

DESIGN FACTORS FOR A DESIGN SPEED OF 20 MPH (RURAL) USING E = 8% MAX.

DESIGN VELOCITY -20	DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)										INTERCHANGE RAMP								
	WIDTH+ 18 FT		WIDTH+20 FT		WIDTH+22 FT		WIDTH+24 FT		WIDTH+48 FT		16 FT		18 FT						
	1 @ 9'		1 @ 10'		1 @ 11'		1 @ 12'		2 @ 12'		CR	LS	CR	LS					
RADIUS(FT)	E(%)	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	
1800	NC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0
1213	2.0	60	60	2.0	28	28	0.0	30	30	0.0	33	33	0.0	49	49	0.0	39	39	41
1148	2.1	58	60	2.1	28	29	0.0	30	32	0.0	33	35	0.0	49	52	0.0	39	40	41
1090	2.2	55	60	2.1	28	30	0.0	30	33	0.0	33	36	0.0	49	54	0.0	39	42	41
1036	2.3	53	60	2.1	28	32	0.0	30	35	0.0	33	38	0.0	49	56	0.0	39	44	41
987	2.4	50	60	2.2	28	33	0.0	30	36	0.0	33	39	0.0	49	59	0.0	39	46	41
941	2.5	48	60	2.2	28	34	0.0	30	38	0.0	33	41	0.0	49	61	0.0	39	48	41
899	2.6	47	60	2.3	28	36	0.0	30	39	0.0	33	43	0.0	49	64	0.0	39	50	41
860	2.7	45	60	2.3	28	37	0.0	30	41	0.0	33	44	0.0	49	66	0.0	39	52	41
824	2.8	43	60	2.3	28	38	0.0	30	42	0.0	33	46	0.0	49	69	0.0	39	54	41
790	2.9	42	60	2.4	28	40	0.0	30	44	0.0	33	48	0.0	49	71	0.0	39	56	41
759	3.0	40	60	2.4	28	41	0.0	30	45	0.0	33	49	0.0	49	73	0.0	39	58	41
729	3.1	39	60	2.5	28	42	0.0	30	47	0.0	33	51	0.0	49	76	0.0	39	60	41
701	3.2	38	60	2.5	28	44	0.0	30	48	0.0	33	52	0.0	49	78	0.0	39	61	41
674	3.3	37	60	2.5	28	45	0.0	30	50	0.0	33	54	0.0	49	81	0.0	39	63	41
650	3.4	36	60	2.6	28	46	0.0	30	51	0.0	33	56	0.0	49	83	0.0	39	65	41
626	3.5	35	60	2.6	28	48	0.0	30	53	0.0	33	57	0.0	49	86	0.0	39	67	41
604	3.6	34	60	2.7	28	49	0.0	30	54	0.0	33	59	0.0	49	88	0.0	39	69	41
582	3.7	33	60	2.7	28	50	0.0	30	55	0.0	33	60	0.0	49	90	0.0	39	71	41
562	3.8	32	60	2.8	28	52	0.0	30	57	0.0	33	62	0.0	49	93	0.0	39	73	41
543	3.9	31	60	2.8	28	53	0.0	30	58	0.0	33	62	0.0	49	95	0.0	39	75	41
524	4.0	30	60	2.9	28	55	0.0	30	60	0.0	33	65	0.0	49	98	0.0	39	77	41
506	4.1	30	60	2.9	28	56	0.0	30	61	0.0	33	67	0.0	49	100	0.0	39	79	41
489	4.2	29	60	3.0	28	58	0.0	30	63	0.0	33	69	0.0	49	103	0.0	39	80	41
473	4.3	29	62	3.0	30	64	2.0	30	64	0.0	33	70	0.0	49	105	0.0	39	82	41
457	4.4	29	63	3.0	30	66	2.0	30	66	0.0	33	72	0.0	49	108	0.0	39	84	41
442	4.5	29	65	3.1	31	68	2.1	30	67	0.0	33	73	0.0	49	110	0.0	39	86	41
427	4.6	29	66	3.2	30	69	2.2	30	69	0.0	33	75	0.0	49	112	0.0	39	88	41
413	4.7	29	68	3.2	31	71	2.2	30	70	0.0	33	77	0.0	49	115	0.0	39	90	41
399	4.8	30	70	3.3	31	73	2.3	30	72	0.0	33	78	0.0	49	117	0.0	39	92	41
385	4.9	29	71	3.3	31	74	2.3	30	73	0.0	33	80	0.0	49	120	0.0	39	94	41
372	5.0	30	73	3.4	31	76	2.4	30	75	0.0	33	82	0.0	49	122	0.0	39	96	41
358	5.1	30	75	3.5	31	78	2.5	30	76	0.0	33	83	0.0	49	125	0.0	39	98	41
345	5.2	30	76	3.5	31	80	2.5	30	78	0.0	33	85	0.0	49	127	0.0	39	100	41
332	5.3	30	78	3.6	31	81	2.6	30	79	0.0	33	86	0.0	49	129	0.0	39	101	41
320	5.4	30	80	3.7	31	83	2.7	30	81	0.0	33	88	0.0	49	132	0.0	39	103	41
308	5.5	30	82	3.8	31	85	2.8	30	82	0.0	33	90	0.0	49	134	0.0	39	105	41
297	5.6	30	83	3.9	32	87	2.9	30	84	0.0	33	91	0.0	49	137	0.0	39	107	41
286	5.7	30	85	3.9	32	89	2.9	30	85	0.0	33	93	0.0	49	139	0.0	39	109	41
276	5.8	30	87	4.0	32	91	3.0	33	95	2.0	33	95	0.0	53	153	2.0	39	111	41
266	5.9	31	89	4.1	32	93	3.1	33	97	2.1	33	96	0.0	54	157	2.2	39	113	41
258	6.0	30	90	4.2	32	95	3.2	33	99	2.2	33	98	0.0	54	161	2.4	39	115	41
248	6.1	31	92	4.3	32	97	3.3	34	101	2.3	33	99	0.0	55	165	2.6	39	117	41
240	6.2	31	94	4.4	32	99	3.4	34	103	2.4	33	101	0.0	55	169	2.8	39	119	41
232	6.3	31	96	4.5	33	101	3.5	34	105	2.5	33	103	0.0	55	173	3.0	39	120	41
225	6.4	31	98	4.6	33	103	3.6	34	107	2.6	33	104	0.0	56	177	3.2	39	122	41
217	6.5	31	100	4.7	33	105	3.7	34	109	2.7	33	106	0.0	56	181	3.4	39	124	41
209	6.6	31	102	4.8	33	107	3.8	34	111	2.8	33	108	0.0	57	185	3.6	39	126	41
202	6.7	32	104	4.9	33	109	3.9	34	113	2.9	33	109	0.0	57	189	3.8	39	128	41
196	6.8	32	106	5.0	33	111	4.0	34	115	3.0	36	120	2.0	57	193	4.0	39	130	41
189	6.9	32	108	5.1	33	113	4.1	35	118	3.1	36	122	2.1	58	198	4.2	39	132	41
183	7.0	32	110	5.2	33	115	4.2	35	120	3.2	36	124	2.2	58	202	4.4	39	134	41
176	7.1	32	112	5.3	33	117	4.3	35	122	3.3	36	127	2.3	59	206	4.6	39	136	41
170	7.2	32	115	5.5	34	120	4.5	35	125	3.5	36	129	2.5	59	212	5.0	39	138	41
164	7.3	33	117	5.6	34	122	4.6	35	127	3.6	37	132	2.6	60	217	5.2	39	140	41
158	7.4	33	119	5.8	34	124	4.8	35	129	3.8	37	134	2.8	60	222	5.6	39	141	41
152	7.5	33	122	5.9	34	127	4.9	36	132	3.9	37	137	2.9	61	227	5.8	39	143	41
146	7.6	33	124	6.1	34	129	5.1	36	135	4.1	37	140	3.1	62	233	6.2	39	145	41
139	7.7	33	127	6.3	35	132	5.3	36	137	4.3	38	143	3.3	63	239	6.6	39	147	41
132	7.8	34	130	6.5	35	135	5.5	36	140	4.5	38	145	3.5	64	246	7.0	39	149	41
124	7.9	34	133	6.8	35	138	5.8	37	144	4.8	38	149	3.8	65	254	7.6	39	151	41
108	8.0	35	139	7.6	36	144	6.6	38	150	5.6	39	155	4.6	68	270	9.2	39	153	41

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

SPECIFICATION REFERENCE

TRANSITION CURVES - RURAL
20 MPH DESIGN SPEED