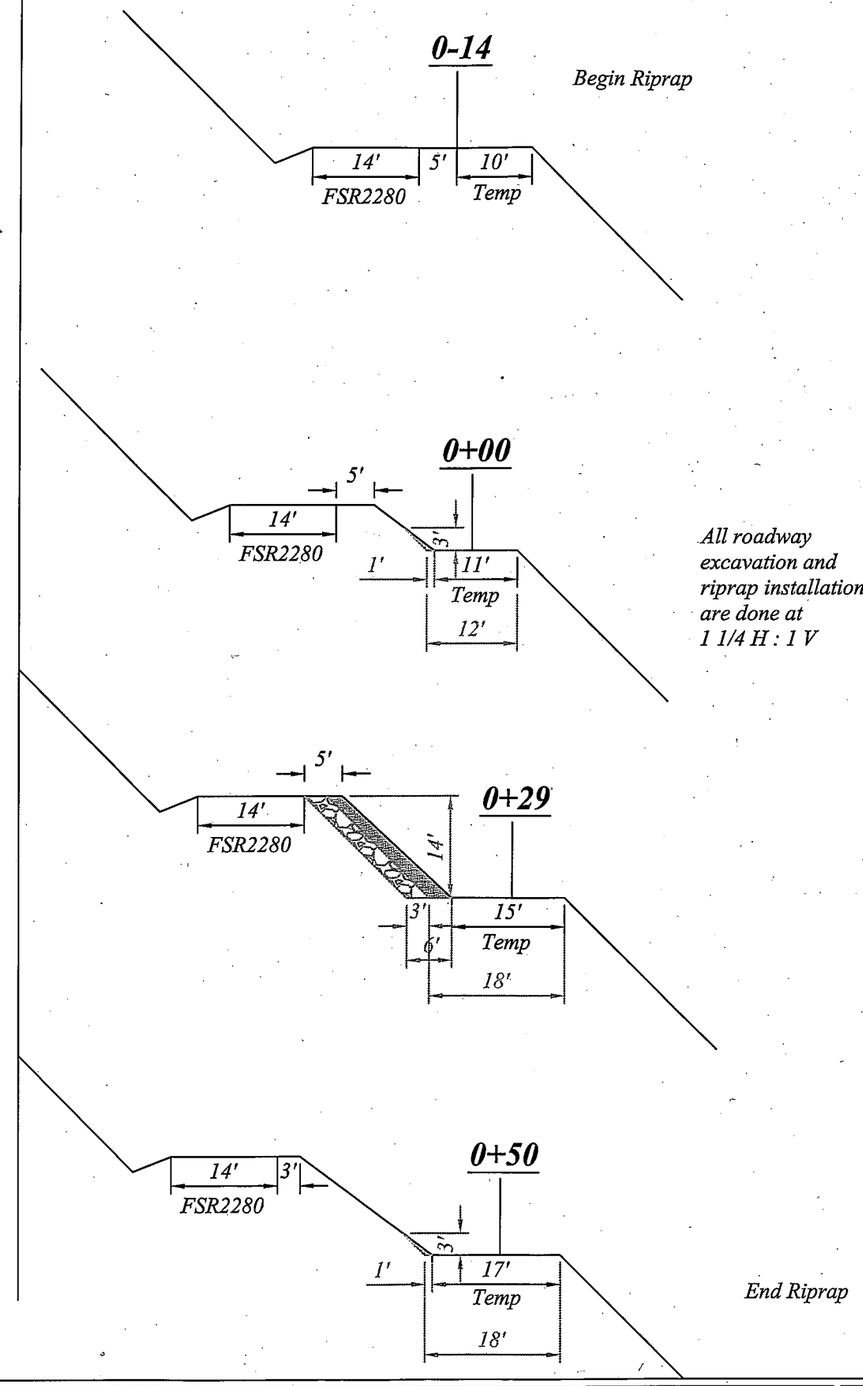






Unit / Region :	National Forest :	District :	Project Name :	Sheet Name :	Sheet Number :
USDA - Forest Service - R6	Olympic	Pacific	Temp Road FSR 2280 M.P. 2.9	Plan View & Curve Check	1 Of 2





All roadway excavation and riprap installation are done at 1 1/4 H : 1 V

Fill Removal				
Sta.	**Area(S.F.)**	**Average End Area (S.F.)**	**Distance (FT.)**	**Total Volume (C.Y.)**
0-14	0			
		0.75	14	0.40
0+00	1.5			
		21.75	29	23.36
0+29	42.0			
		21.75	21	16.92
0+50	1.5			
Total Volume (C.Y.)				40.68

Riprap Installation				
Sta.	**Area(S.F.)**	**Average End Area (S.F.)**	**Distance (FT.)**	**Total Volume (C.Y.)**
0-14	0			
		0	0	0
0+00	0			
		21	29	22.56
0+29	42			
		21	21	16.33
0+50	0			
Total Volume (C.Y.)				38.89

Total Roadway Excavation Volume = Fill Removal + Excavation for Riprap Installation

Total Roadway Excavation = 79.57 C.Y.
Total Riprap = 38.89 C.Y.
Use factor of safety 20%, too much debris on road, measurement is only an approximate

Final Roadway Excavation = 95.48 C.Y. ≈ 100 C.Y.
Final Riprap = 46.67 C.Y. ≈ 50 C.Y.

Unit / Region :	National Forest :	District :	Project Name :	Sheet Name :	Sheet Number :
USDA - Forest Service - R6	Olympic	Pacific	Temp Road FSR 2280 M.P. 2.9	Cross Section & Volume Calcs	2 Of 2

Chester T.S.

SUBGRADE, SURFACING, AND ROCK

For appraisal purposes only, not part of the contract, not to be used as final design.

Road Name	From Station (Approx.)	To Station (Approx.)	Subdivision	Cut Slope Ratio	Fill Slope Ratio	Finished Surface Width Excluding Curve Widening and Turnouts Feet (Approx.)	Uncompacted Depth of New Rock Inches (Approx.) PIT RUN	Designated Rock Source PIT RUN	Remarks
T1	0+00	9+90	G29, G29C, G29D	Utilize Existing Prism		12	6	2204031	4
T2	0+00	11+85	G30	Utilize Existing Prism		12	4	2204031	4
T3	0+00	2+14	G30	Utilize Existing Prism		12	4	2204031	4
T4	0+00	2+13	G67	Utilize Existing Prism		12	4	2204031	4
T5	0+00	6+58	G31	Utilize Existing Prism		12	12	2204031	4
T5	6+58	9+59	G31	Utilize Existing Prism		12	6	2204031	4
T6	0+00	20+08	G31A, B, C, D, E	Utilize Existing Prism		12	4	2204031	4
T7	0+00	6+79	G31D	Utilize Existing Prism		12	6	2204031	4
T8	0+00	4+68	F11A	Utilize Existing Prism		12	4	2204031	4
T9	0+00	2+61	F11D	Utilize Existing Prism		12	4	2204031	4
T10	0+00	1+83	G25	Utilize Existing Prism		12	4	2204031	4
T11	0+00	4+39	G25	Utilize Existing Prism		12	4	2204031	4
T12	0+00	5+78	G25	Utilize Existing Prism		12	4	2204031	4
T13	0+00	1+66	G25	Utilize Existing Prism		12	6	2204031	4
T14	0+00	11+01	G25E	Utilize Existing Prism		12	4	2204031	2,4
T15	0+00	2+57	G23B	Utilize Existing Prism		12	4	2204031	4
T16	0+00	1+57	G23E	Utilize Existing Prism		12	6	2204031	4
Misc	na	na	Sale area	na	na	na	As needed	2204031	1

1. Landings and short access spurs, estimate 300 cubic yards.

2. See attached drawings/plan

DRAINAGE AND CULVERTS

Road Name	Station (Approx.)	Feature	Purpose	Minimum Culvert Diameter (Inches)	Q-100 Culvert Diameter (Inches)	Rock Source (Fill) PIT RUN	Remarks
T1	7+15	Culvert	Seasonal Water	na	36	2204031	3
T2	As needed	4 Culverts	Ditch Relief	18	na	2204031	3
T5	As needed	Water Bars				2204031	3
T6	2+50	Culvert	Ditch Relief	18	na	2204031	3
T6	5+60	Culvert	Seasonal Water	na	24	2204031	3
T6	7+30	Culvert	Ditch Relief	18	na	2204031	3
T6	10+28	Culvert	Seasonal Water	na	36	2204031	3
T6	11+80	Culvert	Seasonal Water	na	36	2204031	3
T6	18+60	Culvert	Ditch Relief	18	na	2204031	3
T7	As needed	3 Culverts	Ditch Relief	18	na	2204031	3
T14	As needed	4 Culverts	Ditch Relief	18	na	2204031	3
T16	As needed	1 Culvert	Ditch Relief	18	na	2204031	3

3. Existing culverts may be utilized in place.

4. All temps except T6 will be ripped to a depth of 14 inches, culverts installed by the purchaser will be removed and earth berm closures installed.