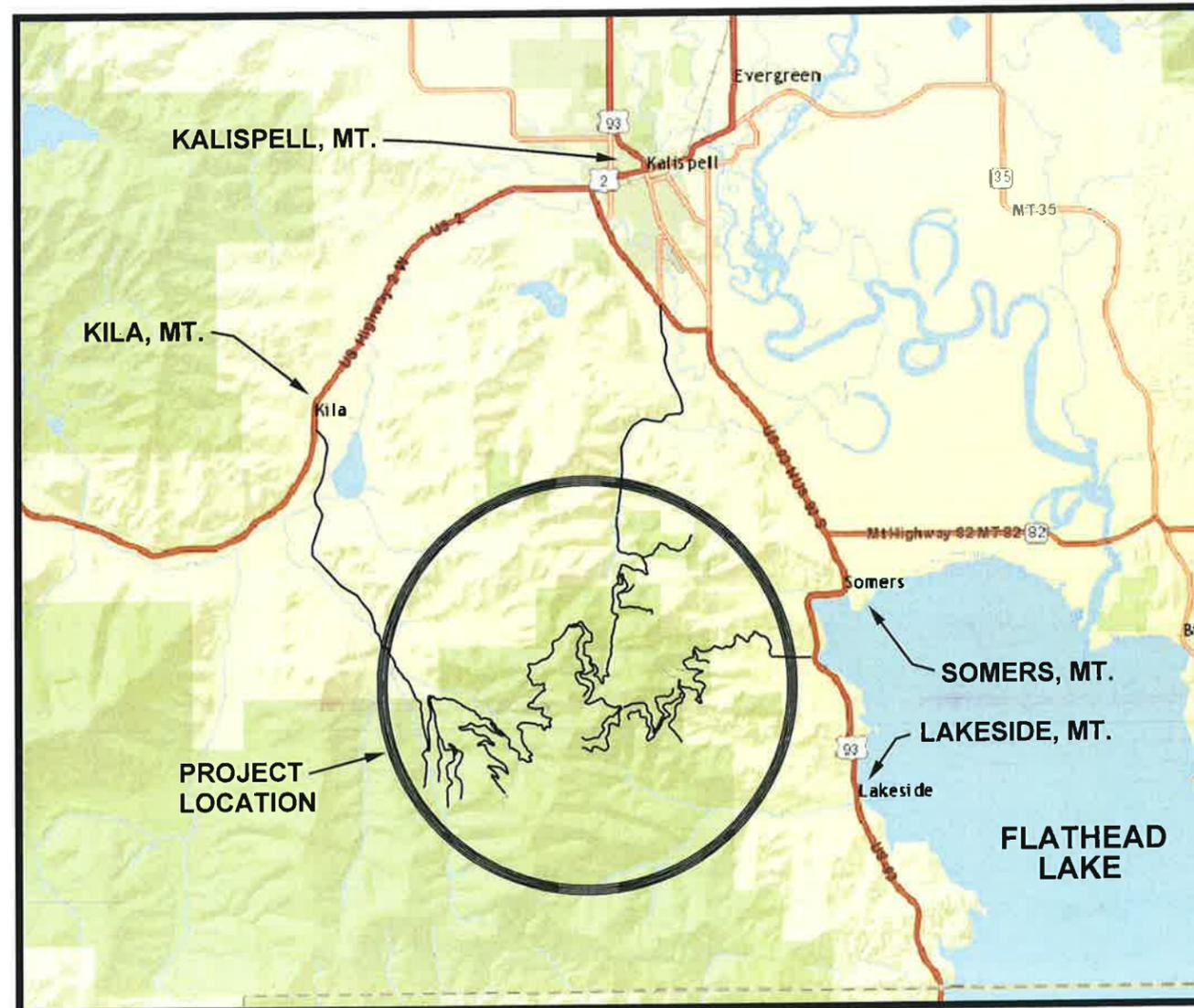
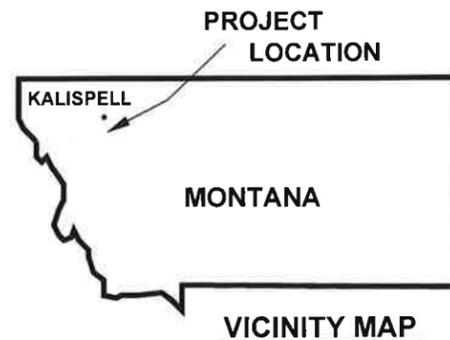


FLATHEAD NATIONAL FOREST CONSTRUCTION DRAWINGS FOR: LOUIE TIMBER SALE ROADS



INDEX TO SHEETS

| SHEET NO. | DESCRIPTION |
|-----------|--|
| 1 | TITLE SHEET & VICINITY MAP |
| 2 | LOUIE TIMBER SALE ROADS AREA MAP |
| 3 - 4 | SUMMARY OF ESTIMATED QUANTITIES |
| 5 - 7 | TYPICAL SECTIONS & GENERAL NOTES |
| 8 | #2824 & #2830 RECONSTRUCTION ROAD LOGS |
| 9 | #2832 & #2856 RECONSTRUCTION ROAD LOGS |
| 10 | #2941 RECONSTRUCTION ROAD LOG |
| 11 | #2941A & #2959 RECONSTRUCTION ROAD LOGS |
| 12 | #2962 & #2964 RECONSTRUCTION ROAD LOGS |
| 13 - 15 | #2964A CONSTRUCTION PLAN & PROFILE SHEETS |
| 16 - 17 | #2964B CONSTRUCTION PLAN & PROFILE SHEETS |
| 18 | #2965 & #2991 RECONSTRUCTION ROAD LOGS |
| 19 | #2991 FILL SLOPE SLUMP REPAIR DETAILS |
| 20 | #2999 RECONSTRUCTION ROAD LOG |
| 21 | #9851 & #9852 RECONSTRUCTION ROAD LOGS |
| 22 | #9855, #9858 & #9859 RECONSTRUCTION ROAD LOGS |
| 23 | #10409 & #10547 RECONSTRUCTION ROAD LOGS |
| 24 | #10409 CONSTRUCTION PLAN & PROFILE SHEET |
| 25 - 26 | #11655 CONSTRUCTION ROAD LOG, TYPICALS & NOTES |
| 27 | STANDARD LIVESTOCK GATE DETAILS |

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-1
NORTHERN REGION

Submitted By:
Brad Russell 3/7/16
Project Engineer Date

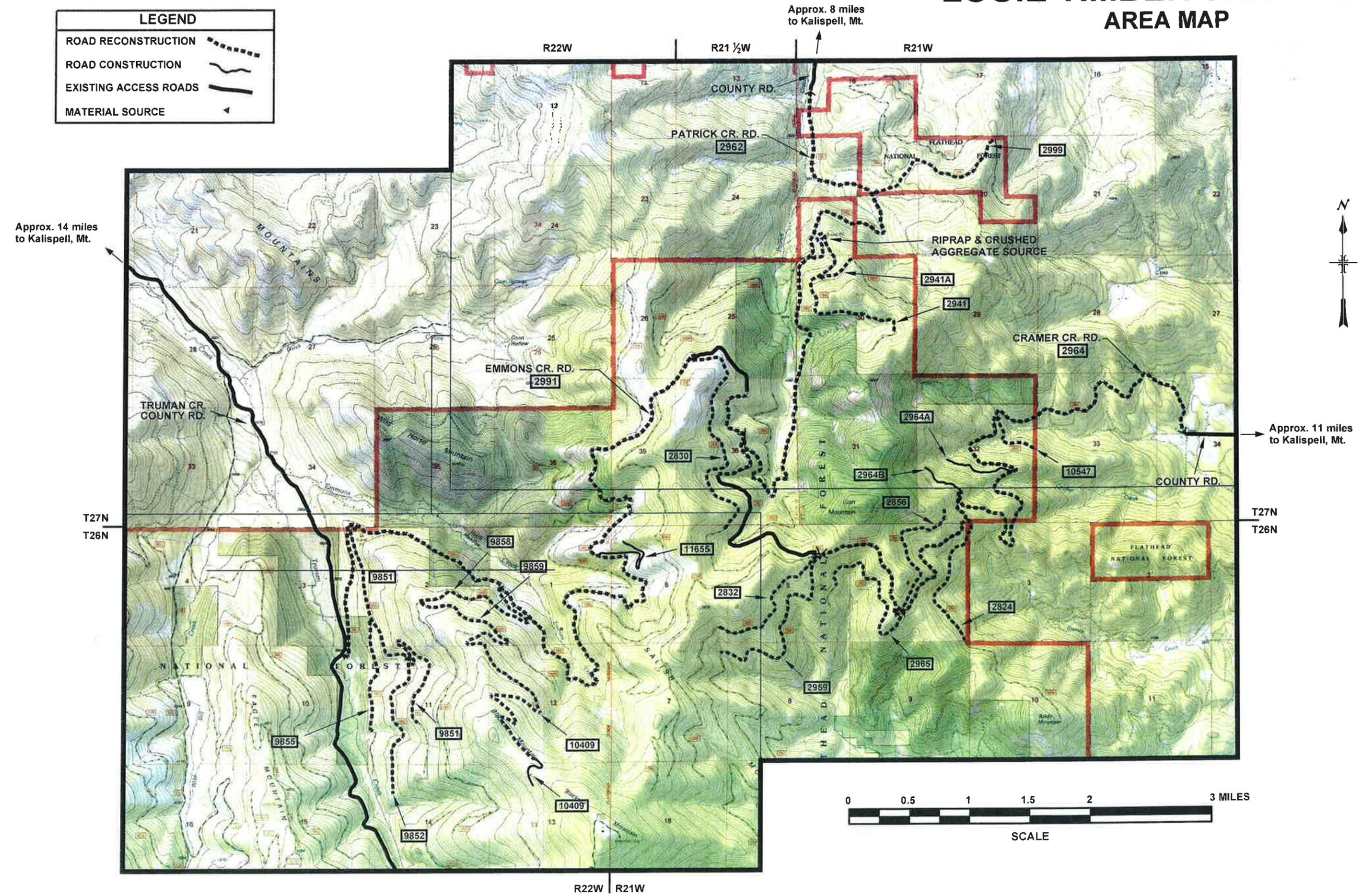
Recommended By:
Richard A. Dyer 3/21/16
Swan Lake District Ranger Date

Reviewed By:
[Signature] 3/10/16
Forest Engineer Date

Approved By:
Chip Welch 3/28/16
Forest Supervisor Date

LOUIE TIMBER SALE ROADS AREA MAP

| LEGEND | |
|-----------------------|--|
| ROAD RECONSTRUCTION | |
| ROAD CONSTRUCTION | |
| EXISTING ACCESS ROADS | |
| MATERIAL SOURCE | |

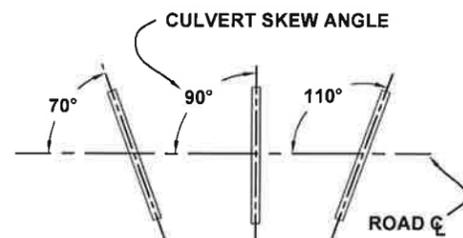


SUMMARY OF ESTIMATED QUANTITIES

| PROJECT: LOUIE TIMBER SALE ROAD PROJECT | | | ROAD NO. | 2824 | 2830 | 2832 | 2856 | 2941 | 2941A | 2959 | 2962 | 2964 | 2964A | 2964B | 2965 | 2991 |
|---|---|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|--------|----------|----------|
| CONSTRUCTION OR RECONSTRUCTION ROAD LENGTH IN MILES | | | | 1.31 | 2.09 | 1.24 | 1.29 | 1.89 | 0.36 | 1.44 | 5.96 | 7.81 | 0.61 | 0.38 | 1.47 | 9.80 |
| ITEM NO. | ITEM DESCRIPTION | MEASUREMENT | | Reconst. | Const. | Const. | Reconst. | Reconst. |
| | | METHOD | UNIT | | | | | | | | | | | | | |
| 201(01) | CLEARING & GRUBBING | DQ | ACRE | | | | | | | | | | 2.70 | 1.90 | | |
| 202(02) | REMOVAL OF EXISTING CMP | AQ | EACH | | | | | | | | | | 1 | | | |
| 202(03) | REMOVAL OF EARTH BERM | AQ | EACH | | 2 | 3 | | 2 | | 3 | | | | | 3 | |
| 203(01) | EXCAVATION & EMBANKMENT, PLACEMENT METHOD 1 | DQ | C.Y. | | | | | | | | | | 2830 | 2345 | | 40 |
| 203(02) | EXCAVATION & EMBANKMENT, PLACEMENT METHOD 1 | DQ | MILE | | | | | | | | | | | | | |
| 203(17) | CONSTRUCT DRAIN DIP | AQ | EACH | | | | | | | | | | 1 | 2 | | |
| 210(01) | BRUSHING / CLEARING & GRUBBING | DQ | MILE | 1.31 | 2.09 | 1.24 | | 1.89 | 0.36 | 1.44 | | | | | 1.47 | |
| 251(04) | KEYED RIPRAP, CLASS 4 | VQ | C.Y. | | | | | | | | | | | | | 80 |
| 304(13) | CRUSHED AGGREGATE, GOV'T.-FURNISHED, (LOOSE C.Y.) | VQ | C.Y. | | | | | | | | | | 80 | 50 | | 20 |
| 306(01) | RECONDITIONING OF ROADBED, COMPACTION A (NATIVE SURFACE) | DQ | MILE | 1.31 | 2.09 | 1.24 | 1.29 | 1.89 | 0.36 | 1.44 | | | | | 1.47 | |
| 306(02) | RECONDITIONING OF ROADBED, COMPACTION A (AGGREGATE SURFACE) | DQ | MILE | | | | | | | | 5.96 | 7.81 | | | | 9.80 |
| 601(01) | MOBILIZATION | LSQ | L.S. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 603(01) | 18-INCH CORRUGATED STEEL PIPE, 0.064-INCH THICKNESS | AQ | L.F. | | | | | | | | | 30 | 32 | | | |
| 625(01) | SEEDING, FERTILIZING, AND MULCHING, DRY METHOD | DQ | ACRE | | | | | | | | | | 0.90 | 0.95 | | |
| 640(01) | FURNISH & INSTALL 12 FT. STANDARD LIVESTOCK GATE | AQ | EACH | | | 1 | | 1 | | 1 | | | 1 | 1 | 1 | |

CULVERT LISTING

| ROAD NO. | STATION | LENGTH FEET | STEEL --- 2- $\frac{2}{3}$ " X $\frac{1}{2}$ " CORRUGATIONS | | SKEW | CATCH BASIN | DITCH BLOCK | REMARKS |
|----------|---------------|-------------|---|-----------|------|-------------|-------------|------------------------|
| | | | SIZE | THICKNESS | | | | |
| 2964 | M.P. 0.98 | 30' | 18" | 0.064" | 70° | X | X | Pipe Replacement |
| 2964A | Jct. w/ #2964 | 32' | 18" | 0.064" | 70° | X | X | Ditch Relief for #2964 |
| 11655 | 19+10 | 42' | 18" | 0.064" | 90° | X | | Dry Draw |
| 11655 | 33+38 | 32' | 18" | 0.064" | 90° | X | | Dry Draw |



FOR ALL PIPE INSTALLATIONS, CONSERVE ROCK FROM THE PIPE AND/OR CATCH BASIN EXCAVATION AND PLACE AS RIPRAP AT PIPE INLETS & OUTLETS. ARMOR CATCH BASINS WHEN SHOWN ON THE DRAWINGS. (CONSERVING & PLACING RIPRAP IS CONSIDERED INCIDENTAL TO PIPE INSTALLATION).

SUMMARY OF ESTIMATED QUANTITIES

| PROJECT: LOUIE TIMBER SALE ROAD PROJECT | | | | ROAD NO. | 2999 | 9851 | 9852 | 9855 | 9858 | 9859 | 10409 | 10409 | 10547 | 11655 | | TOTALS |
|---|---|-------------|------|----------|----------|----------|----------|----------|----------|----------|--------|----------|--------|-------|---|-----------|
| CONSTRUCTION OR RECONSTRUCTION ROAD LENGTH IN MILES | | | | | 1.35 | 2.57 | 1.38 | 1.01 | 1.54 | 0.88 | 2.63 | 0.40 | 0.30 | 0.84 | | |
| ITEM NO. | ITEM DESCRIPTION | MEASUREMENT | | Reconst. | Const. | Reconst. | Const. | | Reconst. = 46.32 Mi. Const. = 2.23 Mi. | |
| | | METHOD | UNIT | | | | | | | | | | | | | |
| 201(01) | CLEARING & GRUBBING | DQ | ACRE | | | | | | | | | 1.10 | | 4.10 | | 9.80 AC. |
| 202(02) | REMOVAL OF EXISTING CMP | AQ | EACH | | | | | | | | | | | | | 1 EA. |
| 202(03) | REMOVAL OF EARTH BERM | AQ | EACH | | | | | | | | | | | 1 | | 14 EA. |
| 203(01) | EXCAVATION & EMBANKMENT, PLACEMENT METHOD 1 | DQ | C.Y. | | | | | | | | | 635 | | | | 5850 C.Y. |
| 203(02) | EXCAVATION & EMBANKMENT, PLACEMENT METHOD 1 | DQ | MILE | | | | | | | | | 0.14 | | 0.84 | | 0.98 MI. |
| 203(17) | CONSTRUCT DRAIN DIP | AQ | EACH | | 1 | 3 | 2 | | | | | | | 5 | | 14 EA. |
| 210(01) | BRUSHING / CLEARING & GRUBBING | DQ | MILE | 1.35 | 2.57 | 1.38 | 1.01 | 1.54 | 0.88 | 2.63 | | | 0.30 | | | 21.46 MI. |
| 251(04) | KEYED RIPRAP, CLASS 4 | VQ | C.Y. | | | | | | | | | | | | | 80 C.Y. |
| 304(13) | CRUSHED AGGREGATE, GOV'T.-FURNISHED, (LOOSE C.Y.) | VQ | C.Y. | | | | | | | | | | | | | 150 C.Y. |
| 306(01) | RECONDITIONING OF ROADBED, COMPACTION A (NATIVE SURFACE) | DQ | MILE | 1.35 | 2.57 | 1.38 | 1.01 | 1.54 | 0.88 | 2.63 | | | 0.30 | | | 22.75 MI. |
| 306(02) | RECONDITIONING OF ROADBED, COMPACTION A (AGGREGATE SURFACE) | DQ | MILE | | | | | | | | | | | | | 23.57 MI. |
| 601(01) | MOBILIZATION | LSQ | L.S. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | ALL REQ'D |
| 603(01) | 18-INCH CORRUGATED STEEL PIPE, 0.064-INCH THICKNESS | AQ | L.F. | | | | | | | | | | | 74 | | 136 L.F. |
| 625(01) | SEEDING, FERTILIZING, AND MULCHING, DRY METHOD | DQ | ACRE | | | | | | | | | 0.25 | | 1.95 | | 4.05 AC. |
| 640(01) | FURNISH & INSTALL 12 FT. STANDARD LIVESTOCK GATE | AQ | EACH | | | | | | | | | | | 1 | | 7 EA. |

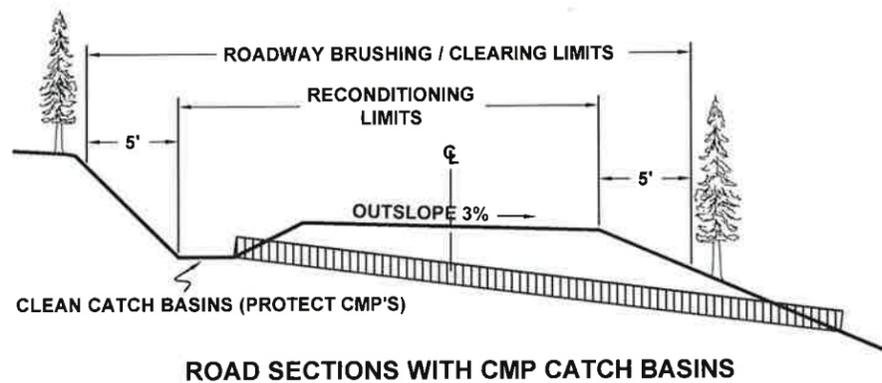
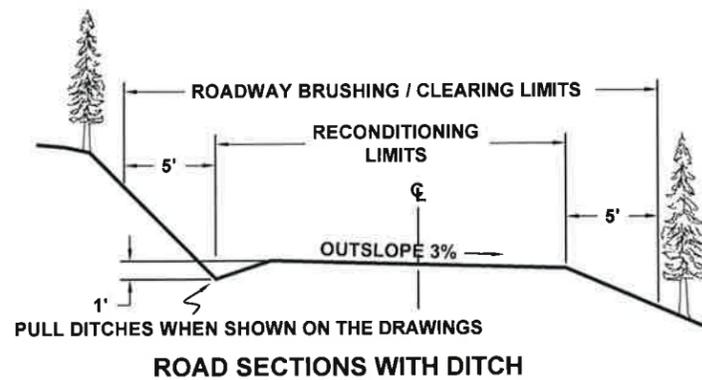
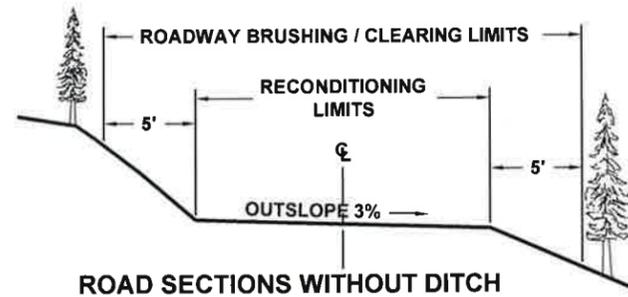
RECONSTRUCTION TYPICAL SECTIONS & GENERAL NOTES

ALL RECONSTRUCTION ROADS

TYPICAL BRUSHING / CLEARING & RECONDITIONING LIMITS

Not to Scale

(SEE SECTION 210 PROJECT SPECIFICATION & GENERAL NOTES)



GENERAL NOTES --- RECONSTRUCTION

1. ITEM 210(01) --- BRUSHING / CLEARING & GRUBBING --- THE QUANTITY OF BRUSH AND SMALL TREES TO BE REMOVED VARIES FROM BEGINNING TO END OF EACH INDIVIDUAL ROAD AND FROM ROAD TO ROAD. LIKEWISE, THE METHODS REQUIRED TO MEET THE INTENT OF THE BRUSHING / CLEARING & GRUBBING SPECIFICATION WILL ALSO VARY. A SUBJECTIVE COMPARISON OF THE OVERALL QUANTITY OF BRUSH AND SMALL TREES ON EACH ROAD IS SHOWN ON THE RECONSTRUCTION ROAD LOGS AND AS FOLLOWS:

| | |
|--------------------------------|--|
| MEDIUM ----- | #2999, #10409, & #10547 |
| MEDIUM TO MEDIUM - HEAVY ----- | #2941 & #2941A |
| MEDIUM - HEAVY ----- | #2824 & #2959 |
| HEAVY ----- | #2830, #2832, #2965, #9851, #9852, & #9855 |
| HEAVY TO EXTRA HEAVY ----- | #9858 & #9859 |

(SEE SECTION 210 PROJECT SPECIFICATION FOR REQUIREMENTS)

NO BRUSHING IS REQUIRED ON THE FOLLOWING ROADS: #2856, #2962, #2964, & #2991.

WHEN THE ROAD LOGS REFER TO ROADS BEING "DRIVABLE" --- IT MEANS THAT IF THE ROAD IS NOT GATED OR CLOSED WITH AN EARTH BERM THE BRUSH AND TREES GROWING ON THE ROADBED WOULD NOT PREVENT THE ROAD FROM BEING DRIVEN BY A HIGH CLEARANCE PICK-UP.

2. ITEM 251(04) --- CLASS 4 RIPRAP SHALL BE OBTAINED FROM THE PATRICK CREEK QUARRY LOCATED ADJACENT TO ROAD #2941 IN THE SW 1/4, SEC. 19, T.27 N., R.21 W. THE RIPRAP IS LOOSE ROCK WITHIN THE QUARRY BOUNDARY.

3. ITEM 304(13) --- CRUSHED AGGREGATE SURFACING SHALL BE OBTAINED FROM THE WEST SIDE OF THE EXISTING STOCKPILE FLOOR AT A DESIGNATED LOCATION IN THE PATRICK CREEK QUARRY LOCATED ADJACENT TO ROAD #2941 IN THE SW 1/4, SEC. 19, T.27 N., R.21 W. COMPACTION METHOD A. CUBIC YARD MEASUREMENT WILL BE MADE IN THE HAULING VEHICLE.

4. ITEM 306(01) --- RECONDITIONING OF ROADBED (NATIVE SURFACE) --- WITH THE EXCEPTION OF GRUBBING TO REMOVE BRUSH AND STUMPS (AS MUCH AS PRACTICAL), SCARIFICATION OF THE ROADBED IS NOT REQUIRED. CUT SOD OFF THE ROADBED AND THE ROAD SHOULDERS FOR DRAINAGE. CLEAN & PULL EXISTING DITCHES WHEN SHOWN ON THE ROAD LOGS. CLEAN CATCH BASINS AND CULVERTS TO DRAIN. RESHAPE AND GRADE ALL EXISTING DRAIN DIPS AND SAG VERTICAL CURVES TO EFFECTIVELY DRAIN WATER FROM THE ROAD SURFACE (OUTSLOPE 5% TO 8%). DISPOSE OF WASTE, OVERSIZE, AND UNSUITABLE MATERIAL ALONG ADJACENT FILL SLOPES.

5. ITEM 306(02) --- RECONDITIONING OF ROADBED (AGGREGATE SURFACE) --- APPLIES TO PATRICK CREEK ROAD #2962, CRAMER CREEK ROAD #2964, AND EMMONS CREEK ROAD #2991 --- CUT SOD AND ANY LIGHT VEGETATION OFF OF THE FILL SIDE ROAD SHOULDERS TAKING CARE TO CONSERVE AS MUCH OF THE AGGREGATE SURFACING MATERIAL AS POSSIBLE. OUTSLOPE THE FILL SIDE ROAD SHOULDER ON INSIDE CURVES AND OTHER EXISTING OUTSLOPED SECTIONS TO FACILITATE DRAINAGE OFF THE ROAD SURFACE. CLEAN CATCH BASINS AND CULVERTS TO DRAIN. RESHAPE AND GRADE ALL EXISTING DRAIN DIPS AND SAG VERTICAL CURVES TO EFFECTIVELY DRAIN WATER FROM THE ROAD SURFACE (OUTSLOPE 5% TO 8%). DISPOSE OF WASTE, OVERSIZE, AND UNSUITABLE MATERIAL ALONG ADJACENT FILL SLOPES AS DIRECTED.

6. ITEM 640(01) --- 12' STANDARD LIVESTOCK GATE --- INSTALL AT DESIGNATED LOCATIONS AS SOON AS PRACTICAL AFTER BRUSHING / CLEARING AND ROADBED RECONDITIONING IS COMPLETE AT THE INSTALLATION SITE. AFTER INSTALLATION, ENSURE VEHICLE ACCESS IS BLOCKED ON BOTH SIDES OF THE GATE BY PLACING ROCKS, STUMPS, ETC., AS DIRECTED.

NEW CONSTRUCTION TYPICAL SECTIONS & GENERAL NOTES

NEW CONSTRUCTION ROADS #2964A, #2964B, & #10409

NOTE: SEE SEPARATE SHEET FOR TYPICAL SECTION & GENERAL NOTES FOR NEW CONSTRUCTION ON AN EXISTING TEMPLATE --- (ROAD #11655)

GENERAL NOTES --- NEW CONSTRUCTION

1. INITIAL CLEARING LIMITS AND CONSTRUCTION STAKES WILL BE SET BY THE GOVERNMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PRESERVE ALL STAKES AND OTHER MARKS SET BY THE GOVERNMENT.

2. ITEM 201(01) --- CLEARING & GRUBBING

UTILIZATION OF TIMBER --- METHOD (1) --- DISPOSE OF MERCHANTABLE TIMBER IN ACCORDANCE WITH THE PROVISIONS OF THE TIMBER SALE CONTRACT.

SLASH TREATMENT --- METHOD (11), PILING --- ALL TOPS & LIMBS, STUMPS, CULL LOGS, AND OTHER VEGETATIVE MATERIAL WITHIN THE CLEARING LIMITS SHALL BE CLEARED, GRUBBED, REMOVED, AND PILED IN CLEAN PILES ADJACENT TO THE CLEARING LIMITS AT DESIGNATED LOCATIONS FOR LATER BURNING BY THE FOREST SERVICE. CLEARING REQUIRED FOR BURNING BAYS IS CONSIDERED INCIDENTAL TO THIS PAY ITEM. PLACE AND CONSTRUCT PILES SO FUTURE BURNING WILL NOT DAMAGE REMAINING TREES.

3. ITEM 202(02) --- EXISTING CORRUGATED METAL PIPE DESIGNATED FOR REMOVAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM NATIONAL FOREST LANDS.

4. ITEM 203(01) --- EXCAVATION, EMBANKMENT & HAUL (PAY ITEM BY THE C.Y.) --- TOLERANCE CLASS G --- EMBANKMENT PLACEMENT METHOD (1) - SIDE CASTING & END DUMPING --- ROADBED FINISHING METHOD A (SHAPE AND FINISH THE ROADBED TO A "MOTOR GRADER FINISH". ROCK PROTRUSIONS LESS THAN 1" ABOVE THE FINISHED ROAD SURFACE WILL BE ALLOWED.

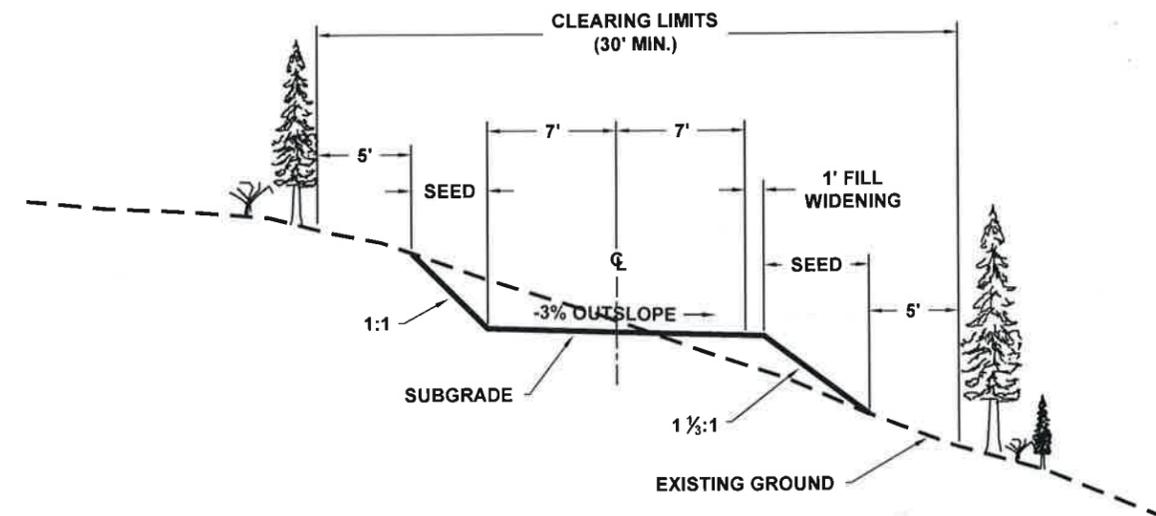
5. ITEM 304(13) --- CRUSHED AGGREGATE SURFACING SHALL BE OBTAINED FROM THE WEST SIDE OF THE EXISTING STOCKPILE FLOOR AT A DESIGNATED LOCATION IN THE PATRICK CREEK QUARRY LOCATED ADJACENT TO ROAD #2941 IN THE SW 1/4, SEC.19, T.27 N., R.21 W. COMPACTION METHOD A. CUBIC YARD MEASUREMENT WILL BE MADE IN THE HAULING VEHICLE.

6. ITEM 625(01) --- SEEDING w/o MULCH --- APPLY SEED AND FERTILIZER AT THE RATES SPECIFIED TO ALL DISTURBED AREAS OUTSIDE OF THE ROAD SHOULDERS (INCLUDES FILL SLOPES, CUT SLOPES, CATCH BASINS, ETC.).

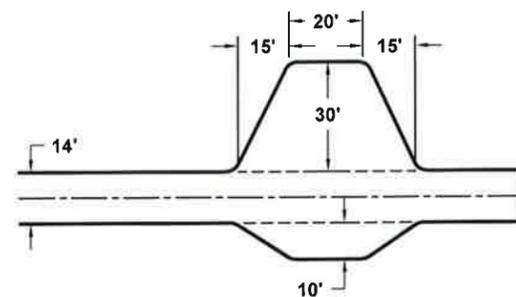
7. ITEM 640(01) --- 12' STANDARD LIVESTOCK GATE --- INSTALL AT DESIGNATED LOCATIONS AS SOON AS PRACTICAL AFTER CLEARING AND EXCAVATION IS COMPLETE AT THE INSTALLATION SITE. AFTER INSTALLATION, ENSURE VEHICLE ACCESS IS BLOCKED ON BOTH SIDES OF THE GATE BY PLACING ROCKS, STUMPS, ETC., AS DIRECTED.

TYPICAL SECTION NEW CONSTRUCTION

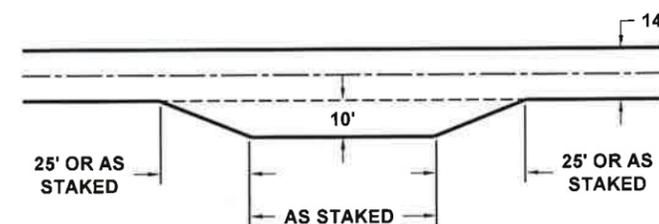
NO SCALE



ROAD SECTIONS WITHOUT DITCH



TURN-A-ROUND



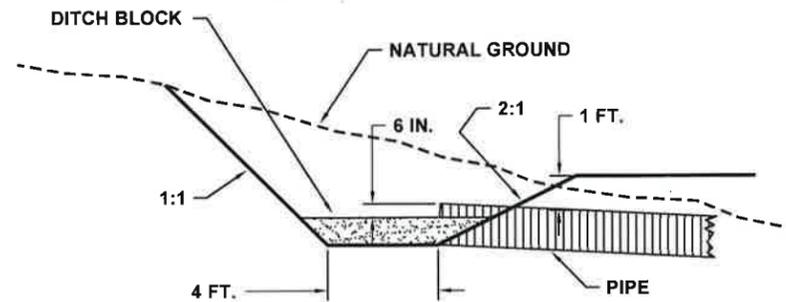
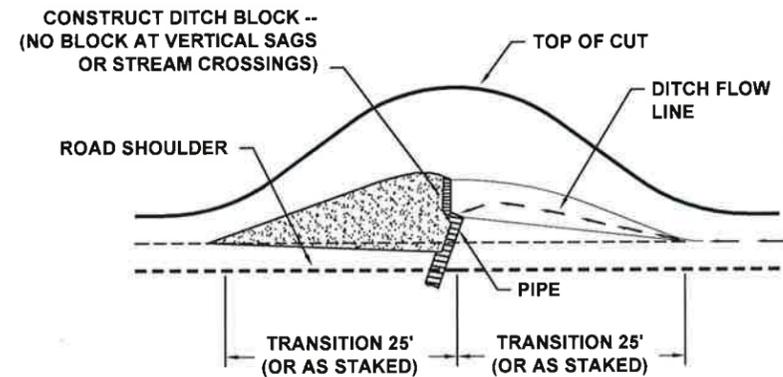
TURNOUT RIGHT OR LEFT

TYPICAL SECTIONS

TYPICALS APPLY TO ALL ROADS WHEN CALLED FOR

CATCH BASIN & DITCH BLOCK TYPICAL

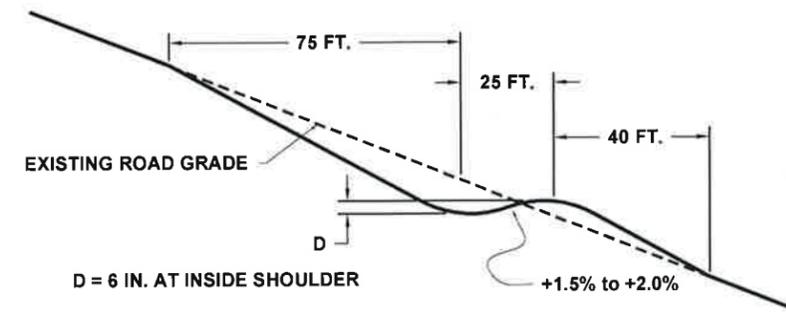
Not to Scale



FOR ALL PIPE INSTALLATIONS, CONSERVE ROCK FROM THE PIPE AND/OR CATCH BASIN EXCAVATION AND PLACE AS RIPRAP AT PIPE INLETS & OUTLETS. ARMOR CATCH BASINS WHEN SHOWN ON THE DRAWINGS. (CONSERVING & PLACING RIPRAP IS CONSIDERED INCIDENTAL TO PIPE INSTALLATION).

DRAIN DIP

Not to Scale



1. CONSTRUCTED DRAIN DIPS SHALL NOT HAVE PROTRUSIONS OR DEPRESSIONS GREATER THAN 2 IN. FROM THE TYPICAL SECTION --- (MOTOR GRADER FINISH).
2. SKEW TROUGH AND CREST OF THE DIP 10 DEGREES FROM PERPENDICULAR TO THE ROAD CENTERLINE.
3. CROSS DRAIN SLOPE OF THE DIP SHALL BE OUTSLOPED 5% TO 8%.
4. ALL DIP TRANSITIONS SHALL BE SHAPED SMOOTH AND UNIFORM AS DIRECTED.
5. CONSERVE ROCK FROM DIP EXCAVATION AND PLACE AT DIP OUTFALL TO SERVE AS ENERGY DISSIPATER.
6. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ON DITCHED ROADS DO NOT INTERCEPT THE DITCH LINE WITH THE DRAIN DIPS.

ROAD #2824 --- (RECONST.)

ROAD #2830 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | | STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | |
|---------|-----------|---|----------------------------------|-----------------------------------|-------------------------------|--|--|-----------|---|----------------------------------|-----------------------------------|-------------------------------|--|
| 0+00 | 0.000 | Junct. w/ Cramer Cr. Rd. #2964 --- Begin Brushing / Clearing --- (Medium - Heavy) --- Mainly 3" Minus Doug Fir & Larch on Road Shoulders (Some 4" Plus Size Stems, Drivable) --- Begin Road Reconditioning --- (Sod - Covered Roadbed --- No Visible Scour) | | ↑ | ↑ | | 0+00 | 0.000 | Junct. w/ Emmons Cr. Rd. #2991 --- Begin Brushing / Clearing --- (Heavy) --- Mainly 3" Minus Doug Fir & Larch on Road Shoulders (Some 4" Plus Size Stems, Barely Drivable) --- Begin Road Reconditioning --- (Sod - Covered Roadbed --- No Visible Scour) | | ↑ | ↑ | |
| 2+10 | 0.040 | Existing Gate --- Begin Ditch Right | | ↑ | ↑ | | 0+75 | 0.014 | Remove Existing Earth Berm | 1 | ↑ | ↑ | |
| 8+55 | 0.162 | Existing 18" CMP --- Dry Draw --- End Ditch Right --- Sag Vertical Curve | | ↑ | ↑ | | 3+05 | 0.058 | Remove 2nd Existing Earth Berm | 1 | ↑ | ↑ | |
| 9+08 | 0.172 | Crest Vertical Curve | | ↑ | ↑ | | 3+20 | 0.061 | Existing Gate (Preserve) | | ↑ | ↑ | |
| 31+68 | 0.600 | Sag Vertical Curve | | ↑ | ↑ | | 9+60 | 0.182 | Crest Vertical Curve | | ↑ | ↑ | |
| 33+95 | 0.643 | Crest Vertical Curve | | ↑ | ↑ | | 13+90 | 0.263 | Sag Vertical Curve | | ↑ | ↑ | |
| 43+93 | 0.832 | Sag Vertical Curve | | ↑ | ↑ | | 26+00 | 0.492 | Reshape Existing Drain Dip Intermittent Vertical and Crest Curves Ahead to 58+00 | | ↑ | ↑ | |
| 47+78 | 0.905 | Crest Vertical Curve | | ↑ | ↑ | | 58+00 | 1.098 | Junct. w/ OHV Trail Coming up the Road fill slope | | ↑ | ↑ | |
| 51+64 | 0.978 | Sag Vertical Curve | | ↑ | ↑ | | 65+20 | 1.235 | Cutting Unit #212 Boundary | | ↑ | ↑ | |
| 52+80 | 1.000 | Crest Vertical Curve | | ↑ | ↑ | | 66+55 | 1.260 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| 54+80 | 1.038 | Sag Vertical Curve | | ↑ | ↑ | | 67+05 | 1.270 | Cutting Unit #212 & #212C Boundary | | ↑ | ↑ | |
| 56+60 | 1.072 | Crest Vertical Curve | | ↑ | ↑ | | 76+00 | 1.439 | Existing 18" CMP --- Dry Draw --- Sag Vertical Curve | | ↑ | ↑ | |
| 59+50 | 1.127 | Sag Vertical Curve | | ↑ | ↑ | | 79+05 | 1.497 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| 60+88 | 1.153 | Crest Vertical Curve | | ↑ | ↑ | | 84+60 | 1.602 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| 63+78 | 1.208 | Sag Vertical Curve | | ↑ | ↑ | | 90+90 | 1.722 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| 65+10 | 1.233 | Crest Vertical Curve | | ↑ | ↑ | | 97+10 | 1.839 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| 69+17 | 1.310 | Cutting Unit #229 --- End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | | 104+35 | 1.976 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| | | ESTIMATED QUANTITIES FOR ROAD #2824 | | | | | 107+50 | 2.036 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| | | 210(01) BRUSHING / CLEARING ----- | | 1.31 Mi | | | 108+35 | 2.052 | Sec. Cor. $\frac{36}{8 \cdot 5}$ (Limestone Rock) --- Approx. 25' Above Top of Cut | | ↑ | ↑ | |
| | | 306(01) ROAD RECONDITIONING ----- | | | 1.31 Mi | | 110+35 | 2.090 | Cutting Unit #214 --- End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | |
| | | | | | | | ESTIMATED QUANTITIES FOR ROAD #2830 | | | | | | |
| | | | | | | | 202(03) REMOVAL OF EARTH BERM ----- | | 2 EA | | | | |
| | | | | | | | 210(01) BRUSHING / CLEARING ----- | | | 2.09 Mi | | | |
| | | | | | | | 306(01) ROAD RECONDITIONING ----- | | | | 2.09 Mi | | |

ROAD #2832 --- (RECONST.)

ROAD #2856 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | 640(01) Livestock Gate | STATION | MILE POST | WORK DESCRIPTION | 306(01) Roadbed Recond. |
|---|-----------|--|----------------------------------|-----------------------------------|-------------------------------|------------------------------|--|-----------|---|-------------------------------|
| 0+00 | 0.000 | Junct. w/ Cramer Cr. Rd. #2964 --- Begin Brushing / Clearing --- (Heavy) Mainly 4" Minus Doug Fir, Larch, & Brush on Road & Shoulders (Some 4" Plus Size Stems, Not Drivable) --- Begin Road Reconditioning --- (Sod - Covered Roadbed --- No Visible Scour) --- Begin 1' Ditch Right | | ↑ | ↑ | | 0+00 | 0.000 | Junct. w/ Cramer Cr. Rd. #2964 --- No Brushing is Required --- Year-Long Open Road --- Begin Road Reconditioning --- (Rough Road w/ Rocks & Potholes) --- Reshape All Existing Sag Vertical Curves to Drain | ↑ |
| 2+85 | 0.054 | Remove Existing Earth Berm Furnish & Install 12' Standard Livestock Gate | 1 | | | 1 | 42+87 | 0.812 | Existing 18" CMP --- Dry Draw | |
| 3+70 | 0.070 | Remove 2nd Existing Earth Berm | 1 | | | | 62+04 | 1.175 | Existing 18" CMP --- Dry Draw | |
| 4+40 | 0.083 | Remove 3rd Existing Earth Berm | 1 | | | | 68+11 | 1.290 | Existing Turn-A-Round --- End Road --- Temporary Road Take-Off End Road Reconditioning | ↓ |
| 4+65 | 0.088 | Existing 18" CMP --- Ditch Relief | | | | | ESTIMATED QUANTITIES FOR ROAD #2856 | | | |
| 10+75 | 0.204 | Existing 18" CMP --- Ditch Relief | | | | | 306(01) ROAD RECONDITIONING ----- 1.29 Mi | | | |
| 17+40 | 0.330 | End 1' Ditch Right | | | | | | | | |
| 33+00 | 0.625 | Sag Vertical Curve | | | | | | | | |
| 34+50 | 0.653 | Crest Vertical Curve | | | | | | | | |
| 45+70 | 0.866 | Sag Vertical Curve | | | | | | | | |
| 47+40 | 0.898 | Crest Vertical Curve | | | | | | | | |
| 48+60 | 0.920 | Sag Vertical Curve | | | | | | | | |
| 50+00 | 0.947 | Crest Vertical Curve | | | | | | | | |
| 51+80 | 0.981 | Sag Vertical Curve | | | | | | | | |
| 52+85 | 1.001 | Crest Vertical Curve | | | | | | | | |
| 55+00 | 1.042 | Cutting Unit #238 & Unit #240 Boundaries | | | | | | | | |
| 56+05 | 1.062 | Sag Vertical Curve | | | | | | | | |
| 57+05 | 1.080 | Crest Vertical Curve | | | | | | | | |
| 58+40 | 1.106 | Sag Vertical Curve | | | | | | | | |
| 59+10 | 1.119 | Crest Vertical Curve | | | | | | | | |
| 65+50 | 1.240 | Cutting Unit #240 --- End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | | | | | |
| ESTIMATED QUANTITIES FOR ROAD #2832 | | | | | | | | | | |
| 202(03) REMOVAL OF EARTH BERM ----- 3 EA | | | | | | | | | | |
| 210(01) BRUSHING / CLEARING ----- 1.24 Mi | | | | | | | | | | |
| 306(01) ROAD RECONDITIONING ----- 1.24 Mi | | | | | | | | | | |
| 640(01) FURNISH & INSTALL LIVESTOCK GATE ----- 1 EA | | | | | | | | | | |

ROAD #2941 --- (RECONST.)

ROAD #2941 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | 640(01) Livestock Gate | STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | 640(01) Livestock Gate |
|---------|-----------|--|----------------------------------|-----------------------------------|-------------------------------|------------------------------|---|-----------|--|----------------------------------|-----------------------------------|-------------------------------|------------------------------|
| 0+00 | 0.000 | Junct. w/ Patrick Cr. Rd. #2962 -- Begin Brushing / Clearing --- (Medium to Med. - Heavy) --- Mainly 4" Minus Doug Fir in Ditch & on Cut Side (Some 4" Plus Size Stems, Drivable) --- Begin Road Reconditioning --- (Sod on Shoulders) --- No Visible Scour --- Begin 1' Ditch Right | | ↑ | ↑ | | 64+40 | 1.220 | Reshape Existing Drain Dip | | ↑ | ↑ | |
| | | | | ↓ | ↓ | | 66+85 | 1.266 | Reshape Existing Drain Dip | | ↓ | ↓ | |
| 0+65 | 0.012 | Remove Existing Earth Berm | 1 | ↓ | ↓ | | 69+15 | 1.310 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | |
| 1+35 | 0.026 | Remove 2nd Existing Earth Berm Furnish & Install 12' Standard Livestock Gate | 1 | ↓ | ↓ | 1 | 71+15 | 1.348 | Reshape Existing Drain Dip | | ↓ | ↓ | |
| 6+25 | 0.118 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | 74+25 | 1.406 | Reshape Existing Drain Dip | | ↓ | ↓ | |
| 7+55 | 0.143 | Reshape Existing Drain Dip | | ↓ | ↓ | | 77+50 | 1.468 | End 1' Ditch Left | | ↓ | ↓ | |
| 11+75 | 0.223 | End 1' Ditch Right | | ↓ | ↓ | | 82+20 | 1.557 | Existing 18" CMP | | ↓ | ↓ | |
| 13+00 | 0.246 | Existing Patrick Cr. Quarry | | ↓ | ↓ | | 82+75 | 1.567 | Reshape Existing Drain Dip | | ↓ | ↓ | |
| 18+60 | 0.352 | Reshape Existing Drain Dip | | ↓ | ↓ | | 86+40 | 1.636 | Reshape Existing Drain Dip | | ↓ | ↓ | |
| 26+35 | 0.499 | Reshape Existing Drain Dip | | ↓ | ↓ | | 96+75 | 1.636 | Reshape Existing Drain Dip | | ↓ | ↓ | |
| 26+70 | 0.506 | Existing 18" CMP --- Begin 1' Ditch Left | | ↓ | ↓ | | 99+30 | 1.881 | Turn-A-Round (Old Log Landing) | | ↓ | ↓ | |
| 32+10 | 0.608 | Reshape Existing Drain Dip | | ↓ | ↓ | | 99+80 | 1.890 | End Brushing / Clearing & Road Reconditioning --- Temp. Rd. Take-off | | ↓ | ↓ | |
| 32+25 | 0.611 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | ESTIMATED QUANTITIES FOR ROAD #2941 | | | | | | |
| 35+00 | 0.663 | Reshape Existing Drain Dip | | ↓ | ↓ | | 202(03) REMOVAL OF EARTH BERM ----- 2 EA | | | | | | |
| 37+60 | 0.712 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | 210(01) BRUSHING / CLEARING ----- 1.89 Mi | | | | | | |
| 38+30 | 0.725 | Reshape Existing Drain Dip | | ↓ | ↓ | | 306(01) ROAD RECONDITIONING ----- 1.89 Mi | | | | | | |
| 42+35 | 0.802 | Junct. w/ Rd. #2941A Left | | ↓ | ↓ | | 640(01) FURNISH & INSTALL LIVESTOCK GATE ----- 1 EA | | | | | | |
| 42+70 | 0.809 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | | | | | | | |
| 43+15 | 0.817 | Reshape Existing Drain Dip | | ↓ | ↓ | | | | | | | | |
| 48+10 | 0.911 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | | | | | | | |
| 48+70 | 0.922 | Reshape Existing Drain Dip | | ↓ | ↓ | | | | | | | | |
| 54+15 | 1.026 | Reshape Existing Drain Dip | | ↓ | ↓ | | | | | | | | |
| 54+45 | 1.031 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | | | | | | | |
| 56+25 | 1.065 | Reshape Existing Drain Dip | | ↓ | ↓ | | | | | | | | |
| 61+55 | 1.166 | Existing 18" CMP --- Ditch Relief | | ↓ | ↓ | | | | | | | | |
| 62+50 | 1.184 | Reshape Existing Drain Dip | | ↓ | ↓ | | | | | | | | |

ROAD #2941A --- (RECONST.)

ROAD #2959 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | | STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | 640(01) Livestock Gate |
|---|-----------|---|---------|-----------------------------------|-------------------------------|--|--|--|---|----------------------------------|-----------------------------------|-------------------------------|------------------------------|
| 0+00 | 0.000 | Junct. w/ Rd. #2941 --- Begin Brushing / Clearing --- (Medium to Med. - Heavy) --- Mainly 4" Minus Doug Fir in Ditch & on Cut Side (Some 4" Plus Size Stems, Drivable) --- Begin Road Reconditioning --- (Sod on Road Shoulders) --- Very Little Scour --- Begin 1' Ditch Right to E.O.P. | | ↑ | ↑ | | 0+00 | 0.000 | Junct. w/ Cramer Cr. Rd. #2964 --- Begin Brushing / Clearing --- (Med. - Heavy) --- Mainly 4" Minus Doug Fir, Larch, & Brush on Road & Shoulders (Some 4" Plus Size Stems, Not Drivable) --- Begin Road Reconditioning --- (Sod - Covered Roadbed) --- No Visible Scour | | ↑ | ↑ | |
| 3+50 | 0.066 | Existing 18" CMP --- Ditch Relief | | | | | 1+25 | 0.024 | Remove Existing Earth Berm Furnish & Install 12' Standard Livestock Gate | 1 | | | 1 |
| 5+40 | 0.102 | Reshape Existing Drain Dip | | | | | 2+70 | 0.051 | Remove 2nd Existing Earth Berm | 1 | | | |
| 7+85 | 0.149 | Existing 18" CMP --- Ditch Relief | | | | | 3+50 | 0.066 | Remove 3rd Existing Earth Berm | 1 | | | |
| 8+20 | 0.155 | Reshape Existing Drain Dip | | | | | 30+00 | 0.568 | Cutting Unit #234 Boundary Below Road | | | | |
| 11+70 | 0.222 | Reshape Existing Drain Dip | | | | | 33+30 | 0.631 | Cutting Unit #235 Boundary Above Road | | | | |
| 13+40 | 0.254 | Existing 18" CMP --- Ditch Relief | | | | | 35+70 | 0.676 | Cutting Unit #234 Boundary Below Road | | | | |
| 15+00 | 0.284 | Reshape Existing Drain Dip | | | | | 38+55 | 0.730 | Sag Vertical Curve | | | | |
| 18+05 | 0.342 | Existing 18" CMP --- Sag Vertical Curve | | | | | 41+50 | 0.786 | Crest Vertical Curve | | | | |
| 19+00 | 0.360 | Cutting Unit #206 Boundary --- Turn-A-Round End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | | 44+40 | 0.841 | Cutting Unit #236 Boundary Below Road | | | | |
| ESTIMATED QUANTITIES FOR ROAD #2941A | | | | | | | 61+80 | 0.841 | Cutting Unit #236 Boundary Below Road | | | | |
| | | 210(01) BRUSHING / CLEARING ----- | 0.36 Mi | | | | 62+40 | 1.182 | Cutting Unit #238 Boundary Above Road | | | | |
| | | 306(01) ROAD RECONDITIONING ----- | 0.36 Mi | | | | 75+35 | 1.427 | Cutting Unit #238 Boundary Above Road Existing 18" CMP --- Dry Draw | | | | |
| | | | | | | | 76+03 | 1.440 | Cutting Unit #237 Boundary Below Road (Last Unit on the Road) End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | |
| | | | | | | | Note: There is a Good Turn-A-Round 530' ahead on the Ridge Point | | | | | | |
| | | | | | | | ESTIMATED QUANTITIES FOR ROAD #2959 | | | | | | |
| | | | | | | | | 202(03) REMOVAL OF EARTH BERM ----- | 3 EA | | | | |
| | | | | | | | | 210(01) BRUSHING / CLEARING ----- | 1.44 Mi | | | | |
| | | | | | | | | 306(01) ROAD RECONDITIONING ----- | 1.44 Mi | | | | |
| | | | | | | | | 640(01) FURNISH & INSTALL LIVESTOCK GATE ----- | 1 EA | | | | |

PATRICK CREEK ROAD #2962 --- (RECONST.)

CRAMER CREEK ROAD #2964 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | | | 306(02) Roadbed Recond. | STATION | MILE POST | WORK DESCRIPTION | 202(02) 18" CMP Removal | 306(02) Roadbed Recond. | 603(01) 18" CSP |
|---|-----------|--|--|--|--|---|-----------|--|-------------------------------|--|--------------------|
| 0+00 | 0.000 | Begin Patrick Cr. County Road | | | ↑ 306(02) Roadbed Reconditioning ↓ | 0+00 | 0.000 | End County Road --- Begin Forest Service Jurisdiction --- Open All Year No Brushing is Required --- Begin Road Reconditioning --- { Aggregate Surfaced Roadbed } --- Reshape All Existing Drain Dips and Sag Vertical Curves to Drain Water from the Road Surface (See General Notes) | | ↑ 306(02) Roadbed Recond. ↓ Road Reconditioning | |
| 106+30 | 2.013 | End County Road --- Begin Forest Service Jurisdiction --- Open All Year No Brushing is Required --- Begin Road Reconditioning --- { Aggregate Surfaced Roadbed } --- Reshape All Existing Drain Dips and Sag Vertical Curves to Drain Water from the Road Surface (See General Notes) | | | | 51+75 | 0.980 | Remove Existing 18" CMP Install 18" x 30' CSP --- Same Location & Skew as Removed CMP --- Set New Pipe Deeper to Achieve a Minimum 1' of Cover Over the Inside Road Shoulder --- { Buried Utilities - Call U-Dig Prior to Exc. } | 1 | | 30' |
| 179+30 | 3.396 | Junct. w/ Upper Boundary Road #2999 Left | | | | 89+60 | 1.697 | Enter National Forest Land | | | |
| 179+30 | 4.692 | Junct. w/ West Fork Patrick Road #2962A Right | | | | 124+90 | 2.366 | Junct. w/ Cramer Southside Road #10547 Left | | | |
| 250+20 | 4.739 | Junct. w/ Lower Lion Road #2941 Left | | | | 177+40 | 3.360 | Junct. w/ Cramer A Road #2964A (Design New Construction) Right | | | |
| 372+60 | 7.057 | Junct. w/ West Patrick Road #2884 Right | | | | 270+10 | 5.116 | Junct. w/ Cramer B Road #2964B (Design New Construction) Right | | | |
| 405+45 | 7.679 | Junct. w/ Emmons Cr. Road #2991 Right Switchback Left | | | | 284+15 | 5.382 | Junct. w/ Lower Baldy Road #2824 Left | | | |
| 420+95 | 7.973 | Cutting Unit #212 Boundary --- Existing Turnout End Road Reconditioning | | | | 347+05 | 6.573 | Junct. w/ East Fork Stoner Road #2965 Left | | | |
| | | No Work Ahead to E.O.P. from M.P. 7.683 to M.P. 9.922 (This Segment of Road #2962 Not Used as a Haul Road) | | | | 355+50 | 6.733 | Junct. w/ Mid Lion Road #2856 Right | | | |
| 523+90 | 9.922 | Junct. w/ Cramer Cr. Road #2964, Upper Stoner Road #2832, & Middle Stoner Road #2959 | | | | 412+35 | 7.810 | Junct. w/ Patrick Cr. Road #2962, Upper Stoner Road #2832, & Middle Stoner Road #2959 End Road Reconditioning | | | |
| ESTIMATED QUANTITIES FOR ROAD #2962 | | | | | | ESTIMATED QUANTITIES FOR ROAD #2964 | | | | | |
| 306(02) ROAD RECONDITIONING ----- 5.96 Mi | | | | | | 202(02) REMOVAL OF 18" CMP ----- 1 EA | | | | | |
| | | | | | | 306(02) ROAD RECONDITIONING ----- 7.81 Mi | | | | | |
| | | | | | | 603(01) 18" CORRUGATED STEEL PIPE ----- 30 LF | | | | | |

CRAMER A #2964A

USE 475 Cu.Yds. EXCAVATION FROM RD. #2964A TO CONSTRUCT TOR ADJACENT TO CRAMER CR. RD. #2964

INSTALL 18" x 32" CSP CONSTRUCT CATCH BASIN 70° SKEW

PLACE 80 Cu.Yds. CRUSHED AGGREGATE (AS DIRECTED)

REMOVE EXISTING 18" CSP

1+05 INSTALL STANDARD LIVESTOCK GATE

3+75 DRAIN DIP

EXISTING CRAMER CREEK ROAD #2964

DESIGN CUT SLOPE

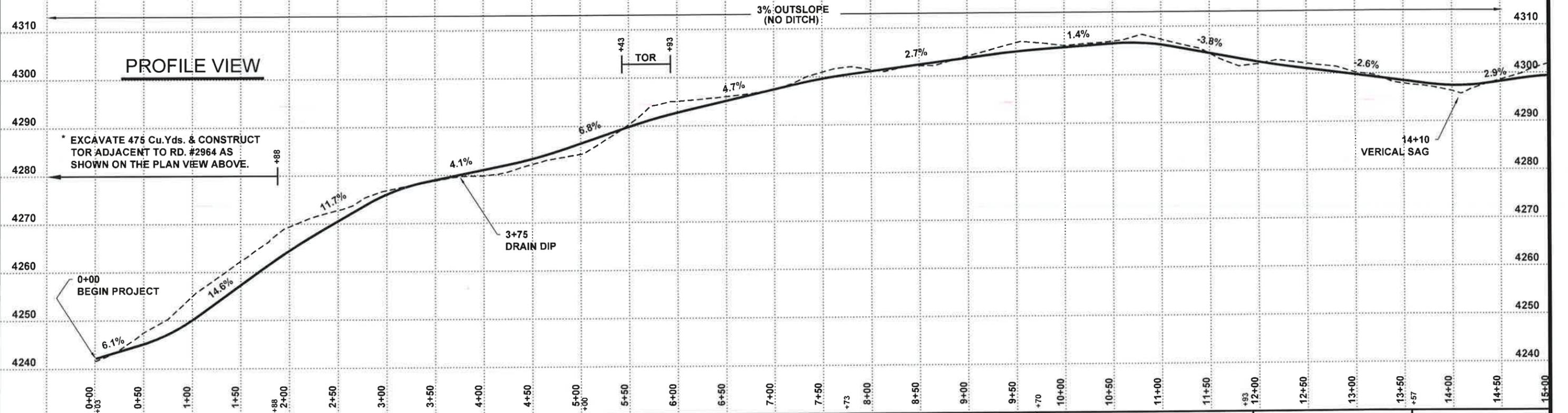
DESIGN FILL SLOPE

PLAN VIEW



SCALE
CONTOUR INTERVAL = 2 FT.

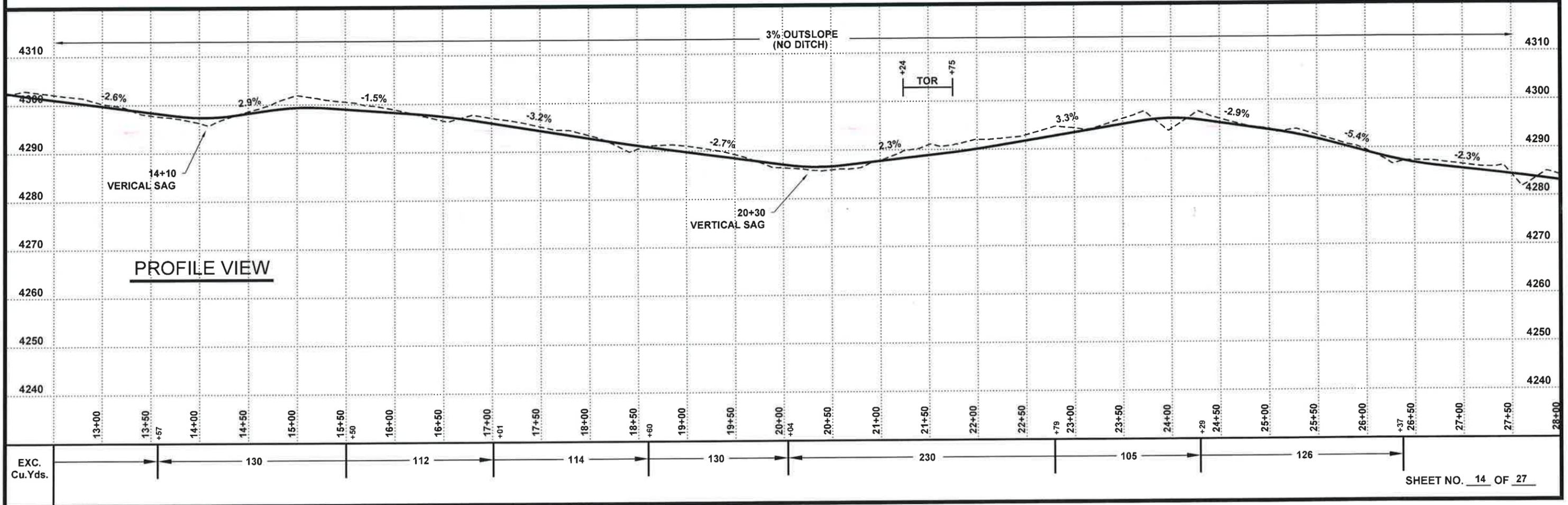
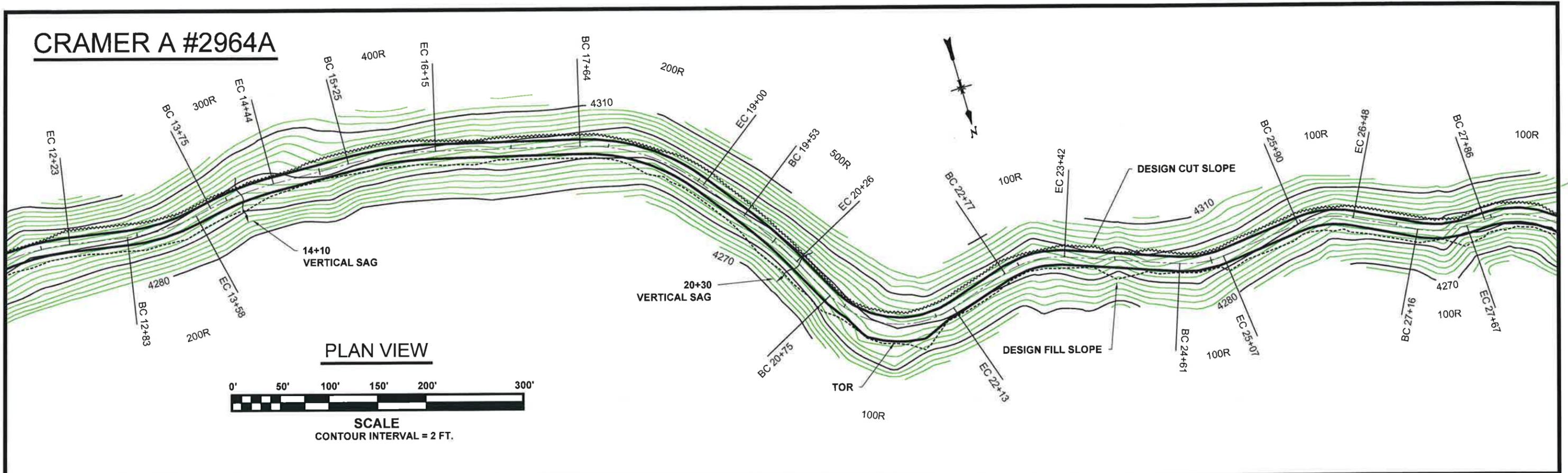
PROFILE VIEW



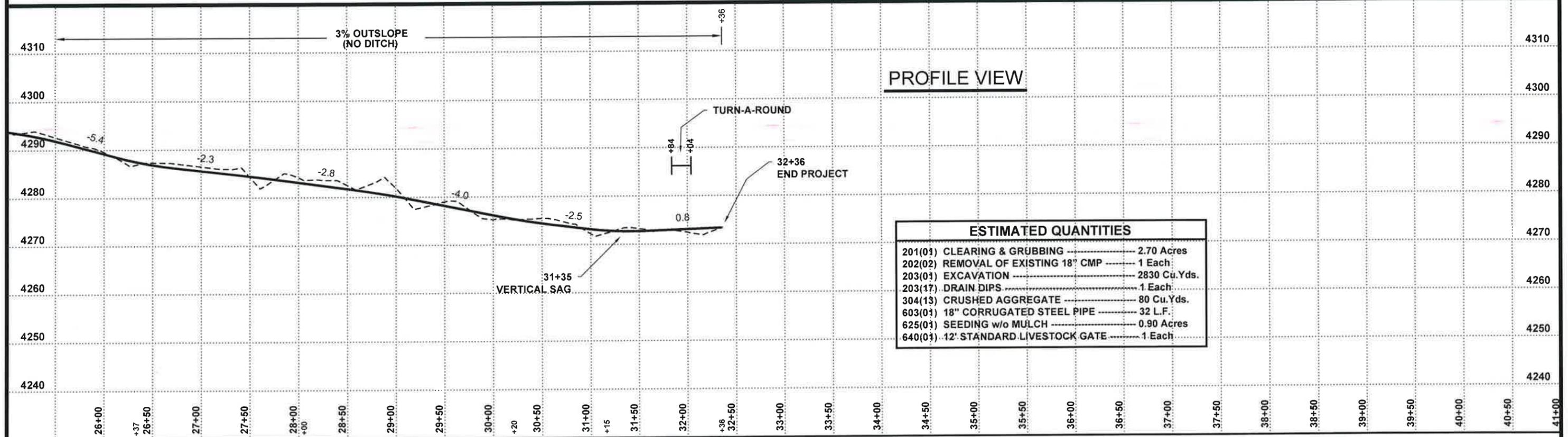
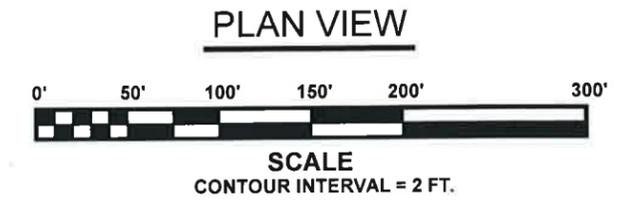
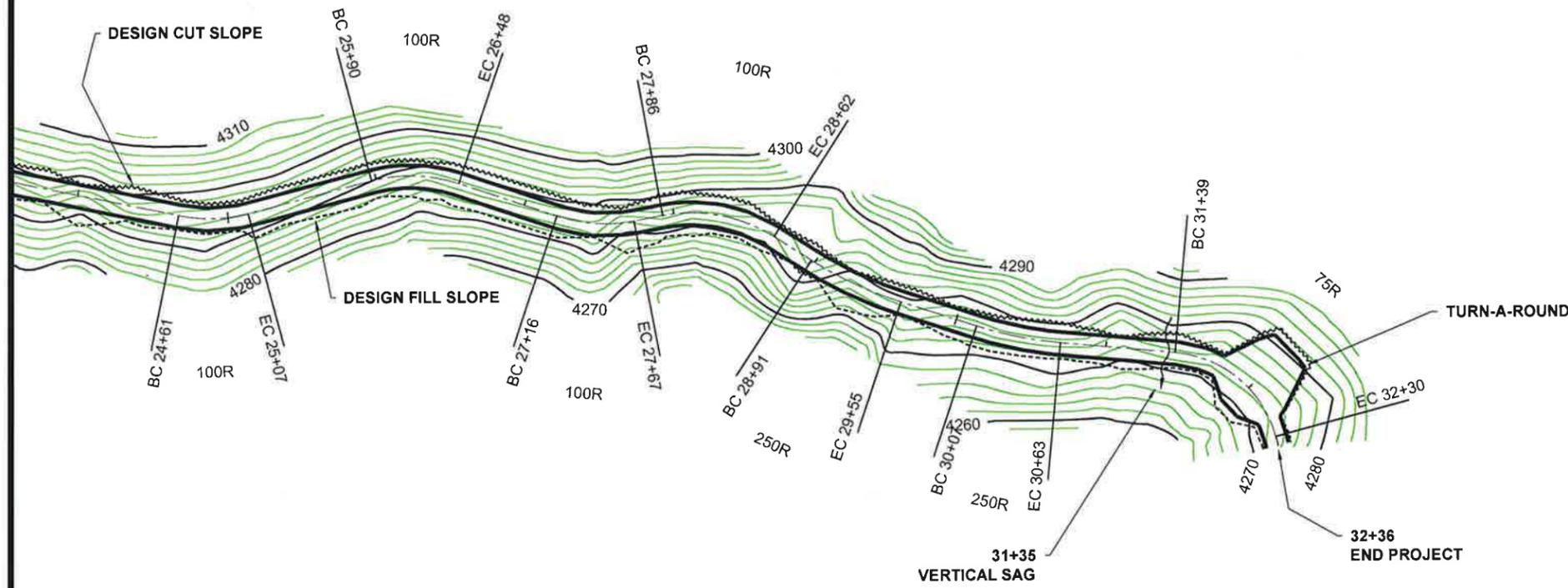
EXC. Cu.Yds.



CRAMER A #2964A



CRAMER A #2964A

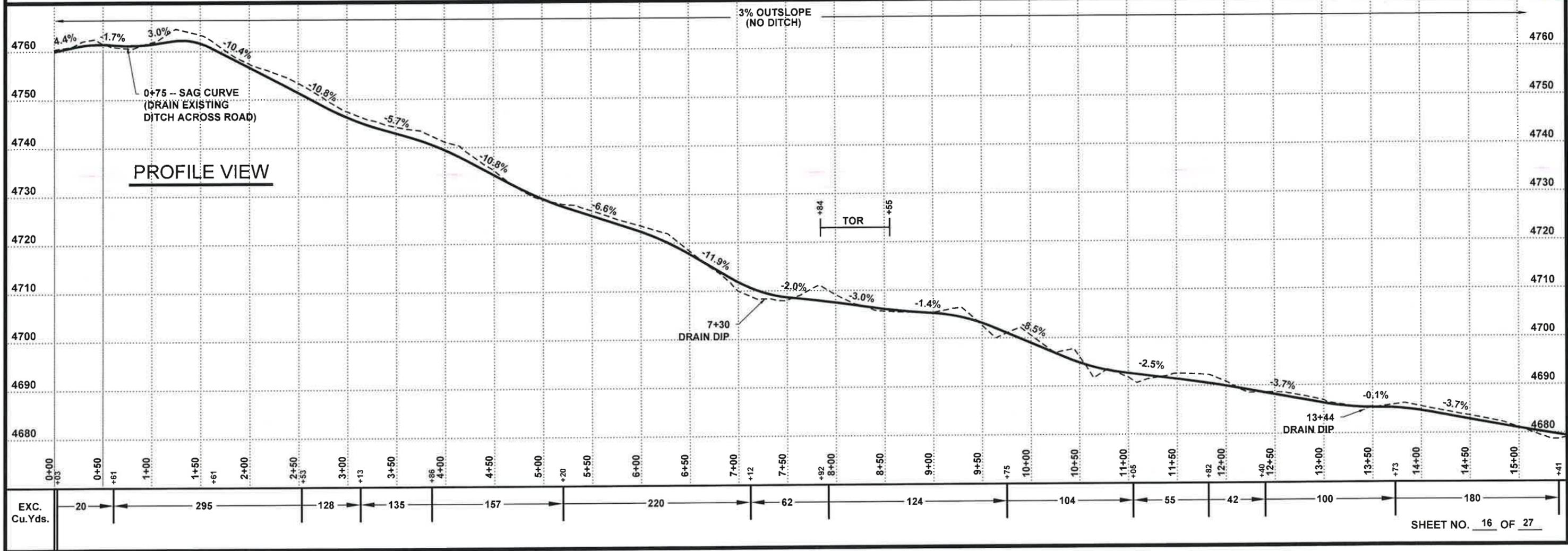
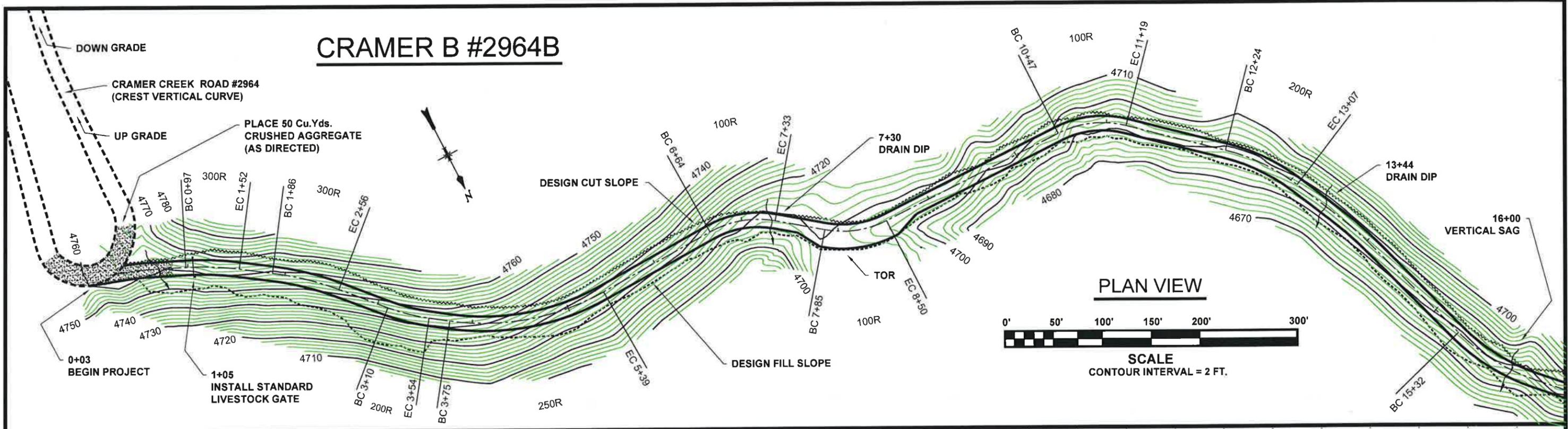


ESTIMATED QUANTITIES

| | |
|-------------------------------------|--------------|
| 201(01) CLEARING & GRUBBING | 2.70 Acres |
| 202(02) REMOVAL OF EXISTING 18" CMP | 1 Each |
| 203(01) EXCAVATION | 2830 Cu.Yds. |
| 203(17) DRAIN DIPS | 1 Each |
| 304(13) CRUSHED AGGREGATE | 80 Cu.Yds. |
| 603(01) 18" CORRUGATED STEEL PIPE | 32 L.F. |
| 625(01) SEEDING w/o MULCH | 0.90 Acres |
| 640(01) 12' STANDARD LIVESTOCK GATE | 1 Each |

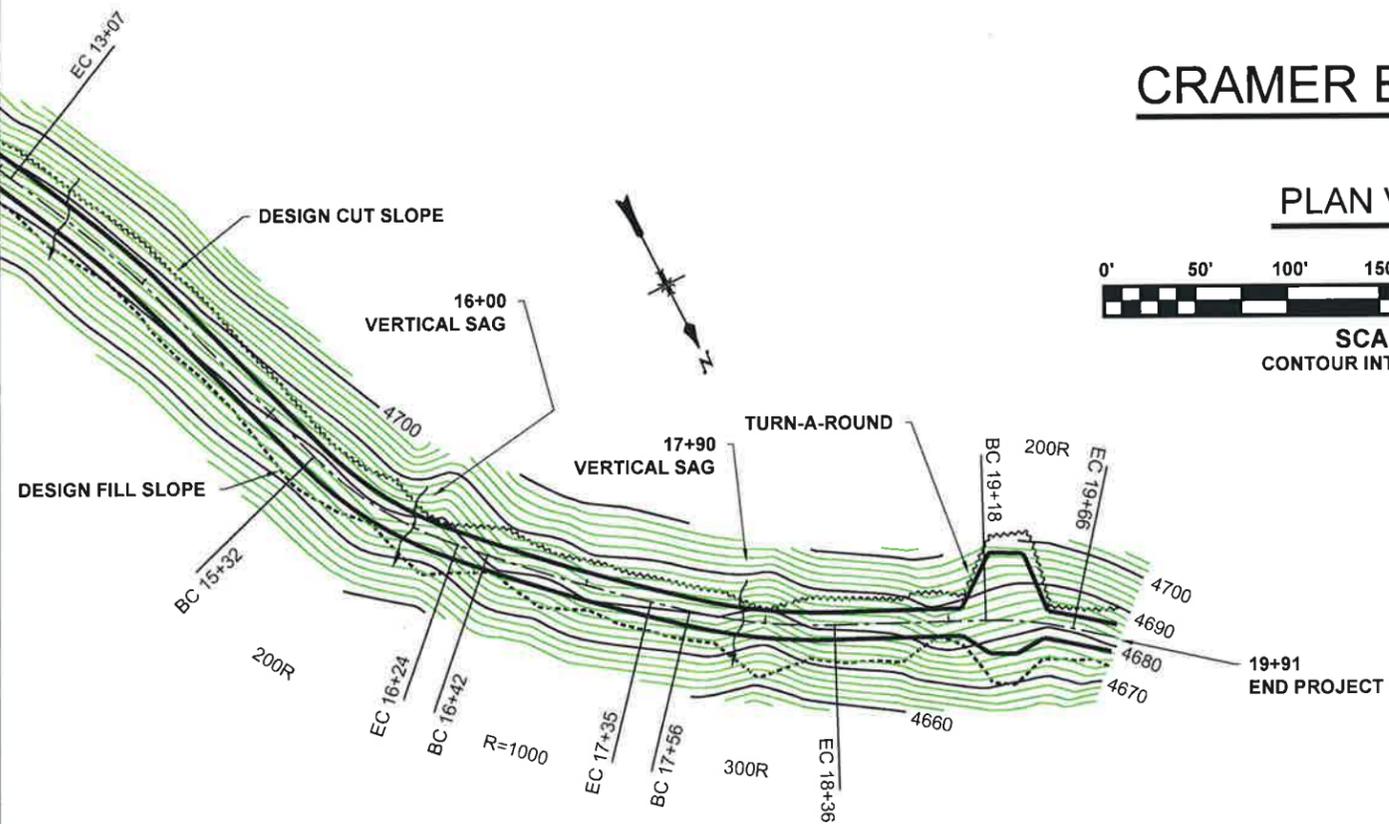
| | | | | | |
|--------------|-----|-----|----|-----|-------------------------|
| EXC. Cu.Yds. | 125 | 164 | 60 | 121 | 2830 CU.YDS. EXCAVATION |
|--------------|-----|-----|----|-----|-------------------------|

CRAMER B #2964B

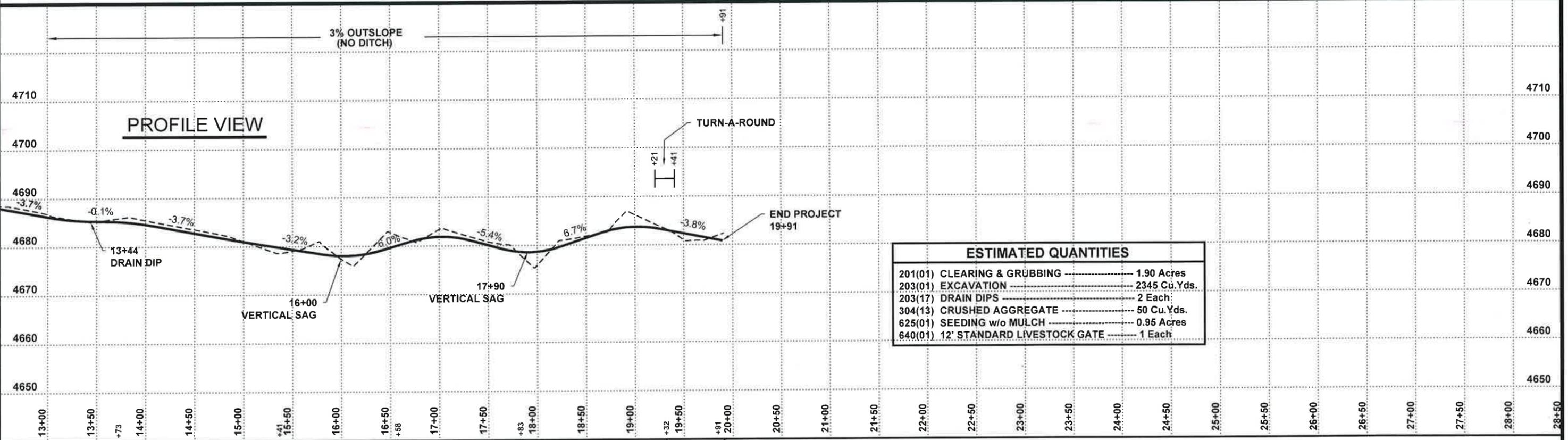


CRAMER B #2964B

PLAN VIEW



PROFILE VIEW



| ESTIMATED QUANTITIES | |
|-------------------------------------|--------------|
| 201(01) CLEARING & GRUBBING | 1.90 Acres |
| 203(01) EXCAVATION | 2345 Cu.Yds. |
| 203(17) DRAIN DIPS | 2 Each |
| 304(13) CRUSHED AGGREGATE | 50 Cu.Yds. |
| 625(01) SEEDING w/o MULCH | 0.95 Acres |
| 640(01) 12' STANDARD LIVESTOCK GATE | 1 Each |

| | | | | | | |
|--------------|----------------------|-----|-----|-----|-----|-------------------------|
| EXC. Cu.Yds. | (SEE PREVIOUS SHEET) | 118 | 130 | 295 | 180 | 2345 CU.YDS. EXCAVATION |
|--------------|----------------------|-----|-----|-----|-----|-------------------------|

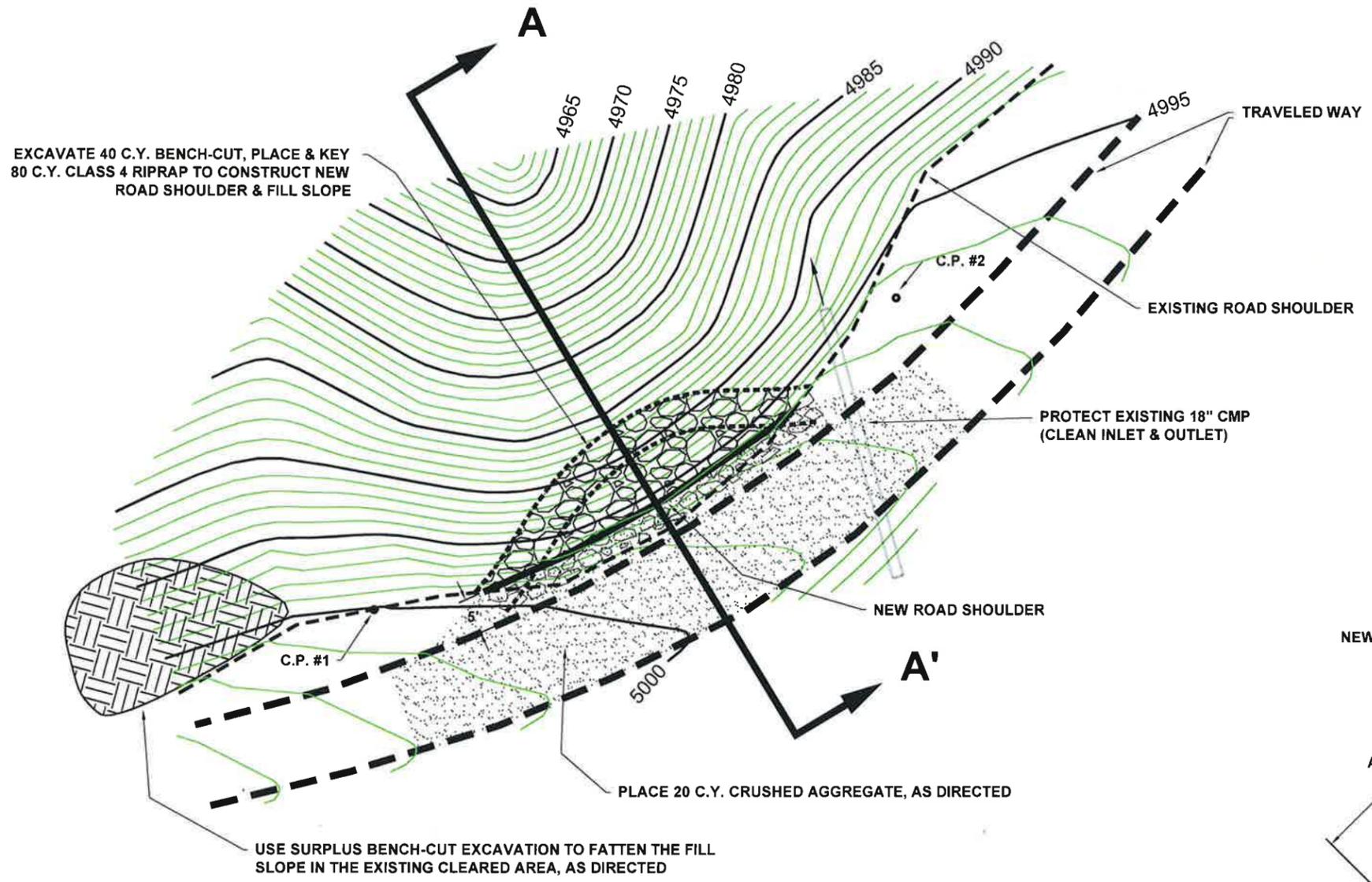
ROAD #2965 --- (RECONST.)

EMMONS CREEK ROAD #2991 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 202(03) Earth Berm Removal | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | 640(01) Livestock Gate | STATION | MILE POST | WORK DESCRIPTION | 203(01) Excavation | 251(04) Keyed Riprap | 304(13) Crushed Aggregate | 306(02) Roadbed Recond. |
|---------|-----------|--|----------------------------------|-----------------------------------|-------------------------------|------------------------------|---------|-----------|---|-----------------------|----------------------------|---------------------------------|-------------------------------|
| 0+00 | 0.000 | Junct. w/ Cramer Cr. Rd. #2964 --- Begin Brushing / Clearing --- (Heavy) Mainly 3" Minus Doug Fir, Larch, & Brush on Road & Shoulders (Some 4" Plus Size Stems, 2nd Half of Road Not Drivable) --- Begin Road Reconditioning --- (Sod - Covered Roadbed) --- No Visible Scour | | ↑ | ↑ | | 0+00 | 0.000 | Junct. w/ County Road #916 --- Begin F.S. Jurisdiction --- Open All Year No Brushing is Required --- Begin Road Reconditioning --- (Aggregate Surfaced Roadbed) --- Reshape All Existing Drain Dips and Sag Vertical Curves to Drain Water from the Road Surface (See General Notes) | | | | ↑ |
| 1+00 | 0.019 | Remove Existing Earth Berm Furnish & Install 12' Standard Livestock Gate | 1 | | | | 66+20 | 1.254 | Junct. w/ Mid Truman Blacktail Road #9851 Right | | | | ↑ |
| 1+90 | 0.036 | Remove 2nd Existing Earth Berm | 1 | | | | 136+95 | 2.594 | Junct. w/ Emmons Truman Road #9858 Right | | | | ↑ |
| 3+75 | 0.071 | Sag Vertical Curve | | | | | 258+75 | 4.901 | Junct. w/ Lower North Emmons Road #5248 Left | | | | ↑ |
| 5+50 | 0.104 | Crest Vertical Curve | | | | | 341+00 | 6.458 | Junct. w/ Mid North Emmons Road #11655 (Design New Const.) Right | | | | ↑ |
| 6+05 | 0.115 | Remove 3rd Existing Earth Berm | 1 | | | | 485+75 | 9.200 | Junct. w/ Patrick Knob Road #2830 Right End Road Reconditioning for this Segment of Road #2991 | | | | ↓ |
| 8+25 | 0.156 | Sag Vertical Curve | | | | | | | No Work Ahead from M.P. 9.200 to M.P. 9.930 (This Segment of Road #2991 Not Used as a Haul Road) | | | | |
| 10+40 | 0.197 | Crest Vertical Curve | | | | | 524+30 | 9.930 | Begin Road Reconditioning for this Segment of Road #2991 Existing Cutting Unit #211 @ Turnout on Ridge Point | | | | ↑ |
| 31+50 | 0.597 | Sag Vertical Curve | | | | | 545+75 | 10.336 | Emmons Cr. Road #2991 --- Fill Slope Slump Repair { See Next Sheet for Slump Repair Details } --- Excavate 40 C.Y. to Construct Bench-Cut --- Key 80 C.Y. Class 4 Riprap to Construct Fill Slope Buttress --- Place 20 C.Y. Crushed Aggregate (Truck Measure) on Travel Way | 40 | 80 | 20 | ↑ |
| 33+20 | 0.629 | Crest Vertical Curve | | | | | | | | | | | ↑ |
| 41+00 | 0.777 | Cutting Unit #232 Boundary Above Road | | | | | 556+00 | 10.53 | Junct. w/ Patrick Cr. Road #2962 End Road Reconditioning for this Segment of Road #2991 | | | | ↓ |
| 44+50 | 0.843 | Existing 18" CMP --- Dry Draw | | | | | | | ESTIMATED QUANTITIES FOR ROAD #2991 | | | | |
| 45+25 | 0.857 | Old Log Landing --- Turn-A-Round | | | | | | | 203(01) EXCAVATION ----- 40 CY | | | | |
| 46+00 | 0.871 | Crest Vertical Curve | | | | | | | 251(04) KEYED RIPRAP (CLASS 4) ----- 80 CY | | | | |
| 58+15 | 1.101 | Sag Vertical Curve | | | | | | | 304(13) CRUSHED AGGREGATE ----- 20 CY | | | | |
| 58+50 | 1.108 | Existing 18" CMP --- Dry Draw | | | | | | | 306(02) ROAD RECONDITIONING ----- 9.80 Mi | | | | |
| 63+00 | 1.193 | Crest Vertical Curve | | | | | | | | | | | |
| 63+60 | 1.205 | Sag Vertical Curve | | | | | | | | | | | |
| 68+40 | 1.295 | Crest Vertical Curve | | | | | | | | | | | |
| 72+00 | 1.364 | Sag Vertical Curve | | | | | | | | | | | |
| 76+75 | 1.440 | Cutting Unit #233 Boundary Below Road (Last Unit on the Road) | | | | | | | | | | | |
| 77+60 | 1.470 | Turnout @ 77+60 --- Short Vehicle Turn-A-Round End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | | | | | | | | |
| | | ESTIMATED QUANTITIES FOR ROAD #2965 | | | | | | | | | | | |
| | | 202(03) REMOVAL OF EARTH BERM ----- 3 EA | | | | | | | | | | | |
| | | 210(01) BRUSHING / CLEARING ----- 1.47 Mi | | | | | | | | | | | |
| | | 306(01) ROAD RECONDITIONING ----- 1.47 Mi | | | | | | | | | | | |
| | | 640(01) FURNISH & INSTALL LIVESTOCK GATE ----- 1 EA | | | | | | | | | | | |

EMMONS CREEK RD. #2991

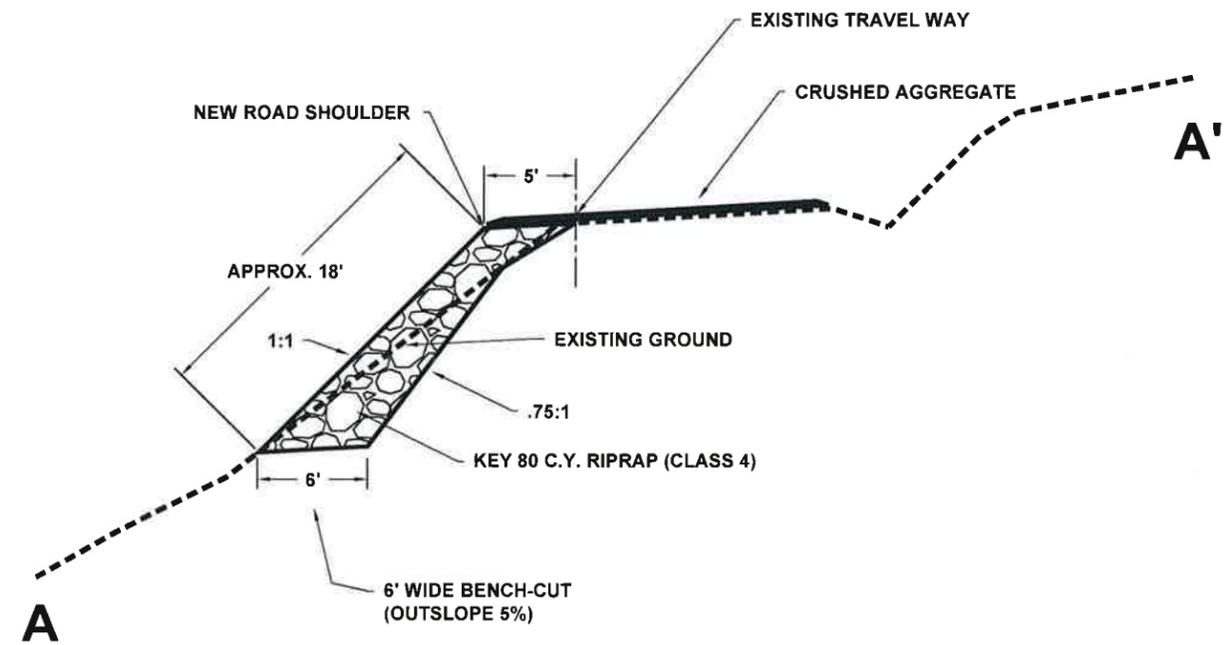
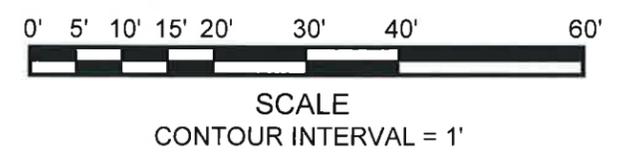
M.P. 10.336 --- FILL SLOPE SLUMP REPAIR



| ESTIMATED QUANTITIES | |
|-------------------------------------|------------|
| 203(01) EXCAVATION | 40 Cu.Yds. |
| 251(04) KEYED RIPRAP, CLASS 4 | 80 Cu.Yds. |
| 304(13) CRUSHED AGGREGATE | 20 Cu.Yds. |

- | SLUMP REPAIR GENERAL NOTES | |
|----------------------------|---|
| 1. | THE OUTSIDE SHOULDER OF THE BENCH-CUT WILL BE FLAGGED ON THE GROUND BY THE FOREST SERVICE. |
| 2. | CLEARING IS CONSIDERED INCIDENTAL TO EXCAVATION AND CONSISTS OF SMALL TREES AND BRUSH WHICH MAY BE SCATTERED BELOW THE BENCH-CUT. |
| 3. | THE RIPRAP AND CRUSHED AGGREGATE SURFACING SHALL BE OBTAINED FROM THE PATRICK CREEK QUARRY LOCATED ADJACENT TO ROAD #2941 IN THE SW 1/4, SEC. 19, T.27N., R.21W. THE RIPRAP IS LOOSE ROCK WITHIN THE QUARRY BOUNDARY AND THE AGGREGATE SURFACING SHALL BE OBTAINED FROM THE WEST SIDE OF THE EXISTING STOCKPILE FLOOR AT A DESIGNATED LOCATION. |

PLAN VIEW



SECTION A - A'

NO SCALE

ROAD #2999 --- (RECONST.)

ROAD #2999 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | | STATION | MILE POST | WORK DESCRIPTION | | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. |
|---------|-----------|--|--|-----------------------------------|-------------------------------|--|-------------------------------------|-----------|---|--|-----------------------------------|-------------------------------|
| 0+00 | 0.000 | NOTE: The First 740' of this Road Log is actually Existing Road #2960 --- (Treat the Same as Reconstruction Road #2999) Junct. w/ Patrick Cr. Rd. #2962 --- Begin Brushing / Clearing --- (Medium) --- Mainly 2" Minus Doug Fir on Cut Side --- Begin Road Reconditioning --- { Sod - Covered Roadbed Except for Wheel Tracks } --- No Visible Scour | | ↑ ↓ | ↑ ↓ | | 65+25 | 1.236 | Reshape Existing Drain Dip | | ↑ ↓ | ↑ ↓ |
| 2+65 | 0.050 | Existing Gate | | | | | 70+15 | 1.329 | Cutting Unit #205 Boundary | | | |
| 6+25 | 0.118 | Reshape Existing Drain Dip | | | | | 71+30 | 1.350 | Good Turn-A-Round on Ridge Point End Brushing / Clearing & Road Reconditioning | | | |
| 7+40 | 0.140 | Junct. w/ Reconstruction Rd. #2999 Right --- (Brushing / Clearing Work Continues to the Right) | | | | | ESTIMATED QUANTITIES FOR ROAD #2999 | | | | | |
| 7+75 | 0.147 | Existing 18" CMP --- Ditch Relief Begin Existing 1' Ditch Right | | | | | | | | | 1.35 Mi | |
| 11+10 | 0.210 | End Existing Ditch Right | | | | | | | | | | 1.35 Mi |
| 11+55 | 0.219 | Junct. w/ Spur Road Right | | | | | | | | | | |
| 14+35 | 0.272 | Existing 18" CMP --- Ditch Relief Begin Ditch Right | | Road Brushing / Clearing | Road Reconditioning | | | | | | | |
| 21+70 | 0.411 | Crest Vertical Curve | | | | | | | | | | |
| 26+55 | 0.503 | Existing 18" CMP --- Ditch Relief Sag Vertical Curve | | | | | | | | | | |
| 28+40 | 0.538 | Reshape Existing Drain Dip End Ditch Right | | | | | | | | | | |
| 31+70 | 0.600 | Reshape Existing Drain Dip | | | | | | | | | | |
| 37+00 | 0.701 | Sag Vertical Curve | | | | | | | | | | |
| 39+75 | 0.753 | Reshape Existing Drain Dip | | | | | | | | | | |
| 43+90 | 0.831 | Reshape Existing Drain Dip | | | | | | | | | | |
| 48+20 | 0.913 | Reshape Existing Drain Dip | | | | | | | | | | |
| 51+40 | 0.973 | Crest Vertical Curve | | | | | | | | | | |
| 54+15 | 1.026 | Reshape Existing Drain Dip | | | | | | | | | | |
| 57+25 | 1.084 | Sag Vertical Curve | | | | | | | | | | |
| 61+35 | 1.162 | Reshape Existing Drain Dip | | | | | | | | | | |

ROAD #9851 --- (RECONST.)

ROAD #9852 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 203(17) Drain Dip | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | STATION | MILE POST | WORK DESCRIPTION | 203(17) Drain Dip | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. |
|--|-----------|---|----------------------|-----------------------------------|-------------------------------|--|-----------|---|----------------------|-----------------------------------|-------------------------------|
| 0+00 | 0.000 | Junct. w/ Emmons Cr. Rd. #2991 --- Begin Brushing / Clearing --- { Heavy } Mainly 4" Minus Doug Fir on Cut Side (Some 4" Plus Size Stems, Still Drivable) --- Begin Road Reconditioning --- { Sod - Covered Roadbed Except for Wheel Tracks } --- No Visible Scour | | ↑ | ↑ | 0+00 | 0.000 | Junct. w/ Road #9851 --- Begin Brushing / Clearing --- { Heavy } Mainly 4" Minus Doug Fir on Cut Side (Some 4" Plus Size Stems, Still Drivable) --- Begin Road Reconditioning --- { Sod - Covered Roadbed Except for Wheel Tracks } --- No Visible Scour | | ↑ | ↑ |
| 5+50 | 0.104 | Existing Gate | | ↑ | ↑ | 1+45 | 0.027 | Existing 18" CMP | | ↑ | ↑ |
| 27+20 | 0.515 | Sag Vertical Curve | | ↑ | ↑ | 6+95 | 0.132 | Construct Drain Dip | 1 | ↑ | ↑ |
| 34+50 | 0.653 | Existing 18" CMP --- Ditch Relief --- Begin Existing 1' Ditch Left | | ↑ | ↑ | 7+65 | 0.145 | Existing 18" CMP --- Small Stream --- Sag Vertical Curve | | ↑ | ↑ |
| 35+25 | 0.668 | End Ditch Left | | ↑ | ↑ | 6+95 | 0.132 | Construct Drain Dip | 1 | ↑ | ↑ |
| 41+20 | 0.780 | Existing 18" CMP --- Ditch Relief --- Begin Existing 1' Ditch Left | | ↑ | ↑ | 16+20 | 0.307 | Sag Vertical Curve | | ↑ | ↑ |
| 42+95 | 0.813 | Junct. w/ Road #9855 Right --- End Ditch Left | | ↑ | ↑ | 24+00 | 0.455 | Crest Vertical Curve | | ↑ | ↑ |
| 47+50 | 0.900 | Existing 18" CMP --- Ditch Relief --- Begin Existing 1' Ditch Left | | ↑ | ↑ | 29+50 | 0.559 | Sag Vertical Curve | | ↑ | ↑ |
| 53+55 | 1.014 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 37+50 | 0.710 | Crest Vertical Curve | | ↑ | ↑ |
| 59+35 | 1.124 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 42+45 | 0.804 | Existing 18" CMP --- Not a Stream --- Sag Vertical Curve | | ↑ | ↑ |
| 69+20 | 1.311 | Junct. w/ Road #9852 Right | | ↑ | ↑ | 43+75 | 0.829 | Existing 18" CMP --- Small Stream | | ↑ | ↑ |
| 70+45 | 1.334 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 45+00 | 0.852 | Construct Drain Dip | 1 | ↑ | ↑ |
| 76+25 | 1.444 | Switchback to the Left --- Begin Existing 1' Ditch Right | | ↑ | ↑ | 72+86 | 1.380 | End of Road --- End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ |
| 83+30 | 1.578 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | ESTIMATED QUANTITIES FOR ROAD #9852 | | | | | |
| 90+25 | 1.709 | Switchback to the Right --- Begin Existing 1' Ditch Left | | ↑ | ↑ | 203(17) DRAIN DIPS 3 EA | | | | | |
| 100+00 | 1.894 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 210(01) BRUSHING / CLEARING 1.38 Mi | | | | | |
| 107+85 | 2.043 | Existing 18" CMP --- Small Stream | | ↑ | ↑ | 306(01) ROAD RECONDITIONING 1.38 Mi | | | | | |
| 108+85 | 2.062 | Construct Drain Dip | 1 | ↑ | ↑ | | | | | | |
| 114+20 | 2.163 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | | | | | | |
| 121+60 | 2.303 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | | | | | | |
| 135+70 | 2.57 | Cutting Unit #82 Boundary End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | | | | | | |
| ESTIMATED QUANTITIES FOR ROAD #9851 | | | | | | | | | | | |
| 203(17) DRAIN DIPS 1 EA | | | | | | | | | | | |
| 210(01) BRUSHING / CLEARING 2.57 Mi | | | | | | | | | | | |
| 306(01) ROAD RECONDITIONING 2.57 Mi | | | | | | | | | | | |

ROAD #9855 --- (RECONST.)

ROAD #9858 & ROAD #9859 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 203(17) Drain Dip | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | STATION | MILE POST | WORK DESCRIPTION | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. |
|--|-----------|---|----------------------|-----------------------------------|-------------------------------|--|-----------|--|-----------------------------------|-------------------------------|
| 0+00 | 0.000 | Junct. w/ Road #9851 --- Begin Brushing / Clearing --- { Heavy } Mainly 4" Minus Doug Fir on Cut Side (Some 4" Plus Size Stems, Still Drivable) --- Begin Road Reconditioning --- { Sod - Covered Roadbed Except for Wheel Tracks } --- No Visible Scour Begin Existing 1' Ditch Left | | ↑ | ↑ | 0+00 | 0.000 | Junct. w/ Emmons Cr. Rd. #2991 --- Begin Brushing / Clearing --- { Heavy to Extra - Heavy } Mainly 4" Minus Doug Fir & Brush on Cut Side (Some 4" Plus Size Stems, Sections of 6" Plus Size Trees on Fill Side are Required to be Limbed "Faced-up", Road is Still Drivable) --- Begin Road Reconditioning --- { Sod - Covered Except for Wheel Tracks } --- No Visible Scour --- Begin Existing 1' Ditch Right | ↑ | ↑ |
| 5+95 | 0.113 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 0+55 | 0.010 | Existing Gate | ↑ | ↑ |
| 10+10 | 0.191 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 4+50 | 0.085 | Existing 18" CMP --- Ditch Relief | ↑ | ↑ |
| 14+30 | 0.271 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 8+30 | 0.157 | Existing 18" CMP --- Ditch Relief | ↑ | ↑ |
| 22+90 | 0.434 | Construct Drain Dip | 1 | ↑ | ↑ | 11+75 | 0.223 | Existing 18" CMP --- Ditch Relief | ↑ | ↑ |
| 23+25 | 0.440 | Existing 18" CMP --- Ditch Relief | | ↑ | ↑ | 16+70 | 0.316 | Existing 18" CMP --- Ditch Relief | ↑ | ↑ |
| 24+40 | 0.462 | Existing 18" CMP --- Small Stream | | ↑ | ↑ | 17+40 | 0.330 | End 1' Ditch | ↑ | ↑ |
| 26+45 | 0.501 | Begin Pulling 1' Ditch Left to Intercept Cut Slope Weeps (Incidental to Roadbed Reconditioning) | | ↑ | ↑ | 25+45 | 0.482 | Existing 18" CMP --- Below Switchback | ↑ | ↑ |
| 29+85 | 0.565 | End Pulling 1' Ditch Left at Rocky Point | | ↑ | ↑ | 26+20 | 0.496 | Switchback to the Right --- Begin 1' Ditch Left | ↑ | ↑ |
| 32+75 | 0.620 | Existing 18" CMP --- Ditch Relief --- End Existing 1' Ditch | | ↑ | ↑ | 33+60 | 0.636 | Existing 18" CMP --- End 1' Ditch Left | ↑ | ↑ |
| 52+80 | 1.000 | Cutting Unit #82 Boundary on Ridge End Brushing / Clearing & Road Reconditioning | 1 | ↓ | ↓ | 81+50 | 1.540 | Switchback to the Left --- End Rd. #9858 = Begin Rd. #9859 Rd. #9858 --- End Brushing / Clearing & Road Reconditioning | ↓ | ↓ |
| 53+35 | 1.010 | Construct Drain Dip (Last Item of Work) BMP for Small Stream Ahead @ M.P. 1.030 | | ↓ | ↓ | ESTIMATED QUANTITIES FOR ROAD #9858 | | | | |
| | | | | | | 210(01) BRUSHING / CLEARING 1.54 Mi | | | | |
| | | | | | | 306(01) ROAD RECONDITIONING 1.54 Mi | | | | |
| ESTIMATED QUANTITIES FOR ROAD #9855 | | | | | | | | | | |
| 203(17) DRAIN DIPS 2 EA | | | | | | | | | | |
| 210(01) BRUSHING / CLEARING 1.01 Mi | | | | | | | | | | |
| 306(01) ROAD RECONDITIONING 1.01 Mi | | | | | | | | | | |
| ROAD #9859 | | | | | | | | | | |
| 0+00 | 0.000 | Junct. w/ Rd. #9858 --- Begin Brushing / Clearing --- { Heavy to Extra - Heavy } --- Same Clearing Classification as Rd. #9858 Above --- Begin Road Reconditioning --- { Sod - Covered Except for Wheel Tracks } --- No Visible Scour --- No Ditch | | ↑ | ↑ | | | | | |
| 46+45 | 0.880 | Switchback to the Right --- End Rd. #9859 = Begin Rd. #10409 Rd. #9859 --- End Brushing / Clearing & Road Reconditioning | | ↓ | ↓ | | | | | |
| ESTIMATED QUANTITIES FOR ROAD #9859 | | | | | | | | | | |
| | | | | | | 210(01) BRUSHING / CLEARING 0.88 Mi | | | | |
| | | | | | | 306(01) ROAD RECONDITIONING 0.88 Mi | | | | |

ROAD #10409 --- (RECONST.)

ROAD #10547 --- (RECONST.)

| STATION | MILE POST | WORK DESCRIPTION | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | STATION | MILE POST | WORK DESCRIPTION | 210(01) Brushing / Clearing | 306(01) Roadbed Recond. | | |
|---|-----------|---|---|-------------------------------|---|-----------|---|-----------------------------------|-------------------------------|--|--|
| 0+00 | 0.000 | Junct. w/ Rd. #9859 --- Begin Brushing / Clearing --- { Heavy to Extra - Heavy } Mainly 4" Minus Doug Fir & Brush on Cut Side (Some 4" Plus Size Stems, Sections of 6" Plus Size Trees on Fill Side are Required to be Limbed "Faced-up", Road is Still Drivable) --- Begin Road Recond. --- { Sod - Covered Except for Wheel Tracks } --- No Visible Scour -- No Ditch | ↑ | ↑ | 0+00 | 0.000 | Junct. w/ Cramer Cr. Rd. #2964 --- Begin Brushing / Clearing --- { Medium } --- Some Brush & Small Fir Trees on Road Shoulders, Drivable --- Begin Road Reconditioning -- { Sod - Covered Roadbed -- No Visible Scour } | ↑ | ↑ | | |
| 8+75 | 0.166 | Existing 18" CMP | Road Brushing / Clearing | Road Reconditioning | 0+80 | 0.015 | Existing Gate | Road Brushing / Clearing | Road Reconditioning | | |
| 13+10 | 0.248 | Existing 18" CMP | | | 12+85 | 0.243 | Existing 18" CMP --- Dry Draw | | | | |
| 21+70 | 0.411 | Switchback to the Left | | | 14+00 | 0.265 | Existing 18" CMP --- Dry Draw | | | | |
| 39+05 | 0.740 | Road #10409 Intersects the First of Many Blacktail Mountain Ski Runs --- The Average for Brushing / Clearing from This Point to the E.O.P. is considered { Light - Medium } --- Average Classification for the Road is considered { Medium } --- The Road Reconditioning Remains the Same | | | 15+85 | 0.300 | End Brushing / Clearing & Road Reconditioning | | | | |
| 74+55 | 1.412 | Switchback to the Right | | | ESTIMATED QUANTITIES FOR ROAD #10547 | | | | | | |
| 97+65 | 1.849 | Switchback to the Left | | | 210(01) BRUSHING / CLEARING ----- 0.30 Mi | | | | | | |
| 116+85 | 2.213 | Switchback to the Right | | | 306(01) ROAD RECONDITIONING ----- 0.30 Mi | | | | | | |
| 122+70 | 2.324 | Switchback to the Left | | | | | | | | | |
| 138+85 | 2.630 | Junct. w/ Ski Area Access Roads (Primitive) End Brushing / Clearing & Road Reconditioning Begin Rd. #10409 New Construction on an Existing Road Template (See Next Sheet) | | | ↓ | ↓ | | | | | |
| ESTIMATED QUANTITIES FOR ROAD #10409 | | | | | | | | | | | |
| | | | 210(01) BRUSHING / CLEARING ----- 2.63 Mi | | | | | | | | |
| | | | 306(01) ROAD RECONDITIONING ----- 2.63 Mi | | | | | | | | |

BLACKTAIL NOSE #10409

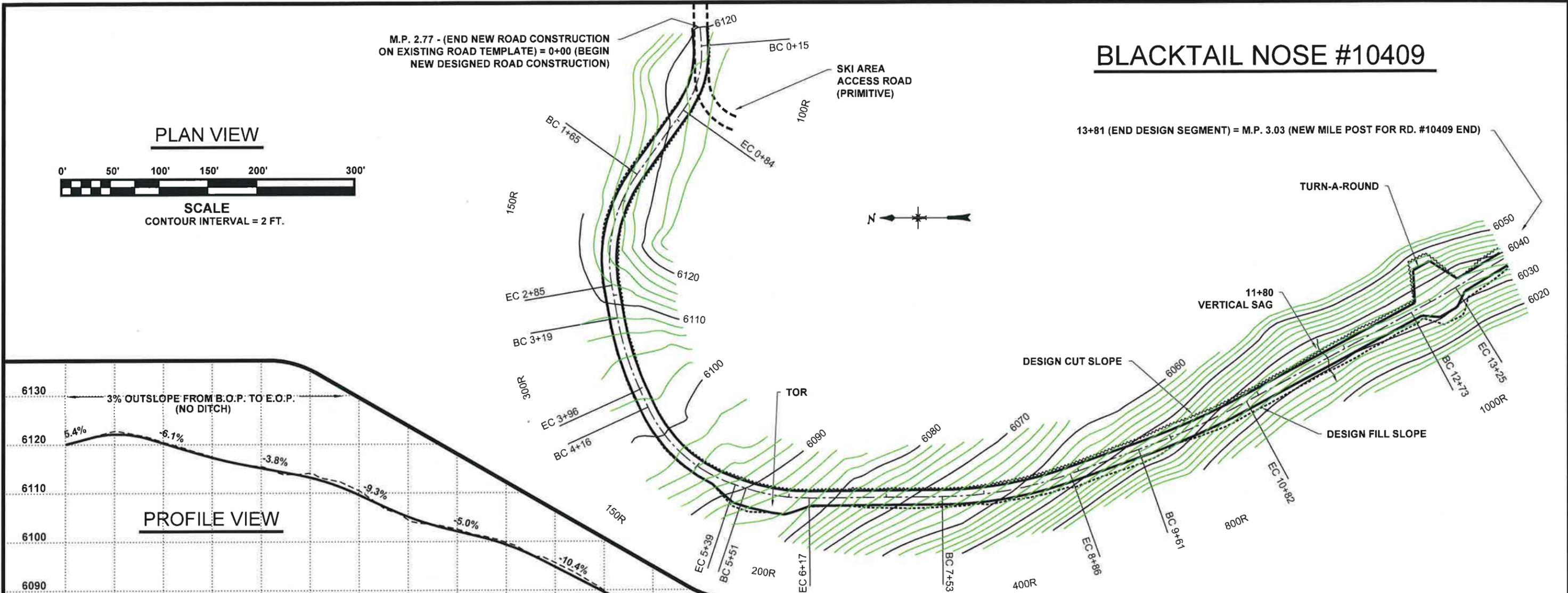
M.P. 2.77 - (END NEW ROAD CONSTRUCTION ON EXISTING ROAD TEMPLATE) = 0+00 (BEGIN NEW DESIGNED ROAD CONSTRUCTION)

13+81 (END DESIGN SEGMENT) = M.P. 3.03 (NEW MILE POST FOR RD. #10409 END)

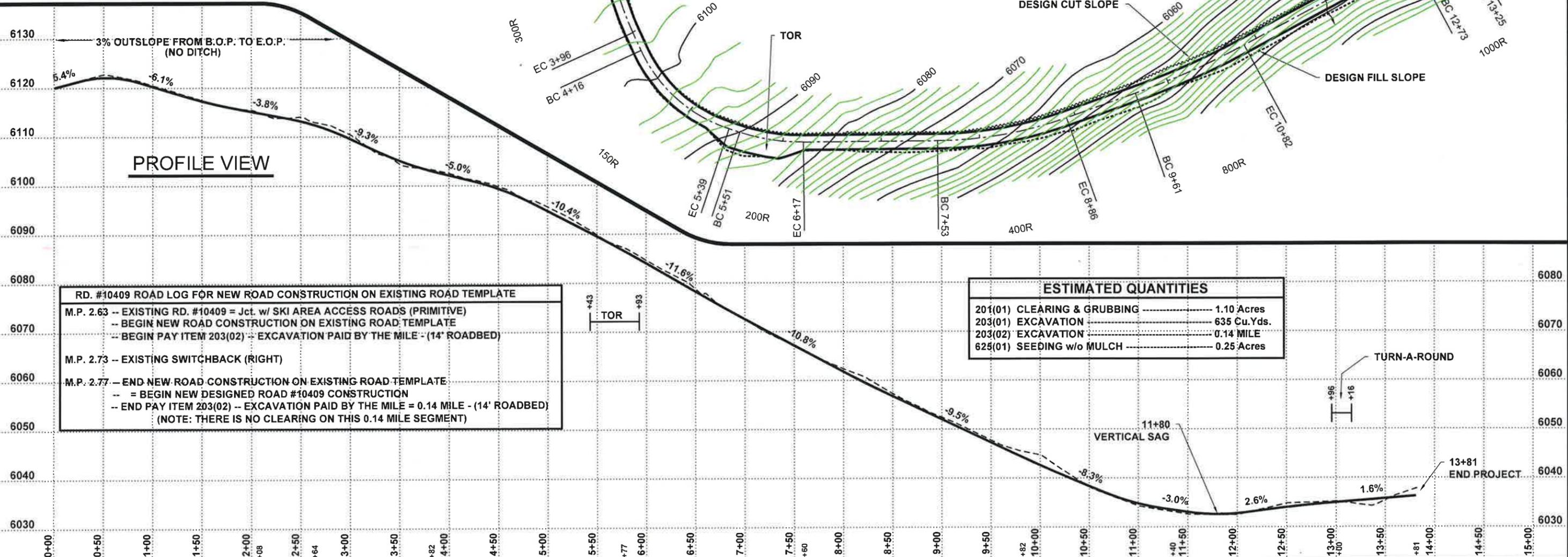
PLAN VIEW



SCALE
CONTOUR INTERVAL = 2 FT.



PROFILE VIEW

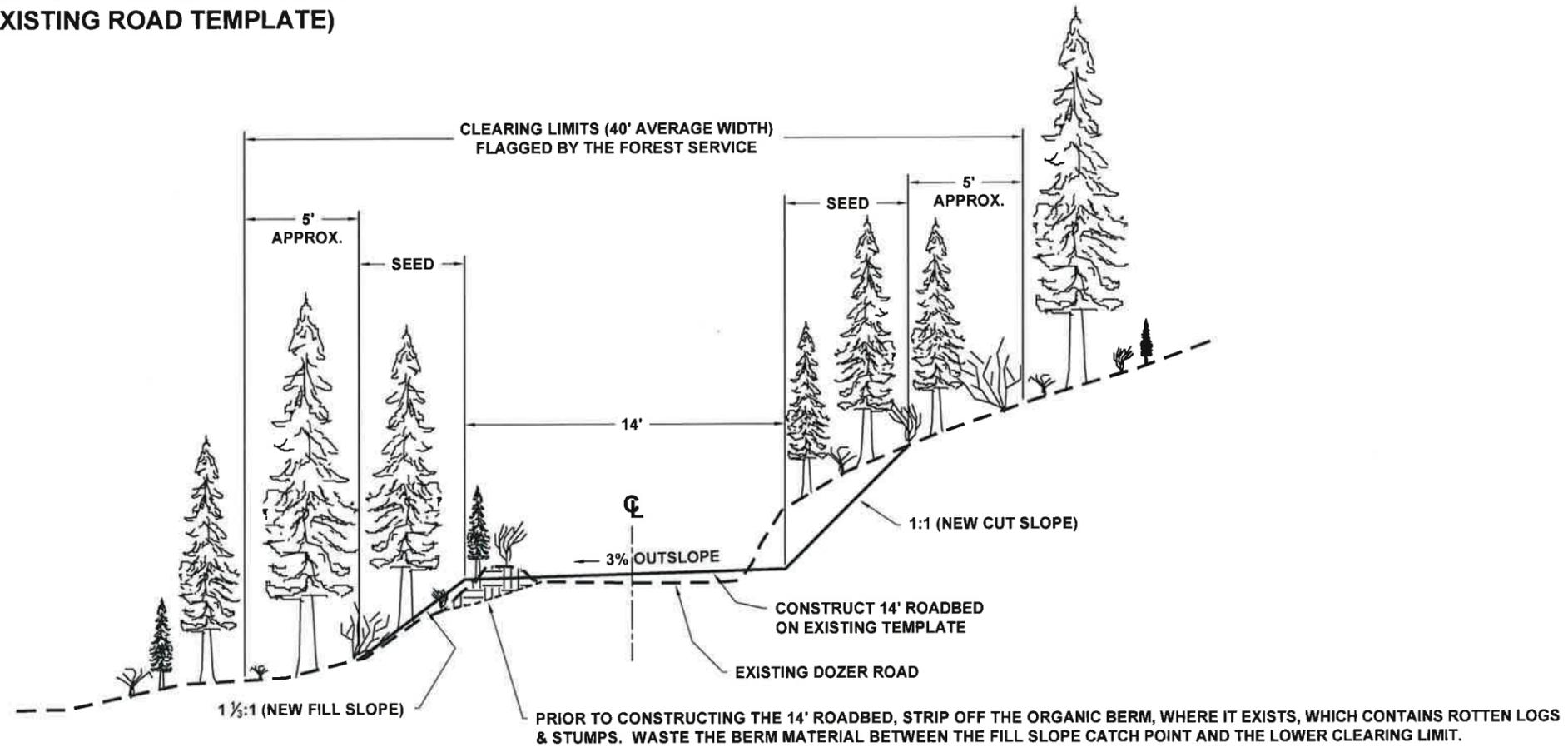


| RD. #10409 ROAD LOG FOR NEW ROAD CONSTRUCTION ON EXISTING ROAD TEMPLATE | |
|---|---|
| M.P. 2.63 | -- EXISTING RD. #10409 = Jct. w/ SKI AREA ACCESS ROADS (PRIMITIVE) |
| -- | BEGIN NEW ROAD CONSTRUCTION ON EXISTING ROAD TEMPLATE |
| -- | BEGIN PAY ITEM 203(02) -- EXCAVATION PAID BY THE MILE -- (14' ROADBED) |
| M.P. 2.73 | -- EXISTING SWITCHBACK (RIGHT) |
| M.P. 2.77 | -- END NEW ROAD CONSTRUCTION ON EXISTING ROAD TEMPLATE |
| -- | BEGIN NEW DESIGNED ROAD #10409 CONSTRUCTION |
| -- | END PAY ITEM 203(02) -- EXCAVATION PAID BY THE MILE = 0.14 MILE - (14' ROADBED) |
| (NOTE: THERE IS NO CLEARING ON THIS 0.14 MILE SEGMENT) | |

| ESTIMATED QUANTITIES | |
|-----------------------------|-------------|
| 201(01) CLEARING & GRUBBING | 1.10 Acres |
| 203(01) EXCAVATION | 635 Cu.Yds. |
| 203(02) EXCAVATION | 0.14 MILE |
| 625(01) SEEDING w/o MULCH | 0.25 Acres |

| | | | | | | | | | | |
|--------------------|----|----|----|----|----|-----|----|-----|-----|------------------------|
| EXC. Cu.Yds. | 35 | 15 | 25 | 59 | 51 | 110 | 85 | 125 | 130 | 635 CU.YDS. EXCAVATION |
| SHEET NO. 24 OF 27 | | | | | | | | | | |

MID NORTH EMMONS ROAD #11655
 (NEW CONSTRUCTION ON EXISTING ROAD TEMPLATE)



TYPICAL SECTION (#11655)

NO SCALE

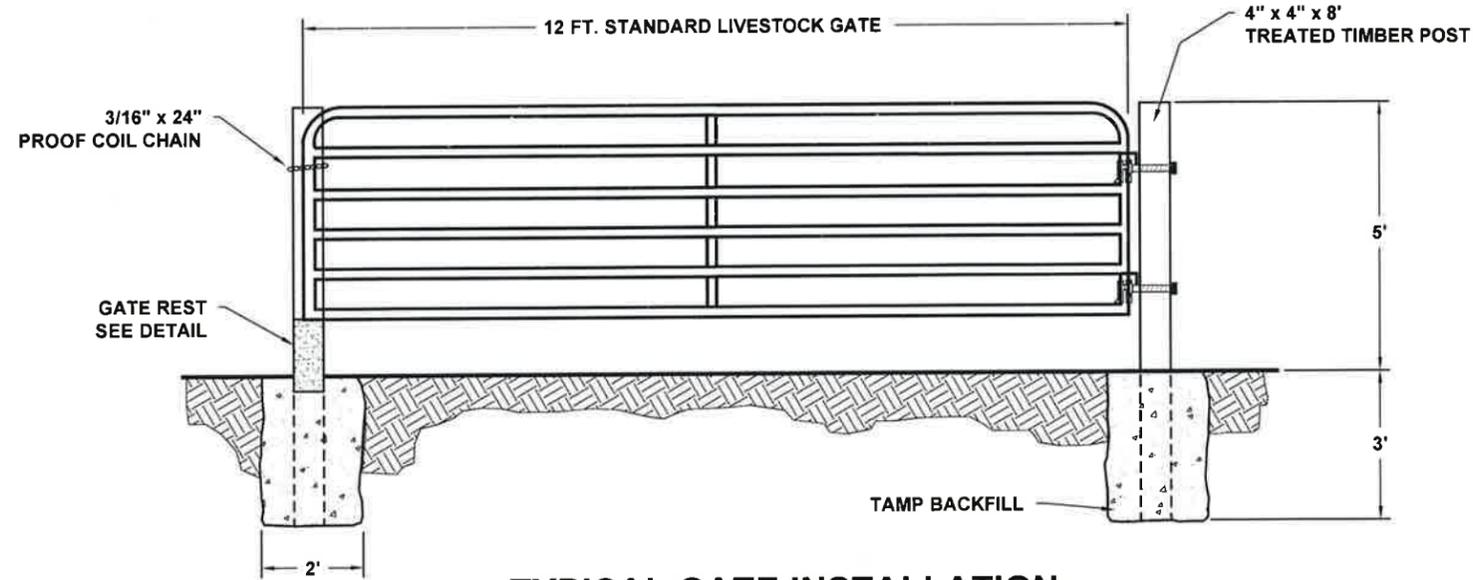
GENERAL NOTES (# 11655)

1. INITIAL CLEARING LIMITS AND CONSTRUCTION STAKES WILL BE SET BY THE GOVERNMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PRESERVE ALL STAKES AND OTHER MARKS SET BY THE GOVERNMENT.
2. ITEM 201(01) --- CLEARING & GRUBBING
 UTILIZATION OF TIMBER --- METHOD (1) --- DISPOSE OF MERCHANTABLE TIMBER IN ACCORDANCE WITH THE PROVISIONS OF THE TIMBER SALE CONTRACT.
 SLASH TREATMENT --- METHOD (11), PILING --- ALL TOPS & LIMBS, STUMPS, CULL LOGS, AND OTHER VEGETATIVE MATERIAL WITHIN THE CLEARING LIMITS SHALL BE CLEARED, GRUBBED, REMOVED, AND PILED IN CLEAN PILES ADJACENT TO THE CLEARING LIMITS AT DESIGNATED LOCATIONS FOR LATER BURNING BY THE FOREST SERVICE. CLEARING REQUIRED FOR BURNING BAYS IS CONSIDERED INCIDENTAL TO THIS PAY ITEM. PLACE AND CONSTRUCT PILES SO FUTURE BURNING WILL NOT DAMAGE REMAINING TREES.
3. ITEM 203(02) --- EXCAVATION, EMBANKMENT & HAUL (PAY ITEM BY THE MILE) --- CONSTRUCT A 14' ROADBED TO A UNIFORM LINE AND GRADE ON THE EXISTING ROAD TEMPLATE. CONSTRUCT 10' OF ADDITIONAL ROADBED WIDTH AT TURNOUT LOCATIONS SHOWN ON THE ROAD LOG. SELF-BALANCE EXCAVATED MATERIAL AS THE WORK PROGRESSES. SHAPE AND FINISH THE ROADBED TO A "MOTOR GRADER FINISH". ROCK PROTRUSIONS LESS THAN 1" ABOVE THE FINISHED ROAD SURFACE WILL BE ALLOWED.
4. ITEM 625(01) --- SEEDING w/o MULCH --- APPLY SEED AND FERTILIZER AT THE RATES SPECIFIED TO ALL DISTURBED AREAS OUTSIDE OF THE ROAD SHOULDERS (INCLUDES FILL SLOPES, CUT SLOPES, CATCH BASINS, DRAIN DIP OUTLETS, ETC.).
5. ITEM 640(01) --- 12' STANDARD LIVESTOCK GATE --- INSTALL AT DESIGNATED LOCATIONS AS SOON AS PRACTICAL AFTER CLEARING AND EXCAVATION IS COMPLETE AT THE INSTALLATION SITE.

MID NORTH EMMONS ROAD #11655 (NEW CONSTRUCTION ON EXISTING ROAD TEMPLATE)

| STATION | MILE POST | WORK DESCRIPTION | 201(01) Clearing & Grubbing | 202(03) Earth Berm Removal | 203(02) Excavation by the Mile | 203(17) Drain Dip | 603(01) 18" CSP | 625(01) Seeding | 640(01) Livestock Gate |
|---|-----------|--|--|----------------------------------|---|----------------------|--------------------|--|------------------------------|
| 0+00 | 0.000 | Junct. w/ Emmons Cr. Rd. #2991 -- Begin Clearing & Grubbing (40' Average Clearing Width) & Begin Excavation (Pay Item by the Mile) to Construct the Existing Roadbed to a Width of 14' plus Turnouts & Additional Width at the Junct. w/ #2991 as Flagged. -- No Ditch | Clearing & Grubbing Avg. 40' Clearing Width | | Excavation (14' Roadbed plus Turnouts) | | | Seed & Fertilize (All Disturbed Areas Outside the Roadbed) | |
| 1+00 | 0.019 | Remove Existing Earth Berm | | 1 | | | | | |
| 2+00 | 0.038 | Furnish & Install 12' Standard Livestock Gate | | | | 1 | | | |
| 2+65 | 0.050 | Construct Drain Dip --- (Existing Water Bar) | | | | | 1 | | |
| 8+65 | 0.164 | Construct Drain Dip | | | | | 1 | | |
| 10+60 | 0.201 | Construct 75' Long T.O.R. @ Junct. with Old Skid Road Right -- (25' Tapers on Both Sides) | | | | | | | |
| 14+65 | 0.277 | Construct Drain Dip -- (+20% Road Grade Ahead for 200', then +7%) | | | | | 1 | | |
| 17+25 | 0.327 | Construct Drain Dip | | | | | 1 | | |
| 18+90 | 0.358 | Crest Vertical Curve | | | | | | | |
| 19+10 | 0.362 | Install 18" X 42' CSP --- Construct Catch Basin (Incidental to Item 603(01) --- 90° Skew --- Dry Draw | | | | | | | 42 |
| 24+10 | 0.456 | Construct Drain Dip | | | | | 1 | | |
| 25+75 | 0.488 | +10% Switchback to the Left, then +4% Ahead --- Reshape Existing Turnout | | | | | | | |
| 28+20 | 0.534 | Crest Vertical Curve | | | | | | | |
| 30+00 | 0.568 | Reshape Sag Vertical Curve (Incidental) | | | | | | | |
| 33+38 | 0.632 | Install 18" X 32' CSP --- Construct Catch Basin (Incidental to Item 603(01) --- 90° Skew --- Dry Draw | | | | | | | 32 |
| 42+50 | 0.805 | Begin Planned Temporary Road Right --- Cutting Unit Boundary | | | | | | | |
| 44+30 | 0.839 | Reconstruct Existing Turn-A-Round | | | | | | | |
| 44+50 | 0.843 | End Road Construction --- End Clearing & Grubbing (40' Average Clearing Width) & End Excavation by the Mile | | | | | | | |
| ESTIMATED QUANTITIES FOR ROAD #11655 | | | | | | | | | |
| 201(01) CLEARING & GRUBBING | | | 4.10 AC | | | | | | |
| 202(03) REMOVAL OF EARTH BERM | | | | 1 EA | | | | | |
| 203(02) EXCAVATION & EMBANKMENT | | | | | 0.84 MI | | | | |
| 203(17) CONSTRUCT DRAIN DIPS | | | | | | 5 EA | | | |
| 603(01) 18" CORRUGATED STEEL PIPE | | | | | | | 74 LF | | |
| 625(01) SEEDING w/o MULCH | | | | | | | 1.95 AC | | |
| 640(01) 12' STANDARD LIVESTOCK GATE | | | | | | | | 1 EA | |

STANDARD LIVESTOCK GATE



TYPICAL GATE INSTALLATION

NO SCALE

| MATERIAL LIST FOR GATE | | |
|------------------------|---------------------------------|----------|
| ITEM | DESCRIPTION | QUANTITY |
| CHAIN | 3/16" PROOF COIL CHAIN 24" LONG | 1 EA. |
| GATE | PREIFERT ECONOMY R-GATE "RG12" | 1 EA. |
| TREATED POST | 4" x 4" x 8' TREATED POST | 2 EA. |
| NAILS | 60 PENNY -- FOR GATE REST | 5 EA. |
| TREATED POST | 4" x 4" x 12" TREATED POST | 1 EA. |

NOTES

PROVIDE AN "ECONOMY 6 RAIL" GATE, MANUFACTURED BY PRIEFERT, PRODUCT NO. "RG12" (WWW.PRIEFERT.COM) OR EQUIVALENT. FABRICATE THE GATE FROM STEEL TUBING.

FRAME CONSTRUCTED FROM 1.66" OD 20 GAUGE TUBING.

RAILS CONSTRUCTED FROM 1.66" OD 22 GAUGE TUBING.

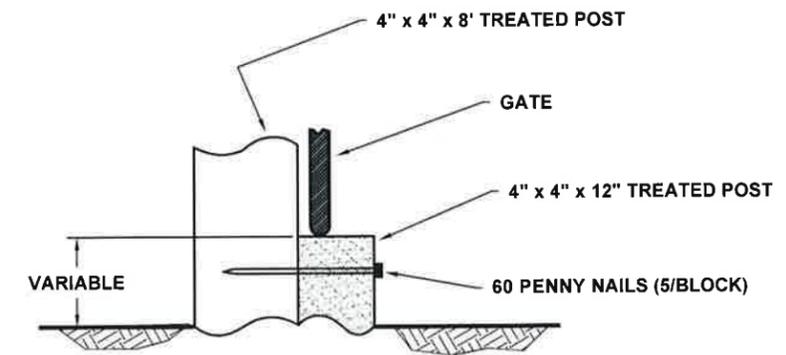
SINGLE PIECE VERTICAL STAY CONSTRUCTED FROM 1.05" OD 22 GAUGE TUBING FITTED THROUGH DRILLED RAILS.

POWDER COAT "FOREST GREEN".

PROVIDE WASHERS AND NUTS FOR ALL BOLTS AND LAG BOLTS SHOWN.

TREAT WOODEN POSTS AND GATE REST WITH PENTACHLOROPHENAL, MINIMUM NET RETENTION OF 0.5# PER CUBIC FOOT (DRY CRYSTAL).

FURNISH AND INSTALL LAG SCREWS FOR HOLDING GATE AND CHAIN.



GATE REST DETAIL

NO SCALE