

# APPENDIX A

# PLAN PROJECTS

as amended for Financial Constraint  
April 13, 1995

TABLE 2

## LONG RANGE HIGHWAY CAPACITY DEFICIENCIES

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES

County	Roadway	From	To	Miles	Added Lanes	Cost (000's)
<b>Boone County</b>						
	1 Ky 212	I-275	Airport	0.74	2	1,789
	3 Ky 1017	Dixie Hwy	I-71/75	0.76	1	919
	4 Ky 1017	I-71/75	Houston Rd	0.36	2	870
	5 Ky 1017	Houston	Turfway Park	0.27	1	326
	7 U.S. 25	U.S. 127	Mt. Zion	2.77	2	6,698
	9 Houston Rd	Ky 1017	Ky 18	1.33	2	3,216
	11 Ky 1829	U.S. 25	Kenton Co	1.21	2	2,926
	12 I-71/75	Ky 236	Ky 1017	1.17	2	3,428
	13 Mineola Pk	I-275	KY 236	1.00	1	1,209
					<b>Sub total</b>	<b>\$21,381</b>
<b>Butler County</b>						
	14 SR 73	N. Miami St	Third St	0.95	2	2,297
	15 SR 129	SR 177	Washington	0.95	2	2,297
	16 SR 129	Washington	Wasserman Rd	0.75	1	907
	19 B St	New London Rd	Franklin St	0.38	1	459
	21 S.R. 128 Bridge	SR 128	US 127	0.19	2	459
	22 River Rd	Muskopf Rd	Nilles Rd	0.47	1	568
	24 SR 4	Dayton St	SR 129	0.38	1	459
	26 SR 4	Cresentville	Dixie Hwy	6.62	2	16,007
	27 US 127	St. Clair Ave	Gray Rd	3.60	2	8,705
	28 Winton	John Gray	Nilles Rd	2.08	1	2,515
	29 Gilmore	County Line	Mack Rd	0.56	2	1,354
	30 Gilmore	Mack Rd	Resor Rd	0.75	1	907
	31 Mack Rd	Winton Rd	Gilmore	0.95	2	2,297
	32 Allen Rd	I-75	Interchange			10,000
	34 Mack Rd	Ross Rd	SR 4	1.00	2	2,418
	35 Mulhauser Rd	SR 4	Current End Pt.	1.32	2	3,869
	36 Mulhauser Rd	Current End Pt.	Allen Rd	1.23	5	7,435
	37 Allen Rd	Mulhauser Rd	I-75	0.10	3	363
	38 SR 747	But Reg. Hwy.	Smith	2.60	2	6,287

TABLE 2

## LONG RANGE HIGHWAY CAPACITY DEFICIENCIES

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES (Cont'd)

County/Roadway	From	To	Miles	Added Lanes	Cost (000's)
<b>Butler County (continued)</b>					
39 Tylersville Rd	SR 747	W. Chester Rd	1.89	1	2,285
40 Tylersville Rd	W. Chester Rd	Kingsgate Way	2.46	2	5,948
41 Tylersville Rd	Kingsgate Way	Cox Rd	0.18	1	218
42 Tylersville Rd	Cox Rd	Warren Co	0.75	2	1,814
43 Neilan Blvd	Pershing	Knights Bridge	0.50	1	605
44 Cox Rd	Tylersville Rd	Barret	0.94	1	1,136
45 Cin-Dayton Rd	Crescentville	I-75	2.84	1	3,434
46 Cin-Dayton Rd	Tylersville Rd	Butler Reg. Hwy	0.94	1	1,136
47 U.S. 42	Warren Co	Hamilton Co	3.78	2	9,140
48 Fields-Ertel Rd	Warren Co	U.S. 42	2.08	1	2,515
49 W. Chester Rd	Cin-Dayton Rd	U.S. 42	2.17	1	2,624
50 Allen Rd	Cin-Dayton Rd	I-75	1.13	1	1,366
				<b>Sub total</b>	<b>\$101,824</b>
<b>Campbell County</b>					
53 I-471	State Line	I-275	5.27	2	15,442
55 4th St. Bridge			0.10	1	121
56 New Connector	US 27	Ky 5 (AA Hwy)	3.50	2	8,463
				<b>Sub total</b>	<b>\$24,026</b>
<b>Clermont County</b>					
57 SR 28	SR 132	Br. Hill-Guinea	2.77	2	6,698
59 Wards Comer	I-275	Loveland-Miami	0.70	1	846
60 SR 131	U.S. 50	W of Wolfp.-Pl.	3.12	1	2,418
62 Wolfpen-Plsnt. HI	SR 28	Eastman Dr	0.50	1	605
63 I-275	U.S. 50	S of SR 125	9.50	2	22,971
64 U.S. 32	Old Ohio 74	I-275	0.42	2	1,231
65 U.S. 32	I-275	Gleneste-Withmsvle	1.20	4	7,032
66 U.S. 32	Gleneste-Withmvl	College Dr	3.48	2	10,197
68 Old Ohio 74	U.S. 32	Shayler	3.37	1	4,074
69 SR 125	County line	Gleneste-Withmsvle	1.90	2	4,594

TABLE 2

## LONG RANGE HIGHWAY CAPACITY DEFICIENCIES

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES (Cont'd)

County/Roadway	From	To	Miles	Added Lanes	Cost (000's)
Clermont County (continued)					
70 Eastgate Blvd	Aicholtz	SR 125	1.85	4	8,947
71 Eastgate Blvd	Aicholtz	Eastgate South	0.28	2	677
72 Clough PK	Mt Carm-Tobas	Amelia-Olive Br	4.43	1	5,356
73 Branch H-Guin.	SR 28	Wards Comer	3.30	1	3,990
				Sub total	\$79,636
Hamilton County					
75 Delhi Pike	Pedretti Rd	Fairbanks Ave	1.32	2	3,192
76 Anderson Fy Rd	Delhi Pike	Crookshank	2.08	2	5,029
77 Crookshank Rd	Anderson Fy Rd	Glenway Ave	0.57	2	1,378
78 Rapid Run Rd	Pedretti Rd	Glenway Ave	0.47	2	1,136
79 Bridgetown Rd	Ebenezer Rd	Race Rd	0.94	1	1,136
80 Bridgetown Rd	Race Rd	Harrison Ave	0.47	2	1,136
81 Harrison Ave	I-74	Westwood N. Blvd	2.65	2	6,408
82 Harrison Ave	Stout Rd	New Haven Rd	1.13	2	2,732
83 Newhaven Rd	Harrison Ave	I-74	0.20	2	484
84 Race Rd	Harrison Ave	Bridgetown Rd	0.28	2	677
85 Glenway Ave	Bridgetown	Boudinot	2.18	2	5,271
86 Glenway Ave	Boudinot	Cleves Warsaw Rd	1.13	1	1,366
87 Montana Ave	Boudinot	Harrison Ave	0.19	1	230
88 Montana Ave	Harrison Ave	McFarland	0.19	2	459
89 Cheviot Rd	Blue Rock Rd	Blue Rock Rd	0.19	1	230
90 Cheviot Rd	Blue Rock Rd	North Bend Rd	1.33	2	3,216
91 North Bend	Cheviot Rd	I-74	0.38	2	919
92 North Bend	I-74	Westwood No. Bvd	1.14	2	2,757
93 Colerain Ave	Struble	Raeann	0.19	2	459
94 Colerain Ave	Raeann	I-275	0.38	4	1,838
95 Colerain Ave	I-275	West Fork Rd	6.63	2	16,031
96 Colerain Ave	West Fork Rd	Hoffner	0.95	1	1,149
97 Pippen Rd	Kemper Rd	Compton Rd	4.73	1	5,719
98 Mill Rd	John Gray Rd	Kemper Rd	0.66	1	798

TABLE 2

## LONG RANGE HIGHWAY CAPACITY DEFICIENCIES

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES (Cont'd)

County/Roadway	From	To	Miles	Added Lanes	Cost (000's)
Hamilton County (continued)					
99 Springdale	Flattop	Niagara	0.75	1	907
100 Hamilton Ave	John Gray Rd	I-275	0.98	2	2,370
101 Hamilton Ave	I-275	Seven Hills Dr	0.57	1	689
102 Hamilton Ave	Seven Hills Dr	Struble	0.38	2	919
103 Hamilton Ave	Struble	Springdale	0.38	1	459
104 Hamilton Ave	Miles Rd	Adams	0.66	1	798
105 Hamilton Ave	Adams	Compton Rd	0.19	2	459
106 Hamilton Ave	Compton Rd	Cross County Hwy	0.19	1	230
107 Winton Rd	County Line	I-275	0.38	4	1,838
108 Winton Rd	I-275	Kemper Rd	0.57	2	1,378
109 Winton Rd	Milbrook	Cross County Hwy	1.89	1	2,285
110 Winton Rd	Cross Co. Hwy	North Bend	1.42	2	3,434
111 Compton Rd	Werner	Hamilton Ave	0.19	1	230
112 Kemper Rd	Winton Rd	Kenn Rd	0.95	1	1,149
113 Kemper Rd	SR 4	Chester	1.99	2	4,812
114 Kemper Rd	Mosteller Rd	Cinci-Dayton Rd	0.85	2	2,055
115 Kemper Rd	Reed Hartman	Conrey	1.13	1	2,732
116 Kemper Rd	Snider	Montgomery Rd	0.75	1	907
117 Kemper Rd	Loveland Rd	Loveland Corp	0.75	1	907
118 Loveland Rd	Kemper Rd	Lebanon Rd	0.66	2	1,596
119 Crescentville Rd	SR 747	Commerce Park Dr	1.89	2	4,570
123 SR 4	SR 747	SR 126	0.38	1	459
127 SR 126	Reed Hartman	I-71	0.38	1	459
130 Cornell Rd	Grooms Rd	Deerfield	0.48	1	580
131 Reed Hartman	I-275	Cornell Park Dr	0.47	2	1,136
132 Kenwood Rd	Cornell Rd	Creek Rd	0.85	1	1,028
133 Kenwood Rd	Cooper Rd	Cross County Hwy	0.28	2	677
134 Sharon Rd	Winton Rd	Northland Rd	0.66	2	1,596
135 Sharon Rd	Mill Rd	Winton Rd	1.14	1	1,378
136 Ridge Rd	Highland	Woodford	0.38	2	919
139 U.S. 22	Weller Rd	Pfeiffer	0.38	2	919
140 U.S. 22	Pfeiffer Rd	Cooper Rd	1.60	1	1,934

TABLE 2

## LONG RANGE HIGHWAY CAPACITY DEFICIENCIES

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES (Cont'd)

County/Roadway	From	To	Miles	Added Lanes	Cost (000's)
<b>Hamilton County (continued)</b>					
141 U.S. 22	Cooper Rd	Cross County Hwy	0.38	2	919
142 U.S. 22	I-71	Kenwood	0.38	2	919
143 Newtown Rd	Valley Lane	U.S. 50	0.47	1	568
147 SR 125	Salem	County Line	2.17	2	5,247
148 U.S. 50	Southern Ave	Plainville Rd	0.47	2	1,136
149 Clough Pike	Hunley Rd	Berkshire	0.19	2	459
150 Clough Pike	Berkshire	Nagel	1.89	1	2,285
151 Clough Pike	Nagel	Eight Mile Rd	0.19	2	459
152 Red Bank Expr	Erie Ave	US 50	0.66	2	1,596
153 Red Bank Expr	Wooster Rd	US 50	0.19	1	230
154 I-71	I-275	I-75	3.22	2	49,312
				<b>Sub total</b>	<b>\$172,689</b>
<b>Kenton County</b>					
163 I-71/75	I-275	Ky 236	0.99	2	2,901
165 Ky 16	I-275	Old Taylor Mill	0.16	2	469
166 Ky 16	Old Taylor MI	Hands Pk	3.80	1	4,594
167 Ky 17	N of KY 1501	Nicholson	6.90	2	16,684
168 Ky 1303	I-275	T. Moore Pkwy	0.49	1	592
169 Ky 1829	Ky 1303	Boone Co	1.36	1	1,644
173 U.S. 127/42	I-71/75	Highland Ave	0.49	2	1,185
174 U.S. 127/42	Buttermilk Pk.	Ky 1303	0.45	2	967
176 U.S. 127/42	Hallam	Ky 236	0.16	1	193
178 5th St (Cov.)	Russell	Scott St	0.25	1	302
180 New Connector	KY 16	KY 9	1.70	2	4,111
				<b>Sub total</b>	<b>\$33,642</b>
<b>Warren County</b>					
181 SR 741	SR 73	Mill St	0.49	1	396
183 SR 63	SR 48 By-Pass	SR 48 (Broadway)	0.57	1	689
184 Deerfield Rd	Turtle Ck-Union	U.S. 42	1.18	1	1,427

TABLE 2

## LONG RANGE HIGHWAY CAPACITY DEFICIENCIES

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES (Cont'd)

County/Roadway	From	To	Miles	Added Lanes	Cost (000's)
Warren County (continued)					
188 U.S. 42	SR 741	Western Row Rd	3.79	1	4,582
189 U.S. 42	SR 48	N of Landen Dr	3.50	1	4,232
190 U.S. 22	S of Columbia Rd	Fields-Ertel	1.20	1	1,451
192 Fields-Ertel Rd	Snider	U.S. 22	2.33	2	5,634
193 Fields-Ertel Rd	Butler Co	Snider Rd	0.66	1	798
				Sub total	\$19,209
Grand Total					\$452,407

TABLE 3

## RAIL TRANSIT

## PROJECTS FINANCIALLY CONSTRAINED WITHIN EXPECTED REVENUES

Alignment	Length (miles)	Cost (\$millions)
2. Northern	29	502
3. Northeastern	21	344
4. Eastern	18	57
5. Southeastern	6	112
6. Southwestern	15	330
7. Central	5	97
Total		\$1,442



**APPENDIX B**

**BASELINE NETWORK  
PROJECTS**



BASELINE NETWORK

OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1996 - 1999 TRANSPORTATION IMPROVEMENT PROGRAM														06/04/96				
Kentucky Counties: Boone, Campbell, Kenton					COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON- FORMITY	SPONSOR	PRIOR- ITY	PLAN FILE	SALE DATE	
PROJECT	CO	ROUTE	LEN	DESCRIPTION				(FY95)	FY96	FY97	FY98	FY99						(FUTR)
<b>PROJECTS ADDED TO BASELINE NETWORK</b>																		
139 139.01	CAM KEN	KY 1120	0.30	Bridge Replacement : Shortway Bridge over the Licking River	13,573	OSTP STP	R C		2,160		8,698			Analyzed 1997 (NEPA)	KYTC	B 1	1Q97	4Q98
<b>PROJECTS MAINTAINED IN BASELINE NETWORK</b>																		
38.20	KEN	I-75	1.00	Add Southbound Lane and Rehabilitate: 3000 Feet South of Dixie Highway to Kyles Ln	29,626	IM	R C NH R C	6,825			16,650			Analyzed 1997 (NEPA)	KYTC	A	4Q95	4Q97
16.20	KEN	I-75	4.50	Add Third Lane: Boone County Line to Grant County Line	8,300	NH IM	C C				5,976 747			Analyzed 1997 (NEPA)	KYTC	A	Filed	2Q97
237.00	BOO	KY 842	1.14	Widening to 4 Lanes: KY 18 to Turfway Road	6800	OSTP State	R C		1,240		[3,500]			Analyzed 1997 (NEPA)	KYTC	B	2Q96	1Q97
16.0	BOO	I-75	5.00	Add Third Lane: KY 338 to Kenton County Line	7000	NH IM	C C				5,040 630			Analyzed 1997 (NEPA)	KYTC	A	Filed	4Q97

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BASELINE NETWORK

OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1996 - 1999 TRANSPORTATION IMPROVEMENT PROGRAM															06/05/96															
Ohio Counties: Butler, Clermont, Hamilton, Warren											COST (000)		FUND TYPE		PHASE		FEDERAL [OTHER] FUND USE (000)					AQ CON-FORMITY	SPONSOR	PRIOR-ITY	PLAN FILE	SALE DATE				
PID	CO	ROUTE	SEC	LEN	DESCRIPTION	(000)				(FY95)	FY96	FY97	FY98	FY99	(FUTR)															
<b>PROJECTS ADDED TO BASELINE NETWORK</b>																														
9329	BUT	SR 129	24.618	2.44	New Construction: 4 Lane Limited Access: SR4 to SR4 Bypass	19,728	Local	R		[5,000]						Analyzed 1997 (NEPA)	Butler Co TID	S*****	3Q97	4Q98										
9330	BUT	SR 129	28.544	5.51	New Construction: 4 Lane Limited Access	28,852	Local	R			[2,500]					Analyzed 1997 (NEPA)	Butler Co TID	S*****	1Q98	1Q99										
9327	BUT	SR 129	37.409	2.10	New Construction: 4 Lane Limited Access 2.90 Mi East of SR747 to I-75 (includes I-75 add lane and Hamilton-Mason Rd bridge)	24,000	Local	R			[1,500]					Analyzed 1997 (NEPA)	Butler Co TID	S*****	1Q98	1Q99										
6525	HAM	SR 4 I-75	2.49 9.45	0.31	Interchange Widening and Reconstruction: (Widen SR4 to 8 Lanes) Seymour to North Bend on SR4	1,200	IM	R				27				Analyzed 1997 (NEPA)	Cincinnati	K*****	2Q98	2Q99										
8347	HAM	US 127	22.816	0.36	Widening to 4 Lanes: 0.07 Miles South of Waycross Road to I-275	1,235	OSTP	R				108				Analyzed 1997 (NEPA)	Forest Park	J*****	3Q98	4Q99										
4932	WAR	SR 63 SR 123	10.732 17.58	1.59	Widening to 3 Lanes: 0.28 Miles West of West Street to SR48	4,080	OSTP	R				240				Analyzed 1997 (NEPA)	Lebanon	J*****	4Q98	4Q99										
<b>PROJECTS MAINTAINED IN BASELINE NETWORK</b>																														
4888	HAM CLE	US 50 US 50	36.450 0.000	0.06	Bridge Widening to 4 Lanes: Over the Little Miami River	2,122	BR	C				1,399				Analyzed 1997 (NEPA)	ODOT	N 1	2Q96	2Q97										
7528	WAR	SR 123	27.660	0.83	Widening to 4 Lanes: 0.63 Miles South to 0.20 Miles North of I-75	6,020	OSTP	R	80							Analyzed 1997 (NEPA)	Franklin	J 36	1Q96	4Q96										

BASELINE NETWORK

OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1996 - 1999 TRANSPORTATION IMPROVEMENT PROGRAM														06/05/96					
Ohio Counties: Butler, Clermont, Hamilton, Warren						COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON- FORMITY	SPONSOR	PRIOR- ITY	PLAN FILE	SALE DATE	
PID	CO	ROUTE	SEC	LEN	DESCRIPTION				(FY95)	FY96	FY97	FY98	FY99						(FUTR)
9473	WAR	SR 741 I-71	0.000 5.400	1.00	Widen Kings Mills Road to 5 Lanes: I-71 to Parkside Drive	10,366	OSTP State	R R		499 [124]					Analyzed 1997 (NEPA)	ODOT	J*****	4Q95	1Q97
							OSTP IM State	C C C			3,424 3,852 [1,384]								
7147	WAR MOT	SR 741	15.530 0.000	2.69	Widening to 4 Lanes: SR 73 to the Montgomery County Line	6,900	OSTP State	R R		300 [100]					Analyzed 1997 (NEPA)	Springboro	J*****	4Q95	3Q96
							OSTP State	C C		5,200 [1,300]									
7948	CLE	SR 28	3.810	1.16	Widening to 4 Lanes: 1.56 Miles East of I-275 to 1.98 Miles West of SR 48	3,700	OSTP Local	P P			384 [96]				Analyzed 1997 (NEPA)	ODOT	J*****	1Q99	1Q00
							OSTP Local	R R					-800 [200]						
							OSTP Local	C C				2,000 [500]							
4959	HAM	SR 125	1.310	1.68	Widening to 4 Lanes: 0.19 Miles West of SR 32 to Corbly Road	5,042	OSTP Local	R R				413 [103]			Analyzed 1997 (NEPA)	Cincinnati	J*****	1Q96	2Q98
							OSTP State	C C				3,221 [805]							
4873	HAM	SR 126	11.680	1.44	Widening to 4 Lanes: SR 4 to I-75	8,100	OSTP Local	R R		1,120 [280]					Analyzed 1997 (NEPA)	Woodlawn Evendale	J*****	4Q95	1Q97
							OSTP State	C C			5,200 [1,300]								
9614	BUT	CR 19	11.020	2.22	Widen Cincinnati-Dayton Road to 5 Lanes: SR 63 to Oxford State Road	3,600	OSTP Local	R R		160 [40]					Analyzed 1997 (NEPA)	Butler County	J*****	2Q96	4Q96
							OSTP Local	C C		2,720 [680]									
8205	HAM	SR 561	2.590	0.22	Widening to 5 Lanes: Madison Road to 0.22 Miles North	824	OSTP State	R R		160 [40]					Analyzed 1997 (NEPA)	Norwood	J*****	Filed	1Q96
							OSTP State	C C		499 [124]									
5983	BUT	Breiel Blvd		1.05	Construct New 4 Lane Roadway: 0.08 Miles North of Riverview Ave to SR 73	3,300	OSTP Local	R R		304 [76]					Analyzed 1997 (NEPA)	Middletown	J*****	4Q95	1Q97
							OSTP Local	C C			2,320 [580]								

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BASELINE NETWORK

OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1996 - 1999 TRANSPORTATION IMPROVEMENT PROGRAM															06/05/96				
Ohio Counties: Butler, Clermont, Hamilton, Warren						COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON- FORMITY	SPONSOR	PRIOR- ITY	PLAN FILE	SALE DATE	
PID	CO	ROUTE	SEC	LEN	DESCRIPTION				(FY95)	FY96	FY97	FY98	FY99						(FUTR)
PROJECTS REMOVED FROM BASELINE NETWORK																			
4818	BUT	SR 747	1.710	1.09	Reconstruct and Widen Roadway to 4 Lanes: Ashley Drive to 0.75 Miles South of Smith Road	3,456	STP State	R R		468 [83]					Analyzed 1997 (NEPA)	Butler County	M*****	4Q95	4Q96
							STP State	C C		2,610 [290]									

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**APPENDIX C**

**TIP NETWORK PROJECTS**

**KENTUCKY AIR QUALITY**

PROJECT	CO	ROUTE	LEN	DESCRIPTION	COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON- FORMITY	SPONSOR	PRIOR- ITY	PLAN ACCEP	SALE DATE	
								(FY96)	FY97	FY98	FY99	FY00						(FUTR)
351.0	BOO	US 25	4.50	Widening to 5 Lanes: KY1829 to KY338 <b>PROJECT PENDING PLAN AMENDMENT</b>	750	State	P					[750]	Analyzed 2005	KYTC	G 5	UNSC	UNSC	
64.01	BOO	US 42	2.40	Widening to 4 Lanes: KY3060 to the Florence West Corp Line	15,450	STP	R C			5,640		6,400	Analyzed 2005	KYTC	C 3	4Q97	1Q00	
16.0	BOO	I-75	5.00	Add Third Lane: KY338 to Kenton County Line	9,500	NH IM	C C		6,800 900				Analyzed 1997 (NEPA)	KYTC	A 4	Filed	2Q97	
237.0	BOO	KY 842	1.14	Widening to 4 Lanes: KY 18 to Turfway Road	7,300	OSTP State	R C	1,640				[3,500]	Analyzed 1997 (NEPA)	KYTC	B 8	4Q96	4Q97	
316.0 316.01	BOO	KY 1017	1.40	Widening to 5 Lanes: From US25 to KY717 <b>PROJECT PENDING PLAN AMENDMENT</b>	2,400	State	P R		[400]		[500]		Analyzed 2005	KYTC	G 2	UNSC	UNSC	
334 334.01	CAM KEN	Connector	4.00	New Roadway: KY16 to KY9 <b>PROJECT PENDING PLAN AMENDMENT</b>	900	State	P		[500]			[400]	Analyzed 2005	KYTC	G 9	UNSC	UNSC	
46.1	CAM	US 27	2.30	Widening to 5 Lanes: Kahns Entrance to 1.00 Miles South of KY10	17,050	State	R C		[6,300]			[10,000]	Analyzed 2005	KYTC	G 6	1Q97	4Q99	
46.2	CAM	US 27	4.50	Widening to 5 Lanes: KY154 to Kahns Entrance	24,400	State	P R C		[400]			[4,000]	Analyzed 2005	KYTC	G 10	1Q98	4Q00	
352	CAM	KY 536	3.50	Extend Existing Roadway: US27 to KY9 <b>PROJECT PENDING PLAN AMENDMENT</b>	600	State	P					[600]	Analyzed 2005	KYTC	G 8	UNSC	UNSC	
139 139.01	CAM KEN	KY 1120	0.30	Bridge Replacement : Shortway Bridge over the Licking River	13,573	OSTP STP	R C		2,160		8,698		Analyzed 1997 (NEPA)	KYTC	B 1	1Q97	4Q98	
300.0	KEN	New Bridge	0.50	New Bridge: Covington to Cincinnati	16,100	STP	P C				1,680		Analyzed 2005	KYTC	C 2	4Q99	4Q02	
344.0	KEN	KY 16	4.00	Widening to 3 Lanes: I-275 to KY1501 <b>PROJECT PENDING PLAN AMENDMENT</b>	5,000	State	P R C				[1,000]		Analyzed 2005	KYTC	G 3	UNSC	UNSC	
313.01 313.02	KEN	KY 17	2.50	Widening to 5 Lanes: From 4-Lane Section to Pelley Road	29,000	State	C				[18,000]	[5,000]	Analyzed 2005	KYTC	G 4	4Q97	4Q99	
313.10	KEN	KY 17	4.00	Widening to 5 Lanes: From Pelley Road to KY16	17,000	State	P R C	[400]				[5,000]	Analyzed 2005	KYTC	G 7	4Q97	4Q02	
38.20 38.21	KEN	I-75	1.00	Add Southbound Lane and Rehabilitate: 3,000 Ft South of Dixie Highway to Kyles Ln	29,626	IM NH NH	C R C		674	17,550			Analyzed 1997 (NEPA)	KYTC	A 6	1Q96	4Q97	
																		1,760

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OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1997 - 2000 TRANSPORTATION IMPROVEMENT PROGRAM

06/04/96

**KENTUCKY AIR QUALITY**

PROJECT	CO	ROUTE	LEN	DESCRIPTION	COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON-FORMITY	SPONSOR	PRIOR-ITY	PLAN ACCEP	SALE DATE	
								(FY96)	FY97	FY98	FY99	FY00						(FUTR)
16.20	KEN	I-75	4.50	Add Third Lane:	9,130	NH	C		6,640					Analyzed 1997	KYTC	A 5	Filed	2Q97
16.21				Boone County Line to Grant County Line		IM	C		747					(NEPA)				
71.0	KEN BOO	KY 1303	8.70	Widening to 5 Lanes: Dixie Highway to US25 in Boone County	1,000	OSTP	R C							Analyzed 2005	KYTC	B 2	NA	NA
71.01	KEN	KY 1303	1.00	Widening to 5 Lanes: Lindenwood Drive to Autumn Road	9,572	OSTP	R C		2,658					Analyzed 2005	KYTC	B 3	3Q97	1Q99
71.02	KEN	KY. 1303	2.00	Widening to 5 Lanes: Dudley Pike to Lindenwood Drive	10,000	OSTP	P R C		400		4,800			Analyzed 2005	KYTC	B 7	4Q00	4Q02
71.03	KEN	KY 1303	1.70	Widening to 5 Lanes: Autumn Road to Richardson Road	500	OSTP	P			400		3,600	4,000	Analyzed 2005	KYTC	B 6	UNSC	UNSC

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OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1997 - 2000 TRANSPORTATION IMPROVEMENT PROGRAM

06/04/96

**OHIO AIR QUALITY**

PID	CO	ROUTE	SEC	LEN	DESCRIPTION	COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON-FORMITY	SPONSOR	PRIOR-ITY	PLAN ACCEP	SALE DATE	
									(FY96)	FY97	FY98	FY99	FY00						(FUTR)
5983	BUT	Breiel	Blvd	1.05	Construct New 4 Lane Roadway: 0.08 Miles North of Riverview Ave to SR73	3,300	OSTP Local OSTP Local	R R C C	304 [76]		2,320 [580]				Analyzed 1997 (NEPA)	Middletown	J 13	3Q96	2Q97
NP	BUT	Mulhauser	Road		Widening to 5 Lanes and Extension: Fairfield ECL to Allen Road	7,000	Local Local	R C		[3,000]		[4,000]		Analyzed 2005	Butler Co TID	S 20	4Q97	4Q98	
NP	BUT	SR 4		0.00	Construct New Interchange: At Mack/Mulhauser Roads	6,625	OSTP Local	C C					3,235 [809]	Analyzed 2005	Fairfield	J 27	UNSC	UNSC	
9614	BUT	CR 19	11.02	2.22	Widen Cincinnati-Dayton Road to 5 Lanes: SR63 to Oxford State Road	3,600	OSTP Local OSTP Local	R R C C	160 [40]		2,720 [680]			Analyzed 1997 (NEPA)	Butler County	J 26	2Q97	4Q97	
NP	BUT	CR 19	13.24	1.60	Widen Cincinnati-Dayton Road to 5 Lanes: Oxford State Road to Warren County Line	1,825	OSTP Local OSTP Local	R R C C				365 [91]	1,095 [274]	Analyzed 2005	Middletown	J 28	4Q99	4Q00	
15193	BUT	I-75	2.414	0.00	New Interchange: At Allen Road	15,500	NH Local Local	P P C	1,200 [300]					Analyzed 2005	Butler Co TID	L 17	1Q97	1Q98	
7529	BUT	I-75 CR 19	3.75 3.20	1.11	Widen Cincinnati-Dayton Road to 4 Lanes: I-75 to Tylersville Road	5,741	OSTP IM State Local OSTP IM NH State Local	R R R R C C C C C		78 19 [2] [26]		14,000		Analyzed 2005	Butler County	J 22	1Q98	4Q98	
10752	BUT WAR	I-75	6.77 0.00	7.90	Minor Rehabilitation, Add One Lane NB+SB: 0.33 Miles North of Hamilton-Mason Road to 0.68 Miles South of SR122	25,400	IM IM NH State	P C C C						1,800 11,700 6,400 [3,900]	Analyzed 2005	ODOT	K 15	UNSC	UNSC
14114	BUT	CR 113	5.953 6.114	0.50	Liberty-Fairfield Road Bridge Replacements: 0.81 to 1.01 Miles North of SR4	5,000	STP Local	C C					4,000 [1,000]	Analyzed 2005	Butler County	M 34	1Q99	1Q00	
9329	BUT	SR 129	24.618	2.44	New Construction: 4 Lane Limited Access: SR4 to SR4 Bypass	19,728	Local Local	R C		[5,000]		[14,000]		Analyzed 1997 (NEPA)	Butler Co TID	S 5	3Q97	4Q98	
9330	BUT	SR 129	28.544	5.51	New Construction: 4 Lane Limited Access	28,852	Local Local	R C			[2,500]		[25,000]	Analyzed 1997 (NEPA)	Butler Co TID	S 3	1Q98	1Q99	

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OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1997 - 2000 TRANSPORTATION IMPROVEMENT PROGRAM

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**OHIO AIR QUALITY**

PID	CO	ROUTE	SEC	LEN	DESCRIPTION	COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON-FORMITY	SPONSOR	PRIOR-ITY	PLAN ACCEP	SALE DATE	
									(FY96)	FY97	FY98	FY99	FY00						(FUTR)
9327	BUT	SR 129	37.409	2.10	New Construction: 4 Lane Limited Access 2.90 Mi East of SR747 to I-75 (includes I-75 add lane and Hamilton-Mason Rd bridge)	24,000	Local Local	R C			[1,500]				Analyzed 1997 (NEPA)	Butler Co TID	S 4	1Q98	1Q99
4818	BUT	SR 747	1.71	1.09	Reconstruct & Widen Roadway to 4 Lanes: Ashley Drive to 0.75 Miles South of Smith Road	4,005	STP State STP State	R R C C	990 [110]						Analyzed 1997	Butler County	M 31	Filed	4Q97
4760	BUT	SR 747	13.78	2.49	Construct New 4 Lane Roadway: 1.04 Miles South of SR73 on Wayne-Madison Road to the SR73 Great Miami River Bridge	8,300	STP State STP State STP State	P P R R C C						640 [160] 400 [100] 5,600 [1,400]	Analyzed 2005	ODOT	M 41	UNSC	UNSC
7948	CLE	SR 28	6.130	1.16	Widening to 4 Lanes: 1.56 Miles East of I-275 to 1.98 Miles West of SR48	3,700	State OSTP State OSTP State	P R R C C		[200]					Analyzed 1997 (NEPA)	ODOT	J 21	1Q99	1Q01
7606	CLE	SR 131	2.751	0.93	Install Two-Way Left Turn Lanes: 1.63 Miles East of Milford East Corp Line, Upgrade Signal At Wolfpen-Pleasant Hill Rd	820	State STP State	R C C				[100] 558 [62]			Analyzed 2005	ODOT	S 33	2Q99	4Q99
12436	CLE	I-275	10.265	4.60	Add Third Lane and Resurface: 0.30 Miles South of US50 Freeway to 0.58 Miles South of SR32	16,500	NH IM State NH IM State	P P P C C C						180 240 [80] 8,800 4,500 [2,700]	Analyzed 2005	ODOT	L 15	UNSC	UNSC
10914	CLE HAM	I-275	17.667 35.07	5.46	Add Third Lane and Rehabilitate Pavement: 0.58 Miles South of SR32 to 0.30 Miles South of Five Mile Road	24,000	NH IM State NH IM State	P P P C C C		320 360 [120]					Analyzed 2005	ODOT	L 14	UNSC	UNSC
4909	HAM	Queen City		0.81	Widening to 6 Lanes: White to Sunset Avenue	2,120	OSTP Local OSTP Local	R R C C							Analyzed 2005	Cincinnati	J 10	3Q98	1Q01

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OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1997 - 2000 TRANSPORTATION IMPROVEMENT PROGRAM

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**OHIO AIR QUALITY**

PID	CO	ROUTE	SEC	LEN	DESCRIPTION	COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON-FORMITY	SPONSOR	PRIOR-ITY	PLAN ACCEP	SALE DATE	
									(FY96)	FY97	FY98	FY99	FY00						(FUTR)
6525	HAM	SR 4 I-75	2.49 9.45	0.31	Interchange Widening and Reconstruction: (Widen SR4 to 8 Lanes) Seymour to North Bend on SR4	1,200	IM	R			27				Analyzed 1997 (NEPA)	Cincinnati	K 17	2Q98	2Q99
							OSTP	R			22								
							State	R			[10]								
							IM	C					482						
4770	HAM	US 27	6.82	2.22	Widening to 4 Lanes: Leeper Street to North Bend Road	2,000	Local	C		[2,000]				Analyzed 1997	Cincinnati	S 17	3Q96	2Q97	
							OSTP	C					400						
							State	C					[187]						
							State	C											
4988	HAM	US 50	30.346	0.28	Widening to 4 Lanes: English to Maryland Avenue	2,700	NH	C					Analyzed 2005	Cincinnati	L 13	UNSC	UNSC		
							State	C										2,160 [540]	
4888	HAM CLE	US 50 US 50	36.45 0.00	0.46	Bridge Widening to 4 Lanes: Over the Little Miami River	2,122	State	R		[40]			Analyzed 1997 (NEPA)	ODOT	N 1	3Q97	4Q98		
							STP	C			1,585 [396]								
6829	HAM WAR	I-71 I-71	27.305 0.00	6.11	Resurfacing, Add Lane: 0.49 Miles South of I-275 to 0.39 Miles South of Western Row Road	26,100	IM	P		990			Analyzed 2005	ODOT	L 10	4Q99	4Q00		
							State	P		[110]									
							NH	C										10,000	
							IM	C										11,250	
10751	HAM BUT	I-75	22.848 0.00	9.98	Minor Rehabilitation, Add One Lane NB & SB SR126 to 0.33 Miles North of Hamilton-Mason Road	60,100	NH	P		2,960			Analyzed 2005	ODOT	L 8	4Q00	4Q01		
							IM	P		1,260									
							State	P		[880]									
							NH	C										32,000	
4959	HAM	SR 125	1.31	1.68	Widening to 4 Lanes: 0.19 Miles West of SR32 to Corbly Road	5,042	OSTP	R		413			Analyzed 1997 (NEPA)	Cincinnati	J 11	3Q96	3Q98		
							Local	R		[103]									
							OSTP	C			3,221								
							State	C			[805]								
4873	HAM	SR 126	11.68	1.44	Widening to 4 Lanes: SR4 to I-75	8,200	OSTP	C	5,200			Analyzed 1997 (NEPA)	Woodlawn Evendale	J 25	Filed	4Q96			
Local	C	[1,300]																	
8347	HAM	US 127	22.816	0.36	Widening to 4 Lanes: 0.07 Miles South of Waycross Road to I-275	1,235	OSTP	R			108		Analyzed 1997 (NEPA)	Forest Park	J 23	3Q98	4Q99		
							Local	R			[27]								
							OSTP	C										880	
							State	C										[220]	
13932	HAM	I-275	29.79	0.55	Upgrade Interchange: At Reed Hartman Highway	5,500	OSTP	C					Analyzed 2005	Sharonville	J 4	4Q99	4Q01		
							Local	C										2,080	
							NH	C										[520]	
							State	C										2,320	
14283	HAM	CR 461	0.129	0.17	Wooster Road Bridge Replacement: 1.60 Miles South of US50 (Over Conrail)	2,250	BR	C			1,800		Analyzed 2005	Hamilton County	N 7	2Q97	2Q98		
							Local	C			[450]								

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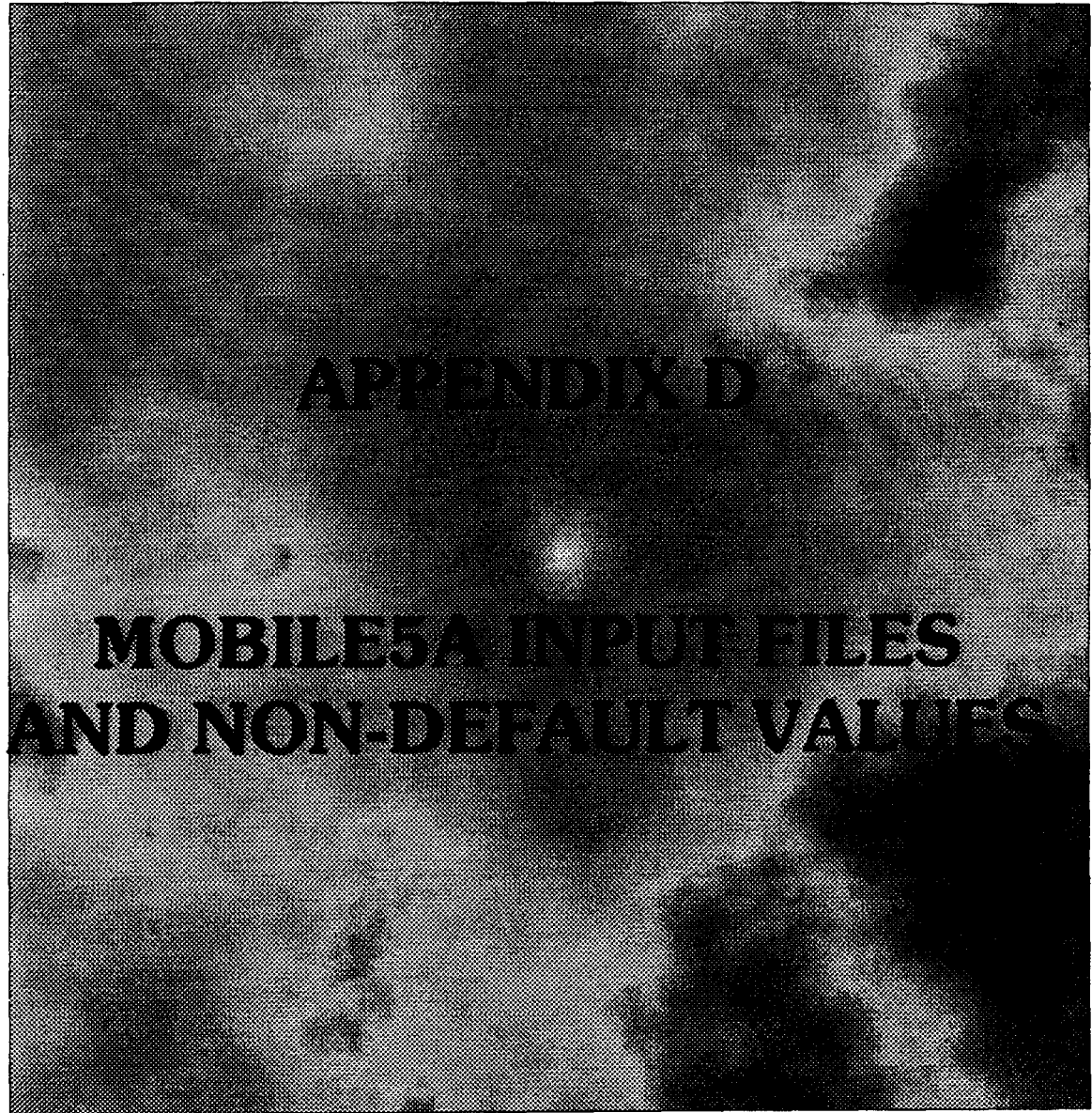
OHIO - KENTUCKY - INDIANA REGIONAL COUNCIL OF GOVERNMENTS FISCAL YEARS 1997 - 2000 TRANSPORTATION IMPROVEMENT PROGRAM

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**OHIO AIR QUALITY**

PID	CO	ROUTE	SEC	LEN	DESCRIPTION	COST (000)	FUND TYPE	PHASE	FEDERAL [OTHER] FUND USE (000)					AQ CON- FORMITY	SPONSOR	PRIOR- ITY	PLAN ACCEP	SALE DATE
									(FY96)	FY97	FY98	FY99	FY00					
8205	HAM	SR 561	2.59	0.22	Widening to 5 Lanes: Madison Road to 0.22 Miles North	935	OSTP State	C C	544 [136]					Analyzed 1997 (NEPA)	Norwood	J 12	3Q96	4Q96
10612	WAR	Tylersville Road		2.41	Widening to 4 Lanes, New Location: US42 to I-71	4,050	OSTP Local OSTP Local	R R C C			200 [50]		3,040 [760]	Analyzed 2005	Mason	J 30	1Q99	4Q99
NP	WAR	CR 19	0.00	4.20	Widen Dixie Highway to 4 Lanes: Butler County Line to SR73	8,900	OSTP Local OSTP Local	R R C C					800 [200] 6,320 [1,580]	Analyzed 2005	Middletown	J 29	UNSC	UNSC
4932	WAR	SR 63 SR 123	10.732 17.58	1.59	Widening to 3 Lanes: 0.28 Miles West of West Street to SR48	4,080	OSTP Local OSTP State	R R C C			240 [60]		2,960 [740]	Analyzed 1997 (NEPA)	Lebanon	J 18	4Q98	4Q99
10696	WAR	I-71	3.22	6.27	Add Lane, Rehabilitate: 0.39 Miles South of Western Row Road to 1.08 Miles North of SR48	19,500	NH State IM NH State	P P C C C		800 [200]			8,325 7,400 [2,775]	Analyzed 2005	ODOT	K 19	4Q98	1Q00
7528	WAR	SR 123	27.66	0.83	Widening to 4 Lanes: 0.63 Miles South to 0.20 Miles North of I-75	6,120	OSTP Local OSTP State	R R C C	160 [40]		4,536 [1,134]			Analyzed 1997 (NEPA)	Franklin	J 31	Filed	3Q97
9473	WAR	SR 741 I-71	0.00 5.40	1.00	Widen Kings Mills Road to 5 Lanes: I-71 to Parkside Drive	10,542	OSTP State OSTP IM State	R R C C C	600 [200]		3,424 3,852 [1,384]			Analyzed 1997 (NEPA)	ODOT	J 17	Filed	3Q97
7147	WAR MOT	SR 741	15.53 0.00	2.69	Widening to 4 Lanes: SR73 to the Montgomery County Line	6,900	OSTP State OSTP State	R R C C	320 [80]					Analyzed 1997 (NEPA)	Springboro	J 16	3Q96	3Q98

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MOBILE5A Input Files for Kentucky and Ohio for 1997, 2005 & 2010  
Hourly Hot/Cold Start Percentage by Roadway Type  
Hourly Temperature Table  
Hourly Vehicle Mix by Roadway Type  
Speed by Roadway Type  
Hourly Traffic Distribution by Roadway Type  
Hourly Directional Split Factors by Roadway Type  
Summer Factors by Roadway Type

E0041.97D

12 PROMPT Ohio 1997 --- O96FLAG.DAT S6  
 OKI 1997 mid year rate, anti-tampering BIENNIAL IM240 + 9.0 RVP  
 1 TAMFLG - Use MOBILE 5A default tampering rates  
 1 SPDFLG - Use one average speed for all vehicle types per scenario  
 2 VMFLAG - User supplied VMT mix for each scenario  
 1 MYMRFG - Use MOBILE 5A mileage accumulation and registration by age  
 3 NEWFLG - Use MOBILE 5A basic exhaust emission rates and New evapor. rates  
 52 0.00IMFLAG - User supplies 2 I/M Programs and after 1994 MOBILE 5A TIER 1  
 1 ALHFLG - Use no additional correction factors for air/load/tow/humidity  
 8 ATPFLG - User specifies ATP with pressure and purge checks MOBILE 5A models  
 4 RLFLAG - Use STAGE II and onboard VRS to model refueling emission rates  
 2 LOCFLG - Use one local area parameter (LAP) record for all scenarios  
 2 TEMFLG - Use scenario temperature to calculate temperature corrections  
 4 OUTFMT - Use MOBILE 5A 80 column descriptive format  
 4 PRTFLG - Calculate and output HC, CO and NOX emission factors  
 1 IDLFLG - No idle emission factors calculated or printed  
 3 NMHFLG - Calculate Volatile Organic Compound (VOC) emission factors  
 1 HCFLAG - No HC component emission factor output  
 4 Number of years in the phase-in period for new evaporative emissions  
 96 20.0 Model year and compliance percent for new evaporative emissions  
 97 40.0 Model year and compliance percent for new evaporative emissions  
 98 90.0 Model year and compliance percent for new evaporative emissions  
 99 100. Model year and compliance percent for new evaporative emissions  
 95 20 70 80 02 00 096 1 2 2222 3111 IM Loaded Idle 1980 & Older  
 95 20 81 20 00 03 096 1 2 2222 4211 0.80 20.0 2.00 IM 240 1981 & Newer  
 95 70 20 2222 12 096. 22211212 ATP  
 95 70 20 2222 12 096. Pressure Test  
 95 81 20 2222 12 096. Purge Test  
 93 2 86. 86. Stage II  
 95 2222 On Board VRS  
 OKI REGION C 65. 95. 10.5 9.0 92 2 Local Area Parameter (LAP)  
 .035 .197 .027 .031 2 Oxygenated Fuels Record  
 1 97 30.0 88.6 20.6 27.3 20.6 7 Scenario Record  
 END

E0042.97R

12 PROMPT Kentucky 1997  
 OKI 1997 mid year rate with RFG only  
 1 TAMFLG - Use MOBILE 5A default tampering rates  
 1 SPDFLG - Use one average speed for all vehicle types per scenario  
 2 VMFLAG - User supplied VMT mix for each scenario  
 1 MYMRFG - Use MOBILE 5A mileage accumulation and registration by age  
 1 NEWFLG - Use MOBILE 5A basic exhaust emission rates  
 1 IMFLAG - Use NO I/M Programs  
 1 ALHFLG - Use no additional correction factors for air/load/tow/humidity  
 1 ATPFLG - Use NO ATP, pressure and purge checks  
 1 RLFLAG - Use uncontrolled refueling emission rates  
 2 LOCFLG - Use one local area parameter (LAP) record for all scenarios  
 2 TEMFLG - Use scenario temperature to calculate temperature corrections  
 4 OUTFMT - Use MOBILE 5A 80 column descriptive format  
 4 PRTFLG - Calculate and output HC, CO and NOX emission factors  
 1 IDLFLG - No idle emission factors calculated or printed  
 3 NMHFLG - Calculate Volatile Organic Compound (VOC) emission factors  
 1 HCFLAG - No HC component emission factor output  
 OKI REGION C 65. 95. 8.6 9.0 92 1 1 2 Local Area Parameter (LAP)  
 1 97 30.0 88.6 20.6 27.3 20.6 7 Scenario Record  
 END

E0041.05D

12 PROMPT Ohio 2005 --- O05FLAG.DAT S6  
 OKI 2005 mid year rate, anti-tampering BIENNIAL IM240 + 9.0 RVP  
 1 TAMFLG - Use MOBILE 5A default tampering rates  
 1 SPDFLG - Use one average speed for all vehicle types per scenario  
 2 VMFLAG - User supplied VMT mix for each scenario  
 1 MYMRFG - Use MOBILE 5A mileage accumulation and registration by age  
 3 NEWFLG - Use MOBILE 5A basic exhaust emission rates and New evapor. rates  
 52 0.00IMFLAG - User supplies 2 I/M Programs and after 1994 MOBILE 5A TIER 1  
 1 ALHFLG - Use no additional correction factors for air/load/tow/humidity  
 8 ATPFLG - User specifies ATP with pressure and purge checks MOBILE 5A models  
 4 RLFLAG - Use STAGE II and onboard VRS to model refueling emission rates  
 2 LOCFLG - Use one local area parameter (LAP) record for all scenarios  
 2 TEMFLG - Use scenario temperature to calculate temperature corrections  
 4 OUTFMT - Use MOBILE 5A 80 column descriptive format  
 4 PRTFLG - Calculate and output HC, CO and NOX emission factors  
 1 IDLFLG - No idle emission factors calculated or printed  
 3 NMHFLG - Calculate Volatile Organic Compound (VOC) emission factors  
 1 HCFLAG - No HC component emission factor output  
 4 Number of years in the phase-in period for new evaporative emissions  
 96 20.0 Model year and compliance percent for new evaporative emissions  
 97 40.0 Model year and compliance percent for new evaporative emissions  
 98 90.0 Model year and compliance percent for new evaporative emissions  
 99 100. Model year and compliance percent for new evaporative emissions  
 95 20 70 80 02 00 096 1 2 2222 3111 IM Loaded Idle 1980 & Older  
 95 20 81 20 00 03 096 1 2 2222 4211 0.80 20.0 2.00 IM 240 1981 & Newer  
 95 70 20 2222 12 096. 22211212 ATP  
 95 70 20 2222 12 096. Pressure Test  
 95 81 20 2222 12 096. Purge Test  
 93 2 86. 86. Stage II  
 95 2222 On Board VRS  
 OKI REGION C 65. 95. 10.5 9.0 92 2 Local Area Parameter (LAP)  
 .035 .197 .027 .031 2 Oxygenated Fuels Record  
 1 05 30.0 88.6 20.6 27.3 20.6 7 Scenario Record  
 END

E0042.05R

12 PROMPT Kentucky 2005  
 OKI 2005 mid year rate, with RFG only  
 1 TAMFLG - Use MOBILE 5A default tampering rates  
 1 SPDFLG - Use one average speed for all vehicle types per scenario  
 2 VMFLAG - User supplied VMT mix for each scenario  
 1 MYMRFG - Use MOBILE 5A mileage accumulation and registration by age  
 1 NEWFLG - Use MOBILE 5A basic exhaust emission rates  
 1 IMFLAG - Use NO I/M Programs  
 1 ALHFLG - Use no additional correction factors for air/load/tow/humidity  
 1 ATPFLG - Use NO ATP, pressure and purge checks  
 1 RLFLAG - Use uncontrolled refueling emission rates  
 2 LOCFLG - Use one local area parameter (LAP) record for all scenarios  
 2 TEMFLG - Use scenario temperature to calculate temperature corrections  
 4 OUTFMT - Use MOBILE 5A 80 column descriptive format  
 4 PRTFLG - Calculate and output HC, CO and NOX emission factors  
 1 IDLFLG - No idle emission factors calculated or printed  
 3 NMHFLG - Calculate Volatile Organic Compound (VOC) emission factors  
 1 HCFLAG - No HC component emission factor output  
 OKI REGION C 65. 95. 8.6 9.0 92 1 1 2 Local Area Parameter (LAP)  
 1 05 30.0 88.6 20.6 27.3 20.6 7 Scenario Record  
 END

## E0041.10D

12 PROMPT Ohio 2010 --- O10FLAG.DAT S8  
 OKI 2010 mid year rate, anti-tampering BIENNIAL IM240 + 9.0 RVP  
 1 TAMFLG - Use MOBILE 5A default tampering rates  
 1 SPDFLG - Use one average speed for all vehicle types per scenario  
 2 VMFLAG - User supplied VMT mix for each scenario  
 1 MYMRFG - Use MOBILE 5A mileage accumulation and registration by age  
 3 NEWFLG - Use MOBILE 5A basic exhaust emission rates and New evapor. rates  
 52 0.00IMFLAG - User supplies 2 I/M Programs and after 1994 MOBILE 5A TIER 1  
 1 ALHFLG - Use no additional correction factors for air/load/tow/humidity  
 8 ATPFLG - User specifies ATP with pressure and purge checks MOBILE 5A models  
 4 RLFLAG - Use STAGE II and onboard VRS to model refueling emission rates  
 2 LOCFLG - Use one local area parameter (LAP) record for all scenarios  
 2 TEMFLG - Use scenario temperature to calculate temperature corrections  
 4 OUTFMT - Use MOBILE 5A 80 column descriptive format  
 4 PRTFLG - Calculate and output HC, CO and NOX emission factors  
 1 IDLFLG - No idle emission factors calculated or printed  
 3 NMHFLG - Calculate Volatile Organic Compound (VOC) emission factors  
 1 HCFLAG - No HC component emission factor output  
 4 Number of years in the phase-in period for new evaporative emissions  
 96 20.0 Model year and compliance percent for new evaporative emissions  
 97 40.0 Model year and compliance percent for new evaporative emissions  
 98 90.0 Model year and compliance percent for new evaporative emissions  
 99 100. Model year and compliance percent for new evaporative emissions  
 95 20 70 80 02 00 096 1 2 2222 3111 IM Loaded Idle 1980 & Older  
 95 20 81 20 00 03 096 1 2 2222 4211 0.80 20.0 2.00 IM 240 1981 & Newer  
 95 70 20 2222 12 096. 22211212 ATP  
 95 70 20 2222 12 096. Pressure Test  
 95 81 20 2222 12 096. Purge Test  
 93 2 86. 86. Stage II  
 95 2222 On Board VRS  
 OKI REGION C 65. 95. 10.5 9.0 92 2 Local Area Parameter (LAP)  
 .035 .197 .027 .031 2 Oxygenated Fuels Record  
 1 10 30.0 88.6 20.6 27.3 20.6 7 Scenario Record  
 END

## E0042.10R

12 PROMPT Kentucky 2010  
 OKI 2010 mid year rate with RFG only  
 1 TAMFLG - Use MOBILE 5A default tampering rates  
 1 SPDFLG - Use one average speed for all vehicle types per scenario  
 2 VMFLAG - User supplied VMT mix for each scenario  
 1 MYMRFG - Use MOBILE 5A mileage accumulation and registration by age  
 1 NEWFLG - Use MOBILE 5A basic exhaust emission rates  
 1 IMFLAG - Use NO I/M Programs  
 1 ALHFLG - Use no additional correction factors for air/load/tow/humidity  
 1 ATPFLG - Use NO ATP, pressure and purge checks  
 1 RLFLAG - Use uncontrolled refueling emission rates  
 2 LOCFLG - Use one local area parameter (LAP) record for all scenarios  
 2 TEMFLG - Use scenario temperature to calculate temperature corrections  
 4 OUTFMT - Use MOBILE 5A 80 column descriptive format  
 4 PRTFLG - Calculate and output HC, CO and NOX emission factors  
 1 IDLFLG - No idle emission factors calculated or printed  
 3 NMHFLG - Calculate Volatile Organic Compound (VOC) emission factors  
 1 HCFLAG - No HC component emission factor output  
 OKI REGION C 65. 95. 8.6 9.0 92 1 1 2 Local Area Parameter (LAP)  
 1 10 30.0 88.6 20.6 27.3 20.6 7 Scenario Record  
 END

HOURLY HOT/COLD START PERCENTAGE BY ROADWAY TYPE

HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Freeway														
PCCN	12.0	12.0	12.0	12.0	12.0	12.0	4.0	4.0	4.0	4.0	15.0	15.0	15.0	15.0
PCHC	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PCCC	12.0	12.0	12.0	12.0	12.0	12.0	4.0	4.0	4.0	4.0	15.0	15.0	15.0	15.0
Non-freeway														
PCCN	35.0	35.0	35.0	35.0	35.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
PCHC	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
PCCC	35.0	35.0	35.0	35.0	35.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

HOUR	15	16	17	18	19	20	21	22	23	24
Freeway										
PCCN	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	12.0	12.0
PCHC	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PCCC	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	12.0	12.0
Non-freeway										
PCCN	20.0	20.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
PCHC	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
PCCC	20.0	20.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0

PCCN = Non Catalyst Cold Start Percentage  
 PCHC = Catalyst Hot Start Percentage  
 PCCC = Catalyst Cold Start Percentage

Source: Ohio Department of Transportation

(HCSP.TBL 16-JUN-94 CHUCK GEBHART'S FREEWAY & SURFACE HOT START/COLD START PERCENTAGES FOR PCCN,PCHC,PCCC)

HOURLY TEMPERATURE TABLE

Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Temp	72.0	69.0	65.0	67.0	69.0	71.0	73.0	75.0	77.0	79.0	81.0	83.0	85.0	87.0
Hour	15	16	17	18	19	20	21	22	23	24				
Temp	89.0	91.0	93.0	95.0	92.0	89.0	86.0	82.0	79.0	76.0				

Source: Ohio Department of Transportation

(TEMP2.TBL 15-JUN-94 CHUCK GEBHART'S SUMMER TEMPERATURE TABLE)



HOURLY VEHICLE MIX BY ROADWAY TYPE

Freeway

Vehicle Type								HOUR
LDGV/LDGT1/LDGT2/HDGV/LDDV/LDDT/HDDV/MC								
.774	.005	.005	.017	.002	.002	.186	.009	1
.676	.006	.006	.025	.002	.002	.274	.009	2
.653	.006	.006	.026	.002	.002	.291	.014	3
.597	.010	.010	.030	.002	.002	.337	.012	4
.670	.010	.010	.024	.002	.002	.271	.011	5
.837	.007	.007	.011	.002	.002	.127	.007	6
.914	.005	.005	.005	.002	.002	.062	.005	7
.931	.005	.005	.004	.002	.002	.047	.004	8
.901	.008	.008	.006	.002	.002	.068	.005	9
.873	.009	.009	.008	.002	.002	.092	.005	10
.864	.010	.010	.009	.002	.002	.098	.005	11
.867	.009	.009	.009	.002	.002	.096	.006	12
.872	.009	.009	.008	.002	.002	.093	.005	13
.877	.009	.009	.008	.002	.002	.088	.005	14
.892	.008	.008	.007	.002	.002	.076	.005	15
.913	.006	.006	.005	.002	.002	.061	.005	16
.929	.005	.005	.004	.002	.002	.049	.004	17
.938	.003	.003	.004	.002	.002	.044	.004	18
.923	.003	.003	.005	.002	.002	.058	.004	19
.900	.003	.003	.007	.002	.002	.077	.006	20
.888	.003	.003	.008	.002	.002	.088	.006	21
.886	.003	.003	.008	.002	.002	.090	.006	22
.865	.003	.003	.010	.002	.002	.109	.006	23
.838	.004	.004	.012	.002	.002	.130	.008	24

Surface Streets

Vehicle Type								HOUR
LDGV/LDGT1/LDGT2/HDGV/LDDV/LDDT/HDDV/MC								
.833	.039	.039	.030	.002	.002	.050	.005	1
.633	.069	.069	.060	.002	.002	.160	.005	2
.633	.069	.069	.060	.002	.002	.160	.005	3
.633	.069	.069	.060	.002	.002	.160	.005	4
.633	.069	.069	.060	.002	.002	.160	.005	5
.753	.069	.069	.060	.002	.002	.040	.005	6
.753	.069	.069	.060	.002	.002	.040	.005	7
.753	.069	.069	.060	.002	.002	.040	.005	8
.753	.069	.069	.060	.002	.002	.040	.005	9
.763	.084	.084	.040	.002	.002	.020	.005	10
.763	.084	.084	.040	.002	.002	.020	.005	11
.763	.084	.084	.040	.002	.002	.020	.005	12
.763	.084	.084	.040	.002	.002	.020	.005	13
.763	.089	.089	.030	.002	.002	.020	.005	14
.763	.089	.089	.030	.002	.002	.020	.005	15
.763	.089	.089	.030	.002	.002	.020	.005	16
.763	.089	.089	.030	.002	.002	.020	.005	17
.763	.089	.089	.030	.002	.002	.020	.005	18
.763	.089	.089	.030	.002	.002	.020	.005	19
.863	.044	.044	.030	.002	.002	.010	.005	20
.863	.044	.044	.030	.002	.002	.010	.005	21
.863	.044	.044	.030	.002	.002	.010	.005	22
.833	.039	.039	.030	.002	.002	.050	.005	23
.833	.039	.039	.030	.002	.002	.050	.005	24

Source: Ohio Department of Transportation

(LASTVMIX.TBL 21-JUN-94 FHWAY VEHICLE MIX FOR SURFACE, ODOT AVERAGE FOR FREEWAY)

SPEED BY ROADWAY TYPE

Volume/Capacity Ratio												
0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	
55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	54.8	FREEWAY
55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	54.8	INTERSTATE
35.0	35.0	35.0	35.0	33.0	31.0	29.5	25.0	25.0	23.7	22.5	18.6	MAJOR ARTERIAL
35.0	35.0	35.0	35.0	33.0	31.0	29.5	25.0	25.0	23.7	22.5	18.6	MINOR ARTERIAL
35.0	35.0	35.0	35.0	33.0	31.0	29.5	25.0	25.0	23.7	22.5	18.6	MAJOR COLLECTOR
35.0	35.0	35.0	35.0	33.0	31.0	29.5	25.0	25.0	23.7	22.5	18.6	MINOR COLLECTOR
35.0	35.0	35.0	35.0	33.0	31.0	29.5	25.0	25.0	23.7	22.5	18.6	LOCAL
35.0	35.0	35.0	35.0	33.0	31.0	29.5	25.0	25.0	23.7	22.5	18.6	CENTROID COLLECTOR
29.0	28.0	27.5	27.0	25.9	25.5	25.0	24.0	23.0	22.0	21.0	20.5	RAMP
50.0	50.0	50.0	50.0	48.0	46.0	44.0	42.0	40.0	38.0	36.0	32.1	EXPRESSWAY

Volume/Capacity Ratio												
1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
53.0	52.5	51.8	50.4	48.0	32.0	15.0	15.0	15.0	15.0	15.0	15.0	FREEWAY
53.0	52.5	51.8	50.4	48.0	32.0	15.0	15.0	15.0	15.0	15.0	15.0	INTERSTATE
17.7	16.8	13.6	10.8	9.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	MAJOR ARTERIAL
17.7	16.8	13.6	10.8	9.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	MINOR ARTERIAL
17.7	16.8	13.6	10.8	9.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	MAJOR COLLECTOR
17.7	16.8	13.6	10.8	9.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	MINOR COLLECTOR
17.7	16.8	13.6	10.8	9.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	LOCAL
17.7	16.8	13.6	10.8	9.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	CENTROID CONNECTOR
19.5	18.5	15.5	12.0	10.0	8.0	6.0	5.5	5.5	5.5	5.5	5.5	RAMP
28.2	24.4	20.6	16.8	13.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	EXPRESSWAY

Source: Ohio Department of Transportation

(PASSSPD.TBL 5-JUL-94 CHUCK'S LOW FREEWAY - CHUCK GEBHART'S VOL/CAP TABLE - SURFACE ARTERIAL - RAMP AND XWAY FOR AREA TYPE SUBURBAN)

HOURLY TRAFFIC DISTRIBUTION

HOURLY DIRECTIONAL SPLITS

HOUR	UF	RF	UA	RA	UC	RC	UF	RF	UA	RA	UC	RC
1	2.318	1.877	1.734	1.769	1.264	1.616	0.49	0.52	0.46	0.50	0.52	0.60
2	1.418	1.250	1.084	1.013	0.666	0.950	0.50	0.51	0.47	0.50	0.52	0.57
3	0.984	1.084	0.805	0.619	0.680	0.433	0.47	0.53	0.49	0.50	0.52	0.58
4	0.800	0.867	0.517	0.450	0.486	0.250	0.49	0.54	0.51	0.54	0.54	0.35
5	0.717	0.884	0.433	0.450	0.591	0.234	0.53	0.52	0.56	0.60	0.50	0.37
6	1.034	1.350	0.916	0.981	1.135	0.983	0.54	0.48	0.58	0.85	0.46	0.27
7	2.484	2.800	2.675	2.400	3.667	2.784	0.56	0.39	0.58	0.81	0.46	0.29
8	4.818	4.468	5.001	3.737	6.653	4.367	0.59	0.45	0.55	0.68	0.45	0.34
9	5.818	4.518	4.384	4.243	5.248	4.567	0.57	0.51	0.51	0.58	0.55	0.43
10	4.935	4.917	4.242	4.506	4.822	4.767	0.53	0.51	0.51	0.54	0.53	0.41
11	4.686	5.418	4.759	4.893	5.238	5.067	0.62	0.51	0.51	0.48	0.52	0.45
12	5.119	5.885	5.584	5.487	6.583	5.217	0.50	0.49	0.50	0.47	0.54	0.45
13	5.436	6.118	6.368	6.068	7.047	5.600	0.49	0.50	0.50	0.46	0.50	0.47
14	5.619	6.168	6.193	6.400	6.273	5.767	0.50	0.51	0.50	0.47	0.52	0.47
15	5.886	6.401	6.358	6.812	6.123	6.233	0.49	0.50	0.50	0.48	0.49	0.48
16	6.552	6.818	6.975	7.300	7.223	6.900	0.49	0.52	0.48	0.46	0.54	0.52
17	7.303	7.201	7.692	7.756	7.362	7.749	0.46	0.52	0.48	0.44	0.57	0.54
18	7.619	7.251	7.892	7.850	7.834	8.350	0.45	0.51	0.47	0.45	0.56	0.56
19	6.903	6.185	6.384	7.186	5.393	7.584	0.50	0.50	0.46	0.47	0.53	0.54
20	5.335	5.101	5.567	5.994	4.314	6.184	0.51	0.52	0.49	0.48	0.53	0.50
21	4.202	4.185	4.642	4.787	3.759	4.850	0.54	0.53	0.55	0.51	0.48	0.52
22	3.651	3.634	4.067	3.881	3.439	4.000	0.54	0.51	0.56	0.52	0.46	0.55
23	3.351	3.145	3.275	3.056	2.299	3.300	0.53	0.50	0.55	0.54	0.49	0.51
24	3.018	2.480	2.408	2.369	1.901	2.250	0.52	0.54	0.52	0.47	0.53	0.54

UF = Urban Freeway  
 RF = Rural Freeway  
 UA = Urban Arterial  
 RA = Rural Arterial  
 UC = Urban Collector  
 RC = Rural Collector

Source: OKI

SUMMER FACTORS BY ROADWAY TYPE

UF	RF	UA	RA	UC	RC
1.11	1.14	1.03	1.08	1.03	1.06

Source: OKI  
 (CONTENTS OF AIR5A.PRN 14-OCT-92)



**APPENDIX E**

**1997 BASELINE  
SCENARIO EMISSIONS**

BOONE COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	11.83	629329	36.528	0.88	4.74	3.42
Major Arterial	0.84	5955	30.832	0.01	0.08	0.02
Minor Arterial	27.14	368401	26.907	1.15	9.20	1.02
Major Collector	19.93	114935	27.694	0.35	2.83	0.32
Minor Collector	0.75	15020	30.189	0.06	0.48	0.04
Local	3.63	23719	29.481	0.08	0.62	0.07
Centroid Cntr.	8.27	75998	18.990	0.24	1.78	0.20
Ramps	6.60	31750	33.576	0.08	0.64	0.09
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	20.33	633104	38.217	0.90	4.77	3.53
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	69.91	197977	35.041	0.44	3.07	0.54
Minor Collector	46.05	63593	31.883	0.13	0.90	0.18
Local	6.05	4298	30.864	0.01	0.06	0.01
Centroid Cntr.	15.30	48916	25.000	0.13	0.89	0.13
Ramps	6.54	19365	37.945	0.05	0.34	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 243.17 2232368 33.677 4.50 30.37 9.62

1997 BASELINE

CAMPBELL COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	10.47	608136	36.309	0.85	4.58	3.31
Major Arterial	13.70	151133	27.107	0.44	3.49	0.41
Minor Arterial	11.34	84981	24.056	0.20	1.49	0.23
Major Collector	36.34	162795	27.570	0.41	3.08	0.44
Minor Collector	0.35	1600	30.003	0.00	0.03	0.00
Local	1.44	4455	29.101	0.01	0.11	0.01
Centroid Cntr.	13.86	61904	17.656	0.20	1.50	0.17
Ramps	11.70	75056	36.470	0.17	1.30	0.20
Expressway	4.04	52937	31.484	0.08	0.55	0.15

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	4124	42.011	0.01	0.03	0.02
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	147703	34.659	0.36	2.54	0.41
Major Collector	37.94	32649	33.425	0.07	0.47	0.09
Minor Collector	33.04	27227	32.492	0.05	0.37	0.08
Local	1.91	182	29.748	0.00	0.00	0.00
Centroid Cntr.	16.57	31558	24.982	0.08	0.57	0.09
Ramps	1.12	4856	39.477	0.01	0.08	0.01
Expressway	13.34	156679	34.655	0.26	1.61	0.49

TOTALS 225.70 1607983 32.381 3.21 21.80 6.11

1997 BASELINE

KENTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.71	1126629	32.985	1.57	8.48	6.12
Major Arterial	12.43	142623	21.841	0.41	3.25	0.39
Minor Arterial	61.15	576143	27.608	1.68	13.30	1.58
Major Collector	44.49	177172	24.646	0.51	4.03	0.49
Minor Collector	5.04	8729	26.911	0.02	0.15	0.02
Local	11.70	25298	26.333	0.06	0.48	0.07
Centroid Cntr.	26.80	125671	17.995	0.40	3.00	0.34
Ramps	11.68	73854	33.709	0.17	1.26	0.20
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	27.03	73919	32.043	0.15	1.06	0.20
Minor Collector	24.62	12959	33.328	0.03	0.17	0.04
Local	0.76	6715	13.296	0.02	0.19	0.02
Centroid Cntr.	15.09	33792	24.963	0.09	0.61	0.09
Ramps	0.00	0	0.000	0.00	0.00	0.00
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	257.50	2383511	29.341	5.12	35.97	9.55
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1997 BASELINE

KENTUCKY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	39.01	2364096	34.629	3.29	17.80	12.85
Major Arterial	26.97	299712	23.893	0.87	6.81	0.82
Minor Arterial	99.63	1029526	26.907	3.03	23.99	2.83
Major Collector	100.76	454904	26.299	1.27	9.94	1.24
Minor Collector	6.14	25349	29.164	0.08	0.65	0.07
Local	16.77	53474	28.005	0.15	1.21	0.15
Centroid Cntr.	48.93	263574	0.000	0.83	6.28	0.70
Ramps	29.98	180660	34.471	0.43	3.20	0.48
Expressway	4.04	52937	31.484	0.08	0.55	0.15

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	4124	42.011	0.01	0.03	0.02
Interstate	20.33	633104	38.217	0.90	4.77	3.53
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	147703	34.659	0.36	2.54	0.41
Major Collector	134.88	304547	34.141	0.66	4.60	0.84
Minor Collector	103.71	103779	32.260	0.21	1.44	0.29
Local	8.72	11196	18.328	0.03	0.24	0.03
Centroid Cntr.	46.96	114267	0.000	0.30	2.08	0.31
Ramps	7.66	24221	38.198	0.06	0.42	0.07
Expressway	13.34	156679	34.655	0.26	1.61	0.49
TOTALS	726.37	6223862	15.153	12.84	88.15	25.28

1997 BASELINE

ES



BUTLER COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	2.95	222059	34.190	0.25	1.29	1.11
Major Arterial	71.43	1073131	23.873	2.77	21.17	2.58
Minor Arterial	60.41	517087	27.041	1.04	7.49	1.20
Major Collector	88.71	584402	23.215	1.44	10.92	1.39
Minor Collector	0.60	1243	29.112	0.00	0.01	0.00
Local	21.09	111432	25.263	0.31	2.36	0.27
Centroid Cntr.	71.16	349825	18.335	0.90	6.63	0.81
Ramps	3.65	15134	34.599	0.03	0.20	0.03
Expressway	9.65	109168	31.604	0.13	0.83	0.28

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	8.69	697253	40.215	0.81	4.06	3.59
Major Arterial	19.73	245055	35.407	0.49	3.30	0.59
Minor Arterial	21.25	130438	33.277	0.24	1.62	0.31
Major Collector	126.15	539408	30.614	1.06	7.32	1.28
Minor Collector	47.58	74333	31.689	0.13	0.86	0.18
Local	39.24	109465	31.096	0.24	1.68	0.26
Centroid Cntr.	58.55	218483	24.980	0.47	3.15	0.52
Ramps	0.40	2808	31.717	0.01	0.04	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	651.24	5000732	28.571	10.32	72.94	14.42
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1997 BASELINE

## CLERMONT COUNTY

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	13.86	749749	36.159	0.85	4.36	3.76
Major Arterial	8.80	217164	27.005	0.58	4.47	0.52
Minor Arterial	23.17	275932	29.835	0.60	4.42	0.64
Major Collector	52.34	299038	27.737	0.72	5.44	0.71
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	8.25	27208	24.065	0.06	0.44	0.06
Centroid Cntr.	21.63	142586	19.093	0.36	2.64	0.33
Ramps	5.70	44673	33.336	0.09	0.62	0.10
Expressway	3.10	107331	28.545	0.14	0.87	0.26

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	24.81	125381	36.819	0.21	1.32	0.30
Minor Arterial	21.24	208038	36.114	0.40	2.71	0.50
Major Collector	153.89	589833	31.627	1.09	7.37	1.40
Minor Collector	22.73	34261	27.791	0.06	0.41	0.08
Local	17.28	34404	30.985	0.06	0.37	0.08
Centroid Cntr.	64.93	219129	24.994	0.47	3.15	0.52
Ramps	3.86	10212	35.114	0.02	0.13	0.02
Expressway	11.02	249680	30.282	0.33	1.93	0.67

TOTALS 456.61 3334627 31.077 6.04 40.65 9.96

1997 BASELINE

HAMILTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	245559	32.615	0.28	1.43	1.23
Interstate	82.41	5708167	33.160	6.48	33.22	28.65
Major Arterial	199.54	3210030	24.981	7.65	57.50	7.59
Minor Arterial	169.45	2126109	24.666	5.26	39.89	5.05
Major Collector	288.87	1961038	23.816	5.04	38.49	4.70
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	65.39	317458	25.372	0.79	6.00	0.76
Centroid Cntr.	259.97	1233041	17.170	3.32	24.43	2.88
Ramps	76.90	558774	33.320	1.07	7.68	1.27
Expressway	19.16	491923	32.586	0.62	3.80	1.23

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	12.28	353916	40.611	0.41	2.06	1.82
Major Arterial	3.55	76576	35.901	0.14	0.96	0.18
Minor Arterial	3.60	28524	37.590	0.05	0.29	0.07
Major Collector	59.99	221645	32.688	0.40	2.71	0.53
Minor Collector	6.37	19062	32.311	0.03	0.20	0.04
Local	13.48	17186	29.579	0.03	0.20	0.04
Centroid Cntr.	18.00	63836	24.986	0.14	0.92	0.15
Ramps	3.00	9256	41.586	0.02	0.12	0.02
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	1288.29	16642108	28.184	31.73	219.92	56.22
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1997 BASELINE

WARREN COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.94	1016583	37.768	1.15	5.92	5.10
Major Arterial	31.78	369961	29.613	0.88	6.59	0.88
Minor Arterial	25.07	270160	27.492	0.62	4.67	0.64
Major Collector	26.21	185819	29.028	0.44	3.31	0.44
Minor Collector	0.37	3261	25.275	0.01	0.05	0.01
Local	13.74	38670	31.694	0.08	0.58	0.09
Centroid Cntr.	13.59	64013	18.939	0.16	1.20	0.15
Ramps	4.90	32381	33.444	0.06	0.46	0.07
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	17.08	501872	39.948	0.58	2.92	2.58
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	38.86	299795	31.690	0.61	4.15	0.73
Major Collector	119.74	490228	33.669	0.94	6.38	1.16
Minor Collector	20.96	49624	33.318	0.09	0.57	0.12
Local	29.95	70202	31.739	0.12	0.76	0.17
Centroid Cntr.	68.92	210161	24.959	0.45	3.03	0.50
Ramps	4.20	16481	39.054	0.03	0.21	0.04
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	432.32	3619218	33.598	6.23	40.79	12.67
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1997 BASELINE

## OHIO

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	245559	32.615	0.28	1.43	1.23
Interstate	116.17	7696559	33.645	8.74	44.80	38.63
Major Arterial	311.55	4870287	25.082	11.88	89.73	11.57
Minor Arterial	278.10	3189289	25.554	7.52	56.48	7.52
Major Collector	456.13	3030298	24.116	7.64	58.16	7.24
Minor Collector	0.97	4505	26.005	0.01	0.06	0.01
Local	108.47	494770	25.508	1.24	9.38	1.18
Centroid Cntr.	366.35	1789466	0.000	4.73	34.90	4.17
Ramps	91.15	650964	33.357	1.25	8.97	1.48
Expressway	31.91	708424	31.673	0.89	5.50	1.78

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	38.05	1553042	40.255	1.81	9.04	7.99
Major Arterial	48.09	447013	35.687	0.84	5.58	1.07
Minor Arterial	84.95	666797	33.955	1.30	8.77	1.61
Major Collector	459.77	1841116	31.855	3.50	23.79	4.37
Minor Collector	97.64	177281	31.303	0.31	2.04	0.42
Local	99.95	231259	31.019	0.44	3.01	0.55
Centroid Cntr.	210.40	711611	0.000	1.53	10.25	1.68
Ramps	11.46	38758	37.696	0.07	0.50	0.09
Expressway	11.02	249680	30.282	0.33	1.93	0.67
TOTALS	2828.46	28596686	13.674	54.32	374.30	93.26

1997 BASELINE



**APPENDIX F**

**1997 ACTION  
SCENARIO EMISSIONS**

BOONE COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	11.83	629491	36.533	0.88	4.74	3.42
Major Arterial	0.84	5936	30.745	0.01	0.08	0.02
Minor Arterial	27.14	366229	26.949	1.13	9.07	1.01
Major Collector	19.93	114316	27.801	0.35	2.81	0.32
Minor Collector	0.75	14801	30.193	0.06	0.46	0.04
Local	3.63	23713	29.611	0.08	0.62	0.07
Centroid Cntr.	8.27	75983	18.990	0.24	1.78	0.20
Ramps	6.60	31667	33.614	0.08	0.63	0.08
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	20.33	632869	38.208	0.90	4.76	3.53
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	69.91	197421	35.036	0.44	3.06	0.54
Minor Collector	46.05	63365	31.917	0.13	0.89	0.17
Local	6.05	4360	30.983	0.01	0.06	0.01
Centroid Cntr.	15.30	48922	25.000	0.13	0.89	0.13
Ramps	6.54	19013	38.115	0.05	0.33	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 243.17 2228092 33.700 4.48 30.19 9.60

1997 ACTION

CAMPBELL COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	10.47	603880	36.389	0.84	4.55	3.28
Major Arterial	13.70	150430	27.255	0.44	3.47	0.41
Minor Arterial	11.34	84677	24.412	0.20	1.48	0.23
Major Collector	36.34	162475	27.664	0.40	3.07	0.44
Minor Collector	0.35	1600	30.003	0.00	0.03	0.00
Local	1.44	4446	29.117	0.01	0.11	0.01
Centroid Cntr.	13.86	61956	17.655	0.20	1.50	0.17
Ramps	11.70	74805	36.349	0.17	1.30	0.20
Expressway	4.04	52788	31.485	0.08	0.55	0.15

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	4126	42.011	0.01	0.03	0.02
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	147780	34.663	0.36	2.54	0.41
Major Collector	37.94	32685	33.439	0.07	0.46	0.09
Minor Collector	33.04	27054	32.458	0.05	0.37	0.07
Local	1.91	185	29.723	0.00	0.00	0.00
Centroid Cntr.	16.57	31499	24.982	0.08	0.57	0.09
Ramps	1.12	4877	39.477	0.01	0.08	0.01
Expressway	13.34	156759	34.641	0.26	1.61	0.49

TOTALS 225.70 1602030 32.441 3.20 21.71 6.08

1997 ACTION



KENTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.71	1127203	32.991	1.57	8.49	6.12
Major Arterial	12.43	142656	21.942	0.41	3.26	0.39
Minor Arterial	61.15	577562	27.615	1.69	13.33	1.58
Major Collector	44.49	175949	24.686	0.50	3.97	0.48
Minor Collector	5.04	8773	27.006	0.02	0.15	0.02
Local	11.70	25417	26.429	0.06	0.48	0.07
Centroid Cntr.	26.80	125638	17.994	0.40	3.00	0.34
Ramps	11.68	73902	33.674	0.17	1.27	0.20
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	27.03	74107	31.676	0.15	1.06	0.20
Minor Collector	24.62	12863	33.340	0.03	0.17	0.04
Local	0.76	6696	13.339	0.02	0.18	0.02
Centroid Cntr.	15.09	33776	24.963	0.09	0.61	0.09
Ramps	0.00	0	0.000	0.00	0.00	0.00
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	257.50	2384547	29.346	5.12	35.97	9.56
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1997 ACTION

KENTUCKY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	39.01	2360575	34.651	3.29	17.77	12.83
Major Arterial	26.97	299023	23.996	0.86	6.80	0.82
Minor Arterial	99.63	1028469	26.979	3.02	23.88	2.82
Major Collector	100.76	452741	26.377	1.26	9.85	1.24
Minor Collector	6.14	25175	29.186	0.08	0.64	0.07
Local	16.77	53577	28.101	0.15	1.21	0.15
Centroid Cntr.	48.93	263578	0.000	0.83	6.28	0.70
Ramps	29.98	180375	34.425	0.43	3.19	0.48
Expressway	4.04	52788	31.485	0.08	0.55	0.15

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	4126	42.011	0.01	0.03	0.02
Interstate	20.33	632869	38.208	0.90	4.76	3.53
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	147780	34.663	0.36	2.54	0.41
Major Collector	134.88	304213	34.050	0.66	4.59	0.84
Minor Collector	103.71	103283	32.269	0.21	1.43	0.29
Local	8.72	11242	18.405	0.03	0.24	0.03
Centroid Cntr.	46.96	114198	0.000	0.30	2.07	0.31
Ramps	7.66	23891	38.342	0.06	0.42	0.07
Expressway	13.34	156759	34.641	0.26	1.61	0.49
TOTALS	726.37	6214670	15.165	12.81	87.87	25.24

1997 ACTION

BUTLER COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	2.95	221386	34.337	0.25	1.29	1.11
Major Arterial	71.43	1064530	23.990	2.74	20.89	2.55
Minor Arterial	61.31	531960	27.273	1.08	7.84	1.23
Major Collector	88.71	576336	23.338	1.42	10.73	1.37
Minor Collector	0.60	1342	28.809	0.00	0.01	0.00
Local	21.09	110684	25.556	0.30	2.30	0.27
Centroid Cntr.	71.16	348185	18.334	0.89	6.60	0.81
Ramps	3.65	14972	34.730	0.03	0.20	0.03
Expressway	9.65	109078	31.627	0.13	0.83	0.28

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	8.69	692951	40.333	0.81	4.03	3.57
Major Arterial	19.73	247965	35.361	0.49	3.36	0.60
Minor Arterial	21.25	129674	33.304	0.24	1.61	0.31
Major Collector	126.15	555229	30.438	1.09	7.53	1.32
Minor Collector	47.58	75935	31.652	0.13	0.88	0.18
Local	39.24	107906	31.970	0.23	1.65	0.26
Centroid Cntr.	58.55	218482	24.980	0.47	3.15	0.52
Ramps	0.40	2835	32.106	0.01	0.04	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	652.14	5009461	28.677	10.33	72.94	14.42
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1997 ACTION

## CLERMONT COUNTY

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	13.86	748159	36.176	0.85	4.35	3.76
Major Arterial	8.80	215927	27.103	0.58	4.43	0.52
Minor Arterial	23.17	273821	29.901	0.59	4.36	0.64
Major Collector	52.34	296201	27.841	0.71	5.35	0.70
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	8.25	26981	24.206	0.06	0.43	0.06
Centroid Cntr.	21.63	142431	19.094	0.36	2.64	0.33
Ramps	5.70	44517	33.126	0.09	0.62	0.10
Expressway	3.10	107476	28.539	0.14	0.87	0.26

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	24.81	124846	36.822	0.21	1.31	0.30
Minor Arterial	21.24	210324	36.149	0.41	2.74	0.51
Major Collector	153.89	587106	31.634	1.08	7.29	1.39
Minor Collector	22.73	34392	27.608	0.06	0.41	0.08
Local	17.28	33933	30.958	0.06	0.36	0.08
Centroid Cntr.	64.93	219111	24.994	0.47	3.15	0.52
Ramps	3.86	10100	35.145	0.02	0.13	0.02
Expressway	11.02	248960	30.322	0.33	1.92	0.66

TOTALS	456.61	3324290	31.110	6.00	40.37	9.93
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1997 ACTION

HAMILTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	243659	32.755	0.28	1.42	1.22
Interstate	82.41	5687128	33.218	6.46	33.10	28.55
Major Arterial	199.54	3246889	25.048	7.76	58.40	7.68
Minor Arterial	169.45	2122503	24.677	5.24	39.77	5.04
Major Collector	288.87	1929693	23.947	4.92	37.54	4.62
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	65.39	312617	25.378	0.77	5.88	0.74
Centroid Cntr.	259.97	1231752	17.169	3.31	24.41	2.88
Ramps	76.90	558592	33.362	1.07	7.71	1.27
Expressway	19.16	487381	32.682	0.61	3.76	1.22

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	12.28	354612	40.638	0.41	2.06	1.83
Major Arterial	3.55	78844	35.623	0.15	1.00	0.19
Minor Arterial	3.60	28570	37.578	0.05	0.29	0.07
Major Collector	59.99	221215	32.743	0.41	2.72	0.52
Minor Collector	6.37	19144	32.299	0.03	0.20	0.05
Local	13.48	17249	29.596	0.03	0.21	0.04
Centroid Cntr.	18.00	63897	24.986	0.14	0.92	0.15
Ramps	3.00	9158	41.613	0.02	0.11	0.02
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	1288.29	16612912	28.237	31.67	219.51	56.09
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1997 ACTION

WARREN COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.94	1009454	37.791	1.15	5.88	5.07
Major Arterial	31.78	372600	29.509	0.89	6.66	0.88
Minor Arterial	24.17	255828	27.654	0.58	4.31	0.60
Major Collector	26.21	184046	29.215	0.43	3.26	0.43
Minor Collector	0.37	3239	25.317	0.01	0.05	0.01
Local	13.74	38757	31.640	0.08	0.58	0.09
Centroid Cntr.	13.59	64021	18.939	0.16	1.20	0.15
Ramps	4.90	32643	33.489	0.06	0.46	0.07
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	17.08	499431	40.060	0.58	2.91	2.57
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	38.86	299692	31.700	0.61	4.14	0.73
Major Collector	119.74	488966	33.823	0.93	6.34	1.16
Minor Collector	20.96	49982	33.334	0.09	0.57	0.12
Local	29.95	70297	31.754	0.12	0.76	0.17
Centroid Cntr.	68.92	209538	24.959	0.45	3.02	0.50
Ramps	4.20	16133	39.070	0.03	0.21	0.04
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 431.42 3594633 33.665 6.17 40.34 12.58

1997 ACTION

## OHIO

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	243659	32.755	0.28	1.42	1.22
Interstate	116.17	7666128	33.699	8.71	44.62	38.48
Major Arterial	311.55	4899948	25.152	11.96	90.37	11.64
Minor Arterial	278.10	3184112	25.611	7.50	56.28	7.51
Major Collector	456.13	2986278	24.247	7.49	56.89	7.12
Minor Collector	0.97	4582	26.028	0.01	0.06	0.01
Local	108.47	489041	25.579	1.21	9.19	1.16
Centroid Cntr.	366.35	1786390	0.000	4.73	34.85	4.16
Ramps	91.15	650724	33.385	1.25	8.99	1.48
Expressway	31.91	703936	31.739	0.89	5.46	1.77

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	38.05	1546995	40.347	1.80	9.00	7.96
Major Arterial	48.09	451656	35.613	0.85	5.67	1.08
Minor Arterial	84.95	668261	33.984	1.31	8.78	1.61
Major Collector	459.77	1852518	31.815	3.51	23.88	4.40
Minor Collector	97.64	179454	31.253	0.31	2.07	0.42
Local	99.95	229387	31.467	0.44	2.97	0.55
Centroid Cntr.	210.40	711030	0.000	1.53	10.24	1.68
Ramps	11.46	38228	37.735	0.07	0.49	0.09
Expressway	11.02	248960	30.322	0.33	1.92	0.66
TOTALS	2828.46	28541297	13.703	54.17	373.16	93.02

1997 ACTION



**APPENDIX G**

**2005 BASELINE  
SCENARIO EMISSIONS**



BOONE COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	11.83	758489	35.654	0.80	4.20	2.90
Major Arterial	0.84	9250	30.448	0.01	0.10	0.02
Minor Arterial	27.14	421570	26.477	0.98	9.17	0.92
Major Collector	19.93	160600	26.617	0.38	3.58	0.35
Minor Collector	0.75	19406	26.649	0.06	0.56	0.04
Local	3.63	34020	27.076	0.09	0.84	0.08
Centroid Cntr.	8.27	96129	18.992	0.21	1.93	0.20
Ramps	6.60	43661	32.455	0.09	0.82	0.09
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	20.33	765052	37.751	0.82	4.23	3.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	69.91	234534	34.362	0.41	3.38	0.51
Minor Collector	46.05	88723	30.253	0.14	1.08	0.19
Local	6.05	12784	27.025	0.02	0.19	0.03
Centroid Cntr.	15.30	60764	25.000	0.12	0.91	0.13
Ramps	6.54	24663	37.148	0.05	0.42	0.06
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 243.17 2729652 32.916 4.18 31.41 8.54

2005 BASELINE

CAMPBELL COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	10.47	637203	36.124	0.67	3.53	2.44
Major Arterial	13.70	150237	27.149	0.31	2.87	0.32
Minor Arterial	11.34	90474	23.916	0.16	1.33	0.19
Major Collector	36.34	163659	27.546	0.30	2.58	0.35
Minor Collector	0.35	1487	30.007	0.00	0.02	0.00
Local	1.44	4767	28.055	0.01	0.10	0.01
Centroid Cntr.	13.86	61453	17.581	0.14	1.27	0.13
Ramps	11.70	77412	36.126	0.13	1.15	0.16
Expressway	4.04	59380	30.255	0.07	0.43	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	2777	42.019	0.00	0.02	0.01
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	162611	34.346	0.31	2.55	0.36
Major Collector	37.94	36204	33.040	0.06	0.45	0.08
Minor Collector	33.04	29237	32.283	0.04	0.32	0.06
Local	1.91	200	30.130	0.00	0.00	0.00
Centroid Cntr.	16.57	35154	24.984	0.07	0.53	0.08
Ramps	1.12	4562	38.878	0.01	0.06	0.01
Expressway	13.34	119198	34.580	0.14	0.83	0.29

TOTALS	225.70	1636025	32.180	2.43	18.04	4.64
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2005 BASELINE

KENTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.71	1262820	32.095	1.33	6.99	4.83
Major Arterial	12.43	147486	21.234	0.31	2.84	0.32
Minor Arterial	61.15	638465	26.910	1.38	12.76	1.39
Major Collector	44.49	186358	23.813	0.38	3.47	0.40
Minor Collector	5.04	8487	26.930	0.01	0.12	0.02
Local	11.70	30212	25.799	0.06	0.49	0.06
Centroid Cntr.	26.80	127400	17.965	0.29	2.60	0.27
Ramps	11.68	85116	32.935	0.15	1.26	0.18
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	27.03	79138	30.774	0.12	0.92	0.17
Minor Collector	24.62	18999	33.137	0.03	0.20	0.04
Local	0.76	7464	10.681	0.02	0.19	0.02
Centroid Cntr.	15.09	40808	24.964	0.08	0.61	0.09
Ramps	0.00	0	0.000	0.00	0.00	0.00
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 257.50 2632759 28.694 4.16 32.44 7.79

2005 BASELINE

KENTUCKY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	39.01	2658513	33.939	2.79	14.71	10.16
Major Arterial	26.97	306973	23.499	0.64	5.81	0.66
Minor Arterial	99.63	1150510	26.381	2.52	23.27	2.50
Major Collector	100.76	510618	25.744	1.06	9.63	1.11
Minor Collector	6.14	29382	26.954	0.07	0.70	0.07
Local	16.77	69000	26.676	0.15	1.42	0.15
Centroid Cntr.	48.93	284983	0.000	0.64	5.80	0.61
Ramps	29.98	206190	33.634	0.37	3.23	0.43
Expressway	4.04	59380	30.255	0.07	0.43	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	2777	42.019	0.00	0.02	0.01
Interstate	20.33	765052	37.751	0.82	4.23	3.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	162611	34.346	0.31	2.55	0.36
Major Collector	134.88	349877	33.428	0.59	4.75	0.77
Minor Collector	103.71	136959	31.220	0.21	1.60	0.30
Local	8.72	20449	19.566	0.04	0.38	0.05
Centroid Cntr.	46.96	136728	0.000	0.26	2.04	0.30
Ramps	7.66	29226	37.371	0.06	0.49	0.07
Expressway	13.34	119198	34.580	0.14	0.83	0.29

TOTALS	726.37	6998437	14.894	10.77	81.89	20.97
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2005 BASELINE

BUTLER COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	2.95	292871	30.522	0.21	0.89	0.91
Major Arterial	71.43	1249798	22.001	1.90	13.32	1.89
Minor Arterial	60.41	652050	24.922	0.83	5.54	0.95
Major Collector	88.71	763244	20.159	1.19	8.40	1.16
Minor Collector	0.60	1517	27.289	0.00	0.01	0.00
Local	21.09	153896	23.116	0.26	1.88	0.24
Centroid Cntr.	71.16	413988	18.347	0.59	4.13	0.62
Ramps	3.65	21155	33.220	0.02	0.16	0.03
Expressway	9.65	148097	31.288	0.11	0.50	0.24

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	8.69	860498	35.907	0.65	2.63	2.74
Major Arterial	19.73	297388	33.518	0.38	2.41	0.45
Minor Arterial	21.25	170860	32.316	0.21	1.29	0.26
Major Collector	126.15	672024	28.299	0.82	5.19	1.01
Minor Collector	47.58	95567	31.241	0.10	0.62	0.14
Local	39.24	151042	29.827	0.21	1.37	0.23
Centroid Cntr.	58.55	291576	24.980	0.35	2.15	0.44
Ramps	0.40	3725	26.564	0.00	0.03	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	651.24	6239304	26.426	7.83	50.52	11.31
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2005 BASELINE

CLERMONT COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	13.86	839728	34.496	0.62	2.56	2.61
Major Arterial	8.80	222292	26.545	0.33	2.35	0.33
Minor Arterial	23.17	328041	28.445	0.44	3.00	0.48
Major Collector	52.34	369119	26.775	0.53	3.67	0.55
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	8.25	34976	20.485	0.05	0.32	0.05
Centroid Cntr.	21.63	178039	19.091	0.25	1.74	0.26
Ramps	5.70	52242	31.820	0.06	0.38	0.07
Expressway	3.10	126230	25.561	0.10	0.50	0.19

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	24.81	125426	36.103	0.12	0.67	0.19
Minor Arterial	21.24	227631	35.480	0.26	1.57	0.34
Major Collector	153.89	667097	30.612	0.73	4.45	0.99
Minor Collector	22.73	40469	29.000	0.04	0.24	0.06
Local	17.28	41346	29.508	0.04	0.23	0.06
Centroid Cntr.	64.93	263342	24.994	0.32	1.94	0.40
Ramps	3.86	12253	34.192	0.01	0.08	0.02
Expressway	11.02	187889	29.194	0.14	0.65	0.31

TOTALS 456.61 3716127 29.868 4.04 24.36 6.92

2005 BASELINE

HAMILTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	257124	31.903	0.19	0.79	0.80
Interstate	82.41	6344645	31.780	4.65	19.37	19.68
Major Arterial	199.54	3378246	24.121	4.64	31.88	5.01
Minor Arterial	169.45	2226434	23.890	3.18	22.09	3.32
Major Collector	288.87	2159424	22.907	3.21	22.47	3.25
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	65.39	351898	24.856	0.51	3.60	0.53
Centroid Cntr.	259.97	1313816	17.202	1.97	13.60	1.97
Ramps	76.90	599395	32.388	0.66	4.32	0.85
Expressway	19.16	511767	32.404	0.37	1.77	0.79

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	12.28	419851	40.053	0.32	1.28	1.34
Major Arterial	3.55	105572	32.672	0.13	0.84	0.16
Minor Arterial	3.60	27924	37.590	0.03	0.14	0.04
Major Collector	59.99	280298	31.773	0.31	1.88	0.42
Minor Collector	6.37	24129	32.003	0.02	0.14	0.04
Local	13.48	21088	28.892	0.02	0.14	0.03
Centroid Cntr.	18.00	83214	24.987	0.10	0.61	0.13
Ramps	3.00	10956	41.159	0.01	0.07	0.02
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 1288.29 18115791 27.349 20.32 124.98 38.35

2005 BASELINE

WARREN COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.94	1078626	37.284	0.79	3.29	3.35
Major Arterial	31.78	417734	28.008	0.56	3.85	0.62
Minor Arterial	25.07	314085	26.099	0.44	3.05	0.47
Major Collector	26.21	218132	27.792	0.32	2.20	0.33
Minor Collector	0.37	3756	23.948	0.00	0.03	0.01
Local	13.74	43024	28.934	0.05	0.35	0.06
Centroid Cntr.	13.59	73042	18.940	0.10	0.72	0.11
Ramps	4.90	36188	31.223	0.04	0.27	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	17.08	608225	38.571	0.46	1.86	1.93
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	38.86	343548	31.317	0.41	2.51	0.52
Major Collector	119.74	591250	31.852	0.69	4.29	0.88
Minor Collector	20.96	55784	32.862	0.06	0.32	0.08
Local	29.95	90923	30.842	0.09	0.53	0.13
Centroid Cntr.	68.92	267097	24.962	0.32	1.97	0.41
Ramps	4.20	19316	38.373	0.02	0.13	0.03
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 432.32 4160737 32.475 4.36 25.38 8.97

2005 BASELINE



## OHIO

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	257124	31.903	0.19	0.79	0.80
Interstate	116.17	8555871	32.236	6.27	26.12	26.54
Major Arterial	311.55	5268073	23.975	7.44	51.40	7.85
Minor Arterial	278.10	3520612	24.548	4.88	33.67	5.22
Major Collector	456.13	3509920	22.750	5.24	36.73	5.28
Minor Collector	0.97	5274	24.614	0.01	0.04	0.01
Local	108.47	583797	24.272	0.88	6.14	0.88
Centroid Cntr.	366.35	1978886	0.000	2.91	20.20	2.96
Ramps	91.15	708981	32.321	0.79	5.13	1.01
Expressway	31.91	786094	30.707	0.58	2.77	1.22

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	38.05	1888575	37.741	1.42	5.77	6.01
Major Arterial	48.09	528388	33.682	0.63	3.92	0.80
Minor Arterial	84.95	769964	33.276	0.90	5.51	1.16
Major Collector	459.77	2210672	30.183	2.55	15.81	3.29
Minor Collector	97.64	215951	31.252	0.22	1.31	0.32
Local	99.95	304401	29.858	0.36	2.27	0.46
Centroid Cntr.	210.40	905231	0.000	1.09	6.68	1.37
Ramps	11.46	46251	36.485	0.05	0.31	0.07
Expressway	11.02	187889	29.194	0.14	0.65	0.31
TOTALS	2828.46	32231961	13.067	36.56	225.24	65.54

2005 BASELINE



**APPENDIX H**

**2005 ACTION  
SCENARIO EMISSIONS**

BOONE COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	11.83	719559	35.497	0.76	3.98	2.75
Major Arterial	0.84	9247	21.196	0.01	0.10	0.02
Minor Arterial	27.14	437077	27.010	0.99	9.18	0.95
Major Collector	19.49	164855	27.020	0.38	3.54	0.36
Minor Collector	0.75	18220	28.357	0.05	0.52	0.04
Local	3.63	31421	33.546	0.08	0.79	0.07
Centroid Cntr.	8.27	94571	18.991	0.21	1.90	0.20
Ramps	6.60	37894	33.151	0.07	0.61	0.08
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	20.33	761845	37.701	0.82	4.22	2.99
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	69.91	228149	34.717	0.40	3.20	0.50
Minor Collector	46.05	89068	30.129	0.14	1.09	0.19
Local	6.05	9979	28.771	0.02	0.12	0.02
Centroid Cntr.	15.30	60836	25.000	0.12	0.91	0.13
Ramps	6.54	24364	37.076	0.05	0.42	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 242.73 2687091 32.994 4.09 30.57 8.37

2005 ACTION

CAMPBELL COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	10.47	689482	33.435	0.72	3.82	2.64
Major Arterial	13.70	162890	26.060	0.36	3.39	0.36
Minor Arterial	11.34	91354	24.102	0.16	1.35	0.19
Major Collector	36.34	170187	26.556	0.32	2.81	0.36
Minor Collector	0.35	1726	30.009	0.00	0.02	0.00
Local	1.44	5148	27.830	0.01	0.11	0.01
Centroid Cntr.	13.86	61931	17.583	0.14	1.28	0.13
Ramps	11.70	83128	34.764	0.15	1.26	0.17
Expressway	4.04	52609	31.310	0.06	0.38	0.12

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	2862	42.014	0.00	0.02	0.01
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	173826	34.768	0.31	2.55	0.39
Major Collector	38.51	36185	33.557	0.06	0.43	0.08
Minor Collector	33.04	24926	31.273	0.04	0.27	0.05
Local	1.91	81	35.010	0.00	0.00	0.00
Centroid Cntr.	16.57	35146	24.985	0.07	0.53	0.08
Ramps	1.12	4383	38.491	0.01	0.06	0.01
Expressway	13.34	112568	34.832	0.14	0.79	0.28

TOTALS	226.27	1708441	31.004	2.55	19.04	4.89
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2005 ACTION

KENTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.49	1246604	31.071	1.31	6.90	4.76
Major Arterial	13.22	167234	20.910	0.35	3.18	0.36
Minor Arterial	61.22	679078	27.770	1.42	13.00	1.47
Major Collector	45.32	183709	22.763	0.37	3.36	0.40
Minor Collector	5.04	9239	27.125	0.02	0.13	0.02
Local	11.70	30139	24.864	0.05	0.42	0.06
Centroid Cntr.	26.80	128541	17.963	0.29	2.62	0.27
Ramps	11.68	84583	32.031	0.15	1.27	0.18
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	27.03	78586	31.289	0.12	0.92	0.17
Minor Collector	24.62	21176	33.233	0.03	0.22	0.05
Local	0.76	14077	38.792	0.03	0.32	0.03
Centroid Cntr.	15.09	41695	24.962	0.08	0.62	0.09
Ramps	0.00	0	0.000	0.00	0.00	0.00
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 258.97 2684668 28.323 4.23 32.98 7.86

2005 ACTION

KENTUCKY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	38.79	2655646	32.651	2.79	14.69	10.14
Major Arterial	27.76	339371	22.796	0.73	6.67	0.74
Minor Arterial	99.70	1207510	27.087	2.57	23.53	2.62
Major Collector	101.15	518752	25.100	1.07	9.71	1.12
Minor Collector	6.14	29187	28.139	0.07	0.67	0.06
Local	16.77	66709	29.010	0.14	1.32	0.15
Centroid Cntr.	48.93	285045	0.000	0.64	5.80	0.61
Ramps	29.98	205606	33.058	0.36	3.14	0.43
Expressway	4.04	52609	31.310	0.06	0.38	0.12

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	2862	42.014	0.00	0.02	0.01
Interstate	20.33	761845	37.701	0.82	4.22	2.99
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	173826	34.768	0.31	2.55	0.39
Major Collector	135.45	342921	33.812	0.57	4.55	0.75
Minor Collector	103.71	135171	30.906	0.21	1.59	0.30
Local	8.72	24138	35.611	0.05	0.45	0.05
Centroid Cntr.	46.96	137678	0.000	0.26	2.06	0.30
Ramps	7.66	28748	37.254	0.06	0.48	0.06
Expressway	13.34	112568	34.832	0.14	0.79	0.28

TOTALS	727.97	7080201	14.681	10.86	82.60	21.12
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2005 ACTION

BUTLER COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	4.17	427306	33.614	0.31	1.30	1.33
Major Arterial	71.43	1219579	22.661	1.83	12.80	1.84
Minor Arterial	61.31	668677	25.410	0.86	5.76	0.98
Major Collector	92.60	791480	21.697	1.16	8.08	1.19
Minor Collector	1.15	5673	26.897	0.01	0.04	0.01
Local	21.45	135371	23.821	0.22	1.57	0.21
Centroid Cntr.	71.41	408095	18.340	0.59	4.08	0.61
Ramps	4.60	27113	35.374	0.03	0.19	0.04
Expressway	9.50	125347	31.256	0.09	0.42	0.20

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	7.47	683090	39.234	0.51	2.09	2.17
Major Arterial	19.73	293855	34.187	0.37	2.34	0.45
Minor Arterial	21.25	169427	32.455	0.20	1.27	0.26
Major Collector	126.15	667441	29.116	0.80	5.05	1.00
Minor Collector	47.58	102945	31.733	0.12	0.71	0.15
Local	38.36	108657	30.955	0.12	0.77	0.16
Centroid Cntr.	58.55	296715	24.979	0.36	2.19	0.45
Ramps	0.40	3774	27.142	0.00	0.03	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 657.11 6134551 27.357 7.58 48.69 11.04

2005 ACTION

CLERMONT COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	13.86	831541	35.113	0.61	2.54	2.58
Major Arterial	8.80	221871	27.535	0.33	2.33	0.33
Minor Arterial	23.17	324278	28.370	0.43	2.95	0.48
Major Collector	52.34	362199	27.038	0.52	3.58	0.54
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	8.25	33717	20.549	0.05	0.31	0.05
Centroid Cntr.	21.63	176472	19.089	0.25	1.73	0.26
Ramps	5.70	51437	32.353	0.06	0.37	0.07
Expressway	3.10	125849	26.422	0.10	0.48	0.19

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	24.81	124820	36.110	0.12	0.67	0.19
Minor Arterial	21.24	229403	35.498	0.26	1.59	0.34
Major Collector	153.89	658953	30.807	0.72	4.39	0.98
Minor Collector	22.73	40629	29.129	0.04	0.24	0.06
Local	17.28	40789	29.726	0.04	0.22	0.06
Centroid Cntr.	64.93	263283	24.994	0.32	1.94	0.40
Ramps	3.86	12155	34.055	0.01	0.08	0.02
Expressway	11.02	187995	29.143	0.14	0.65	0.31

TOTALS	456.61	3685398	30.165	4.00	24.07	6.86
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2005 ACTION



HAMILTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.44	259276	31.939	0.19	0.79	0.80
Interstate	82.41	6342121	31.924	4.65	19.37	19.67
Major Arterial	199.54	3424218	24.373	4.69	32.24	5.07
Minor Arterial	169.45	2208309	24.010	3.13	21.72	3.28
Major Collector	288.87	2097378	23.104	3.08	21.48	3.15
Minor Collector	0.18	2862	30.172	0.00	0.02	0.00
Local	65.39	347742	24.609	0.50	3.52	0.52
Centroid Cntr.	259.97	1310366	17.196	1.96	13.57	1.97
Ramps	77.61	607200	32.598	0.67	4.35	0.86
Expressway	19.04	514267	32.776	0.37	1.76	0.81

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	12.28	419393	40.236	0.32	1.28	1.33
Major Arterial	3.55	103260	33.493	0.13	0.82	0.15
Minor Arterial	3.60	28066	37.594	0.03	0.14	0.04
Major Collector	59.99	274577	31.681	0.30	1.82	0.41
Minor Collector	6.37	23787	32.024	0.02	0.13	0.03
Local	13.48	21069	28.980	0.02	0.14	0.03
Centroid Cntr.	18.00	82069	24.987	0.10	0.61	0.12
Ramps	3.00	10930	41.295	0.01	0.07	0.02
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 1289.18 18076900 27.520 20.17 123.82 38.28

2005 ACTION

WARREN COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.94	1077328	37.522	0.79	3.29	3.34
Major Arterial	31.78	411767	28.792	0.55	3.74	0.61
Minor Arterial	24.17	292940	27.481	0.37	2.49	0.43
Major Collector	26.58	219856	28.330	0.29	2.02	0.32
Minor Collector	0.37	3669	24.237	0.00	0.03	0.01
Local	13.74	41111	30.091	0.05	0.33	0.06
Centroid Cntr.	13.59	72685	18.938	0.10	0.72	0.11
Ramps	4.90	35253	31.513	0.04	0.26	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	17.08	607923	40.385	0.46	1.86	1.93
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	38.86	341032	31.452	0.40	2.47	0.52
Major Collector	119.74	577538	32.479	0.66	4.11	0.86
Minor Collector	20.96	55173	32.881	0.06	0.32	0.08
Local	29.95	88640	30.915	0.09	0.51	0.13
Centroid Cntr.	68.92	266264	24.962	0.32	1.97	0.40
Ramps	4.20	21187	38.925	0.02	0.15	0.03
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 431.79 4112373 33.176 4.22 24.25 8.88

2005 ACTION

OHIO

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.44	259276	31.939	0.19	0.79	0.80
Interstate	117.39	8678297	32.504	6.36	26.50	26.92
Major Arterial	311.55	5277437	24.357	7.40	51.12	7.85
Minor Arterial	278.10	3494206	24.784	4.79	32.92	5.17
Major Collector	460.39	3470914	23.225	5.05	35.15	5.20
Minor Collector	1.70	12204	27.615	0.01	0.09	0.02
Local	108.83	557942	24.312	0.82	5.72	0.84
Centroid Cntr.	366.60	1967619	0.000	2.90	20.09	2.94
Ramps	92.81	721005	32.644	0.80	5.18	1.02
Expressway	31.64	765463	31.192	0.56	2.66	1.20

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	36.83	1710408	39.817	1.29	5.22	5.44
Major Arterial	48.09	521936	34.302	0.62	3.83	0.79
Minor Arterial	84.95	767929	33.380	0.90	5.47	1.16
Major Collector	459.77	2178510	30.671	2.49	15.37	3.24
Minor Collector	97.64	222536	31.508	0.24	1.40	0.33
Local	99.07	259157	30.440	0.28	1.64	0.38
Centroid Cntr.	210.40	908333	0.000	1.09	6.70	1.38
Ramps	11.46	48048	36.802	0.05	0.33	0.07
Expressway	11.02	187995	29.143	0.14	0.65	0.31
TOTALS	2834.69	32009224	13.247	35.97	220.83	65.06

O/H

2005 ACTION



**APPENDIX I**

**2010 BASELINE  
SCENARIO EMISSIONS**

BOONE COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	11.83	830957	35.052	0.83	4.34	2.91
Major Arterial	0.84	10484	30.383	0.01	0.11	0.02
Minor Arterial	27.14	458774	25.492	1.04	10.05	0.96
Major Collector	19.93	183499	25.958	0.44	4.27	0.39
Minor Collector	0.75	19872	26.829	0.06	0.56	0.04
Local	3.63	41867	25.052	0.11	1.11	0.09
Centroid Cntr.	8.27	104966	18.992	0.22	2.07	0.21
Ramps	6.60	49108	30.922	0.10	0.96	0.10
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	20.33	838313	37.329	0.86	4.38	3.01
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	69.91	263727	33.991	0.47	4.03	0.55
Minor Collector	46.05	101902	29.298	0.16	1.27	0.21
Local	6.05	16495	25.454	0.03	0.30	0.03
Centroid Cntr.	15.30	68629	25.000	0.12	1.00	0.14
Ramps	6.54	26319	37.240	0.05	0.44	0.06
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 243.17 3014918 32.292 4.52 34.88 8.73

2010 BASELINE

CAMPBELL COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	10.47	669133	35.746	0.67	3.50	2.35
Major Arterial	13.70	154050	27.095	0.32	2.95	0.32
Minor Arterial	11.34	93079	24.087	0.16	1.35	0.19
Major Collector	36.34	164887	27.345	0.29	2.53	0.33
Minor Collector	0.35	1488	30.008	0.00	0.02	0.00
Local	1.44	4781	27.187	0.01	0.10	0.01
Centroid Cntr.	13.86	62127	17.580	0.14	1.25	0.13
Ramps	11.70	80807	35.942	0.13	1.18	0.16
Expressway	4.04	64050	29.325	0.07	0.44	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	2907	42.018	0.00	0.02	0.01
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	173768	34.160	0.32	2.76	0.37
Major Collector	37.94	40122	33.068	0.06	0.50	0.08
Minor Collector	33.04	31210	32.022	0.05	0.34	0.07
Local	1.91	209	30.307	0.00	0.00	0.00
Centroid Cntr.	16.57	37835	24.983	0.07	0.55	0.08
Ramps	1.12	4782	38.485	0.01	0.07	0.01
Expressway	13.34	123622	34.587	0.14	0.80	0.29

TOTALS	225.70	1708864	32.003	2.43	18.36	4.53
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KENTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.71	1345470	31.264	1.35	7.03	4.71
Major Arterial	12.43	147978	21.078	0.30	2.78	0.30
Minor Arterial	61.15	674232	26.366	1.42	13.41	1.39
Major Collector	44.49	193123	23.768	0.38	3.48	0.40
Minor Collector	5.04	8566	26.996	0.01	0.11	0.02
Local	11.70	32783	25.550	0.06	0.54	0.07
Centroid Cntr.	26.80	129967	18.000	0.28	2.59	0.26
Ramps	11.68	89248	32.391	0.15	1.30	0.18
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	27.03	86256	30.619	0.13	1.00	0.18
Minor Collector	24.62	21252	32.704	0.03	0.22	0.04
Local	0.76	7895	10.272	0.02	0.20	0.02
Centroid Cntr.	15.09	44833	24.963	0.08	0.65	0.09
Ramps	0.00	0	0.000	0.00	0.00	0.00
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 257.50 2781609 28.180 4.21 33.31 7.67

2010 BASELINE

KENTUCKY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	39.01	2845561	33.282	2.85	14.87	9.97
Major Arterial	26.97	312513	23.415	0.63	5.84	0.64
Minor Arterial	99.63	1226086	25.804	2.62	24.81	2.54
Major Collector	100.76	541509	25.510	1.10	10.29	1.12
Minor Collector	6.14	29927	27.087	0.07	0.70	0.06
Local	16.77	79432	25.463	0.18	1.74	0.17
Centroid Cntr.	48.93	297061	0.000	0.64	5.91	0.60
Ramps	29.98	219164	32.881	0.39	3.45	0.44
Expressway	4.04	64050	29.325	0.07	0.44	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	2907	42.018	0.00	0.02	0.01
Interstate	20.33	838313	37.329	0.86	4.38	3.01
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	173768	34.160	0.32	2.76	0.37
Major Collector	134.88	390106	33.169	0.66	5.53	0.81
Minor Collector	103.71	154365	30.488	0.23	1.82	0.32
Local	8.72	24600	19.319	0.05	0.50	0.05
Centroid Cntr.	46.96	151299	0.000	0.27	2.20	0.32
Ramps	7.66	31102	37.397	0.06	0.50	0.07
Expressway	13.34	123622	34.587	0.14	0.80	0.29
TOTALS	726.37	7505392	14.676	11.16	86.55	20.93

2010 BASELINE



BUTLER COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	2.95	328481	27.894	0.20	0.83	0.87
Major Arterial	71.43	1341594	20.591	1.71	11.95	1.73
Minor Arterial	60.41	728427	23.961	0.80	5.39	0.91
Major Collector	88.71	839179	18.768	1.11	7.81	1.09
Minor Collector	0.60	1566	26.036	0.00	0.01	0.00
Local	21.09	177910	22.585	0.26	1.85	0.24
Centroid Cntr.	71.16	438133	18.379	0.51	3.55	0.56
Ramps	3.65	23800	30.769	0.02	0.16	0.03
Expressway	9.65	173921	31.319	0.10	0.46	0.24

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	8.69	986194	32.816	0.63	2.50	2.69
Major Arterial	19.73	325829	32.412	0.36	2.30	0.42
Minor Arterial	21.25	183533	31.964	0.19	1.18	0.24
Major Collector	126.15	734368	27.326	0.76	4.84	0.94
Minor Collector	47.58	110498	30.728	0.10	0.60	0.14
Local	39.24	167027	28.870	0.19	1.28	0.22
Centroid Cntr.	58.55	336190	24.980	0.33	2.00	0.44
Ramps	0.40	4256	24.321	0.00	0.03	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 651.24 6900915 25.194 7.28 46.71 10.77

CLERMONT COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	13.86	903554	33.342	0.56	2.29	2.41
Major Arterial	8.80	222672	25.998	0.27	1.86	0.28
Minor Arterial	23.17	343882	27.536	0.39	2.64	0.43
Major Collector	52.34	418955	26.002	0.51	3.50	0.54
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	8.25	41539	19.552	0.05	0.33	0.05
Centroid Cntr.	21.63	191669	19.076	0.22	1.53	0.24
Ramps	5.70	56302	30.783	0.05	0.34	0.07
Expressway	3.10	136658	23.836	0.09	0.44	0.17

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	24.81	135112	35.583	0.11	0.59	0.17
Minor Arterial	21.24	247323	35.035	0.24	1.47	0.32
Major Collector	153.89	737066	30.185	0.69	4.16	0.93
Minor Collector	22.73	43105	28.645	0.04	0.21	0.05
Local	17.28	45183	28.675	0.04	0.21	0.06
Centroid Cntr.	64.93	285223	24.994	0.28	1.69	0.37
Ramps	3.86	13355	33.708	0.01	0.07	0.02
Expressway	11.02	201199	28.398	0.13	0.54	0.28

TOTALS	456.61	4022805	29.154	3.66	21.88	6.39
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HAMILTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	259965	31.839	0.16	0.66	0.69
Interstate	82.41	6716313	30.841	4.18	17.03	17.88
Major Arterial	199.54	3459299	23.789	3.91	26.64	4.37
Minor Arterial	169.45	2289703	23.499	2.70	18.69	2.91
Major Collector	288.87	2266204	22.390	2.81	19.55	2.91
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	65.39	387509	24.237	0.48	3.37	0.50
Centroid Cntr.	259.97	1361438	17.243	1.64	11.41	1.75
Ramps	76.90	625193	31.667	0.57	3.69	0.75
Expressway	19.16	533135	32.178	0.32	1.43	0.70

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	12.28	447555	39.615	0.29	1.13	1.22
Major Arterial	3.55	123031	30.434	0.14	0.94	0.16
Minor Arterial	3.60	29481	37.569	0.02	0.12	0.04
Major Collector	59.99	322841	31.104	0.30	1.87	0.41
Minor Collector	6.37	26868	31.823	0.02	0.13	0.03
Local	13.48	28378	28.344	0.03	0.15	0.04
Centroid Cntr.	18.00	95683	24.986	0.09	0.57	0.12
Ramps	3.00	11947	40.793	0.01	0.06	0.02
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 1288.29 18984551 26.824 17.69 107.45 34.49

WARREN COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.94	1200965	36.252	0.75	3.04	3.20
Major Arterial	31.78	450711	27.356	0.51	3.49	0.57
Minor Arterial	25.07	343808	25.332	0.41	2.83	0.44
Major Collector	26.21	243472	25.757	0.30	2.11	0.31
Minor Collector	0.37	3535	24.282	0.00	0.02	0.00
Local	13.74	47454	27.758	0.05	0.33	0.06
Centroid Cntr.	13.59	75374	18.941	0.09	0.61	0.10
Ramps	4.90	39904	30.109	0.04	0.25	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	17.08	666399	37.183	0.43	1.69	1.82
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	38.86	371152	30.493	0.37	2.29	0.48
Major Collector	119.74	644733	30.629	0.63	3.92	0.82
Minor Collector	20.96	58503	32.555	0.05	0.27	0.07
Local	29.95	100748	29.969	0.09	0.50	0.13
Centroid Cntr.	68.92	290739	24.964	0.28	1.73	0.38
Ramps	4.20	24040	37.575	0.02	0.14	0.03
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	432.32	4561545	31.526	4.02	23.21	8.45
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2010 BASELINE

## OHIO

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	259965	31.839	0.16	0.66	0.69
Interstate	116.17	9149314	31.246	5.70	23.20	24.35
Major Arterial	311.55	5474277	23.385	6.40	43.94	6.95
Minor Arterial	278.10	3705821	24.005	4.30	29.55	4.69
Major Collector	456.13	3767811	21.974	4.72	32.96	4.86
Minor Collector	0.97	5101	24.658	0.00	0.03	0.01
Local	108.47	654414	23.597	0.84	5.86	0.85
Centroid Cntr.	366.35	2066616	0.000	2.45	17.09	2.65
Ramps	91.15	745201	31.497	0.69	4.44	0.90
Expressway	31.91	843715	30.112	0.51	2.33	1.11

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	38.05	2100150	35.730	1.34	5.32	5.73
Major Arterial	48.09	583973	32.435	0.61	3.83	0.76
Minor Arterial	84.95	831492	32.731	0.82	5.06	1.07
Major Collector	459.77	2439010	29.357	2.38	14.79	3.09
Minor Collector	97.64	238976	30.847	0.21	1.21	0.30
Local	99.95	341337	28.968	0.34	2.14	0.44
Centroid Cntr.	210.40	1007837	0.000	0.98	5.99	1.31
Ramps	11.46	53599	35.756	0.05	0.30	0.07
Expressway	11.02	201199	28.398	0.13	0.54	0.28
TOTALS	2828.46	34469818	12.708	32.64	199.25	60.10

2010 BASELINE



**APPENDIX J**

**2010 ACTION  
SCENARIO EMISSIONS**

BOONE COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	11.83	824597	34.639	0.83	4.31	2.89
Major Arterial	0.84	10010	30.788	0.01	0.10	0.02
Minor Arterial	27.14	475412	28.032	1.01	9.63	0.98
Major Collector	19.49	179949	26.243	0.40	3.79	0.37
Minor Collector	0.75	19485	28.959	0.05	0.55	0.04
Local	3.63	30168	28.507	0.08	0.75	0.06
Centroid Cntr.	8.27	104765	18.991	0.22	2.06	0.21
Ramps	6.60	40961	31.705	0.07	0.66	0.08
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	20.33	837713	37.376	0.86	4.38	3.01
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	69.91	256164	34.275	0.45	3.83	0.54
Minor Collector	45.42	100598	28.987	0.16	1.28	0.21
Local	6.68	5419	33.904	0.01	0.06	0.01
Centroid Cntr.	15.30	68717	25.000	0.12	1.00	0.14
Ramps	6.54	27042	36.857	0.05	0.46	0.06
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	242.73	2981005	32.720	4.33	32.85	8.64
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2010 ACTION

CAMPBELL COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	10.47	654227	36.964	0.66	3.42	2.29
Major Arterial	13.70	149142	27.352	0.29	2.70	0.31
Minor Arterial	11.34	106458	23.663	0.19	1.63	0.22
Major Collector	36.34	171544	26.962	0.30	2.67	0.35
Minor Collector	0.35	1453	30.008	0.00	0.02	0.00
Local	1.44	4849	27.024	0.01	0.10	0.01
Centroid Cntr.	13.86	62477	17.580	0.14	1.26	0.13
Ramps	11.70	78114	36.815	0.13	1.14	0.16
Expressway	4.04	63676	30.774	0.07	0.43	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	3016	42.018	0.00	0.02	0.01
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	185644	34.625	0.33	2.77	0.39
Major Collector	39.31	41137	34.484	0.06	0.49	0.09
Minor Collector	31.59	24381	31.153	0.03	0.26	0.05
Local	1.91	58	27.110	0.00	0.00	0.00
Centroid Cntr.	16.57	37914	24.984	0.07	0.55	0.08
Ramps	1.12	4753	38.259	0.01	0.07	0.01
Expressway	13.34	116344	34.944	0.13	0.75	0.27

TOTALS 225.62 1705197 32.515 2.42 18.27 4.50

2010 ACTION



KENTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.49	1316103	31.814	1.32	6.88	4.61
Major Arterial	12.44	143309	21.305	0.28	2.63	0.29
Minor Arterial	61.15	698361	27.337	1.39	12.96	1.43
Major Collector	46.02	191005	24.245	0.36	3.26	0.39
Minor Collector	5.04	9025	27.421	0.01	0.12	0.02
Local	11.70	29630	28.041	0.05	0.44	0.06
Centroid Cntr.	26.80	131685	18.011	0.28	2.63	0.27
Ramps	11.68	94030	33.060	0.16	1.40	0.19
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	0.00	0	0.000	0.00	0.00	0.00
Major Collector	27.03	88131	31.753	0.13	1.02	0.18
Minor Collector	24.62	24353	33.557	0.03	0.25	0.05
Local	0.76	5461	20.005	0.01	0.10	0.01
Centroid Cntr.	15.09	45582	24.965	0.08	0.66	0.10
Ramps	0.00	0	0.000	0.00	0.00	0.00
Expressway	0.00	0	0.000	0.00	0.00	0.00
<b>TOTALS</b>	<b>258.82</b>	<b>2776682</b>	<b>28.836</b>	<b>4.12</b>	<b>32.34</b>	<b>7.60</b>

2010 ACTION

KENTUCKY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	38.79	2794928	33.773	2.80	14.60	9.79
Major Arterial	26.98	302463	23.521	0.59	5.43	0.62
Minor Arterial	99.63	1280232	27.007	2.59	24.22	2.63
Major Collector	101.85	542499	25.678	1.06	9.72	1.11
Minor Collector	6.14	29964	28.624	0.07	0.68	0.06
Local	16.77	64648	28.139	0.14	1.29	0.13
Centroid Cntr.	48.93	298928	0.000	0.64	5.95	0.61
Ramps	29.98	213107	33.681	0.36	3.20	0.43
Expressway	4.04	63676	30.774	0.07	0.43	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.52	3016	42.018	0.00	0.02	0.01
Interstate	20.33	837713	37.376	0.86	4.38	3.01
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	18.02	185644	34.625	0.33	2.77	0.39
Major Collector	136.25	385434	33.743	0.65	5.34	0.80
Minor Collector	101.63	149333	30.230	0.23	1.79	0.31
Local	9.35	10940	25.913	0.02	0.16	0.02
Centroid Cntr.	46.96	152214	0.000	0.27	2.21	0.32
Ramps	7.66	31795	37.030	0.06	0.53	0.07
Expressway	13.34	116344	34.944	0.13	0.75	0.27
TOTALS	727.17	7462886	14.923	10.87	83.46	20.74

2010 ACTION

BUTLER COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	4.17	457891	33.617	0.29	1.16	1.22
Major Arterial	71.43	1426104	22.053	1.77	12.38	1.83
Minor Arterial	61.31	740377	25.339	0.78	5.21	0.92
Major Collector	92.38	891982	21.439	1.10	7.68	1.15
Minor Collector	1.15	9301	18.922	0.01	0.08	0.01
Local	21.67	148175	27.628	0.19	1.34	0.19
Centroid Cntr.	71.41	442546	18.385	0.51	3.59	0.56
Ramps	4.45	29525	34.439	0.03	0.17	0.04
Expressway	9.65	118327	31.240	0.07	0.31	0.16

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	7.47	766749	39.408	0.49	1.94	2.09
Major Arterial	19.73	316505	33.641	0.34	2.18	0.41
Minor Arterial	21.25	182068	32.026	0.19	1.15	0.23
Major Collector	126.15	717953	30.316	0.72	4.51	0.91
Minor Collector	47.58	109285	30.959	0.10	0.60	0.14
Local	38.41	134641	30.323	0.14	0.88	0.17
Centroid Cntr.	58.55	342307	24.980	0.33	2.04	0.44
Ramps	0.40	4722	32.889	0.00	0.03	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS 657.16 6838465 27.269 7.06 45.23 10.50

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2010 ACTION

CLERMONT COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	13.86	878418	34.316	0.55	2.23	2.34
Major Arterial	9.75	294780	27.749	0.36	2.53	0.38
Minor Arterial	23.17	331237	28.803	0.37	2.50	0.42
Major Collector	54.59	437414	26.065	0.52	3.57	0.56
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	8.25	33364	19.054	0.04	0.26	0.04
Centroid Cntr.	21.03	190421	19.079	0.22	1.52	0.24
Ramps	6.30	53970	33.520	0.05	0.32	0.07
Expressway	3.10	111122	27.501	0.07	0.32	0.14

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	0.00	0	0.000	0.00	0.00	0.00
Major Arterial	24.81	135169	36.167	0.11	0.59	0.17
Minor Arterial	21.24	247060	35.316	0.24	1.48	0.32
Major Collector	157.49	715248	30.678	0.66	3.96	0.90
Minor Collector	22.73	39448	30.025	0.03	0.17	0.05
Local	17.28	46231	28.715	0.04	0.23	0.06
Centroid Cntr.	64.68	282788	24.994	0.28	1.68	0.37
Ramps	3.86	11963	35.373	0.01	0.07	0.02
Expressway	10.08	162052	30.857	0.10	0.43	0.23
<b>TOTALS</b>	<b>462.22</b>	<b>3970693</b>	<b>29.959</b>	<b>3.63</b>	<b>21.85</b>	<b>6.29</b>

2010 ACTION

HAMILTON COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	257468	32.529	0.16	0.65	0.68
Interstate	82.41	6670543	31.668	4.16	16.91	17.76
Major Arterial	199.54	3624504	24.930	4.03	27.32	4.56
Minor Arterial	169.45	2310286	24.203	2.62	17.96	2.91
Major Collector	288.87	2158183	23.344	2.60	17.96	2.76
Minor Collector	0.00	0	0.000	0.00	0.00	0.00
Local	65.39	344746	24.761	0.41	2.80	0.44
Centroid Cntr.	259.97	1363847	17.244	1.64	11.43	1.75
Ramps	77.50	622178	32.375	0.57	3.66	0.75
Expressway	19.16	506191	32.208	0.30	1.35	0.67

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	12.28	448233	39.842	0.29	1.14	1.22
Major Arterial	3.55	105087	35.868	0.11	0.68	0.13
Minor Arterial	3.60	29257	37.591	0.02	0.12	0.04
Major Collector	59.99	285929	31.648	0.26	1.53	0.36
Minor Collector	6.37	25262	32.041	0.02	0.11	0.03
Local	13.48	25104	28.481	0.02	0.13	0.03
Centroid Cntr.	18.00	95516	24.987	0.09	0.57	0.12
Ramps	3.00	11564	40.858	0.01	0.06	0.01
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	1288.89	18883907	27.586	17.30	104.38	34.23
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2010 ACTION

WARREN COUNTY

URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	16.94	1159137	36.670	0.72	2.94	3.09
Major Arterial	31.78	448854	28.308	0.51	3.48	0.57
Minor Arterial	24.17	313051	26.520	0.33	2.23	0.39
Major Collector	26.58	237836	28.023	0.27	1.84	0.30
Minor Collector	0.37	4922	21.368	0.01	0.04	0.01
Local	13.74	43795	29.175	0.04	0.28	0.05
Centroid Cntr.	13.59	75486	18.939	0.09	0.61	0.10
Ramps	4.90	39548	31.972	0.04	0.25	0.05
Expressway	0.00	0	0.000	0.00	0.00	0.00

RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	17.08	656877	40.067	0.42	1.67	1.79
Major Arterial	0.00	0	0.000	0.00	0.00	0.00
Minor Arterial	38.86	373668	30.729	0.37	2.30	0.48
Major Collector	119.74	659692	32.298	0.65	4.03	0.84
Minor Collector	20.96	54146	32.433	0.04	0.25	0.07
Local	29.95	95978	30.528	0.08	0.46	0.12
Centroid Cntr.	68.92	293569	24.963	0.29	1.75	0.38
Ramps	4.20	20667	38.546	0.02	0.12	0.03
Expressway	0.00	0	0.000	0.00	0.00	0.00

TOTALS	431.79	4477232	32.648	3.88	22.23	8.25
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2010 ACTION

## OHIO

## URBAN

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	6.32	257468	32.529	0.16	0.65	0.68
Interstate	117.39	9165990	32.216	5.71	23.24	24.40
Major Arterial	312.51	5794243	24.584	6.67	45.72	7.33
Minor Arterial	278.10	3694953	24.882	4.10	27.89	4.64
Major Collector	462.42	3725415	23.255	4.48	31.05	4.76
Minor Collector	1.52	14223	20.011	0.02	0.12	0.02
Local	109.05	570081	25.114	0.68	4.67	0.73
Centroid Cntr.	366.00	2072302	0.000	2.46	17.13	2.66
Ramps	93.15	745223	32.522	0.68	4.41	0.90
Expressway	31.91	735642	31.138	0.44	1.99	0.97

## RURAL

Functional Class	Road Miles	VMT (Mile/day)	Loaded Avg. Speed (mph)	VOC (TPD)	CO (TPD)	NOX (TPD)
Freeway	0.00	0	0.000	0.00	0.00	0.00
Interstate	36.83	1871860	39.699	1.20	4.75	5.11
Major Arterial	48.09	556762	34.284	0.56	3.45	0.72
Minor Arterial	84.95	832055	32.921	0.82	5.05	1.07
Major Collector	463.37	2378824	31.032	2.28	14.02	3.01
Minor Collector	97.64	228142	31.228	0.20	1.13	0.29
Local	99.12	301955	29.834	0.28	1.69	0.38
Centroid Cntr.	210.15	1014182	0.000	0.99	6.03	1.32
Ramps	11.46	48917	37.419	0.05	0.27	0.06
Expressway	10.08	162052	30.857	0.10	0.43	0.23
TOTALS	2840.07	34170299	13.228	31.87	193.69	59.26

2010 ACTION