

Air Quality Conformity Determination

Allen County 2030-II Long Range Transportation Plan as Amended

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Executive Summary

The Air Quality Conformity Determination for the 2030-II Transportation Plan (referred to throughout this document as the 2030 Transportation Plan or TP) was performed in order to meet federal regulations from the Clean Air Act Amendments of 1990 and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Allen County was re-designated from non-attainment to attainment for the pollutant ozone in February 2007. Allen County is considered a maintenance area for conformity purposes with an established budget in the State Implementation Plan (SIP). As a maintenance area for ozone, the Northeastern Indiana Regional Coordinating Council (NIRCC) must demonstrate that its transportation plan will conform to air quality emission budgets for the ozone precursor pollutants of volatile organic compounds (VOC) and nitrogen oxides (NOx) for the year 2020. In addition, the analysis must demonstrate that Allen County, the designated maintenance area, in its entirety will conform to the established 2020 SIP budget.

Air quality conformity for the 2030-II Transportation Plan was determined based on the analysis included in this report. As required, an emissions analysis was performed for each of the study years of this plan and it was determined that the emissions of VOC's and NOx would not exceed the 2020 SIP budget, if the transportation projects are implemented as proposed by the TP. The 2010 emissions are listed to show an intermediate analysis year and demonstrate that the 2010 is below the 2002 baseline test. The original conformity analyses for Allen County established the 2002 baseline emissions. The emissions analysis addresses both the Metropolitan Planning Area (MPA) within Allen County and the surrounding rural portion of Allen County that forms the "donut" area. Figure 1 displays the Metropolitan Planning Area in Allen County and the "donut" area. The conformity analysis demonstrates that vehicle emissions based on the 2030-II Transportation Plan are below the 2002 baseline budget for analysis year 2010 and below the 2020 SIP budget for analysis years 2020 and 2030. The 2010 analysis year to 2002 baseline year comparison supports the finding that there are no factors which would cause or contribute to a new violation or exacerbate an existing violation in the years 2010 to 2020. Thus, the NIRCC 2030-II Transportation Plan conforms to the Clean Air Act as amended. The analysis also demonstrates that Allen County meets the conformity requirements of the Clean Air Act as amended.

Table E-1: Interim 2010 Analysis Year Comparison to Baseline Emissions

Analysis Year	Total VOC Emissions tons/day	2002 VOC Baseline tons/day	Total NOx Emissions tons/day	2002 NOx Baseline tons/day
2010	9.73	17.50	15.27	28.45

Table E-2: 2020 and 2030 Analysis Year Comparison to 2020 SIP Budget

Analysis Year	Total VOC Emissions tons/day	2020 VOC SIP Budget tons/day	Total NOx Emissions tons/day	2020 NOx SIP Budget tons/day
2020	6.06	6.50	6.53	7.00
2030	6.25	6.50	5.20	7.00

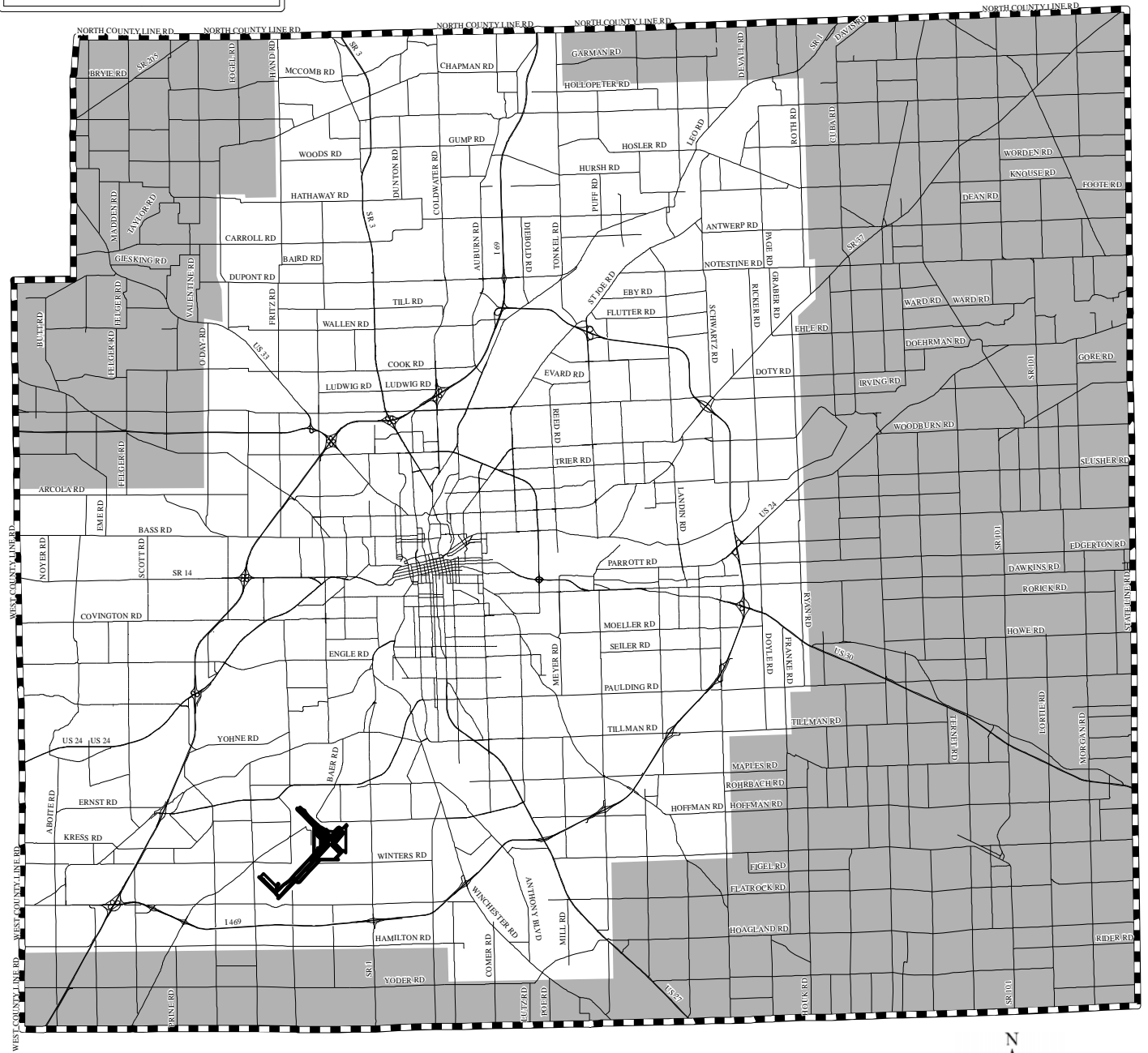
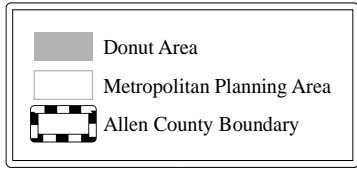


Figure 1

Metropolitan Planning Area and “Donut” Area in Allen County



The conformity determination was coordinated with stakeholder and regulatory agencies through an Interagency Consultation process to formally deliberate any issues. A consultation group conference call was conducted on September 18, 2008 at which time representatives from Indiana Department of Environmental Management (IDEM), Federal Highway Administration (FHWA), US Environmental Protection Agency (USEPA), Indiana Department of Transportation (INDOT) and Northeastern Indiana Regional Coordinating Council (NIRCC) reviewed NIRCC's processes to ensure all required deadlines are being met and procedures are correct. Representatives from the Federal Transit Administration (FTA) and Citilink were invited to the meeting but were unable to attend.

A second conference call consultation meeting was held December 12, 2008 at which time representatives from Indiana Department of Environmental Management (IDEM), Federal Highway Administration (FHWA), US Environmental Protection Agency (USEPA), Indiana Department of Transportation (INDOT) and Northeastern Indiana Regional Coordinating Council (NIRCC) participated. Representatives from the Federal Transit Administration (FTA) was invited to the meeting but were unable to attend. NIRCC inquired about any changes or concerns stakeholders may have since the September conference call, and to discuss the planning assumptions for the 2030-II transportation plan.

A Third conference call consultation meeting was held March 19, 2009 at which time representatives from Indiana Department of Environmental Management (IDEM), Federal Highway Administration (FHWA), US Environmental Protection Agency (USEPA), Indiana Department of Transportation (INDOT) and Northeastern Indiana Regional Coordinating Council (NIRCC) participated. Representatives from the Federal Transit Administration (FTA) and Citilink were invited to the meeting but were unable to attend. NIRCC inquired about any changes or concerns stakeholders may have since the December conference call, and to discuss the Mobile6.2 input/output data for the 2030-II transportation plan.

A conference call consultation meeting was held March 19, 2009 at which time representatives from Indiana Department of Environmental Management (IDEM), Federal Highway Administration (FHWA), US Environmental Protection Agency (USEPA), Indiana Department of Transportation (INDOT), Federal Transit Administration (FTA), and Northeastern Indiana Regional Coordinating Council (NIRCC) participated. The group was informed that an amendment was being done to the TP, an interchange at Interstate 69 and Union Chapel Road was being added to the 2020 and 2030 analysis years. They were informed that conformity determination was reevaluated to demonstrate conformity with the 2020 budget for Allen County. NIRCC inquired about any concerns stakeholders may have with adding the project.

In an effort to be proactive in working with our partners, the Indiana MPO Council has also scheduled monthly Air Quality Conformity meetings. IDEM, FHWA, INDOT and USEPA have been invited to attend every meeting, to discuss timing, modeling parameters, and related conformity issues. IDEM, INDOT and FHWA have been in regular attendance. The Indiana Traffic Modelers group has also met throughout the model update process (this includes IDEM, INDOT and FHWA representatives) to provide an open forum to discuss the process, modeling parameters, and as a mechanism for assuring that the partners have more than adequate opportunity to participate in the travel demand forecasting process.

1.0 Introduction

As part of the joint regulatory requirements of the Clean Air Act, the U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA) NIRCC is required to conduct an air quality conformity analysis for the Transportation Plan (TP). This was triggered by the fact that Allen County was designated as being in non-attainment of the National Ambient Air Quality Standard (NAAQS) for ozone. Allen County has since been re-designated as attainment and establishing Allen County as a maintenance area.

Under the Clean Air Act (CAA), Allen County, Indiana was re-designated as meeting attainment for ozone under the 8-hour ozone standard in February 12, 2007. This process establishes Allen County as a maintenance area for air quality conformity demonstration and requires Allen County, and the Metropolitan Planning Area within Allen County, to meet conformity rules and regulations. The Northeastern Indiana Regional Coordinating Council, the Metropolitan Planning Organization for the Fort Wayne-New Haven-Allen County Area is the agency responsible for conducting the air quality analyses. All plans, programs and projects must be reviewed for conformity with the standards to assure that they do not exceed the established budget. Through the re-designation process, a 2002 baseline Budget and a 2020 SIP Budget were developed through consultation.

A new interchange at Interstate 69 and Union Chapel Road was added to the 2020 and 2030 analysis years. The conformity determination was reevaluated to demonstrate conformity with the 2020 budget for Allen County. This document lists the updated 2020 and 2030 data indicating that the emissions are still below the 2020 budget.

2.0 Regulations Governing Conformity Determinations

Federal Regulations for Metropolitan Planning in 23 CFR (Code of Federal Regulations) Part 450 require that federally funded highway and transit projects be included in a conforming plan and Transportation Improvement Program (TIP). 40 CFR Part 93, as revised July 1, 2006, outlines the requirements for making conformity determinations under Subpart A. Applicable requirements are listed below.

1. The Transportation Plan must specifically describe the transportation system envisioned for certain future years, which are called horizon years.

- The horizon years may be no more than 10 years apart.
- The first horizon year may not be more than 10 years from the base year used to validate the travel demand model.
- If the attainment year is in the time span of the Transportation Plan, the attainment year must be a horizon year.
- The last horizon year must be the last year of the Transportation Plan's forecast year.

The base year for validation of the travel demand model is 2000. An interim "no greater than" year 2002 baseline test was originally used to establish an interim budget for Allen County conformity analysis. A State Implementation Plan (SIP) established a 2020 budget for Allen County as part of the re-designation process to attainment status. Section 3 Travel Demand Model Validation contains documentation on the validation of the travel demand model to the 2000 base year. The base and horizon years used in developing the conformity analysis of the NIRCC 2030-II Transportation Plan and additional projects in the donut area of Allen County are:

- 2000: The validated base year for the transportation network
- 2002: Interim baseline budget
- 2010: Interim Year selected to be no more than ten years from model validation base year
- 2020: Year selected to be no more than ten years between analysis years and SIP Budget Year
- 2030: Final horizon year of the Transportation Plan

2. The Transportation Plan will quantify and document the demographic and employment factors influencing the expected transportation demand; and the highway and transit system shall be described in terms of the regionally significant additions or modifications to the existing transportation network, which the transportation plan envisions to be operational in the horizon years.

The socio-economic data for all study-years is included in the Transportation Plan. This data represents the estimates of population, dwelling units, automobiles and employment. Assumptions on the future land use were made after reviewing the general land use plans adopted by local governments and then verifying the information with appropriate agencies. Areas targeted for economic development activities were included. The development of the socioeconomic estimates used numerous tools including the geographic information system for Allen County, aerial photography, and zoning maps. These methodologies are clearly documented in the 2030-II Transportation Plan.

The vehicle miles traveled (VMT) estimates for the Metropolitan Planning Area in Allen County were developed with the TransCAD computer software program. TransCAD, a travel demand forecasting application, provided vehicle miles traveled (VMT) by functional classification for the base year (2002) and each analysis year (2010, 2020, and 2030).

The VMT estimates for the “donut” area of Allen County were developed from sample counts. The VMT was factored to provide estimates for the baseline year and analysis years. The growth factor for the all the rural functionally classified roadways except local roads outside the MPA was based upon historical traffic volume data from rural Other Principal Arterials. This established an average annual growth rate of 1.49 percent. This rate was deemed reasonable for rural Interstate, Other Principal Arterials, Minor Arterials, Major Collectors and Minor Collectors. A separate rate based on historical population growth was developed to factor the rural local roads outside of the MPA. Roadways classified higher than “local” tend to serve regional travel and are therefore expected to experience higher traffic volume growth. Local roads serve the immediate land uses and any VMT increase is directly related to population growth. This process established an average annual growth rate of 0.48 percent for the rural local roads. Table 5-1 contains the VMT for the MPA covered by the travel demand model and the VMT for the “donut” area.

The VMT estimates for Allen County from the MPA and “donut” area were combined. The VMT estimates, based upon annual average daily traffic (AADT) volumes were factored to represent July traffic volumes. The average speed for each rural and urban roadway classification was determined by utilizing the Texas Transportation Institute speed estimation method.

The Mobile 6.2 software program was used to determine the appropriate emission factors for Allen County. The Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NOx) emission factors were multiplied by the corresponding VMT to estimate emissions. Total emissions were obtained by adding the emissions estimates for each functional classification.

The highway and transit systems are detailed as part of the Transportation Plan. Each lists regionally significant projects. Highway improvement projects that will be completed prior to the individual analysis years are identified. The NIRCC model does not perform a modal split function. Transit ridership in the MPA represents less than one percent of the total regional trips. At this level of transit usage, a reliable representation and accurate assignment of transit trips can not be accomplished through the travel forecasting procedures. This does not preclude the fact that transit provides a valuable service and can assist in reducing vehicle travel. Transit projects, policies and strategies are a viable component of the Transportation Plan.

3. The Transportation Plan must be financially reasonable and the TIP must be fiscally constrained consistent with the U.S. DOT’s metropolitan planning regulations at 23 CFR part 450 and U.S. EPA’s conformity regulations at 40 CFR part 93 in order to be found in conformity.

The Transportation Plan contains a section on financial analysis, which demonstrates that the TP is financially reasonable. Cost information from the Indiana Department of Transportation (INDOT) and other jurisdictions have been utilized. Anticipated revenues from federal, state, and local sources have been identified. Estimated revenues exceed anticipated project costs.

4. The conformity determination must be based on the latest emission estimation model available.

Mobile 6.2 was used during the development of this plan. Inputs for Mobile 6.2 include environmental and vehicular data. This data includes the following variables, which are changed for each model run:

- **Calendar Year:** the base and/or horizon year being modeled in a scenario
- **Temperature:** the minimum and maximum temperature in the region for the time frame being modeled
- **Fuel Reid Vapor Pressure:** the legally required pressure
- **Evaluation Month:** used to determine the vehicle fleet distribution to use, i.e. more cars of the current model year are on the road at the end of the model year (July) than in the middle (January)
- **Average Speed:** the calculated average speed by functional class based upon the Texas Transportation Institute speed estimation procedures (sample speed calculations are provided in Appendix C)

More details on these variables can be found in section 4.0 Mobile 6.2 Inputs.

Twelve functional classes (comprising interstates, expressways, arterials, collectors, and local roads) are used to describe both urban and rural routes in Allen County. These functional classes were then assigned to one of four Mobile 6.2 facility types although a Mobile Scenario was run for each functional class. Table 4.2 illustrates the correlation of the two classifications that were used. The average speed for roadway classification was determined by utilizing the Texas Transportation Institute speed estimation method. The speed inputs are provided in Table 4-3. The VMT inputs used for each horizon year can be found in Tables 5-2 to 5-5.

The base year (2002) and analysis years (2010, 2020, and 2030) identified earlier were forecasted using TransCAD and each was modeled with Mobile 6.2 for determining air quality conformity.

While the HPMS data collected by the state could have been used to factor the estimated VMT, the decision was made not to rely on the data. This is because the HPMS is intended as a statewide statistical sample. When looked at from a county level, the data relies on 221 traffic count sites in Allen County. Traffic volumes used for the travel demand model and for monitoring in the ‘donut’ area total over 2050 traffic count locations used to estimate VMT in the maintenance area.

The outputs used for the Allen County conformity analysis from the Mobile 6.2 model include Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_x) emission factors for each of the functional classes. These outputs are based on the default inputs to Mobile 6.2 and all of the inputs listed in section 4.0 Mobile 6.2 Inputs. The emission factors were multiplied by the corresponding VMT for each functional classification and added to determine the total emissions. The compiled outputs are included in section 5.0 Mobile 6.2 Outputs, which shows the total emissions estimated for each network year. A sample input file, used to run Mobile 6.2, and the report file generated, are included as an attachment.

5. The MPO must make the conformity determination according to the interagency consultation procedures required in 40 CFR Parts 51 and 93 (sections 51.390 and 93.105), and according to the public involvement procedures established by the MPO in compliance with 23 CFR Part 450.

NIRCC in conjunction with its air quality partners held interagency consultation meetings on September 18, 2008, December 15, 2008, and March 19, 2009 to discuss the methodology being used in this conformity determination and to receive guidance on various issues. The consultation included representatives from NIRCC, IDEM, USEPA, INDOT, and FHWA. Representatives from FTA, and Citilink were invited but were unable to participate. A Draft conformity determination was also made available for review prior to final adoption of the Transportation Plan. The interagency consultation is summarized in section 6.0 Interagency Consultation and briefly defined in the Executive Summary of this document.

The Conformity Determination, and 2030-II Transportation Plan were made available for public comment from March 24, 2009 through April 6, 2009. A Public Meeting was held on March 31, 2009. No comments were received regarding the conformity demonstration or analysis.

A complete listing including meeting minutes of the formal and informal opportunities for partner input is listed as Appendix A of this document. Appendix D lists the public comments on the 2030-II Transportation Plan.

6. The Transportation Plan must provide for the timely implementation of Transportation Control Measures (TCM) from the applicable State Implementation Plan (SIP). Nothing in the plan may interfere with the implementation of any TCM in the applicable implementation plan.

Allen County is newly re-designated as a maintenance area for the pollutant ozone. A SIP with a motor vehicle emissions budget for Allen County has been developed.

7. The Transportation Plan must be consistent with the motor vehicle emissions budget in the applicable State Implementation Plan (SIP).

Allen County is newly re-designated as a maintenance area for the pollutant ozone. A SIP with a motor vehicle emissions budget for Allen County has been developed. Through the consultation process, it was agreed that the 2020 motor vehicle emissions budgets are in tons of pollutant per day and are provided in Table 2-1 would be used the Allen County conformity analysis.

Table 2-1: 2020 Motor Vehicle Emissions Budget

Year	VOC (HC) tons/day	NO_x tons/day
2020	6.50	7.00

8. The regional emissions analysis shall estimate emissions from the entire transportation system, including all regionally significant projects contained in the Transportation Plan and all other regionally significant highway and transit projects expected in the maintenance area in the time frame of the Transportation Plan.

The analysis estimates emissions of both Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NOx) as ozone precursors. Allen County is in attainment for Carbon Monoxide (CO) emissions and conformity is not required. Analysis for Carbon Monoxide (CO) emissions was not performed. Tables 2-2 and 2-3 provides a comparison of the analysis years with the 2002 baseline and 2020 emissions budgets.

Table 2-2: Baseline Test Emissions Analysis Summary

Year	Total VOC Emissions tons/day	Total NOx Emissions tons/day
2002 Baseline	17.50	28.45
2010	9.73	15.27

Table 2-3: Emissions Analysis Summary and Budget Comparison

Year	Total VOC Emissions tons/day	Total NOx Emissions tons/day
2020 Budget	6.50	7.00
2020	6.06	6.53
2030	6.25	5.20

Since the emissions budget test is passed for each analysis year, the Transportation Plan and other projects in Allen County are in conformity and therefore comply with the Clean Air Act and other applicable federal and state requirements.

9. The emissions analysis methodology shall meet the requirement of section 93.119: (a) Regional emissions analysis for the Transportation Plan shall include all regionally significant projects expected in the maintenance area. Projects that are not regionally significant are not required to be explicitly modeled, but VMT from such projects must be estimated in accordance with reasonable professional practices. The effects of TCM’s and similar projects that are not regionally significant may also be estimated in accordance with reasonable professional practices. (b) For TCM’s demonstrating a quantifiable emission reduction benefit, the emissions analysis may include that emissions reduction credit. (c) For areas with a Transportation Plan that meets the content requirements of section 93.106, the emissions analysis shall be performed for each horizon year.

The emissions analysis methodology meets the requirement of section 93.119.

(a) The transportation model includes all regionally significant projects that are planned to occur over the life of this plan. In addition, the VMT from projects not specifically modeled, have been accounted for with the validation of the travel demand model output.

(b) The conformity analysis includes VMT growth from planned highway improvement projects in the “donut” area.

(c) There are no required TCM’s for the Allen County maintenance area. There are also no additional credits being sought from the Congestion Mitigation and Air Quality (CMAQ) program funded projects that will be implemented in Allen County.

(d) The emissions analysis was performed for the baseline year 2002 and each analysis year; the results were then summarized in a spreadsheet and included in section 5.0 Mobile 6.2 Outputs.

3.0 Travel Demand Model Validation

The following analysis was performed to determine the validity of the Travel Demand Model (TDM) being used for the 2030-II Transportation Plan. In addition, this section includes the methodology used to convert the TDM outputs into inputs for the air quality model, for purposes of the Conformity Determination.

3.1 Background

The model being used to forecast future traffic on the transportation network being proposed by the 2030-II Transportation Plan is based on the traditional 4-step travel demand forecasting process - trip generation, trip distribution, mode split, and traffic assignment. The mode split component is not included in the NIRCC model, as the primary mode of travel in the MPA is automobile traffic.

The NIRCC model was based on the in MINUTP software, and calibrated to a 1990 base year. Since that time, the model has been converted to the TransCAD software platform and recalibrated to a 2000 base year. The socioeconomic data utilized for the 2000 base year was developed from 2000 Census information and employment data obtained from Indiana Workforce Development through the Indiana Department of Transportation.

3.2 TDM Network Preparation

The 2000 base year network was developed using street centerline data from the geographical information system and aerial photography. Link attributes were updated as necessary to reflect the 2000 highway network. Traffic count data was also updated with the most recent Annual Average Daily Traffic (AADT) count data, adjusted to 2000 numbers. The baseline, analysis, and horizon year networks were based upon the 2000 network. Modifications were made to represent the network for the appropriate analysis year. The 2010, 2020 and 2030 networks correspond to the Transportation Plan project list and expected completion dates.

Socioeconomic data for the baseline, analysis, and horizon years was determined using data from the previous 2030 Transportation Plan, the 2000 Census information including the Census Transportation Planning Package, and forecasts from STATS Indiana and Woods and Poole. This data was disaggregated to traffic analysis zones using input from local officials, planners, and developers, to derive future year numbers. A complete description of the process and methods used can be found in the 2030-II Transportation Plan.

3.3 Base Year Model Output Validation

The TransCAD model was calibrated for the base year to the traffic counts from NIRCC's three-year traffic count program. This program includes state traffic counts, HPMS traffic counts, and counts collected at all railroad crossings. The model was calibrated within an acceptable tolerance (-1.2%) based on traffic count data, as compared to the TDM's assigned values. A comparison of TDM VMT and actual traffic volume VMT is provided in Table 3-1.

Table 3-1: Travel Demand Model and Actual Traffic Count VMT Comparison

Facility Type	TDM VMT	Traffic Count VMT	Percent Difference
Interstate	2,019,599	1,852,781	8.26
Other Expressway and Principal Arterial	1,839,407	1,906,142	-3.63
Minor Arterial	1,868,900	1,905,948	-1.98
Collector	1,402,305	1,411,661	-0.67
Local	942,234	1,094,836	-16.19
Total	8,072,445	8,171,368	-1.23

The model is over-calculating the VMT for the interstate and under-calculating the VMT for all other facility types. All major roadway facility types are within a ten- percent range of difference. The VMT difference for roads classified as locals is within 20 percent, which is reasonable for this category. The TDM VMT for local roadways is generally expected to have a larger percent difference from actual traffic count VMT since the local network is represented by centroid connectors. The overall total VMT for the model compared to the total VMT from the traffic counts represents a difference of only 1.23 percent.

3.4 Model Conversion Factors

Model conversion factors were developed to adjust the TDM VMT to accurately match the actual traffic count VMT. The factors were refined for specific rural and urban functional facility types. Table 3-2 provides the refined factors.

Table 3-2: Travel Demand Model VMT Adjustment Factors

Facility Type	Adjustment Factor
Rural Interstate	0.9417373
Rural Other Principal Arterial	0.9266920
Rural Minor Arterial	1.0197709
Rural Major Collector	1.0147168
Rural Minor Collector	0.9614969
Urban Interstate	0.8933339
Urban Other Freeway/Expressway	0.9106737
Urban Other Principal Arterial	1.0691833
Urban Minor Arterial	1.0198286
Urban Collector	1.0064489
Local	1.1619578

4.0 Mobile 6.2 Inputs

The following tables represent the data used as inputs to Mobile 6.2 when the defaults are not utilized. Copies of the input files used to test for conformity are located in the appendix.

Table 4-1: Mobile Command Summary

Command	Description
MOBILE6 INPUT FILE	Used to identify the full file path of the input file.
REPORT FILE	The location of the descriptive output file. The output from this command is located in the appendix.
SPREADSHEET	The location of the spreadsheet output file. This is the file used to automate the reporting of the emissions.
POLLUTANTS	The pollutants being modeled by the input file. The pollutants are HC, CO, and NOx. Carbon Monoxides are not required to be run however.
NO REFUELING	Instructs Mobile 6 to not model evaporative emissions from refueling gas tanks.
MIN/MAX TEMP	The average daily minimum and maximum temperatures for the modeled time period. The temperatures used for the 1-hour ozone budget are 62.5° and 84.3° Fahrenheit.
FUEL RVP	The legal Reid Vapor Pressure of the fuel being used. In this region, an RVP of 9.0 is required.
ABSOLUTE HUMIDITY	Instructs Mobile 6 to use 85.7 as the Absolute Humidity.
CLOUD COVER	Instructs Mobile 6 to use 0.25 as the average fraction of cloud cover for a given day.
SUNRISE/SUNSET	Hours of Sunrise and Sunset are 5am and 8pm.
SCENARIO RECORD	The start of a specific scenario. The following commands are included with each scenario.
CALENDAR YEAR	The horizon year being modeled. The potential years are 2002, 2010, 2020, 2030
EVALUATION MONTH	The month of the evaluation, either January or July. Other months must be interpolated. For ozone, a typical summer day is modeled, so July (7) is used for the month.
AVERAGE SPEED	The average speed by functional class.

Table 4-2: Relationship between Functional Classes and Mobile 6.2 Facility Types

Functional Class	Mobile 6 Facility Type
Rural Interstates	Freeway
Rural Other Principal Arterial	Non Ramp
Rural Minor Arterial	Arterial
Rural Major Collector	Arterial
Rural Minor Collector	Arterial
Rural Local	Local
Urban Interstate	Freeway
Urban Other Freeways and Expressways	Freeway
Urban Other Principal Arterial	Arterial
Urban Other Minor Arterial	Arterial
Urban Collector	Arterial
Urban Local	Local

Table 4-3: Speed Inputs (MPH) by Functional Class

Functional Class	2002	2010	2020	2030
Rural Interstate	61.32	60.52	59.22	57.84
Rural Other Principal Arterial	43.96	42.93	40.50	38.09
Rural Minor Arterial	37.69	39.46	37.34	34.53
Rural Major Collector	38.00	38.15	38.01	37.86
Rural Minor Collector	33.77	33.79	33.74	33.65
Urban Interstate	55.72	51.70	47.70	44.00
Urban Other Freeway/Express	54.57	51.10	50.50	49.70
Urban Other Principal Arterial	21.76	17.48	14.24	12.40
Urban Minor Arterial	32.35	32.95	31.38	29.42
Urban Collector	28.14	28.35	28.14	27.83
Rural and Urban Local	12.90	12.90	12.90	12.90

5.0 Mobile 6.2 Outputs

The following tables represent the emissions analyses performed for the Conformity Determination on the 2030 Transportation Plan. The TransCAD transportation model was run to determine the amount of vehicle miles of travel for each horizon year by functional classification of the road. The Mobile model computed the emission factors for volatile organic compounds (VOC), nitrogen oxides (NOx), and carbon monoxide. Copies of the descriptive outputs are included in the appendix.

The total emissions generated for VOC and NOx by functional classification of roadway are compared against the allowable budget set by the year 2002 Baseline Budget. The Baseline Emissions Budget test was passed for each analysis year, and therefore the 2030 Transportation Plan is in conformity.

Table 5-1: VMT Data

Functional Classification		2002 VMT	2010 VMT	2020 VMT	2030 VMT
Rural Interstate	TDM	1,007,383.84	630,271.15	781,277.74	922,043.68
	Donut Area	63,840.00	59,216.00	65,313.00	72,038.00
	Total	1,071,223.84	689,487.15	846,590.74	994,081.68
Rural Other Principal Arterial	TDM	380,324.77	284,087.90	333,773.55	369,698.75
	Donut Area	406,303.00	429,295.00	473,495.00	522,247.00
	Total	786,627.77	713,382.90	807,268.55	891,945.75
Rural Minor Arterial	TDM	191,720.94	69,316.23	78,817.09	90,054.62
	Donut Area	22,855.00	22,841.00	25,192.00	27,786.00
	Total	214,575.94	92,157.23	104,009.09	117,840.62
Rural Major Collector	TDM	792,083.90	369,026.38	471,643.64	576,808.23
	Donut Area	297,245.00	299,361.00	330,184.00	364,179.00
	Total	1,089,328.90	668,387.38	801,827.64	940,987.23
Rural Minor Collector	TDM	124,235.05	82,122.59	107,640.51	144,231.82
	Donut Area	43,068.00	36,709.00	40,488.00	44,657.00
	Total	167,303.05	118,831.59	148,128.51	188,888.82
Urban Interstate	TDM	960,184.05	1,654,092.30	2,028,009.14	2325650.36
Urban Other Freeway/Expressway	TDM	73,717.57	81,480.17	85,703.98	91572.61
Urban Other Principal Arterial	TDM	1,615,712.20	1,736,590.98	1,883,721.43	1975081.01
Urban Minor Arterial	TDM	1,816,707.39	2,732,003.61	3,124,946.00	3524347.46
Urban Collector	TDM	613,953.88	843,333.98	969,160.22	1134112.01
Urban/Rural Local	TDM	1,159,906.37	1,239,325.98	1,428,121.03	1,598,048.22
Rural Local	Donut Area	136,556.00	120,944.00	133,157.00	146,604.00
	Total	1,296,462.37	1,360,269.98	1,561,278.03	1,744,652.22
Grand Total		9,705,796.96	10,690,017.26	12,360,643.32	13,929,159.77

Table 5-2: 2002 Network Emissions Analysis

Functional Class	Vehicle Miles Traveled	VOC Emissions (Tons/Day)	NOx Emissions (Tons/Day)
Rural Interstate	1,071,223.84	1.51	4.11
Rural Other Principal Arterial	786,627.77	1.23	2.38
Rural Minor Arterial	214,575.94	0.35	0.57
Rural Major Collector	1,089,328.90	1.75	2.88
Rural Minor Collector	167,303.05	0.28	0.44
Urban Interstate	960,184.05	1.40	3.38
Urban Other Freeway/Expressway	73,717.57	0.11	0.25
Urban Other Principal Arterial	1,615,712.20	3.24	4.55
Urban Minor Arterial	1,816,707.39	3.08	4.77
Urban Collector	613,953.88	1.10	1.64
Rural and Urban Local	1,296,462.37	3.45	3.49
Totals:	9,705,796.96	17.50	28.45

Table 5-3: 2010 Network Emissions Analysis

Functional Class	Vehicle Miles Traveled	VOC Emissions (Tons/Day)	NOx Emissions (Tons/Day)
Rural Interstate	689,487	0.50	1.25
Rural Other Principal Arterial	713,383	0.57	1.01
Rural Minor Arterial	92,157	0.07	0.12
Rural Major Collector	668,387	0.54	0.88
Rural Minor Collector	118,832	0.10	0.15
Urban Interstate	1,654,092	1.25	2.59
Urban Other Freeway/Expressway	81,480	0.06	0.13
Urban Other Principal Arterial	1,736,591	1.94	2.59
Urban Minor Arterial	2,732,004	2.33	3.54
Urban Collector	843,334	0.76	1.11
Rural and Urban Local	1,360,270	1.61	1.89
Totals:	10,690,017	9.73	15.27
Budget:		17.50	28.45
Passed By:		7.77	13.18

Table 5-4: 2020 Network Emissions Analysis

Functional Class	Vehicle Miles Traveled	VOC Emissions (Tons/Day)	NOx Emissions (Tons/Day)
Rural Interstate	846,591	0.32	0.52
Rural Other Principal Arterial	807,269	0.34	0.42
Rural Minor Arterial	104,009	0.04	0.05
Rural Major Collector	801,828	0.34	0.39
Rural Minor Collector	148,129	0.06	0.07
Urban Interstate	2,028,009	0.81	1.09
Urban Other Freeway/Expressway	85,704	0.03	0.05
Urban Other Principal Arterial	1,883,721	1.28	1.13
Urban Minor Arterial	3,124,946	1.40	1.53
Urban Collector	969,160	0.45	0.48
Rural and Urban Local	1,561,278	0.99	0.80
Totals:	12,606,643	6.06	6.53
Budget:		6.50	7.00
Passed By:		0.44	0.47

Table 5-5: 2030 Network Emissions Analysis

Functional Class	Vehicle Miles Traveled	VOC Emissions (Tons/Day)	NOx Emissions (Tons/Day)
Rural Interstate	1,037,542	0.34	0.40
Rural Other Principal Arterial	897,971	0.34	0.31
Rural Minor Arterial	116,519	0.05	0.04
Rural Major Collector	955,989	0.35	0.33
Rural Minor Collector	199,085	0.07	0.07
Urban Interstate	2,341,010	0.84	0.85
Urban Other Freeway/Expressway	92,697	0.03	0.04
Urban Other Principal Arterial	1,980,545	1.33	0.89
Urban Minor Arterial	3,582,643	1.44	1.24
Urban Collector	1,148,086	0.47	0.40
Rural and Urban Local	1,774,632	0.99	0.63
Totals:	14,126,720	6.25	5.20
Budget:		6.50	7.00
Passed By:		0.25	1.80

6.0 Interagency Consultation

The Northeastern Indiana Regional Coordinating Council provided opportunity for interagency consultation on the 2030-II Transportation Plan (TP). The interagency consultation process began with the identification of the necessary stakeholder agencies that required involvement. The list of participants included representatives from the Federal Highway Administration (FHWA), Environmental Protection Agency (EPA), Indiana Department of Transportation (INDOT), Indiana Department of Environment Management (IDEM), Federal Transit Administration (FTA), Fort Wayne Public Transportation Corporation-Citilink, and Northeastern Indiana Regional Coordinating Council.

Attachment A lists the interagency and partner formal and informal opportunities for consultation.

7.0 Air Quality Analysis Exempt Projects

The transportation improvement project list is documented as part of the 2030-II Transportation Plan as Amended. There are two categories that the projects can fall into for air quality purposes: exempt, and non-exempt. The transportation projects in the 2030-II Transportation Plan have been classified as either exempt or non-exempt. A list of the exempt and non-exempt projects, including the time period corresponding to the air quality analysis years has been included in Appendix E.

The following are definitions of the exempt and non-exempt categories as provided in the conformity rules.

Exempt Projects

Safety

Railroad/highway crossing.
Hazard elimination program.
Safer non-Federal-aid system roads.
Shoulder improvements.
Increasing sight distance.
Safety improvement program.
Traffic control devices and operating assistance other than signalization projects.
Railroad/highway crossing warning devices.
Guardrails, median barriers, crash cushions.
Pavement resurfacing and/or rehabilitation.
Pavement marking demonstration.
Emergency relief (23 U.S.C. 125).
Fencing.
Skid treatments.
Safety roadside rest areas.
Adding medians.
Truck climbing lanes outside the urbanized area.
Lighting improvements.
Widening narrow pavements or reconstructing bridges (no additional travel lanes).
Emergency truck pullovers.

Mass Transit

Operating assistance to transit agencies.
Purchase of support vehicles.
Rehabilitation of transit vehicles¹.
Purchase of office, shop, and operating equipment for existing facilities.
Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.).
Construction or renovation of power, signal, and communications systems.
Construction of small passenger shelters and information kiosks.
Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).
Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way.

Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet ¹.
Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771.

Air Quality

Continuation of ride-sharing and van-pooling promotion activities at current levels.
Bicycle and pedestrian facilities.

Other

Specific activities which do not involve or lead directly to construction, such as:

Planning and technical studies.

Grants for training and research programs.

Planning activities conducted pursuant to titles 23 and 49 U.S.C.

Federal-aid systems revisions.

Engineering to assess social, economic, and environmental effects of the proposed action or alternatives to that action.

Noise attenuation.

Emergency or hardship advance land acquisitions (23 CFR 710.503).

Acquisition of scenic easements.

Plantings, landscaping, etc.

Sign removal.

Directional and informational signs.

Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities).

Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational or capacity changes.

Note:

¹ In PM₁₀ non-attainment or maintenance areas, such projects are exempt only if they are in compliance with control measures in the applicable implementation plan.

[62 FR 43801, Aug. 15, 1997, as amended at 69 FR 40081, July 1, 2004]

Projects Exempt From Regional Emissions Analyses

Intersection channelization projects.

Intersection signalization projects at individual intersections.

Interchange reconfiguration projects.

Changes in vertical and horizontal alignment.

Truck size and weight inspection stations.

Bus terminals and transfer points.

Non-Exempt Projects

These projects are included in the Air Quality analysis and travel demand-forecasting model and are generally comprised of added capacity projects greater than a mile in length or new road construction.

Appendix A

Consultation Meeting Minutes

September 18, 2008

Conformity Consultation Conference Call – Review of Draft Report

Attendees: NIRCC - Dan Avery, and Jeff Bradtmiller
IDEM – Shawn Seals, Brian Callahan and Gale Farris
INDOT – Lawrence Brown, Jerry Halperin, Frank Baukert and Ben Shaffer
FHWA – Janice Osadczuk and Joyce Newland
EPA - Patricia Morris

Call began at 1:30 pm

- I. Dan Avery explained the reason for the call was to inform the group that NIRCC intends to update the 2030 Transportation Plan and not move it out to a 2035 plan, and that NIRCC is going to use the 2010, 2020, and 2030 as our horizon years.
- II. Dan Avery also informed the group that NIRCC has already began meeting with citizens as part of the participation portion of the plan.
- III. Patricia Morris asked if any of the planning assumptions will be changed.
Dan Avery stated that NIRCC will be meeting with local government agencies to determine if they have had any changes in the areas that were projected for growth since the last update. He stated at this time NIRCC doesn't foresee much change.
- IV. Lawrence Brown asked if the horizon year has been relaxed.
Pat Morris, Joyce Newland, and Dan Avery all agreed that yes it was change from the plan always being 20 years out to just needing to be 20 years out from the date that is approved.
- V. Dan Avery asked the group if there needed to be any changes to the Mobile6.2 input values. (Fleet Mix, Fuel RVP..etc)
Shawn Seals and IDEM stated that no changes are needed.
Pat Morris commented that NIRCC needs to make sure that we are using the same temperatures that are listed in the SIP.
Lawrence Brown suggested that the Fleet Mix should at least be looked at to determine if more updated values can be obtained, but NIRCC could still use the existing until if or when new values become available.
- VI. Meeting adjourned at 1:50 pm.

December 15, 2008

Conformity Consultation Conference Call – Review of Planning Assumptions for 2030 Transportation Plan

Attendees: NIRCC – Dan Avery, Jeff Bradtmiller, and Jerry Foust (Office)
IDEM – Shawn Seals and Brian Callahan (Phone)
INDOT – Jerry Halperin, Lawrence Brown (Phone) and Jason Kaiser (Office)
FHWA – Joyce Newland (Phone)
EPA – Pat Morris (Phone)
Citilink – Betsy Kachmar (Office)

Call began at 1:30 PM

- I. Dan Avery discussed the intent of the call and reviewed the content of the socioeconomic planning assumptions as approved by the Urban Transportation Advisory Board. He explained that the planning assumptions are similar to those used for the original 2030 Transportation Plan. Mr. Avery noted there was an increase in the trip generations based on updated socioeconomic data.
- II. Mr. Avery asked if there were any questions regarding the assumptions.
- III. Mr. Seals stated that they had not reviewed the material in great depth at this time but would let NIRCC know if they found anything. At this time IDEM had no objections or questions regarding the planning assumptions.
- IV. Ms. Kachmar stated she had no comments.
- V. Mr. Kaiser stated he had no comments.
- VI. Mr. Brown asked if the old values used still made sense. Mr. Avery stated that slight modifications to reflect lower number of dwelling units.
- VII. Ms. Morris noted that the planning assumptions used the same mobile6 inputs as used in the maintenance plan. She asked if the previous expectations for development around Interstate 469 had changed. Mr. Avery stated that the only significant change near interstates may be at the interchange of Interstate 69 and Airport Expressway. The original planning assumption was to develop along Airport Expressway from the east and move westward. There are current land use development plans west of the interchange that may impact the original assumptions due to utilities constructed to provide service to a school near this area. Other expectations remain the same as in the previous planning assumptions.
- VIII. Ms. Newland asked about assumption numbers four and five. She wanted to know if the flood plain restrictions impacted downtown residential development. Mr. Avery stated that the decrease downtown may be offset by the new Harrison Square and Renaissance Square developments.
- IX. Mr. Halperin stated he had no comments.
- X. Mr. Brown asked if we have re-evaluated growth. Mr. Avery stated that the new Fort Wayne / Allen County Comprehensive Plan has been adopted and states will require all dense growth to occur where public sewer and water are located. This will result in contiguous growth.
- XI. Mr. Avery asked if there were any other comments or questions. No additional comments or questions were noted.
- XII. Mr. Avery stated the next step for NIRCC staff would be to proceed with the analysis based on the planning assumptions discussed. He also stated the NIRCC anticipates having the first draft of the analysis completed by January 2009. At that time NIRCC will circulate the analysis.
- XIII. Meeting adjourned at approximately 2:30 PM.

March 19, 2009

Conformity Consultation Conference Call – Review of Draft Report

Attendees: NIRCC – Dan Avery, Jeff Bradtmiller, and Jerry Foust (Office)
IDEM – Shawn Seals and Gale Farris (Phone)
INDOT – Steve Smith and Frank Baukert (Phone)
FHWA – Joyce Newland (Phone)
EPA – Pat Morris (Phone)

Call began at 9:10 AM

- I. Dan Avery stated the intent of the call was to provide the partners the opportunity to comment on the analysis performed for the Air Quality Conformity Determination/Analysis for the 2030-II Transportation Plan
- II. Mr. Avery asked if there were any questions regarding the draft analysis that had been provided..
- III. Mr. Smith commented that the analysis looked good. The only question they had was why the project limits for the SR 930 widening project from Minnich Road to Brookwood Drive were different than what INDOT had listed in their plan.
- IV. Dan stated that the location INDOT shows (Lincoln Ave) is the same locations as Brookwood Drive.
- V. Ms. Morris commented on the explanation provided for the single budget as a good example for the EPA to provide to other areas that have the same issue. She stated that the language provided by NIRCC offers a clear explanation that she would like to forward to other agencies.
- VI. Ms. Morris asked that the language in Item # 6 in the “Regulations Governing Conformity Determinations” be changed from “Traffic Control Measures” to “Transportation Control Measures”
- VII. Mr. Bradtmiller stated this was an error that was not caught and would ensure it was changed in the final draft.
- VIII. Ms. Newland asked that the document add page numbers and a listing of projects by time periods rather than by project types.
- IX. Mr. Bradtmiller explained that the final draft would include both page numbers and an appendix that lists the projects by time period.
- X. Ms. Newland also asked that the minutes from December 15, 2008 reflect that FWHA was present for the interagency conference call.
- XI. Mr. Avery stated that this was overlooked and would be changed.
- XII. Ms. Newland asked that the exact date of February 12, 2007 be added to “Instruction #1”.
- XIII. Mr. Avery stated this change would be included in the final draft.
- XIV. Ms. Newland inquired about the Transportation Plan name of 2030-II.
- XV. Mr. Avery stated that the intent of the title was to ensure that users were aware that the updated Transportation Plan was different than the current 2030 Transportation Plan.
- XVI. Mr. Seals stated that everything appears to be acceptable from IDEM’s perspective.

March 8, 2010

**Conformity Consultation Conference Call – Information on upcoming 2030-II
Transportation Plan Amendment**

Attendees: NIRCC – Dan Avery, and Jeff Bradtmiller (Office)
IDEM – Shawn Seals and Gale Farris (Phone)
INDOT – Steve Smith, Roy Nunnally, Laurence Brown, Frank Baukert, Ben Shaffer,
and Jason Kaiser (Phone)
FHWA – Joyce Newland (Phone)
EPA – Pat Morris (Phone)

Call began at 9:10 AM

- VII. Dan Avery stated the intent of the call was to inform the ICG partners of planned 2030-II Transportation Plan Amendment for the Interstate 69/ Dupont Road area. Dan Avery stated that all assumed input data would be the same as the analysis performed for the Air Quality Conformity Determination/Analysis for the 2030-II Transportation Plan, along with the same analysis years 2010, 2020, and 2030.
- VIII. Mr. Avery asked if there were any questions.
- IX. Ms. Morris asked what the time table for this amendment to be completed.
 - X. Dan stated that by mid to late March the project scope should be completed, with the analysis completed and presented for ICG review in April, in May it would be put out for public comments, with the final amendment completed by mid to late May.
- XI. Mrs. Newland asked if the CMP would also be amended and will Transit usage be part of the analysis.
 - XII. Dan stated that he will follow up with her and Roy Nunnally as the process continues to ensure everything is completed as required.
- XIII. Mr. Seals asked if we are planning on using Mobile6.2 for the analysis and when did we plan on moving to use the Moves software.
 - XIV. Dan stated yes we will be using Mobile6.2 for this analysis, and that we are working towards moving to Moves but we want to run some trials to compare the 2 software's. He stated that we hope to be using Moves by the middle of 2011.
- XV. Mr. Avery asked if there was anymore questions/comments, with hearing none the call was adjourned at 9:20 AM.

June 29, 2010

Conformity Consultation Conference Call – Review of Amended Report

Attendees: NIRCC – Dan Avery, and Jeff Bradtmiller (Office)
IDEM – Shawn Seals and Gale Farris (Phone)
INDOT – Steve Smith, Lawrence Brown, Frank Baukert, Ben Shaffer, and John Leckie (Phone)
FHWA – Joyce Newland (Phone)
EPA – Pat Morris (Phone)
FTA – Reggie Arkell (Phone)

Call began at 9:00 AM

- I. Dan Avery stated that the intent of the call was to inform the Interagency Consultation Group that we are amending 2030-II Transportation Plan, adding in the new Interstate 69 / Union Chapel Road interchange into the 2020 and 2030 analysis years. He also stated that we will be moving the State Road 930 project in New Haven, IN from the 2020 to the 2030 analysis years.

He explained that we sent out two analyses for both years because it has not been decided if Union Chapel Road will be constructed as a 2-lane or 4-lane facility.

- II. Mr. Avery asked if there were any questions regarding the amended projects.
- III. Pat Morris asked if we were going to wait for the 2 options to be finalized before submit out final analyses?
 - i. Dan answered that we will decide on 1 alternative and complete our analyses based on that at this time. Note: A 2-Lane facility for Union Chapel Road was selected.
- IV. Steve Smith stated that the State Road 930 project was changed from 2010-2020, since the actual construction year is unknown, to not being part of the plan since a date is yet to be determined.
 - i. Dan stated that its fine that it isn't part of the State Transportation Plan (STP) but we will leave it in our plan, because our plan is created with the best information and it's reasonable to assume that Indiana Department of Transportation (INDOT) will have projects in the 2020-2030 time frame.
 - ii. Joyce stated that if it's not in the STP then we can't have it in ours. She also stated that it should stay in the 2010-2020 because INDOT hasn't adopted their updated plan and NIRCC has to follow the plans that currently in place.
 - iii. Dan disagreed and restated that we should go with the best information available and that is that the project will be moved out of the 2010-2020 STP, therefore putting it in the 2020-2030 time period.
- V. It was agreed to table this discussion until 6/30/2010 so that additional Federal Highway (FHWA) and INDOT people can be brought into the discussion.
- VI. Meeting adjourned at approximately 10:15 AM.

June 30, 2010

Conformity Consultation Conference Call – Follow-Up of Amended Report

Attendees: NIRCC – Dan Avery, and Jeff Bradtmiller (Office)
INDOT – Steve Smith, Roy Nunnally, and Audra Blasdel (Phone)
FHWA – Joyce Newland, Larry Heil, and Jay DuMontelle (Phone)
EPA – Pat Morris (Phone)

Call began at 1:00 PM

- I. Joyce Newland explained the reason for the call was no agreement could be made on whether the SR 930 project should be included in the 2010-2020, 2020-2030 analysis years or not in the amended plan at all. Therefore, this follow-up call was schedule so that other stakeholders can help determine the correct action to be taken on this project.
- II. Joyce restated with concurrence from Larry Heil and Jay DuMontelle that FWHA feels the project should remain in the 2010-2020 time frame because INDOT has not officially adopted their new plan.
 - i. Dan still disagreed and restated that we should go with the best information available and that is that the project will be moved out of the 2010-2020 STP, therefore putting it in the 2020-2030 time period. He request INDOT to send NIRCC a letter that stated

there would not be any INDOT expansion projects in Northeast Indiana during the time period 2020-2030.

- III. Roy Nunnally stated that INDOT is not committing to any specific projects, but also couldn't say they won't spend any money in the 2020-2030 time frame. They want to make sure they are looking at all possible options.
 - i. Dan agrees that INDOT has the right to include what they want in their State Transportation Plan (STP), but stated that NIRCC is doing a disservice to the community by not including any INDOT projects between 2020 and 2030. He stated that NIRCC can estimate, based on historic data and projected revenues, a reasonable list of projects that INDOT would be reasonably expected to complete. He stated that it is contrary to the planning process and governing regulations to intentionally omit projects that are reasonably expected to be completed.
 - ii. The group discussed options such as listing project in an illustrative list, or developing a separate list of prioritized INDOT projects that may be implemented, but without any commitment for completion.
- IV. Dan Avery asked for clarification from Federal Highway representatives. He stated that his understanding of the conversation indicated that FHWA would approve the 2030 Transportation Plan-II Amendment with the State Road 930 project left in the 2010-2020 time frame, even though INDOT has indicated that the project has no schedule and is in a "to be determined" time frame, but will not approve the 2030 Plan Amendment if the project is moved to the 2020-2030 time frame that more accurately represents the likely schedule of the project. He asked for confirmation of this understanding
 - i. Joyce Newland responded that this is correct.
- V. Dan Avery stated that NIRCC, under protest would keep the SR 930 project in the 2010-2020 analysis years .even though it is a misrepresentation to the public and participating agencies.
- VI. The participants agreed to this concept and moved on.
- VII. A discussion on the public participation process was initiated by Joyce Newland. Dan Avery asked if a public comment period was needed. Joyce Newland, Larry Heil, and .Pat Morris agreed that a public comment period was needed, but could be a shortened period
- VIII. Meeting adjourned at approximately 2:15 PM

Appendix B

Mobile 6.2 Input and Output Files

INPUT FILES

* INPUT FILE: 2002F.in

MOBILE6 INPUT FILE :

> MOBILE6.2 For Ft. Wayne, Indiana,
> 2002 VMT Run - SPEED VMT Command for Allen County

POLLUTANTS : hc NOX
RUN DATA :

***** Run Section *****

* Use the Min/Max Temperature for FT. WAYNE, IN for July

MIN/MAX TEMP : 62.5 84.3
FUEL RVP : 9.0
ABSOLUTE HUMIDITY : 85.7
CLOUD COVER : 0.25
SUNRISE/SUNSET : 5 8
NO REFUELING :
REG DIST : REG02.D

***** Scenario Section *****

SCENARIO RECORD : Rural Interstate
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 61.32 FREEWAY 97.0 0.0 0.0 3.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Other Prin Art
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 43.96 FREEWAY NON RAMP
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Min Art
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 37.69 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Major Col
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 38.00 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Min Col
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 33.77 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Urban Interstate
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 55.72 FREEWAY 92.0 0.0 0.0 8.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Other Freeway/Exp
CALENDAR YEAR : 2002
EVALUATION MONTH : 7

AVERAGE SPEED : 54.57 FREEWAY 92.0 0.0 0.0 8.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Urban Other Prin Art
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 21.76 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Urban Minor Art
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 32.35 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Urban Col
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 28.14 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Locals
CALENDAR YEAR : 2002
EVALUATION MONTH : 7
AVERAGE SPEED : 12.90 LOCAL
* Rely on the National Default VMT BY FACILITY

***** End of Run *****
END OF RUN :

*** INPUT FILE: 2010b.in**

* INPUT FILE: 2010F.in
***** Header Section *****
MOBILE6 INPUT FILE :

> MOBILE6.2 For Ft. Wayne, Indiana,
> 2010 VMT Run - SPEED VMT Command for Allen County

POLLUTANTS : hc NOX
RUN DATA :

***** Run Section *****
* Use the Min/Max Temperature for FT. WAYNE, IN for July
MIN/MAX TEMP : 62.5 84.3
FUEL RVP : 9.0
ABSOLUTE HUMIDITY : 85.7
CLOUD COVER : 0.25
SUNRISE/SUNSET : 5 8
NO REFUELING :
REG DIST : REG02.D

***** Scenario Section *****
SCENARIO RECORD : Rural Interstate
CALENDAR YEAR : 2010
EVALUATION MONTH : 7
AVERAGE SPEED : 60.52 FREEWAY 97.0 0.0 0.0 3.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Other Prin Art
CALENDAR YEAR : 2010
EVALUATION MONTH : 7

AVERAGE SPEED : 42.93 FREEWAY NON RAMP
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Min Art
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 39.46 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Major Col
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 38.15 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Min Col
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 33.79 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Local
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 29.16 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Interstate
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 51.70 FREEWAY 92.0 0.0 0.0 8.0
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Other Freeway/Exp
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 51.10 FREEWAY 92.0 0.0 0.0 8.0
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Other Prin Art
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 17.48 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Minor Art
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 32.95 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Col
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 28.35 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Locals
 CALENDAR YEAR : 2010
 EVALUATION MONTH : 7
 AVERAGE SPEED : 12.90 LOCAL
 * Rely on the National Default VMT BY FACILITY

***** End of Run *****
 END OF RUN :

*** INPUT FILE: 2020UC2.in**

MOBILE6 INPUT FILE :

> MOBILE6.2 For Ft. Wayne, Indiana,
> 2020 VMT Run - SPEED VMT Command for Allen County

POLLUTANTS : hc NOX
RUN DATA :

***** Run Section *****

* Use the Min/Max Temperature for FT. WAYNE, IN for July

MIN/MAX TEMP : 62.5 84.3
FUEL RVP : 9.0
ABSOLUTE HUMIDITY : 85.7
CLOUD COVER : 0.25
SUNRISE/SUNSET : 5 8
NO REFUELING :
REG DIST : REG02.D

***** Scenario Section *****

SCENARIO RECORD : Rural Interstate
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 59.22 FREEWAY 97.0 0.0 0.0 3.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Other Prin Art
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 40.50 FREEWAY NON RAMP
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Min Art
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 37.34 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Major Col
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 38.01 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Min Col
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 33.74 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Local
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 29.14 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Urban Interstate
CALENDAR YEAR : 2020
EVALUATION MONTH : 7
AVERAGE SPEED : 47.70 FREEWAY 92.0 0.0 0.0 8.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Other Freeway/Exp
CALENDAR YEAR : 2020

```

EVALUATION MONTH      : 7
AVERAGE SPEED        : 50.50 FREEWAY 92.0 0.0 0.0 8.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD      : Urban Other Prin Art
CALENDAR YEAR        : 2020
EVALUATION MONTH      : 7
AVERAGE SPEED        : 14.24 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD      : Urban Minor Art
CALENDAR YEAR        : 2020
EVALUATION MONTH      : 7
AVERAGE SPEED        : 31.38 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD      : Urban Col
CALENDAR YEAR        : 2020
EVALUATION MONTH      : 7
AVERAGE SPEED        : 28.14 ARTERIAL
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD      : Locals
CALENDAR YEAR        : 2020
EVALUATION MONTH      : 7
AVERAGE SPEED        : 12.90 LOCAL
* Rely on the National Default VMT BY FACILITY

```

```

***** End of Run *****
END OF RUN      :

```

*** INPUT FILE: 2030UC2.in**

MOBILE6 INPUT FILE :

```

> MOBILE6.2 For Ft. Wayne, Indiana,
> 2030 VMT Run - SPEED VMT Command for Allen County

```

```

POLLUTANTS      : hc NOX
RUN DATA       :

```

```

***** Run Section *****
* Use the Min/Max Temperature for FT. WAYNE, IN for July
MIN/MAX TEMP    : 62.5 84.3
FUEL RVP        : 9.0
ABSOLUTE HUMIDITY : 85.7
CLOUD COVER     : 0.25
SUNRISE/SUNSET  : 5 8
NO REFUELING    :
REG DIST        : REG02.D

```

```

***** Scenario Section *****
SCENARIO RECORD : Rural Interstate
CALENDAR YEAR   : 2030
EVALUATION MONTH : 7
AVERAGE SPEED  : 57.84 FREEWAY 97.0 0.0 0.0 3.0
* Rely on the National Default VMT BY FACILITY
SCENARIO RECORD : Rural Other Prin Art
CALENDAR YEAR   : 2030
EVALUATION MONTH : 7

```

AVERAGE SPEED : 38.09 FREEWAY NON RAMP
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Min Art
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 34.53 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Major Col
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 37.86 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Min Col
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 33.65 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Rural Local
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 29.11 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Interstate
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 44.00 FREEWAY 92.0 0.0 0.0 8.0
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Other Freeway/Exp
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 49.70 FREEWAY 92.0 0.0 0.0 8.0
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Other Prin Art
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 12.40 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Minor Art
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 29.42 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Urban Col
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 27.83 ARTERIAL
 * Rely on the National Default VMT BY FACILITY
 SCENARIO RECORD : Locals
 CALENDAR YEAR : 2030
 EVALUATION MONTH : 7
 AVERAGE SPEED : 12.90 LOCAL
 * Rely on the National Default VMT BY FACILITY

***** End of Run *****
 END OF RUN :

REG DIST

* data file: REG02.D

* This file contains the default MOBILE6 values for the distribution of
* vehicles by age for July of any calendar year. There are sixteen (16)
* sets of values representing 16 combined gasoline/diesel vehicle class
* distributions. These distributions are split for gasoline and diesel
* using the separate input (or default) values for diesel sales fractions.
* Each distribution contains 25 values which represent the fraction of
* all vehicles in that class (gasoline and diesel) of that age in July.
* The first number is for age 1 (calendar year minus model year plus one)
* and the last number is for age 25. The last age includes all vehicles
* of age 25 or older. The first number in each distribution is an integer
* which indicates which of the 16 vehicle classes are represented by the
* distribution. The sixteen vehicle classes are:

- * 1 LDV Light-Duty Vehicles (Passenger Cars)
- * 2 LDT1 Light-Duty Trucks 1 (0-6,000 lbs. GVWR, 0-3750 lbs. LVW)
- * 3 LDT2 Light Duty Trucks 2 (0-6,001 lbs. GVWR, 3751-5750 lbs. LVW)
- * 4 LDT3 Light Duty Trucks 3 (6,001-8500 lbs. GVWR, 0-3750 lbs. LVW)
- * 5 LDT4 Light Duty Trucks 4 (6,001-8500 lbs. GVWR, 3751-5750 lbs. LVW)
- * 6 HDV2B Class 2b Heavy Duty Vehicles (8501-10,000 lbs. GVWR)
- * 7 HDV3 Class 3 Heavy Duty Vehicles (10,001-14,000 lbs. GVWR)
- * 8 HDV4 Class 4 Heavy Duty Vehicles (14,001-16,000 lbs. GVWR)
- * 9 HDV5 Class 5 Heavy Duty Vehicles (16,001-19,500 lbs. GVWR)
- * 10 HDV6 Class 6 Heavy Duty Vehicles (19,501-26,000 lbs. GVWR)
- * 11 HDV7 Class 7 Heavy Duty Vehicles (26,001-33,000 lbs. GVWR)
- * 12 HDV8A Class 8a Heavy Duty Vehicles (33,001-60,000 lbs. GVWR)
- * 13 HDV8B Class 8b Heavy Duty Vehicles (>60,000 lbs. GVWR)
- * 14 HDBS School Busses
- * 15 HDBT Transit and Urban Busses
- * 16 MC Motorcycles (All)

* The 25 age values are arranged in two rows of 10 values followed by a row
* with the last 5 values. Comments (such as this one) are indicated by
* an asterisk in the first column. Empty rows are ignored. Values are
* read "free format," meaning any number may appear in any row with as
* many characters as needed (including a decimal) as long as 25 values
* follow the initial integer value separated by a space.

* If all 28 vehicle classes do not need to be altered from the default
* values, then only the vehicle classes that need to be changed need to
* be included in this file. The order in which the vehicle classes are
* read does not matter, however each vehicle class set must contain 25
* values and be in the proper age order.

* LDV

1 0.0405 0.0541 0.0540 0.0559 0.0671 0.0682 0.0599 0.0660 0.0593 0.0677
0.0571 0.0550 0.0528 0.0457 0.0399 0.0382 0.0293 0.0220 0.0178 0.0129
0.0091 0.0044 0.0028 0.0023 0.0181

* LDT1

2 0.0398 0.0531 0.0530 0.0329 0.0286 0.0223 0.0330 0.0248 0.0506 0.0548
0.0686 0.0546 0.0466 0.0645 0.0503 0.0661 0.0569 0.0605 0.0445 0.0347
0.0196 0.0095 0.0083 0.0066 0.0160

* LDT2

3 0.0552 0.0736 0.0734 0.0717 0.0963 0.0908 0.0995 0.0892 0.0639 0.0574

OUTPUT FILES

2002 OUTPUT

 * MOBILE6.2.03 (24-Sep-2003) *
 * Input file: C:\MOBILE6\MOBILE6\RUN\02AGE.IN (file 1, run 1). *

M617 Comment: User supplied alternate AC input: Cloud Cover Fraction set to 0.25.
 M618 Comment: User supplied alternate AC input: Sunrise at 5 AM, Sunset at 8 PM.
 M603 Comment: User has disabled the calculation of REFUELING emissions.

* Reading Registration Distributions from the following external
 * data file: REG02.D

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
 M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
 M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
 M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

* #####
 * **Rural Interstate** File 1, Run 1, Scenario 1.
 * #####

M582 Warning: The user supplied freeway average speed of 61.3 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
 M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All
 Veh

GVWR: <6000 >6000 (All)

VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

 Composite Emission Factors (g/mi):

Composite VOC : 1.427 1.218 1.493 1.293 1.224 0.620 0.594 0.446 2.34 1.283
 Composite NOX : 1.312 1.451 1.683 1.514 5.920 2.469 2.252 23.924 1.60 3.481

* #####
 * **Rural Other Prin Art** File 1, Run 1, Scenario 2.
 * #####

VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 1.615 1.387 1.685 1.468 1.554 0.705 0.690 0.577 1.99 1.462
Composite NOX : 1.219 1.329 1.560 1.392 4.999 1.419 1.283 12.663 1.16 2.397

* #####

* **Rural Major Col** File 1, Run 1, Scenario 4.

* #####

M583 Warning: The user supplied arterial average speed of 38.0 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All
Veh

GVWR: <6000 >6000 (All)

VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 1.611 1.384 1.682 1.465 1.544 0.703 0.687 0.573 1.98 1.458
Composite NOX : 1.220 1.330 1.561 1.392 5.011 1.421 1.285 12.679 1.16 2.400

* #####

* **Rural Min Col** File 1, Run 1, Scenario 5.

* #####

M583 Warning: The user supplied arterial average speed of 33.8 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All
 Veh
 GVWR: <6000 >6000 (All)

VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

 Composite Emission Factors (g/mi):

Composite VOC : 1.667 1.430 1.735 1.513 1.692 0.742 0.731 0.632 2.06 1.514
 Composite NOX : 1.219 1.324 1.557 1.387 4.849 1.401 1.267 12.529 1.13 2.379

* #####
 * **Urban Interstate** File 1, Run 1, Scenario 6.
 * #####

M582 Warning: The user supplied freeway average speed of 55.7 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
 M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All
 Veh
 GVWR: <6000 >6000 (All)

VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

 Composite Emission Factors (g/mi):

Composite VOC : 1.471 1.263 1.543 1.339 1.254 0.627 0.602 0.457 2.11 1.323
 Composite NOX : 1.307 1.443 1.675 1.506 5.726 2.089 1.901 20.693 1.48 3.193

* #####
 * **Other Freeway/Exp** File 1, Run 1, Scenario 7.
 * #####

M582 Warning: The user supplied freeway average speed of 54.6 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
 M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All
 Veh
 GVWR: <6000 >6000 (All)

 VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

Composite Emission Factors (g/mi):
 Composite VOC : 1.479 1.271 1.552 1.347 1.261 0.629 0.604 0.459 2.04 1.330
 Composite NOX : 1.302 1.437 1.669 1.500 5.679 2.007 1.825 20.053 1.44 3.132

* #####
 * **Urban Other Prin Art** File 1, Run 1, Scenario 8.
 * #####
 M583 Warning: The user supplied arterial average speed of 21.8 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.
 M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All
 Veh
 GVWR: <6000 >6000 (All)

 VMT Distribution: 0.4409 0.3127 0.1167 0.0365 0.0008 0.0018 0.0844 0.0061 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 1.972 1.692 2.037 1.786 2.492 0.923 0.935 0.910 2.44 1.822
 Composite NOX : 1.341 1.438 1.685 1.505 4.397 1.540 1.395 13.609 1.00 2.557

#####

* **Urban Minor Art** File 1, Run 1, Scenario 9.

#####

M583 Warning: The user supplied arterial average speed of 32.3 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All
Veh										
GVWR:	<6000	>6000	(All)							

VMT Distribution:	0.4409	0.3127	0.1167	0.0365	0.0008	0.0018	0.0844	0.0061	1.0000
-------------------	--------	--------	--------	--------	--------	--------	--------	--------	--------

 Composite Emission Factors (g/mi):

Composite VOC : 1.693 1.453 1.762 1.537 1.753 0.757 0.748 0.656 2.10 1.541
 Composite NOX : 1.227 1.330 1.563 1.393 4.797 1.405 1.270 12.554 1.12 2.385

#####

* **Urban Col** File 1, Run 1, Scenario 10.

#####

M583 Warning: The user supplied arterial average speed of 28.1 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
 Evap I/M Program: No

ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All
Veh										
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.4409	0.3127	0.1167	0.0365	0.0008	0.0018	0.0844	0.0061	1.0000	

Composite Emission Factors (g/mi):										
Composite VOC :	1.781	1.527	1.848	1.615	1.976	0.811	0.809	0.738	2.21	1.628
Composite NOX :	1.259	1.357	1.593	1.421	4.638	1.431	1.294	12.758	1.08	2.422

* #####
* **Locals** File 1, Run 1, Scenario 11.
* #####

M585 Warning: 100% of VMT has been assigned to the local roadway type for all hours of the day for all vehicle types with an average speed of 12.9 mph.
M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2002
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 279. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All
Veh										
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.4409	0.3127	0.1167	0.0365	0.0008	0.0018	0.0844	0.0061	1.0000	

Composite Emission Factors (g/mi):										
Composite VOC :	2.555	2.255	2.651	2.363	4.018	1.177	1.220	1.298	3.09	2.419
Composite NOX :	1.211	1.272	1.505	1.335	4.050	1.874	1.703	13.972	0.92	2.445

2010 OUTPUT

* MOBILE6.2.03 (24-Sep-2003) *
* Input file: N:\JEFF\MOBILE6\MOBILE6\RUN\2010B.IN (file 1, run 1). *

M617 Comment: User supplied alternate AC input: Cloud Cover Fraction set to 0.25.
M618 Comment: User supplied alternate AC input: Sunrise at 5 AM, Sunset at 8 PM.

M603 Comment: User has disabled the calculation of REFUELING emissions.

* Reading Registration Distributions from the following external data file: REG02.D

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

#####

* Rural Interstate File 1, Run 1, Scenario 1.

#####

M582 Warning: The user supplied freeway average speed of 60.5 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.3334 0.3904 0.1456 0.0362 0.0003 0.0021 0.0865 0.0055 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.754 0.614 0.763 0.654 0.595 0.169 0.287 0.253 2.26 0.658
Composite NOX : 0.660 0.755 1.018 0.826 2.642 0.718 0.954 10.146 1.58 1.647

#####

* Rural Other Prin Art File 1, Run 1, Scenario 2.

#####

M582 Warning: The user supplied freeway average speed of 42.9 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.3334 0.3904 0.1456 0.0362 0.0003 0.0021 0.0865 0.0055 1.0000

Composite Emission Factors (g/mi):
Composite VOC : 0.835 0.668 0.837 0.714 0.678 0.184 0.316 0.295 1.89 0.722
Composite NOX : 0.629 0.713 0.971 0.783 2.334 0.447 0.592 6.512 1.18 1.285

* #####
* Rural Min Art File 1, Run 1, Scenario 3.
* #####

M583 Warning: The user supplied arterial average speed of 39.5 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.3334 0.3904 0.1456 0.0362 0.0003 0.0021 0.0865 0.0055 1.0000

Composite Emission Factors (g/mi):
Composite VOC : 0.847 0.675 0.846 0.721 0.708 0.191 0.329 0.314 1.93 0.733
Composite NOX : 0.613 0.694 0.949 0.763 2.272 0.428 0.566 5.676 1.17 1.194

* #####
* Rural Major Col File 1, Run 1, Scenario 4.
* #####

M583 Warning: The user supplied arterial average speed of 38.2 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low

Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.3334	0.3904	0.1456	0.0362	0.0003	0.0021	0.0865	0.0055	1.0000	

Composite Emission Factors (g/mi):
Composite VOC : 0.855 0.679 0.852 0.726 0.722 0.194 0.335 0.323 1.95 0.740
Composite NOX : 0.612 0.692 0.946 0.761 2.251 0.426 0.563 5.641 1.16 1.189

* Rural Min Col File 1, Run 1, Scenario 5.
#####

M583 Warning: The user supplied arterial average speed of 33.8 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.3334	0.3904	0.1456	0.0362	0.0003	0.0021	0.0865	0.0055	1.0000	

Composite Emission Factors (g/mi):
Composite VOC : 0.884 0.698 0.877 0.747 0.776 0.206 0.358 0.358 2.03 0.766
Composite NOX : 0.611 0.688 0.943 0.757 2.176 0.420 0.555 5.560 1.13 1.177

* Rural Local File 1, Run 1, Scenario 6.
#####

M583 Warning: The user supplied arterial average speed of 29.2 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.3334	0.3904	0.1456		0.0362	0.0003	0.0021	0.0865	0.0055	1.0000

Composite Emission Factors (g/mi):										
Composite VOC :	0.928	0.731	0.920	0.782	0.854	0.223	0.390	0.406	2.15	0.807
Composite NOX :	0.626	0.701	0.959	0.771	2.097	0.425	0.562	5.633	1.09	1.192

* #####
* Urban Interstate File 1, Run 1, Scenario 7.
* #####

M582 Warning: The user supplied freeway average speed of 51.7 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.3334	0.3904	0.1456		0.0362	0.0003	0.0021	0.0865	0.0055	1.0000

Composite Emission Factors (g/mi):										

Composite VOC : 0.790 0.639 0.798 0.682 0.622 0.173 0.295 0.265 1.87 0.685
Composite NOX : 0.648 0.737 0.998 0.808 2.494 0.544 0.721 7.796 1.36 1.423

* #####

* Other Freeway/Exp File 1, Run 1, Scenario 8.

* #####

M582 Warning: The user supplied freeway average speed of 51.1 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

VMT Distribution: 0.3334 0.3904 0.1456 0.0362 0.0003 0.0021 0.0865 0.0055 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.793 0.641 0.800 0.684 0.625 0.174 0.296 0.266 1.87 0.688
Composite NOX : 0.646 0.735 0.996 0.806 2.483 0.536 0.710 7.684 1.34 1.411

* #####

* Urban Other Prin Art File 1, Run 1, Scenario 9.

* #####

M583 Warning: The user supplied arterial average speed of 17.5 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.3334 0.3904 0.1456 0.0362 0.0003 0.0021 0.0865 0.0055 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.937 0.737 0.927 0.789 0.871 0.227 0.397 0.415 2.17 0.815
Composite NOX : 0.630 0.705 0.965 0.775 2.084 0.428 0.566 5.669 1.08 1.198

* #####
* Locals File 1, Run 1, Scenario 12.
* #####

M585 Warning: 100% of VMT has been assigned to the local roadway type for all hours of the day for all vehicle types with an average speed of 12.9 mph.

M 48 Warning: there are no sales for vehicle class HDGV8b

Calendar Year: 2010
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.3334 0.3904 0.1456 0.0362 0.0003 0.0021 0.0865 0.0055 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 1.321 1.057 1.317 1.128 1.594 0.341 0.612 0.735 3.06 1.184
Composite NOX : 0.618 0.687 0.940 0.756 1.817 0.563 0.746 6.999 0.92 1.289

2020 OUTPUT

* MOBILE6.2.03 (24-Sep-2003) *
* Input file: N:\JEFF\MOBILE6\MOBILE6\RUN\2020UC2.IN (file 1, run 1). *

M617 Comment: User supplied alternate AC input: Cloud Cover Fraction set to 0.25.
M618 Comment: User supplied alternate AC input: Sunrise at 5 AM, Sunset at 8 PM.
M603 Comment: User has disabled the calculation of REFUELING emissions.

* Reading Registration Distributions from the following external data file: REG02.D

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
M 49 Warning: 1.00 MYR sum not = 1. (will normalize)
M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

* #####
* Rural Interstate File 1, Run 1, Scenario 1.
* #####

M582 Warning: The user supplied freeway average speed of 59.2 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b
M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):
Composite VOC : 0.347 0.334 0.439 0.363 0.259 0.056 0.117 0.171 2.18 0.347
Composite NOX : 0.304 0.364 0.505 0.402 0.686 0.100 0.257 2.302 1.54 0.558

* #####
* Rural Other Prin Art File 1, Run 1, Scenario 2.
* #####

M582 Warning: The user supplied freeway average speed of 40.5 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b
M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.385 0.361 0.476 0.392 0.307 0.063 0.131 0.209 1.92 0.378
Composite NOX : 0.288 0.340 0.478 0.378 0.600 0.064 0.165 1.497 1.17 0.464

* #####
* Rural Min Art File 1, Run 1, Scenario 3.
* #####

M583 Warning: The user supplied arterial average speed of 37.3 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b
M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.392 0.364 0.480 0.396 0.322 0.065 0.137 0.223 1.96 0.384
Composite NOX : 0.283 0.333 0.466 0.369 0.586 0.063 0.161 1.361 1.16 0.444

* #####
* Rural Major Col File 1, Run 1, Scenario 4.
* #####

M583 Warning: The user supplied arterial average speed of 38.0 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b
M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020
Month: July
Altitude: Low

* Rural Local File 1, Run 1, Scenario 6.

* #####

M583 Warning: The user supplied arterial average speed of 29.1 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							

VMT Distribution:	0.2660	0.4384	0.1635		0.0366	0.0002	0.0024	0.0877	0.0051	1.0000
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Composite Emission Factors (g/mi):

Composite VOC :	0.425	0.390	0.514	0.424	0.379	0.075	0.157	0.275	2.15	0.418
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Composite NOX :	0.290	0.338	0.474	0.375	0.549	0.063	0.161	1.364	1.09	0.448
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* #####

* Urban Interstate File 1, Run 1, Scenario 7.

* #####

M582 Warning: The user supplied freeway average speed of 47.7 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
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GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.368 0.349 0.461 0.380 0.280 0.059 0.123 0.187 1.87 0.363
Composite NOX : 0.295 0.350 0.490 0.388 0.634 0.072 0.185 1.674 1.25 0.489

* Other Freeway/Exp File 1, Run 1, Scenario 8.

M582 Warning: The user supplied freeway average speed of 50.5 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.362 0.345 0.455 0.375 0.273 0.058 0.121 0.181 1.87 0.358
Composite NOX : 0.298 0.355 0.495 0.393 0.648 0.078 0.200 1.803 1.32 0.505

* Urban Other Prin Art File 1, Run 1, Scenario 9.

M583 Warning: The user supplied arterial average speed of 14.2 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.610 0.577 0.734 0.619 0.665 0.109 0.231 0.467 2.91 0.616
Composite NOX : 0.362 0.409 0.570 0.453 0.483 0.080 0.205 1.744 0.93 0.545

* Urban Minor Art File 1, Run 1, Scenario 10.

M583 Warning: The user supplied arterial average speed of 31.4 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.
M 48 Warning: there are no sales for vehicle class HDGV8b
M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.414 0.381 0.502 0.414 0.361 0.072 0.150 0.258 2.09 0.406
Composite NOX : 0.286 0.334 0.469 0.371 0.559 0.062 0.160 1.352 1.11 0.444

* Urban Col File 1, Run 1, Scenario 11.

M583 Warning: The user supplied arterial average speed of 28.1 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							

VMT Distribution:	0.2660	0.4384	0.1635		0.0366	0.0002	0.0024	0.0877	0.0051	1.0000
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Composite Emission Factors (g/mi):

Composite VOC :	0.430	0.395	0.519	0.429	0.389	0.076	0.160	0.283	2.18	0.423
-----------------	-------	-------	-------	-------	-------	-------	-------	-------	------	-------

Composite NOX :	0.292	0.340	0.477	0.377	0.545	0.063	0.162	1.375	1.08	0.451
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* #####

* Locals File 1, Run 1, Scenario 12.

* #####

M585 Warning: 100% of VMT has been assigned to the local roadway type for all hours of the day for all vehicle types with an average speed of 12.9 mph.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2020

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.632 0.601 0.758 0.643 0.723 0.114 0.243 0.498 3.06 0.642
Composite NOX : 0.296 0.334 0.456 0.367 0.476 0.083 0.213 1.746 0.92 0.476

2030 OUTPUT

* MOBILE6.2.03 (24-Sep-2003) *

* Input file: N:\JEFF\MOBILE6\MOBILE6\RUN\2030B2.IN (file 1, run 1). *

M617 Comment: User supplied alternate AC input: Cloud Cover Fraction set to 0.25.

M618 Comment: User supplied alternate AC input: Sunrise at 5 AM, Sunset at 8 PM.

M603 Comment: User has disabled the calculation of REFUELING emissions.

* Reading Registration Distributions from the following external data file: REG02.D

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

M 49 Warning: 1.00 MYR sum not = 1. (will normalize)

* #####

* Rural Interstate File 1, Run 1, Scenario 1.

* #####

M582 Warning: The user supplied freeway average speed of 57.8 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.299 0.312 0.364 0.326 0.173 0.039 0.078 0.156 2.10 0.307
Composite NOX : 0.249 0.329 0.424 0.355 0.215 0.037 0.160 0.791 1.50 0.365

 * Rural Other Prin Art File 1, Run 1, Scenario 2.
 #####

M582 Warning: The user supplied freeway average speed of 38.1 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.
 M 48 Warning: there are no sales for vehicle class HDGV8b
 M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							

VMT Distribution:	0.2660	0.4384	0.1635		0.0366	0.0002	0.0024	0.0877	0.0051	1.0000
-------------------	--------	--------	--------	--	--------	--------	--------	--------	--------	--------

 Composite Emission Factors (g/mi):
 Composite VOC : 0.341 0.341 0.400 0.357 0.223 0.045 0.092 0.199 1.95 0.341
 Composite NOX : 0.237 0.307 0.398 0.332 0.187 0.024 0.105 0.515 1.16 0.321

 * Rural Min Art File 1, Run 1, Scenario 3.
 #####

M583 Warning: The user supplied arterial average speed of 34.5 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.
 M 48 Warning: there are no sales for vehicle class HDGV8b
 M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030
 Month: July
 Altitude: Low
 Minimum Temperature: 62.5 (F)
 Maximum Temperature: 84.3 (F)
 Absolute Humidity: 86. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.8 psi
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
 Evap I/M Program: No
 ATP Program: No
 Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
 GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

 Composite Emission Factors (g/mi):

Composite VOC : 0.350 0.346 0.406 0.362 0.239 0.048 0.098 0.215 2.02 0.349
 Composite NOX : 0.233 0.300 0.388 0.324 0.182 0.024 0.103 0.507 1.14 0.314

* #####
 * Rural Major Col File 1, Run 1, Scenario 4.
 * #####

M583 Warning: The user supplied arterial average speed of 37.9 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
 GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

 Composite Emission Factors (g/mi):

Composite VOC : 0.340 0.339 0.397 0.355 0.224 0.045 0.093 0.200 1.96 0.340
 Composite NOX : 0.233 0.302 0.391 0.326 0.186 0.024 0.105 0.514 1.16 0.317

* #####
 * Rural Min Col File 1, Run 1, Scenario 5.
 * #####

M583 Warning: The user supplied arterial average speed of 33.7 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.353 0.349 0.409 0.365 0.244 0.048 0.099 0.220 2.04 0.353
Composite NOX : 0.233 0.301 0.389 0.325 0.181 0.024 0.103 0.507 1.13 0.315

#####

* Rural Local File 1, Run 1, Scenario 6.

#####

M583 Warning: The user supplied arterial average speed of 29.1 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.373 0.366 0.429 0.383 0.272 0.053 0.109 0.249 2.15 0.373
Composite NOX : 0.240 0.307 0.397 0.331 0.174 0.024 0.105 0.515 1.09 0.320

#####

* Urban Interstate File 1, Run 1, Scenario 7.

Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.372 0.365 0.427 0.382 0.270 0.052 0.108 0.247 2.14 0.371
Composite NOX : 0.239 0.306 0.396 0.330 0.174 0.024 0.105 0.513 1.09 0.320

#####

* Urban Col File 1, Run 1, Scenario 11.

#####

M583 Warning: The user supplied arterial average speed of 27.8 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030

Month: July

Altitude: Low

Minimum Temperature: 62.5 (F)

Maximum Temperature: 84.3 (F)

Absolute Humidity: 86. grains/lb

Nominal Fuel RVP: 9.0 psi

Weathered RVP: 8.8 psi

Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No

Evap I/M Program: No

ATP Program: No

Reformulated Gas: No

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)

VMT Distribution: 0.2660 0.4384 0.1635 0.0366 0.0002 0.0024 0.0877 0.0051 1.0000

Composite Emission Factors (g/mi):

Composite VOC : 0.380 0.371 0.435 0.389 0.281 0.054 0.112 0.259 2.19 0.379
Composite NOX : 0.242 0.310 0.400 0.334 0.172 0.024 0.106 0.520 1.07 0.323

#####

* Locals File 1, Run 1, Scenario 12.

#####

M585 Warning: 100% of VMT has been assigned to the local roadway type for all hours of the day for all vehicle types with an average speed of 12.9 mph.

M 48 Warning: there are no sales for vehicle class HDGV8b
M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2030
Month: July
Altitude: Low
Minimum Temperature: 62.5 (F)
Maximum Temperature: 84.3 (F)
Absolute Humidity: 86. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 8.8 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.2660	0.4384	0.1635		0.0366	0.0002	0.0024	0.0877	0.0051	1.0000

Composite Emission Factors (g/mi):										
Composite VOC :	0.570	0.572	0.657	0.595	0.546	0.082	0.173	0.451	3.06	0.586
Composite NOX :	0.246	0.303	0.378	0.323	0.151	0.032	0.139	0.690	0.92	0.331

Appendix C

Speed Calculations

Based on Texas Transportation Institute Method

2020	HPMS Type	Daily VMT 2020 Assigned	2020 LN Miles	AADT	VPH/ Lane	Default Capacity	Default FF Speeds	Congested Speeds
	Total Rural Interstate	846590.74	48.92	17305.62	721.07	2200	70	60.56
	Total Other Prin Art	807268.55	48.95	16491.70	687.15	1003	55	40.50
	Total Minor Arterial	104009.09	6.74	15431.62	642.98	920	50	37.34
	Total Major Col	801827.64	265.31	3022.23	125.93	836	40	38.01
	Total Minor Col	148128.51	111.73	1325.77	55.24	669	35	33.74
	Urban Interstate	2028009.14	58.39	34732.13	1447.2	2200	70	49.31
	Other Fwy/Exp	85703.98	3.48	24627.58	1026.1	2100	65	52.65
	Other Prin Art	1883721.43	66.16	28472.21	1186.3	878	45	14.24
	Minor Arterial	3124946.00	230.02	13585.54	566.1	805	40	31.38
	Urban Collector	969160.22	170.35	5689.23	237.1	732	30	28.14
	Locals-SA	1428121.03	1255.60	1137.40	47.39	439	30	28.09
	Locals-OSA	133157.00	579.64	229.72	9.57	502	30	29.14
2030	HPMS Type	Daily VMT 2030 Assigned	2030 LN Miles	AADT	VPH/ Lane	Default Capacity	Default FF Speeds	Congested Speeds
	Total Rural Interstate	994081.68	48.92	20320.56	846.69	2200	70	59.07
	Total Other Prin Art	891945.75	48.95	18221.57	759.23	1003	55	38.09
	Total Minor Arterial	117840.62	6.74	17483.77	728.49	920	50	34.53
	Total Major Col	940987.23	265.31	3546.75	147.78	836	40	37.86
	Total Minor Col	188888.82	111.73	1690.58	70.44	669	35	33.65
	Urban Interstate	2325650.36	58.80	39551.88	1648.0	2200	70	45.10
	Other Fwy/Exp	91572.61	3.48	26313.97	1096.4	2100	65	51.61
	Other Prin Art	1975081.01	66.16	29853.10	1243.9	878	45	12.40
	Minor Arterial	3524347.46	230.03	15321.25	638.4	805	40	29.42
	Urban Collector	1134112.01	170.35	6657.54	277.4	732	30	27.83
	Locals-SA	1598048.22	1255.60	1272.74	53.03	439	30	27.92
	Locals-OSA	146604.00	579.64	252.92	10.54	502	30	29.11
<p>Delay is the congested delay in minutes per mile; A and B are volume/delay equation coefficients; M is the maximum minutes of delay per mile; and V/C is the time of day directional volume/capacity ratio.</p>								
	Default Parameters	A	B	M				
	Low Capacity Facilities	0.05	3	10				

Appendix D

Citizen Comments

A public comment period was held from March 23, 2009 through April 6, 2009 on the Conformity Determination and analyses, and the 2030-II Transportation Plan. All documents were available for public review at the NIRCC offices. A public meeting was held to discuss the air quality conformity analysis and pending air quality conformity determinations for Allen County including the 2030-II Transportation Plan. There were no public comments received regarding the Conformity Determination or analyses. Comments were received regarding the 2030 Transportation Plan, and other transportation planning activities. These comments are provided below.

Air Quality Conformity Determination Meeting Citizen Comments

**City County Building – Omni Room (Room 250)
March 31, 2009**

No comments were received regarding the conformity demonstration or analysis.

Air Quality Conformity Determination Public Comment Period

A public comment period was held from July 6, 2010 through July 12, 2010 on the Air Quality Conformity Determination and analyses. All documents were available for public review at the NIRCC offices. There were no public comments received regarding the Air Quality Conformity Determination or analyses.

Appendix E
2030 Transportation Project List

2030-II Transportation Plan Projects - Allen County

The list below includes the air quality “Non-Exempt” and “Exempt” highway and transit projects. The numbers preceding the highway projects corresponds to the time periods analyzed for air quality conformity. The 2030-II Transportation Plan as amended Project Identification Number, as listed in the 2009-2012 TIP, has been provided following the description for each project (XX-XXX).

The time periods are:

Period 1 2010-2019

Period 2 2020-2030

Highway Improvements

Air Quality Non-Exempt Projects

New Construction

New four-lane construction

1 Maplecrest Road from Lake Avenue to State Road 930 (10-005)

New two-lane construction

1 Coombs Street from Maumee Avenue to Wayne Street (30-006)

1 Paul Shaffer Drive from Clinton Street to California Road (30(II)-001)

1 Spring Street from Wells Street to Spy Run Avenue (30-007)

Widening Projects

Widen to six lanes

2 Clinton Street from Parnell Avenue to Auburn Road (30-019)

1 Crescent Avenue from Sirlin Drive to Coliseum Boulevard (30(II)-002)

1 Jefferson Boulevard from Illinois Road South to Main Street (10-011)

2 Jefferson Boulevard from Interstate 69 to Illinois Road South (30(II)-003)

2 Illinois Road from Getz Road to Thomas Road (30(II)-004)

1 State Road 3/Lima Road from Ludwig Road to Dupont Road (15-003)

Widen to four lanes

2 Adams Center Road from State Road 930 to Moeller Road (25-033)

1 Aboite Center Road from Coventry Lane to Jefferson Boulevard (10-009)

1 Ardmore Avenue from Jefferson Blvd to Taylor Street (30-016)

1 Ardmore Avenue from Taylor Street to Engle Road (30-017)

2 Ardmore Avenue from Engle Road to Lower Huntington Road (30-015)

1 Bass Road from Hillegas Road to Scott Road (30-018)

2 Bluffton Road from Winchester Road to Old Trail Road (30(II)-005)

1 Clinton Street from Auburn Road to Wallen Road (25-034)

2 Clinton Street from Wallen Road to Dupont Road/State Road 1 (25-034)

1 Dupont Road from Coldwater Road to Lima Road/State Road 3 (25-035)

2 Goshen Avenue from State Boulevard to Coliseum Boulevard/State Road 930 (10-010)

1 Hillegas Road from s/o Bass Road to Washington Center Road (25-036)

2 Huguenard Road from Washington Center Road to Cook Road (25-037)

- 2 Lake Avenue from Reed Road to Maysville Road (10-012)
- 1 Maplecrest Road from Lake Avenue to State Boulevard (10-007)
- 1 Maysville Road/Stellhorn Road from Maplecrest Road to Koester Ditch (30-020)
- 2 State Boulevard from Maysville Road to Georgetown North Boulevard (10-015)
- 1 State Boulevard from Spy Run Avenue to Clinton Street (10-016)
- 1 State Boulevard from Clinton Street to Goshen Avenue (10-014)
- 1 State Road 1/Dupont Road from Interstate 69 to Tonkel Road (10-021)
- 1 State Road 14/Illinois Road from Scott Road to West Hamilton Road (10-023)
- 1 State Road 930 from Minnich Road to Brookwood Drive (10-025)
- 2 Tonkel Road from Dupont Road/State Road 1 to Union Chapel Road (10-017)
- 1 Washington Center Road from Lima Road/State Road 3 to US 33 (25-038)
- 2 Wells Street from State Boulevard to Fernhill Avenue (10-018)

Congressional High Priority Corridor Improvement

- 2 US 24 from Interstate 469 to Bruick/Ryan Road (10-019)
- 1 US 24 from State Road 101 to Indiana State line (including interchange @ 101) (**Donut Area**) (30-023)
- 2 US 24 from Bruick/Ryan Road to Webster Road (including interchange @ Webster Road) (**Donut Area**) (30-021)
- 2 US 24 from Webster Road to w/o State Road 101 (**Donut Area**) (30-022)

Interchange-New Construction

- 2 Interstate 69 at Hursh Road (25-051)
- 1 Interstate 69 at Union Chapel Rd (30(II)-015)

Air Quality Exempt Projects

Congestion Management Strategy Implementation

Center Turn Lane Improvement

- 1 Auburn Road from Cook Road to Interstate 469 Exit Ramp (3-lane) (15-001)
- 1 Auburn Road from Dupont Road to Hursh Road (3-lane) (25-001)
- 1 Coldwater Road from Mill Lake Road to Union Chapel Road (3-lane) (25-002)
- 1 Cook Road from Auburn Road to Coldwater Road (3-lane) (25-003)
- 1 Covington Road from Scott Road to Homestead Road (3-lane) (25-005)
- 2 Covington Road from Interstate 69 to Scott Road (3-lane) (25-004)
- 2 Engle Road from Bluffton Road to Smith Road (3-lane) (30-002)
- 1 Gump Road from State Road 3 to Coldwater Road (3-lane) (25-006)
- 1 Gump Road from Coldwater Road to Auburn Road (3-lane) (25-006)
- 2 Hadley Road from Illinois Road/State Road 14 to Covington Road (3-lane) (25-007)
- 1 Hadley Road from Illinois Road/State Road 14 to Bass Road (3-lane) (30(II)-006)
- 2 Liberty Mills Road from Falls Drive to Homestead Road (3-lane) (25-008)
- 1 Maysville Road from State Boulevard to Stellhorn Road (3-lane) (25-009)
- 1 Saint Joe Center Road from Clinton Street to River Run Trail (5-lane) (10-002)
- 2 Saint Joe Road from Evard Road to Mayhew Road (3-lane) (10-003)
- 2 Saint Joe Road from Maplecrest Road to Eby Road (3-lane) (25-010)
- 1 Union Chapel Road from Auburn Road to Tonkel Road (3-lane) (25-011)

1 Wayne Trace from Oxford Street to Pontiac Street (3-lane) (25-012)

Turn Lane Extension

1 Jefferson Boulevard from Lutheran Hospital Entrance to Interstate 69 Ramps (25-032)

Intersection Reconstruction

1 Auburn Road and Cook Road/Auburn Road and Clinton Street (10-004)

1 Clinton Street and Washington Center/St. Joe Center Road (25-016)

1 Coliseum Boulevard and Pontiac Street Intersection (25-017)

1 Coverdale Road, Winters Road and Indianapolis Road (25-018)

1 Covington Road and Dicke Road/Covington Road and Hadley Road (25-019)

1 Dartmouth Drive and Washington Center Road (30-004)

1 Flaugh Road and Leesburg Road (30(II)-007)

1 Hadley Road, Bass Road and Yellow River Road (25-021)

2 Homestead Road and US 24 (25-022)

2 Ryan Road and Dawkins Road (25-025)

1 State Road 1/Leo Road and Amstutz Road (25-053)

1 State Road 14/Illinois Road and Allen/Whitley County Line Road (25-054)

Reconstruction and Realignment

1 Adams Center Road from State Road 930 to Interstate 469

2 Allen County/Whitley County Line Road from US 24 to SR 14 (30-008)

1 Amstutz Road from Hosler Road to State Road 1/Leo Road (30(II)-008)

1 Carroll Road - Corbin Road to w/o Corbin Road (25-028)

2 Cook Road from Fritz Road to O'Day Road (30(II)-009)

1 Coverdale Road from Indianapolis Road to Airport Expressway (30-009)

1 Flutter Road from Schwartz Road to St. Joe Road (25-029)

2 Lake Avenue from Anthony Boulevard to Coliseum Boulevard (30-010)

1 Landin Road from North River Road to Maysville Road (30-011)

1 Maplecrest Road from State Boulevard to s/o Stellhorn Road (10-007)

1 Moeller Road from Green Street to Hartzell Road (25-030)

2 Moeller Road from Hartzell Road to Adams Center (30-012)

2 Ryan Road from Harper Road to Bremer Road (25-031)

2 Saint Joe Center Road from Reed Road to Maplecrest Road (10-008)

1 Till Road from Lima Road to Dawson Creek Boulevard (30-013)

2 Wallen Road from Hanauer Road to Auburn Road (30-014)

1 Witmer Road/Second Street from Page Road to Main Street (30(II)-010)

1 Witmer Road from Schwartz Road to Page Road (30(II)-011)

1 US 27/Clinton Street – State Boulevard to Elizabeth Street (25-057)

Other Highway Improvements

New Railroad Grade Separation

1 Anthony Boulevard and Norfolk Southern Railroad (25-026)

2 Airport Expressway and Norfolk Southern Railroad (15-002)

Reconstruct Railroad Grade Separation

- 1 Anthony Boulevard and CSX Railroad (25-027)
- 2 US 27/Lafayette Street and Norfolk Southern/CSX Railroads (10-006)

Interchange-Modification

- 1 Interstate 469 and US 30 Interchange (25-048)

Bridge Reconstruction/Modification

- 1 Covington Road over Interstate 69 (25-040)
- 1 Spring Street over Norfolk/Southern railroad (30(II)-012)
- 1 US 27/Clinton Street Bridge over St. Mary's River w/Pedestrian Treatment (25-043)

Additional Projects for Illustrative Purposes Only

Widening Projects - six lanes

- Interstate 69 from Interstate 469 to US 24 (10-020)
- Interstate 69 from Dupont Road/State Road 1 to Hursh Road (25-060)
- Interstate 469 from Maplecrest Road to Interstate 69 (25-058)
- State Road 3 from Dupont Road to Gump Road (25-065)
- State Road 3 from Gump Road to Allen County Line (30(II)-013)
- State Road 930/Coliseum Boulevard from Parnell Avenue to Crescent Avenue (10-026)
- US 24 from Interstate 69 to Homestead Road (25-067)
- US 30 from Interstate 69 to US 33 (10-027)
- US 30 from US 33 to Flaugh Road (10-028)
- US 30 from Flaugh Road to O'Day Road (25-068)

Widening Projects - four lanes

- State Road 1/Leo Road from Tonkel Road to Union Chapel Road (25-063)
- State Road 1/Leo Road from Union Chapel Road to Grabill Road (30(II)-014)
- State Road 1/Bluffton Road from Interstate 469 to State Road 116/124 (30-025)
- State Road 14/Illinois Road from W Hamilton Road to Allen/Whitley County Line Road (25-064)
- State Road 37 from Doty Road to Interstate 469 (10-024)
- US 33 from Cook Road to O'Day Road (10-029)
- US 33 from O'Day Road to State Road 205 (30-028)

Turn Lane Extension

- State Road 3 from Interstate 69 to Washington Center Road (south bound) (25-066)

Reconstruction and Realignment

- State Road 37 from Doty Road to Cuba Road (30-027)

Interchange – New Construction

- US 24 and Bruick/Ryan Road (30-031)

Interchange – Modification

Interstate 69 and Coldwater Road Interchange - Ludwig Road (30-024)
Interstate 69 and US 30/33/SR 930 Interchange (25-049)
Interstate 469 and State Road 1/Bluffton Road Interchange (25-045)
Interstate 469 and US 27 Interchange (25-047)
Interstate 469 and US 24 Interchange (25-046)
US 30 and US 33 Interchange (25-050)

Bridge Reconstruction/Modification

Bass Road over Interstate 69 (25-039)
Hillegas Road over Interstate 69 (25-042)
US 27/Spy Run Avenue Bridge over St. Mary's River w/Pedestrian Treatment (25-044)

Transit Improvements

Air Quality Exempt Projects

Transit Improvement Projects

Public Transit Improvement Projects

**Projects are numbered for identification purposes only, not by priority*

- Project 1** Expanded transit service in the growing urbanized area. Potential locations include the Fort Wayne International Airport and surrounding area, Parkview North and surrounding area, Chapel Ridge and surrounding area, and Aboite, Perry, and Cedar Creek Townships. Types of service will be determined based upon projected demands and proposed service levels.
- Project 2** Design and construct a downtown intermodal transfer/transportation center.
- Project 3** Replacement of transit coaches and service vehicles as necessary to maintain a dependable transit fleet.
- Project 4** Install and upgrade bus shelters, benches, and other customer amenities. Placement of shelters (Bus Huts) should be consistent with Citilink service, accessible, and have sidewalk connectivity.
- Project 5** Reduce headways on selected routes where ridership levels warrant.
- Project 6** Expand service hours into the evening and provide Sunday service through fixed route and other types of transit services.
- Project 7** Provide customer access to automatic vehicle locator (AVL) information for the transit system through Internet connections.
- Project 8** Design and construct a satellite transfer center to serve the northern portion of the service area.

- Project 9** New Haven route and Georgetown route interconnect with extension of service to the Stelhorn Village and Chapel Ridge area.
- Project 10** Encourage the construction of accessible pedestrian facilities to and from bus stop locations, within developments, and in areas where pedestrian facilities currently do not exist (sidewalk placement and connectivity).
- Project 11** Designate corridors to include amenities that allow busses to safely pull off the corridor to load and unload as well as provide safe pedestrian facilities. These corridors should include Broadway, Wells Street, Lima Road, Calhoun Street, Lafayette Street / Spy Run Avenue, Clinton Street, Anthony Boulevard, Washington Boulevard, Jefferson Boulevard / Maumee Avenue, State Boulevard, and Washington Center Road.
- Project 12** Designate “Rapid Bus Transit” corridors that may use dedicated transit lanes and signal preemption.
- Project 13** Review and update the Transit Development Plan on a four-year cycle.
- Establishing Evaluation Markers
 - Establishing Performance Measures
 - Providing continuous monitoring and evaluation
- Project 14** Transit circulator between IPFW / Ivy Tech / Innovation Center

Specific Improvements from the Transit Development Plan

- Increased service frequency – route 1, 2, 3, 4, 6, 9, and 10
- Extend evening hours – route 2, 4, 7, and 8
- Implement 1 hour headway Sunday service – route 2, 4, and 8
- Implement new cross-town route between Glenbrook and the I-469 / Maysville area
- Design and construct a downtown intermodal transfer/ transportation center
- Update Transit Development Plan

Identified Transportation Strategies from Coordinated Transit Plan

Strategies Applicable to All Programs and Providers:

1. Identify new revenue sources to increase operating budgets necessary to expand and maintain services and fleets
2. Keep costs low / maintain affordable rates

Section 5310 Elderly and Individuals with Disabilities Program Strategies:

1. Maintain existing service / fleets
2. Maintain and increase coordination / efficiency between all transportation providers
3. Expand existing service / fleets
4. Increase public awareness of available services and programs offered by providers that are available to them

Section 5316 Job Access Reverse Commute Program Strategies:

1. Provide transportation to destinations outside of the current service area

2. Provide transportation within and in particular outside of the current service schedules
3. Facilitate multiple destination trips from a single service provider. (ie. daycare/job)
4. Inform the public about transportation services available in the community and train them to use the services to get to work, job training, and child care as efficiently as possible









Section 5317 New Freedom Program Strategies:

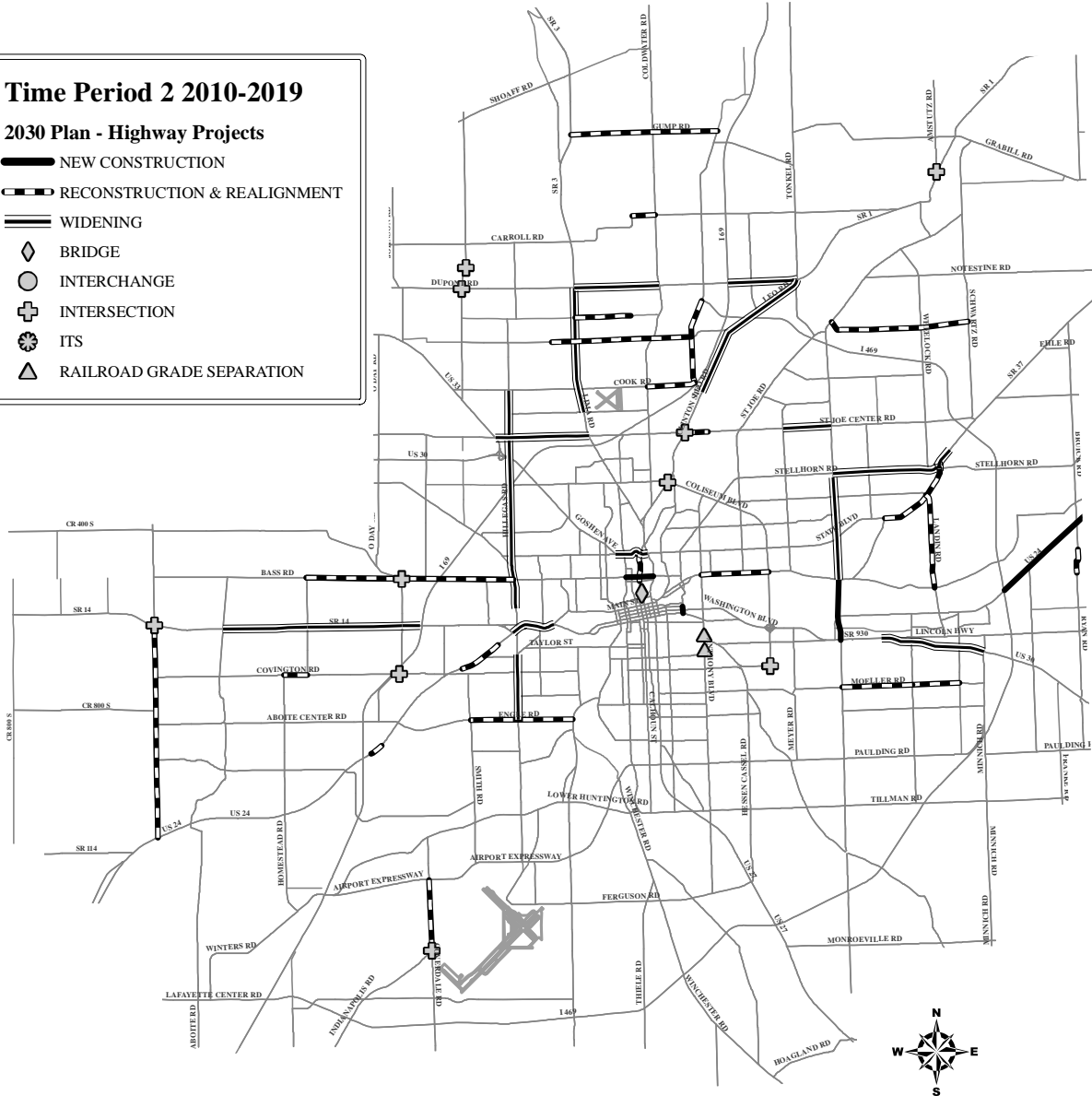
1. Provide transportation above and beyond existing complimentary paratransit service
2. Provide transportation outside current service areas
3. Provide transportation within and outside current service schedules

2030-II Transportation Projects

Time Period 1 2010-2019

Time Period 2 2010-2019
2030 Plan - Highway Projects

-  NEW CONSTRUCTION
-  RECONSTRUCTION & REALIGNMENT
-  WIDENING
-  BRIDGE
-  INTERCHANGE
-  INTERSECTION
-  ITS
-  RAILROAD GRADE SEPARATION











2030-II Transportation Projects

Time Period 2 2020-2030

Time Period 3 2020-2030

2030 Plan - Highway Projects

-  NEW CONSTRUCTION
-  RECONSTRUCTION & REALIGNMENT
-  WIDENING
-  BRIDGE
-  INTERCHANGE
-  INTERSECTION
-  ITS
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