APPENDIX B. INVENTORY OF DEFICIENCIES IN EXISTING HORIZONTAL AND VERTICAL CURVES

Table B - 1. Existing Horizontal Curve Inventory[1]

Roadway Type: Undivided Highway (Bi-directional)

Project : SR179 (MP 304.5 - 313.44)

Milepost		Superelevation (ft/ft)		Deficiency from AASHTO (%)	Degree of Horizontal Curve		Deficiency from AASHTO (%)	Design Speed (mph)
Begin	**End**	**AASHTO Min.**	**Existing**		**Existing**	**AASHTO**		
304.71	304.85	0.035	0.027*	-23%	3.5°	7.50°		50
304.99	305.15	0.035	0.027*	-23	3.5°	7.50°		50
307.09	307.28	0.027	0.015*	-44	2.0°	7.50°		50
307.50	307.65	0.027	0.015*	-44	2.0°	7.50°		50
308.32	308.45	0.040	0.020*	-50	6.0°	7.50°		50
308.63	308.76	#	0.091*		10.0°	7.50°	-33%	50
308.79	308.84	0.037	0.015*	-59	4.0°	7.50°		50
309.03	309.19	0.040	0.020*	-50	6.0°	7.50°		50
309.34	309.49	#	0.091*		10.0°	7.50°	-33	50
309.49	309.53	#	0.091*		10.0°	7.50°	-33	50
309.56	309.62	#	0.091*		10.0°	7.50°	-33	50
309.73	309.80	0.040	0.020*	-50	6.0°	7.50°		50
309.83	309.95	0.027	0.015*	-44	2.0°	7.50°		50
309.98	310.14	#	0.047		8.0°	7.50°	-7	50
310.31	310.39	0.030	0.015*	-50	4.0°	12.25°		40
311.40	311.46	#	0.100*		15.0°	12.25°	-22	40
311.48	311.64	0.030	0.015*	-50	4.0°	12.25°		40
311.98	312.03	0.030	0.015*	-50	4.0°	10.75°		40
312.22	312.28	#	0.100		18.0°	13.75°	-31	35
312.29	312.33	0.027	0.015*	-44	4.0°	13.75°		35
312.84	312.92	0.032	0.020*	-38	6.0°	13.75°		35
313.04	313.06	#	0.015		70.0°	13.75°	-496	35
313.35	313.37	#	0.020		22.0°	13.75°	-60	35

* Existing superelevation is less than the AASHTO recommended range of values.

\# Existing degree of curve exceeds AASHTO maximum allowable; minimum superelevation not calculated.

[1] Highway designers address the safety of horizontal curves by balancing the degree of two-dimensional curvature as coupled with the degree of superelevation, or banking, used. Thus, the designer can compensate for a curve being tighter than desired by incorporating steeper banking and achieve the desired degree of safety for a given design speed.

Table B - 2. Existing Vertical Curve Inventory

Roadway Type: Undivided Highway (Bi-directional)

Project: SR179 (MP 304.5–MP 313.44) **Project No:** 179 YV 304 H3414 01L

Milepost		Stopping Sight Distance (ft)			
Begin	**End**	**Existing**	**AASHTO[a]**	**Difference**	**Percent Deficient from AASHTO standards**
307.76	307.82	454	475	21	-4
308.26	308.32	351	475	124	-26
308.34	308.41	263	475	212	-45
308.53	308.59	215	475	260	-55
308.60	308.66	308	475	167	-35
308.68	308.76	205	475	270	-57
308.77	308.82	287	475	188	-40
308.92	308.99	263	475	212	-45
309.24	309.30	449	475	26	-5
309.43	309.50	157	475	318	-67
309.60	309.70	248	475	227	-48
309.72	309.79	344	475	131	-28
309.81	309.88	404	475	71	-15
309.89	309.94	367	475	108	-23
310.08	310.12	272	475	203	-43
310.12	310.18	278	325	47	-15
310.22	310.28	243	325	82	-25
310.52	310.62	320	325	5	-2
310.96	311.04	298	325	27	-8
311.34	311.38	298	325	27	-8
311.47	311.51	209	325	116	-36
311.68	311.75	292	325	33	-10
312.32	312.38	121	250	129	-52
312.84	312.90	211	250	39	-16
313.01	313.04	159	250	91	-37
313.04	313.06	118	250	132	-53

[a] AASHTO stopping sight distance of 475 ft is for a 50-mph design speed, 325 ft is for a 40-mph design speed, and 250 ft is for a 35-mph design speed.