

NOTE: L<sub>t</sub>, L<sub>r</sub> & w VALUES IN FEET. LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, L<sub>t</sub>, L<sub>r</sub>, 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			
	WIDTH=22 FT			WIDTH=24 FT			WIDTH=48 FT			WIDTH=72 FT			16 FT		18 FT	
	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	Lt	Lr
14500	NC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10731	2	55	58	60	60	60	63	0	90	95	0	120	120	0	72	75
10194	2.1	55	58	0	60	63	0	90	95	0	120	126	0	72	75	75
9706	2.2	55	61	0	60	66	0	90	99	0	120	132	0	72	79	75
9260	2.3	55	64	0	60	69	0	90	104	0	120	138	0	72	82	75
8851	2.4	55	66	0	60	72	0	90	108	0	120	144	0	72	86	75
8474	2.5	55	69	0	60	75	0	90	113	0	120	150	0	72	89	75
8127	2.6	55	72	0	60	78	0	90	117	0	120	156	0	72	93	75
7805	2.7	55	75	0	60	81	0	90	122	0	120	162	0	72	96	75
7506	2.8	55	77	0	60	84	0	90	126	0	120	168	0	72	100	75
7227	2.9	55	80	0	60	87	0	90	131	0	120	174	0	72	104	75
6967	3	55	83	0	60	90	0	90	135	0	120	180	0	72	107	75
6724	3.1	55	86	0	60	93	0	90	140	0	120	186	0	72	111	75
6495	3.2	55	88	0	60	96	0	90	144	0	120	192	0	72	114	75
6281	3.3	55	91	0	60	99	0	90	149	0	120	198	0	72	118	75
6079	3.4	55	94	0	60	102	0	90	153	0	120	204	0	72	121	75
5888	3.5	55	97	0	60	105	0	90	158	0	120	210	0	72	125	75
5708	3.6	55	99	0	60	108	0	90	162	0	120	216	0	72	128	75
5537	3.7	55	102	0	60	111	0	90	167	0	120	222	0	72	132	75
5376	3.8	55	105	0	60	114	0	90	171	0	120	228	0	72	136	75
5222	3.9	55	108	0	60	117	0	90	176	0	120	234	0	72	139	75
5076	4	55	110	0	60	120	0	90	180	0	120	240	0	72	143	75
4937	4.1	55	113	0	60	123	0	90	185	0	120	246	0	72	146	75
4805	4.2	55	116	0	60	126	0	90	189	0	120	252	0	72	150	75
4679	4.3	55	119	0	60	129	0	90	194	0	120	258	0	72	153	75
4558	4.4	55	121	0	60	132	0	90	198	0	120	264	0	72	157	75
4443	4.5	55	124	0	60	135	0	90	203	0	120	270	0	72	160	75
4332	4.6	55	127	0	60	138	0	90	207	0	120	276	0	72	164	75
4226	4.7	55	130	0	60	141	0	90	212	0	120	282	0	72	168	75
4125	4.8	55	132	0	60	144	0	90	216	0	120	288	0	72	171	75
4027	4.9	55	135	0	60	147	0	90	221	0	120	294	0	72	175	75
3933	5	55	138	0	60	150	0	90	225	0	120	300	0	72	178	75
3843	5.1	55	141	0	60	153	0	90	230	0	120	306	0	72	182	75
3756	5.2	55	143	0	60	156	0	90	234	0	120	312	0	72	185	75
3673	5.3	55	146	0	60	159	0	90	239	0	120	318	0	72	189	75
3592	5.4	55	149	0	60	162	0	90	243	0	120	324	0	72	192	75
3514	5.5	55	152	0	60	165	0	90	248	0	120	330	0	72	196	75
3439	5.6	55	154	0	60	168	0	90	252	0	120	336	0	72	200	75
3366	5.7	55	157	0	60	171	0	90	257	0	120	342	0	72	203	75
3296	5.8	55	160	0	60	174	0	90	261	0	120	348	0	72	207	75
3228	5.9	55	163	0	60	177	0	90	266	0	120	354	0	72	210	75
3163	6	55	165	0	60	180	0	90	270	0	120	360	0	72	214	75
3099	6.1	55	168	0	60	183	0	90	275	0	120	366	0	72	217	75
3037	6.2	55	171	0	60	186	0	90	279	0	120	372	0	72	221	75
2977	6.3	55	174	0	60	189	0	90	284	0	120	378	0	72	224	75
2919	6.4	55	176	0	60	192	0	90	288	0	120	384	0	72	228	75
2862	6.5	60	195	2	60	195	0	90	293	0	120	390	0	72	232	75
2807	6.6	61	199	2.1	60	198	0	90	297	0	120	396	0	72	235	75
2753	6.7	61	202	2.1	60	201	0	90	302	0	120	402	0	72	239	75
2699	6.8	61	205	2.1	60	204	0	90	306	0	120	408	0	72	242	75
2645	6.9	61	208	2.1	60	207	0	90	311	0	120	414	0	72	246	75
2590	7	61	212	2.2	60	210	0	90	315	0	120	420	0	72	249	75
2535	7.1	61	215	2.2	60	213	0	90	320	0	120	426	0	72	253	75
2480	7.2	61	218	2.2	60	216	0	90	324	0	120	432	0	72	256	75
2423	7.3	61	222	2.3	60	219	0	90	329	0	120	438	0	72	260	75
2365	7.4	61	225	2.3	60	222	0	90	333	0	120	444	0	72	264	75
2305	7.5	61	228	2.3	60	225	0	90	338	0	120	450	0	72	267	75
2242	7.6	61	232	2.4	60	228	0	90	342	0	120	456	0	72	271	75
2175	7.7	61	235	2.4	60	231	0	90	347	0	120	462	0	72	274	75
2100	7.8	62	239	2.5	60	234	0	90	351	0	120	468	0	72	278	75
2010	7.9	62	243	2.6	60	237	0	90	356	0	120	474	0	72	281	75
1821	8	62	248	2.8	60	240	0	90	360	0	120	480	0	72	285	75



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

803.42

01/13

**TRANSITION CURVES - RURAL  
70 MPH DESIGN SPEED**

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION  
REFERENCE