

USDA - FOREST SERVICE
Stewardship: N

REPORT OF TIMBER SALE
APPRAISAL SUMMARY CCF

R6-FS-2400-17 (04/10)
Version 1621 (TEA 04-16)

Region: 06
Forest: 09 Olympic
District: 03 Quinault
Salvage: N

Sale Name: Six
Sale Number: 93620
Appraise to: Aberdeen, WA
Appraiser: Evan Gray

Appraisal Date: 05/16/16
Base Period Ending: 03/31/16
Competition Factor: 20%
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 | 4,572 | 2,451 | | | | | | | 7,023 |
| 5. Base Period Price | 64.75 | 46.99 | | | | | | 58.55 | |
| 6. Base Period Index | 190.53 | 165.49 | | | | | | 181.79 | |
| 7. Current Index | 190.53 | 165.49 | | | | | | 181.79 | |
| 8. Rapid Market Adj | 2.60 | 5.20 | | | | | | 3.51 | |
| 9. Market Adj BP Price | 67.35 | 52.19 | | | | | | 62.06 | |
| 10. Unusual Adjustment | | | | | | | | | |
| 11. GBCv-Nonsaw Adj | | | | | | | | | |
| 12. Product Quality Adj | 15.00 | 14.53 | | | | | | 14.84 | |
| 13. Adj Base Period Price | 82.35 | 66.72 | | | | | | 76.90 | 540,034.92 |

| COSTS | Zone Avg Cost/UM | Est Sale Cost/UM | Adj to BP Cost | ROADS | Km | Miles | Cost |
|-------------------------|------------------|------------------|----------------|--------------------|-----------------|-----------------|-------------|
| 14. Stump to Truck | 122.35 | 117.98 | 4.37 | Specified Road Con | | | |
| 15. Haul/Scale | 33.99 | 53.49 | -19.50 | Specified Road Rec | | | |
| 16. Road Maintenance | 14.16 | 30.38 | -16.22 | Temporary Road Con | 2.24 | 1.39 | 137,492 |
| 17. Contract | 5.59 | 7.42 | -1.83 | Haul Miles | | 55 | |
| 18. Development & Other | 5.19 | 19.58 | -14.39 | | | | |
| 19. Road Const & Recon | | | | | | | |
| 20. Total (lines 14-19) | 181.28 | 228.85 | -47.57 | DEPOSITS: | Br Disp/UM 2.33 | Rd Mtc/UM 12.19 | C(T) 5.213# |

| ADVERTISED RATES | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Average | Total |
|----------------------------|-------|-------|---|---|---|---|---|---------|------------|
| 21. Predicted Bid Rate | 34.78 | 19.15 | | | | | | 29.33 | 205,950.81 |
| 22. Competition Adjustment | 6.96 | 3.83 | | | | | | 5.87 | 41,208.45 |
| 23. Property Value | | | | | | | | | |
| 24. Indicated Adv Rate | 27.82 | 15.32 | | | | | | 23.46 | 164,742.36 |
| 25. Base Rate | 3.00 | 3.00 | | | | | | 3.00 | 21,069.00 |
| 26. Adjustment | | | | | | | | | |
| 27. Advertised Rate | 27.82 | 15.32 | | | | | | 23.46 | 164,742.36 |

CCF to MBF Rate Factors: 1.7915 1.8360 1.8068
 CCF to MBF Volume Factors: .5582 .5447 .5535
 MBF to CCF Index Factors: .52 .52
 CCF Base Index for A(T)5a:
 CCF Wtd Avg Del Log Price: 324.95 233.66
 MBF Volume: 2,552 1,335 3,887
 Total Tons Removed: 13,610 7,910 21,520
 Net CCF to Tons Conversion Factor for C8.3#(Option 1) or K-I.3.1#: 3.0642 DEPOSITS/Ton BD: .76 RM: 3.98

Erosion Control - Six 7023 CCF

| | | # Landing | Acres | |
|--------------------|-----|-----------|-------|---|
| Ground based acres | 138 | 27 | 6.75 | ground landings are also shared with cable and counted as cable 29.25 ac |
| Skyline acres | 113 | 78 | 19.5 | |
| Helicopter acres | 50 | 4 | 3 | |

Skid Roads; ground based expect up to 15% of the acreage to be disturbed . Approximately 10% of this acreage will require

| | Length | Width | Sq FT/ Ac | | | |
|------------------|--------|-------|-----------|-----|------------------|-------------------|
| seed and fert... | 0.15 | 138 | 0.1 | 2.1 | ac | use 10% of length |
| Temp Roads: | 7346 | 14 | 43560 | 0.1 | 0.2 | ac |
| | | | | | Total ac | 31.6 |
| | | | | | seed and fert ac | use 10% of length |

Seed and fertilize: one person can seed and fert 2.2 ac/day;

| Acres | Ac/Day | Days | \$/Day | |
|-------|--------|------|--------|------------------|
| 2.2 | | 16 | 150 | \$2,400.00 labor |

materials and equipment; 31.6 ac x \$175/ ac =

| Ac | \$/Ac | |
|------|-------|--|
| 31.6 | 175 | \$5,530.00 materials and equipment seed and fert |

scarify skid roads: district experience on recent sales shows scarification cost to be \$100/ac over entire sale acreage

| Ac | \$/Ac | |
|-----|-------|---------------------------|
| 138 | 100 | \$13,800.00 scarification |

Total \$21,730.00

21% overhead: 1.21 \$21,730.00 \$26,293.30

Subtotal Cost/ CCF \$3.74
native seed deposit \$0.04

Total Cost/CCF = \$3.78

Total **\$76,692.00**

| | |
|----------------|---------------------|
| total = | \$137,492.00 |
| cost per CCF = | \$19.58 |

Close Temp Roads - includes culvert removal, barrier placement, scarification for rehab, ~14inches. Seeding and fert
is included in the erosion control appraisal:
Approximately 1000 feet per day estimated.
Allow 8 days to use shovel to close roads at \$1500/day includes pr and r etc **\$12,000**

Six 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 | 4+75 | 46 | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T2 | 0+00 | 0+63 | 46 | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T3 | 0+00 | 14+16 | 46A | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T4 | 0+00 | 2+48 | 45E | Utilize Existing Prism | | 12 | Spot Rock 3" | Elk Creek Pit | 1,3 |
| T5 | | | | | | Converted to spec road 2206071 | | | |
| T6 | 0+00 | 2+50 | 45E | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T7 | 0+00 | 9+40 | 45 | Utilize Existing Prism | | 12 | Spot Rock 6" | Elk Creek Pit | 1,3 |
| T8 | 0+00 | 1+30 | 45A | 1:1 | 1½:1 | 12 | 12" | Elk Creek Pit | 1 |
| T9 | 0+00 | 1+12 | 45B | 1:1 | 1½:1 | 12 | 12" | Elk Creek Pit | 1 |
| T10 | 0+00 | 6+04 | 44 | 1:1 | 1½:1 | 12 | 12" | Elk Creek Pit | 1 |
| T11 | 0+00 | 4+36 | 44 | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T12 | 0+00 | 1+48 | 7 | Utilize Existing Prism | | 12 | Elk | Elk Creek Pit | 1,3 |
| T13 | 0+00 | 0+97 | 7A | 1:1 | 1½:1 | 12 | 12" | Elk Creek Pit | 1 |
| T14 | 0+00 | 4+45 | 7A | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T15 | 0+00 | 0+37 | 7B` | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T16 | 0+00 | 8+46 | 6 | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T17 | 0+00 | 5+28 | 6 | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T18 | 0+00 | 2+71 | 6 | Utilize Existing Prism | | 12 | 6" | Elk Creek Pit | 1,3 |
| T19 | 0+00 | 3+00 | 5 | 1:1 | 1½:1 | 12 | 12" | Elk Creek Pit | 1 |

DRAINAGE AND CULVERTS

| Road Name | Station (Approx.) | Feature | Purpose | Minimum Culvert Diameter (Inches) | Q-100 Culvert Diameter (Inches) | Rock Source (Fill) | Remarks |
|-----------|-------------------|---------|--------------|-----------------------------------|---------------------------------|--------------------|---------|
| | | | | | | PIT RUN | |
| T1 | 0+00 | Culvert | Ditch Relief | 18 | na | Elk Creek Pit | |
| T1 | 1+55 | Culvert | Ditch Relief | 18 | na | Elk Creek Pit | |
| T2 | 0+00 | Culvert | Ditch Relief | 18 | na | Elk Creek Pit | |
| T3 | 10+70 | Culvert | Dry Swale | 18 | na | Elk Creek Pit | |
| T6 | 0+00 | Culvert | Ditch Relief | 18 | na | Elk Creek Pit | |
| T8 | 0+00 | Culvert | Ditch Relief | 18 | na | Elk Creek Pit | |
| T10 | 1+00 | Culvert | Dry Swale | 18 | 24 | Elk Creek Pit | |
| T14 | 0+00 | Culvert | Ditch Relief | 18 | na | Elk Creek Pit | |

1. Inslope and outslope as needed to maintain proper drainage.
2. Miscellaneous rock, estimate 300 cubic yards.
3. Existing culverts may be utilized in place.

| Road Name | 50k/mile | 35k/mile | 30k/mile | 25k/mile | total ft | Subdivision | Travel Way | Rock Depth | CY Rock | Culverts | Diameter | Culvert Stn |
|-----------|--------------------------|----------|----------|----------|----------|-------------|------------|------------|---------|----------|----------|-------------|
| | new const | Heavy | Moderate | Light | | | | | | | | |
| T1 | | | 475 | | 475 | 46 | 12 | 6 | 114 | 2 | 18" | 0+00,1+55 |
| T2 | | | | 63 | 63 | 46 | 12 | 6 | 15 | 1 | 18" | 0+00 |
| T3 | | 1416 | | | 1416 | 46A | 12 | 6 | 341 | 1 | 18" | 10+70 |
| T4 | | | | 248 | 248 | 45E | 12 | 3 | 14 | | | |
| T5 | *T5 converted to 2206071 | | | 0 | 0 | 45 | 12 | 3 | 0 | | | |
| T6 | | | 250 | | 250 | 45E | 12 | 6 | 60 | 1 | 18" | 0+00 |
| T7 | | | | 940 | 940 | 45 | 12 | 6 | 113 | | | |
| T8 | 130 | | | | 130 | 45A | 12 | 12 | 67 | 1 | 18" | 0+00 |
| T9 | 112 | | | | 112 | 45B | 12 | 12 | 58 | | | |
| T10 | 604 | | | | 604 | 44 | 12 | 12 | 313 | 1 | 18" | 1+00 |
| T11 | | | | 436 | 436 | 44 | 12 | 6 | 105 | | | |
| T12 | | | | 148 | 148 | 7 | 12 | 6 | 36 | | | |
| T13 | 97 | | | | 97 | 7A | 12 | 12 | 50 | | | |
| T14 | | | 445 | | 445 | 7A | 12 | 6 | 107 | 1 | 18" | 0+00 |
| T15 | | | | 37 | 37 | 7B | 12 | 6 | 9 | | | |
| T16 | | | | 846 | 846 | 6 | 12 | 12 | 439 | | | |
| T17 | | | | 528 | 528 | 6 | 12 | 6 | 127 | | | |
| T18 | | | | 271 | 271 | 6 | 12 | 6 | 65 | | | |
| T19 | 300 | | | | 300 | 5 | 12 | 12 | 156 | | | |
| | 1243 | 1416 | 1170 | 3517 | 7346 | | | Totals = | 2190 | 8 | | |

Miles 0.24 0.27 0.22 0.67 1.39

spot rock

Average Rock Haul for pit run one way is \$30.08/cubic yard in place (Elk Creek Pit Rd 2204031), (engineers estimate)
 Average Rock Haul for crushed one way is 0 miles, na

New construction - as shown in above table. Use cost of \$50,000/mi from past district experience.

Reconstruction of existing grade includes some removal of timber , debris removal, drainage restoration, culvert placement, blading and shaping. Rock as shown in above table. Use cost of 70 % of new const for heavy, 60% moderate and 50% for light reconstruction

Clearing limits will not exceed 16 feet unless otherwise designated.

Estimated CY of Rock Needed

| Temp. roads: | Pit Run | Crushed |
|--------------|---------|---------|
| All | 2190 | 0 |
| other | 300 | |
| Total | 2490 | |

Landings & short access spurs

New construction temp 0.24 miles
 0.24 miles X \$50,000 = \$12,000

| Reconstruction of temp roads | Heavy | Moderate | Light | |
|------------------------------|----------|----------|----------|-------------|
| miles | 0.27 | 0.22 | 0.67 | |
| \$/mile | \$35,000 | \$30,000 | \$25,000 | |
| \$ | \$9,450 | \$6,600 | \$16,750 | \$32,800.00 |

Culverts \$500/culvert
 8 - 18" culverts may be needed as relief culverts
 Placement of the culverts will be determined as described in Sensitive Construction of temp roads (C5.1, Option 1)

| Rd# | MPH | RTMiles | RTMin |
|---------|-----|---------|-------|
| 2206 | 15 | 12.0 | 48 |
| 2200 | 20 | 9.4 | 28 |
| 2204 | 35 | 6 | 10 |
| 2204 | 20 | 1.2 | 4 |
| 2204031 | 10 | 0.5 | 3 |

Rock Haul

| | yards | loads | \$/load | Cost | | Total= |
|---------|-------|-------|----------|-------------|--|-----------------------|
| Pit Run | 2,490 | 249 | \$308.00 | \$76,692.00 | dump+excavator=\$176/hr 1 load every 1.75 hrs | 93 |
| Crushed | 0 | 0 | \$0.00 | \$0.00 | 1.75*\$176 | Rounded RTHours= 1.75 |
| | | | \$/load= | \$308 | | |