

**DESIGN FACTORS FOR A DESIGN SPEED OF 35 MPH  
(URBAN) USING E= 4% MAX.**

RADIUS (FEET)	E (%)	PAVEMENT WIDTH											
		24 FT		36 FT		48 FT		60 FT		66 FT		72 FT	
		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)											
		1 @ 12'		1.5 @ 12'		2 @ 12'		3 @ 10'		3 @ 11'		3 @ 12'	
Lt	Lr	Lt	Lr	Lt	Lr	Lt	Lr	Lt	Lr	CR	Lr		
4000	NC	0	0	0	0	0	0	0	0	0	0	0	0
2561	2.0	39	39	49	49	59	59	65	65	71	71	78	78
2374	2.1	39	41	49	51	59	61	65	68	71	75	78	82
2199	2.2	39	43	49	54	59	64	65	71	71	79	78	86
2031	2.3	39	45	49	56	59	67	65	75	71	82	78	90
1866	2.4	39	47	49	59	59	70	65	78	71	86	78	93
1697	2.5	39	49	49	61	59	73	65	81	71	89	78	97
1538	2.6	39	51	49	63	59	76	65	84	71	93	78	101
1403	2.7	39	53	49	66	59	79	65	88	71	96	78	105
1285	2.8	39	55	49	68	59	82	65	91	71	100	78	109
1182	2.9	39	57	49	71	59	85	65	94	71	103	78	113
1090	3.0	39	59	49	73	59	88	65	97	71	107	78	117
1008	3.1	39	60	49	75	59	90	65	100	71	110	78	120
933	3.2	39	62	49	78	59	93	65	104	71	114	78	124
865	3.3	39	64	49	80	59	96	65	107	71	118	78	128
802	3.4	39	66	49	83	59	99	65	110	71	121	78	132
743	3.5	39	68	49	85	59	102	65	113	71	125	78	136
688	3.6	39	70	49	88	59	105	65	117	71	128	78	140
634	3.7	39	72	49	90	59	108	65	120	71	132	78	144
580	3.8	39	74	49	92	59	111	65	123	71	135	78	148
522	3.9	39	76	49	95	59	114	65	126	71	139	78	151
420	4.0	39	78	49	97	59	117	65	130	71	142	78	155

NOTE:

Lt AND Lr VALUES IN FEET.

FOR PAVEMENT WIDTHS GREATER THAN 72 FEET USE Lr VALUES DEVELOPED BY THE DESIGN SOFTWARE.

LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, Lt, AND Lr VALUES.

SPECIFICATION  
REFERENCE

**TRANSITION CURVES - URBAN  
35 MPH DESIGN SPEED**

VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 1 OF 1

802.27