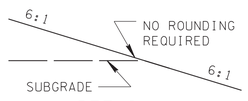
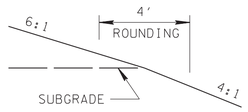
REV.11-09-88: CHANGED SHOULDER SLOPE.

REV. 9-10-90: REDREW SHEET. REORGANIZED SHEET AND UPDATED TO 1990 POLICY.

- REV. 1-19-92: ADDED FOOTNOTE NO. (11) .
- REV. 3-20-02: ADDED SPECIAL NOTE.
- REV. 3-31-03: CHANGED EFFECTIVE DATE IN SPECIAL NOTE.



DETAIL A



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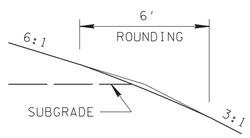
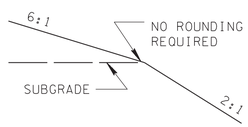
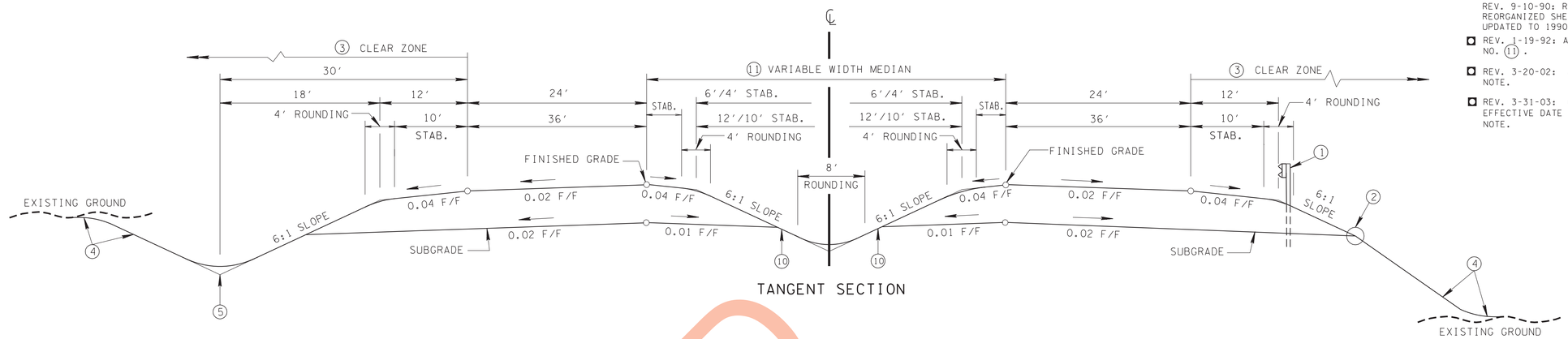


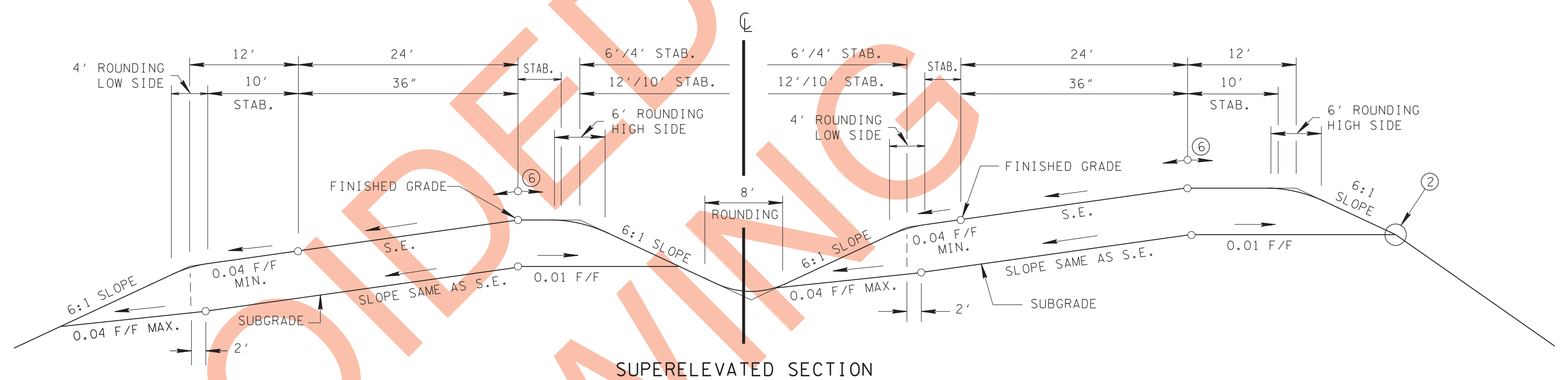
DETAIL C



DETAIL D



TANGENT SECTION



SUPERELEVATED SECTION

VOIDED DRAWING

SPECIAL NOTE

THIS DRAWING IS NOT TO BE UTILIZED FOR NEW DESIGN PROJECTS BEGUN AFTER OCTOBER 1, 2002.

(9) DESIGN SPEED (MPH)	
LEVEL TOPO	60
ROLLING TOPO	50
MOUNTAINOUS TOPO	40

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)		DESIGN SPEEDS (MPH)				
		30	40	50	60	70
MAXIMUM CURVATURE (DEGREES) 0.04 MAX. S.E.		19°00'	10°00'	6°00'	3°45'	———
MAXIMUM CURVATURE (DEGREES) 0.06 MAX. S.E.		21°00'	11°15'	6°45'	4°15'	2°45'
MAXIMUM CURVATURE (DEGREES) 0.08 MAX. S.E.		22°45'	12°15'	7°30'	4°45'	3°00'
MAXIMUM CURVATURE (DEGREES) 0.10 MAX. S.E.		24°45'	13°15'	8°15'	5°15'	3°30'
MAXIMUM RURAL GRADES (%) (PAGE 472, TABLE VI-3)	LEVEL TOPO	7	7	6	5	4
	ROLLING TOPO	9	8	7	6	5
	MOUNTAINOUS TOPO	10	10	9	8	6
MAXIMUM URBAN GRADES (%) (PAGE 472, TABLE VI-3)	LEVEL TOPO	9	9	7	6	5
	ROLLING TOPO	11	10	8	7	6
	MOUNTAINOUS TOPO	12	12	10	9	7
(8) MINIMUM STOPPING SIGHT DISTANCE (FEET)		200	275-325	400-475	525-650	625-850
(7) MINIMUM "K" VALUE	CREST VERTICAL CURVE	30	60-80	110-160	190-310	290-540
	SAG VERTICAL CURVE	40	60-70	90-110	120-160	150-220
SUPERELEVATION		SEE STANDARD DRAWINGS RD-SE-2 & RD-SE-3				

FOOTNOTES

(1) SEE GUARDRAIL STANDARD DRAWINGS FOR TYPICAL GUARDRAIL PLACEMENT.

(2) SEE DETAIL A, B, C, OR D ON THIS SHEET FOR ROUNDING.

(3) MINIMUM CLEAR ZONE IS 10 FEET FOR 40 MILES PER HOUR OR LESS. FOR 50 MILES PER HOUR DESIGN AND GREATER THE CLEAR ZONE WIDTH SHALL BE DETERMINED FROM STANDARD DRAWING RD-S-11. FOR URBAN DESIGN SEE PAGE 486-487.

(4) SEE STANDARD DRAWING RD-S-11 FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, AND SPECIAL ROCK CUT TREATMENT.

(5) SEE STANDARD DRAWING RD-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.

(6) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT.

(7) "K" VALUE IS A COEFFICIENT BY WHICH THE ALGEBRAIC DIFFERENCE IN GRADE MAY BE MULTIPLIED TO DETERMINED THE LENGTH IN FEET OF THE VERTICAL CURVE.

(8) ANY LENGTH OF STOPPING SIGHT DISTANCE WITHIN THE RANGE OF VALUES ESTABLISHED ON PAGE 470, TABLE VI-2A IS ACCEPTABLE FOR A SPECIFIC SPEED. HOWEVER, VALUES APPROACHING OR EXCEEDING THE UPPER LIMIT OF THE RANGE SHOULD BE USED AS THE BASIS FOR DESIGN WHEREVER CONDITIONS PERMIT.

(9) RURAL ONLY SEE PAGE 469, TABLE VI-1. FOR URBAN DESIGN SEE PAGE 480.

(10) 4:1 SLOPES MAY BE USED WITH NARROW MEDIANS AND LOW DESIGN SPEEDS.

(11) MINIMUM MEDIAN WIDTH IS TO BE 48 FEET WHEN USING 6 FEET WIDE INSIDE SHOULDERS. MINIMUM MEDIAN WIDTH IS TO BE 64 FEET WHEN USING 12 FOOT WIDE INSIDE SHOULDERS.

GENERAL NOTES

(A) FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" 1990.

(B) PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM THE ABOVE REFERENCE.

(C) REFERENCE SHOULD ALSO BE MADE TO THE AASHTO "ROADSIDE DESIGN GUIDE".

(D) DESIRABLE RIGHT-OF-WAY IS SLOPE LINES PLUS TEN FEET.

(E) IF NO ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE TRAVELED WAY PLUS CLEAR ZONE.

(F) IF ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE SUFFICIENT TO ACCOMMODATE THE UTILITIES OUTSIDE THE CLEAR ZONE.

(G) ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR HS-20 LOADING. THE MINIMUM CLEAR WIDTH FOR NEW AND REHABILITATED BRIDGES SHALL BE EQUAL TO THE FULL WIDTH OF THE APPROACH ROADWAY, CURB-TO-CURB OR FULL SHOULDER WIDTH AS APPLICABLE.

(H) BRIDGES TO REMAIN IN PLACE SHOULD HAVE ADEQUATE STRENGTH AND AT LEAST THE WIDTH OF THE TRAVELED WAY PLUS 2-FEET CLEARANCE ON EACH SIDE, BUT SHOULD BE CONSIDERED FOR ULTIMATE WIDENING OR REPLACEMENT IF THEY DO NOT PROVIDE AT LEAST 3-FEET CLEARANCE ON EACH SIDE OR ARE NOT CAPABLE OF HS-20 LOADINGS. AS AN INTERIM MEASURE, ALL BRIDGES THAT ARE LESS THAN FULL WIDTH SHOULD BE CONSIDERED FOR SPECIAL NARROW BRIDGE TREATMENTS SUCH AS SIGNING AND PAVEMENT MARKING.

- MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS
4-6 LANE COLLECTOR
HIGHWAYS WITH
DEPRESSED MEDIANS

5-27-87 | RD-TS-2A