SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

DEGREE OF CURVE	30 MPH			35 MPH			40 MPH			45 MPH		
	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE
0° 15'	NC			NC			NC			NC		
0° 30'	NC			NC			NC			NC		
0° 45'	NC			NC			NC			NC		
1° 00'	NC			NC			NC			RC	108	
1° 15'	NC			NC			RC	101		0.022	114	
1° 30'	NC			RC	94		0.022	106		0.028	130	
1° 45'	RC	86		RC	94		0.026	116		0.030	136	
2° 00'	RC	86		0.024	103		0.028	121		0.034	146	
2° 15'	RC	86		0.026	108		0.032	131		0.038	157	
2° 30'	0.022	90		0.028	113		0.034	136		0.042	168	
2° 45'	0.024	95		0.030	118		0.038	146		0.046	179	
3° 00'	0.026	100		0.034	126		0.040	151		0.050	190	300
3° 15'	0.028	103		0.036	131		0.044	161		0.052	194	
3° 30'	0.030	108		0.038	136		0.046	167	250	0.056	205	
3° 45'	0.032	112		0.040	140		0.050	176		0.058	211	
4° 00'	0.034	116		0.042	145	250	0.052	181		0.062	222	
4° 15'	0.036	120		0.044	150		0.054	186		0.064	227	
4° 30'	0.036	120		0.046	155		0.056	192		0.068	238	
4° 45'	0.038	125		0.048	160		0.060	202		0.070	244	
5° 00'	0.040	130		0.050	164		0.062	206		0.072	248	
5° 30'	0.044	138	250	0.054	173		0.066	217		0.078	265	
6° 00'	0.046	143		0.058	182		0.070	227		0.082	276	
6° 30'	0.050	151		0.062	192		0.074	238		0.086	287	
7° 00'	0.052	156		0.064	197		0.078	247		0.090	298	
7° 30'	0.054	160		0.068	206		0.080	252		0.092	302	350
8° 00'	0.058	168		0.070	211		0.084	263		0.094	308	
8° 30'	0.060	173		0.072	215		0.086	268	300	0.096	313	
9° 00'	0.062	178		0.076	224		0.088	272		0.098	319	
9° 30'	0.064	181		0.078	229		0.092	282		0.100	324	
10° 00'	0.066	186		0.080	234		0.094	288				
11° 00'	0.070	194		0.084	244		0.096	293				
12° 00'	0.074	203		0.088	253		0.098	298				
13° 00'	0.076	208		0.090	258	300	0.100	302	350			
14° 00'	0.080	216		0.094	266							
15° 00'	0.082	221		0.096	271							
16° 00'	0.086	229		0.098	276							
17° 00'	0.088	233		0.100	281							
18° 00'	0.090	238										
19° 00'	0.092	242										
20° 00'	0.094	246										
21° 00'	0.096	251	300									
22° 00'	0.096	251										
23° 00'	0.098	254										
24° 00'	0.098	254										
25° 00'	0.100	259										
	D MAX = 28° 30'			D MAX = 19° 30'			D MAX = 13° 45'			D MAX = 10° 30'		

DEGREE OF CURVE	50 MPH			55 MPH			60 MPH			65 MPH		
	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE
0° 15'	NC			NC			NC			NC		
0° 30'	NC			NC			RC	115		RC	115	
0° 45'	RC	115		RC	115		0.024	127		0.026	132	
1° 00'	0.022	121		0.026	132		0.030	144		0.034	156	
1° 15'	0.028	138		0.032	150		0.038	167		0.042	179	
1° 30'	0.032	150		0.038	167		0.044	185		0.050	202	350
1° 45'	0.036	161		0.044	185		0.050	202	350	0.056	218	
2° 00'	0.042	179		0.048	196		0.056	218		0.064	242	
2° 15'	0.046	190		0.054	214		0.062	236		0.070	259	
2° 30'	0.050	202		0.058	224	350	0.068	253		0.076	276	
2° 45'	0.054	214	300	0.064	242		0.072	265		0.082	294	
3° 00'	0.058	224		0.068	253		0.078	282		0.088	311	
3° 15'	0.062	236		0.072	265		0.082	294		0.092	323	400
3° 30'	0.066	247		0.076	276		0.086	305		0.096	334	
3° 45'	0.070	259		0.080	288		0.090	317		0.098	340	
4° 00'	0.072	265		0.084	300		0.094	329	400	0.100	346	
4° 15'	0.076	276		0.086	305		0.096	334				
4° 30'	0.078	282		0.090	317		0.098	340				
4° 45'	0.082	294		0.092	323		0.100	346				
5° 00'	0.084	300		0.094	329	400						
5° 30'	0.088	311		0.098	340							
6° 00'	0.092	323		0.100	346							
6° 30'	0.096	334	350									
7° 00'	0.098	340										
7° 30'	0.100	346										
8° 00'												
8° 30'												
9° 00'												
9° 30'												
10° 00'												
11° 00'												
12° 00'												
13° 00'												
14° 00'												
15° 00'												
16° 00'												
17° 00'												
18° 00'												
19° 00'												
20° 00'												
21° 00'												
22° 00'												
23° 00'												
24° 00'												
25° 00'												
	D MAX = 8° 25'			D MAX = 6° 30'			D MAX = 5° 15'			D MAX = 4° 15'		

DEGREE OF CURVE	70 MPH			75 MPH		
	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE	e	Ls (FT) MINIMUM	Ls (FT) DESIRABLE
0° 15'	NC			NC		
0° 30'	RC	115		0.022	121	
0° 45'	0.030	144		0.032	150	
1° 00'	0.038	167		0.042	179	350
1° 15'	0.046	190	350	0.052	208	
1° 30'	0.056	218		0.062	236	
1° 45'	0.064	242		0.070	259	
2° 00'	0.070	259		0.080	288	400
2° 15'	0.078	282		0.088	311	
2° 30'	0.086	305	400	0.096	334	450
2° 45'	0.092	323		0.100	346	
3° 00'	0.098	340	450			
3° 15'	0.100	346				
3° 30'						
3° 45'						
4° 00'						
4° 15'						
4° 30'						
4° 45'						
5° 00'						
5° 30'						
6° 00'						
6° 30'						
7° 00'						
7° 30'						
8° 00'						
8° 30'						
9° 00'						
9° 30'						
10° 00'						
11° 00'						
12° 00'						
13° 00'						
14° 00'						
15° 00'						
16° 00'						
17° 00'						
18° 00'						
19° 00'						
20° 00'						
21° 00'						
22° 00'						
23° 00'						
24° 00'						
25° 00'						
	D MAX = 3° 30'			D MAX = 2° 45'		

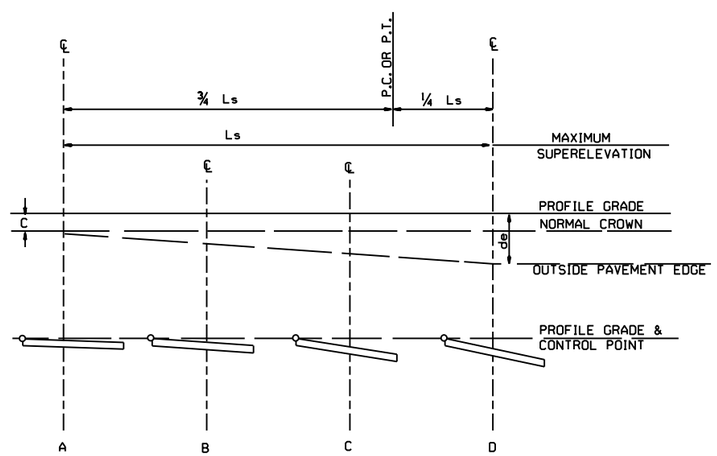
ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
S - SUPERELEVATION
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT
e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)

GENERAL NOTES

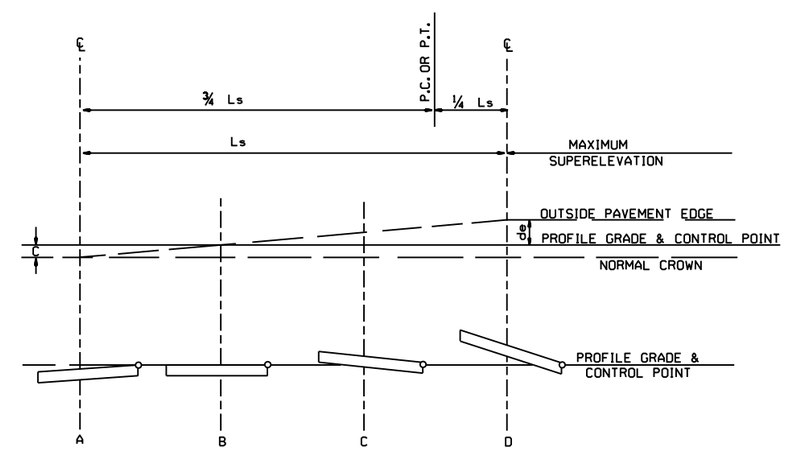
1. ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS:

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%



ONE-WAY TRAFFIC INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$



ONE-WAY TRAFFIC OUTSIDE LANE

SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

DATE	REVISION	DATE FILMED
11-07-19	REVISED SUPERELEVATION TABLE	
01-09-87	ISSUED	578-1-15-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1