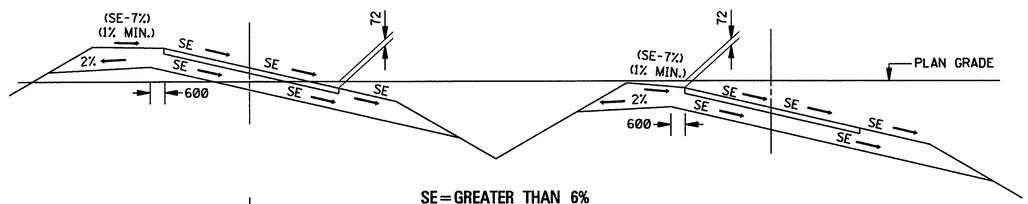
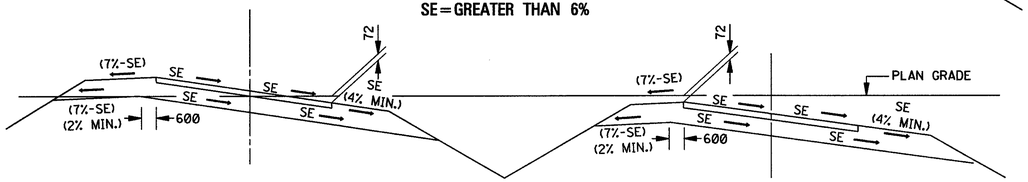
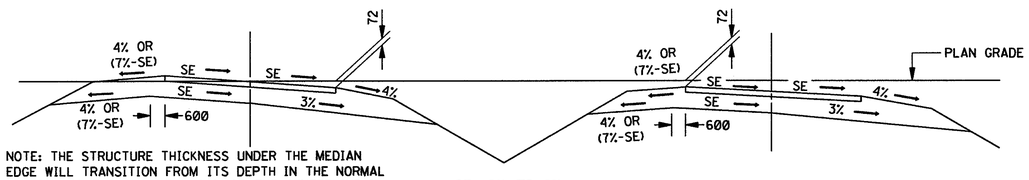
STATE	PROJECT NO.
MISS.	



SE=GREATER THAN 6%

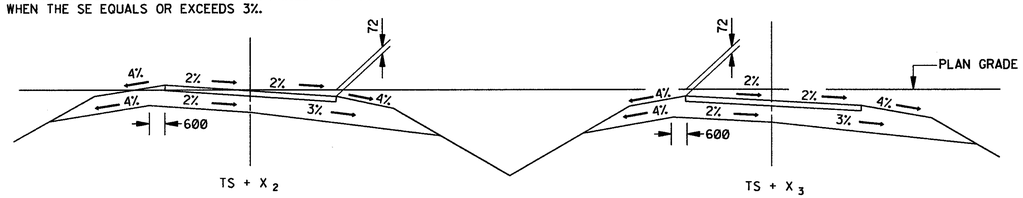


OUTSIDE (HIGH-SIDE) SE=3% TO 6% INSIDE (LOW-SIDE)



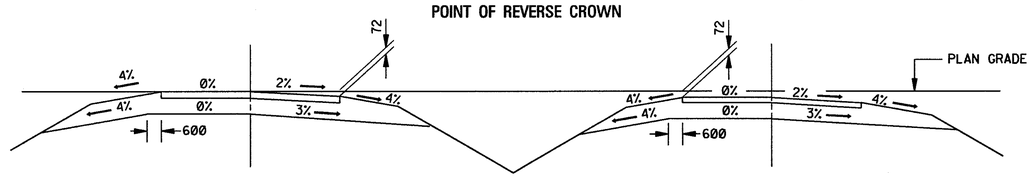
NOTE: THE STRUCTURE THICKNESS UNDER THE MEDIAN EDGE WILL TRANSITION FROM ITS DEPTH IN THE NORMAL SECTION TO THE AMOUNT SHOWN AT THE CENTERLINE IN THE NORMAL SECTION. THIS TRANSITION WILL ONLY OCCUR WHEN THE SE EQUALS OR EXCEEDS 3%.

SE=2% TO 3%

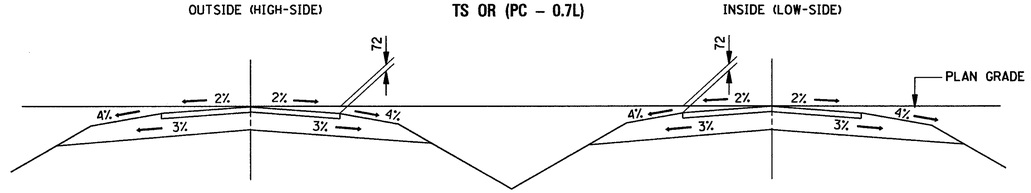


TS + X_2 TS + X_3

POINT OF REVERSE CROWN

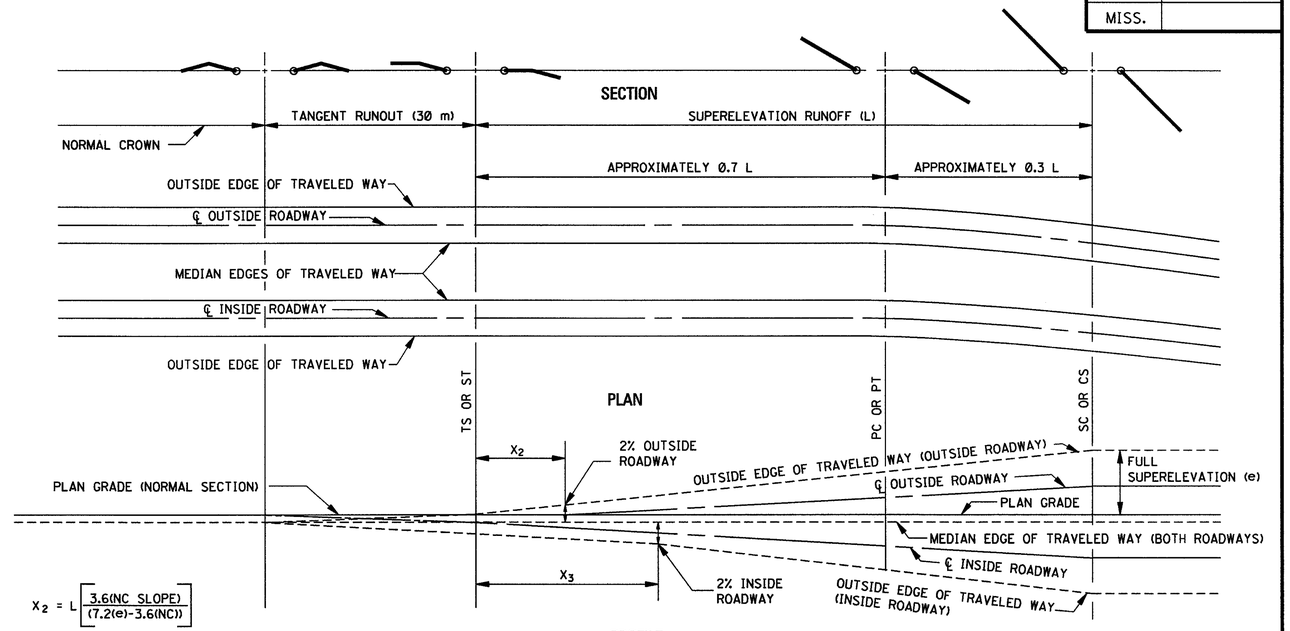


OUTSIDE (HIGH-SIDE) TS OR (PC – 0.7L) INSIDE (LOW-SIDE)



NORMAL CROWN

NOTE: TYPICAL, OR AS SHOWN ELSEWHERE ON THE PLANS.



$$X_2 = L\left[\frac{3.6(NC\ SLOPE)}{(7.2(e)-3.6(NC))}\right]$$

$$X_3 = L\left[\frac{3.6(NC\ SLOPE)}{3.6(e)}\right]$$

DIAGRAMMATIC PLAN AND PROFILE

*R (m)	V = 40 km/h			V = 50 km/h			V = 60 km/h			V = 70 km/h			V = 80 km/h			V = 90 km/h			V = 100 km/h			V = 110 km/h		
	e	L(m)		e	L(m)		e	L(m)		e	L(m)		e	L(m)		e	L(m)		e	L(m)		e	L(m)	
		A	B		A	B		A	B		A	B		A	B		A	B		A	B		A	B
7000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0
5000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0
3000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	56	56	2.1	61	61
2500	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	50	50	2.2	56	56	2.5	61	61
2000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	44	44	2.2	50	50	2.7	56	56	3.1	61	61
1500	NC	0	0	NC	0	0	NC	0	0	RC	39	39	2.4	44	44	2.9	50	50	3.5	56	56	4.1	61	61
1400	NC	0	0	NC	0	0	RC	33	33	2.1	39	39	2.6	44	44	3.1	50	50	3.8	56	56	4.3	61	61
1300	NC	0	0	NC	0	0	RC	33	33	2.3	39	39	2.8	44	44	3.3	50	50	4.0	56	56	4.6	61	61
1200	NC	0	0	NC	0	0	RC	33	33	2.4	39	39	3.0	44	44	3.6	50	50	4.3	56	56	5.0	61	65
1000	NC	0	0	RC	28	28	2.2	33	33	2.9	39	39	3.5	44	44	4.2	50	50	5.1	56	62	5.9	61	76
900	NC	0	0	RC	28	28	2.5	33	33	3.2	39	39	3.9	44	44	4.6	50	52	5.6	56	68	6.4	61	83
800	NC	0	0	RC	28	28	2.7	33	33	3.5	39	39	4.3	44	47	5.1	50	58	6.2	56	75	7.1	61	92
700	RC	22	22	2.3	28	28	3.1	33	33	4.0	39	40	4.8	44	52	5.8	50	66	6.9	56	83	8.0	69	103
600	RC	22	22	2.7	28	28	3.6	33	33	4.5	39	45	5.5	44	60	6.5	50	74	7.8	62	94	9.0	77	116
500	2.3	22	22	3.1	28	28	4.2	33	38	5.3	39	53	6.4	46	69	7.6	57	86	8.9	71	107	9.9	85	127
400	2.8	22	22	3.8	28	32	5.0	33	45	6.3	41	62	7.5	54	81	8.8	67	100	9.8	78	117	R_{min} = 455		
300	3.6	22	28	4.8	28	40	6.3	38	57	7.8	51	77	9.0	65	97	9.9	75	112	R_{min} = 360					
250	4.2	22	33	5.6	30	45	7.1	43	64	8.7	57	86	9.7	70	105	R_{min} = 280								
200	5.0	26	39	6.6	36	53	8.2	49	74	9.6	63	94	R_{min} = 210											
175	5.6	29	43	7.1	38	58	8.8	53	79	9.9	65	97												
150	6.2	32	48	7.8	42	63	9.4	57	85	R_{min} = 165														
140	6.4	33	49	8.1	44	66	9.6	58	87															
130	6.7	34	52	8.5	46	69	9.8	59	88															
120	7.0	36	54	8.8	48	71	10.0	60	90															
110	7.4	38	57	9.1	49	74	R_{min} = 115																	
100	7.7	40	59	9.5	51	77																		
90	8.2	42	63	9.8	53	79																		
80	8.6	44	66	10.0	54	81																		
70	9.1	47	70	R_{min} = 80																				
60	9.6	49	74																					
50	10.0	51	77																					
	R_{min} = 50																							

e_{max} = 10%

*NOTE: FOR CURVE RADII INTERMEDIATE BETWEEN TABLE VALUES, USE A STRAIGHT-LINE INTERPOLATION TO DETERMINE THE SUPERELEVATION RATE.

KEY:

R = RADIUS OF CURVE (m)
V = DESIGN SPEED (km/h)
e = FULL SUPERELEVATION RATE (%)
L = MINIMUM LENGTH OF SUPERELEVATION RUNOFF (FROM ADVERSE CROWN REMOVED TO FULL SUPER) (m)
A = "L" FOR 1-LANE WIDTH OF ROTATION
B = "L" FOR 2-LANE WIDTH OF ROTATION
NC = NORMAL CROWN (2% CROSS SLOPE)
RC = REVERSE CROWN; SUPERELEVATE AT NORMAL CROWN SLOPE (2%)

GENERAL NOTES:

1. "L" IN THE TABLE IS FOR ROTATION ABOUT THE CENTERLINE OF 2 LANES ("A") AND 4 LANES ("B") OF TRAVELED WAYS (1 LANE AND 2 LANES EACH SIDE OF THE ROTATION POINT RESPECTIVELY). MINIMUM LENGTH OF RUNOFF FOR VARIOUS WIDTHS OF ROTATION ARE AS FOLLOWS:
   FOR ROTATING A WIDTH OF 3 TRAVEL LANES: L = (1.33)(L IN COLUMN B)
   FOR ROTATING A WIDTH OF 4 TRAVEL LANES: L = (1.67)(L IN COLUMN B)
2. SPIRAL TRANSITION CURVES SHOULD BE USED FOR THE LENGTH OF SUPERELEVATION RUNOFF FOR ALL CURVES IN THE TABLE BELOW THE HEAVY LINE (e > 5%).
3. A VERTICAL CURVE WITH A LENGTH (IN METERS) EQUAL TO 20% OF THE DESIGN SPEED (IN km/h) SHOULD BE PLACED AT EXCESSIVE ANGULAR BREAKS.

ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

SUPERELEVATION TRANSITION CASE II
ROTATION ABOUT EDGE OF TRAVELED WAY
(3% NORMAL SUBGRADE)

ISSUE DATE: OCTOBER 1, 1998

METRIC

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