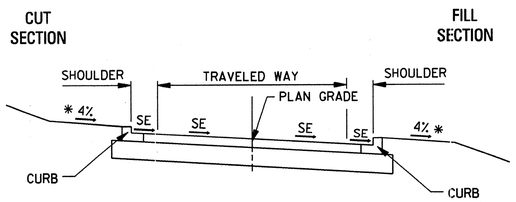
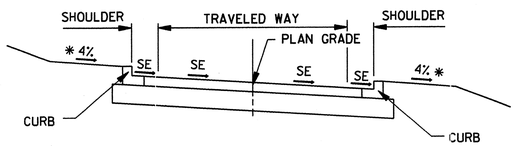
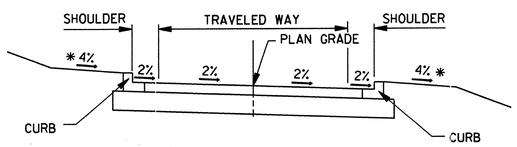
| STATE | PROJECT NO. |
|---|---|
| MISS. | |



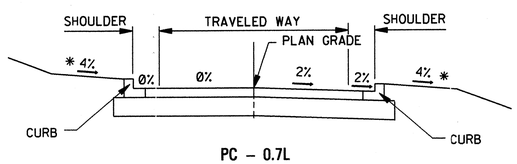

SE=3% TO 6%



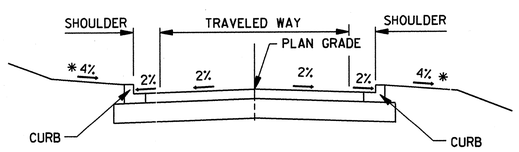

SE=2% TO 3%




POINT OF REVERSE CROWN



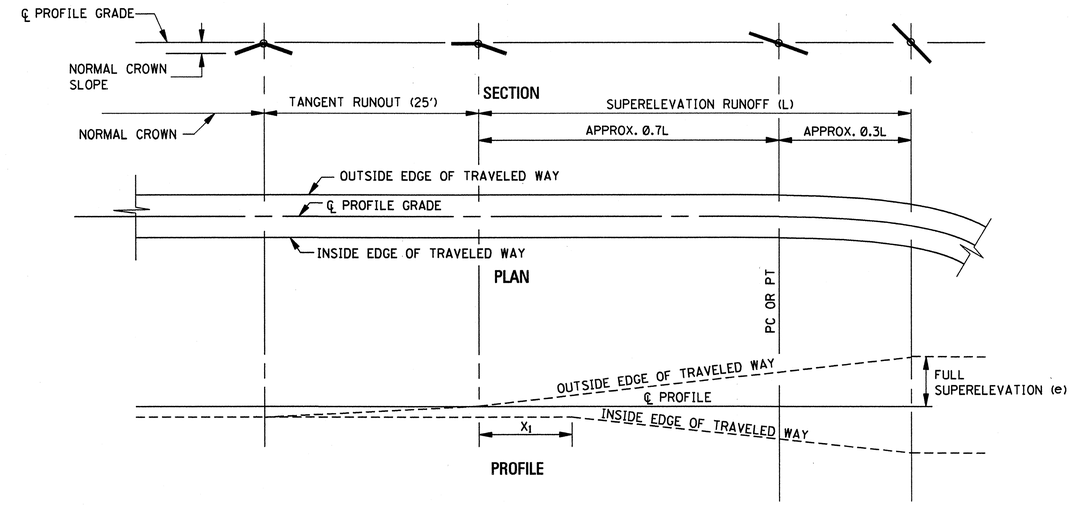

PC – 0.7L




NORMAL CROWN

NOTE: TYPCIAL, OR AS SHOWN ELSEWHERE ON PLANS.

DETAILS OF SHOULDER TREATMENT




$$X_1 = L\left[\frac{12(NC\ SLOPE)}{12(e)}\right]$$

## DIAGRAMMATIC PLAN AND PROFILE

SUPERELEVATION RUNOFF LENGTHS (L)

| DESIGN SPEED (mph) | 'e' | | | | | | |
|---|---|---|---|---|---|---|---|
| | ≤ 3.0% | 3.5% | 4.0% | 4.5% | 5.0% | 5.5% | 6.0% |
| 20 | 40' | 45' | 50' | 60' | 65' | 70' | 75' |
| 25 | 40' | 50' | 55' | 60' | 70' | 75' | 80' |
| 30 | 45' | 55' | 60' | 70' | 75' | 85' | 90' |
| 35 | 55' | 60' | 65' | 75' | 80' | 90' | 95' |
| 40 | 60' | 60' | 70' | 80' | 85' | 95' | 105' |
| 45 | 70' | 70' | 75' | 85' | 95' | 100' | 110' |

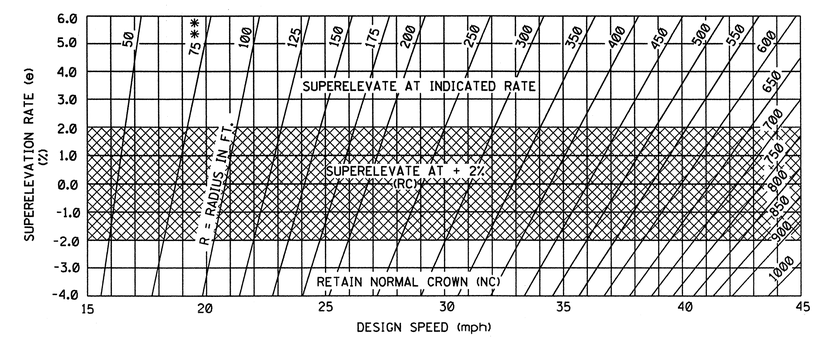
KEY: $e_{max}$ = 6%

R = RADIUS OF CURVE (ft)
V = DESIGN SPEED (mph)
e = FULL SUPERELEVATION RATE (%)
L = MINIMUM LENGTH OF SUPERELEVATION RUNOFF (FROM ADVERSE CROWN REMOVED TO FULL SUPER) (ft)
NC = NORMAL CROWN (2% CROSS SLOPE)
RC = REVERSE CROWN; SUPERELEVATE AT NORMAL CROWN SLOPE (2%)

GENERAL NOTES:

1. SUPERELEVATION RUNOFF LENGTH (L) FROM TABLE IS USED DIRECTLY FOR ROTATION OF 1-LANE WIDTH (i.e., TWO 12' LANES ROTATED ABOUT THE CENTERLINE). FOR GREATER WIDTHS OF ROTATION:
   L (2 LANES) = 1.5(L) (TABLE)
   L (3 LANES) = 2.0(L) (TABLE)
2. A VERTICAL CURVE WITH A LENGTH (IN FEET) EQUAL TO THE DESIGN SPEED (IN mph) SHOULD BE PLACED AT EXCESSIVE ANGULAR BREAKS.

*3. THE MAXIMUM CROSS SLOPE ALLOWED WILL BE 2% WHERE A SIDEWALK IS REQUIRED.




**NOTE: THE VALUES IN THE FIGURE ARE THE CALCULATED (UNROUNDED) VALUES. FOR DESIGN PURPOSES, ROUNDED MINIMUM RADII ARE USED AS FOLLOWS:

| | DESIGN SPEED (mph) | | | | | |
|---|---|---|---|---|---|---|
| | 20 | 25 | 30 | 35 | 40 | 45 |
| $R_{min}$ (ft), e=6.0% | 75 | 135 | 215 | 320 | 450 | 610 |

| DATE | REVISION | BY |
|---|---|---|
| | | |

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

# SUPERELEVATION TRANSITION ROTATION ABOUT CENTERLINE

**(URBAN FACILITY, V≤45 mph)**

ENGLISH

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