

UNITED STATES DEPARTMENT OF AGRICULTURE  
 FOREST SERVICE  
 PACIFIC SOUTHWEST REGION FIVE



PLUMAS NATIONAL FOREST  
**HAPPY ASPEN-PANO IRTC Stewardship**  
 BECKWOURTH RANGER DISTRICT

INDEX TO SHEETS

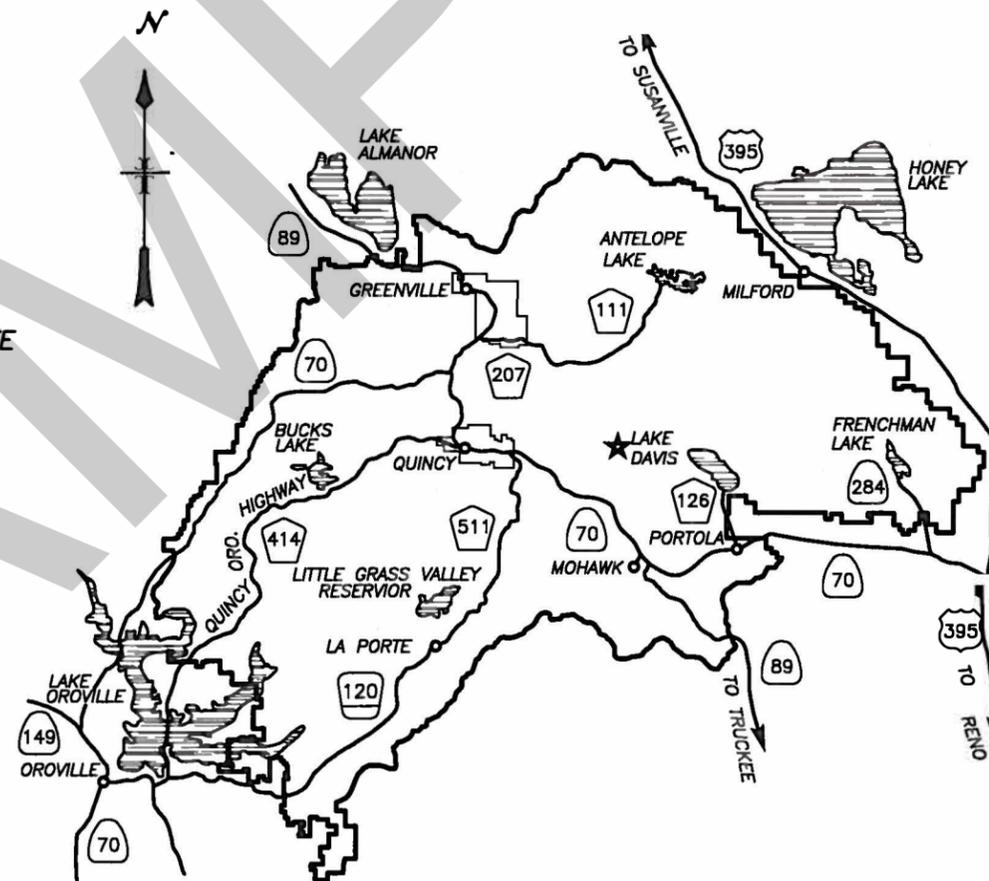
1	TITLE SHEET
2	LOCATION MAP
3	LEGEND
4	SUMMARY OF QUANTITIES
5	CLEARING AND CONST TYPICAL
6	DIP TYPICAL
7	WORK LIST 24N60



STATE OF CALIFORNIA  
 INDEX MAP

LEGEND

- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- PRIMARY FOREST ROUTE
- COUNTY ROAD



PLUMAS NATIONAL FOREST  
 ★ PROJECT LOCATION

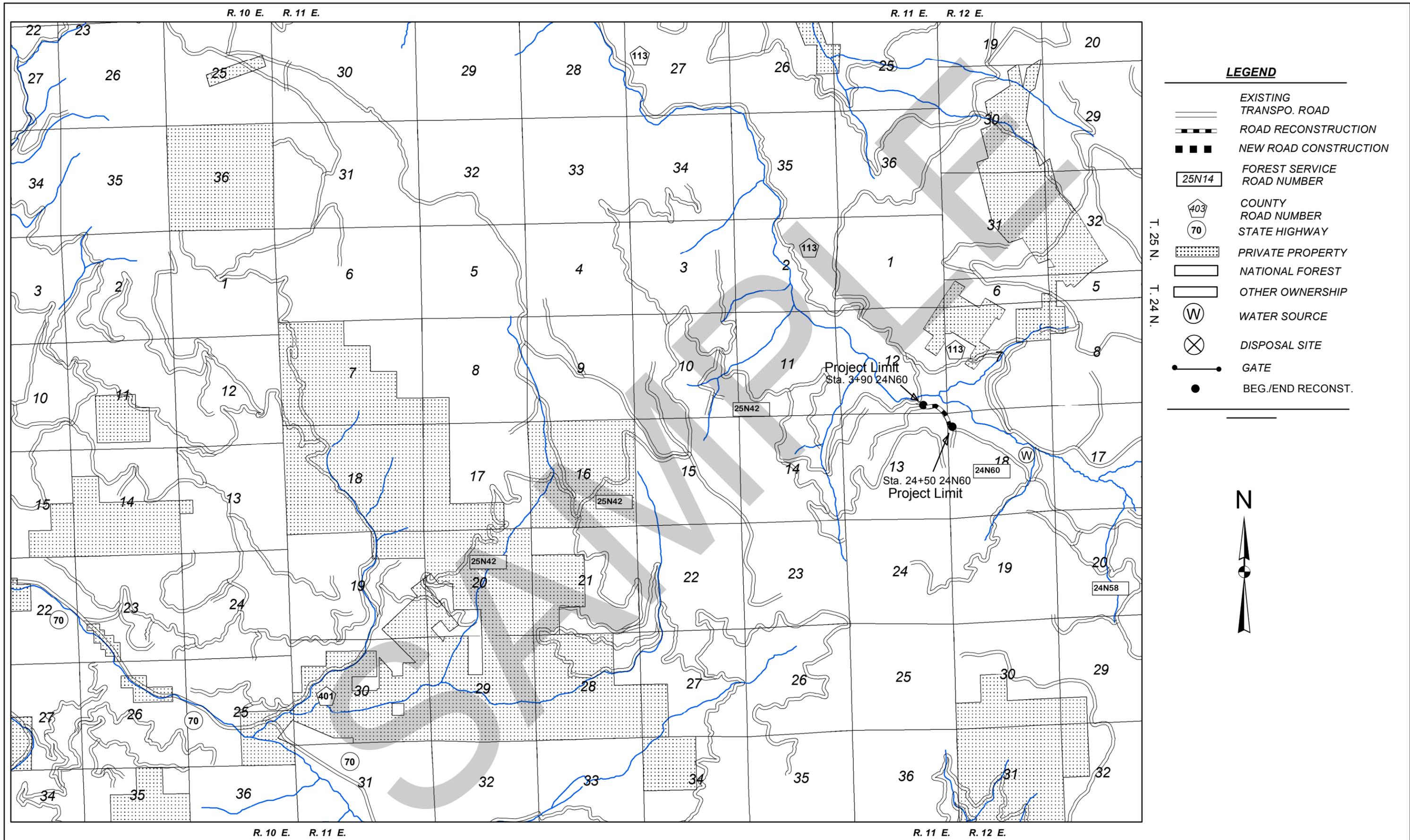


PREPARED BY: Dan Hoffman 10/2/15  
 PROJECT ENGINEER DATE

REVIEWED BY: Francisco Reis 10/2/15  
 TECHNICAL REVIEWER DATE

APPROVED BY: PARVIZ NOORS  
Parviz Noors 10/6/2015  
 FOREST ENGINEER DATE

APPROVED BY: Carol Shuster 10-7-2015  
 DISTRICT RANGER DATE

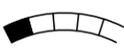


- LEGEND**
- EXISTING TRANSP. ROAD
  - ROAD RECONSTRUCTION
  - ■ ■ NEW ROAD CONSTRUCTION
  - 25N14 FOREST SERVICE ROAD NUMBER
  - 403 COUNTY ROAD NUMBER
  - 70 STATE HIGHWAY
  - Private Property (stippled area)
  - National Forest (hatched area)
  - Other Ownership (white area)
  - W WATER SOURCE
  - X DISPOSAL SITE
  - GATE
  - BEG./END RECONST.

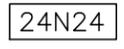


DATE	REVISION	BY

 EXISTING TRANSPORTATION SYSTEM ROAD

 SPECIFIED ROAD RECONSTRUCTION

 SPECIFIED ROAD CONSTRUCTION

 24N24 FOREST SERVICE ROAD NUMBER

 89 STATE HIGHWAY ROAD NUMBER

 112 112 PLUMAS COUNTY ROAD NUMBER

 RIPRAP AND AGGREGATE SOURCE

 W WATER SOURCE

 OTHER OWNERSHIP

 B BORROW SOURCE (IE. EARTH, SAND, ETC)

 D DISPOSAL SITE

 CATTLEGUARD

 UNMERCHANTABLE DECKING AREA

 MERCHANTABLE DECKING AREA

 CONSTRUCTION SLASH DISPOSAL AREA

 STUMP DISPOSAL AREA

 OVERSIDE DRAIN

 REINFORCED SUBGRADE

 GATE

 GUARDRAIL BARRIER

 RIPRAP (ENERGY DISSIPATOR)

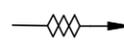
 CONSTRUCT TURNAROUND

 CONSTRUCT HAMMERHEAD TURNAROUND

 CONSTRUCT TURNOUT

 ROLLING DIP

 WATERBAR

 REINFORCED ROLLING DIP

 LOW WATER CROSSING

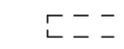
 STREAM

 LEAD-IN, LEAD-OFF, OR DRAINAGE DITCH

 CULVERT PIPE, PLAN VIEW

 CULVERT PIPE, PROFILE VIEW

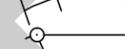
 CULVERT PIPE, WITH CATCH BASIN

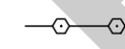
 EARTH BARRIER

 UNDER DRAIN (PMP) OR TEXTILE DRAIN

 GABION BASKET

 "P" (PRELIMINARY) LINE AS SURVEYED

 "L" LINE - CENTER LINE TO BE CONSTRUCTED

 OFFICE LINE

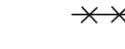
 V.P.I. (VERTICAL POINT OF INTERSECTION)

 RIGHT-OF-WAY LIMITS

 SECTION LINE

 CUT LINE } CONSTRUCTION LIMITS

 FILL LINE }

 FENCE LINE

 EXISTING ROAD EDGE

 BRIDGE

 BERM

 395 US HIGHWAY

 CAMPGROUND

 80 INTERSTATE HIGHWAY

 SALESTAR

 NORTH ARROW

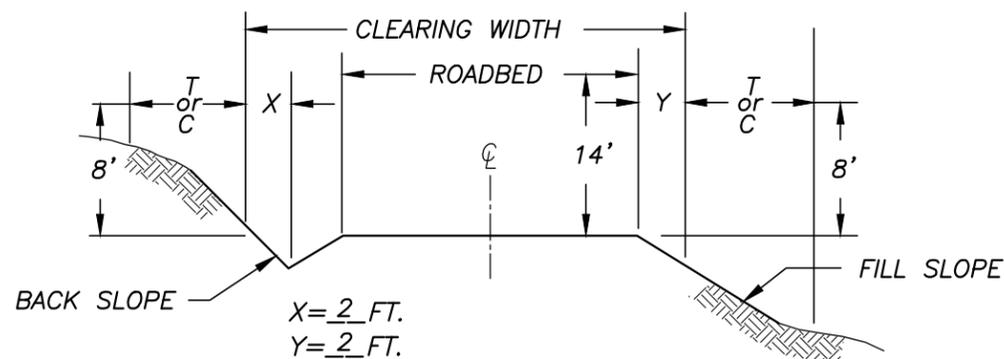
## SUMMARY OF QUANTITIES

### ROAD 24N60 (RECONSTRUCTION)

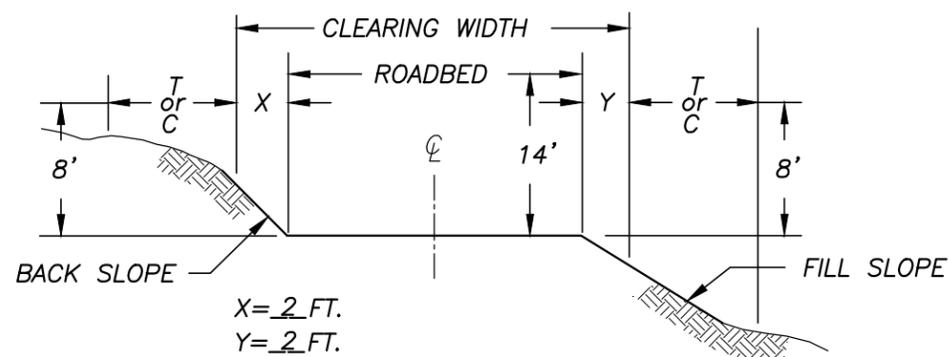
201(02)	CLEARING AND GRUBBING, SLASH TREATMENT METHODS FOR TOPS AND LIMBS 4; LOGS 4; AND STUMPS 4; UTILIZATION OF TIMBER 1	ACRE	0.19
203(02)	EXCAVATION AND EMBANKMENT, METHOD 2	C.Y.	10
203(19)	DRAINAGE EXCAVATION TYPE; DITCH	L.F.	2060
203(20)	DRAINAGE EXCAVATION TYPE; DIP	EACH	3
306(01)	RECONDITIONING OF ROADBED, COMPACTION D	MILE	0.39

SAMPLE

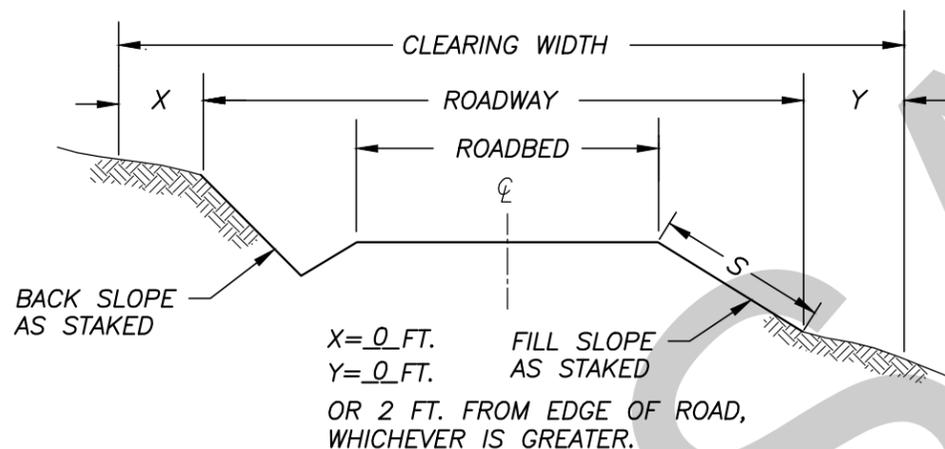
# CLEARING



## RECONSTRUCTION ~ DITCH SECTION



## RECONSTRUCTION ~ NO DITCH



## NEW CONSTRUCTION & NEWLY CONSTRUCTED SLOPES

# NOTES:

- ROADBED WIDTHS SHOWN ON PLAN AND PROFILE, OR WORKLIST PLANS, INCLUDE TURNOUTS AND CURVE WIDENING.
- BLADE TO DAYLIGHT OR CONSTRUCT DRAINAGE DITCH, UNLESS OTHERWISE SHOWN ON PLANS. WHERE DAYLIGHT WILL EXCEED 5', CONSTRUCT DRAINAGE DITCH. WHEN AGREED, A DRAINAGE DITCH SHAPE MAY BE USED FOR LEAD-OFF DITCH.  
A CROSS SLOPE OF 4% +/- 1%, SHALL BE USED FOR ALL SUPERELEVATED CURVES, AND FOR ALL INSLOPED, OUTSLOPED, OR CROWNED ROADBEDS.

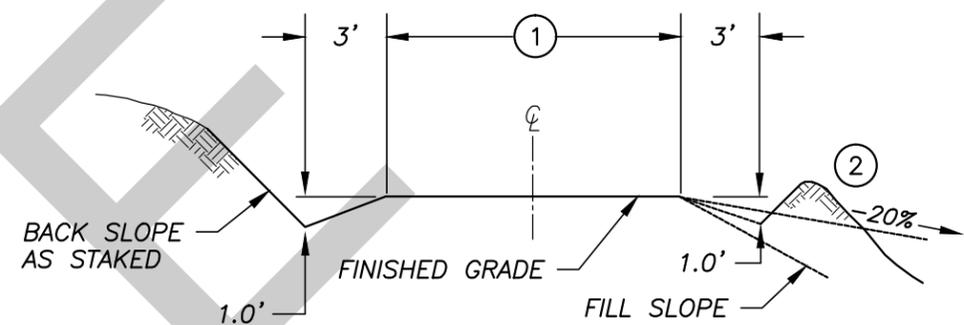
A GRADER FINISH SHALL BE REQUIRED ON ALL PROJECTS. THE SUBGRADE SHALL BE VISIBLY MOIST DURING BLADING AND SHAPING OPERATIONS.

IN CLEAR OR TRIM SECTIONS, LEAVE STABLE TREES OVER 6" D.B.H..

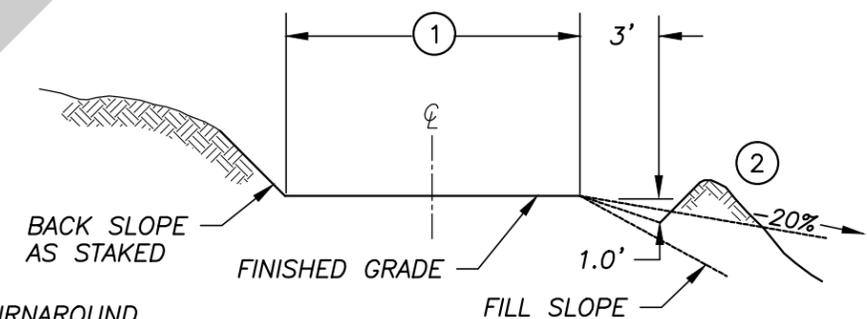
ROADS CONSTRUCTED UNDER SECTION 203 SHALL USE CONSTRUCTION TOLERANCE CLASS K.

"C"=CLEAR "T"=TRIM

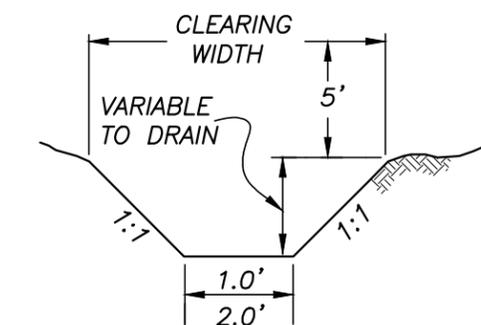
# CONSTRUCTION



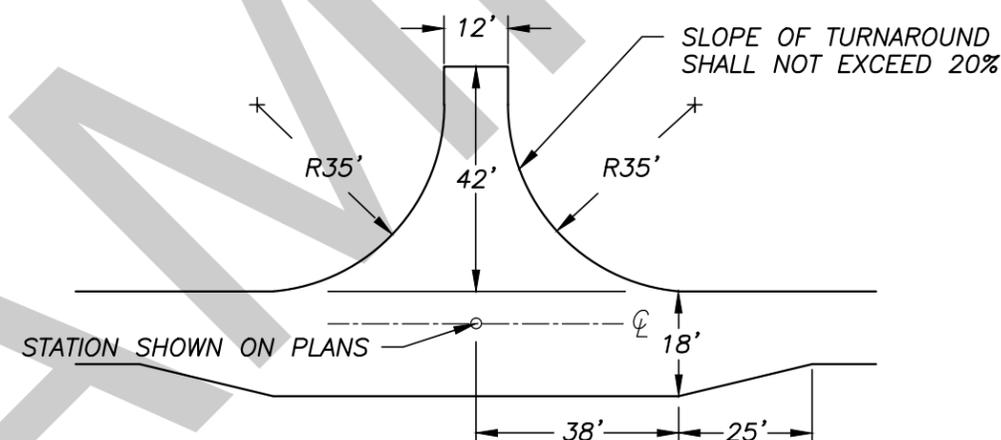
## TYPICAL ROADWAY ~ DITCH SECTION



## TYPICAL ROADWAY ~ NO DITCH



WIDTH IS 1' FOR LEAD-OFF DITCH AND 2' FOR 2' FLAT-BOTTOM DITCH  
**LEAD-OFF DITCH AND 2' FLAT-BOTTOM DITCH**

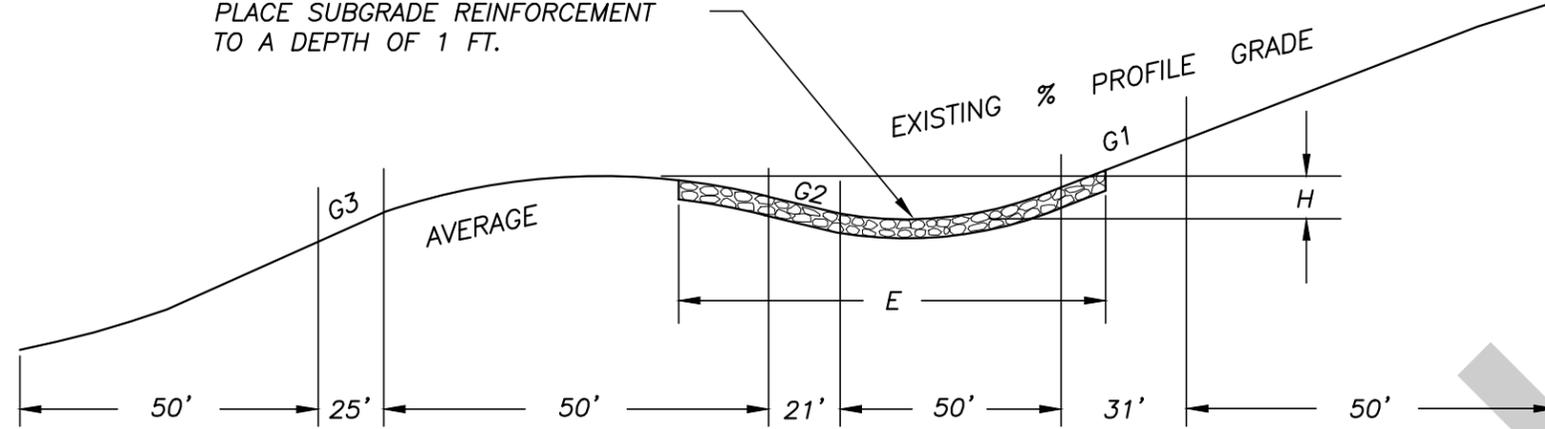


## HAMMERHEAD TURNAROUND



## TURNOUT

WHEN SHOWN ON DRAWINGS,  
PLACE SUBGRADE REINFORCEMENT  
TO A DEPTH OF 1 FT.



**PROFILE VIEW**

ROLLING DIP CONSTRUCTION DIMENSIONS						
% PROFILE GRADE	CONST. GRADE			DEPTH (H)	REINFORCEMENT	
	G1	G2	G3		LENGTH (E)	CUBIC YARDS
0 TO 4	-7	2	-6	0.6'	20'	12
5 TO 6	-10	2	-9	0.6'	20'	12
7 TO 8	-13	2	-12	0.5'	20'	12
9 TO 10	-16	2	-15	0.5'	30'	18
OVER 10 % NOT RECOMMENDED						

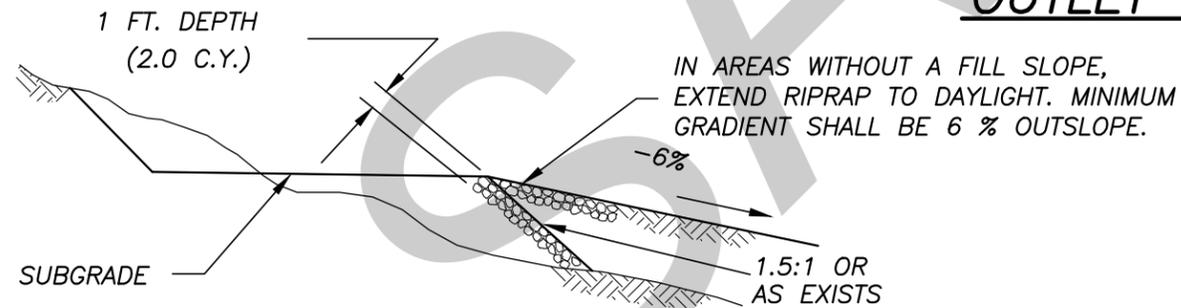
**ROLLING DIP CONSTRUCTION NOTES:**

1. THE CROSS SLOPE OF THE ROADBED SHALL BE MAINTAINED THROUGH THE DIP.
2. THE DRAIN LINE SHALL BE PERPENDICULAR TO THE CENTER LINE OF THE ROADBED.
3. PLACE CLASS 2 (714) OUTLET RIPRAP WHEN SHOWN ON THE DRAWINGS. REFER TO OUTLET RIPRAP DETAIL BELOW.
4. FOR DIPS ON AGGREGATE SURFACED ROADS, REDUCE (H) DEPTH BY 0.2 FT.
5. WATERBAR AND DIP CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE FP-03 SUPPLEMENTAL SPECIFICATION 204.13(d); TOLERANCE CLASS A.
6. GEOTEXTILES SHALL MEET SPECIFICATIONS FOR 714 TYPE II-B

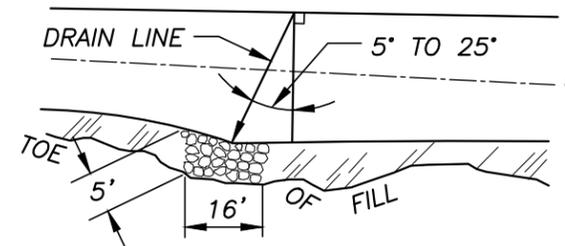
**WATERBAR CONSTRUCTION NOTES:**

1. WATERBARS ARE USUALLY CONSTRUCTED BY ANGLE DOZERS. WATERBARS SHALL HAVE A CLEAN OUTLET AND BE CONSTRUCTED SO THEY WILL NOT FAIL THROUGH ALL WEATHER USE.
2. THE WATERBAR DRAIN LINE SHALL BE SKEWED 5° TO 25°.
3. WATERBARS SHALL BE CONSTRUCTED SO THAT DRAINLINE EXCAVATION IS APPROXIMATELY SIX INCHES (6") INTO SOLID SOIL AND THE TOP OF COMPACTED WATERBAR IS TWELVE INCHES (12") ABOVE THE DRAINLINE.
4. THE TOTAL LENGTH OF THE WATERBAR SHALL NOT BE LESS THAN SIXTEEN FEET (16').
5. CROSS SLOPE OF THE DRAIN LINE SHALL BE EQUIVALENT TO TO THE CROSS SLOPE OF THE ROAD PLUS TWO PERCENT (2%).

**OUTLET RIPRAP**



**CROSS SECTION VIEW**



**PLAN VIEW**

<u>STATION</u>	<u>TO</u>	<u>STATION</u>	<u>WORK ITEMS ROAD 24N60</u>
0+00	-	3+90	NO RECONSTRUCTION NEEDED. 0+00 INTERSECTION WITH 25N42.
3+90			PROJECT LIMIT
3+90	-	24+50	RECONSTRUCT EXISTING ROADWAY IN ACCORDANCE WITH SECTIONS 201, 203, AND 306. THE TREATMENT FOR CONSTRUCTION SLASH SHALL BE METHOD 4 – SCATTERING UNDER SEC. 201.05. THE EXCAVATION AND EMBANKMENT SHALL BE METHOD 2 LAYER PLACEMENT. THE CONSTRUCTION TOLERANCE CLASS SHALL BE "K". THE FINISHED ROADBED WIDTH SHALL INCLUDE THE EXISTING TURNOUTS AND CURVE WIDENING. THE MINIMUM FINISHED ROADBED WIDTH SHALL BE 14 FEET. RECONDITION ROADBED AND ALL DRAINAGE STRUCTURES (INCLUDING ALL TYPES OF DITCHES, DIPS, DROP INLETS, AND CATCH BASINS) IN ACCORDANCE WITH SECTION 306.
3+90	-	22+00	INSLOPE ROAD RT.
3+90	-	24+50	RECONSTRUCT DITCH RT.
5+50			CONSTRUCT DIP DRAIN RIGHT.
14+36			CONSTRUCT DIP DRAIN RIGHT.
22+65			CONSTRUCT DIP DRAIN RIGHT.
24+50			PROJECT LIMIT, END RECONSTRUCTION.