

NOTE: L_t, L_r & w VALUES IN FEET. LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, L_t, L_r, AND w VALUES. WIDENING SHOWN IS BASED ON A WB-62 DESIGN VEHICLE.

DESIGN FACTORS FOR A DESIGN SPEED OF 70 MPH (RURAL) USING E= 8% MAX.

DESIGN VELOCITY =70	DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)												INTERCHANGE RAMPS								
	1 @ 9'			1 @ 10'			1 @ 11'			1 @ 12'			2 @ 12'		3 @ 12'		16 FT		18 FT		
	RADIUS(FT)	E(%)	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	Lt	Lr
14500	NC	0	0	2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10731	2	53	53	2.9	50	50	0	55	55	0	60	60	0	60	60	0	120	120	0	72	72
10194	2.1	53	55	2.9	50	53	0	55	58	0	60	63	0	90	95	0	120	126	0	72	75
9706	2.2	53	58	3	55	61	2	55	61	0	60	66	0	90	99	0	120	132	0	72	79
9260	2.3	53	61	3	55	64	2	55	64	0	60	69	0	90	104	0	120	138	0	72	82
8851	2.4	53	63	3	55	66	2	55	66	0	60	72	0	90	108	0	120	144	0	72	86
8474	2.5	53	66	3	55	69	2	55	69	0	60	75	0	90	113	0	120	150	0	72	89
8127	2.6	53	69	3.1	56	72	2.1	55	72	0	60	78	0	90	117	0	120	156	0	72	93
7805	2.7	53	72	3.1	56	75	2.1	55	75	0	60	81	0	90	122	0	120	162	0	72	96
7506	2.8	53	74	3.1	56	78	2.1	55	77	0	60	84	0	90	126	0	120	168	0	72	100
7227	2.9	53	77	3.1	56	81	2.1	55	80	0	60	87	0	90	131	0	120	174	0	72	104
6967	3	53	80	3.2	56	84	2.2	55	83	0	60	90	0	90	135	0	120	180	0	72	107
6724	3.1	53	83	3.2	56	87	2.2	55	86	0	60	93	0	90	140	0	120	186	0	72	111
6495	3.2	53	85	3.2	56	89	2.2	55	88	0	60	96	0	90	144	0	120	192	0	72	114
6281	3.3	53	88	3.2	56	92	2.2	55	91	0	60	99	0	90	149	0	120	198	0	72	118
6079	3.4	54	91	3.3	56	95	2.3	55	94	0	60	102	0	90	153	0	120	204	0	72	121
5888	3.5	54	94	3.3	56	98	2.3	55	97	0	60	105	0	90	158	0	120	210	0	72	125
5708	3.6	54	96	3.3	56	101	2.3	55	99	0	60	108	0	90	162	0	120	216	0	72	128
5537	3.7	54	99	3.3	56	104	2.3	55	102	0	60	111	0	90	167	0	120	222	0	72	132
5376	3.8	54	102	3.4	56	107	2.4	55	105	0	60	114	0	90	171	0	120	228	0	72	136
5222	3.9	54	105	3.4	56	110	2.4	55	108	0	60	117	0	90	176	0	120	234	0	72	139
5076	4	54	107	3.4	56	112	2.4	55	110	0	60	120	0	90	180	0	120	240	0	72	143
4937	4.1	54	110	3.4	56	115	2.4	55	113	0	60	123	0	90	185	0	120	246	0	72	146
4805	4.2	54	113	3.5	57	119	2.5	55	116	0	60	126	0	90	189	0	120	252	0	72	150
4679	4.3	54	116	3.5	57	121	2.5	55	119	0	60	129	0	90	194	0	120	258	0	72	153
4558	4.4	54	119	3.5	57	124	2.5	55	121	0	60	132	0	90	198	0	120	264	0	72	157
4443	4.5	54	121	3.5	57	127	2.5	55	124	0	60	135	0	90	203	0	120	270	0	72	160
4332	4.6	54	125	3.6	57	130	2.6	55	127	0	60	138	0	90	207	0	120	276	0	72	164
4226	4.7	54	127	3.6	57	133	2.6	55	130	0	60	141	0	90	212	0	120	282	0	72	168
4125	4.8	54	130	3.6	57	136	2.6	55	132	0	60	144	0	90	216	0	120	288	0	72	171
4027	4.9	54	133	3.6	57	139	2.6	55	135	0	60	147	0	90	221	0	120	294	0	72	175
3933	5	55	136	3.7	57	142	2.7	55	138	0	60	150	0	90	225	0	120	300	0	72	178
3843	5.1	55	139	3.7	57	145	2.7	55	141	0	60	153	0	90	230	0	120	306	0	72	182
3756	5.2	55	142	3.7	57	148	2.7	55	143	0	60	156	0	90	234	0	120	312	0	72	185
3673	5.3	55	144	3.7	57	151	2.7	55	146	0	60	159	0	90	239	0	120	318	0	72	189
3592	5.4	55	148	3.8	57	154	2.8	55	149	0	60	162	0	90	243	0	120	324	0	72	192
3514	5.5	55	150	3.8	57	157	2.8	55	152	0	60	165	0	90	248	0	120	330	0	72	196
3439	5.6	55	153	3.8	57	160	2.8	55	154	0	60	168	0	90	252	0	120	336	0	72	200
3366	5.7	55	156	3.8	57	163	2.8	55	157	0	60	171	0	90	257	0	120	342	0	72	203
3296	5.8	55	159	3.9	58	167	2.9	55	160	0	60	174	0	90	261	0	120	348	0	72	207
3228	5.9	55	162	3.9	58	169	2.9	55	163	0	60	177	0	90	266	0	120	354	0	72	210
3163	6	55	165	3.9	58	172	2.9	55	165	0	60	180	0	90	270	0	120	360	0	72	214
3099	6.1	55	167	3.9	58	175	2.9	55	168	0	60	183	0	90	275	0	120	366	0	72	217
3037	6.2	55	171	4	58	179	3	55	171	0	60	186	0	90	279	0	120	372	0	72	221
2977	6.3	55	174	4	58	182	3	55	174	0	60	189	0	90	284	0	120	378	0	72	224
2919	6.4	55	176	4	58	184	3	55	176	0	60	192	0	90	288	0	120	384	0	72	228
2862	6.5	64	205	4	58	187	3	60	195	2	60	195	0	90	293	0	120	390	0	72	232
2807	6.6	63	205	4.1	58	191	3.1	61	199	2.1	60	198	0	90	297	0	120	396	0	72	235
2753	6.7	62	205	4.1	58	194	3.1	61	202	2.1	60	201	0	90	302	0	120	402	0	72	239
2699	6.8	61	205	4.1	58	197	3.1	61	205	2.1	60	204	0	90	306	0	120	408	0	72	242
2645	6.9	60	205	4.1	58	200	3.1	61	208	2.1	60	207	0	90	311	0	120	414	0	72	246
2590	7	59	205	4.2	58	203	3.2	61	212	2.2	60	210	0	90	315	0	120	420	0	72	249
2535	7.1	58	205	4.2	58	206	3.2	61	215	2.2	60	213	0	90	320	0	120	426	0	72	253
2480	7.2	57	205	4.2	58	209	3.2	61	218	2.2	60	216	0	90	324	0	120	432	0	72	256
2423	7.3	57	205	4.3	59	213	3.3	61	222	2.3	60	219	0	90	329	0	120	438	0	72	260
2365	7.4	56	207	4.3	59	216	3.3	61	225	2.3	60	222	0	90	333	0	120	444	0	72	264
2305	7.5	56	210	4.3	59	219	3.3	61	228	2.3	60	225	0	90	338	0	120	450	0	72	267
2242	7.6	57	213	4.4	59	223	3.4	61	232	2.4	60	228	0	90	342	0	120	456	0	72	271
2175	7.7	57	216	4.4	59	226	3.4	61	235	2.4	60	231	0	90	347	0	120	462	0	72	274
2100	7.8	57	220	4.5	59	230	3.5	62	239	2.5	60	234	0	90	351	0	120	468	0	72	278
2010	7.9	57	224	4.6	59	234	3.6	62	243	2.6	60	237	0	90	356	0	120	474	0	72	281
1821	8	57	228	4.8	60	238	3.8	62	248	2.8	60	240	0	90	360	0	120	480	0	72	285



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

803.42

TRANSITION CURVES - RURAL
70 MPH DESIGN SPEED

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE