802.36

TC-5.01

REVISED ON 3/03

TRANSITION CURVES - RURAL
30 MPH DESIGN SPEED

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE

DESIGN FACTORS FOR A DESIGN SPEED OF 30 MPH (RURAL) USING E= 8% MAX.

DESIGN VELOCITY =30		WIDTH= 18 FT			WIDTH=20 FT			WIDTH=22 FT			WIDTH=24 FT			WIDTH=48 FT			INTERCHANGE RAMPS WIDTH			
		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)																		
		1 @ 9'			1 @ 10'			1 @ 11'			1 @ 12'			2 @ 12'			16 FT		18 FT	
RADIUS(FT)	E(%)	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	CR	LS
3500	NC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0	0
2402	2.0	28	28	0.0	31	31	0.0	34	34	0.0	37	37	0.0	55	55	0.0	43	43	45	45
2276	2.1	28	29	0.0	31	32	0.0	34	35	0.0	37	39	0.0	55	58	0.0	43	45	45	48
2161	2.2	28	30	0.0	31	34	0.0	34	37	0.0	37	40	0.0	55	60	0.0	43	47	45	50
2056	2.3	28	32	0.0	31	35	0.0	34	39	0.0	37	42	0.0	55	63	0.0	43	50	45	52
1960	2.4	84	100	2.0	31	37	0.0	34	40	0.0	37	44	0.0	55	66	0.0	43	52	45	54
1871	2.5	80	100	2.0	31	38	0.0	34	42	0.0	37	46	0.0	55	69	0.0	43	54	45	57
1789	2.6	77	100	2.0	31	40	0.0	34	44	0.0	37	48	0.0	55	71	0.0	43	56	45	59
1713	2.7	75	100	2.1	31	41	0.0	34	45	0.0	37	50	0.0	55	74	0.0	43	58	45	61
1643	2.8	72	100	2.1	31	43	0.0	34	47	0.0	37	51	0.0	55	77	0.0	43	60	45	63
1577	2.9	69	100	2.1	31	44	0.0	34	49	0.0	37	53	0.0	55	80	0.0	43	62	45	66
1515	3.0	67	100	2.1	31	46	0.0	34	50	0.0	37	55	0.0	55	82	0.0	43	64	45	68
1457	3.1	65	100	2.2	31	47	0.0	34	52	0.0	37	57	0.0	55	85	0.0	43	67	45	70
1403	3.2	63	100	2.2	31	49	0.0	34	54	0.0	37	59	0.0	55	88	0.0	43	69	45	72
1352	3.3	61	100	2.2	31	50	0.0	34	55	0.0	37	60	0.0	55	90	0.0	43	71	45	75
1303	3.4	59	100	2.3	31	52	0.0	34	57	0.0	37	62	0.0	55	93	0.0	43	73	45	77
1258	3.5	58	100	2.3	31	54	0.0	34	59	0.0	37	64	0.0	55	96	0.0	43	75	45	79
1214	3.6	56	100	2.3	31	55	0.0	34	60	0.0	37	66	0.0	55	99	0.0	43	77	45	81
1173	3.7	55	100	2.3	31	57	0.0	34	62	0.0	37	68	0.0	55	101	0.0	43	79	45	84
1134	3.8	53	100	2.4	31	58	0.0	34	64	0.0	37	70	0.0	55	104	0.0	43	82	45	86
1097	3.9	52	100	2.4	31	60	0.0	34	65	0.0	37	71	0.0	55	107	0.0	43	84	45	88
1061	4.0	50	100	2.4	31	61	0.0	34	67	0.0	37	73	0.0	55	110	0.0	43	86	45	90
1028	4.1	49	100	2.5	31	63	0.0	34	69	0.0	37	75	0.0	55	112	0.0	43	88	45	93
995	4.2	48	100	2.5	31	64	0.0	34	70	0.0	37	77	0.0	55	115	0.0	43	90	45	95
964	4.3	47	100	2.5	31	66	0.0	34	72	0.0	37	79	0.0	55	118	0.0	43	92	45	97
934	4.4	46	100	2.6	31	67	0.0	34	74	0.0	37	80	0.0	55	120	0.0	43	94	45	99
905	4.5	45	100	2.6	31	69	0.0	34	75	0.0	37	82	0.0	55	123	0.0	43	96	45	102
877	4.6	44	100	2.6	31	70	0.0	34	77	0.0	37	84	0.0	55	126	0.0	43	99	45	104
851	4.7	43	100	2.7	31	72	0.0	34	79	0.0	37	86	0.0	55	129	0.0	43	101	45	106
825	4.8	42	100	2.7	31	73	0.0	34	80	0.0	37	88	0.0	55	131	0.0	43	103	45	108
800	4.9	41	100	2.7	31	75	0.0	34	82	0.0	37	90	0.0	55	134	0.0	43	105	45	111
775	5.0	40	100	2.8	31	76	0.0	34	84	0.0	37	91	0.0	55	137	0.0	43	107	45	113
752	5.1	40	100	2.8	31	78	0.0	34	85	0.0	37	93	0.0	55	140	0.0	43	109	45	115
729	5.2	39	100	2.8	31	79	0.0	34	87	0.0	37	95	0.0	55	142	0.0	43	111	45	117
706	5.3	38	100	2.9	31	81	0.0	34	89	0.0	37	97	0.0	55	145	0.0	43	114	45	120
684	5.4	38	100	2.9	31	82	0.0	34	90	0.0	37	99	0.0	55	148	0.0	43	116	45	122
663	5.5	37	100	3.0	37	100	2.0	34	92	0.0	37	100	0.0	55	150	0.0	43	118	45	124
641	5.6	36	100	3.0	36	100	2.0	34	94	0.0	37	102	0.0	55	153	0.0	43	120	45	126
621	5.7	36	100	3.0	36	100	2.0	34	95	0.0	37	104	0.0	55	156	0.0	43	122	45	129
602	5.8	35	100	3.1	35	100	2.1	34	97	0.0	37	106	0.0	55	159	0.0	43	124	45	131
583	5.9	34	100	3.1	34	100	2.1	34	99	0.0	37	108	0.0	55	161	0.0	43	126	45	133
565	6.0	34	100	3.2	34	101	2.2	34	100	0.0	37	110	0.0	55	164	0.0	43	128	45	135
548	6.1	33	100	3.2	34	103	2.2	34	102	0.0	37	111	0.0	55	167	0.0	43	131	45	138
531	6.2	33	101	3.3	34	105	2.3	34	104	0.0	37	113	0.0	55	170	0.0	43	133	45	140
515	6.3	33	102	3.3	34	107	2.3	34	105	0.0	37	115	0.0	55	172	0.0	43	135	45	142
499	6.4	33	104	3.4	35	109	2.4	34	107	0.0	37	117	0.0	55	175	0.0	43	137	45	144
484	6.5	33	106	3.4	35	111	2.4	34	109	0.0	37	119	0.0	55	178	0.0	43	139	45	147
469	6.6	33	108	3.5	35	113	2.5	34	110	0.0	37	120	0.0	55	180	0.0	43	141	45	149
455	6.7	33	110	3.5	35	115	2.5	34	112	0.0	37	122	0.0	55	183	0.0	43	143	45	151
441	6.8	33	112	3.6	35	117	2.6	34	114	0.0	37	124	0.0	55	186	0.0	43	146	45	153
427	6.9	33	113	3.6	35	119	2.6	34	115	0.0	37	126	0.0	55	189	0.0	43	148	45	156
414	7.0	34	116	3.7	35	121	2.7	34	117	0.0	37	128	0.0	55	191	0.0	43	150	45	158
400	7.1	34	118	3.8	35	123	2.8	34	119	0.0	37	130	0.0	55	194	0.0	43	152	45	160
387	7.2	34	119	3.8	35	125	2.8	34	120	0.0	37	131	0.0	55	197	0.0	43	154	45	162
374	7.3	34	122	3.9	35	127	2.9	34	122	0.0	37	133	0.0	55	200	0.0	43	156	45	165
361	7.4	34	124	4.0	35	129	3.0	37	135	2.0	37	135	0.0	60	219	2.0	43	158	45	167
348	7.5	34	126	4.1	36	132	3.1	37	137	2.1	37	137	0.0	60	224	2.2	43	160	45	169
334	7.6	34	128	4.2	36	134	3.2	37	140	2.2	37	139	0.0	60	228	2.4	43	163	45	171
320	7.7	35	131	4.3	36	136	3.3	37	142	2.3	37	140	0.0	61	233	2.6	43	165	45	174
305	7.8	35	133	4.4	36	139	3.4	38	145	2.4	37	142	0.0	62	238	2.8	43	167	45	176
287	7.9	35	135	4.5	36	141	3.5	38	147	2.5	37	144	0.0	62	243	3.0	43	169	45	178
251	8.0	35	139	4.9	37	145	3.9	38	151	2.9	37	146	0.0	64	253	3.8	43	171	45	180

NOTE:
CR, LS & w VALUES IN FEET. LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, CR, LS, AND w VALUES.