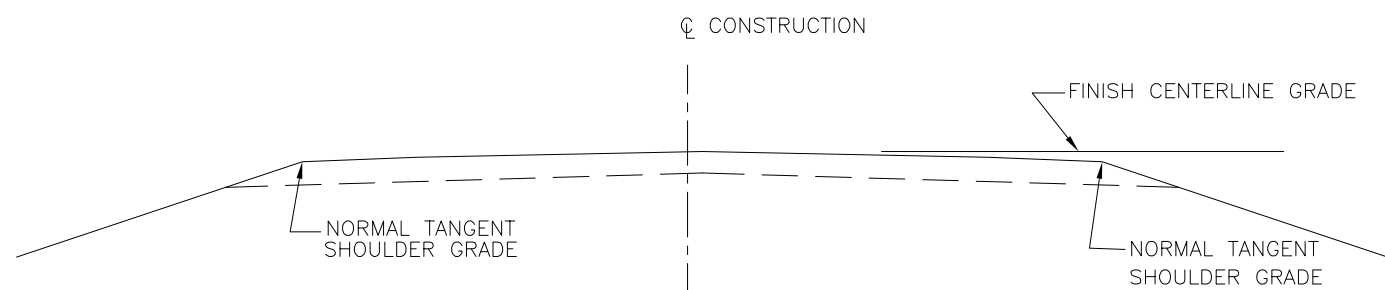
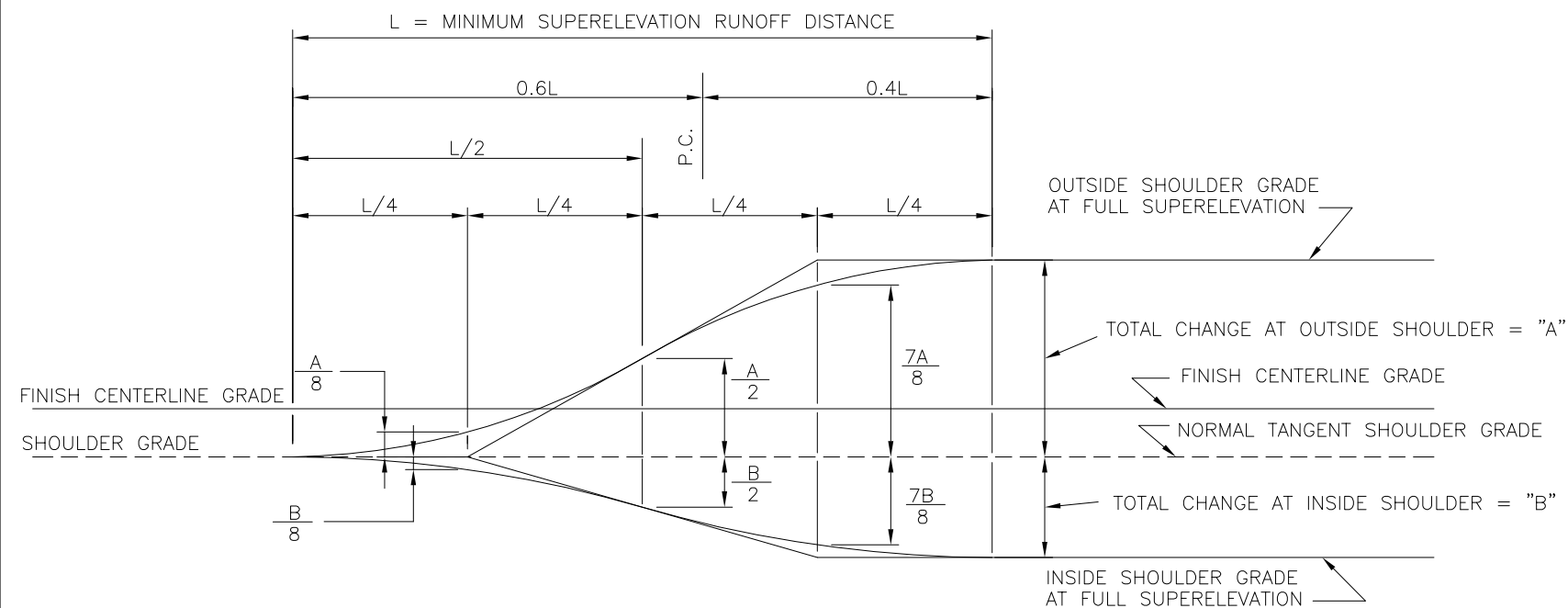


FULL SUPERELEVATED SECTION



NORMAL TANGENT SECTION



TYPICAL PROFILE FOR SUPERELEVATION RUNOFF

VALUES FOR DESIGN ELEMENTS RELATED TO DESIGN SPEED AND HORIZONTAL CURVATURE

| D | R (FT) | V=30 MPH | | V=35 MPH | | V=40 MPH | | V=45 MPH | | V=50 MPH | | V=60 MPH | |
|--------|---------|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|----------------|-----|----------------|-----|
| | | e | L | e | L | e | L | e | L | e | L | e | L |
| | | % | FT | % | FT | % | FT | % | FT | % | FT | % | FT |
| 0'15" | 22918 | NC | 0 | NC | 0 | NC | 0 | NC | 0 | NC | 0 | NC | 0 |
| 0'30" | 11459 | NC | 0 | NC | 0 | NC | 0 | NC | 0 | NC | 0 | RC | 175 |
| 0'45" | 7639 | NC | 0 | NC | 0 | NC | 0 | NC | 0 | RC | 150 | 2.3 | 175 |
| 1'00" | 5729.58 | NC | 0 | NC | 0 | RC | 125 | RC | 135 | 2.1 | 150 | 3.0 | 175 |
| 1'30" | 3819.72 | NC | 0 | RC | 110 | 2.1 | 125 | 2.6 | 135 | 3.1 | 150 | 4.3 | 175 |
| 2'00" | 2864.79 | RC | 100 | 2.2 | 110 | 2.8 | 125 | 3.4 | 135 | 4.0 | 150 | 5.5 | 175 |
| 2'30" | 2291.83 | 2.1 | 100 | 2.8 | 110 | 3.4 | 125 | 4.1 | 135 | 4.9 | 150 | 6.7 | 190 |
| 3'00" | 1909.86 | 2.5 | 100 | 3.2 | 110 | 4.0 | 125 | 4.8 | 135 | 5.7 | 150 | 7.7 | 210 |
| 3'30" | 1637.02 | 2.9 | 100 | 3.7 | 110 | 4.6 | 125 | 5.5 | 140 | 6.5 | 160 | 8.6 | 230 |
| 4'00" | 1432.39 | 3.3 | 100 | 4.2 | 110 | 5.1 | 125 | 6.1 | 150 | 7.2 | 180 | 9.3 | 250 |
| 5'00" | 1145.92 | 4.0 | 100 | 5.0 | 115 | 6.1 | 130 | 7.2 | 165 | 8.3 | 200 | 9.8 | 270 |
| 6'00" | 954.93 | 4.6 | 100 | 5.8 | 125 | 7.0 | 150 | 8.1 | 185 | 9.2 | 220 | D MAX = 5'-15' | |
| 7'00" | 818.51 | 5.3 | 100 | 6.5 | 130 | 7.8 | 160 | 8.9 | 200 | 9.8 | 240 | | |
| 8'00" | 716.20 | 5.8 | 110 | 7.1 | 145 | 8.4 | 180 | 9.5 | 210 | 10.0 | 240 | | |
| 9'00" | 636.62 | 6.3 | 120 | 7.7 | 155 | 8.9 | 190 | 9.8 | 215 | D MAX = 8'-15' | | | |
| 10'00" | 572.96 | 6.8 | 120 | 8.1 | 160 | 9.4 | 200 | 10.0 | 220 | | | | |
| 11'00" | 520.87 | 7.2 | 130 | 8.6 | 165 | 9.7 | 200 | D MAX = 10'-30' | | | | | |
| 12'00" | 477.46 | 7.6 | 140 | 9.0 | 175 | 9.9 | 210 | | | | | | |
| 13'00" | 440.74 | 8.0 | 140 | 9.3 | 175 | 10.0 | 210 | | | | | | |
| 14'00" | 409.26 | 8.3 | 150 | 9.6 | 180 | D MAX = 13'-15' | | | | | | | |
| 16'00" | 358.10 | 8.9 | 160 | 9.9 | 190 | | | | | | | | |
| 18'00" | 318.31 | 9.3 | 170 | D MAX = 17'-45' | | | | | | | | | |
| 20'00" | 286.48 | 9.7 | 170 | | | | | | | | | | |
| 22'00" | 260.44 | 9.9 | 180 | | | | | | | | | | |
| 24'00" | 238.73 | 10.0 | 180 | | | | | | | | | | |
| | | D MAX = 24'-45' | | | | | | | | | | | |

D = DEGREE OF CURVATURE
R = RADIUS OF CURVE
V = ASSUMED DESIGN SPEED
e = RATE OF SUPERELEVATION
L = MINIMUM LENGTH OF SUPERELEVATION RUNOFF
NC = NORMAL CROWN SECTION
RC = REMOVE ADVERSE CROWN, (SUPERELEVATE AT NORMAL CROWN SLOPE)

EXTRA WIDTH TABLE

| DEGREE OF CURVE D | EXTRA WIDTH (FT) | | |
|-------------------|------------------|------------------|------------------|
| | 20' TRAVELED WAY | 22' TRAVELED WAY | 24' TRAVELED WAY |
| 0'00" TO 3'59" | 0 | 0 | 0 |
| 4'00" TO 7'59" | 2 | 1 | 0 |
| 8'00" TO 16'00" | 3 | 2 | 0 |
| 16'01" AND OVER | 4 | 3 | 0 |

EXTRA WIDTH TO BE ADDED ON INSIDE OF CURVE. THE SPECIFIED EXTRA WIDTH IS TO BE ADDED AT A UNIFORM RATE THROUGHOUT SUPERELEVATION RUNOFF. CENTERLINE STRIPE SHALL EQUALLY DIVIDE SURFACE WIDTH. IF ADDITIONAL EXTRA WIDTH IS REQUIRED SEE VALUES IN DESIGN MANUAL.

- GENERAL NOTES:
1. IT IS SUGGESTED THAT THE SHOULDER GRADE CORRECTIONS FOR SUPERELEVATION RUNOFF BE DETERMINED GRAPHICALLY. USE A STANDARD CROSS SECTION SHEET WITH HORIZONTAL SCALE 1":20' AND VERTICAL SCALE 1":1'. CONNECT CONTROL POINTS WITH FLEXIBLE CURVE. CORRECTIONS CAN BE SCALED AT ANY POINT.
2. RECOMMENDED LENGTH OF HORIZONTAL CURVE IS 15V, MINIMUM IS 200 FT + L.
3. USE STRAIGHT LINE INTERPOLATION FOR INTERMEDIATE VALUES.
4. MINIMUM HORIZONTAL CURVES ARE REQUIRED EXCEPT WHEN e = NC.

| | | | |
|-----------------|---|-------|-------------------|
| BY: | OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION | | |
| REVISION: | <p style="text-align: center;">SUPERELEVATION AND EXTRA WIDTH</p> | | |
| DATE: | | | |
| BY: | JBM | DATE: | NOVEMBER 16, 2004 |
| DRAWING NUMBER: | SA-SE-1 | | |