

DESIGN FACTORS FOR A DESIGN SPEED OF 25 MPH (RURAL) USING E= 8% MAX.

DESIGN VELOCITY -25	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							
	1 e 9'						1 e 10'						1 e 11'						2 e 12'					
	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w
2500	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	0	0	0	0	
1756	2.0	26	26	0.0	29	29	0.0	32	32	0.0	35	35	0.0	38	38	0.0	40	40	0.0	40	40	4.3	43	
1664	2.1	71	74	2.0	29	30	0.0	32	33	0.0	35	36	0.0	38	39	0.0	40	41	0.0	40	41	4.3	45	
1579	2.2	68	74	2.0	29	32	0.0	32	35	0.0	35	38	0.0	40	44	0.0	40	44	0.0	40	44	4.3	48	
1502	2.3	65	74	2.0	29	33	0.0	33	37	0.0	35	40	0.0	40	46	0.0	40	46	0.0	40	46	4.3	50	
1431	2.4	62	74	2.1	29	35	0.0	32	38	0.0	35	42	0.0	40	48	0.0	40	48	0.0	40	48	4.3	52	
1366	2.5	60	74	2.1	29	36	0.0	32	40	0.0	35	43	0.0	40	50	0.0	40	50	0.0	40	50	4.3	54	
1306	2.6	57	74	2.1	29	38	0.0	32	41	0.0	35	45	0.0	40	52	0.0	40	52	0.0	40	52	4.3	56	
1250	2.7	55	74	2.1	29	39	0.0	32	43	0.0	35	47	0.0	40	54	0.0	40	54	0.0	40	54	4.3	58	
1198	2.8	53	74	2.2	29	40	0.0	32	44	0.0	35	48	0.0	40	56	0.0	40	56	0.0	40	56	4.3	60	
1149	2.9	52	74	2.2	29	42	0.0	32	46	0.0	35	50	0.0	40	58	0.0	40	58	0.0	40	58	4.3	63	
1104	3.0	50	74	2.2	29	43	0.0	32	48	0.0	35	52	0.0	40	60	0.0	40	60	0.0	40	60	4.3	65	
1061	3.1	48	74	2.3	29	45	0.0	32	49	0.0	35	54	0.0	40	62	0.0	40	62	0.0	40	62	4.3	67	
1021	3.2	47	74	2.3	29	46	0.0	32	51	0.0	35	55	0.0	40	64	0.0	40	64	0.0	40	64	4.3	69	
983	3.3	45	74	2.3	29	48	0.0	32	52	0.0	35	57	0.0	40	66	0.0	40	66	0.0	40	66	4.3	71	
948	3.4	44	74	2.4	29	49	0.0	32	54	0.0	35	59	0.0	40	68	0.0	40	68	0.0	40	68	4.3	73	
914	3.5	43	74	2.4	29	50	0.0	32	55	0.0	35	60	0.0	40	70	0.0	40	70	0.0	40	70	4.3	75	
882	3.6	42	74	2.4	29	52	0.0	32	57	0.0	35	62	0.0	40	72	0.0	40	72	0.0	40	72	4.3	78	
852	3.7	40	74	2.5	29	53	0.0	32	59	0.0	35	64	0.0	40	74	0.0	40	74	0.0	40	74	4.3	80	
823	3.8	39	74	2.5	29	55	0.0	32	60	0.0	35	66	0.0	40	76	0.0	40	76	0.0	40	76	4.3	82	
795	3.9	38	74	2.6	29	56	0.0	32	62	0.0	35	67	0.0	40	78	0.0	40	78	0.0	40	78	4.3	84	
769	4.0	37	74	2.6	29	58	0.0	32	63	0.0	35	69	0.0	40	80	0.0	40	80	0.0	40	80	4.3	86	
744	4.1	37	74	2.6	29	59	0.0	32	65	0.0	35	71	0.0	40	82	0.0	40	82	0.0	40	82	4.3	88	
720	4.2	36	74	2.7	29	60	0.0	32	66	0.0	35	72	0.0	40	84	0.0	40	84	0.0	40	84	4.3	90	
696	4.3	35	74	2.7	29	62	0.0	32	68	0.0	35	74	0.0	40	86	0.0	40	86	0.0	40	86	4.3	93	
674	4.4	34	74	2.7	29	63	0.0	32	70	0.0	35	76	0.0	40	88	0.0	40	88	0.0	40	88	4.3	95	
652	4.5	33	74	2.8	29	65	0.0	32	71	0.0	35	78	0.0	40	90	0.0	40	90	0.0	40	90	4.3	97	
632	4.6	33	74	2.8	29	66	0.0	32	73	0.0	35	79	0.0	40	92	0.0	40	92	0.0	40	92	4.3	99	
612	4.7	32	74	2.9	29	68	0.0	32	74	0.0	35	81	0.0	40	94	0.0	40	94	0.0	40	94	4.3	101	
592	4.8	31	74	2.9	29	69	0.0	32	76	0.0	35	83	0.0	40	96	0.0	40	96	0.0	40	96	4.3	103	
573	4.9	31	75	2.9	29	70	0.0	32	77	0.0	35	84	0.0	40	98	0.0	40	98	0.0	40	98	4.3	105	
555	5.0	30	75	3.0	32	79	2.0	32	79	0.0	35	86	0.0	40	100	0.0	40	100	0.0	40	100	4.3	108	
537	5.1	31	77	3.0	32	81	2.0	32	81	0.0	35	88	0.0	40	102	0.0	40	102	0.0	40	102	4.3	110	
519	5.2	31	79	3.1	32	83	2.1	32	82	0.0	35	90	0.0	40	104	0.0	40	104	0.0	40	104	4.3	112	
502	5.3	31	80	3.1	32	84	2.1	32	84	0.0	35	91	0.0	40	106	0.0	40	106	0.0	40	106	4.3	114	
485	5.4	31	82	3.2	32	86	2.2	32	85	0.0	35	93	0.0	40	108	0.0	40	108	0.0	40	108	4.3	116	
468	5.5	31	84	3.2	32	88	2.2	32	87	0.0	35	95	0.0	40	110	0.0	40	110	0.0	40	110	4.3	118	
452	5.6	31	86	3.3	33	90	2.3	32	88	0.0	35	96	0.0	40	112	0.0	40	112	0.0	40	112	4.3	120	
437	5.7	31	88	3.4	33	92	2.4	32	90	0.0	35	98	0.0	40	114	0.0	40	114	0.0	40	114	4.3	123	
423	5.8	31	89	3.4	33	93	2.4	32	92	0.0	35	100	0.0	40	116	0.0	40	116	0.0	40	116	4.3	125	
409	5.9	31	91	3.5	33	95	2.5	32	93	0.0	35	102	0.0	40	118	0.0	40	118	0.0	40	118	4.3	127	
396	6.0	31	93	3.5	33	97	2.5	32	95	0.0	35	103	0.0	40	120	0.0	40	120	0.0	40	120	4.3	129	
383	6.1	32	95	3.6	33	99	2.6	32	96	0.0	35	105	0.0	40	122	0.0	40	122	0.0	40	122	4.3	131	
371	6.2	32	97	3.7	33	101	2.7	32	98	0.0	35	107	0.0	40	124	0.0	40	124	0.0	40	124	4.3	133	
359	6.3	32	98	3.7	33	103	2.7	32	99	0.0	35	108	0.0	40	126	0.0	40	126	0.0	40	126	4.3	135	
347	6.4	32	100	3.8	33	105	2.8	32	101	0.0	35	110	0.0	40	128	0.0	40	128	0.0	40	128	4.3	138	
336	6.5	32	102	3.9	33	103	2.9	32	103	0.0	35	112	0.0	40	130	0.0	40	130	0.0	40	130	4.3	140	
326	6.6	32	104	3.9	33	108	2.9	32	104	0.0	35	114	0.0	40	132	0.0	40	132	0.0	40	132	4.3	142	
315	6.7	32	106	4.0	34	111	3.0	35	115	2.0	35	115	0.0	40	134	0.0	40	134	0.0	40	134	4.3	144	
305	6.8	32	108	4.1	34	113	3.1	35	118	2.1	35	117	0.0	40	136	0.0	40	136	0.0	40	136	4.3	146	
295	6.9	32	110	4.2	34	115	3.2	35	120	2.2	35	119	0.0	40	138	0.0	40	138	0.0	40	138	4.3	148	
286	7.0	32	111	4.2	34	116	3.2	35	121	2.2	35	120	0.0	40	140	0.0	40	140	0.0	40	140	4.3	150	
276	7.1	33	114	4.3	34	119	3.3	35	124	2.3	35	122	0.0	40	142	0.0	40	142	0.0	40	142	4.3	153	
267	7.2	33	116	4.4	34	121	3.4	35	126	2.4	35	124	0.0	40	144	0.0	40	144	0.0	40	144	4.3	155	
258	7.3	33	118	4.5	34	123	3.5	36	128	2.5	35	126	0.0	40	146	0.0	40	146	0.0	40	146	4.3	157	
248	7.4	33	120	4.6	34	125	3.6	36	131	2.6	35	129	0.0	40	148	0.0	40	148	0.0	40	148	4.3	159	
239	7.5	33	122	4.7	34	127	3.7	36	133	2.7	35	129	0.0	40	150	0.0	40	150	0.0	40	150	4.3	161	
229	7.6	33	124	4.8	35	130	3.8	36	135	2.8	35	131	0.0	40	152	0.0	40	152	0.0	40	152	4.3	163	
219	7.7	33	127	5.0	35	132	4.0	36	138	3.0	38	143	2.0	40	154	0.0	40	154	0.0	40	154	4.3	165	
209	7.8	34	129	5.1	35	135	4.1	36	140	3.1	38	146	2.1	40	156	0.0	40	156	0.0	40	156	4.3	168	
196	7.9	34	132	5.3	35	138	4.3	37	143	3.3	38	149	2.3	40	158	0.0	40	158	0.0	40	158	4.3	170	
171	8.0	34	136	5.8	36	142	4.8	37	148	3.8	39	154	2.8	40	160	0.0	40	160	0.0	40	160	4.3	172	

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

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

VIRGINIA DEPARTMENT OF TRANSPORTATION