Addendum 1

Air Quality Conformity Technical Documentation

Available online at
www.greensboro-nc.gov/lrtp/proposed_lrtp

or

GDOT Planning Office
300 W. Washington St.
Greensboro, NC 27402

Appendix C: Mobile Emissions Factors

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Air Quality

Michael F. Easley, Governor

William G. Ross, Jr., Secretary
B. Keith Overcash, P.E., Director

May 5, 2004

Ms. Kimberly D. Hinton
North Carolina Department of Transportation
Transportation Planning Branch
1554 Mail Service Center
Raleigh, North Carolina 27699-1554

Subject: Request for Functional Classification Specific Motor Vehicle Emissions Factors for Use in Conformity Analysis of the Greensboro-High Point Metropolitan Planning Organizations Long Range Transportation Plan

Dear Ms. Hinton:

This letter is in response to your letter dated April 20, 2004 requesting the Division of Air Quality prepare motor vehicle emission factors for the upcoming conformity analysis for Greensboro-High Point for volatile organic compounds and nitrogen oxides. Attached are copies of the input MOBILE6 files, summary tables for Guilford County, the urban portion of Davidson County, and the rural portion of Davidson County by pollutant of emission factors for 2004, 2014, 2020, and 2030 as you requested, and documentation of all the assumptions made in the analysis. All MOBILE6 input files and summary spreadsheets (which contain the output files) have been e-mailed to you for your convenience.

If you have any questions regarding this information please contact Phyllis Jones at (919) 715-1246.

Sincerely,

B. Keith Overcash, P.E.

BKO:jv

attachments

cc: Heather Hildebrandt w/o attachments
Laura Boothe w/o attachments
Phyllis Jones w/o attachments

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Conformity for Greensboro/High Point

Temperature Assumptions

Temperature reflects what was in the original SIP submittal. The minimum temperature is 66 F and the maximum temperature is 89 F.

RVP Assumptions

RVP reflects what was in the original SIP submittal 7.8 psi.

Vehicle Mix Assumptions

For the 12 road types:

Vehicle mix has incorporated the increase in sales of sport utility vehicles and minivans for all years of evaluation. The 2030 mix is the same as 2020 due to the limited data on vehicle by road type in EPA documentation.

To calculate the vehicle mix to account for the large percentage of sport utility vehicles and minivans being purchased, DAQ used the following documentation from EPA: Fleet Characterization Data for MOBILE6: Development and Use of Age Distributions, Average Annual Mileage Accumulation Rates, and Projected Vehicle Counts for Use in MOBILE6 (EPA420-P-99-011). This document includes a breakdown by year from 1983 to 2050 of the number of light duty vehicles (according to MOBILE6 five vehicle types) on the roads on a national basis. DAQ used this data and combined vehicle types to reflect the three MOBILE5a light duty vehicle types. These calculated values for LDGT1 and LDGT2 are used for all road types. This MOBILE5b file was then processed through the MOBILE6 Utility provided by EPA and converted to the appropriate format for MOBILE6 which reflects 16 vehicle classes per road type.

Vehicle Age Distribution

The vehicle age distribution comes from annual registration data specific to the maintenance areas from NCDOT. For this analysis the data was from 2002. NCDOT provides the data by vehicle type; however, these types do not match the USEPA MOBILE types. USEPA has an utility that will convert MOBILE5 vehicle type information to the MOBILE6 vehicle types. Therefore, the data is manipulated to match the input requirements for MOBILE 5 as follows:

- NCDOT provides at least 25 years for all vehicle types, however MOBILE5 only recognizes 12 years for motorcycles. Therefore, the first 13 years are combined into one number.
- If more than 25 years are provided, the early years are combined and included in the 25th model year.

- NCDOT does record model years beyond the year of the report, for this set of data, 2003 model year was added to the 2002 model year information.
- The same registration distribution by age must be entered for LDGV, LDDV, and for LDGT1 and LDGT2 according to the MOBILE5 User's Guide.

Then using the MOBILE6 utility, the vehicle types were distributed across the 16 types in MOBILE6.

Speed Assumptions

Speeds were provided for 2004, 2014, 2020, and 2030 for the rural portion of Davidson County, the urban portion of Davidson County, and for Guilford County by NCDOT on April 20, 2004 in a letter from Kimberly Hinton. Tables 1, 2, and 3 summarize both the emission factors and the speeds for each year for each area of the Greensboro-High Point MPO.

Vehicle Inspection and Maintenance Program Parameters

Vehicles that are model year 1996 and newer are subject to a new inspection program referred to as onboard diagnostics (OBDII). This program covers all gasoline powered vehicles that are model year 1996 and newer. However, heavy duty vehicles are not tested due to the lack of the necessary equipment not being required on these vehicles. In MOBILE6 the OBDII program requires two separate programs to be modeled to properly model the benefits of the program. The program was introduced to the original 9 I/M counties (including Guilford County) and expanded to 48 counties by the end of 2006. Therefore, in the 2004 run, three separate programs are modeled in Guilford County (the original idle program and the two OBDII programs). In Guilford County the idle test will be phased-out in 2006, therefore in the 2014, 2020, and 2030 runs only the OBDII program is included in the input file. Davidson County was phased into the new I/M program in July of 2003 therefore all runs include the two OBDII programs.

Vehicle Inspection and Maintenance Program Fractions

In order to accurately reflect commuting patterns and therefore the number of vehicles traveling through Guilford and Davidson counties that are subject to the inspection and maintenance program, accident data is used. By 2004, our new inspection and maintenance program will have expanded to include 22 counties. By 2007, 48 counties will be phased into this new program. Therefore, the fraction of vehicles traveling through both counties in 2004, 2014, 2020, and 2030 subject to an inspection and maintenance program will increase significantly due to the increased number of counties that are in the program. Using 2000 accident data, separate analyses were completed to calculate the fractions for each conformity evaluation year. The accident data is reported as county of residence of the vehicle involved by the county of where the accident took place. Table 4 summarizes the fractions used for each analysis year for each county in this conformity determination.

Table 4. I/M Fractions

County	2004	2014, 2020, and 2030
Davidson	0.89	0.96
Guilford	0.81	0.96

Mobile Emission Factors for 2004 Conformity Determination for the Rural and Urban Portions of Davidson County and Guilford County with the old SIP temperatures

2004	Inspection and Maintenance		No Inspection and Maintenance			
Davidson - Rural	VOC	NOX	VOC	NOX	Speeds	I/M fraction
Road Type						
Urban Interstate	1.109	3.317	1.138	3.363	62	
Freeway & Expressway	1.172	2.194	1.205	2.244	56	
Urban Other Principle Arterial	1.396	1.593	1.441	1.647	28	
Urban Minor Arterial	1.371	1.425	1.415	1.479	31	
Urban Collector	1.374	1.366	1.419	1.420	31	
Urban Local	1.367	1.503	1.410	1.556	31	
Rural Interstate	1.032	5.061	1.056	5.100	65	0.89
Rural Other Principal Arterial	1.211	2.196	1.246	2.244	44	
Rural Minor Arterial	1.238	1.830	1.275	1.880	43	
Rural Major Collector	1.252	1.658	1.290	1.709	43	
Rural Minor Collector	1.260	1.639	1.299	1.690	42	
Rural Local	1.265	1.614	1.304	1.665	42	

2004	Inspection and Maintenance		No Inspection and Maintenance			
Davidson - Urban	VOC	NOX	VOC	NOX	Speeds	I/M fraction
Road Type						
Urban Interstate	1.114	3.142	1.143	3.188	60	
Freeway & Expressway	1.176	2.154	1.209	2.204	55	
Urban Other Principle Arterial	1.369	1.571	1.413	1.624	30	
Urban Minor Arterial	1.358	1.421	1.402	1.474	32	
Urban Collector	1.349	1.357	1.393	1.411	33	
Urban Local	1.319	1.486	1.361	1.538	35	
Rural Minor Arterial	1.257	1.789	1.295	1.839		
Rural Major Collector	1.252	1.658	1.290	1.709		
Rural Minor Collector	1.254	1.650	1.292	1.701		
Rural Local	1.254	1.634	1.291	1.685		

2004	Inspection and Maintenance		No Inspection and Maintenance			
Guilford	VOC	NOX	VOC	NOX	Speeds	I/M fraction
Road Type						
Urban Interstate	1.071	2.721	1.175	2.776	52	
Freeway & Expressway	1.110	2.067	1.224	2.127	52	
Urban Other Principle Arterial	1.289	1.572	1.427	1.635	29	
Urban Minor Arterial	1.277	1.416	1.415	1.479	31	
Urban Collector	1.257	1.347	1.393	1.411	33	
Urban Local	1.240	1.460	1.372	1.542	34	
Rural Interstate	0.994	3.935	1.083	3.984	55	0.81
Rural Other Principal Arterial	1.087	2.422	1.196	2.479	53	
Rural Minor Arterial	1.162	1.808	1.282	1.867	42	
Rural Major Collector	1.168	1.649	1.290	1.709	43	
Rural Minor Collector	1.165	1.651	1.286	1.711	44	
Rural Local	1.169	1.625	1.291	1.685	44	

Mobile Emission Factors for 2004 Conformity Determination for the Rural Portion of Davidson County

2004	Inspection and Maintenance		No Inspection and Maintenance		Speeds	I/M Fraction
Davidson	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.995	5.056	1.019	5.096	65	0.89
Rural Other Principal Arterial	1.166	2.188	1.201	2.236	44	
Rural Minor Arterial	1.192	1.823	1.229	1.872	43	
Rural Major Collector	1.206	1.650	1.243	1.701	43	
Rural Minor Collector	1.213	1.631	1.251	1.682	42	
Rural Local	1.218	1.606	1.256	1.656	42	
Urban Interstate	1.069	3.312	1.098	3.358	62	
Freeway & Expressway	1.130	2.188	1.163	2.238	56	
Urban Other Principle Arterial	1.342	1.581	1.386	1.634	28	
Urban Minor Arterial	1.318	1.415	1.361	1.468	31	
Urban Collector	1.320	1.355	1.365	1.409	31	
Urban Local	1.313	1.492	1.356	1.544	31	

2010						
Davidson	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.564	2.410	0.614	2.484	65	0.96
Rural Other Principal Arterial	0.655	1.057	0.727	1.145	43	
Rural Minor Arterial	0.665	0.929	0.739	1.019	43	
Rural Major Collector	0.672	0.849	0.748	0.942	43	
Rural Minor Collector	0.676	0.841	0.753	0.934	42	
Rural Local	0.679	0.829	0.756	0.923	42	
Urban Interstate	0.601	1.604	0.660	1.690	62	
Freeway & Expressway	0.630	1.083	0.698	1.176	56	
Urban Other Principle Arterial	0.744	0.816	0.833	0.913	28	
Urban Minor Arterial	0.731	0.739	0.819	0.837	31	
Urban Collector	0.732	0.711	0.821	0.809	31	
Urban Local	0.731	0.775	0.818	0.871	31	

2014						
Davidson	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.424	1.306	0.480	1.392	65	0.96
Rural Other Principal Arterial	0.479	0.627	0.559	0.729	43	
Rural Minor Arterial	0.487	0.567	0.570	0.672	43	
Rural Major Collector	0.490	0.528	0.575	0.636	43	
Rural Minor Collector	0.494	0.524	0.580	0.632	42	
Rural Local	0.496	0.520	0.583	0.628	42	
Urban Interstate	0.447	0.908	0.514	1.008	62	
Freeway & Expressway	0.463	0.648	0.540	0.756	56	
Urban Other Principle Arterial	0.537	0.512	0.636	0.624	28	
Urban Minor Arterial	0.529	0.474	0.627	0.587	31	
Urban Collector	0.529	0.460	0.628	0.574	31	
Urban Local	0.531	0.492	0.627	0.603	31	

2020						
Davidson	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.296	0.616	0.366	0.719	65	0.96
Rural Other Principal Arterial	0.325	0.322	0.422	0.442	43	
Rural Minor Arterial	0.329	0.300	0.429	0.424	43	
Rural Major Collector	0.331	0.282	0.435	0.409	42	
Rural Minor Collector	0.333	0.282	0.437	0.409	42	
Rural Local	0.335	0.280	0.439	0.408	42	
Urban Interstate	0.306	0.448	0.388	0.567	62	
Freeway & Expressway	0.313	0.336	0.406	0.464	56	
Urban Other Principle Arterial	0.367	0.278	0.465	0.410	27	
Urban Minor Arterial	0.358	0.260	0.473	0.392	31	
Urban Collector	0.355	0.254	0.473	0.388	31	
Urban Local	0.359	0.269	0.474	0.399	31	

2030						
Davidson	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.224	0.332	0.292	0.435	64	0.96
Rural Other Principal Arterial	0.243	0.194	0.337	0.314	42	
Rural Minor Arterial	0.245	0.189	0.343	0.312	42	
Rural Major Collector	0.244	0.181	0.344	0.308	42	
Rural Minor Collector	0.246	0.182	0.347	0.309	42	
Rural Local	0.248	0.182	0.349	0.309	42	
Urban Interstate	0.227	0.262	0.307	0.381	62	
Freeway & Expressway	0.229	0.206	0.320	0.333	55	
Urban Other Principle Arterial	0.280	0.183	0.395	0.315	26	
Urban Minor Arterial	0.265	0.172	0.378	0.303	31	
Urban Collector	0.263	0.169	0.377	0.301	31	
Urban Local	0.269	0.177	0.380	0.306	31	

Mobile Emission Factors for 2004 Conformity Determination for Guilford County

2004	Inspection and Maintenance		No Inspection and Maintenance		Speeds	I/M Fraction
Guilford	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.956	3.930	1.045	3.979	55	*0.81
Rural Other Principal Arterial	1.047	2.416	1.154	2.473	53	
Rural Minor Arterial	1.117	1.800	1.235	1.859	42	
Rural Major Collector	1.123	1.641	1.243	1.701	43	
Rural Minor Collector	1.120	1.643	1.240	1.703	44	
Rural Local	1.124	1.617	1.244	1.677	44	
Urban Interstate	1.030	2.715	1.134	2.770	52	
Freeway & Expressway	1.069	2.061	1.181	2.120	52	
Urban Other Principle Arterial	1.236	1.561	1.372	1.623	29	
Urban Minor Arterial	1.225	1.405	1.361	1.468	31	
Urban Collector	1.206	1.337	1.340	1.400	33	
Urban Local	1.190	1.471	1.320	1.532	34	

2010						
Guilford	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.575	1.858	0.629	1.931	55	0.96
Rural Other Principal Arterial	0.627	1.183	0.694	1.271	53	
Rural Minor Arterial	0.671	0.915	0.747	1.006	41	
Rural Major Collector	0.672	0.849	0.748	0.942	43	
Rural Minor Collector	0.668	0.856	0.743	0.950	45	
Rural Local	0.673	0.840	0.749	0.934	44	
Urban Interstate	0.618	1.313	0.682	1.397	52	
Freeway & Expressway	0.636	1.038	0.706	1.130	53	
Urban Other Principle Arterial	0.737	0.810	0.825	0.906	29	
Urban Minor Arterial	0.725	0.737	0.811	0.834	32	
Urban Collector	0.720	0.706	0.807	0.804	33	
Urban Local	0.719	0.771	0.803	0.867	33	

2014						
Guilford	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.428	1.022	0.489	1.107	55	0.96
Rural Other Principal Arterial	0.461	0.695	0.536	0.797	53	
Rural Minor Arterial	0.491	0.560	0.575	0.665	41	
Rural Major Collector	0.490	0.528	0.575	0.636	43	
Rural Minor Collector	0.488	0.533	0.573	0.642	45	
Rural Local	0.492	0.526	0.578	0.634	44	
Urban Interstate	0.456	0.756	0.528	0.855	52	
Freeway & Expressway	0.467	0.624	0.545	0.731	53	
Urban Other Principle Arterial	0.532	0.509	0.630	0.620	29	
Urban Minor Arterial	0.525	0.473	0.622	0.585	32	
Urban Collector	0.521	0.457	0.618	0.570	33	
Urban Local	0.522	0.489	0.616	0.600	33	

2020						
Guilford	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.297	0.489	0.371	0.590	55	0.96
Rural Other Principal Arterial	0.313	0.354	0.404	0.476	53	
Rural Minor Arterial	0.332	0.296	0.434	0.419	41	
Rural Major Collector	0.330	0.283	0.433	0.411	43	
Rural Minor Collector	0.330	0.285	0.433	0.413	44	
Rural Local	0.332	0.284	0.435	0.412	44	
Urban Interstate	0.310	0.378	0.398	0.495	52	
Freeway & Expressway	0.315	0.324	0.409	0.451	53	
Urban Other Principle Arterial	0.359	0.274	0.475	0.404	29	
Urban Minor Arterial	0.356	0.260	0.473	0.392	31	
Urban Collector	0.352	0.253	0.468	0.386	32	
Urban Local	0.353	0.267	0.466	0.396	33	

2030						
Guilford	VOC	NOX	VOC	NOX		
Road Type						
Rural Interstate	0.224	0.278	0.296	0.379	56	0.96
Rural Other Principal Arterial	0.231	0.215	0.319	0.336	53	
Rural Minor Arterial	0.247	0.187	0.345	0.310	41	
Rural Major Collector	0.241	0.183	0.341	0.311	44	
Rural Minor Collector	0.243	0.185	0.341	0.313	45	
Rural Local	0.246	0.184	0.345	0.312	44	
Urban Interstate	0.229	0.226	0.314	0.343	53	
Freeway & Expressway	0.229	0.204	0.321	0.331	54	
Urban Other Principle Arterial	0.272	0.179	0.385	0.309	28	
Urban Minor Arterial	0.265	0.172	0.378	0.303	31	
Urban Collector	0.260	0.168	0.373	0.300	32	
Urban Local	0.267	0.176	0.376	0.305	32	

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MOBILE6 INPUT FILE :

> Guilford County 2004 conformity determination
> 2002 Veh Age Dist.

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn

I/M PROGRAM         : 1 1983 2050 1 TRC IDLE
I/M MODEL YEARS     : 1 1975 1995
I/M VEHICLES        : 1 22222 22222222 1
I/M STRINGENCY      : 1 10.0
I/M COMPLIANCE      : 1 95.0
I/M WAIVER RATES    : 1 5.0 5.0

I/M PROGRAM         : 2 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS     : 2 1996 2050
I/M VEHICLES        : 2 22222 11111111 1
I/M STRINGENCY      : 2 10.0
I/M COMPLIANCE      : 2 95.0
I/M WAIVER RATES    : 2 5.0 5.0

I/M PROGRAM         : 3 2002 2050 1 TRC EVAP OBD
I/M MODEL YEARS     : 3 1996 2050
I/M VEHICLES        : 3 22222 11111111 1
I/M STRINGENCY      : 3 10.0
I/M COMPLIANCE      : 3 95.0
I/M WAIVER RATES    : 3 5.0 5.0

ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.3670 0.0566 0.1884 0.0589 0.0271 0.0959 0.0095 0.0075
0.0057 0.0212 0.0251 0.0274 0.0977 0.0048 0.0022 0.0050

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.4450 0.0686 0.2284 0.0719 0.0331 0.0481 0.0048 0.0038
0.0028 0.0106 0.0126 0.0137 0.0490 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0
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************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.4560 0.0714 0.2376 0.0747 0.0343 0.0391 0.0039 0.0031
0.0023 0.0086 0.0102 0.0112 0.0398 0.0020 0.0009 0.0049

AVERAGE SPEED       : 42 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0310 0.0031 0.0024
0.0018 0.0069 0.0081 0.0089 0.0316 0.0016 0.0007 0.0039

AVERAGE SPEED       : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0307 0.0030 0.0024
0.0018 0.0068 0.0080 0.0088 0.0312 0.0015 0.0007 0.0051

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.4720 0.0737 0.2453 0.0767 0.0353 0.0294 0.0029 0.0023
0.0017 0.0065 0.0077 0.0084 0.0299 0.0015 0.0007 0.0060

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.4260 0.0658 0.2192 0.0685 0.0315 0.0597 0.0059 0.0047
0.0035 0.0132 0.0157 0.0171 0.0608 0.0030 0.0014 0.0040
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AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban freeway mix and speeds

VMT FRACTIONS       :
0.4650 0.0714 0.2376 0.0747 0.0343 0.0368 0.0036 0.0029
0.0022 0.0081 0.0096 0.0105 0.0375 0.0019 0.0009 0.0030

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
0.4780 0.0735 0.2445 0.0767 0.0353 0.0287 0.0028 0.0023
0.0017 0.0064 0.0075 0.0082 0.0293 0.0015 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.4880 0.0753 0.2507 0.0788 0.0362 0.0216 0.0021 0.0017
0.0013 0.0048 0.0057 0.0062 0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.4950 0.0758 0.2522 0.0795 0.0365 0.0187 0.0019 0.0015
0.0011 0.0041 0.0049 0.0053 0.0191 0.0009 0.0004 0.0031

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
```

```
0.4810 0.0742 0.2468 0.0774 0.0356 0.0255 0.0025 0.0020
0.0015 0.0056 0.0067 0.0073 0.0260 0.0013 0.0006 0.0060

AVERAGE SPEED       : 34 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
```

```
MOBILE6 INPUT FILE :

> Guilford County 2004 conformity determination Non-I/M

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn
ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111
************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.3670 0.0566 0.1884 0.0589 0.0271 0.0959 0.0095 0.0075
0.0057 0.0212 0.0251 0.0274 0.0977 0.0048 0.0022 0.0050

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.4450 0.0686 0.2284 0.0719 0.0331 0.0481 0.0048 0.0038
0.0028 0.0106 0.0126 0.0137 0.0490 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.4560 0.0714 0.2376 0.0747 0.0343 0.0391 0.0039 0.0031
0.0023 0.0086 0.0102 0.0112 0.0398 0.0020 0.0009 0.0049

AVERAGE SPEED       : 42 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0310 0.0031 0.0024
0.0018 0.0069 0.0081 0.0089 0.0316 0.0016 0.0007 0.0039
```

```
AVERAGE SPEED       : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0307 0.0030 0.0024
0.0018 0.0068 0.0080 0.0088 0.0312 0.0015 0.0007 0.0051

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.4720 0.0737 0.2453 0.0767 0.0353 0.0294 0.0029 0.0023
0.0017 0.0065 0.0077 0.0084 0.0299 0.0015 0.0007 0.0060

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.4260 0.0658 0.2192 0.0685 0.0315 0.0597 0.0059 0.0047
0.0035 0.0132 0.0157 0.0171 0.0608 0.0030 0.0014 0.0040

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban freeway mix and speeds

VMT FRACTIONS       :
0.4650 0.0714 0.2376 0.0747 0.0343 0.0368 0.0036 0.0029
0.0022 0.0081 0.0096 0.0105 0.0375 0.0019 0.0009 0.0030

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
```

```
0.4780 0.0735 0.2445 0.0767 0.0353 0.0287 0.0028 0.0023
0.0017 0.0064 0.0075 0.0082 0.0293 0.0015 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.4880 0.0753 0.2507 0.0788 0.0362 0.0216 0.0021 0.0017
0.0013 0.0048 0.0057 0.0062 0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.4950 0.0758 0.2522 0.0795 0.0365 0.0187 0.0019 0.0015
0.0011 0.0041 0.0049 0.0053 0.0191 0.0009 0.0004 0.0031

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.4810 0.0742 0.2468 0.0774 0.0356 0.0255 0.0025 0.0020
0.0015 0.0056 0.0067 0.0073 0.0260 0.0013 0.0006 0.0060

AVERAGE SPEED       : 34 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
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MOBILE6 INPUT FILE :

> Guilford County 2010 Conformity Determination
> 2000 Veh Age Dist.

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn

I/M PROGRAM         : 1 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS     : 1 1996 2050
I/M VEHICLES        : 1 22222 11111111 1
I/M STRINGENCY      : 1 10.0
I/M COMPLIANCE      : 1 95.0
I/M WAIVER RATES    : 1 5.0 5.0

I/M PROGRAM         : 2 2002 2050 1 TRC EVAP OBD
I/M MODEL YEARS     : 2 1996 2050
I/M VEHICLES        : 2 22222 11111111 1
I/M STRINGENCY      : 2 10.0
I/M COMPLIANCE      : 2 95.0
I/M WAIVER RATES    : 2 5.0 5.0

ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.3070 0.0668 0.2222 0.0699 0.0321 0.0955 0.0094 0.0078
0.0058 0.0213 0.0252 0.0274 0.0975 0.0048 0.0022 0.0051

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3720 0.0811 0.2699 0.0849 0.0391 0.0479 0.0047 0.0039
0.0029 0.0107 0.0126 0.0137 0.0489 0.0024 0.0011 0.0042

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds
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VMT FRACTIONS       :
0.3830 0.0839 0.2791 0.0877 0.0403 0.0389 0.0038 0.0032
0.0024 0.0087 0.0103 0.0111 0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3950 0.0862 0.2868 0.0904 0.0416 0.0309 0.0030 0.0025
0.0019 0.0069 0.0081 0.0088 0.0315 0.0016 0.0007 0.0041

AVERAGE SPEED       : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.3950 0.0862 0.2868 0.0904 0.0416 0.0306 0.0030 0.0025
0.0019 0.0068 0.0081 0.0087 0.0312 0.0015 0.0007 0.0050

AVERAGE SPEED       : 45 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.3960 0.0866 0.2884 0.0904 0.0416 0.0293 0.0029 0.0024
0.0018 0.0065 0.0077 0.0084 0.0299 0.0015 0.0007 0.0059

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.3550 0.0778 0.2592 0.0815 0.0375 0.0595 0.0058 0.0048
0.0036 0.0133 0.0157 0.0170 0.0608 0.0030 0.0014 0.0041

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7
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> Urban freeway mix and speeds

VMT FRACTIONS       :
0.3880 0.0845 0.2815 0.0884 0.0406 0.0367 0.0036 0.0030
0.0022 0.0082 0.0097 0.0105 0.0374 0.0019 0.0009 0.0029

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
0.4000 0.0869 0.2891 0.0904 0.0416 0.0286 0.0028 0.0023
0.0017 0.0064 0.0075 0.0082 0.0292 0.0015 0.0007 0.0031

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.4080 0.0889 0.2961 0.0932 0.0428 0.0216 0.0021 0.0018
0.0013 0.0048 0.0057 0.0062 0.0220 0.0011 0.0005 0.0039

AVERAGE SPEED       : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.4130 0.0899 0.2991 0.0938 0.0432 0.0187 0.0018 0.0015
0.0011 0.0042 0.0049 0.0053 0.0190 0.0009 0.0004 0.0032

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.4020 0.0875 0.2915 0.0918 0.0422 0.0254 0.0025 0.0021
0.0015 0.0057 0.0067 0.0073 0.0259 0.0013 0.0006 0.0060

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
```

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MOBILE6 INPUT FILE :

>Guilford County 2010 Conformity Determination Non-I/M
> 2000 Veh Age Dist.

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn
ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111
************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.3070 0.0668 0.2222 0.0699 0.0321 0.0955 0.0094 0.0078
0.0058 0.0213 0.0252 0.0274 0.0975 0.0048 0.0022 0.0051

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3720 0.0811 0.2699 0.0849 0.0391 0.0479 0.0047 0.0039
0.0029 0.0107 0.0126 0.0137 0.0489 0.0024 0.0011 0.0042

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.3830 0.0839 0.2791 0.0877 0.0403 0.0389 0.0038 0.0032
0.0024 0.0087 0.0103 0.0111 0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2010
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3950 0.0862 0.2868 0.0904 0.0416 0.0309 0.0030 0.0025
```

0.0019 0.0069 0.0081 0.0088 0.0315 0.0016 0.0007 0.0041

AVERAGE SPEED : 43 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural minor collector
CALENDAR YEAR : 2010
EVALUATION MONTH : 7

> Rural minor collector mix and speeds

VMT FRACTIONS :
0.3950 0.0862 0.2868 0.0904 0.0416 0.0306 0.0030 0.0025
0.0019 0.0068 0.0081 0.0087 0.0312 0.0015 0.0007 0.0050

AVERAGE SPEED : 45 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural local
CALENDAR YEAR : 2010
EVALUATION MONTH : 7

> Rural local mix and speeds

VMT FRACTIONS :
0.3960 0.0866 0.2884 0.0904 0.0416 0.0293 0.0029 0.0024
0.0018 0.0065 0.0077 0.0084 0.0299 0.0015 0.0007 0.0059

AVERAGE SPEED : 44 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban interstate
CALENDAR YEAR : 2010
EVALUATION MONTH : 7

> Urban interstate mix and speeds

VMT FRACTIONS :
0.3550 0.0778 0.2592 0.0815 0.0375 0.0595 0.0058 0.0048
0.0036 0.0133 0.0157 0.0170 0.0608 0.0030 0.0014 0.0041

AVERAGE SPEED : 52 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban freeway
CALENDAR YEAR : 2010
EVALUATION MONTH : 7

> Urban freeway mix and speeds

VMT FRACTIONS :
0.3880 0.0845 0.2815 0.0884 0.0406 0.0367 0.0036 0.0030
0.0022 0.0082 0.0097 0.0105 0.0374 0.0019 0.0009 0.0029

AVERAGE SPEED : 53 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban principle arterial
CALENDAR YEAR : 2010
EVALUATION MONTH : 7

> Urban principle arterial mix and speeds

```
VMT FRACTIONS        :
0.4000 0.0869 0.2891 0.0904 0.0416 0.0286 0.0028 0.0023
0.0017 0.0064 0.0075 0.0082 0.0292 0.0015 0.0007 0.0031

AVERAGE SPEED        : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban minor arterial
CALENDAR YEAR        : 2010
EVALUATION MONTH     : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS        :
0.4080 0.0889 0.2961 0.0932 0.0428 0.0216 0.0021 0.0018
0.0013 0.0048 0.0057 0.0062 0.0220 0.0011 0.0005 0.0039

AVERAGE SPEED        : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban collector
CALENDAR YEAR        : 2010
EVALUATION MONTH     : 7

> Urban collector mix and speeds

VMT FRACTIONS        :
0.4130 0.0899 0.2991 0.0938 0.0432 0.0187 0.0018 0.0015
0.0011 0.0042 0.0049 0.0053 0.0190 0.0009 0.0004 0.0032

AVERAGE SPEED        : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban local
CALENDAR YEAR        : 2010
EVALUATION MONTH     : 7

> Urban local mix and speeds

VMT FRACTIONS        :
0.4020 0.0875 0.2915 0.0918 0.0422 0.0254 0.0025 0.0021
0.0015 0.0057 0.0067 0.0073 0.0259 0.0013 0.0006 0.0060

AVERAGE SPEED        : 33 Arterial 0.0 100.0 0.0 0.0

END OF RUN           :
```

```
MOBILE6 INPUT FILE :

> Guilford County 2014 conformity determination

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn

I/M PROGRAM         : 1 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS     : 1 1996 2050
I/M VEHICLES        : 1 22222 11111111 1
I/M STRINGENCY      : 1 10.0
I/M COMPLIANCE      : 1 95.0
I/M WAIVER RATES    : 1 5.0 5.0

I/M PROGRAM         : 2 2002 2050 1 TRC EVAP OBD
I/M MODEL YEARS     : 2 1996 2050
I/M VEHICLES        : 2 22222 11111111 1
I/M STRINGENCY      : 2 10.0
I/M COMPLIANCE      : 2 95.0
I/M WAIVER RATES    : 2 5.0 5.0

ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.2780 0.0718 0.2392 0.0747 0.0343 0.0955 0.0094 0.0079
0.0059 0.0214 0.0252 0.0274 0.0974 0.0048 0.0022 0.0049

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3380 0.0869 0.2891 0.0911 0.0419 0.0479 0.0047 0.0040 0.0030 0.0107 0.0126 0.0137
0.0489 0.0024 0.0011 0.0040

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds
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```
VMT FRACTIONS        :
0.3470 0.0901 0.2999 0.0938 0.0432 0.0389 0.0038 0.0032 0.0024 0.0087 0.0103 0.0111
0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED        : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Rural major collector
CALENDAR YEAR        : 2014
EVALUATION MONTH     : 7

> Rural major collector mix and speeds

VMT FRACTIONS        :
0.3590 0.0924 0.3076 0.0966 0.0444 0.0309 0.0030 0.0026 0.0019 0.0069 0.0081 0.0088
0.0315 0.0016 0.0007 0.0040

AVERAGE SPEED        : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Rural minor collector
CALENDAR YEAR        : 2014
EVALUATION MONTH     : 7

> Rural minor collector mix and speeds

VMT FRACTIONS        :
0.3590 0.0924 0.3076 0.0966 0.0444 0.0305 0.0030 0.0025 0.0019 0.0068 0.0081 0.0087
0.0312 0.0015 0.0007 0.0051

AVERAGE SPEED        : 45 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Rural local
CALENDAR YEAR        : 2014
EVALUATION MONTH     : 7

> Rural local mix and speeds

VMT FRACTIONS        :
0.3590 0.0929 0.3091 0.0973 0.0447 0.0293 0.0029 0.0024 0.0018 0.0065 0.0077 0.0084
0.0298 0.0015 0.0007 0.0060

AVERAGE SPEED        : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban interstate
CALENDAR YEAR        : 2014
EVALUATION MONTH     : 7

> Urban interstate mix and speeds

VMT FRACTIONS        :
0.3220 0.0836 0.2784 0.0870 0.0400 0.0595 0.0058 0.0049 0.0037 0.0133 0.0157 0.0170
0.0607 0.0030 0.0014 0.0040

AVERAGE SPEED        : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban freeway
CALENDAR YEAR        : 2014
EVALUATION MONTH     : 7
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> Urban freeway mix and speeds

VMT FRACTIONS       :
0.3520 0.0908 0.3022 0.0945 0.0435 0.0367 0.0036 0.0030 0.0023 0.0082 0.0097 0.0105
0.0374 0.0019 0.0009 0.0028

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
0.3620 0.0933 0.3107 0.0973 0.0447 0.0286 0.0028 0.0024 0.0018 0.0064 0.0075 0.0082
0.0292 0.0015 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.3690 0.0956 0.3184 0.1000 0.0460 0.0215 0.0021 0.0018 0.0013 0.0048 0.0057 0.0062
0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.3740 0.0966 0.3214 0.1007 0.0463 0.0186 0.0018 0.0015 0.0011 0.0042 0.0049 0.0053
0.0190 0.0009 0.0004 0.0033

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.3650 0.0940 0.3130 0.0980 0.0450 0.0254 0.0025 0.0021
0.0016 0.0057 0.0067 0.0073 0.0259 0.0013 0.0006 0.0059

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
```

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MOBILE6 INPUT FILE :

> Guilford County 2014 conformity determination Non-I/M

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn
ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.2780 0.0718 0.2392 0.0747 0.0343 0.0955 0.0094 0.0079
0.0059 0.0214 0.0252 0.0274 0.0974 0.0048 0.0022 0.0049

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3380 0.0869 0.2891 0.0911 0.0419 0.0479 0.0047 0.0040 0.0030 0.0107 0.0126 0.0137
0.0489 0.0024 0.0011 0.0040

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.3470 0.0901 0.2999 0.0938 0.0432 0.0389 0.0038 0.0032 0.0024 0.0087 0.0103 0.0111
0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3590 0.0924 0.3076 0.0966 0.0444 0.0309 0.0030 0.0026 0.0019 0.0069 0.0081 0.0088
```

0.0315 0.0016 0.0007 0.0040

AVERAGE SPEED : 43 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural minor collector
CALENDAR YEAR : 2014
EVALUATION MONTH : 7

> Rural minor collector mix and speeds

VMT FRACTIONS :
0.3590 0.0924 0.3076 0.0966 0.0444 0.0305 0.0030 0.0025 0.0019 0.0068 0.0081 0.0087
0.0312 0.0015 0.0007 0.0051

AVERAGE SPEED : 45 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural local
CALENDAR YEAR : 2014
EVALUATION MONTH : 7

> Rural local mix and speeds

VMT FRACTIONS :
0.3590 0.0929 0.3091 0.0973 0.0447 0.0293 0.0029 0.0024 0.0018 0.0065 0.0077 0.0084
0.0298 0.0015 0.0007 0.0060

AVERAGE SPEED : 44 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban interstate
CALENDAR YEAR : 2014
EVALUATION MONTH : 7

> Urban interstate mix and speeds

VMT FRACTIONS :
0.3220 0.0836 0.2784 0.0870 0.0400 0.0595 0.0058 0.0049 0.0037 0.0133 0.0157 0.0170
0.0607 0.0030 0.0014 0.0040

AVERAGE SPEED : 52 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban freeway
CALENDAR YEAR : 2014
EVALUATION MONTH : 7

> Urban freeway mix and speeds

VMT FRACTIONS :
0.3520 0.0908 0.3022 0.0945 0.0435 0.0367 0.0036 0.0030 0.0023 0.0082 0.0097 0.0105
0.0374 0.0019 0.0009 0.0028

AVERAGE SPEED : 53 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban principle arterial
CALENDAR YEAR : 2014
EVALUATION MONTH : 7

> Urban principle arterial mix and speeds

```
VMT FRACTIONS       :
0.3620 0.0933 0.3107 0.0973 0.0447 0.0286 0.0028 0.0024 0.0018 0.0064 0.0075 0.0082
0.0292 0.0015 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.3690 0.0956 0.3184 0.1000 0.0460 0.0215 0.0021 0.0018 0.0013 0.0048 0.0057 0.0062
0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.3740 0.0966 0.3214 0.1007 0.0463 0.0186 0.0018 0.0015 0.0011 0.0042 0.0049 0.0053
0.0190 0.0009 0.0004 0.0033

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2014
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.3650 0.0940 0.3130 0.0980 0.0450 0.0254 0.0025 0.0021
0.0016 0.0057 0.0067 0.0073 0.0259 0.0013 0.0006 0.0059

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
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MOBILE6 INPUT FILE :

> Guilford County 2020 conformity determination

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn

I/M PROGRAM         : 1 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS     : 1 1996 2050
I/M VEHICLES        : 1 22222 11111111 1
I/M STRINGENCY      : 1 10.0
I/M COMPLIANCE      : 1 95.0
I/M WAIVER RATES    : 1 5.0 5.0

I/M PROGRAM         : 2 2002 2050 1 TRC EVAP OBD
I/M MODEL YEARS     : 2 1996 2050
I/M VEHICLES        : 2 22222 11111111 1
I/M STRINGENCY      : 2 10.0
I/M COMPLIANCE      : 2 95.0
I/M WAIVER RATES    : 2 5.0 5.0

ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.2540 0.0758 0.2522 0.0795 0.0365 0.0955 0.0094 0.0079 0.0059 0.0214 0.0252 0.0273
0.0974 0.0048 0.0022 0.0050

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3090 0.0919 0.3061 0.0959 0.0441 0.0479 0.0047 0.0040 0.0030 0.0107 0.0126 0.0137
0.0488 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds
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VMT FRACTIONS       :
0.3180 0.0949 0.3161 0.0993 0.0457 0.0389 0.0038 0.0032 0.0024 0.0087 0.0103 0.0111
0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0309 0.0030 0.0026 0.0019 0.0069 0.0081 0.0088
0.0315 0.0016 0.0007 0.0040

AVERAGE SPEED       : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0306 0.0030 0.0025 0.0019 0.0068 0.0081 0.0087
0.0311 0.0015 0.0007 0.0051

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.3300 0.0979 0.3261 0.1021 0.0469 0.0293 0.0029 0.0024 0.0018 0.0065 0.0077 0.0084
0.0298 0.0015 0.0007 0.0060

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.2940 0.0882 0.2938 0.0925 0.0425 0.0595 0.0059 0.0049 0.0037 0.0133 0.0157 0.0170
0.0606 0.0030 0.0014 0.0040

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7
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> Urban freeway mix and speeds

VMT FRACTIONS        :
0.3220 0.0959 0.3191 0.1000 0.0460 0.0367 0.0036 0.0030 0.0023 0.0082 0.0097 0.0105
0.0374 0.0018 0.0009 0.0029

AVERAGE SPEED        : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban principle arterial
CALENDAR YEAR        : 2020
EVALUATION MONTH     : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS        :
0.3310 0.0986 0.3284 0.1028 0.0473 0.0286 0.0028 0.0024 0.0018 0.0064 0.0075 0.0082
0.0292 0.0014 0.0007 0.0029

AVERAGE SPEED        : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban minor arterial
CALENDAR YEAR        : 2020
EVALUATION MONTH     : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS        :
0.3370 0.1012 0.3368 0.1055 0.0485 0.0215 0.0021 0.0018 0.0013 0.0048 0.0057 0.0062
0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED        : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban collector
CALENDAR YEAR        : 2020
EVALUATION MONTH     : 7

> Urban collector mix and speeds

VMT FRACTIONS        :
0.3410 0.1021 0.3399 0.1069 0.0491 0.0187 0.0018 0.0015 0.0012 0.0042 0.0049 0.0053
0.0190 0.0009 0.0004 0.0031

AVERAGE SPEED        : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban local
CALENDAR YEAR        : 2020
EVALUATION MONTH     : 7

> Urban local mix and speeds

VMT FRACTIONS        :
0.3330 0.0993 0.3307 0.1041 0.0479 0.0254 0.0025 0.0021 0.0016 0.0057 0.0067 0.0073
0.0259 0.0013 0.0006 0.0059

AVERAGE SPEED        : 33 Arterial 0.0 100.0 0.0 0.0

END OF RUN           :
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MOBILE6 INPUT FILE :

> Guilford County 2020 conformity determination Non-I/M

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn
ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.2540 0.0758 0.2522 0.0795 0.0365 0.0955 0.0094 0.0079 0.0059 0.0214 0.0252 0.0273
0.0974 0.0048 0.0022 0.0050

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3090 0.0919 0.3061 0.0959 0.0441 0.0479 0.0047 0.0040 0.0030 0.0107 0.0126 0.0137
0.0488 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.3180 0.0949 0.3161 0.0993 0.0457 0.0389 0.0038 0.0032 0.0024 0.0087 0.0103 0.0111
0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0309 0.0030 0.0026 0.0019 0.0069 0.0081 0.0088
```

0.0315 0.0016 0.0007 0.0040

AVERAGE SPEED : 43 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural minor collector
CALENDAR YEAR : 2020
EVALUATION MONTH : 7

> Rural minor collector mix and speeds

VMT FRACTIONS :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0306 0.0030 0.0025 0.0019 0.0068 0.0081 0.0087
0.0311 0.0015 0.0007 0.0051

AVERAGE SPEED : 44 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural local
CALENDAR YEAR : 2020
EVALUATION MONTH : 7

> Rural local mix and speeds

VMT FRACTIONS :
0.3300 0.0979 0.3261 0.1021 0.0469 0.0293 0.0029 0.0024 0.0018 0.0065 0.0077 0.0084
0.0298 0.0015 0.0007 0.0060

AVERAGE SPEED : 44 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban interstate
CALENDAR YEAR : 2020
EVALUATION MONTH : 7

> Urban interstate mix and speeds

VMT FRACTIONS :
0.2940 0.0882 0.2938 0.0925 0.0425 0.0595 0.0059 0.0049 0.0037 0.0133 0.0157 0.0170
0.0606 0.0030 0.0014 0.0040

AVERAGE SPEED : 52 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban freeway
CALENDAR YEAR : 2020
EVALUATION MONTH : 7

> Urban freeway mix and speeds

VMT FRACTIONS :
0.3220 0.0959 0.3191 0.1000 0.0460 0.0367 0.0036 0.0030 0.0023 0.0082 0.0097 0.0105
0.0374 0.0018 0.0009 0.0029

AVERAGE SPEED : 53 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban principle arterial
CALENDAR YEAR : 2020
EVALUATION MONTH : 7

> Urban principle arterial mix and speeds

```
VMT FRACTIONS       :
0.3310 0.0986 0.3284 0.1028 0.0473 0.0286 0.0028 0.0024 0.0018 0.0064 0.0075 0.0082
0.0292 0.0014 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.3370 0.1012 0.3368 0.1055 0.0485 0.0215 0.0021 0.0018 0.0013 0.0048 0.0057 0.0062
0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.3410 0.1021 0.3399 0.1069 0.0491 0.0187 0.0018 0.0015 0.0012 0.0042 0.0049 0.0053
0.0190 0.0009 0.0004 0.0031

AVERAGE SPEED       : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2020
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.3330 0.0993 0.3307 0.1041 0.0479 0.0254 0.0025 0.0021 0.0016 0.0057 0.0067 0.0073
0.0259 0.0013 0.0006 0.0059

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
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MOBILE6 INPUT FILE :

> Guilford County 2030 conformity determination

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn

I/M PROGRAM         : 1 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS     : 1 1996 2050
I/M VEHICLES        : 1 22222 11111111 1
I/M STRINGENCY      : 1 10.0
I/M COMPLIANCE      : 1 95.0
I/M WAIVER RATES    : 1 5.0 5.0

I/M PROGRAM         : 2 2002 2050 1 TRC EVAP OBD
I/M MODEL YEARS     : 2 1996 2050
I/M VEHICLES        : 2 22222 11111111 1
I/M STRINGENCY      : 2 10.0
I/M COMPLIANCE      : 2 95.0
I/M WAIVER RATES    : 2 5.0 5.0

ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.2540 0.0758 0.2522 0.0795 0.0365 0.0955 0.0094 0.0079 0.0059 0.0214 0.0252 0.0273
0.0974 0.0048 0.0022 0.0050

AVERAGE SPEED       : 56 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3090 0.0919 0.3061 0.0959 0.0441 0.0479 0.0047 0.0040 0.0030 0.0107 0.0126 0.0137
0.0488 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds
```

```
VMT FRACTIONS       :
0.3180 0.0949 0.3161 0.0993 0.0457 0.0389 0.0038 0.0032 0.0024 0.0087 0.0103 0.0111
0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0309 0.0030 0.0026 0.0019 0.0069 0.0081 0.0088
0.0315 0.0016 0.0007 0.0040

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0306 0.0030 0.0025 0.0019 0.0068 0.0081 0.0087
0.0311 0.0015 0.0007 0.0051

AVERAGE SPEED       : 45 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.3300 0.0979 0.3261 0.1021 0.0469 0.0293 0.0029 0.0024 0.0018 0.0065 0.0077 0.0084
0.0298 0.0015 0.0007 0.0060

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.2940 0.0882 0.2938 0.0925 0.0425 0.0595 0.0059 0.0049 0.0037 0.0133 0.0157 0.0170
0.0606 0.0030 0.0014 0.0040

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7
```

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> Urban freeway mix and speeds

VMT FRACTIONS       :
0.3220 0.0959 0.3191 0.1000 0.0460 0.0367 0.0036 0.0030 0.0023 0.0082 0.0097 0.0105
0.0374 0.0018 0.0009 0.0029

AVERAGE SPEED       : 54 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
0.3310 0.0986 0.3284 0.1028 0.0473 0.0286 0.0028 0.0024 0.0018 0.0064 0.0075 0.0082
0.0292 0.0014 0.0007 0.0029

AVERAGE SPEED       : 28 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.3370 0.1012 0.3368 0.1055 0.0485 0.0215 0.0021 0.0018 0.0013 0.0048 0.0057 0.0062
0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.3410 0.1021 0.3399 0.1069 0.0491 0.0187 0.0018 0.0015 0.0012 0.0042 0.0049 0.0053
0.0190 0.0009 0.0004 0.0031

AVERAGE SPEED       : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.3330 0.0993 0.3307 0.1041 0.0479 0.0254 0.0025 0.0021 0.0016 0.0057 0.0067 0.0073
0.0259 0.0013 0.0006 0.0059

AVERAGE SPEED       : 32 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
```

```
MOBILE6 INPUT FILE :

> Guilford County 2030 conformity determination Non-I/M

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 66.0 89.0

REG DIST            : triadage.prn
ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.2540 0.0758 0.2522 0.0795 0.0365 0.0955 0.0094 0.0079 0.0059 0.0214 0.0252 0.0273
0.0974 0.0048 0.0022 0.0050

AVERAGE SPEED       : 56 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.3090 0.0919 0.3061 0.0959 0.0441 0.0479 0.0047 0.0040 0.0030 0.0107 0.0126 0.0137
0.0488 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.3180 0.0949 0.3161 0.0993 0.0457 0.0389 0.0038 0.0032 0.0024 0.0087 0.0103 0.0111
0.0397 0.0020 0.0009 0.0050

AVERAGE SPEED       : 41 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2030
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0309 0.0030 0.0026 0.0019 0.0069 0.0081 0.0088
```

0.0315 0.0016 0.0007 0.0040

AVERAGE SPEED : 44 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural minor collector
CALENDAR YEAR : 2030
EVALUATION MONTH : 7

> Rural minor collector mix and speeds

VMT FRACTIONS :
0.3280 0.0977 0.3253 0.1021 0.0469 0.0306 0.0030 0.0025 0.0019 0.0068 0.0081 0.0087
0.0311 0.0015 0.0007 0.0051

AVERAGE SPEED : 45 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Rural local
CALENDAR YEAR : 2030
EVALUATION MONTH : 7

> Rural local mix and speeds

VMT FRACTIONS :
0.3300 0.0979 0.3261 0.1021 0.0469 0.0293 0.0029 0.0024 0.0018 0.0065 0.0077 0.0084
0.0298 0.0015 0.0007 0.0060

AVERAGE SPEED : 44 Arterial 0.0 100.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban interstate
CALENDAR YEAR : 2030
EVALUATION MONTH : 7

> Urban interstate mix and speeds

VMT FRACTIONS :
0.2940 0.0882 0.2938 0.0925 0.0425 0.0595 0.0059 0.0049 0.0037 0.0133 0.0157 0.0170
0.0606 0.0030 0.0014 0.0040

AVERAGE SPEED : 53 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban freeway
CALENDAR YEAR : 2030
EVALUATION MONTH : 7

> Urban freeway mix and speeds

VMT FRACTIONS :
0.3220 0.0959 0.3191 0.1000 0.0460 0.0367 0.0036 0.0030 0.0023 0.0082 0.0097 0.0105
0.0374 0.0018 0.0009 0.0029

AVERAGE SPEED : 54 Non-Ramp 100.0 0.0 0.0 0.0

********** SCENARIO SECTION ********
SCENARIO RECORD : Urban principle arterial
CALENDAR YEAR : 2030
EVALUATION MONTH : 7

> Urban principle arterial mix and speeds

```
VMT FRACTIONS        :
0.3310 0.0986 0.3284 0.1028 0.0473 0.0286 0.0028 0.0024 0.0018 0.0064 0.0075 0.0082
0.0292 0.0014 0.0007 0.0029

AVERAGE SPEED        : 28 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban minor arterial
CALENDAR YEAR        : 2030
EVALUATION MONTH     : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS        :
0.3370 0.1012 0.3368 0.1055 0.0485 0.0215 0.0021 0.0018 0.0013 0.0048 0.0057 0.0062
0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED        : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban collector
CALENDAR YEAR        : 2030
EVALUATION MONTH     : 7

> Urban collector mix and speeds

VMT FRACTIONS        :
0.3410 0.1021 0.3399 0.1069 0.0491 0.0187 0.0018 0.0015 0.0012 0.0042 0.0049 0.0053
0.0190 0.0009 0.0004 0.0031

AVERAGE SPEED        : 32 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD      : Urban local
CALENDAR YEAR        : 2030
EVALUATION MONTH     : 7

> Urban local mix and speeds

VMT FRACTIONS        :
0.3330 0.0993 0.3307 0.1041 0.0479 0.0254 0.0025 0.0021 0.0016 0.0057 0.0067 0.0073
0.0259 0.0013 0.0006 0.0059

AVERAGE SPEED        : 32 Arterial 0.0 100.0 0.0 0.0

END OF RUN           :
```

```
MOBILE6 INPUT FILE :

> Guilford County 2004 conformity determination
> 2000 Veh Age Dist.

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 68.0 94.0

REG DIST            : triadage.prn

I/M PROGRAM         : 1 1983 2050 1 TRC IDLE
I/M MODEL YEARS     : 1 1975 1995
I/M VEHICLES        : 1 22222 22222222 1
I/M STRINGENCY      : 1 10.0
I/M COMPLIANCE      : 1 95.0
I/M WAIVER RATES    : 1 5.0 5.0

I/M PROGRAM         : 2 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS     : 2 1996 2050
I/M VEHICLES        : 2 22222 11111111 1
I/M STRINGENCY      : 2 10.0
I/M COMPLIANCE      : 2 95.0
I/M WAIVER RATES    : 2 5.0 5.0

I/M PROGRAM         : 3 2002 2050 1 TRC EVAP OBD
I/M MODEL YEARS     : 3 1996 2050
I/M VEHICLES        : 3 22222 11111111 1
I/M STRINGENCY      : 3 10.0
I/M COMPLIANCE      : 3 95.0
I/M WAIVER RATES    : 3 5.0 5.0

ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.3670 0.0566 0.1884 0.0589 0.0271 0.0959 0.0095 0.0075
0.0057 0.0212 0.0251 0.0274 0.0977 0.0048 0.0022 0.0050

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.4450 0.0686 0.2284 0.0719 0.0331 0.0481 0.0048 0.0038
0.0028 0.0106 0.0126 0.0137 0.0490 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0
```

```
************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.4560 0.0714 0.2376 0.0747 0.0343 0.0391 0.0039 0.0031
0.0023 0.0086 0.0102 0.0112 0.0398 0.0020 0.0009 0.0049

AVERAGE SPEED       : 42 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0310 0.0031 0.0024
0.0018 0.0069 0.0081 0.0089 0.0316 0.0016 0.0007 0.0039

AVERAGE SPEED       : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0307 0.0030 0.0024
0.0018 0.0068 0.0080 0.0088 0.0312 0.0015 0.0007 0.0051

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.4720 0.0737 0.2453 0.0767 0.0353 0.0294 0.0029 0.0023
0.0017 0.0065 0.0077 0.0084 0.0299 0.0015 0.0007 0.0060

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.4260 0.0658 0.2192 0.0685 0.0315 0.0597 0.0059 0.0047
0.0035 0.0132 0.0157 0.0171 0.0608 0.0030 0.0014 0.0040
```

```
AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban freeway mix and speeds

VMT FRACTIONS       :
0.4650 0.0714 0.2376 0.0747 0.0343 0.0368 0.0036 0.0029
0.0022 0.0081 0.0096 0.0105 0.0375 0.0019 0.0009 0.0030

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
0.4780 0.0735 0.2445 0.0767 0.0353 0.0287 0.0028 0.0023
0.0017 0.0064 0.0075 0.0082 0.0293 0.0015 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.4880 0.0753 0.2507 0.0788 0.0362 0.0216 0.0021 0.0017
0.0013 0.0048 0.0057 0.0062 0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.4950 0.0758 0.2522 0.0795 0.0365 0.0187 0.0019 0.0015
0.0011 0.0041 0.0049 0.0053 0.0191 0.0009 0.0004 0.0031

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
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```
                                        guil04 old SIP temps
0.4810 0.0742 0.2468 0.0774 0.0356 0.0255 0.0025 0.0020
0.0015 0.0056 0.0067 0.0073 0.0260 0.0013 0.0006 0.0060

AVERAGE SPEED       : 34 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
```

```
MOBILE6 INPUT FILE :

> Guilford County 2004 conformity determination Non-I/M with 2000 vehicle age

POLLUTANTS          : HC NOX
RUN DATA            :

***************** RUN SECTION  **********
FUEL RVP            : 7.8
MIN/MAX TEMP        : 68.0 94.0

REG DIST            : triadage.prn
ANTI-TAMP PROG      :
91 68 50 22222 22222222 2 11 095. 22121111
************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural interstate mix and speeds

VMT FRACTIONS       :
0.3670 0.0566 0.1884 0.0589 0.0271 0.0959 0.0095 0.0075
0.0057 0.0212 0.0251 0.0274 0.0977 0.0048 0.0022 0.0050

AVERAGE SPEED       : 55 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural other principle arterial mix and speeds

VMT FRACTIONS       :
0.4450 0.0686 0.2284 0.0719 0.0331 0.0481 0.0048 0.0038
0.0028 0.0106 0.0126 0.0137 0.0490 0.0024 0.0011 0.0041

AVERAGE SPEED       : 53 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor arterial mix and speeds

VMT FRACTIONS       :
0.4560 0.0714 0.2376 0.0747 0.0343 0.0391 0.0039 0.0031
0.0023 0.0086 0.0102 0.0112 0.0398 0.0020 0.0009 0.0049

AVERAGE SPEED       : 42 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural major collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural major collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0310 0.0031 0.0024
0.0018 0.0069 0.0081 0.0089 0.0316 0.0016 0.0007 0.0039
```

```
AVERAGE SPEED       : 43 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural minor collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural minor collector mix and speeds

VMT FRACTIONS       :
0.4720 0.0730 0.2430 0.0767 0.0353 0.0307 0.0030 0.0024
0.0018 0.0068 0.0080 0.0088 0.0312 0.0015 0.0007 0.0051

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Rural local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Rural local mix and speeds

VMT FRACTIONS       :
0.4720 0.0737 0.2453 0.0767 0.0353 0.0294 0.0029 0.0023
0.0017 0.0065 0.0077 0.0084 0.0299 0.0015 0.0007 0.0060

AVERAGE SPEED       : 44 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban interstate
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban interstate mix and speeds

VMT FRACTIONS       :
0.4260 0.0658 0.2192 0.0685 0.0315 0.0597 0.0059 0.0047
0.0035 0.0132 0.0157 0.0171 0.0608 0.0030 0.0014 0.0040

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban freeway
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban freeway mix and speeds

VMT FRACTIONS       :
0.4650 0.0714 0.2376 0.0747 0.0343 0.0368 0.0036 0.0029
0.0022 0.0081 0.0096 0.0105 0.0375 0.0019 0.0009 0.0030

AVERAGE SPEED       : 52 Non-Ramp 100.0 0.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban principle arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban principle arterial mix and speeds

VMT FRACTIONS       :
```

```
0.4780 0.0735 0.2445 0.0767 0.0353 0.0287 0.0028 0.0023
0.0017 0.0064 0.0075 0.0082 0.0293 0.0015 0.0007 0.0029

AVERAGE SPEED       : 29 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban minor arterial
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban minor arterial mix and speeds

VMT FRACTIONS       :
0.4880 0.0753 0.2507 0.0788 0.0362 0.0216 0.0021 0.0017
0.0013 0.0048 0.0057 0.0062 0.0220 0.0011 0.0005 0.0040

AVERAGE SPEED       : 31 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban collector
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban collector mix and speeds

VMT FRACTIONS       :
0.4950 0.0758 0.2522 0.0795 0.0365 0.0187 0.0019 0.0015
0.0011 0.0041 0.0049 0.0053 0.0191 0.0009 0.0004 0.0031

AVERAGE SPEED       : 33 Arterial 0.0 100.0 0.0 0.0

************  SCENARIO SECTION ********
SCENARIO RECORD     : Urban local
CALENDAR YEAR       : 2004
EVALUATION MONTH    : 7

> Urban local mix and speeds

VMT FRACTIONS       :
0.4810 0.0742 0.2468 0.0774 0.0356 0.0255 0.0025 0.0020
0.0015 0.0056 0.0067 0.0073 0.0260 0.0013 0.0006 0.0060

AVERAGE SPEED       : 34 Arterial 0.0 100.0 0.0 0.0

END OF RUN          :
```

Appendix D: Description of Future Transportation Systems

Table D-1: 2004 Fiscally Constrained Highway Network
Table D-2: 2014 Fiscally Constrained Highway Network
Table D-3: 2020 Fiscally Constrained Highway Network
Table D-4: 2030 Fiscally Constrained Highway Network

Figure 1: Roadway Element 2004
Figure 2: Roadway Element 2014
Figure 3: Roadway Element 2020
Figure 4: Roadway Element 2030
Figure 5: Potential Transit Corridors

Note: The long range transportation plan horizons years are defined in terms of the end of the calendar year. For example the first period, horizon year 2004, ends December 31, 2004.

Greensboro 2030 Long Range Transportation Plan
Roadway Projects, 2004 Horizon Year

ID	Facility	TIP#	Description / Extents	(miles)	# Lanes	Horizon Year # Lanes	Federal Functional Class	Regionally Significant?	Exempt?	Reflected in Network Coding?	CMAQ	New / Revised Since Last Plan
A1	Wendover Avenue		Big Tree Way to Stanley Rd.	0.4	4 lane	6 lane	Major Arterial	Yes	No	Yes		
A2	US 29	R-984	16th St. to Rockingham county line (pavement rehab)	10.9	4 lane divided	4 lane divided	Freeway/Expressway	Yes	Yes	Yes		
A3	Southern Urban Loop (I-85)	I-2402	I-85 to Clapp Farm Rd.	14.7	N/A	6 lane freeway	Interstate	Yes	No	Yes		
A4	I-40 / US 421	I-2201	*Bus 40 to W of Freeman Mill Rd.*	10.9	4 lane freeway	8 lane freeway	Interstate	Yes	No	Yes		
A5	Norwalk Street Extension	P-3416	Lee Street to Boston Road (rail crossing closing project)	0.3	N/A	3 lane	Local	No	No	Yes		New?
A6	(OMITTED) Spring Garden St Median		Between Freeman Mill Rd. and Jackson St.	0.3	4 and 2 lane	Divided	Collector	No	Yes	No		

Greensboro 2030 Long Range Transportation Plan
Roadway Projects, 2014 Horizon Year

2005-2014

ID	Facility	TIP#	Description / Extents	(miles)	# Lanes	Horizon Year # Lanes	Federal Functional Class	Regionally Significant?	Exempt?	Reflected in Network Coding?	CMAQ	New / Revised Since Last Plan
B1	New Garden Road		Existing widening to Brassfield Rd.	1.0	2 lane	4-5 lane	Minor Arterial	No	No	Yes		
B2	Friendly Avenue		Westridge Rd. to Holden Rd., add medians & LT lanes	1.4	4 lane	4-5 lane	Minor Arterial	No	No	Yes		
B3	Creek Ridge Road		Randleman Rd. to US 220	1.2	2 lane	3 lane	Collector	No	No	Yes		
B4	Franklin Blvd/Florida St Connector		McConnell Rd. to Lee St.	0.6	2 lane	3-4 w/ median	Collector	No	No	Yes		Revised
B5	Elm-Eugene Street		Vandalia Rd. to Southern Urban Loop (I-85 Bypass)	0.8	2 lane	5 lane	Minor Arterial	No	No	Yes		Revised
B6	US 220	R-2309	Horsepen Creek Rd. to US 220 - NC 68 Connector	6.3	2 lane	4-5 lane	Principal Arterial	Yes	No	Yes		
B7	Mackay Road		High Point Rd. to Adams Farm Pkwy.	0.5	2 lane	5 lane	Collector	No	No	Yes		
B8	Battleground Avenue		Cotswold Ave. to Westridge Rd.	1.3	5 lane	6-7 lane	Principal Arterial	Yes	No	Yes		
B9	Stanley Road		Kuger Blvd. to Hilltop Rd.	1.1	2 lane	5 lane	Collector	No	No	Yes		
B10	Church Street		Cone Blvd. to Northwood St.	1.5	3 lane	5 lane	Collector	No	No	Yes		
B11	Horsepen Creek - Fleming Connector		Horse Pen Creek Rd. to Fleming Rd. (includes extending existing x-sections)	0.7	N/A	3 lane	Collector	No	No	Yes		Revised
B12	Vandalia Road		Elm Eugene St. to Pleasant Garden Rd.	1.0	2 lane	5 lane	Minor Arterial	No	No	Yes		
B13	Summit Avenue		McKnight Mill Rd. to Brightwood School Rd.	2.3	2 lane	4-5 lane	Minor Arterial	No	No	Yes		X-sect
B14	Summit Avenue		Bryan Park to Eckerson Rd.	0.8	2 lane	4-5 lane	Minor Arterial	No	No	Yes		X-sect
B15	West Market Street	R-2611	NC 68 to Bunker Hill Rd. in Colfax	3.6	2 lane	4-5 lane	Major Collector	Yes	No	Yes		
B16	Gallimore Dairy Road	U-4015 (part)	NC 68 to I-40	1.0	2 lane	5 lane	Collector	No	No	Yes		
B17	Western Urban Loop	U-2524 (part)	I-85 to Lawndale Dr.	15.0	N/A	6 lane freeway	Interstate	Yes	No			
B18	Chimney Rock Rd Extension	U-2524 (part)	Existing facility to Old Oak Ridge Rd	1.3	N/A	2 lane	Local	No	No	Yes		Revised
B19	NC 68 / US 220 Connector	R-2413 (part)	Pleasant Ridge Rd. to US 220 + widening to Rockingham Co. line	9.8	N/A	4 lane freeway	Interstate	Yes	No	Yes		
B20	Merritt Drive		I-40 to High Point Rd.	1.0	3 lane	5 lane	Collector	No	No	Yes		
B21	Guilford College Road	U-2913 (part)	Widening (from Ruffin Rd to new alignment)	2.3	2 lane	4-5 lane	Minor Arterial	Yes	No	Yes		
			New alignment (from widening to High Point Rd.)	1.5	N/A	4 lane divided	Minor Arterial	Yes	No	Yes		
B22	Hilltop Road	U-3612 (part)	Guilford College Rd. to Adams Farm Pkwy.	0.6	2 lane	4-5 lane	Minor Arterial	No	No	Yes		
B23	High Point Road	U-2412 (part)	Hilltop Rd. to Proposed US 311 Bypass (portion in High Point)	3.8	3 lane	4-5 lane	Principal Arterial	Yes	No	Yes		
B24	Groometown Road	U-3313	Wiley Davis Rd. to Wayne Rd.	1.2	2 lane	4-5 lane	Minor Arterial	No	No	Yes		
B25	Bridford Parkway Extension	U-4006	Wendover Ave. at Hornaday Rd. to Burnt Poplar Rd. at Swing Rd	1.1	N/A	5 lane	Collector	No	No	Yes		
B26	Hornaday Road / Chimney Rock Road Connector		Hornaday Rd. to Chimney Rock Rd.	1.0	N/A	3 lane	Local	No	No	Yes		Revised
B27	Hornaday Road / Chimney Rock Road Connector	U-2524 (part)	Bridge over Outer Loop	N/A	N/A	N/A	N/A	No	No	Yes		Revised
B28	Reedy Fork Service Rd		Turner-Smith Rd Ext to Reedy Fork Parkway	1.4	N/A	5	Local	No	No	Yes		New
B29	Reedy Fork Parkway		Turner-Smith Rd Ext to Eckerson Rd.	2.2		3	Local	No	No	Yes		New
B30	Turner Smith Road extension		Connect Brown Summit Rd. to Turner Smith Rd	2.0	N/A	3 lane	Major Collector	No	No	Yes		New
B31	Lake Jeanette Road		Lawndale Ave. to N Elm St. / Bass Chapel Rd	2.0	2 or 3 lane	3-5 lane	Local	No	No	Yes		Revised
B32	East Market Street		Streetscape and Traffic Management		6 lane divided	4 lane divided	*Principal Arterial*	No	Yes	Yes		New
B33	Lake Brandt / Cotswold Connector	U-2524 (part)	Lake Brandt Rd. to Cotswold Rd.	0.3	3 lane	3 lane	Collector	No	No	Yes		Revised
~~B34~~	(OMITTED) ~~Old Battleground Avenue~~		~~Street closure~~	~~0.1~~	~~N/A~~	~~N/A~~	~~N/A~~	~~No~~	~~Yes~~	~~Yes~~		~~New~~
B35	US 421	R-2612 (part)	Williams Dairy / Neely Rd realignment & interchange	1.2	2 lane	3-5 lane	*Freeway/Expressway & Collector*	Yes	No	Yes	Yes *(interchange)*	Revised
B36	US 29	R-4707	Eckerson Rd. / US 29 Interchange + 1 mile of freeway upgrade (Assumes U-2524 includes widening of remaining US 29 south to Urban Loop)	1.0	4 lane freeway	6 lane freeway	Freeway/Expressway	Yes	No	Yes		Revised
B37	Greensboro Signal / ITS System	U-4711		N/A	N/A	N/A	N/A	*No*	Yes	No	*Yes*	
~~B38~~	(OMITTED) Church Street		~~Streetscape, Lindsay St. to Friendly Ave.~~	~~0.3~~	~~N/A~~	~~N/A~~	~~Collector~~	~~No~~	~~Yes~~	~~No~~		
B39	East Cone Boulevard Extension		Neebown Rd. to Hines Chapel Rd.	2.0	N/A	4 lane divided	Minor Arterial	Yes	No	Yes		X-sect
B40	Bryan Boulevard	U-2815 C	Inman Rd. to NC 68 (relocate roadway)	1.9	4 lane divided	4 lane divided	Freeway/Expressway	Yes	No	Yes		Revised
B41	Holts Chapel Road Upgrade		Alignment & X-section improvements, E Market St. to Ward Rd	1.6	2 lane	2-3 lane	Collector	No	No	Yes		Revised
B42	Pegg / Thatcher / ~~Brigham Road Ext.~~ (SEE B50)		Gallimore Dairy Rd. to Market St. (new & existing, part in High Point)	4.0	N/A	4 lane divided	Collector	No	No	Yes		New
B43	Bryan Boulevard Extension		NC 68 to Pleasant Ridge Rd.	0.8	N/A	3 lane	Major Collector	No	No	Yes		X-sect. Funct Class
B44	Sandy Ridge Road		I-40 to Market St.	1.0	2 lane	4 lane divided	Major Collector	No	No	Yes		
B45	Alamance Church Road		US 421 to SE of Southeast School Rd	4.7	2 lane	5 lane	Minor Arterial	Yes	No	Yes		Longer
B46	Gallimore Dairy Road	U-4015 (part)	I-40 to Market St.	0.6	2 lane	5 lane	Collector	No	No	Yes		
B47	Hilltop Road		Widen from Adams Farm Pkwy to Stanley Rd.	1.3	2 lane	5 lane	Minor Arterial	No	No	Yes		
B48	Guilford College Rd	U-2913 (part)	Widen from Hornaday Rd. to Ruffin Rd	1.1	2 lane	4-5 lane	Minor Arterial	Yes	No	Yes		
B49	Norwalk Street Connector		Boston Rd. over RR to existing	1.3	n/a	3 lane	Collector	No	No	Yes		New
B50	Brigham Road		Widen from Market Street to Pleasant Ridge	1.7	2 lane	4 lane divided	Collector	No	No	Yes		Revised
B51	Regional Rd. Extension			0.6	n/a	3 lane	Collector	No	No	Yes		Revised

Greensboro 2030 Long Range Transportation Plan
Roadway Projects, 2020 Horizon Year

2015-2020

ID	Facility	TIP#	Description / Extents	(miles)	# Lanes	Horizon Year # Lanes	Federal Functional Class	Regionally Significant?	Exempt?	Reflected in Network Coding?	CMAQ	New / Revised Since Last Plan
C1	US 158	R-2577 (part)	Forsyth Co Line - US-220 (in conjunction w/ Bypass)	4.6	2 lane	4-5 lane	Minor Arterial	Yes	No	Yes		Revised
			(remainder of the project lies in Forsyth and Rockingham Cos.)									
C2	US 70	R-2910 (part)	Rock Creek Dairy Rd. to Alamance County Line (.3 to MAB)	0.3	2 lane	5 lane	Major Collector	Yes	No	Yes		
			(remainder of the project lies in Alamance Co.)									
C3	US 70	U-2581	Mt Hope Church Rd. to Rock Creek Dairy Rd	5.2	2 lane	3 lane	Minor Arterial	Yes	No	Yes		
C4	Fleming Road / Lewiston Road		Fleming Rd. to Lewiston Rd. connection and interchange at Urban Loop	0.6	N/A	4-5 lane	*Freeway/Expressway & Minor Arterial*	Yes	No	Yes		X-section
C5	Horsepen Creek Road		New Garden Rd. to Battleground Ave.	3.4	2 lane	4-5 lane	Collector	No	No	Yes		X-section
C6	Summit Avenue		Brightwood School Rd. to Bryan Park	2.6	2 lane	3-5 lane	Minor Arterial	No	No	Yes		
C7	Eastern Urban Loop	U-2525 (part)	Lawndale Dr. to US 70	13.0	N/A	6 lane freeway	Interstate	Yes	No	Yes		
C8	E Cone Blvd / Urban Loop Interchange		Interchange with East Cone Blvd. and Urban Loop	N/A	N/A	N/A	Interstate	Yes	No	Yes		
C9	I-40 / NC 68 / I-73 Connector		Old Oakridge Rd. to I-40, & widen existing Bryan Blvd. To Urban Loop	7.6	N/A	4-6 lane freeway	Interstate	Yes	No	Yes		Revised
C10	NC 150 Realignment		Brookbank Rd. to Summerfield Rd.	1.9	N/A	2 lane	Major Collector	No	No	Yes		Revised
C11	Hicone Road Extension		Lee's Chapel Rd. to Summit Ave	0.8	N/A	3 lane	Minor Arterial	No	No	Yes		
C12	Carman / McLeansville Road Connector		Know Rd. to McLeansville Rd.	1.1	N/A	2 lane	Collector	No	No	Yes		New
C13	Gallimore Dairy Road / Friendly Avenue		Realign for community	0.2	5 lane	5 lane	Minor Arterial	No	No	Yes		
C14	Rimers Lake Road Realignment		Connect with Wolfestad at Randleman Rd.	0.4	2 lane	3 lane	Minor Arterial	No	No	Yes		New
C15	Sandy Ridge Road Extension		Market St. to Airport Connector and Interchange at Market St.	1.0	N/A	4 lane divided	Major Collector	Yes	No	Yes		Revised
~~C16~~	(PART OF C1) ~~US 158 Bypass~~		~~Anthony Rd. to Angel Pardue Rd.~~	~~2.9~~	~~N/A~~	~~4 lane divided~~	~~Minor Arterial~~	~~Yes~~	~~No~~	~~Yes~~		~~New~~
C17	Lewiston / Pleasant Ridge Roads		Urban Loop to Realigned NC 150	5.0	2 lane	5 lane	Major Collector	Yes	No	Yes		Revised
C18	Vandalia Road Extension		Pleasant Garden Rd. to Alamance Church Rd. + US 421 I/C	2.7	N/A	3 lane	*Freeway/Expressway & Minor Arterial*	Yes	No	Yes		
C19	South Holden Road		Old Randleman Road to existing widening	1.9	2 lane	4-5 lane	Minor Collector	No	No	Yes		New
C20	NC 150		NC 68 to Lake Brandt Rd. (excludes new location)	7.5	2 lane	3 lane	Major Collector	No	No	Yes		New
C21	Pleasant Ridge Road		Market St. to Lewiston Rd.	8.0	2 lane	3 lane	Major Collector	No	No	Yes		Revised

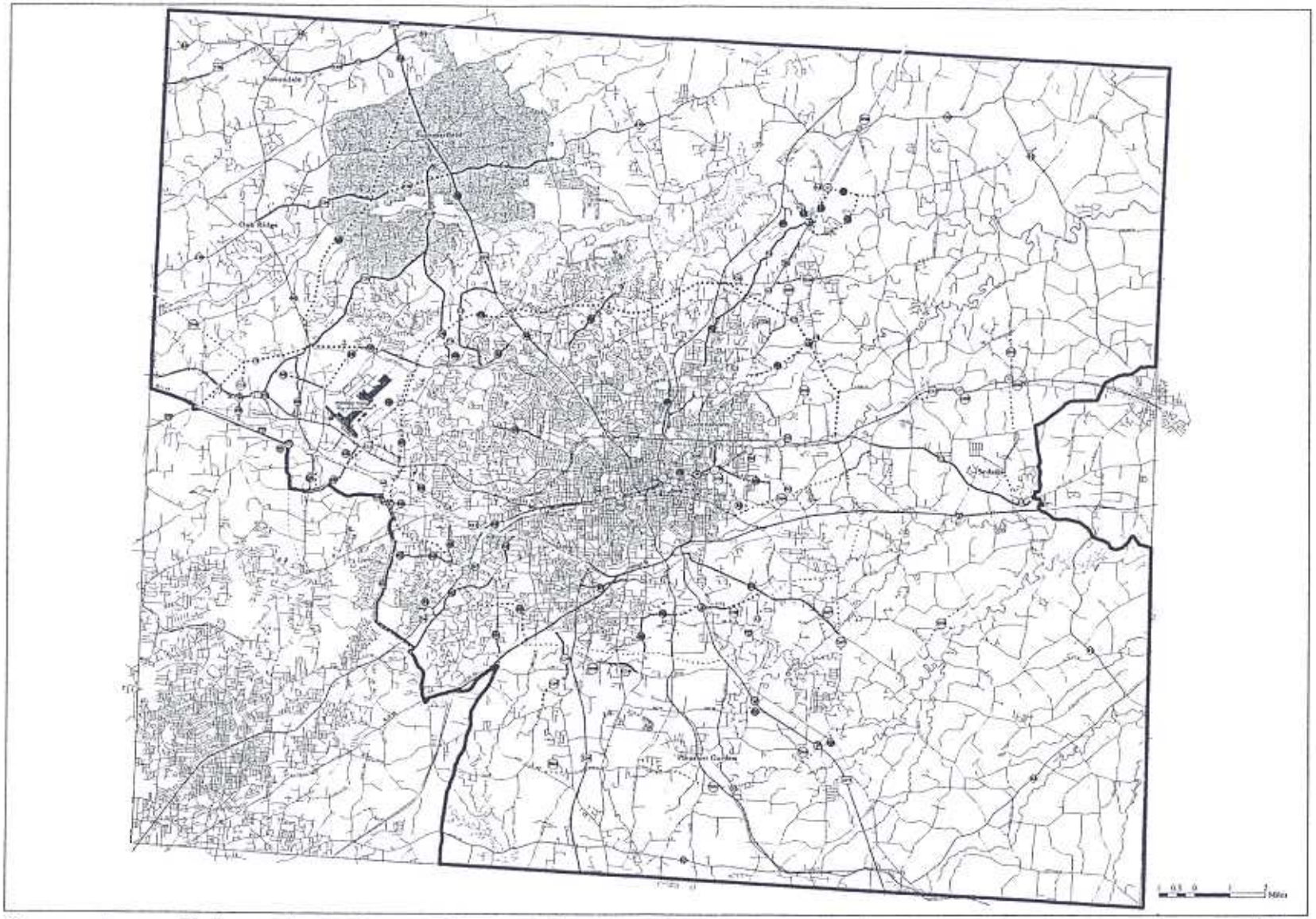
Greensboro 2030 Long Range Transportation Plan
Roadway Projects, 2030 Horizon Year

2021-2030

ID	Facility	TIP#	Description / Extents	(miles)	# Lanes	Horizon Year # Lanes	Federal Functional Class	Regionally Significant?	Exempt?	Reflected in Network Coding?	CMAQ	New / Revised Since Last Plan
D1	US 158	R-2580 (part)	US 220 - Rockingham Co Line (remainder of the project lies in Rockingham Co.)	1.5	2 lane	4-5 lane	Minor Arterial	Yes	No	Yes		Revised
D2	US 29		New SPUI (@ Brown Summit/Turner Smith Connector).	N/A	N/A	N/A	Interstate	Yes	No	Yes		New
D3	Penry / Ward / Youngs Mill Connector		McConnell Rd. to Huffine Mill Rd. (realign & improve existing)	3.1	2 lane	3 lane	Major Collector	Yes	No	Yes		New
D4	Franklin Road		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D5	Ward Road		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D6	Mackay Road		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D7	Hilltop Road		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D8	Aycock Street		Railroad underpass replacement (in conjunction with PART)	N/A	N/A	N/A	N/A	No	Yes	N/A		
D9	East Market Street		Railroad underpass replacement (in conjunction with PART)	N/A	N/A	N/A	N/A	No	Yes	N/A		
D10	Rankin Mill / Flemingfield Connector		South of Keeley Rd. Huffine Mill Rd.	0.7	2 lane	3 lane	Collector	No	No	Yes		New
D11	High Rock Road Extension		US 70 to Friendes Church Rd. (connect & improve existing facilities)	5.5	2 lane	2 lane	Collector	No	No	Yes		New
D12	Wades Store Road Extension		Mt. Hope Church Rd. to Alamance Church Rd.	1.7	2 lane	2 lane	Local	No	No	Yes		New
~~D13~~	~~(OMITTED) NC 62 / Liberty Road~~		~~New Garden Rd. to Bulb Rd.~~	~~1.1~~	~~2 lane~~	~~2 lane~~	~~Major Collector~~	~~No~~	~~No~~	~~Yes~~		~~Revised~~
D14	Burnetts Clip / Steeple Chase / Hagen Stone Pk Connector	R-2612 (part)	Burnetts Chapel Rd. to Company Mill Rd., new & existing + US 421 I/C	5.3	2 lane	2 lane	*Freeway/Expressway & Collector*	Yes	No	Yes	*Yes (interchange)*	Revised
D15	Airport Connector		Sandy Ridge Rd Ext (at I-73 Connector) to Forsyth Co (continues to Winston-Salem Urban Loop / I-74).	3.7	N/A	4 lane freeway	Freeway/Expressway	Yes	No	Yes		Revised
~~D16~~	~~(OMITTED) Strawberry Road Extension~~		~~NC 150 to Lake Brandt Rd.~~	~~1.1~~	~~2 lane~~	~~2 lane~~	~~Local~~	~~No~~	~~No~~	~~Yes~~		~~New~~
D17	Youngs Mill / Southeast School Connector		Millpoint Rd. to Southeast School Rd.	1.2	N/A	2 lane	Minor Arterial	Yes	No	Yes		
D18	US 29		Widen & upgrade to Interstate, N of Reedy Creek to Rockingham Co. line	5.5	4 lane freeway	6 lane freeway	Interstate	Yes	No	Yes		
D19	South Dudley Street		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D20	South English Street		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D21	Colony Road		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D22	Tate Street		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	N/A		
D23	Benbow Road		Railroad grade separation	N/A	N/A	N/A	N/A	No	Yes	Yes		New
D24	Nealtown Rd / McKnight Mill Rd Connector and Extension		Huffine Mill Rd. to Eckerson Rd. (connect & improve existing facilities)	4.0	2 lane	2-3 lane	Major Collector	No	No	Yes		New
D25	Knox Road Extension		Cannon to Frieden Church Rd. ; w/ RR grade separation	0.3	N/A	2 lane	Collector	No	No	Yes		New
~~D26~~	~~(OMITTED) Creekview / Butler Road Connector~~		~~McClaranville Rd. to Huffine Mill Rd.~~	~~0.3~~	~~N/A~~	~~2 lane~~	~~Local~~	~~No~~	~~No~~	~~Yes~~		~~New~~
D27	Williams Dairy / Millpoint Road Connector		Millpoint Rd. to Williams Dairy Rd.	0.6	N/A	2 lane	Collector	No	No	Yes		
D28	Bishops Road - Ritters Lake Road Connector		S. Holden Road (Drummond Rd) to Wolfetrail Road (Old Randleman Rd)	0.8	2 lane	3 lane	Collector	No	No	Yes		New
D29	Florida St Extension		Franklin Blvd Extension to McLeansville Rd (new & improve existing)	4.0	–	4 divided	Major Collector	Yes	No	Yes		New
D30	Hicone Rd. Widening		US 29 to Hines Chapel Rd.	3.3	2 lane	5 lane	Minor Arterial	No	No	Yes		New
~~D31~~	~~(OMITTED) Summit Ave Extension (info only, not in LRTP)~~		~~Greenbrook Rd to Benaja Rd~~	~~1.4~~		~~2 lane~~	~~Local~~	~~No~~	~~No~~	~~Yes~~		~~New~~

Appendix K: Greensboro Urban Area Resolution Finding the Transportation Plan in Conformity with the SIP

Draft



Greensboro Urban Area Long Range Transportation Plan

Horizon Year Projects

Greensboro MPO/High Point MPO/Davidson County-rural Long Range Transportation Plan (LRTP) Project List Review Meeting (3/16/04) Meeting Notes

Meeting Attendees: Tyler Meyer-Greensboro MPO (by phone), Jeff Sovich-Greensboro MPO (by phone), Monica Kerr-NCDOT, Kimberly Hinton-NCDOT, Heather Hildebrandt-NCDENR, Behshad Norowzi-NCDOT, Don Bryson-MAB, Nathaniel Grier-MAB, Eddie Dancausse-FHWA, Bill Marley-FHWA

Greensboro MPO Project List Review

NCDENR comments:

Greensboro needs to re-examine projects (on the project list) that are minor arterial and above to determine if they are regionally significant or not. Some inconsistencies were noticed on the list (i.e., project ID B20 and B21).

FHWA comments:

I recommend a separate list showing the exempt projects

Is there a project list for 2004? Are there any projects in 2004 that will not be completed by Oct 2004?

Why are the following projects exempt?
Project ID# B2, B5, B34

Projects in the TIP and not in the LRTP
I-2201, I-3606, I-4715, I-2402, R-952, R-4403, R-984, R-2808, U-2815, U-3314, there are a number of bridge projects, etc.

Projects in LRTP and not in TIP
Project ID# B1, B2, B3, B4, B5, B6, B8, B9, B10, B11, B12, B13, B14, B15, B20, B26, B27, B28, B29, B30, B31, B32, B33, B34, B38, B39, B41, B42, B43, B44, B45

Mileage differences between TIP and LRTP

- Project U-4015: TIP mileage is 1.6 and LRTP mileage is 1.2
- Project U2524: TIP mileage is 0 and LRTP mileage is 1.3
- Project R-2413: TIP mileage is 12.4 and LRTP mileage is 9.8
- Project U-2913: TIP mileage is 4.5 and LRTP mileage is 1.0
- Project R-4707: TIP mileage is 0 and LRTP mileage is 1.0
- Project R-2577: TIP mileage is 18.8 and LRTP mileage is 4.6
- Project R-2910: TIP mileage is 5.4 and LRTP mileage is 1.0
- Project U-2581: TIP mileage is 5.2 and LRTP mileage is 4.5
- Project R-2580: TIP mileage is 15.0 and LRTP mileage is 1.5

****Make sure that all federally funded projects that meet the requirements of 40 CFR 93.126 and 93.127 are included in the exempt project list****.

Commitments:

- MAB will re-examine the list of projects (roads, functional classification, future volume, etc) to determine regional significance.
- MAB will indicate (on the project list) any changes or corrections made to the projects.
- MAB will provide responses to all FHWA and NCDENR comments by 3/25/04.
- MAB will provide a revised project list to the meeting attendees by 3/19/04.

High Point MPO Project List Review

NCDENR comments:

1. A Column needs to be added to denote exempt/ not exempt.
2. Include in the description or in another column how the roadway is changing. (i.e. widening from 2 lanes to 4). This information will help me determine the scope of the project and also answer regional significance.
3. In many cases, there wasn't a listed functional classification.

Understandable in some instances, but not when it is an intersection, widening, etc. See: Map reference E, F, I, V, X, AE

4. Project X is an interchage. I believe this should be regionally significant.
5. Project AL is a fairly large project on a Minor Arterial. Why is it not regionally significant?

FHWA comments:

Why are the following projects not regionally significant?

- U-2536
- NC 109 from Interstate 85 to NC 47, Widen to multi-lane facility
- Southern Loop from existing Johnsontwn Rd. to Finch Farm Rd., New 2-lane facility
- Wallburg/High Point Road from west Lexington Avenue to NC 109, Widening to a multi-lane facility

Projects in LRTP and not in TIP

- U-2536
- U-3335 is in LRTP and not in TIP

Mileage differences between TIP and LRTP

- Project R-2568: TIP mileage is 13.5 and LRTP mileage is 9.5
- Project R-608: TIP mileage is 12.9 and LRTP mileage is 11.3
- Project U-2412: TIP mileage is 7.8 and LRTP mileage is 4.9
- Project U-2913: TIP mileage is 4.5 and LRTP mileage is 4.2
- Project U-2717: TIP mileage is 1.6 and LRTP mileage is 2.5
- Project U-2568: TIP mileage is 13.5 and LRTP mileage is 5.9

- Project U-3615: TIP mileage is 12.9 and LRTP mileage is 6.7
- Project U-609: TIP mileage is 13.5 and LRTP mileage is 5.9
- Project U-2606: TIP mileage is 11.5 and LRTP mileage is 9.2
- Project U-4411: TIP mileage is 0.5 and LRTP mileage is 0.8
- Project U-3615: TIP mileage is 6.3 and LRTP mileage is 3.0
- Project U-2537: TIP mileage is 10.5 and LRTP mileage is 3.0

Exempt Project List
Based on 40 CFR 93.126 & 93.127 the following projects are exempt:

- U-2702
- U-3122
- U-3434
- Trinity Road/Sealy Drive realignment, Realign both roadways so that the existing offset is eliminated
- MLK Dr./Jacobs St. extension/Business 85 interchange, Construction of a new interchange
- Mendenhall Rd./Mendenhall Rd. Ext. realignment, Realign both roadways so that the existing offset is eliminated

In my opinion the remainder of the projects in the exempt list are not exempt.

Projects in the TIP and not in the LRTP:
R-4403, I-4740, U-4015, B-4095, B-4096, B-3843, B-4334, B-4799, B-4100, B-4101, B-4742, B-4102, B-3834, B-4499, B-3847, B-3687, B-3688, B-3888, B-2857, B-3891, B-3892, B-3936, B-3893, B-3894, B-3895, B-3447, B-3448, B-3652, B-3931, B-4760, B-3934

****Make sure that all federally funded projects that meet the requirements of 40 CFR 93.126 and 93.127 are included in the exempt project list****.

Commitments:

- The NCDOT and the High Point MPO will re-examine the list of projects (roads, functional classification, future volume, etc) to determine regional significance.
- The NCDOT and the High Point MPO will indicate (on the project list) any changes or corrections made to the projects.
- The NCDOT and the High Point MPO will provide responses to all FHWA and NCDENR comments by 3/25/04.
- The NCDOT and the High Point MPO will provide a revised project list to the meeting attendees by 3/25/04.

Davidson County-rural Project List Review

The STIP is the transportation plan for Davidson County-rural. The list of projects for Davidson County-rural has not changed since the last conformity determination that was made on 10/1/03.

Greensboro/Highpoint MPO
LRTP Update and AQ Conformity Determination
Interagency Consultation Meeting
12/4/2003

MEETING ATTENDEES

Jerry Dudeck (NCDOT), Kimberly Hinton (NCDOT), Monica Kerr (NCDOT), Behshad Norowzi (NCDOT), Matt Laurita (EPA), Kelly Sheckler (EPA), Eddie Dancausse (FHWA), Marcus Wilner (FHWA), Bill Marley (FHWA), Alex McNeil (FTA-by phone), Heather Hildebrandt (NCDENR), Jill Vitas (NCDENR), Jeff Sovich (Greensboro MPO), Peggy Holland (Greensboro MPO), Andy Grzymski High Point MPO, Hanna Cockburn (PTRPO), Stephen Stansbery (Kimley-Horn), Don Bryson (MAB), Wendy Miller (WSDOT), Greg Errett (WSDOT), Patrick Reagan (FCEAD)

INTRODUCTIONS/PURPOSE OF MEETING

Behshad Norowzi (BN) opened up meeting by summarizing the conformity challenges with Triad Conformity (Greensboro, High Point, and Winston Salem-Forsyth) because of the changes in the MPO boundaries resulting from the 2000 census. .

The goal will be to get the entire Triad area (Greensboro, High Point, and Winston Salem-Forsyth on the same LRTP update and air quality (AQ) conformity determination schedule.

TRIAD CONFORMITY APPROACH

Eddie Dancausse (ED) went over a proposal for doing conformity in the Triad area to deal with the conformity challenges resulting from the changes in the MPO boundaries due to the 2000 census. ***See attached document: "Triad Conformity Approach" for more detailed information.***

Kelly Sheckler (KS): Does Davie County have a SIP budget? Davie currently has a budget under the current maintenance SIP and will have a SIP budget under the maintenance SIP update.

KS: Conformity has to be done for Davie County even if there are no projects. Davie county conformity needs to be done as a part of the Winston Salem-Forsyth (WS-F) MPO AQ conformity determination. If the Triad does not have sub-area budgets, then conformity must be done for the whole area.

BN: Will look into the Davie County issue. Is Davie County part of the Forsyth County model? Do we have to do conformity for Davie County?

The Triad area has sub-area budgets by county: Guilford, Davidson, Forsyth, and Davie

Have we done conformity for Stokes County? No, the maintenance area does not include that area.

KS: Is the census changing functional classifications? Are the changes going to be covered in the upcoming conformity analysis?

- The model has urban and rural differentiation (existing and proposed future)
- VMT used for the SIP and conformity is classified by 12 road types (six urban and six rural)
- The census impacts population and employment.
- Don Bryson (DB): census does not impact functional classifications.
- The conformity analysis will consist of urban and local roads
- All road classes are represented in the existing model, which will be used for the Triad conformity analysis.
- The existing model has urban, rural and trip link frequencies
- The existing model does not have updated road classifications
- Change in functional classification will not change the total VMT for the area.

The Triad is currently under an early action compact (EAC) for the 8-hour ozone standard. As long as the Triad meets the EAC milestones they will only be required to do conformity for the 1-hour ozone standard.

We are not going to worry about MPO boundaries for the Greensboro/High Point LRTP conformity determination that is due in October 2004. The AQ conformity determination will be done based on county sub-area budgets for Guilford and Davidson Counties.

The entire Triad area (Greensboro MPO, High Point MPO, and the WS-F MPO) will do conformity by May 28, 2005. The AQ conformity determination will be done based on county sub-area budgets for Guilford, Davidson and Forsyth Counties. ***See attached document: "Triad Conformity Approach" for more detailed information.***

Once conformity is done for the entire triad area in May 28, 2005, the Triad area will not be able to do conformity on separate timeframes because the WS-F MPO and the High Point MPO share Davidson County. The only way that the Greensboro/High Point MPO and the WS-F MPO could do conformity on separate timetables would be if NCDENR would splits up Davidson County into three sub-area budget and Forsyth County into two sub-area budget based on VMT to be supplied by NCDOT. NCDOT doesn't have the relevant VMT split for Davidson County at this time.

The interagency partners concurred on the Triad conformity approach.

GREENSBORO MPO PROGRESS REPORT

Jeff Sovich (JS) went over the Greensboro Milestone Schedule. ***See attached sheet: Greensboro MPO Project Schedule***

HIGH POINT MPO PROGRESS REPORT

Andy Grzymski (AG): The High Point MPO will approve the project list during the January 2004 meeting and Final LRTP in July 2004.

DAVIDSON COUNTY RURAL CONFORMITY

BN: The rural conformity spreadsheet will be used to estimate VMT and speed for the rural portion of Davidson County. The rural spreadsheet is based on the TTI method modified by the NCDOT Statewide Planning Branch. The rural conformity spreadsheet was used for the last AQ conformity determination done for Davidson County on 10/8/2002.

TRIAD AREA MAINENANCE SIP UPDATE

Jill Vitas (JV) provided an update on the Triad Maintenance SIP update:

- The mobile source portion of the SIP is completed.
- The mobile SIP budgets will be different resulting from the change in the Mobile model (going from Mobile 5 to Mobile 6)
- A safety margin has been included in the new SIP budget numbers.
- The SIP budgets will broken down by county (i.e., Guilford, Davidson, Forsyth, and Davie)
- The most recent SIP update budget numbers including safety margin will be explained in detail in the draft document
- The scheduling of public meetings are done except for the Winston Salem area.
- The Triad SIP should be finalized in the February and March timeframe. The SIP budget numbers should not change much between now and then.
- The Triad SIP update has budget numbers for the following years: 2000, 2004, 2007, 2010, 2012, and 2015.

KS offered the following comments:

- The only budget year that is required in the SIP update (for conformity purposes) is 2015). The intermediate years (2000, 2004, 2010, and 2012) are not required.
- If you include the intermediate year in the SIP (2000, 2004, 2010, and 2012) your emissions analysis/conformity determination will have to show that you meet the budget numbers for those years.
- Make sure that you do not end up having to meeting a budget number that is more restrictive than what is required.
- NCDENR may want to add a paragraph in the SIP that discusses what budget years will be used for conformity purposes
- EPA will have to provide an adequacy finding on the Triad's maintenance SIP update before the document goes out for public review.
- The Triad maintenance SIP once turned into EPA will have to go out for a 30 day public comment period. If there are no issues with the SIP the EPA can make an adequacy finding and publish it in the federal register 15 days later. The SIP budget numbers can be used 15 days after the adequacy finding is published in the federal register.

NCDENR would like to get an adequacy finding on the Triad maintenance SIP update from the EPA as quick as possible

GREENSBORO/HIGH POINT MPO DRAFT AQ CONFORMITY SCHEDULE

BN went over significant milestone dates on the draft Greensboro/High Point MPO AQ draft conformity schedule.

The IC partners were asked to look over the Greensboro/High Point MPO Draft AQ conformity schedule and offer any comment or revisions to the schedule by December 18, 2003.

The IC partners will be kept informed of any changes to the schedule that might occur during the conformity process.

See the attached Greensboro/High Point MPO draft AQ conformity schedule.

TRANSPORTATION CONFORMITY PREANALYSIS CONSENSUS PLAN (TCPCP)

ED went over the TCPCP and discussed the following:

- The information provided in the TCPCP will be based on the Triad maintenance SIP update budget numbers. If the new SIP update budget numbers are not ready in time to do conformity for the Greensboro and High Point MPO the TCPCP will be revised to reflect the existing SIP data and will be shared with all the IC partners.
- The IC partners were asked to review the TCPCP and offer any comment or revisions the by December 18, 2003.
- The IC partners will be kept informed of any changes to the TCPCP that might occur during the conformity process.
- The Greensboro/High Point MPO will provide information on the TCPCP addressing the following areas: CMAQ Projects Regionally Significant Projects (Federal or Non Federal), backup list of Exempt Projects and Non-Regionally Significant Projects (Federally Funded) by January 31, 2004.
- ***See the attached Greensboro/High Point MPO draft TCPCP.***

COMMITMENTS

- The interagency partners concurred on the Triad conformity approach.
- NCDOT will research if conformity is required for Davie County. NCDOT will share its results with the interagency partners and will try to get consensus from the interagency partners on this issue
- The IC partners were asked to look over the Greensboro/High Point MPO Draft AQ conformity schedule and offer any comment or revisions to the schedule by December 18, 2003.
- The IC partners were asked to review the TCPCP and offer any comment or revisions the by December 18, 2003.
- The Greensboro/High Point MPO will provide information on the TCPCP addressing the following areas: CMAQ Projects, Regionally Significant Projects (Federal or Non Federal), Backup list of Exempt Projects and Non-Regionally Significant Projects (Federally Funded) by January 31, 2004.

QUESTIONS/COMMENTS

Can we change the 2014 horizon year to the 2015 horizon year? No, 2014 was made a horizon years because the existing model generates VMT and speeds for that year.

Does it look like we will be able to meet the new SIP budget numbers? We should be able to meet the new budget numbers.

The WSF MPO will have to use the rural spreadsheet to predict VMT and speed for rural Davidson county.

The WSF MPO will use the existing model for their conformity determination in 2005. The horizon years of 2000, 2004, 2014, 2020, and 2030 will have to be used.

May 28, 2005: The Winston Salem MPO will complete a LRTP update. At this point the goal is to do a conformity determination for the entire Triad area. The AQ conformity determination on the LRTP will be made for the Winston Salem MPO, the Greensboro MPO, the High Point MPO and Davidson County. The conformity determination will cover Guilford County*, Davidson County*, and Forsyth County. **The conformity determination that will be used for Guilford and Davidson Counties will be the one that is due to be completed by 10/1/04. This assumes that there are no changes to the Greensboro, High Point and Davidson County LRTP update and conformity determination and that all assumptions (including SIP) used in the LRTP updates and conformity determination adopted on 10/1/04 are still valid*

The WS-F MPO AQ conformity process should start around May 2004

NCDENR may want to consider splitting up Davidson county into the following sub-area budgets: WSF MPO (portion of Davidson County), High Point MPO portion of Davidson County, and rural portion of Davidson County.

Triad Conformity Approach
Triad LRTP Update and AQ Conformity

Triad AQ MPO Boundaries Prior to 2000 Census:
Greensboro MPO: Guilford County
High Point MPO: Guilford County + Davidson County (small portion)
Winston Salem MPO: Forsyth County

Triad AQ MPO Boundaries After 2000 Census:
Greensboro MPO: Guilford County
High Point MPO: Guilford County + Davidson County (small portion) + Forsyth County (small portion)
Winston Salem MPO: Forsyth County + Davidson County (small portion)

Triad 1-hour Ozone Maintenance SIP
The current SIP for the Triad area has sub-area budgets for: Guilford County, Davidson County, and Forsyth County.

Current Conformity Process/Update Schedule:
The Greensboro MPO, the High Point MPO and Davidson County will do their LRTP update and conformity determination on the same schedule. The next LRTP update and AQ conformity determination is due on 10/1/04.

The Winston Salem MPO LRTP update and AQ conformity determination is due on 5/28/05

Issue:
The impact of the new MPO census boundaries for the Triad area will present difficulties for future conformity determinations due to the fact that the existing sub-area budgets do not exactly line up with the new MPO's boundaries and the MPO's that make up the Triad area are currently on different LRTP and AQ conformity determination cycles.

Goal:
The goal is to get the entire Triad maintenance area on the same LRTP update and conformity determination cycle.

Proposed Plan:
10/1/04: The Greensboro MPO and High Point MPO will complete a LRTP update and AQ conformity determination. The conformity determination will cover Guilford County and Davidson County. An LRTP update and conformity determination is not necessary for the Winston Salem MPO because it is not due until 5/28/05. The conformity determination covers Forsyth County until 5/28/05.

5/28/05: The Winston Salem MPO will complete a LRTP update. At this point the goal is to do a conformity determination for the entire Triad area. The AQ conformity determination on the LRTP will be made for the Winston Salem MPO, the Greensboro

MPO, the High Point MPO and Davidson County. The conformity determination will cover Guilford County*, Davidson County*, and Forsyth County.

The conformity determination that will be used for Guilford and Davidson Counties will be the one that is due to be completed by 10/1/04. This assumes that there are no changes to the Greensboro, High Point and Davidson County LRTP update and conformity determination and that all assumptions (including SIP) used in the LRTP updates and conformity determination adopted on 10/1/04 are still valid

10/1/07: The Greensboro MPO, High Point MPO, Winston Salem MPO, and Davidson County LRTP and AQ conformity determination is due.

DRAFT

Interagency Consultation Meeting
Greensboro Urban Area MPO and High Point Urban Area MPO
Transportation Conformity: (DRAFT) Pre-Analysis Consensus Plan
Date: 12/04/03

Triad Area (1-hour ozone): Greensboro MPO, High Point MPO, and rural Davidson County.

The Greensboro Urban Area MPO and the High Point Urban Area MPO are proposing the following plan and procedures to conduct a transportation conformity analysis. This plan is being submitted to the interagency consultation partners for soliciting consensus before commencement of a full-scale transportation conformity analysis. The plans and procedures may be revised as GUAMPO and HPMPO proceed with the analysis. Notification of changes will be made to the interagency consultation partners.

Long Range Transportation Plan (2030) / Metropolitan Transportation Improvement Program (2004-2010)

1. **Existing Land Use and Demographics:** *(provide one paragraph description)* The existing Triad model had an Urban Land Use Project (known as TULUP), used a base year of 1994 and a horizon year of 2025. The *Balanced* (growth allocated among several dozen activity centers, according to infrastructure capacity) land use scenario has been adopted for this model. The 2000 Census data has been used to update this model. The updated model has a horizon year of 2030.

2. **Validation (Baseline) Year:** 2000

3. **MTIP years:** 2004-2010

4. **LRTP Horizon Year:** 2030

5. **Conformity Analysis Years:**
   a. Baseline: 2000
   b. Intermediate: 2004, 2014, 2020
   c. Horizon: 2030

6. **Nonattainment/Maintenance Counties:** Guilford, Davidson

7. **Travel Demand Model:** TRANPLAN & Rural spreadsheet

8. **Modal Split/Mode Choice:** *(same for both MPOs)*

9. **VMT Adjustments:** None if updated SIP available.

10. Motor Vehicle Emissions Budgets/Conformity Test:

VOC: Pending the completion of the SIP update process
(tons/day)

Year	2000	2004	2007	2010	2012	2015
Davidson	8.4	6.5	5.8	4.8	4.4	4.0
Guilford	25.2	20.4	17.7	14.4	13.2	11.7

NOx: Pending the completion of the SIP update process
(tons/day)

Year	2000	2004	2007	2010	2012	2015
Davidson	15.8	12.5	10.3	7.7	6.3	4.7
Guilford	43.9	33.7	27.0	20.0	16.3	12.1

11. **Control Strategies:** Emission reduction credits will be taken for the following on-road mobile SIP commitments.

Strategy	Methodology/Approach
I/M Program	
Tier 2 vehcile's Emission Standards	
Low Sulfur Gasoline and Diesel fuels	
Heavy Duty Vehicle Rules 2004 and 2007	
Low RVP Gasoline	
On board vapor recovery	

12. **Mobile Source Emission Reduction Strategies:** The MPOs will take emission credits for the following Mobile Source Emission Reduction Strategies.

Strategy	Modeled	Year(s) Credited
Park-n-Ride Lots:	*Off model*	*2004, 2014, 2020, 2030*
Vanpools:	*Off model*	*2004, 2014, 2020, 2030*
ITS	*Off model*	*2004, 2014, 2020, 2030*
Transit Improvement	*Off model*	*2004, 2014, 2020, 2030*

13. **Mobile Model: The MPOs** will use the following MOBILE model-input parameters in the conformity analysis.

Parameter	Details	Data Source
a. *Emissions Model Version(s):*	*Mobile6.2*	
b. *Emission Model Runs:*		
c. *Time Periods:* *Daily*		
d. *Pollutants Reported:*	*VOC, NOx*	

e. *Calendar Dates:* *2004, 2014, 2020 and 2030*
f. *Vehicle Class:* *8*
g. *Temperatures:* *66-89*
h. *VMT mix:* *1999-2001 data from NCDOT and national sales data*
i. *Speed:* *From TDM and Rural spreadsheet*
j. *Vehicle Registration:* *Based on 2000 registration data provided by DMV*
k. *I/M Program:* *Idle program and OBD for 2004 and OBD for runs 2007 and beyond*
l. *RVP:* *7.8*
m. *Strategies:*
n. *I/M Fraction for Davidson County:* *0.89 for 2004 and 0.96 for later*
o. *I/M Fraction for Guilford County:* *0.81 for 2004 and 0.96 for later*

14. **CMAQ Projects:** The MPOs will include a spreadsheet in the conformity document showing status of funded CMAQ projects, including; emission reductions for each, amount of funding for each project, and implementation dates. *(each MPO/rural area would provide this information by the end of January 2004)*

15. **Regionally Significant Projects (Federal or Non Federal):** *(each MPO/rural area would provide this information by the end of January 2004)*

16. **Backup List of Exempt Projects and Non-Regionally Significant Projects (Federally Funded):** The MPOs will identify exempt projects according to the Conformity Regulation (40 CFR 93.126) and non-regionally significant projects as a backup plan in the event of a conformity lapse. A discussion on the purpose of this list can be a part of the conformity determination report (CDR) and the list of projects can be added as an appendix in the CDR. *(each MPO/rural area would provide this information by the end of January 2004)*

17. **Conformity Schedule:** *(A Draft conformity schedule has been developed and is provided as an attachment to this document)*

NCDENR

Comments on Greensboro 2030 Long Range Transportation Plan Project List

B32 is classified as a principal arterial and exempt. Principal Arterials are always regionally significant and not exempt. I think this is a mistake and the project (streetscape and traffic management) should be classified as just exempt.

Is Guilford College Road a major throughfare?

Why is C2 regionally significant? Is it because it is part of a more significant project that continues?

Project D2 does not contain a description of length of project or number of lanes. Please explain.

Why is D30 not regionally significant? It is connecting to US29.

Greensboro MPO response to NCDENR Comments

B32 is classified as a principal arterial and exempt. Principal Arterials are always regionally significant and not exempt. I think this is a mistake and the project (streetscape and traffic management) should be classified as just exempt.
I don't understand this comment. Some of my confusion may relate to whether "regionally significant" refers to the facility or to the project. We were treating the streetscape and traffic management project as not significant regionally, and exempt because it does not add capacity, etc. How can we classify it as exempt if, as you say, "Principal Arterials are always regionally significant and not exempt"? Are you saying to change the functional class? If so, to what, and what would the extents of this change be? And can we do that?

Is Guilford College Road a major throughfare?
Yes.

Why is C2 regionally significant? Is it because it is part of a more significant project that continues?
This is part of 2 projects for widening more than 10 miles of US 70. Only 0.3 miles of this particular project are in the Greensboro MPO; over 5 miles are in Burlington/Alamance (see note in spreadsheet). This project is a continuation of C3.

Project D2 does not contain a description of length of project or number of lanes. Please explain.
This project relates to the addition of an interchange only. Widening is addressed in projects D18 and B36.

Why is D30 not regionally significant? It is connecting to US29. As stated in the note, it does not appear this widening will significantly alter VMT, traffic patterns, etc, since the road already connects with US 29. But I would have no problem with calling it regionally significant.

NCDENR Follow-up Comments

In the past, wouldn't the first issue be addressed by leaving the functional classification and therefore regional significance fields as N/A. To me B32 just seems like an exempt project.

FHWA response

I consulted with the planners in my office related to your question on B32. Functional classification and regional significance is tied to the facility. In this case the "street scape and traffic management" project is happening on a roadway that is a principal arterial and the project is not regionally significant because the work that is being performed does not add capacity and therefore is exempt.

FHWA

Comments on Greensboro 2030 Long Range Transportation Plan Project List

I recommend a separate list showing the exempt projects

Is there a project list for 2004? Are there any projects in 2004 that will not be completed by Oct 2004?

Why are the following projects exempt?
Project ID# B2, B5, B34

Projects in the TIP and not in the LRTP
I-2201, I-3606, I-4715, I-2402, R-952, R-4403, R-984, R-2808, U-2815, U-3314, there are a number of bridge projects, etc.

Projects in LRTP and not in TIP
Project ID# B1, B2, B3, B4, B5, B6, B8, B9, B10, B11, B12, B13, B14, B15, B20, B26, B27, B28, B29, B30, B31, B32, B33, B34, B38, B39, B41, B42, B43, B44, B45

Mileage differences between TIP and LRTP

- Project U-4015: TIP mileage is 1.6 and LRTP mileage is 1.2
- Project U2524: TIP mileage is 0 and LRTP mileage is 1.3
- Project R-2413: TIP mileage is 12.4 and LRTP mileage is 9.8
- Project U-2913: TIP mileage is 4.5 and LRTP mileage is 1.0
- Project R-4707: TIP mileage is 0 and LRTP mileage is 1.0

- Project R-2577: TIP mileage is 18.8 and LRTP mileage is 4.6
- Project R-2910: TIP mileage is 5.4 and LRTP mileage is 1.0
- Project U-2581: TIP mileage is 5.2 and LRTP mileage is 4.5
- Project R-2580: TIP mileage is 15.0 and LRTP mileage is 1.5

****Make sure that all federally funded projects that meet the requirements of 40 CFR 93.126 and 93.127 are included in the exempt project list****.

Greensboro MPO response to FHWA Comments

Projects in the TIP and not in the LRTP

Project	Remark
I-2201	Listed in revised LRTP spreadsheet
I-3606	* I-3606 could not be found, I-3603 is listed and is for the installation of lighting along I-40 and I-85
I-4715	* Resurfacing and milling of I-40 / I-85 from US 29 to I-85 Bypass (5.2 miles).
I-2402	Listed in revised LRTP spreadsheet
R-952	* Pavement and bridge rehabilitation of I-40 Business/US 421 from US 158 to Sandy Ridge Road.
R-4403	* National Highway Guardrail system rehabilitation.
R-984	Listed in revised LRTP spreadsheet
R-2808	* Upgrade and safety improvements along US 29/70-I-85 Bus from I-85 in Davidson County to I-85 Guilford County (31.1 miles)
U-2815	Listed in revised LRTP spreadsheet
U-3314	* ITS improvements along I-40/85 corridor.

* Projects of these magnitude are not included

Mileage differences between TIP and LRTP

Project	Remark
U-4015	Distance revised.
U-2524	Distance in spreadsheet and TIP are correct.
R-2413	Distance revised.
U-2913	Distance revised.
R-4707	This project includes 1.0 mile of US 29 upgrades to highway standards
R-2577	Distance listed in LRTP spreadsheet is only to the Forsyth County line. The remainder of the project is outside the Urban Area boundary
R-2910	Distance listed in LRTP spreadsheet is only to the Alamance County line. The remainder of the project is outside the Urban Area boundary.
U-2581	Distance revised.
R-2580	Distance listed in LRTP spreadsheet is only to the Rockingham County line. The remainder of the project is outside the Urban Area boundary.

Projects in the LRTP and not in the TIP

	Remark
	Some are City or developer projects. Others have not yet been placed in TIP.

FHWA Follow-up Comments

Mileage differences between TIP and LRTP

- Project U2524: TIP mileage is 15 and LRTP mileage is 16.6
- Project R-2413: TIP mileage is 12.4 and LRTP mileage is 9.8
- Project U-2913: TIP mileage is 4.5 and LRTP mileage is 3.4
- Project R-4707: TIP mileage is 1.0 and LRTP mileage is 0
- Project R-2577: TIP mileage is 18.8 and LRTP mileage is 4.6
- Project R-2910: TIP mileage is 5.4 and LRTP mileage is .3

Project R-2580: TIP mileage is 15.0 and LRTP mileage is 1.5

Greensboro MPO Response

Project U2524: The mileage should break down as follows: 15 miles for the loop itself, 1.6 for construction of other facilities required as part of the Loop (Chimney Rock Rd, etc.). The TIP mileage does not include these portions, although we were told they are being done as part of that project.

? Project R-2413: Only the portion specified is in the MPO Boundary

? Project U-2913: Only the portion specified is in the MPO Boundary

? Project R-4707: Our understanding is that 1.0 miles of widening is associated with the interchange reconstruction.

? Project R-2577: Only the portion specified is in the MPO Boundary

? Project R-2910: Only the portion specified is in the MPO Boundary

? Project R-2580: Only the portion specified is in the MPO Boundary

Comments on High Point 2030 Long Range Transportation Plan Project List

1. A Column needs to be added to denote exempt/ not exempt.
2. Include in the description or in another column how the roadway is changing. (i.e. widening from 2 lanes to 4). This information will help me determine the scope of the project and also answer regional significance.
3. In many cases, there wasn't a listed functional classification. Understandable in some instances, but not when it is an intersection, widening, etc. See:
   Map reference E, F, I, V, X, AE
4. Project X is an interchage. I believe this should be regionally significant.
5. Project AL is a fairly large project on a Minor Arterial. Why is it not regionally significant?

High Point MPO response to NCDENR Comments

1. A Column needs to be added to denote exempt/ not exempt.
Done.

2. Include in the description or in another column how the roadway is changing. (i.e. widening from 2 lanes to 4). This information will help me determine the scope of the project and also answer regional significance.
Added a column denoting present number of lanes.

3. In many cases, there wasn't a listed functional classification.
Understandable in some instances, but not when it is an intersection, widening, etc. See:
Map reference E, F, I, V, X, AE
I am unclear on how to classify roads that are not classified with a Federal Functional Class. I do not determine the Federal Functional Class. Any suggestions would be appreciated.

4. Project X is an interchange. I believe this should be regionally significant.
Agreed. It has been changed.

5. Project AL is a fairly large project on a Minor Arterial. Why is it not regionally significant? ***Agreed. It has been changed.***

NCDENR Follow-up comments

Subject: RE: Greensboro Comments
Date: Thu, 1 Apr 2004 11:06:38 -0500
From: "Dancausse, Edward" <Edward.Dancausse@fhwa.dot.gov>
To: "Don Bryson" <donbryson@mabtrans.com>
CC: "Meyer, Tyler (E-mail)" <tyler.meyer@ci.greensboro.nc.us>,
"Jeff Sovich (E-mail)" <jeffrey.sovich@greensboro-nc.gov>,
"Behshad Norowzi (E-mail)" <bnorowzi@dot.state.nc.us>,
"Heather Hildebrandt (E-mail)" <heather.hildebrandt@ncmail.net>,
"Kimberly Hinton (E-mail)" <khinton@dot.state.nc.us>,
"Dan Thomas (E-mail)" <danthomas@dot.state.nc.us>

Don,

The FHWA and NCDENR comments have been adequately addressed. I am going to forward the list and comments to EPA and FTA for there review and concurrence. I am going to ask for their comments by 4/16/04.

Thanks for your assistance and quick responses to our questions dealing with the project lists. I hope that the time table for the EPA/FTA review is acceptable.

If you have questions and/or concerns, please let me know.

Take care
Eddie

Edward J. Dancausse
Air Quality Specialist
FHWA NC Division
919-856-4330 x112
919-856-4353(fax)
edward.dancausse@fhwa.dot.gov
www.fhwa.dot.gov/ncdiv/

-----Original Message-----
From: Don Bryson [mailto:donbryson@mabtrans.com]
Sent: Thursday, April 01, 2004 8:21 AM
To: Dancausse, Edward; Heather Hildebrandt (E-mail)
Subject: RE: Greensboro Comments

Just wondering if you had any feedback on our responses to you comments on our project list. We're trying to wrap things up in time for some meetings in Greensboro next week, if possible. And I know you want to get things finalized, too.

BTW, there is one long-range (2030) RR grade-separation being added to the list.

Thanks.

Martin/Alexiou/Bryson

Don Bryson, P.E.
Principal
2414 Wycliff Road, Suite 101
Raleigh, NC 27607

(919) 881-1243
(919) 881-8081 (fax)

-----Original Message-----
From: Dancausse, Edward [mailto:Edward.Dancausse@fhwa.dot.gov]
Sent: Tuesday, March 30, 2004 10:00 AM
To: Heather Hildebrandt (E-mail)
Cc: Don Bryson (E-mail)
Subject: FW: Greensboro Comments
Importance: High

Heather,

Provided below are responses to your follow-up comments on the Greensboro project list. Please review and let me know what you think.

Thanks
Eddie

Edward J. Dancausse
Air Quality Specialist
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919-856-4330 x112
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edward.dancausse@fhwa.dot.gov
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-----Original Message-----
From: Don Bryson [mailto:donbryson@mabtrans.com]
Sent: Tuesday, March 30, 2004 9:17 AM
To: Stephen.Stansbery@kimley-horn.com; Marley, Bill; Kimberly Hinton (E-mail); Behshad Norowzi (E-mail); Meyer, Tyler (E-mail); Jeff Sovich (E-mail); Dancausse, Edward
Cc: Nathaniel Grier; Wilner, Marcus
Subject: RE: Greensboro Comments
Importance: High

Here are comments and our questions/responses. Also, please note that in the electronic version of the spreadsheet we e-mailed, there are explanatory notes in the cells with a red triangle in the upper right corner. Moving your cursor over the cell reveals the comment.

B32 is classified as a principal arterial and exempt. Principal Arterials are always regionally significant and not exempt. I think this is a mistake and the project (streetscape and traffic management) should be classified as just exempt.
I don't understand this comment. Some of my confusion may relate to whether "regionally significant" refers to the facility or to the project. We were treating the streetscape and traffic management project as not significant regionally, and exempt because it does not add capacity, etc. How can we classify it as exempt if, as you say, "Principal Arterials are always regionally significant and not exempt"? Are you saying to change the functional class? If so, to what, and what would the extents of this change be? And can we do that?

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continuation of C3.

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Martin/Alexiou/Bryson

Don Bryson, P.E.
Principal
2414 Wycliff Road, Suite 101
Raleigh, NC 27607

(919) 881-1243
(919) 881-8081 (fax)

-----Original Message-----
From: Dancausse, Edward [mailto:Edward.Dancausse@fhwa.dot.gov]
Sent: Monday, March 29, 2004 11:33 AM
To: Don Bryson (E-mail); Jeff Sovich (E-mail); Meyer, Tyler (E-mail); Behshad Norowzi (E-mail); Kimberly Hinton (E-mail); Marley, Bill
Cc: Wilner, Marcus
Subject: FW: Greensboro Comments

Don,

Attached are some follow-up comments from NCDENR. Please review and comment (if possible by the end of the week).

If you have any questions, contact me or Heather.

Thanks
Eddie

Edward J. Dancausse
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-----Original Message-----
From: Heather.Hildebrandt [mailto:Heather.Hildebrandt@ncmail.net]
Sent: Monday, March 29, 2004 9:35 AM
To: Dancausse, Edward
Subject: Greensboro Comments

Sorry, I am so late getting these to you. Gavin had a little relapse on Friday. Please forward as necessary. No show stoppers.

--
Heather J. Hildebrandt

Environmental Engineer
NC Division of Air Quality
phone: 919-733-1498
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be subject to the North Carolina Public Records Law
and may be disclosed to third parties.
* *

DAQ Comments on Greensboro 2030 Long Range Transportation Plan

B32 is classified as a principal arterial and exempt. Principal Arterials are always regionally significant and not exempt. I think this is a mistake and the project (streetscape and traffic management) should be classified as just exempt.

Is Guilford College Road a major throughfare?

Why is C2 regionally significant? Is it because it is part of a more significant project that continues?

Project D2 does not contain a description of length of project or number of lanes. Please explain.

Why is D30 not regionally significant? It is connecting to US29.

Subject: EPA & FTA Review of Greensboro 2030 LRTP Project Lists (TIP vs LRTP/Regional Significance/Exempt)
Date: Tue, 20 Apr 2004 13:39:12 -0400
From: "Dancausse, Edward" <Edward.Dancausse@fhwa.dot.gov>
To: "Anson Gock (E-mail)" <agock@dot.state.nc.us>,
"Behshad Norowzi (E-mail)" <bnorowzi@dot.state.nc.us>,
"Dan Thomas (E-mail)" <danthomas@dot.state.nc.us>,
"Don Bryson (E-mail)" <donbryson@mabtrans.com>,
"Errett, Gregory (E-mail)" <GREGE@cityofws.org>,
"Grosshandler, Lisa (E-mail)" <lisa.grosshandler@ncmail.net>,
"Grzymski, Andy (E-mail)" <andrew.grzymski@ci.high-point.nc.us>,
"Hanna Cockburn (E-mail)" <hcockburn@ptcog.org>,
"Heather Hildebrandt (E-mail)" <heather.hildebrandt@ncmail.net>,
"Jeff Sovich (E-mail)" <jeffrey.sovich@greensboro-nc.gov>,
"Kimberly Hinton (E-mail)" <khinton@dot.state.nc.us>,
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"Patrick Reagan (E-mail)" <reaganpa@co.forsyth.nc.us>,
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"Vitas, Jill (E-mail)" <Jill.Vitas@ncmail.net>, "Wendy Miller (E-mail)" <wendym@cityofws.org>,
"Wilner, Marcus" <Marcus.Wilner@fhwa.dot.gov>
CC: "Barren, Loretta" <Loretta.Barren@fhwa.dot.gov>

EPA and FTA have reviewed the project lists and they had no comments, questions, or issues resulting from their review. We have interagency partner concurrence on the project list.

If you have any questions, please let me know.

Thanks
Eddie

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Appendix F: Emissions and VMT Calculations

VMT Adjustment Factors	Non-Local	Local			
	1.0000	1.0000			
Year	2004	2014	2020	2030	2010
		Model VMT			
Urban Functional Classification					
Interstate	2,332,598	2,387,640	2,657,176	2,698,113	2,365,623
Freeway	1,806,844	2,747,264	3,297,892	4,981,973	2,371,096
Other P-A	1,689,395	1,796,075	2,030,462	2,179,482	1,753,403
Minor Arterial	3,416,336	3,712,466	4,227,739	4,688,058	3,594,014
Collector	865,436	920,277	1,075,719	1,219,752	898,341
Local	1,213,489	1,857,885	2,154,406	2,504,900	1,600,126
Total Urban	11,324,098	13,421,607	15,443,394	18,272,278	12,582,604
Rural Functional Classification					
Interstate	1,043,059	1,035,071	1,116,840	1,130,103	1,038,266
Other P-A	734,337	909,496	1,087,231	1,258,367	839,432
Minor Arterial	198,028	188,008	199,742	216,638	192,016
Major Collector	587,583	761,583	869,529	924,668	691,983
Minor Collector	585,681	623,726	742,178	814,924	608,508
Local	377,273	502,131	593,500	617,101	452,187
Total Rural	3,525,962	4,020,014	4,609,021	4,961,801	3,822,393
	2004	2014	2020	2030	2010
Grand Totals	**14,850,060**	**17,441,622**	**20,052,415**	**23,234,079**	**16,404,997**
		Normalized VMT			
Urban Functional Classification					
Interstate	2,332,598	2,387,640	2,657,176	2,698,113	2,365,623
Freeway	1,806,844	2,747,264	3,297,892	4,981,973	2,371,096
Other P-A	1,689,395	1,796,075	2,030,462	2,179,482	1,753,403
Minor Arterial	3,416,336	3,712,466	4,227,739	4,688,058	3,594,014
Collector	865,436	920,277	1,075,719	1,219,752	898,341
Local	1,213,489	1,857,885	2,154,406	2,504,900	1,600,126
Urban Total	11,324,098	13,421,607	15,443,394	18,272,278	12,582,603
Rural Functional Classification					
Interstate	1,043,059	1,035,071	1,116,840	1,130,103	1,038,266
Other P-A	734,337	909,496	1,087,231	1,258,367	839,432
Minor Arterial	198,028	188,008	199,742	216,638	192,016
Major Collector	587,583	761,583	869,529	924,668	691,983
Minor Collector	585,681	623,726	742,178	814,924	608,508
Local	377,273	502,131	593,500	617,101	452,187
Rural Total	3,525,961	4,020,015	4,609,020	4,961,801	3,822,392
	2004	2014	2020	2030	2010
Grand Totals	**14,850,059**	**17,441,622**	**20,052,414**	**23,234,079**	**16,404,995**

Assumed Speed				
Year	2004	2014	2020	2030
Urban Functional Classification				
Interstate	52	52	52	53
Freeway	52	53	53	54
Other P-A	29	29	29	28
Minor Arterial	31	32	31	31
Collector	33	33	32	32
Local	34	33	33	32
Rural Functional Classification				
Interstate	55	55	55	56
Other P-A	53	53	53	53
Minor Arterial	42	41	41	41
Major Collector	43	43	43	44
Minor Collector	44	45	44	45
Local	44	44	44	44

Percent of Vehicles Subject to I&M in Each Analysis Year			
2004	2014	2020	2030
0.81	0.96	0.96	0.96

Year of Analysis = 2004

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		81.00%	19.00%			
Urban Functional Classification	**Speed**					
Interstate	52	2.715	2.77	2.73	2,332,598	6,367.99
Freeway	52	2.061	2.12	2.07	1,806,844	3,740.17
Other P-A	29	1.561	1.623	1.57	1,689,395	2,652.35
Minor Arterial	31	1.405	1.468	1.42	3,416,336	4,851.20
Collector	33	1.337	1.4	1.35	865,436	1,168.34
Local	34	1.471	1.532	1.48	1,213,489	1,795.96
				Total Urban	11,324,098	20,576.01
Rural Functional Classification	**Speed**					
Interstate	55	3.93	3.979	3.94	1,043,059	4,109.65
Other P-A	53	2.416	2.473	2.43	734,337	1,784.44
Minor Arterial	42	1.8	1.859	1.81	198,028	358.43
Major Collector	43	1.641	1.701	1.65	587,583	969.51
Minor Collector	44	1.643	1.703	1.65	585,681	966.37
Local	44	1.617	1.677	1.63	377,273	614.95
				Total Rural	3,525,961	8,803.36

Total Normalized VMT for this Analysis Year=	14,850,059	Total NO_X Emissions (Kilograms per Day)	29,379.00

Year of Analysis = 2014

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	0.756	0.855	0.77	2,387,640	1,838.48
Freeway	53	0.624	0.731	0.64	2,747,264	1,758.25
Other P-A	29	0.509	0.620	0.53	1,796,075	951.92
Minor Arterial	32	0.473	0.585	0.49	3,712,466	1,819.11
Collector	33	0.457	0.570	0.48	920,277	441.73
Local	33	0.489	0.600	0.51	1,857,885	947.52
				Total Urban	13,421,607	7,757.01
Rural Functional Classification						
Interstate	55	1.022	1.107	1.04	1,035,071	1,076.47
Other P-A	53	0.695	0.797	0.71	909,496	645.74
Minor Arterial	41	0.560	0.665	0.58	188,008	109.04
Major Collector	43	0.528	0.636	0.55	761,583	418.87
Minor Collector	45	0.533	0.642	0.55	623,726	343.05
Local	44	0.526	0.634	0.55	502,131	276.17
				Total Rural	4,020,015	2,869.35

Total Normalized VMT for this Analysis Year=	17,441,622	Total NO_x Emissions (Kilograms per Day)	10,626.00

Year of Analysis = 2020

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	0.378	0.495	0.40	2,657,176	1,062.87
Freeway	53	0.324	0.451	0.35	3,297,892	1,154.26
Other P-A	29	0.274	0.404	0.30	2,030,462	609.14
Minor Arterial	31	0.260	0.392	0.29	4,227,739	1,226.04
Collector	32	0.253	0.386	0.28	1,075,719	301.20
Local	33	0.267	0.396	0.29	2,154,406	624.78
				Total Urban	15,443,394	4,978.29
Rural Functional Classification	**Speed**					
Interstate	55	0.489	0.590	0.51	1,116,840	569.59
Other P-A	53	0.354	0.476	0.38	1,087,231	413.15
Minor Arterial	41	0.296	0.419	0.32	199,742	63.92
Major Collector	43	0.283	0.411	0.31	869,529	269.55
Minor Collector	44	0.285	0.413	0.31	742,178	230.08
Local	44	0.284	0.412	0.31	593,500	183.99
				Total Rural	4,609,020	1,730.27

Total Normalized VMT for this Analysis Year=	20,052,414	Total NO_x Emissions (Kilograms per Day)	6,708.56

Year of Analysis = 2030

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	53	0.226	0.343	0.25	2,698,113	674.53
Freeway	54	0.204	0.331	0.23	4,981,973	1,145.85
Other P-A	28	0.179	0.309	0.20	2,179,482	435.90
Minor Arterial	31	0.172	0.303	0.20	4,688,058	937.61
Collector	32	0.168	0.300	0.19	1,219,752	231.75
Local	32	0.176	0.305	0.20	2,504,900	500.98
				Total Urban	18,272,278	3,926.62
Rural Functional Classification						
Interstate	56	0.278	0.379	0.30	1,130,103	339.03
Other P-A	53	0.215	0.336	0.24	1,258,367	302.01
Minor Arterial	41	0.187	0.310	0.21	216,638	45.49
Major Collector	44	0.183	0.311	0.21	924,668	194.18
Minor Collector	45	0.185	0.313	0.21	814,924	171.13
Local	44	0.184	0.312	0.21	617,101	129.59
				Total Rural	4,961,801	1,181.44

Total Normalized VMT for this Analysis Year=	23,234,079	Total NO_x Emissions (Kilograms per Day)	5,108.06

Year of Analysis = 2010

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	1.313	1.397	1.33	2,365,623	3,146.28
Freeway	53	1.038	1.130	1.06	2,371,096	2,513.36
Other P-A	29	0.810	0.906	0.83	1,753,403	1,455.32
Minor Arterial	32	0.737	0.834	0.76	3,594,014	2,731.45
Collector	33	0.706	0.804	0.72	898,341	646.81
Local	33	0.771	0.867	0.79	1,600,126	1,264.10
				Total Urban	12,582,603	11,757.32
Rural Functional Classification	**Speed**					
Interstate	55	1.858	1.931	1.87	1,038,266	1,941.56
Other P-A	53	1.183	1.271	1.20	839,432	1,007.32
Minor Arterial	41	0.915	1.006	0.93	192,016	178.57
Major Collector	43	0.849	0.942	0.87	691,983	602.03
Minor Collector	45	0.856	0.950	0.87	608,508	529.40
Local	44	0.840	0.934	0.86	452,187	388.88
				Total Rural	3,822,392	4,647.76

Total Normalized VMT for this Analysis Year=	16,404,995	Total NO_X Emissions (Kilograms per Day)	16,405.08

Year of Analysis = 2004

Old SIP

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		81.00%	19.00%			
Urban Functional Classification	**Speed**					
Interstate	52	2.721	2.776	2.73	2,332,598	6,367.99
Freeway	52	2.067	2.127	2.08	1,806,844	3,758.24
Other P-A	29	1.572	1.635	1.58	1,689,395	2,669.24
Minor Arterial	31	1.416	1.479	1.43	3,416,336	4,885.36
Collector	33	1.347	1.411	1.36	865,436	1,176.99
Local	34	1.480	1.542	1.49	1,213,489	1,808.10
				Total Urban	11,324,098	20,665.92
Rural Functional Classification	**Speed**					
Interstate	55	3.935	3.984	3.94	1,043,059	4,109.65
Other P-A	53	2.422	2.479	2.43	734,337	1,784.44
Minor Arterial	42	1.808	1.867	1.82	198,028	360.41
Major Collector	43	1.649	1.709	1.66	587,583	975.39
Minor Collector	44	1.651	1.711	1.66	585,681	972.23
Local	44	1.625	1.685	1.64	377,273	618.73
				Total Rural	3,525,961	8,820.85

Total Normalized VMT for this Analysis Year=	14,850,059	Total NO_X Emissions (Kilograms per Day)	29,487.00

Year of Analysis = 2004

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	1.030	1.134	1.03	2,332,598	2,402.58
Freeway	52	1.069	1.181	1.07	1,806,844	1,933.32
Other P-A	29	1.236	1.372	1.24	1,689,395	2,094.85
Minor Arterial	31	1.225	1.361	1.23	3,416,336	4,202.09
Collector	33	1.206	1.340	1.21	865,436	1,047.18
Local	34	1.190	1.320	1.20	1,213,489	1,456.19
				Total Urban	11,324,098	13,136.21
Rural Functional Classification	**Speed**					
Interstate	55	0.956	1.045	0.96	1,043,059	1,001.34
Other P-A	53	1.047	1.154	1.05	734,337	771.05
Minor Arterial	42	1.117	1.235	1.12	198,028	221.79
Major Collector	43	1.123	1.243	1.13	587,583	663.97
Minor Collector	44	1.120	1.240	1.12	585,681	655.96
Local	44	1.124	1.244	1.13	377,273	426.32
				Total Rural	3,525,961	3,740.43

Total Normalized VMT for this Analysis Year=	14,850,059	Total VOC Emissions (Kilograms per Day)	16,877.00

Year of Analysis = 2014

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	0.456	0.528	0.46	2,387,640	1,098.31
Freeway	53	0.467	0.545	0.47	2,747,264	1,291.21
Other P-A	29	0.532	0.630	0.54	1,796,075	969.88
Minor Arterial	32	0.525	0.622	0.53	3,712,466	1,967.61
Collector	33	0.521	0.618	0.52	920,277	478.54
Local	33	0.522	0.616	0.53	1,857,885	984.68
				Total Urban	13,421,607	6,790.24
Rural Functional Classification						
Interstate	55	0.428	0.489	0.43	1,035,071	445.08
Other P-A	53	0.461	0.536	0.46	909,496	418.37
Minor Arterial	41	0.491	0.575	0.49	188,008	92.12
Major Collector	43	0.490	0.575	0.49	761,583	373.18
Minor Collector	45	0.488	0.573	0.49	623,726	305.63
Local	44	0.492	0.578	0.50	502,131	251.07
				Total Rural	4,020,015	1,885.44

Total Normalized VMT for this Analysis Year=	17,441,622	Total VOC Emissions (Kilograms per Day)	8,676.00

Year of Analysis = 2020

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	0.310	0.398	0.31	2,657,176	823.72
Freeway	53	0.315	0.409	0.32	3,297,892	1,055.33
Other P-A	29	0.359	0.475	0.36	2,030,462	730.97
Minor Arterial	31	0.356	0.473	0.36	4,227,739	1,521.99
Collector	32	0.352	0.468	0.36	1,075,719	387.26
Local	33	0.353	0.466	0.36	2,154,406	775.59
				Total Urban	15,443,394	5,294.85
Rural Functional Classification	**Speed**					
Interstate	55	0.297	0.371	0.30	1,116,840	335.05
Other P-A	53	0.313	0.404	0.32	1,087,231	347.91
Minor Arterial	41	0.332	0.434	0.34	199,742	67.91
Major Collector	43	0.330	0.433	0.33	869,529	286.94
Minor Collector	44	0.330	0.433	0.33	742,178	244.92
Local	44	0.332	0.435	0.34	593,500	201.79
				Total Rural	4,609,020	1,484.53

Total Normalized VMT for this Analysis Year=	20,052,414	Total Emissions (Kilograms per Day)	6,779.38

Year of Analysis = 2030

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	53	0.229	0.314	0.23	2,698,113	620.57
Freeway	54	0.229	0.321	0.23	4,981,973	1,145.85
Other P-A	28	0.272	0.385	0.28	2,179,482	610.25
Minor Arterial	31	0.265	0.378	0.27	4,688,058	1,265.78
Collector	32	0.260	0.373	0.26	1,219,752	317.14
Local	32	0.267	0.376	0.27	2,504,900	676.32
				Total Urban	18,272,278	4,635.91
Rural Functioanl Classification	**Speed**					
Interstate	56	0.224	0.296	0.23	1,130,103	259.92
Other P-A	53	0.231	0.319	0.23	1,258,367	289.42
Minor Arterial	41	0.247	0.345	0.25	216,638	54.16
Major Collector	44	0.241	0.341	0.25	924,668	231.17
Minor Collector	45	0.243	0.341	0.25	814,924	203.73
Local	44	0.246	0.345	0.25	617,101	154.28
				Total Rural	4,961,801	1,192.68

Total Normalized VMT for this Analysis Year=	23,234,079	Total Emissions (Kilograms per Day)	5,828.59

Year of Analysis = 2010

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	52	0.618	0.682	0.62	2,365,623	1,466.69
Freeway	53	0.636	0.706	0.64	2,371,096	1,517.50
Other P-A	29	0.737	0.825	0.74	1,753,403	1,297.52
Minor Arterial	32	0.725	0.811	0.73	3,594,014	2,623.63
Collector	33	0.720	0.807	0.72	898,341	646.81
Local	33	0.719	0.803	0.72	1,600,126	1,152.09
				Total Urban	12,582,603	8,704.23
Rural Functional Classification	**Speed**					
Interstate	55	0.575	0.629	0.58	1,038,266	602.19
Other P-A	53	0.627	0.694	0.63	839,432	528.84
Minor Arterial	41	0.671	0.747	0.67	192,016	128.65
Major Collector	43	0.672	0.748	0.68	691,983	470.55
Minor Collector	45	0.668	0.743	0.67	608,508	407.70
Local	44	0.673	0.749	0.68	452,187	307.49
				Total Rural	3,822,392	2,445.42

Total Normalized VMT for this Analysis Year=	16,404,995	Total Emissions (Kilograms per Day)	11,149.66

Year of Analysis = 2004

Old SIP		Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
Functional Classification	Percent of Vehicles Subject to I&M	81.00%	19.00%			
Urban Functional Classification	**Speed**					
Interstate	52	1.071	1.175	1.08	2,332,598	2,519.21
Freeway	52	1.11	1.224	1.11	1,806,844	2,005.60
Other P-A	29	1.289	1.427	1.29	1,689,395	2,179.32
Minor Arterial	31	1.277	1.415	1.28	3,416,336	4,372.91
Collector	33	1.257	1.393	1.26	865,436	1,090.45
Local	34	1.24	1.372	1.25	1,213,489	1,516.86
				Total Urban	11,324,098	13,684.34
Rural Functional Classification	**Speed**					
Interstate	55	0.994	1.083	1.00	1,043,059	1,043.06
Other P-A	53	1.087	1.196	1.09	734,337	800.43
Minor Arterial	42	1.162	1.282	1.17	198,028	231.69
Major Collector	43	1.168	1.290	1.17	587,583	687.47
Minor Collector	44	1.165	1.286	1.17	585,681	685.25
Local	44	1.169	1.291	1.17	377,273	441.41
				Total Rural	3,525,961	3,889.31

Total Normalized VMT for this Analysis Year=	14,850,059	Total VOC Emissions (Kilograms per Day)	17,574.00

Analysis Year	Model	Off-Model	Comparison Amount	Budget Amount(Kg/Day)	Tons/day	
2004 old SIP	17,574	140	17,434	22,290	24.57	OK
2004	16,877	140	16,737	18,334	20.21	OK
2007 [1]	14,013	123	13,890	15,921	17.55	OK
2010	11,150	106	11,044	12,991	14.32	OK
2012 [1]	9,913	94	9,819	11,884	13.10	OK
2014	8,676	82	8,594	11,884	13.10	OK
2015 [1]	8,360	87	8,273	10,578	11.66	OK
2020	6,779	111	6,668	10,578	11.66	OK
2030	5,829	129	5,700	10,578	11.66	OK

NOx Comparison Table

Analysis Year	Model	Off-Model	Comparison Amount	Budget Amount(Kg/Day)	Tons/day	
2004 old SIP	29,487	177	29,310	37,430	41.26	OK
2004	29,379	177	29,202	30,871	34.03	OK
2007 [1]	22,892	152	22,740	24,748	27.28	OK
2010	16,405	128	16,277	18,243	20.11	OK
2012 [1]	13,516	112	13,404	14,914	16.44	OK
2014	10,626	95	10,531	14,914	16.44	OK
2015 [1]	9,973	99	9,874	11,050	12.18	OK
2020	6,709	116	6,593	11,050	12.18	OK
2030	5,108	61	5,047	11,050	12.18	OK

[1] The conformity estimates for 2007, 2012 and 2015 were developed by interpolating.

Off Model

NOX

Year	Total (Kg/Day)	Incident Management	Van Pool Program	Transit Improvememts	Park & Ride Lots
2004	177	86	1	88	2
2014	95	64	1	29	1
2020	116	76	2	37	1
2030	61	25	2	34	0

VOC

Year	Total (Kg/Day)	Incident Management	Van Pool Program	Transit Improvements	Park & Ride Lots
2004	140	32	1	105	2
2014	82	34	2	45	1
2020	111	21	4	85	1
2030	129	24	6	98	1

CO

Year	Total (Kg/Day)	Incident Management	Van Pool Program	Transit Improvements	Park & Ride Lots
2004	0	0	0	0	0
2014	0	0	0	0	0
2020	0	0	0	0	0
2030	0	0	0	0	0
2010	0	0	0	0	0

ITS

Regional Freeway Emissions

Year	Pollutant NOX	VOC	CO
2004	14,218	5,337	0
2014	8,177	4,357	0
2020	7,862	2,214	0
2030	2,159	2,026	0

Emissions Caused by Nonrecurring Congestion (4.9% of total).

Year	Pollutant NOX	VOC	CO
2004	697	262	0
2014	401	213	0
2020	385	108	0
2030	106	99	0

Program Type	Effectiveness			
Incident Detection & Response	50%	1 Program in Use=	1	1994
Motorist Assistance Patrol	25%	2	1	2004
Surveillance	15%	3	1	2014
			1	2020
			1	2030

Emissions Reduction

Year	Total Freeway VMT	Freeway VMT Subject to Program	NOX (KG/Day)	VOC (KG/Day)	CO (KG/Day)
2004	5,182,501	1,276,992	86	32	-
2014	6,169,975	1,986,035	64	34	-
2020	7,071,908	2,787,518	76	21	-
2030	8,810,189	4,191,913	25	24	-

Vanpool

Vanpool Information by Year

Year	#Vanpools	Avg Riders/Van	Total Riders	Commute VOR	Cars Removed	Daily Miles Per Vehicle (AVG Commute X 2)	Total Daily Miles Reduced
2004	5.5	12	66	1.35	48	19.94	957
2014	25.5	12	306	1.35	226	20.1	4,543
2020	37.5	12	450	1.35	333	20.24	6,740
2030	57.5	12	690	1.35	511	20.52	10,486

Emissions Factors By Pollutant for LDGV (Urban Prin Art)

	NOX	VOC	CO
2004	0.84	1.00	0
2014	0.24	0.364	0
2020	0.27	0.63	0
2030	0.21	0.60	0

Emissions Reduction By Pollutant

	Total Daily Miles Reduced	NOX (Kg/Day)	VOC (Kg/Day)	CO (Kg/Day)
2004	957	1	1	0
2014	4,543	1	2	0
2020	6,740	2	4	0
2030	10,486	2	6	0

Transit Improvements

Transit Riders

Year	After	Before	Avg. VOR	Vehicles Removed	Avg. Trip Length (Mi.)	Daily VMT Reduction (Mi.)
2004	14,600	-	1.35	10,814	9.67	104,571
2014	16,300	-	1.31	12,442	9.87	122,803
2020	17,700	-	1.31	13,511	9.98	134,840
2030	21,300	-	1.31	16,259	10.07	163,728

Emissions Factors (gm/mi)

	NOX	VOC	CO
2004	0.84	1.00	0.00
2014	0.24	0.364	0.00
2020	0.27	0.63	0.00
2030	0.21	0.60	0.00

Emissions Reduction (Kg/Day)

	NOX	VOC	CO
2004	88	105	0
2014	29	45	0
2020	37	85	0
2030	34	98	0
2010	0	0	0

Park_Ride

	Utilization	#of Spaces	# of Cars	AVG Trip Length	Daily Miles Per Vehicle (AVG Commute X 2)	Total Daily Miles Reduced
2004	90%	220	198	5.58	11.16	2209.68
2014	90%	220	198	5.77	11.54	2284.92
2020	90%	220	198	5.94	11.88	2352.24
2030	90%	220	198	5.93	11.86	2348.28
2010						

Emissions Facotrs

	NOX	VOC	CO
2004	0.84	1.00	0
2014	0.24	0.364	0
2020	0.27	0.63	0
2030	0.21	0.60	0
2010			

Emissions Reduction

	NOX	VOC	CO
2004	2	2	0
2014	1	1	0
2020	1	1	0
2030	0	1	0

VMT Adjustment Factors	Non-Local	Local			
	0.0000	0.7324			
Year	2004	2014	2020	2030	2010
		Model VMT			
Urban Functional Classification					
Interstate	341,058	429,986	452,646	476,536	394,415
Freeway	189,419	241,734	290,904	514,714	220,808
Other P-A	201,096	256,518	226,357	234,507	234,349
Minor Arterial	241,278	293,300	359,302	441,268	272,491
Collector	45,573	79,370	78,497	64,830	65,851
Local	68,093	46,956	55,257	46,577	55,411
Total Urban	1,086,518	1,347,862	1,462,964	1,778,433	1,243,325
Rural Functional Classification					
Interstate	0	-	0	0	0
Other P-A	0	-	0	0	0
Minor Arterial	43,781	56,569	68,646	54,861	51,453
Major Collector	56,025	85,039	85,735	87,102	73,433
Minor Collector	51,971	62,550	72,965	86,061	58,318
Local	55,187	87,311	115,598	119,655	74,461
Total Rural	206,963	291,468	342,944	347,678	257,666
	2004	2014	2020	2030	2010
Grand Totals	1,293,481	1,639,330	1,805,907	2,126,111	1,500,991
		Normalized VMT			
Urban Functional Classification					
Interstate	0	0	0	0	0
Freeway	0	0	0	0	0
Other P-A	0	0	0	0	0
Minor Arterial	0	0	0	0	0
Collector	0	0	0	0	0
Local	49,871	34,390	40,471	34,113	40,583
Urban Total	49,871	34,390	40,471	34,113	40,583
Rural Functional Classification					
Interstate	0	0	0	0	0
Other P-A	0	0	0	0	0
Minor Arterial	0	0	0	0	0
Major Collector	0	0	0	0	0
Minor Collector	0	0	0	0	0
Local	40,419	63,947	84,664	87,635	54,535
Rural Total	40,419	63,947	84,664	87,635	54,535
	2004	2014	2020	2030	2010
Grand Totals	90,290	98,337	125,135	121,748	95,118

Assumed Speed				
Year	2004	2014	2020	2030
Urban Functional Classification				
Interstate	60	60	60	60
Freeway	55	55	55	55
Other P-A	30	30	29	28
Minor Arterial	32	32	32	34
Collector	33	32	33	33
Local	35	32	33	31
Rural Functional Classification				
Interstate	0	0	0	0
Other P-A	0	0	0	0
Minor Arterial	40	37	38	38
Major Collector	43	43	42	43
Minor Collector	43	43	42	42
Local	44	45	45	45

Percent of Vehicles Subject to I&M in Each Analysis Year			
2004	2014	2020	2030
0.89	0.96	0.96	0.96

Year of Analysis = 2004

		Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
Functional Classification	Percent of Vehicles Subject to I&M	89.00%	11.00%			
Urban Functional Classification	Speed					
Interstate	60	3.137	3.183	3.14	0	0.00
Freeway	55	2.148	2.197	2.15	0	0.00
Other P-A	30	1.56	1.613	1.57	0	0.00
Minor Arterial	32	1.41	1.463	1.42	0	0.00
Collector	33	1.347	1.4	1.35	0	0.00
Local	35	1.476	1.528	1.48	49,871	73.81
				Total Urban	49,871	73.81
Rural Functional Classification	Speed					
Interstate	0	0	0.000	0.00	0	0.00
Other P-A	0	0	0.000	0.00	0	0.00
Minor Arterial	40	1.781	1.831	1.79	0	0.00
Major Collector	43	1.65	1.701	1.66	0	0.00
Minor Collector	43	1.642	1.693	1.65	0	0.00
Local	44	1.626	1.677	1.63	40,419	65.88
				Total Rural	40,419	65.88

Total Normalized VMT for this Analysis Year=	90,290	Total NO_X Emissions (Kilograms per Day)	140.00

Year of Analysis = 2014

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.863	0.963	0.87	0	0.00
Freeway	55	0.638	0.745	0.65	0	0.00
Other P-A	30	0.506	0.616	0.52	0	0.00
Minor Arterial	32	0.473	0.585	0.49	0	0.00
Collector	32	0.459	0.572	0.47	0	0.00
Local	32	0.491	0.601	0.50	34,390	17.20
				Total Urban	34,390	17.20
Rural Functional Classification						
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	37	0.550	0.655	0.56	0	0.00
Major Collector	43	0.528	0.636	0.54	0	0.00
Minor Collector	43	0.527	0.636	0.54	0	0.00
Local	45	0.528	0.637	0.54	63,947	34.53
				Total Rural	63,947	34.53

Total Normalized VMT for this Analysis Year=	98,337	Total NO_X Emissions (Kilograms per Day)	52.00

Year of Analysis = 2020

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.427	0.546	0.44	0	0.00
Freeway	55	0.331	0.458	0.34	0	0.00
Other P-A	29	0.274	0.404	0.29	0	0.00
Minor Arterial	32	0.259	0.391	0.27	0	0.00
Collector	33	0.252	0.385	0.27	0	0.00
Local	33	0.267	0.396	0.28	40,471	11.33
				Total Urban	40,471	11.33
Rural Functional Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	38	0.292	0.415	0.31	0	0.00
Major Collector	42	0.282	0.409	0.30	0	0.00
Minor Collector	42	0.282	0.409	0.30	0	0.00
Local	45	0.285	0.413	0.30	84,664	25.40
				Total Rural	84,664	25.40

Total Normalized VMT for this Analysis Year=	125,135	Total NO_x Emissions (Kilograms per Day)	36.73

Year of Analysis = 2030

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.251	0.369	0.26	0	0.00
Freeway	55	0.206	0.333	0.22	0	0.00
Other P-A	28	0.179	0.309	0.19	0	0.00
Minor Arterial	34	0.17	0.300	0.18	0	0.00
Collector	33	0.167	0.299	0.18	0	0.00
Local	31	0.177	0.306	0.19	34,113	6.48
				Total Urban	34,113	6.48
Rural Functional Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	38	0.185	0.307	0.20	0	0.00
Major Collector	43	0.182	0.309	0.20	0	0.00
Minor Collector	42	0.182	0.309	0.20	0	0.00
Local	45	0.185	0.313	0.20	87,635	17.53
				Total Rural	87,635	17.53

Total Normalized VMT for this Analysis Year=	121,748	Total NO_X Emissions (Kilograms per Day)	24.01

Year of Analysis = 2010

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	1.518	1.603	1.53	0	0.00
0	55	1.063	1.155	1.07	0	0.00
Other P-A	30	0.805	0.901	0.82	0	0.00
Minor Arterial	32	0.737	0.834	0.75	0	0.00
Collector	32	0.708	0.807	0.72	0	0.00
Local	32	0.773	0.869	0.78	40,583	31.65
				Total Urban	40,583	31.65
Rural Functional Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	37	0.898	0.989	0.91	0	0.00
Major Collector	43	0.849	0.942	0.86	0	0.00
Minor Collector	43	0.846	0.939	0.86	0	0.00
Local	45	0.845	0.939	0.86	54,535	46.90
				Total Rural	54,535	46.90

Total Normalized VMT for this Analysis Year=	95,118	Total NO_X Emissions (Kilograms per Day)	78.55

Year of Analysis = 2004

Old SIP		Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
Functional Classification	Percent of Vehicles Subject to I&M	89.00%	11.00%			
Urban Functional Classification	**Speed**					
Interstate	60	3.142	3.188	3.15	0	0.00
Freeway	55	2.154	2.204	2.16	0	0.00
Other P-A	30	1.571	1.624	1.58	0	0.00
Minor Arterial	32	1.421	1.474	1.43	0	0.00
Collector	33	1.357	1.411	1.36	0	0.00
Local	35	1.486	1.538	1.49	49,871	74.31
				Total Urban	49,871	74.31
Rural Functional Classification	**Speed**					
Interstate	0			0.00	0	0.00
Other P-A	0			0.00	0	0.00
Minor Arterial	40	1.789	1.839	1.79	0	0.00
Major Collector	43	1.658	1.709	1.66	0	0.00
Minor Collector	43	1.650	1.701	1.66	0	0.00
Local	44	1.634	1.685	1.64	40,419	66.29
				Total Rural	40,419	66.29

Total Normalized VMT for this Analysis Year=	90,290		Total NO_X Emissions (Kilograms per Day)	141.00

Year of Analysis = 2004

		Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
Functional Classification	Percent of Vehicles Subject to I&M	89.00%	11.00%			
Urban Functional Classification	**Speed**					
Interstate	60	1.074	1.103	1.08	0	0.00
Freeway	55	1.134	1.167	1.14	0	0.00
Other P-A	30	1.316	1.359	1.32	0	0.00
Minor Arterial	32	1.305	1.349	1.31	0	0.00
Collector	33	1.297	1.340	1.30	0	0.00
Local	35	1.268	1.309	1.27	49,871	63.34
				Total Urban	49,871	63.34
Rural Functional Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	40	1.210	1.247	1.21	0	0.00
Major Collector	43	1.206	1.243	1.21	0	0.00
Minor Collector	43	1.208	1.245	1.21	0	0.00
Local	44	1.207	1.244	1.21	40,419	48.91
				Total Rural	40,419	48.91

Total Normalized VMT for this Analysis Year=	90,290	Total VOC Emissions (Kilograms per Day)	112.00

Year of Analysis = 2014

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.448	0.516	0.46	0	0.00
Freeway	55	0.464	0.541	0.47	0	0.00
Other P-A	30	0.528	0.624	0.54	0	0.00
Minor Arterial	32	0.525	0.622	0.54	0	0.00
Collector	32	0.525	0.623	0.54	0	0.00
Local	32	0.526	0.621	0.54	34,390	18.57
				Total Urban	34,390	18.57
Rural Functional Classification						
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	37	0.500	0.587	0.51	0	0.00
Major Collector	43	0.490	0.575	0.50	0	0.00
Minor Collector	43	0.492	0.577	0.50	0	0.00
Local	45	0.491	0.576	0.50	63,947	31.97
				Total Rural	63,947	31.97

Total Normalized VMT for this Analysis Year=	98,337	Total VOC Emissions (Kilograms per Day)	51.00

Year of Analysis = 2020

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.306	0.390	0.32	0	0.00
Freeway	55	0.313	0.407	0.32	0	0.00
Other P-A	29	0.359	0.475	0.37	0	0.00
Minor Arterial	32	0.353	0.468	0.37	0	0.00
Collector	33	0.349	0.464	0.36	0	0.00
Local	33	0.353	0.466	0.37	40,471	14.97
				Total Urban	40,471	14.97
Rural Functional Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	38	0.337	0.440	0.35	0	0.00
Major Collector	42	0.331	0.435	0.34	0	0.00
Minor Collector	42	0.333	0.437	0.34	0	0.00
Local	45	0.331	0.433	0.34	84,664	28.79
				Total Rural	84,664	28.79

Total Normalized VMT for this Analysis Year=	125,135	Total Emissions (Kilograms per Day)	43.76

Year of Analysis = 2030

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.227	0.308	0.24	0	0.00
Freeway	55	0.229	0.320	0.24	0	0.00
Other P-A	28	0.272	0.385	0.28	0	0.00
Minor Arterial	34	0.258	0.367	0.27	0	0.00
Collector	33	0.258	0.369	0.27	0	0.00
Local	31	0.269	0.380	0.28	34,113	9.55
				Total Urban	34,113	9.55
Rural Functioanl Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	38	0.251	0.351	0.26	0	0.00
Major Collector	43	0.243	0.343	0.25	0	0.00
Minor Collector	42	0.246	0.347	0.26	0	0.00
Local	45	0.244	0.343	0.25	87,635	21.91
				Total Rural	87,635	21.91

Total Normalized VMT for this Analysis Year=	121,748	Total Emissions (Kilograms per Day)	31.46

Year of Analysis = 2010

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		96.00%	4.00%			
Urban Functional Classification	**Speed**					
Interstate	60	0.603	0.664	0.61	0	0.00
Freeway	55	0.632	0.700	0.64	0	0.00
Other P-A	30	0.730	0.817	0.74	0	0.00
Minor Arterial	32	0.725	0.811	0.73	0	0.00
Collector	32	0.726	0.814	0.74	0	0.00
Local	32	0.725	0.810	0.73	40,583	29.63
				Total Urban	40,583	29.63
Rural Functional Classification	**Speed**					
Interstate	0	0.000	0.000	0.00	0	0.00
Other P-A	0	0.000	0.000	0.00	0	0.00
Minor Arterial	37	0.686	0.763	0.69	0	0.00
Major Collector	43	0.672	0.748	0.68	0	0.00
Minor Collector	43	0.673	0.750	0.68	0	0.00
Local	45	0.670	0.746	0.68	54,535	37.08
				Total Rural	54,535	37.08

Total Normalized VMT for this Analysis Year=	95,118	Total Emissions (Kilograms per Day)	66.71

Year of Analysis = 2004

Old SIP

Functional Classification	Percent of Vehicles Subject to I&M	Emissions Factors with I&M	Emissions Factors without I&M	Composite Emissions Rate	Vehicle Miles of Travel	KG of Emissions per Day
		89.00%	11.00%			
Urban Functional Classification	**Speed**					
Interstate	60	1.114	1.143	1.12	0	0.00
Freeway	55	1.176	1.209	1.18	0	0.00
Other P-A	30	1.369	1.413	1.37	0	0.00
Minor Arterial	32	1.358	1.402	1.36	0	0.00
Collector	33	1.349	1.393	1.35	0	0.00
Local	35	1.319	1.361	1.32	49,871	65.83
				Total Urban	49,871	65.83
Rural Functional Classification	**Speed**					
Interstate	0			0.00	0	0.00
Other P-A	0			0.00	0	0.00
Minor Arterial	40	1.257	1.295	1.26	0	0.00
Major Collector	43	1.252	1.290	1.26	0	0.00
Minor Collector	43	1.254	1.292	1.26	0	0.00
Local	44	1.254	1.291	1.26	40,419	50.93
				Total Rural	40,419	50.93

Total Normalized VMT for this Analysis Year=	90,290		Total VOC Emissions (Kilograms per Day)	117.00

Appendix G: Agency Comments of the Draft Report

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Appendix I: Comments on the Conformity Determination by Citizens

Appendix J: Resolution Showing Adoption of the Greensboro Urban Area Long Range Transportation Plan

Appendix K: Greensboro Urban Area Resolution Finding the Transportation Plan in Conformity with the SIP

Draft