



APPENDIX AVAILABLE ON THE HEI WEB SITE

Research Report 179

Development and Application of an Aerosol Screening Model for Size-Resolved Urban Aerosols

Charles O. Stanier and Sang-Rin Lee

Appendix F. Descriptive Statistics for Roads in G1 Domain

Note: Appendices available only on the Web have been reviewed solely for spelling, grammar, and cross-references to the main text. They have not been formatted or fully edited by HEI.

Correspondence may be addressed to Dr. Charles O. Stanier, University of Iowa, 4122 Seamans Center for the Engineering Arts and Sciences, Iowa City, IA 52242-1527; email: charles-stanier@uiowa.edu.

Although this document was produced with partial funding by the United States Environmental Protection Agency under Assistance Award CR-83467701 to the Health Effects Institute, it has not been subjected to the Agency's peer and administrative review and therefore may not necessarily reflect the views of the Agency, and no official endorsement by it should be inferred. The contents of this document also have not been reviewed by private party institutions, including those that support the Health Effects Institute; therefore, it may not reflect the views or policies of these parties, and no endorsement by them should be inferred.

This document was reviewed by the HEI Health Review Committee.

© 2014 Health Effects Institute, 101 Federal Street, Suite 500, Boston, MA 02110-1817

Appendix F. Descriptive Statistics for Roads in G1 Domain (VMT Wt. Avg describes the average of the variable in question on this road class, weighted according to link vehicle miles traveled.)

Road class	Description	Links in CHAPS G1 20 km roads	Total Distance (km)	Total V-km/day	Simple Avg	VMT Wt. Avg	Min	5th	10th	25th	50th	75th	90th	95th	Max
1	Freeway ¹	1189	145	12,924,588											
	Speed (mph)				51.5	45.7	40.1	44.2	45.3	48.4	51.7	55.0	57.0	58.2	60.8
	Traffic Volume (veh/day)				93,100	95,469	29,452	50,430	66,308	75,314	97,903	111,019	118,537	123,184	181,123
	HDV Fraction				13.5%	12.0%	5.1%	5.3%	10.3%	11.7%	13.0%	15.3%	18.5%	20.8%	25.5%
2	HOV	780	101	1,488,283											
	Speed (mph)				54.8	45.4	11.2	44.0	49.4	54.7	55.8	58.0	59.4	59.6	64.1
	Traffic Volume (veh/day)				14,546	16,854	4	621	5,432	11,037	16,610	19,035	21,043	23,191	24,518
	HDV Fraction				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3	Expressway	13	6	264,201											
	Speed (mph)				22.5	21.6	16.3	16.6	17.8	20.0	22.0	25.9	27.7	30.5	31.2
	Traffic Volume (veh/day)				44,620	43,542	40,506	40,562	40,806	42,806	44,882	46,554	47,957	49,531	49,895
	HDV Fraction				11.3%	10.0%	10.7%	10.7%	10.8%	11.1%	11.2%	11.6%	11.8%	11.9%	11.9%
4	Principal Arterial	1940	193	3,880,841											
	Speed (mph)				33.9	30.9	21.4	29.7	30.1	31.7	34.2	36.1	38.2	39.0	40.5
	Traffic Volume (veh/day)				19,170	25,475	4	4	2,006	9,627	20,124	29,136	34,730	41,303	56,980
	HDV Fraction				3.1%	3.0%	0.9%	1.5%	1.7%	2.2%	3.0%	4.0%	4.8%	4.9%	9.2%

5	Minor Arterial	3156	330	2,471,814											
	Speed (mph)				32.5	30.2	21.0	26.9	27.8	29.9	32.1	34.8	37.2	38.8	45.9
	Traffic Volume (veh/day)				9,350	12,160	7	246	927	3,765	8,993	13,174	18,392	21,887	37,129
	HDV Fraction				2.6%	2.7%	0.1%	1.3%	1.3%	1.6%	2.2%	3.1%	4.3%	5.6%	13.9%
6	Major Collector	405	40	108,105											
	Speed (mph)				31.3	26.8	23.8	26.1	26.4	27.8	31.0	35.0	35.4	35.4	35.4

¹ The NCOR near road monitoring standard has a threshold of 250,000 AADT (annual average daily traffic). Since the values in this appendix are per direction of travel, the value in this table that would trigger the NCOR threshold would be 125,000 traffic volume, which is equivalent to about the 95th percentile roadway.

