

Transportation

Summary Report

Fiscal Year 2007



Northeastern Indiana Regional Coordinating Council

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INTRODUCTION

The Northeastern Indiana Regional Coordinating Council (NIRCC) is designated as the metropolitan planning organization (MPO) responsible for conducting transportation planning in the Fort Wayne-New Haven-Allen County Metropolitan Planning Area. Working with other public and private agencies, NIRCC strives to implement a transportation system that assures healthy growth and orderly development in the region. One of the main goals of NIRCC is working to develop a well-coordinated, functional transportation system to satisfy existing and future travel demands.

NIRCC and its staff work to provide a complete transportation system, one which will enhance the efficient movement of goods and people, while promoting greater safety and maintaining a conscious regard for the quality of life. For this goal to become a reality, constant monitoring of the existing system must occur. Staff is continually collecting data on the existing system to support the short-range planning process and to identify the challenges and opportunities of the future.

This Transportation Summary Report highlights and visually illustrates some of the transportation planning activities conducted and the products produced by NIRCC during Fiscal Year 2007. Included in this report is a summary of the traffic surveillance activities, intersection and arterial analyses, corridor studies, travel time and delay studies; Fiscal Year 2008-2011 Transportation Improvement Program (TIP) Projects for the Fort Wayne-New Haven-Allen County Metropolitan Planning Area, Safety Management System (SMS) activities, Transit planning activities, and bicycle/pedestrian planning activities. The primary purpose of this report is to familiarize the reader with the techniques used by NIRCC and the resulting products to promote a better understanding of the transportation planning process in our community.



Traffic Surveillance

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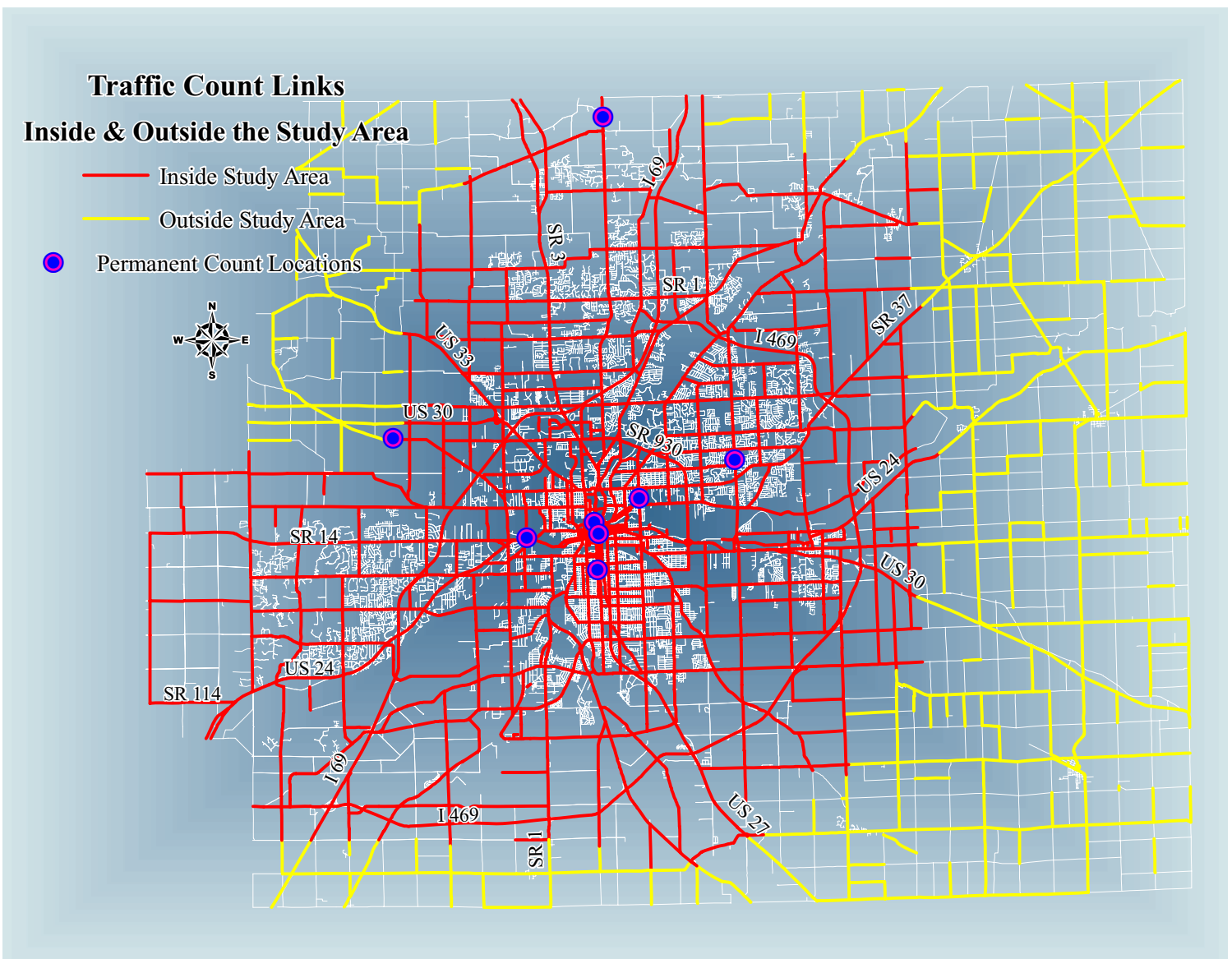
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TRAFFIC SURVEILLANCE

Traffic counting provides an important base for short- and long-range transportation planning in an area. NIRCC is responsible for collecting and recording traffic count data for more than 2,000 traffic count links, as illustrated in Figure 1. The data is collected on a rotational basis, which varies from link to link. NIRCC employs three types of counts, weekly, temporary ground counts, and classification counts.

The first type of counts are weekly counts. These are done at eight permanent local counting stations, also illustrated in Figure 1. The permanent weekly counts are in locations that represent arterials and collectors in four different planning areas of Fort Wayne and Allen County. The Indiana Department of Transportation maintains permanent counting stations on Interstate 69 and State Road 930. The data from these stations, collected each month, is used to

Figure 1



develop monthly count factors. Monthly count factors are important to determine because traffic volumes vary from one season to another for various reasons. Weather conditions, construction, economic activities and school/work schedules are just a few of the variables that cause seasonal variations in traffic flow. Traffic count data collected in

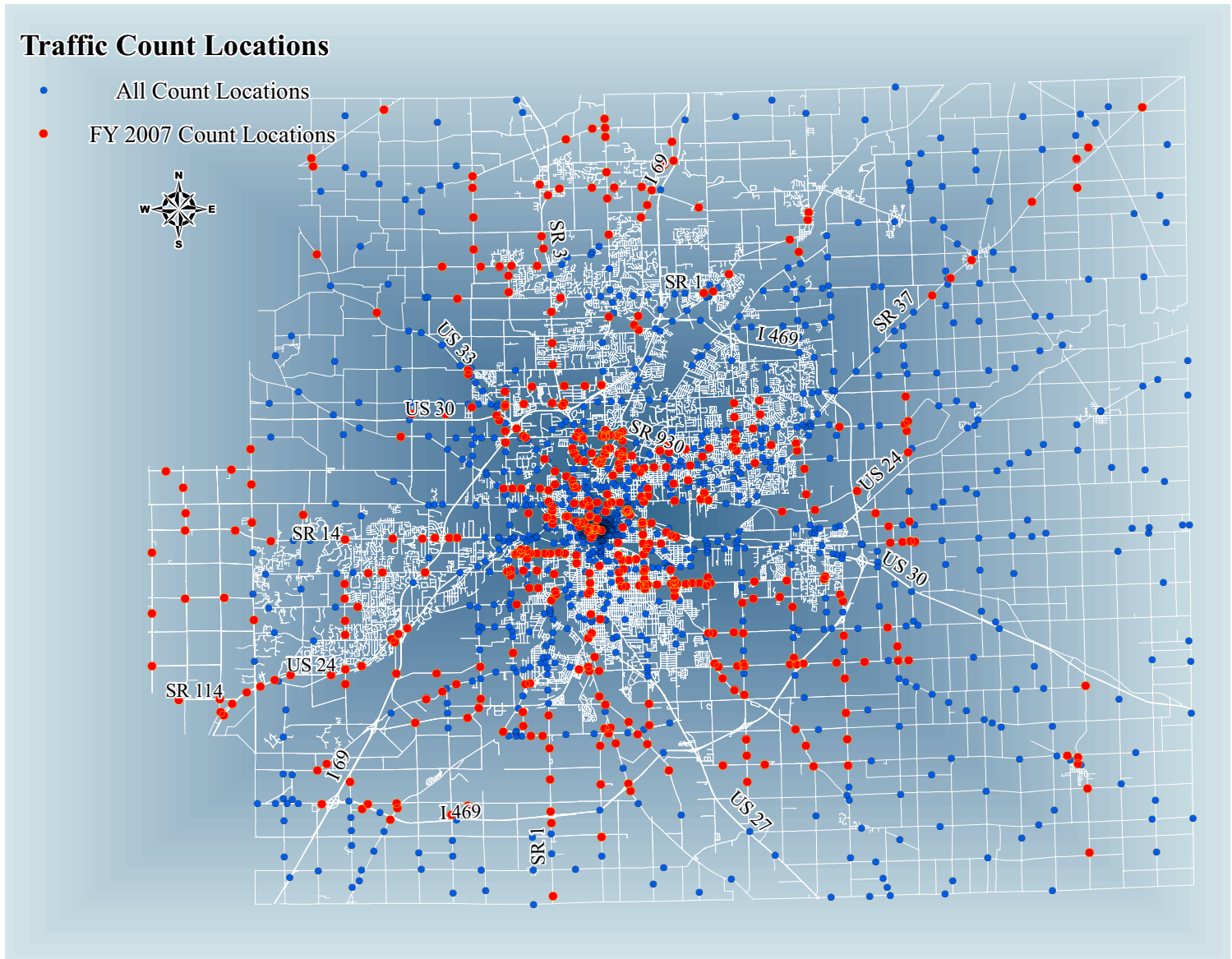


Figure 2

November may be very different than traffic count data collected in July. Because of these differences, traffic counts throughout the year must be adjusted with these factors depending on the month and season if they are to be accurately compared. These factors are what adjust the raw traffic count data into the Average Annual Daily Traffic (AADT) volumes.

The second type of counts are temporary ground counts. In Count Year 2006 (April - December), data was collected at 840 locations, as illustrated in Figure 2. These counts are forty-eight hour, weekday counts that are conducted region-wide and adjusted for vehicle axle variability and seasonal variability. These counts fulfill three main objectives:

1) sample locations to estimate vehicle miles of travel, 2) sample highway performance monitoring system locations, and 3) collect coverage and special counts for planning and analysis purposes.

The last type of traffic counts are traffic classifications. Classification counts are conducted at selected locations to determine the frequency of various vehicle types. This data is collected, summarized, and then recorded as a component of the transportation characteristic file. The amount of truck traffic at a sampled location is the critical information collected by classification counts. The information is used for general system monitoring and for augmenting the data needs of Highway Performance Monitoring System (HPMS) sections and several management systems.

Figure 3 provides the range of traffic volumes present throughout Allen County. Some of the traffic count links shown in Figure 1 and Figure 3 exhibit links that may look unconnected or isolated. These links appear this way because they

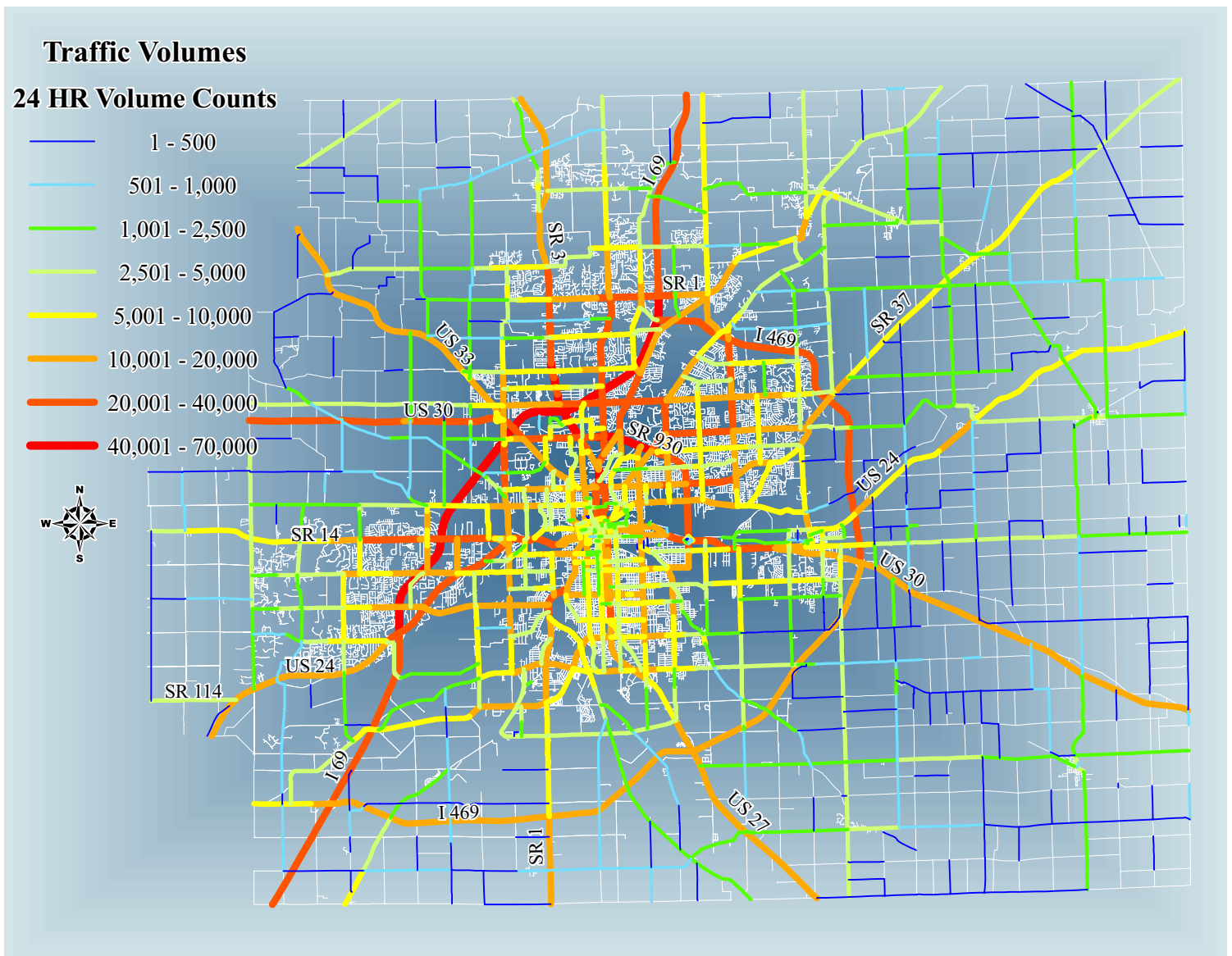


Figure 3

are usually part of the local road type samples or the railroad inventory count locations. Since most of the links are not functionally classified, they do not illustrate the continuity that the other links reveal.



Vehicle Miles of Travel

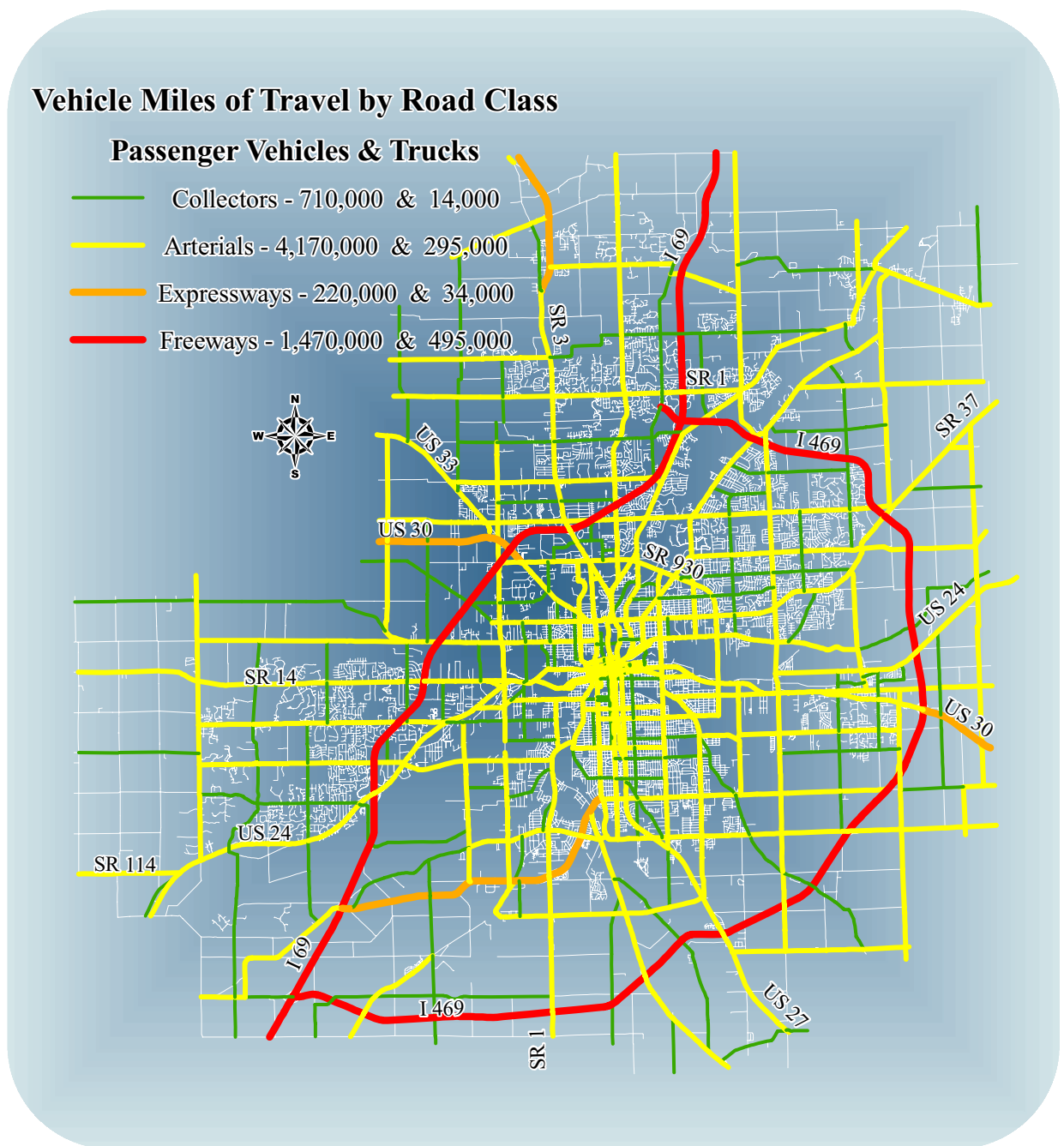
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VEHICLE MILES OF TRAVEL

The purpose of the vehicle miles of travel (VMT) estimate is to provide a measurement of regional traffic growth. The VMT estimate incorporates several factors that influence quality of travel within a region including traffic volume, length and type of roadway facility, seasonal traffic variations, and vehicle types. The VMT estimate has been published annually for the region beginning in Fiscal Year 1986. With each annual estimate, NIRCC staff has attempted to improve its sampling and analytical skills to produce the most reliable estimate possible. Region wide, vehicle miles of travel increased from 7,331,828 million in 2005 to 7,410,562 million in 2006. This represents an increase of 1.07 percent. The VMT increased on expressways (50.19%), increased on arterial streets (0.24%), and decreased on collector streets (12.96%) from 2005. The VMT is illustrated for 2006 in Figure 4.

Figure 4



The changes in VMT from year to year can be attributed to a number of possibilities. The most evident reason for VMT changes can be accredited to the increase or decrease in the amount of travel. Other factors that can affect the increase or decrease in VMT can include the price of gasoline, unemployment rates, automobile operating costs, and weather.

The bar chart shown in Figure 5 displays the annual VMT estimates for the ten year time period spanning from 1996 to 2006 for the Fort Wayne-New Haven-Allen County Metropolitan Planning Area. It also provides a benchmark for VMT displaying the first estimate done in 1986. These VMT estimates do not include the number of vehicle miles traveled on the local streets. The amount of local samples NIRCC collects is not sufficient to calculate a reliable VMT estimate. With some exceptions, the general trend shown on the chart shows an increasing total VMT throughout the ten year period as well as a significant increase since the inception of VMT in 1986. The VMT is anticipated to continue to grow, in part by an increase in automobile ownership per family, the spread of development, suburb to suburb travel, a rise in the percentage of two-income families, and other lifestyle changes.

Figure 5
Vehicle Miles of Travel 1996 - 2006

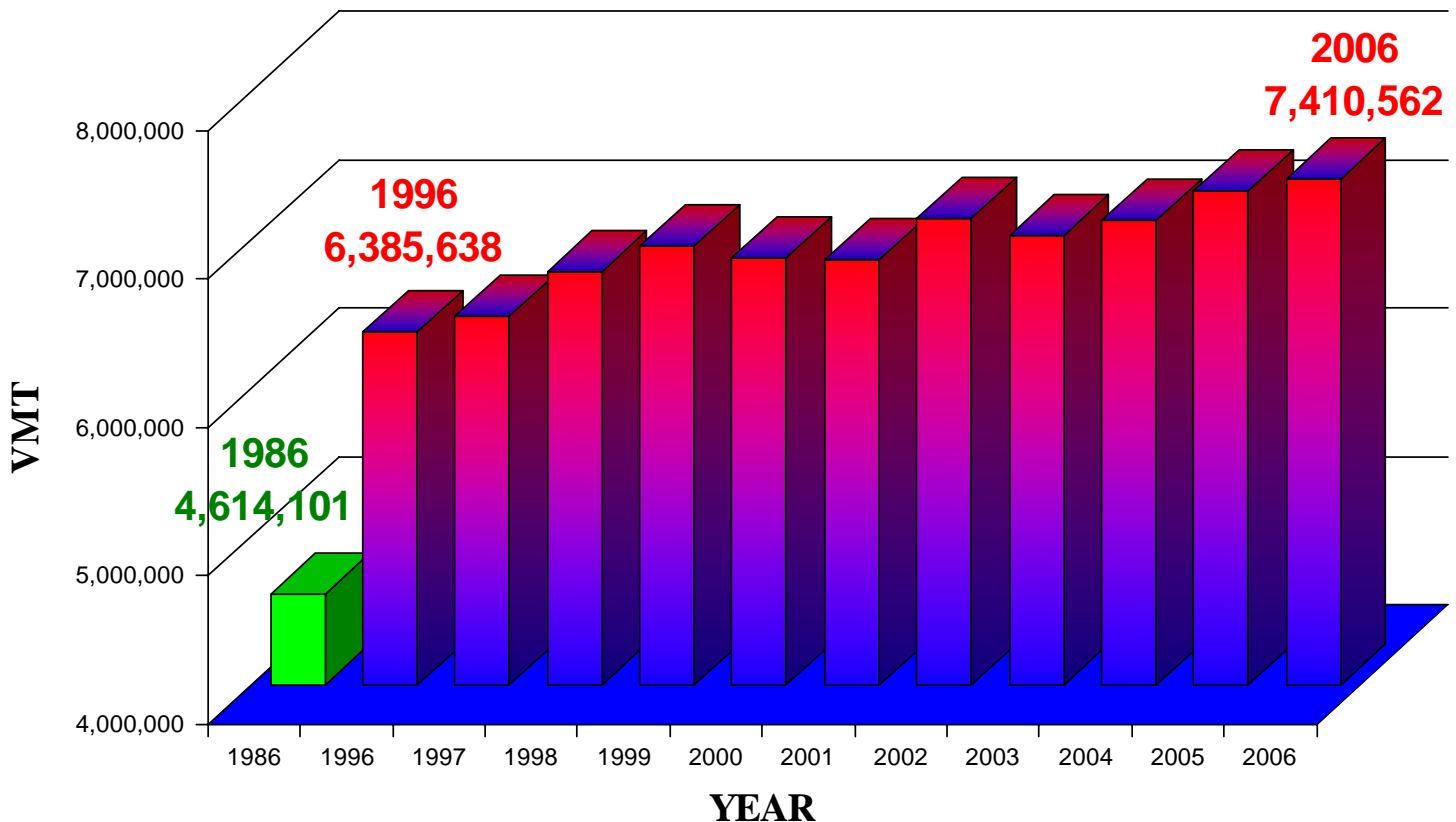
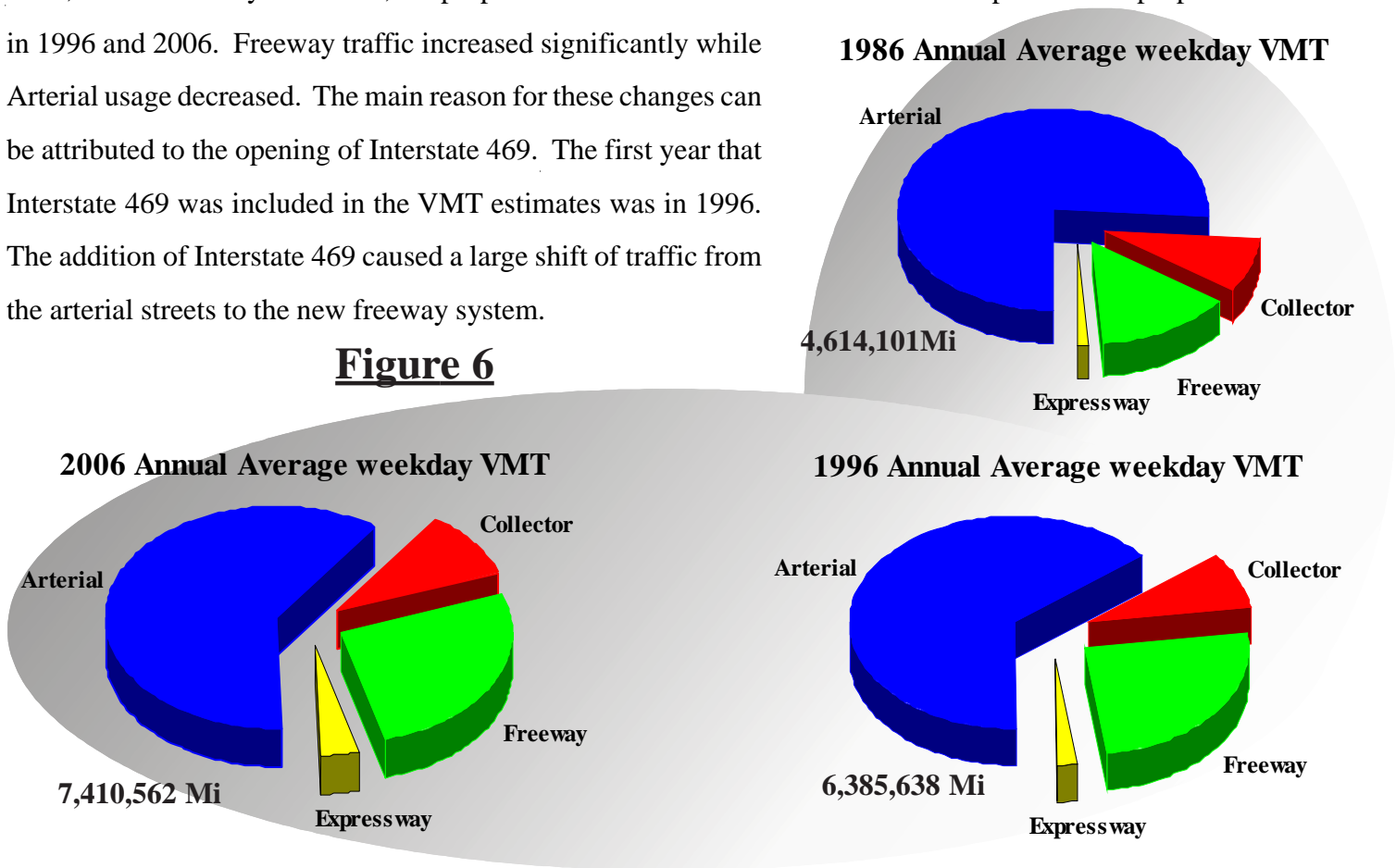


Figure 6 presents three pie charts that represent the proportions of VMT by street classification for the years 1986, 1996, and 2006. As you can see, the proportions of traffic in 1986 are different compared to the proportions of traffic in 1996 and 2006. Freeway traffic increased significantly while Arterial usage decreased. The main reason for these changes can be attributed to the opening of Interstate 469. The first year that Interstate 469 was included in the VMT estimates was in 1996. The addition of Interstate 469 caused a large shift of traffic from the arterial streets to the new freeway system.

Figure 6



The VMT is also broken down to show the annual average VMT for passenger vehicles and trucks. The pie charts contained in Figure 7 illustrate the VMT for 1986 and 2006. The proportion of truck traffic compared to passenger vehicle traffic is almost identical in 1986 and 2006. A further breakdown of the proportionate usage of passenger vehicles versus trucks on the different road classifications shows some interesting differences between 1986 and 2006. Even though the proportion of truck traffic compared to passenger vehicle traffic is the same for these two years, the distribution of traffic on arterials and freeways are much different. As previously mentioned, the traffic distributions between arterials and freeways changed significantly when Interstate 469 was included into the VMT estimates. The most significant change in traffic distribution between 1986 and 2006 came from the Annual Average weekday VMT totals for trucks. The pie charts show how much of an impact Interstate 469 has made between 1986 and 2006. The utilization of the freeway system has alleviated a significant amount of truck traffic from the arterials.

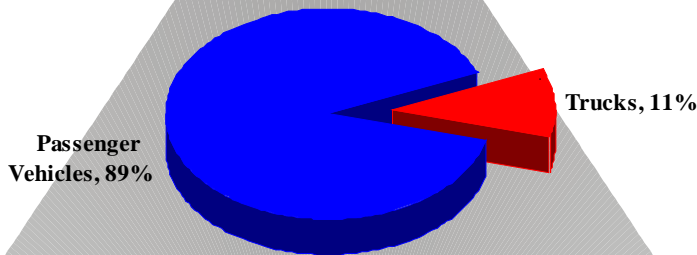
The pie charts contained in Figure 8 illustrate the proportion of passenger vehicle traffic versus truck traffic for each type of road classification. Even though the amounts of truck traffic and passenger vehicle traffic significantly changed

Figure 7

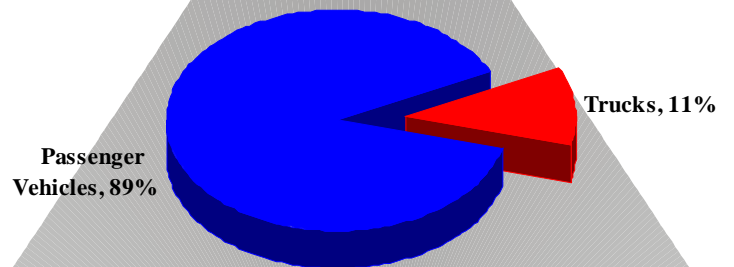
1986

2006

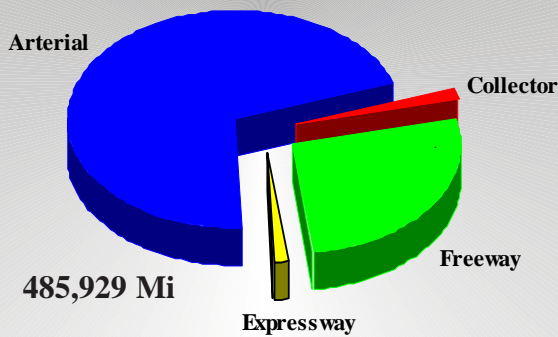
1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



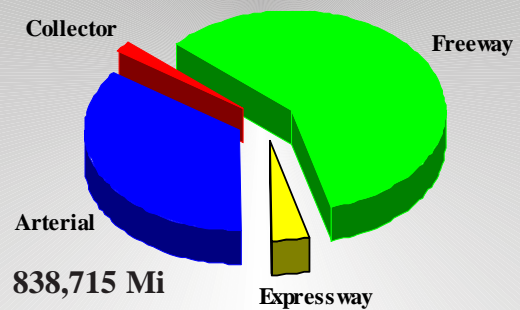
2006 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



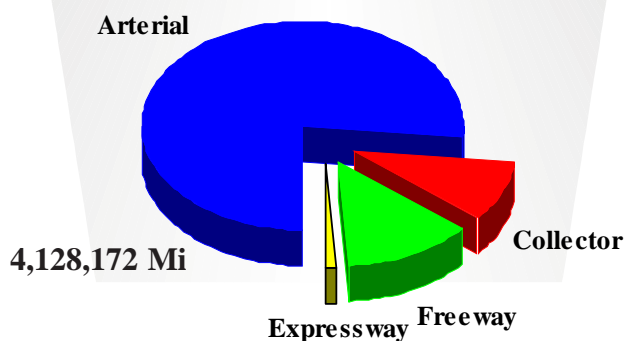
1986 Annual Average weekday VMT for Trucks



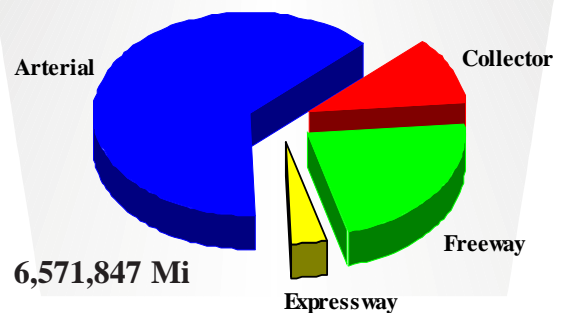
2006 Annual Average weekday VMT for Trucks



1986 Annual Average weekday VMT for Passenger Vehicles



2006 Annual Average weekday VMT for Passenger Vehicles



for some of the road classifications, the proportions of passenger vehicles and trucks for each road classification remained very similar between 1986 and 2006.

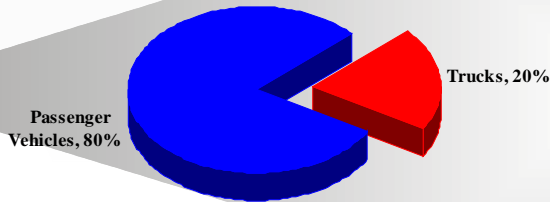
1986

Figure 8

2006

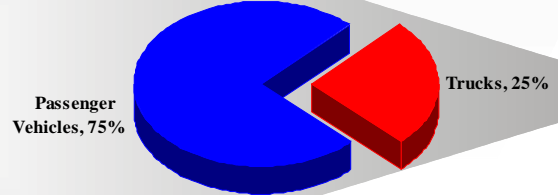
Freeways

Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



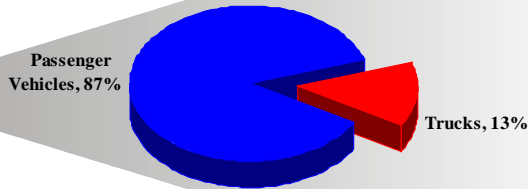
Freeways

Percentage of 2006 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



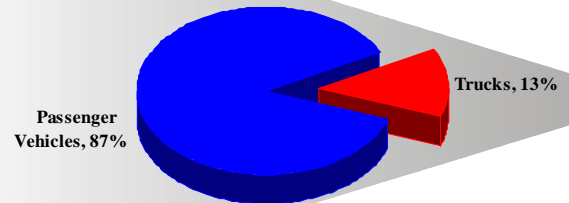
Expressways

Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



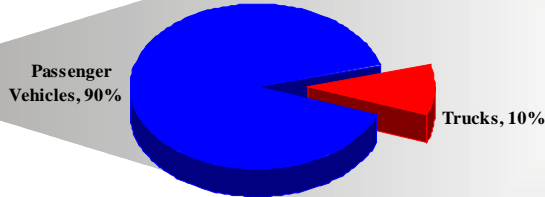
Expressways

Percentage of 2006 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



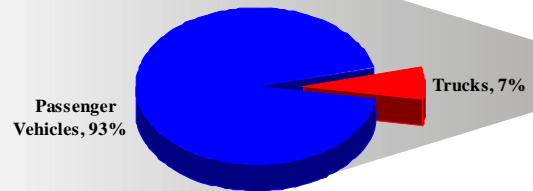
Arterials

Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



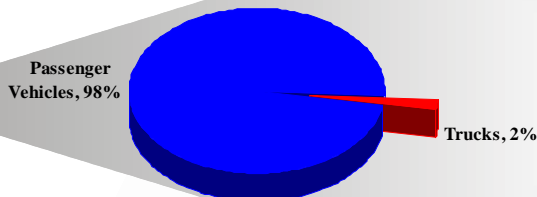
Arterials

Percentage of 2006 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



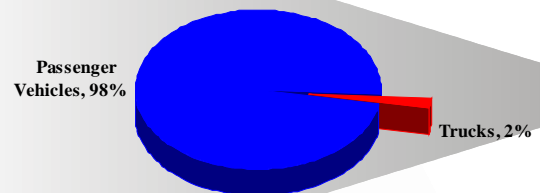
Collectors

Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



Collectors

Percentage of 2006 Annual Average weekday VMT for Passenger Vehicles compared to Trucks





Congestion Management Process

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CONGESTION MANAGEMENT PROCESS

NIRCC has developed and currently maintains a Congestion Management Process (CMP) (formerly known as the Congestion Management System (CMS)) for the Fort Wayne-New Haven-Allen County Transportation Management Area (TMA). In Fiscal Year 2007, the CMS became known as the CMP and was modified to meet requirements of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The CMS for the TMA was first adopted in 1997.

A CMP is a systematic process for managing congestion that provides information on system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods. A CMP includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost effective actions and evaluate the effectiveness of the implemented actions.

The CMP for the TMA contains specific elements, including: a defined congestion management network, roadway and transit system performance measures and standards, a data collection and monitoring program, identification of roadway and transit system deficiencies, and congestion mitigation strategies.

Congestion Management Network

The initial congestion management network consisted of the interstate system, state highways and arterials within the NIRCC study area, as well as congested corridors and corridors with the potential for congested conditions in the future. Since the initial congestion management network was established, intermodal transfer points, key intersections, interchanges, subareas, and significant protected corridors have been and will continue to be added to the network as they are identified and evaluated through more detailed micro level analysis. The current congestion management network is displayed in Figure 9.

Roadway and Transit System Performance Measures and Standards

There are specific roadway performance measures used for the roadway and transit systems. The performance of the roadway system is measured by determining and evaluating the amount of vehicle miles traveled (VMT) with volume to capacity (V/C) greater than a defined V/C threshold. The V/C ratio is a key indicator of the degree to which the highway system is being utilized and the amount of congestion that is occurring. The performance of the transit system is primarily measured by determining and evaluating the load factor for each route at specific times of the day. The load factor is the average number of passengers per total vehicle capacity on board transit vehicles passing the maximum

Figure 9



load point on a route segment. Congestion is occurring on the transit system when this factor exceeds a defined threshold.

Performance standards have been established to provide a benchmark (threshold) by which operating conditions can be assessed. The performance measures for the CMP were developed in conformance with these standards. NIRCC has established the lane capacities and the benchmark V/C ratios displayed in Figures 10 and 11 as the standards for the

Figure 10
Lane Capacities

Highway Class					
Land Use	Interstate	Expressway	Two-Way Arterial	One-Way Arterial	Collector
CBD	1800	745	605	650	480
CBD Fringe	1800	790	715	715	575
Suburban	1800	865	715	805	575
Rural	1800	820	590	n/a	540
Outlying CBD	1800	790	715	715	575

Figure 11
Benchmark V/C Ratios

Highway Class					
Land Use	Interstate	Expressway	Two-Way Arterial	One-Way Arterial	Collector
CBD	0.80	0.90	0.90	0.90	0.90
CBD Fringe	0.80	0.90	0.90	0.90	0.90
Suburban	0.80	0.90	0.80	0.80	0.80
Rural	0.80	0.90	0.80	0.80	0.80
Outlying CBD	0.80	0.90	0.90	0.90	0.90

roadway system. These criteria indicate when congestion is approaching maximum capacities for LOS "D" and exceeding this level will result in volume to capacity ratios over 1.00.

The benchmark standards established for transit service are based upon the maximum load factors of the transit vehicles. The standards consider the seating capacity and total capacity (seating and standing). Ninety percent (0.90) of the seating capacity and/or eighty percent (0.80) of the total capacity has been set as the threshold for determining "congestion" on the transit system. The standards apply to morning and afternoon peak periods of transit usage on each route of the transit system.

Data Collection and Monitoring Program

NIRCC has a well established data collection and monitoring program. This includes an extensive traffic monitoring program which collects: traffic volume and vehicle classification information; intersection turning movements and geometrics; signal phasing and timing information; travel time and delay data; accident data; and other types of traffic characteristic data. Data is collected annually for these programs in accordance with the Unified Planning Work Program.

NIRCC also maintains a roadway characteristic database, which includes traffic volumes, distance, number of lanes, indicates transit routes, facility classifications, and much more for specified road segments within the TMA. A specific section of the database is dedicated to housing information pertinent to the CMP. The information is obtained from traffic counts, travel-time and delay studies, and accident data to include such items as: peak hour factors ("K"); peak period directional factors ("D"); peak period volumes; duration of congestion; average traveling speeds, times and delays; and crash rates.

Information on the transit system is obtained from the Fort Wayne PTC (dba Citilink) including the route system, ridership information, headways, and other pertinent information. Accident data is obtained from the City of Fort Wayne Traffic Engineering Department, New Haven Police Department, Allen County Highway Department, and the Indiana State Police depending on the responsible jurisdiction. Additional information is also shared between these agencies and NIRCC regarding the CMP.

Council staff has also historically performed various types of analyses. These include LOS analyses for intersections, arterials, and freeways; subarea analyses; corridor analyses; analyses of travel time and delay studies; and safety analyses. To ensure data is being collected and analyzed in a manner necessary to meet the needs of the CMP, the staff continuously reviews and evaluates the techniques used for collecting, storing, and analyzing the data.

Identification of Roadway and Transit System Deficiencies

In Fiscal Year 2007, NIRCC identified roadway and transit system deficiencies. Roadway system deficiencies were identified by calculating V/C ratios for all segments of the entire roadway system using morning and evening peak hour volumes. Based upon the recommended benchmark V/C ratios, staff identified which road segments exhibited V/C ratios above the acceptable limits. All road segments in the TMA with V/C ratios greater than 0.80 (the most restrictive ratio) were identified, mapped, and color-coded according to levels of congestion (0.80 - 0.89; 0.90 - 0.99; 1.0 +). These segments are displayed in Figure 12 and Figure 13. Figures 14 and 15 display percent of VMT by road classification with V/C ratios greater than 0.80 broken down by a.m. and p.m. peak periods.

Transit system deficiencies were identified by calculating the load factor using ridership and capacity information for the peak hours of the heaviest used routes on the Citilink system (Routes 1,2,3,8,10). Only Route 2 during the morning peak hours displayed load factors exceeding the benchmarks for congestion.

Figure 12

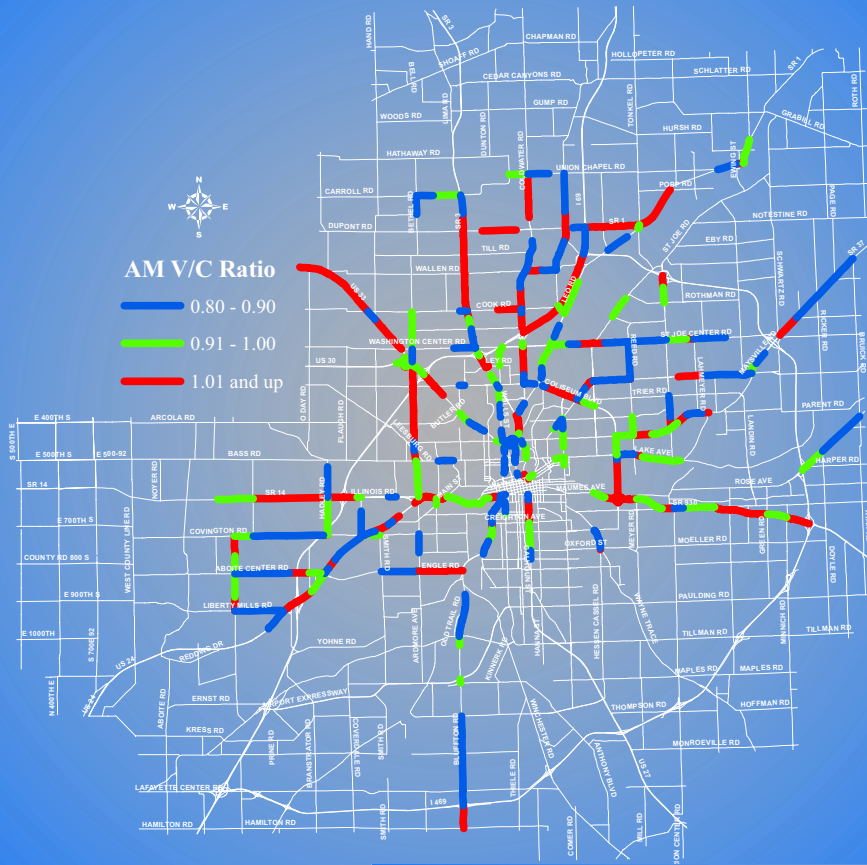


Figure 13

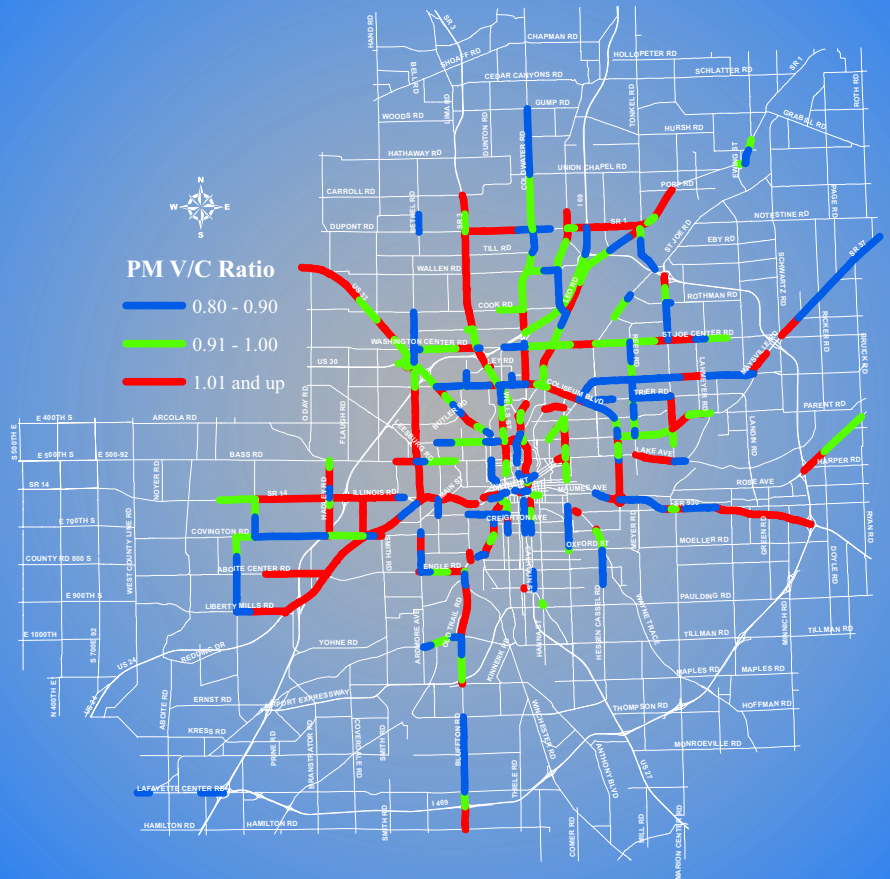
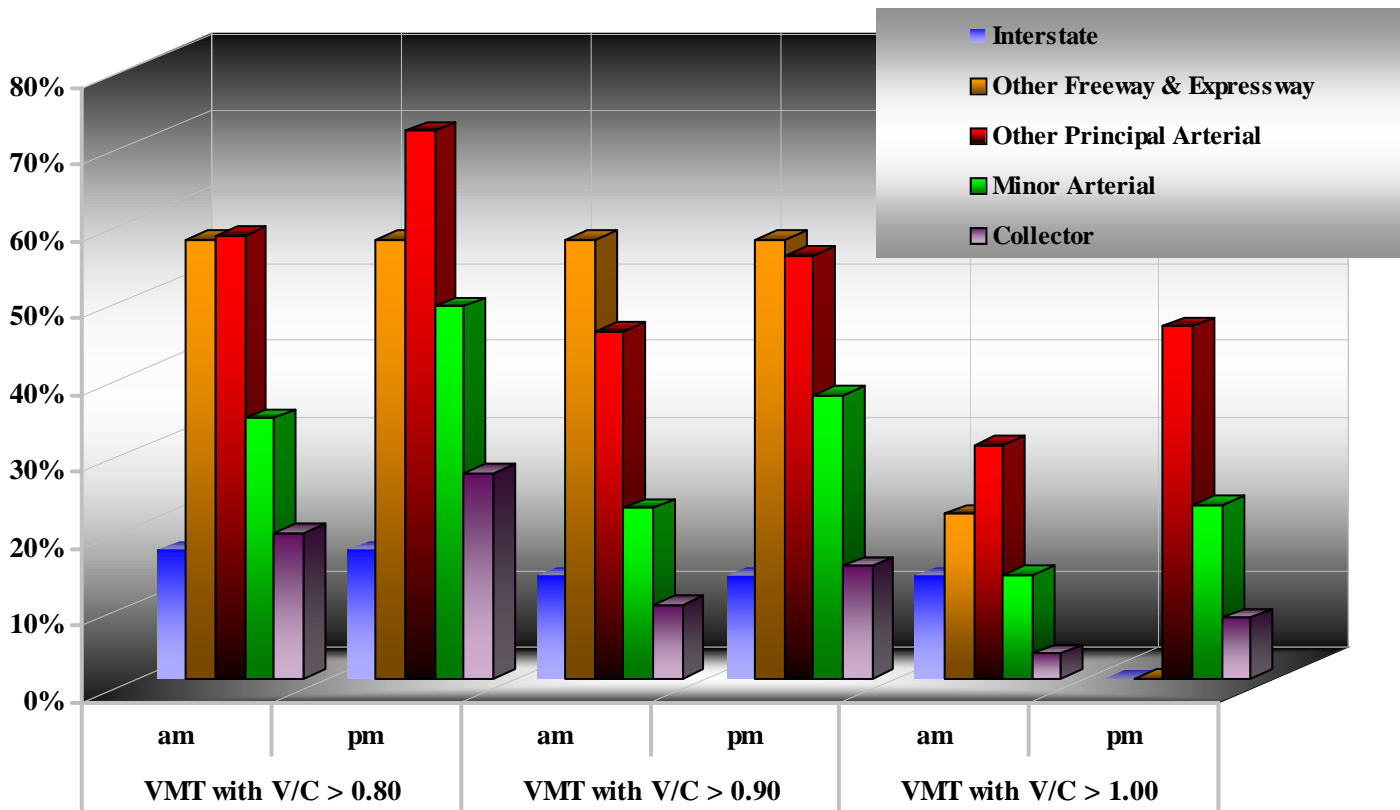


Figure 14

**Urban Functional Classification System
Percent of Peak Hour VMT Exceeding V/C Ratio Benchmarks**

Functional Classification	Total VMT	VMT with V/C ≥ 0.80		VMT with V/C ≥ 0.90		VMT with V/C ≥ 1.00	
		am	pm	am	pm	am	pm
Interstate	1,207,369	17%	17%	13%	13%	13%	0%
Other Freeway & Expressway	77,040	57%	57%	57%	57%	21%	0%
Other Principal Arterial	1,590,982	58%	71%	45%	55%	30%	46%
Minor Arterial	2,499,539	34%	49%	22%	37%	14%	23%
Collector	785,164	19%	27%	10%	15%	3%	8%
Total Urban	6,160,094	35%	46%	25%	35%	17%	22%



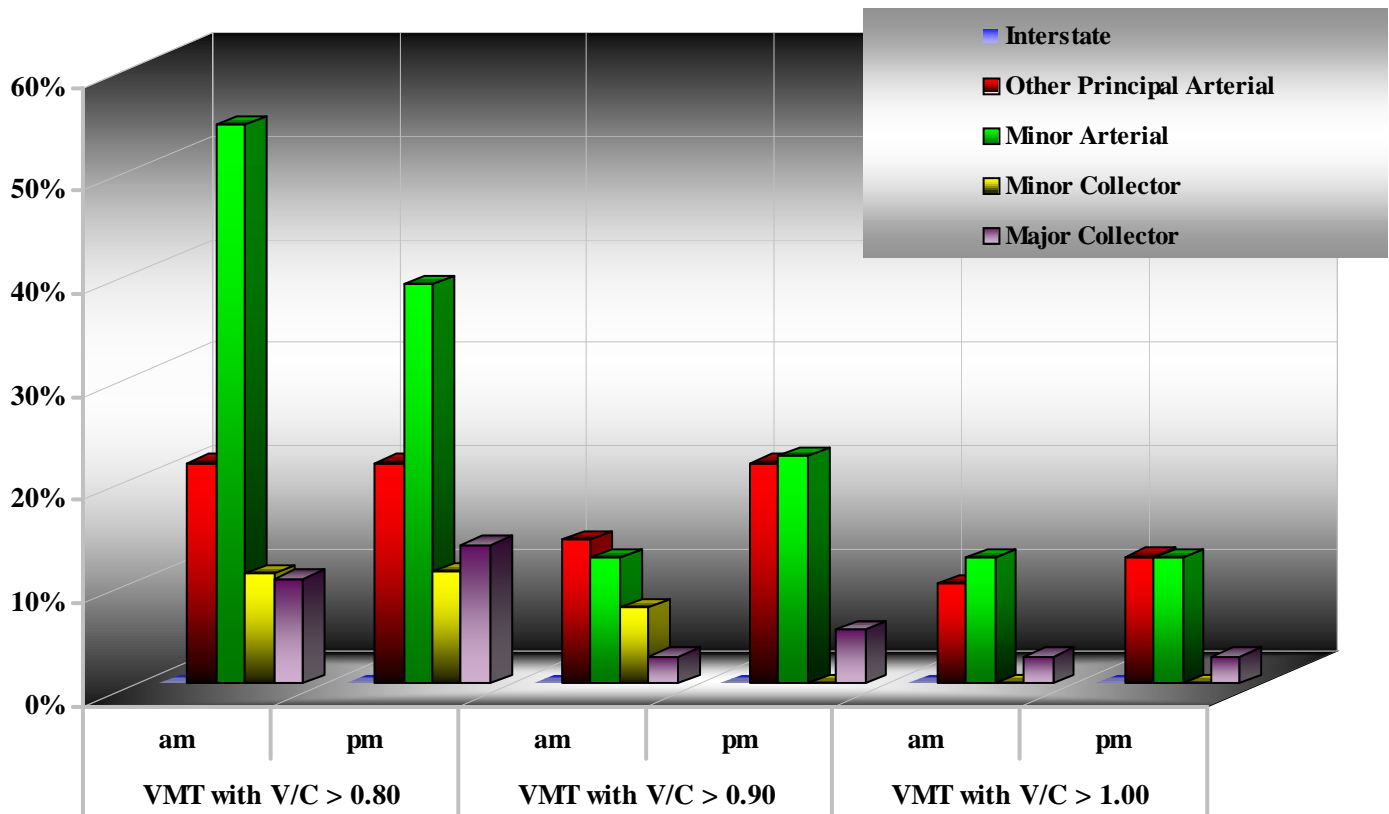
Congestion Mitigation Strategies

The CMP utilizes several strategies to address congestion within the TMA. Through continued implementation of the Transportation Plan, a number of congestion mitigation strategies are already in place. Types of strategies, some of which have been implemented for many years, include access management, frontage/access road plans, corridor protection

Figure 15

**Rural Functional Classification System
Percent of Peak Hour VMT Exceeding V/C Ratio Benchmarks**

Functional Classification	Total VMT	VMT with V/C ≥ 0.80		VMT with V/C ≥ 0.90		VMT with V/C ≥ 1.00	
		am	pm	am	pm	am	pm
Interstate	765,123	0%	0%	0%	0%	0%	0%
Other Principal Arterial	311,166	21%	21%	14%	21%	10%	12%
Minor Arterial	61,353	54%	39%	12%	22%	12%	12%
Minor Collector	74,000	11%	11%	7%	0%	0%	0%
Major Collector	306,133	10%	13%	3%	5%	3%	3%
Total Rural	1,517,775	9%	9%	4%	6%	3%	4%



plans, transit marketing, circulator routes, bicycle/pedestrian access, intersection improvements, signal timing plans, ITS, incident management, safety management, and others. Highway expansion projects are developed when the above strategies alone are unable to address the congestion. The success of these strategies are continually assessed.



Intersection and Arterial Analysis

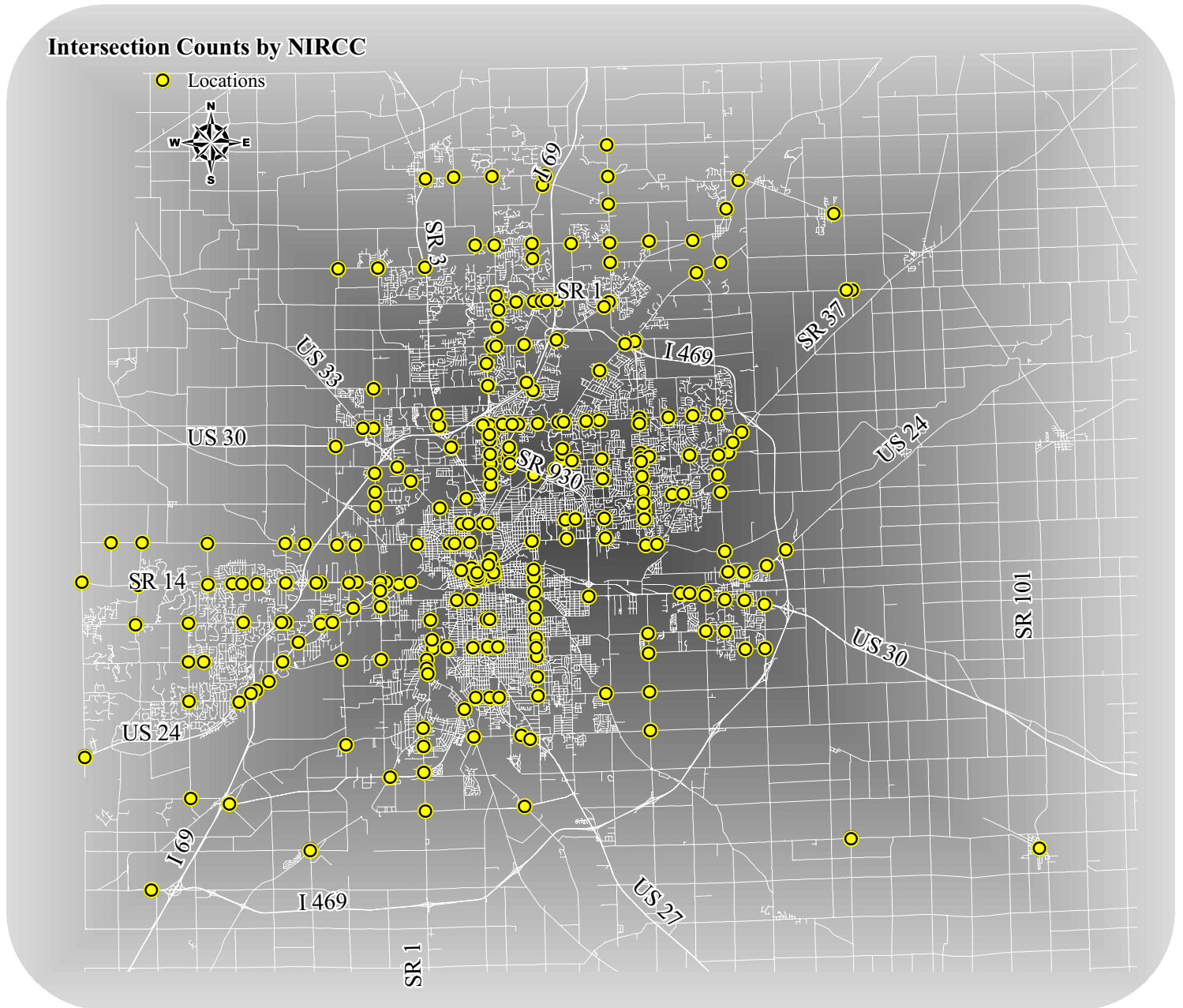
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INTERSECTION AND ARTERIAL ANALYSIS

NIRCC also conducts intersection and arterial analyses. Staff studies intersections within Allen County and examines their performance characteristics. These studies are conducted based on requests from the City of Fort Wayne, the City of New Haven, the Allen County Highway Department, and the Indiana Department of Transportation to evaluate problems and concerns with specific intersections. Figure 16 illustrates all the intersections that have been studied by NIRCC in the past.

Figure 16



In fiscal year 2007, NIRCC evaluated 11 intersections which are listed in the table contained in Figure 17. Out of these 11 intersections, 6 were signalized and 5 were unsignalized.

Figure 17

Signalized Intersections	Unsignalized Intersections	Unsignalized All-way Stops
Broyles Ave / St Joe Rd Crescent Ave / Hobson Rd Crescent Ave / Lawshe Dr Dartmouth Dr / Washington Ctr Rd Goshen Rd / Independence Dr Lafayette St / Southtown Blvd	Aboite Ctr Rd / Westlakes Dr Candlewood Way / Coldwater Rd Leesburg Rd / Spring St Roseview Dr / Stellhorn Rd	Auburn Rd / Wallen Rd

The targeted measures of effectiveness for intersections are delay and capacity. The level of service (LOS) of an intersection is defined alphabetically A through F, A being the best LOS and F being the worst. The LOS is based on the average delay (measured in seconds) experienced at an intersection. Level of service cannot be calculated when the volume to capacity ratio (V/C) exceeds 1.2 for an individual group. The level of service for each of the intersections counted in Fiscal Year 2007 are illustrated in Figures 18 through 21 for each approach. These levels of service are only based on the peak hour for each intersection.

In order to qualify for a traffic signal, intersections must meet one or more of the primary volume signal warrants or both all-way stop warrants as described in the Manual on Uniform Traffic Control Devices 2003 Edition. The intersections reviewed for signal warrants along with other types of intersection analyses in Fiscal Year 2007 are illustrated in Figure 22.

Figure 18

FY 07 Intersection Counts
Levels of Service NB Approach

- A
- B
- C
- D
- E
- F

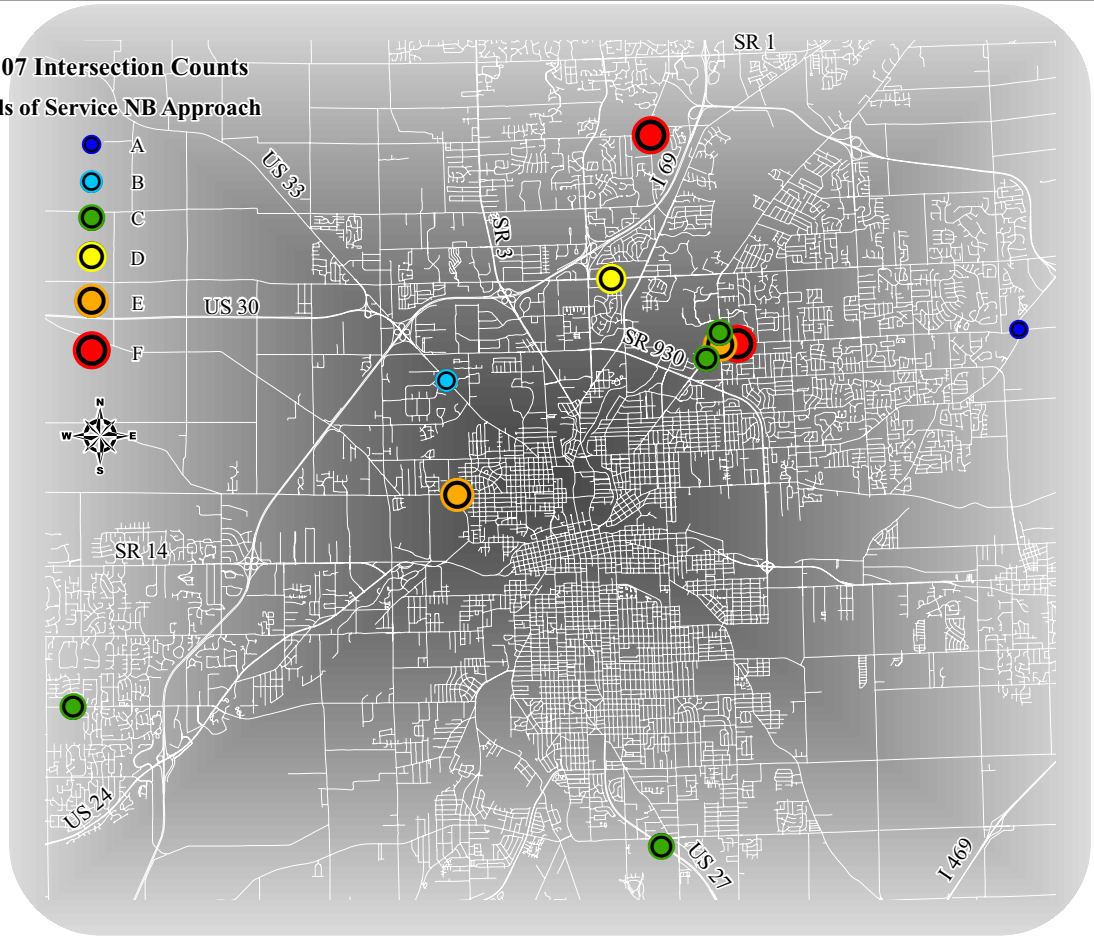
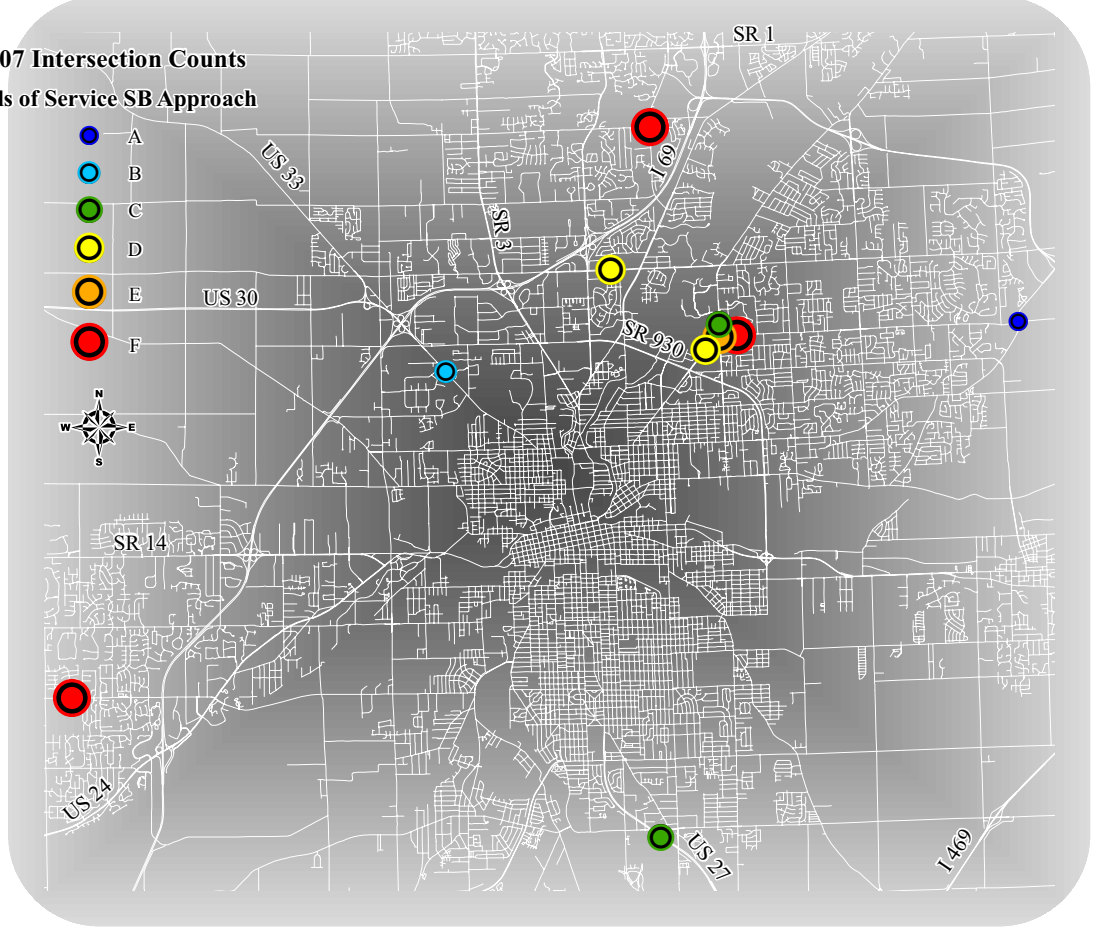


Figure 19

FY 07 Intersection Counts
Levels of Service SB Approach

- A
- B
- C
- D
- E
- F



* These levels of service are only based on the peak hour for each intersection.

Figure 20

FY 07 Intersection Counts
Levels of Service WB Approach

- A
- B
- C
- D
- E
- F

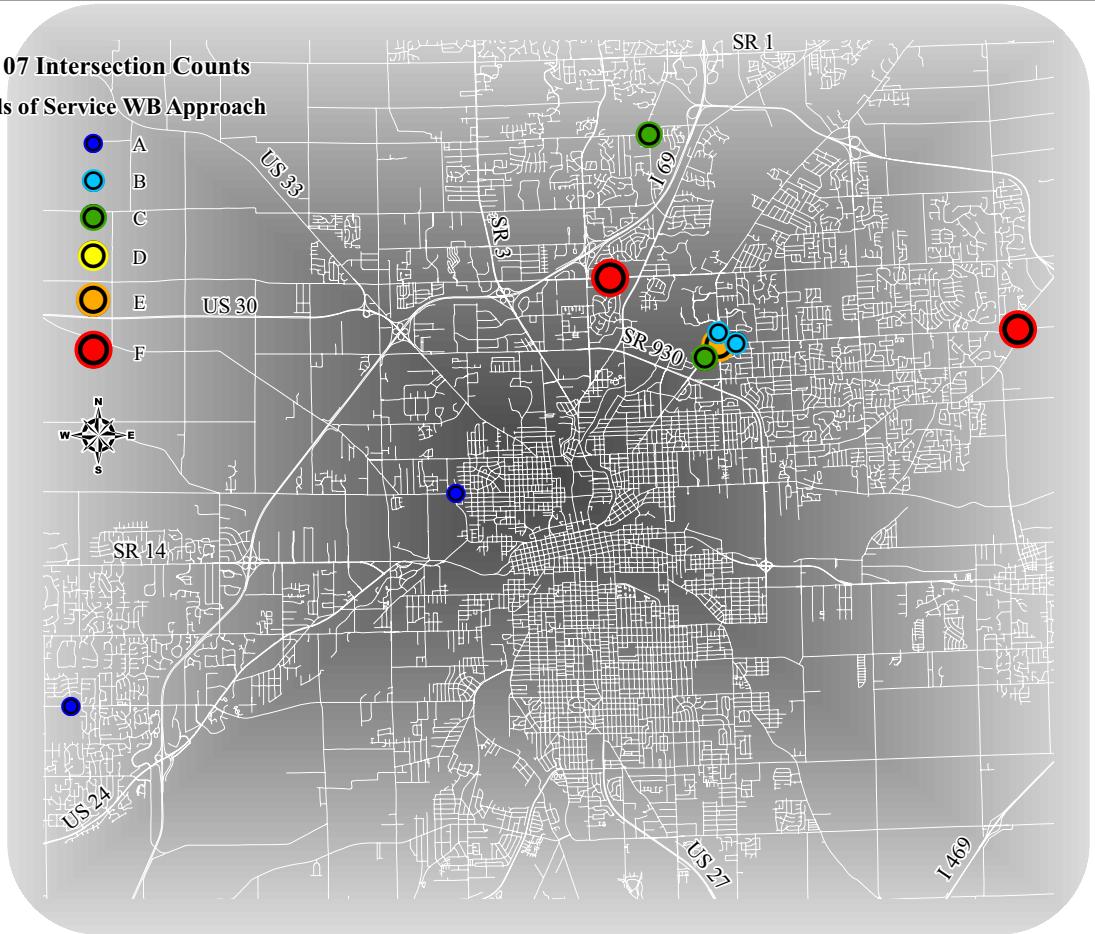
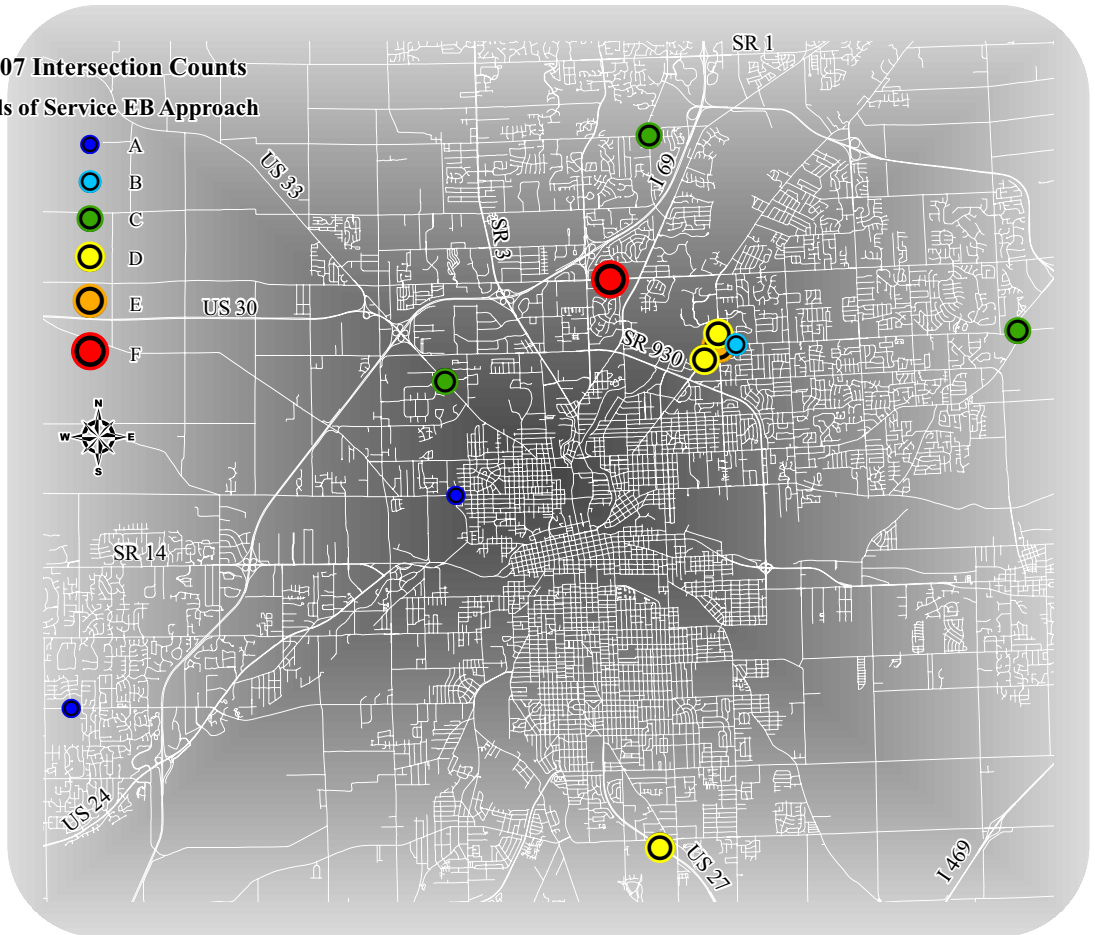


Figure 21

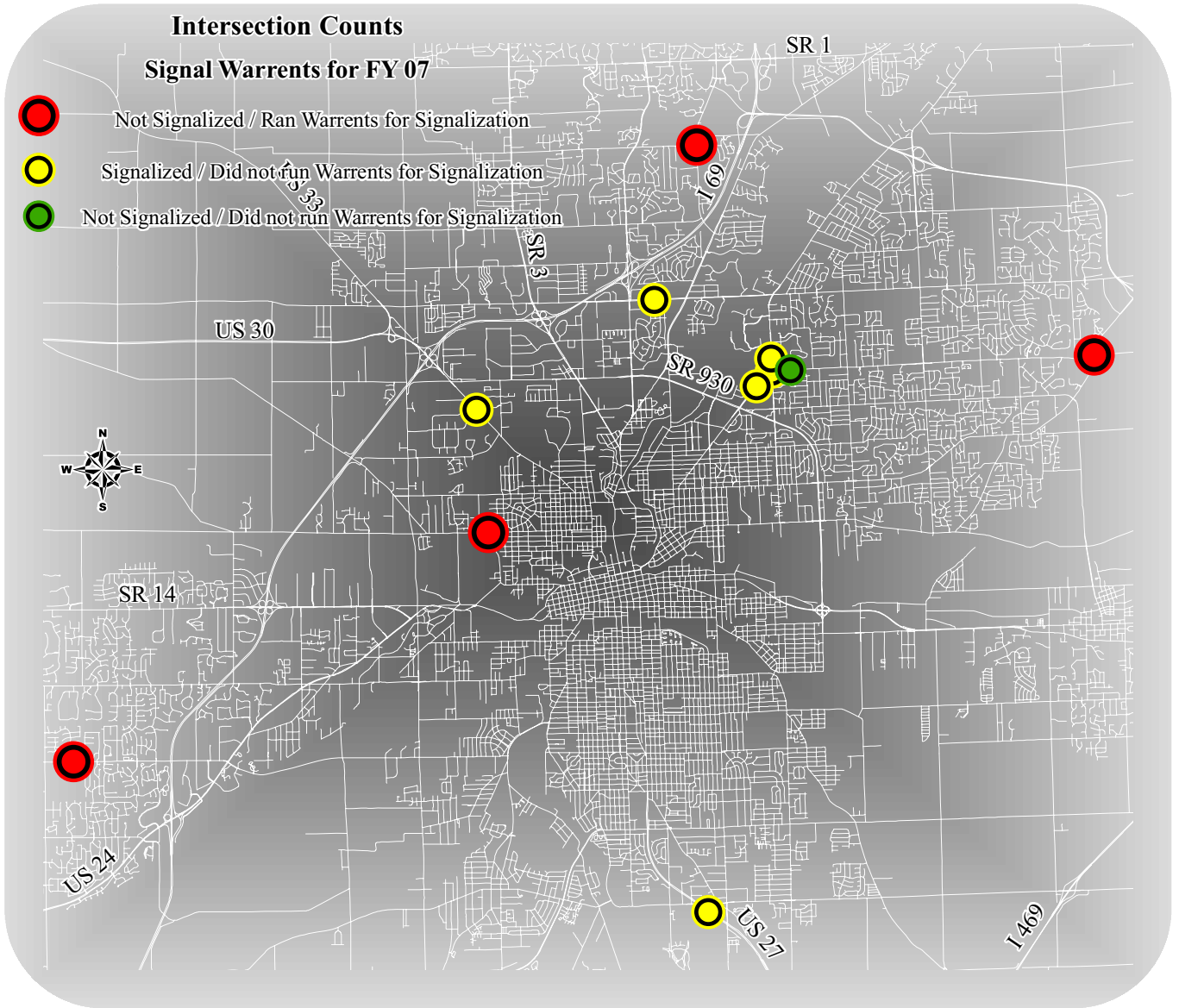
FY 07 Intersection Counts
Levels of Service EB Approach

- A
- B
- C
- D
- E
- F



* These levels of service are only based on the peak hour for each intersection.

Figure 22





Corridor Studies

**Studies completed by the Northeastern Indiana Regional Coordinating
Council**

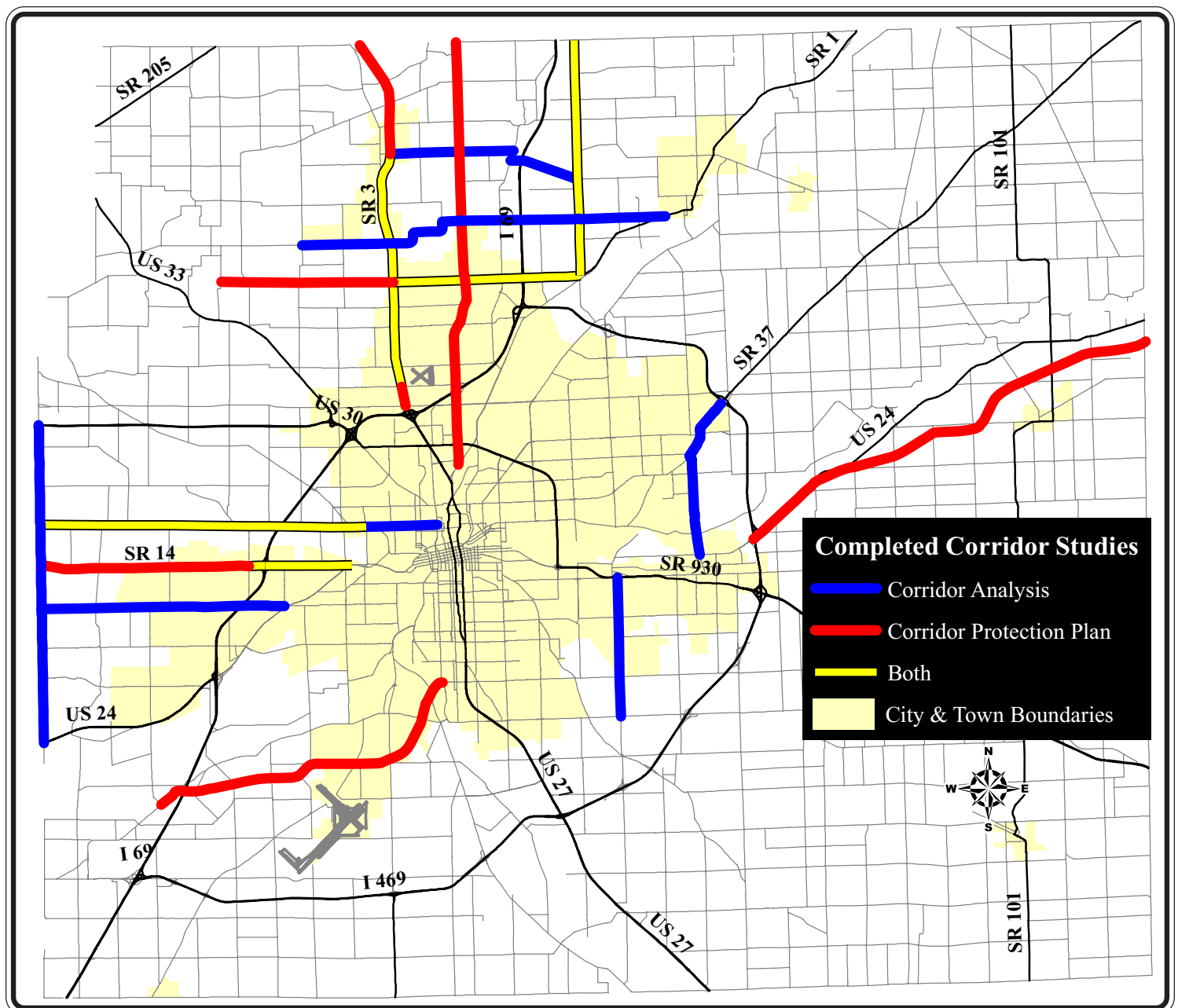
Transportation Summary Report Fiscal Year 2007

CORRIDOR STUDIES

Another activity conducted by NIRCC is the study of corridors throughout Allen County. There are two types of studies that are used to evaluate different aspects of the corridors: corridor and impact analysis studies and corridor protection studies and plans. Figure 23 illustrates the corridor studies that have been completed by NIRCC.

The main purpose of a corridor and impact analysis is to evaluate traffic impacts of future developments on an existing corridor, as well as locations that are in need of current or future infrastructure improvements. The corridor analysis estimates the number of new trips from anticipated developments that will be added to an existing facility to examine the changes of service level. When service levels fall below acceptable levels, recommendations are tested to accommodate

Figure 23



future traffic and relieve anticipated congestion problems along the corridor. Information provided by a corridor and impact analysis helps in developing a corridor protection plan that can be an efficient tool for mitigating potential congestion.

Corridor protection studies and plans evaluate and identify optimal access points along corridors for future developments and improvements. The adoptions of these plans facilitate efforts to resolve existing congestion and mitigate future problems. The recommendations from the plans aid local officials, planners, and developers during future development by protecting the integrity of the corridor from detrimental access.

In Fiscal Year 2007, NIRCC did not conduct any corridor and impact analysis studies or corridor protection studies and plans. Instead, NIRCC focused their attention on producing a sub-area analysis which analyzes a number of corridors within a given area or development. Information and materials produced by this type of analysis will provide local policy-makers with an additional tool for assessing the impacts of new and expanding development to an area. The analysis focuses on assessing the current and future operating characteristics of the corridors and developing alternative strategies to improve safety and mitigate congestion. Staff looks at highway, transit, pedestrian and bicycle access as the major components of the analysis. Staff also evaluates how facilities, both within and outside of the analysis area, interact with each other and impact the current and future traffic patterns.

Sub-area Analysis

The area surrounding Indiana University Purdue University Fort Wayne (IPFW), Ivy Tech Community College (Ivy Tech), the Northeast Indiana Innovation Center (NIIC), and the Fort Wayne State Developmental Center

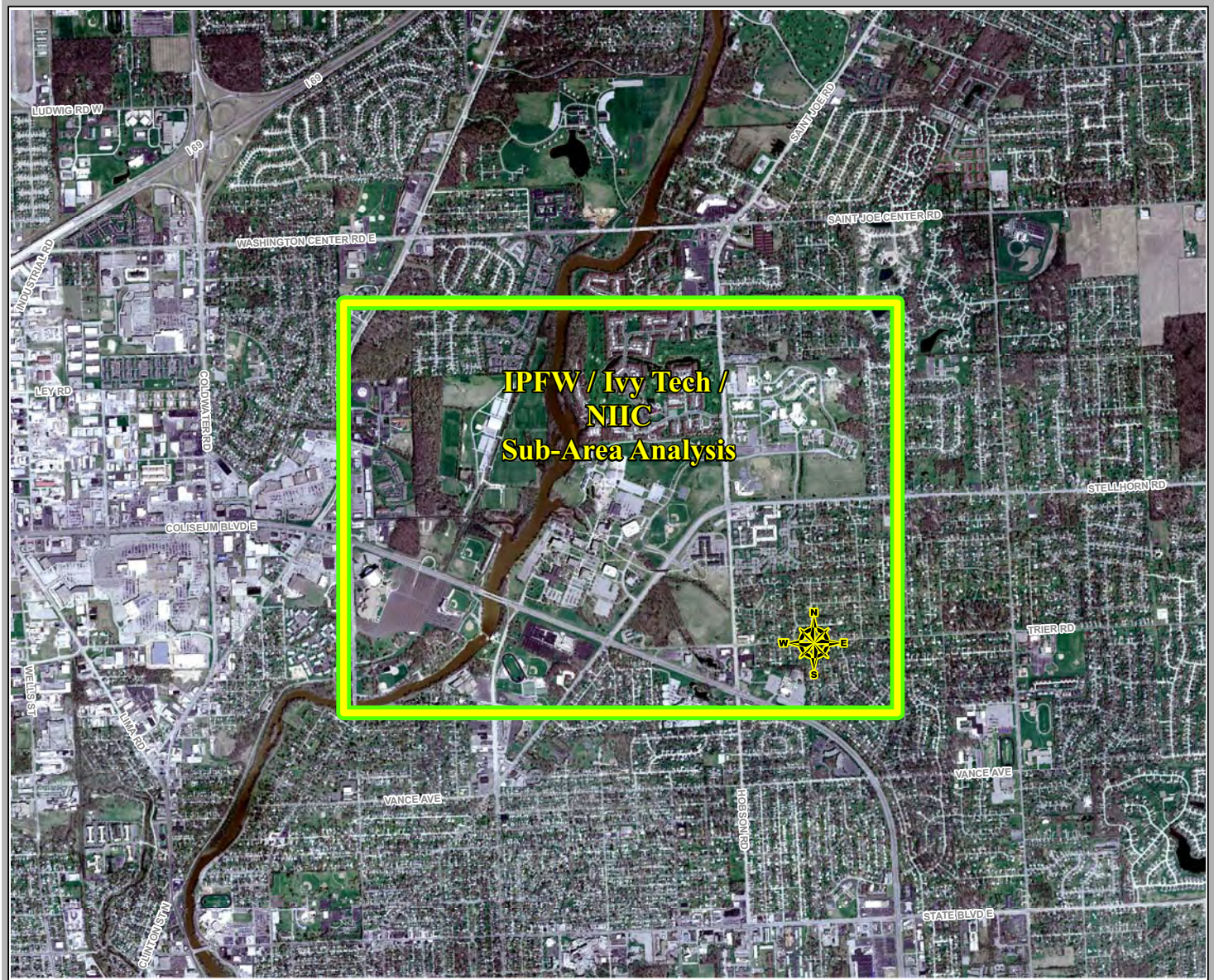


Figure 24

Sub-area Analysis

The area surrounding Indiana University Purdue University Fort Wayne (IPFW), Ivy Tech Community College (Ivy Tech), the Northeast Indiana Innovation Center (NIIC), and the Fort Wayne State Developmental Center

The current sub-area analysis NIRCC is working on is the area surrounding Indiana University Purdue University Fort Wayne (IPFW), Ivy Tech Community College (Ivy Tech), the Northeast Indiana Innovation Center (NIIC), and the former Fort Wayne State Developmental Center (Figure 24). Staff is assessing the impacts of new and expanding development to this area. The analysis focuses on assessing the current and future operating characteristics and how existing and future developments interact with each other, by means of classes and transportation opportunities. Figures 25 thru 28 illustrate examples of the information that has been collected for the analysis.

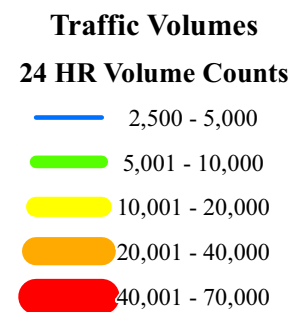


Figure 25

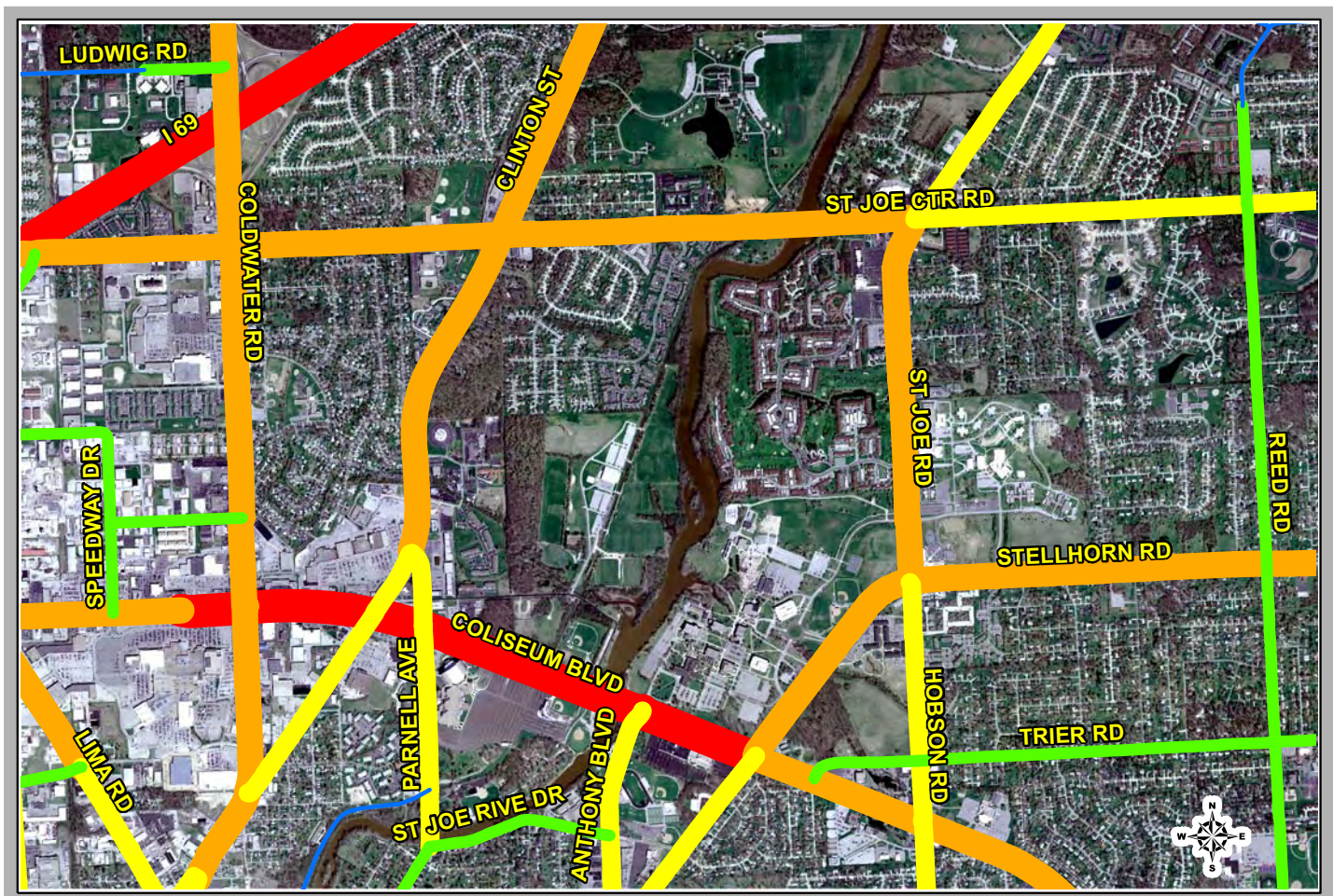
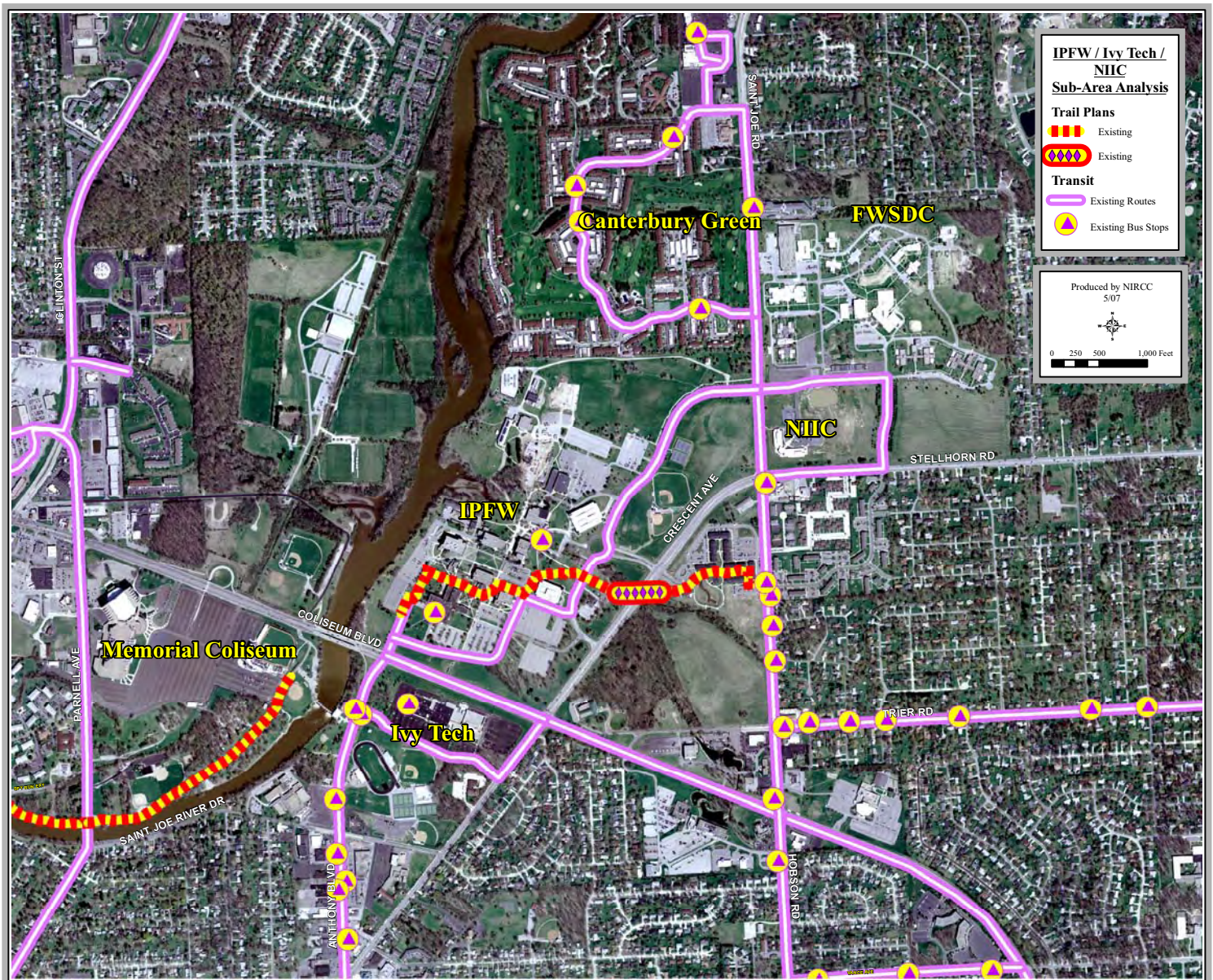


Figure 25 gives an overall look at existing traffic patterns for the area. As you can see, the corridors surrounding this area generate a significant amount of traffic. This aerial view also gives the sense of existing development throughout the area. There is a significant amount of residential and commercial development surrounding the area of analysis.

Figure 26 shows a more detailed look at the area of analysis. This map looks at the locations of the existing developments along with existing pedestrian facilities, transit routes, and bus stops. Some of the recommendations from this sub-analysis study may reveal the needs or alternatives related to the development of bicycle-pedestrian facilities and transit service.

Figure 26



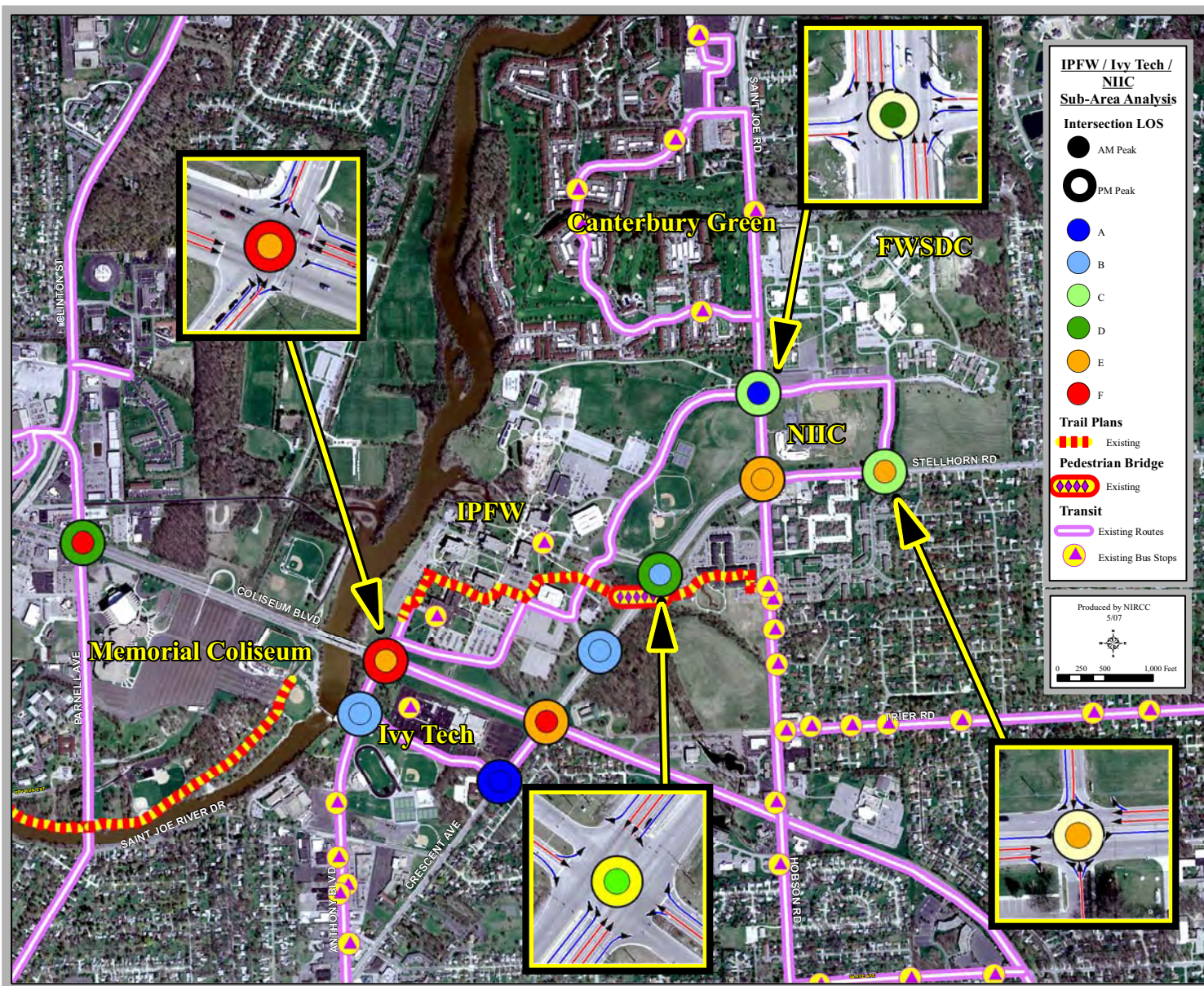


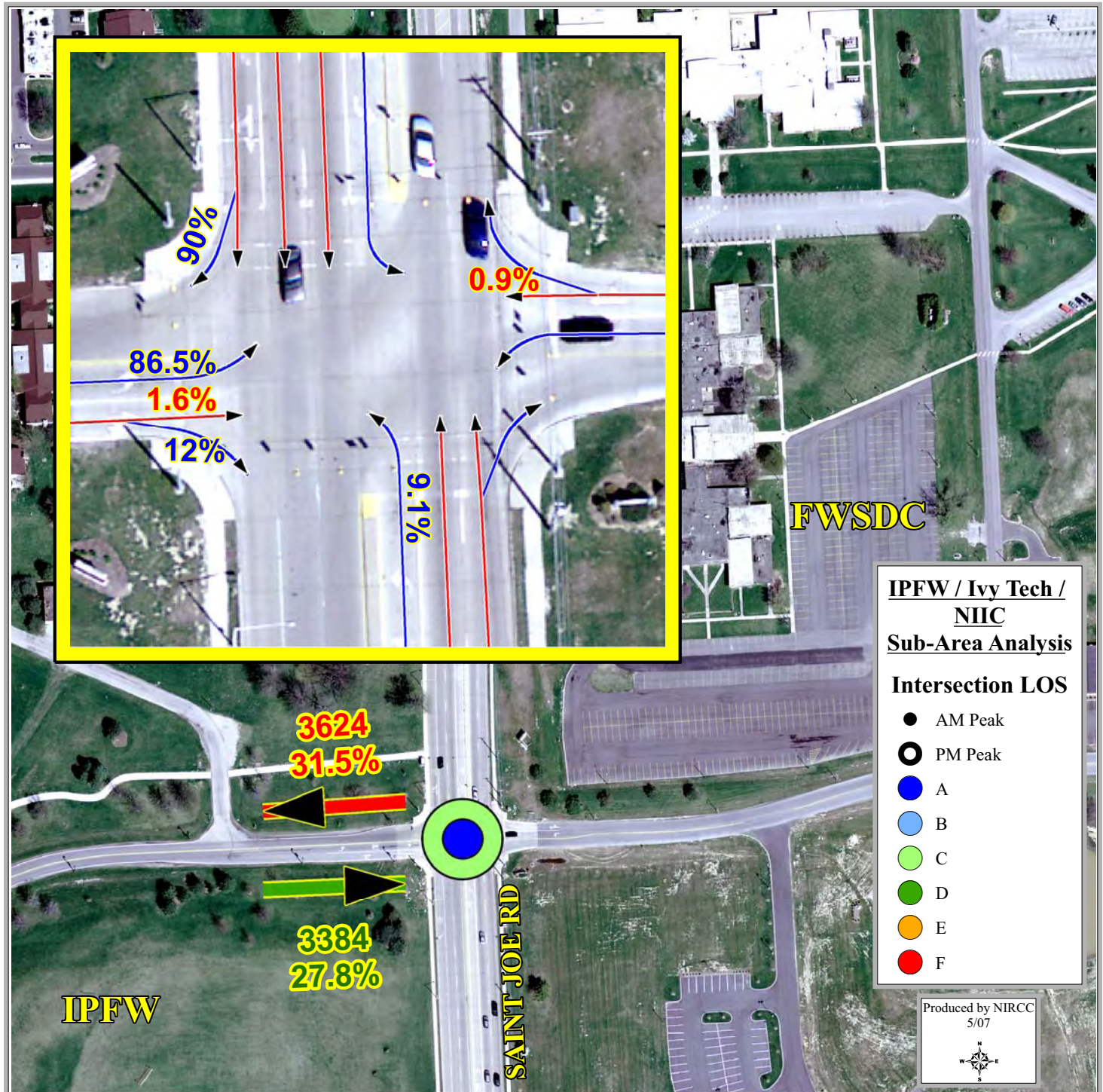
Figure 27

The map in Figure 27 adds existing levels of service at the main intersections throughout the area along with diagrams of the actual intersection movements. The smaller inner circles shown on the map represent current levels of service for the AM peak periods while the outer rings of the circles show levels of service for the PM peak periods. This kind of information can be projected into the future with development plans to compare levels of service and make recommendations to preserve acceptable levels.

Figure 28 gives an example of what NIRCC diagrams at each intersection to understand the traffic patterns and volumes. This particular entrance to IPFW accounts for 31.5 % of the total traffic entering IPFW throughout the day. Out of these 3,624 vehicles, the percentages of where they enter from are shown with the arrow lines and percentages in the intersection diagram.

This is an ongoing project for NIRCC. As of the end of FY 2007, staff has collected a substantial amount of information necessary to proceed with the analysis and recommendation phases of the study during the next fiscal year.

Figure 28





Travel Time and Delay Studies

**Studies completed by the Northeastern Indiana Regional Coordinating
Council**

Transportation Summary Report Fiscal Year 2007

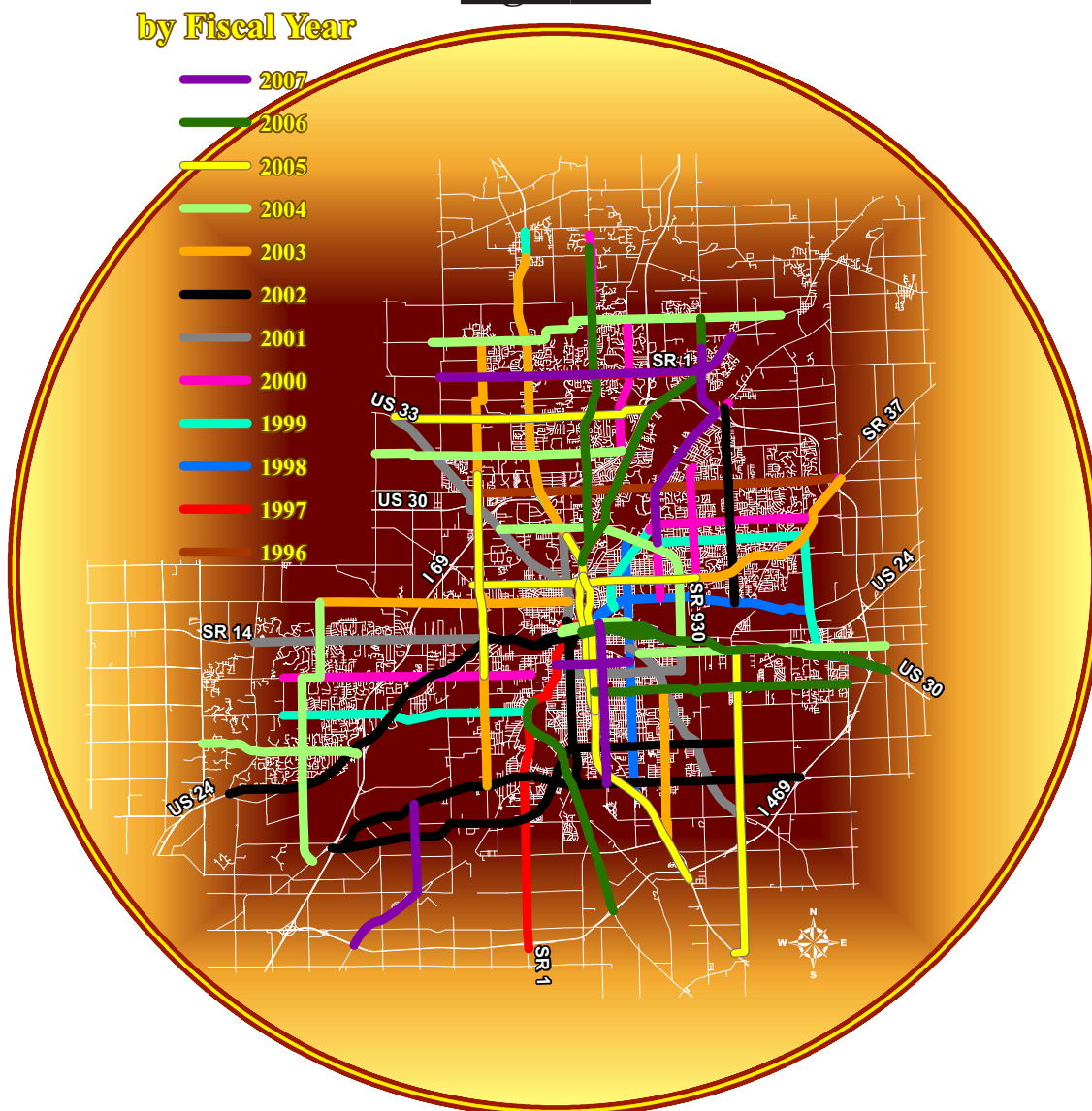
TRAVEL TIME & DELAY STUDIES

Another activity conducted by NIRCC is the travel time and delay studies. Figure 29 illustrates the travel time and delay studies that have been completed since Fiscal Year 1996. Travel time is one method to measure the congestion in the transportation system. It is essential for proper evaluation of the system because time is one of the most compelling and accurate yardsticks of the efficiency of street and highway service. Travel time is defined as the total time for a vehicle to complete a designated trip over a section of the road or from a specific origin to a specific destination. The studies conducted by NIRCC use the “average speed” method to obtain the travel time and delay data.

The following lists some of the uses that travel time data provide.

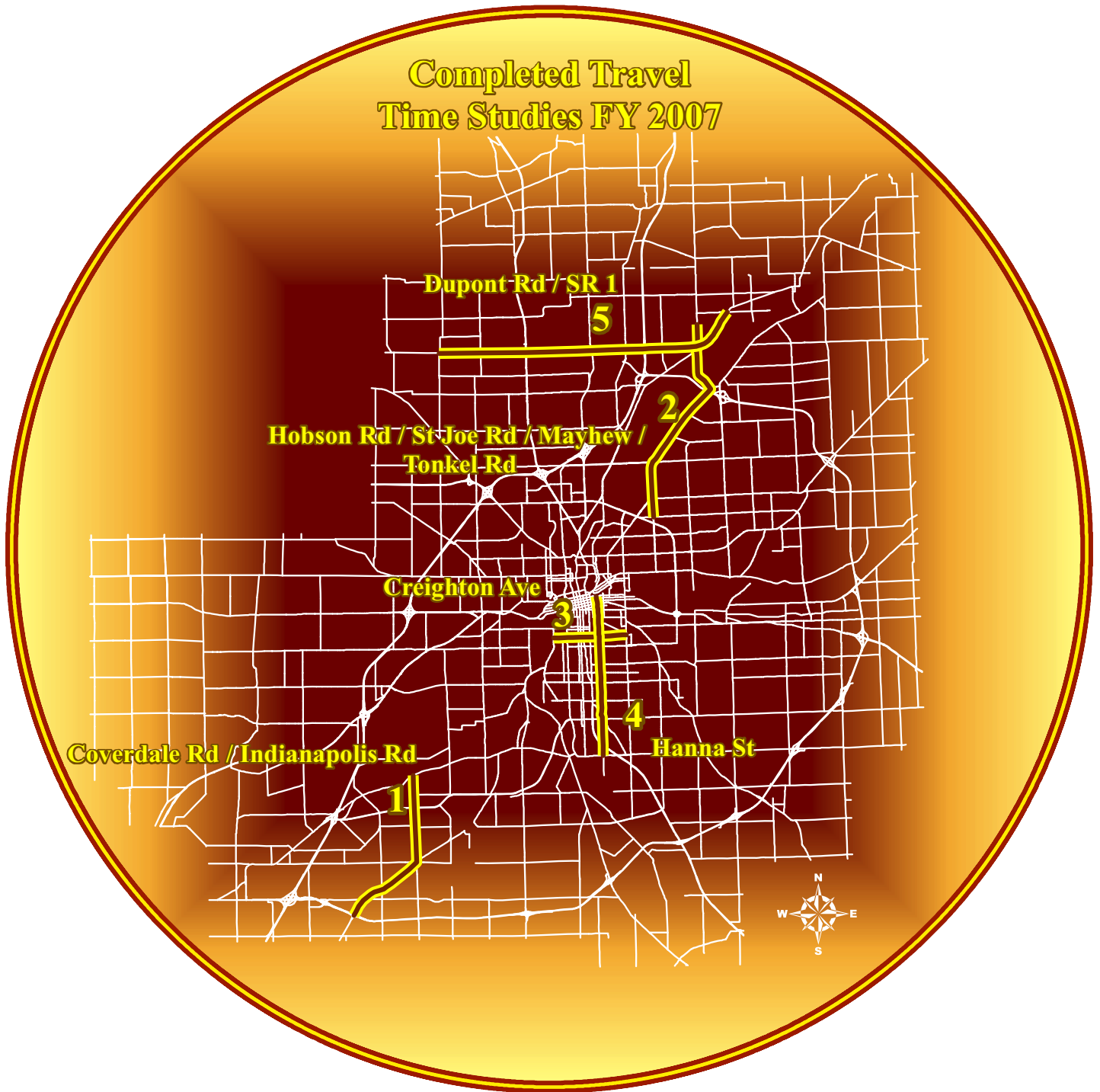
- *Identification of problem locations on facilities by virtue of high travel times and delay.*
- *Measurement of arterial level of service.*
- *Input into transportation planning models.*
- *Evaluations of route improvements.*
- *Input to economic analysis of transportation alternatives.*

Figure 29



NIRCC studied five (5) corridors during Fiscal Year 2007 including: **Coverdale Road / Indianapolis Road** from Anoka Drive to Interstate 469, **Hobson Road / St Joe Road / Mayhew Road / Clinton St** from Trier Road to Oak Pointe Drive, **Creighton Avenue** from Broadway Street to Anthony Boulevard, **Hanna Street** from Berry Street to Tillman Road, and **Dupont Road / SR 1** from Fritz Road to Popp Road. The travel time studies completed during Fiscal Year 2007 are illustrated in Figure 30 below.

Figure 30



In order to calculate average travel times for a corridor, six runs are completed in each direction for three different time periods, morning peak travel (AM peak), evening peak travel (PM peak), and daytime travel (OFF peak). Traffic count information for each link in a corridor is examined to determine the peak hours.

In fiscal year 2007, NIRCC began using GPS (Global Positioning System) technology to conduct travel time and delay studies. The GPS software computes travel times by recording latitude and longitude coordinates every second during the travel time. The software takes this data and computes speed and time. This information can then be exported to create maps of every point taken by the software. We take the point data from the AM and PM peak time periods and create density maps. As the travel time vehicle slows down or stops, a mass of points are taken in a smaller area compared to the vehicle traveling at faster speeds resulting in more spacing between the points taken. The density maps shown in Figures 31 - 40 give the results of this data. You will see on the maps that as the travel time vehicle slows down or stops multiple times at any given point the areas are shown in red. The blue areas indicate the vehicle is traveling at faster speeds.

The following pages present a summary along with density maps of the five corridors studied in fiscal year 2007. Some of the density maps show only sections of the entire travel time while others show the entire corridor. The density maps provided in this report only show the AM and PM peak time periods in each direction. Red boxes around any of the density maps reveal that they are the travel time with the greatest amount of delay for that corridor. Green boxes around any of the density maps reveal that they are the time period with the least amount of delay for that corridor. If an Off peak time period experienced either the greatest or least amount of delay it will not be provided as a density map.

Bar graphs are also included on each page. Two of the bar charts display the average time that NIRCC staff actually encountered from the beginning to the end of the travel time corridor during the time period with the greatest amount of delay, shown in red, and the time period with the least amount of delay, shown in green. These two bar charts also display, in blue, what the travel time would be if there were no delays along the corridor. This time is reflective to what a person would experience if he or she were able to travel along this corridor at the posted speed limit without having to stop or slow down for traffic control devices and traffic congestion.

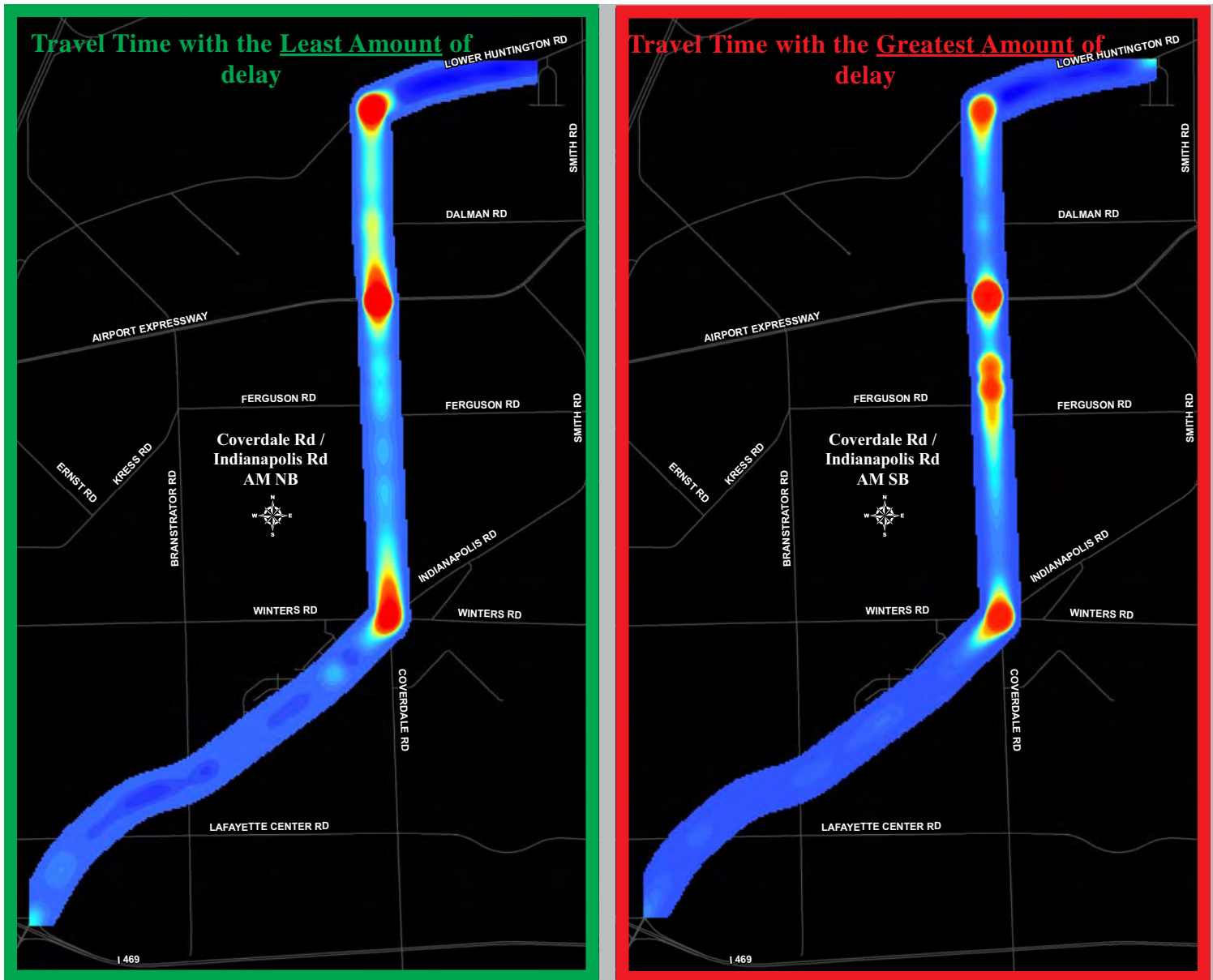
The other two bar charts display the average speed that NIRCC staff actually encountered from the beginning to the end of the travel time corridor during the time period with the greatest amount of delay, shown in red, and the time period with the least amount of delay, shown in green. These two bar charts also display, in blue, what the average speed would be if there were no delays along the corridor. This speed is reflective to what a person would experience if he or

she was able to travel along this corridor at the posted speed limit without having to stop or slow down for traffic control devices and traffic congestion.

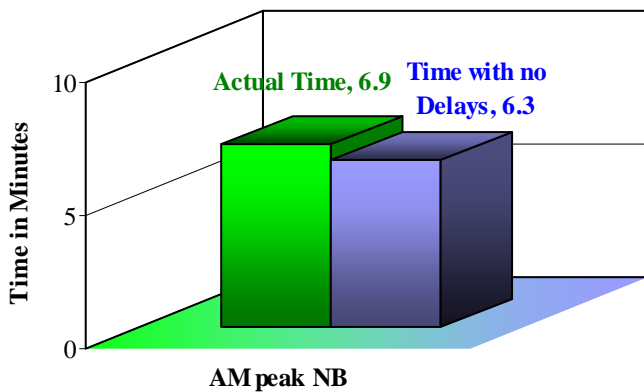
Travel Time and Delay Summary Section
for Fiscal Year 2007

Figure 31

**Coverdale Rd / Indianapolis Rd
AM Peak**



Travel Time



Travel Speed

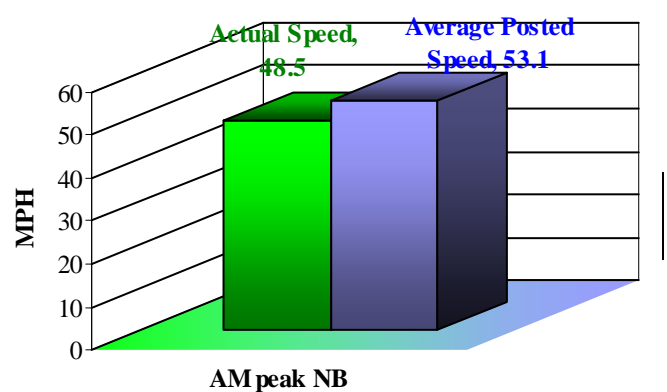
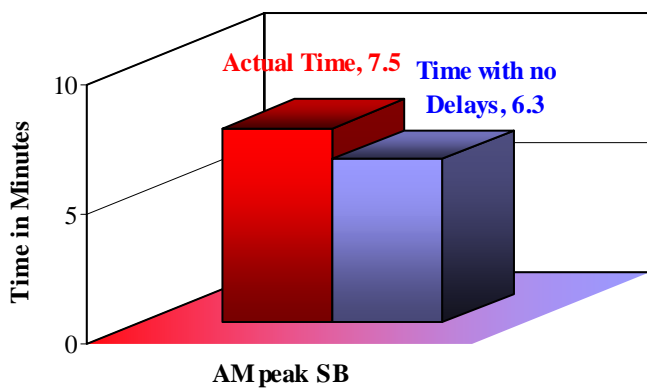


Figure 32

**Coverdale Rd / Indianapolis Rd
PM Peak**



Travel Time



Travel Speed

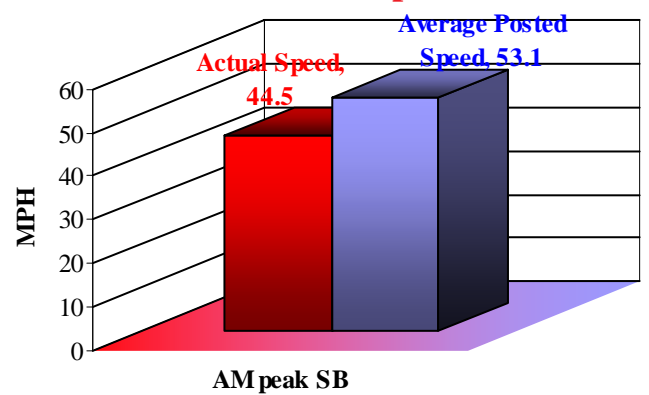


Figure 33

Hobson Rd, St Joe Rd, Mayhew Rd, Tonkel Rd / AM Peak

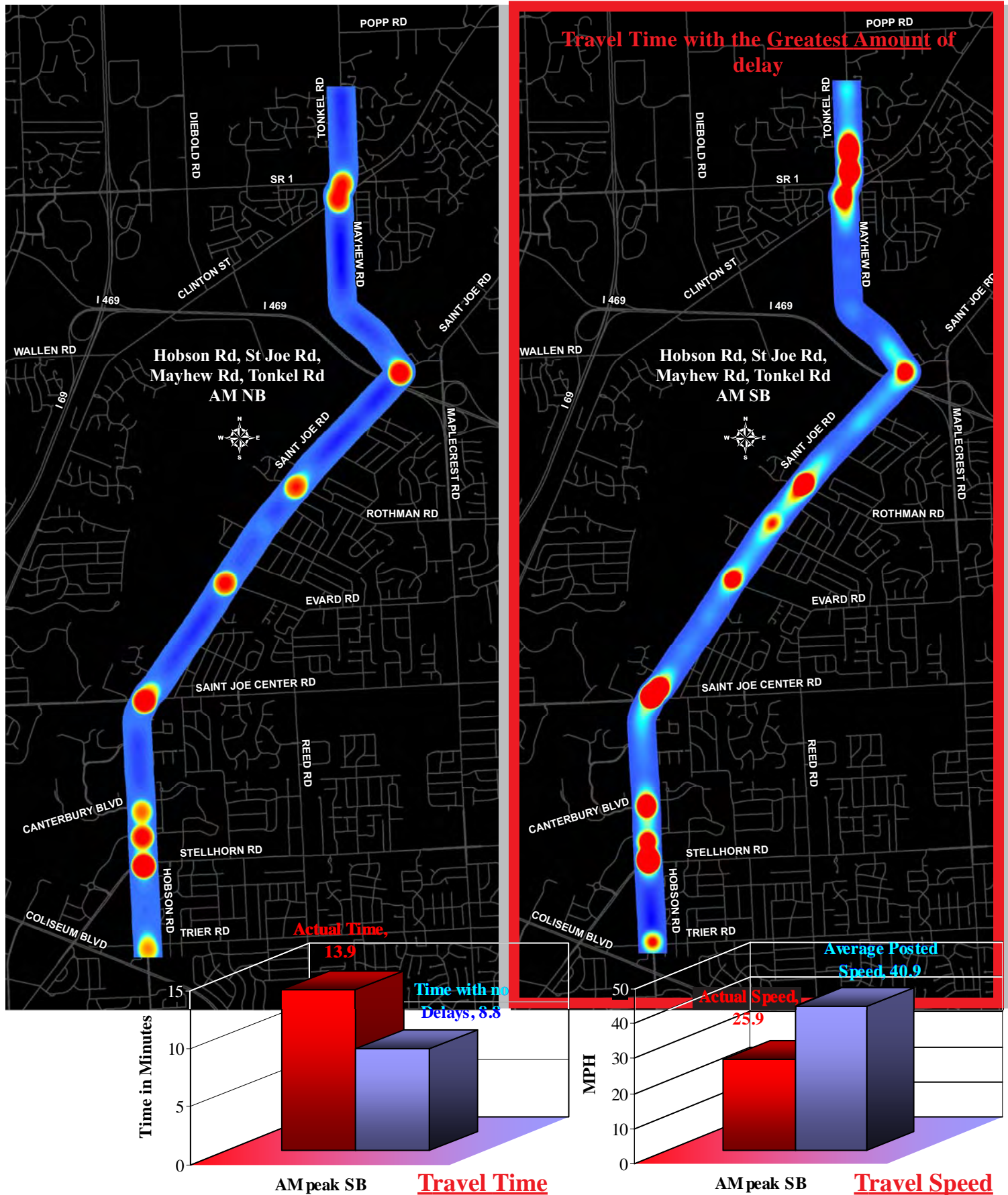


Figure 34

Hobson Rd, St Joe Rd, Mayhew Rd, Tonkel Rd / PM Peak

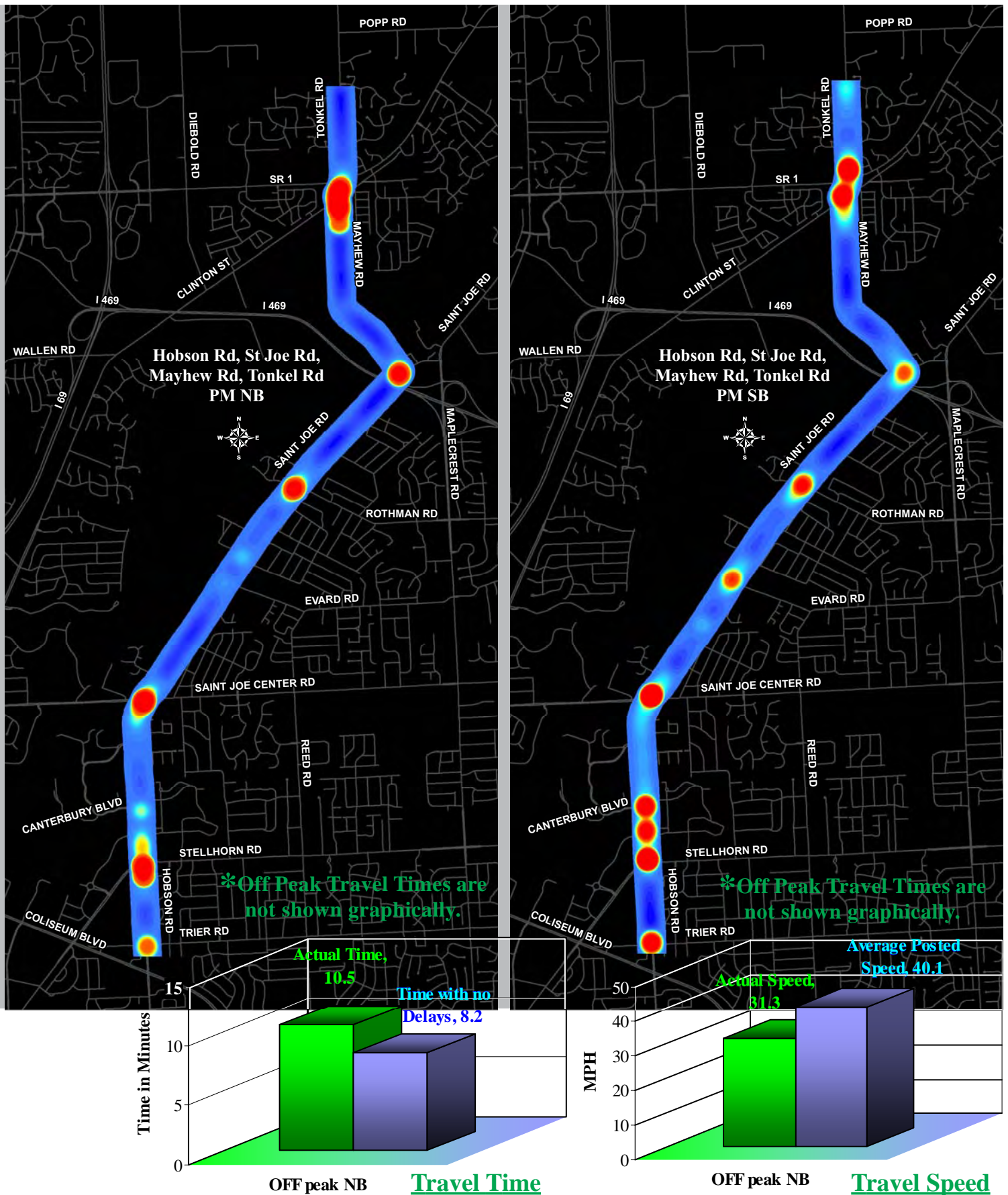


Figure 35

**Creighton Avenue
AM Peak**

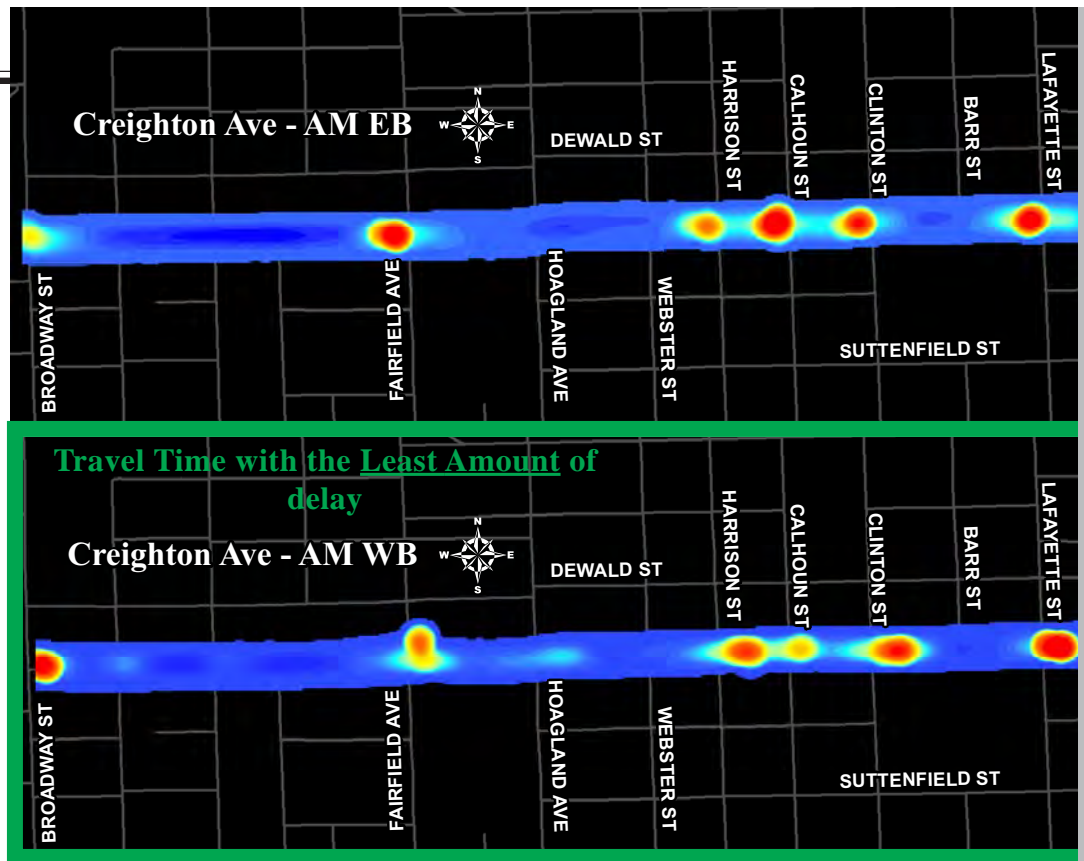
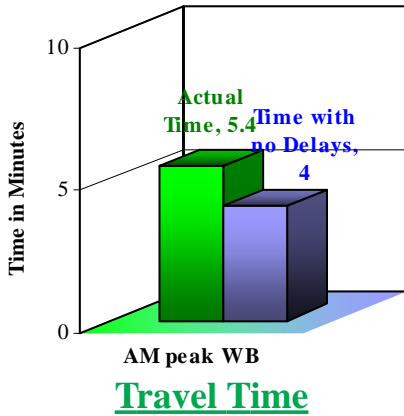
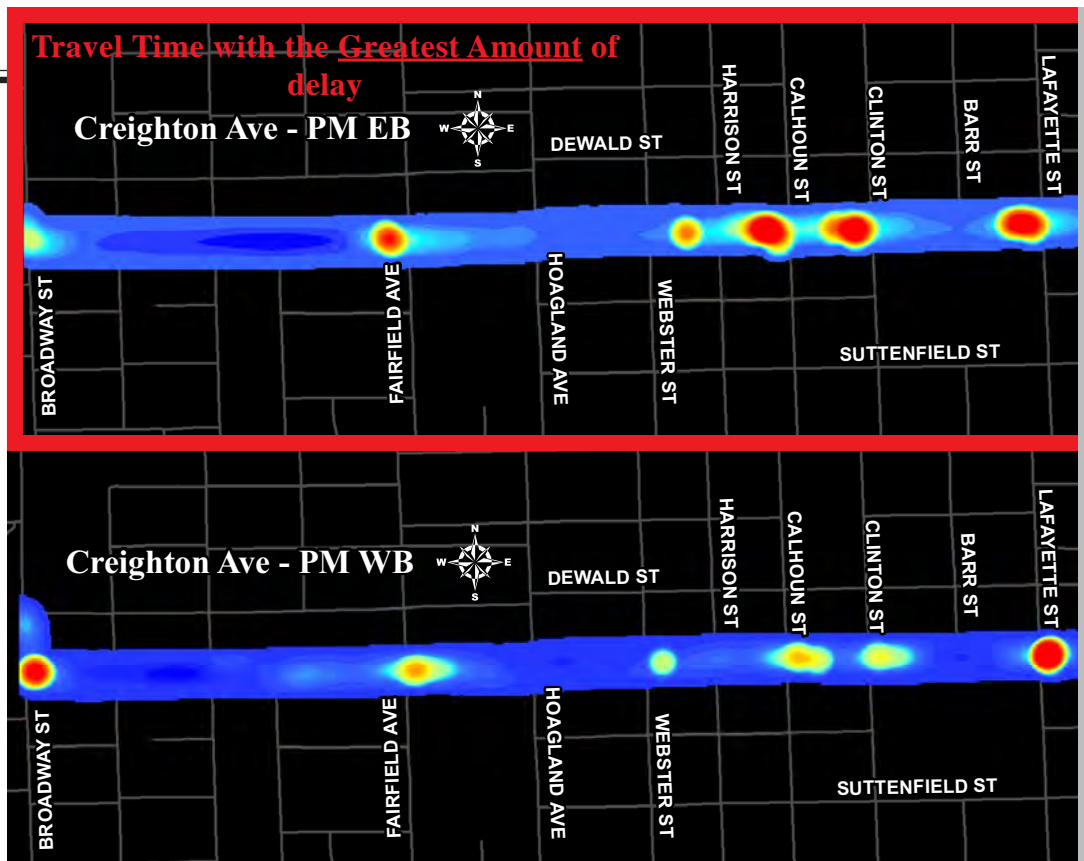
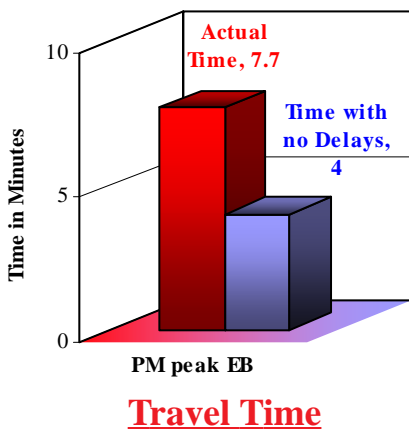


Figure 36

**Creighton Avenue
PM Peak**



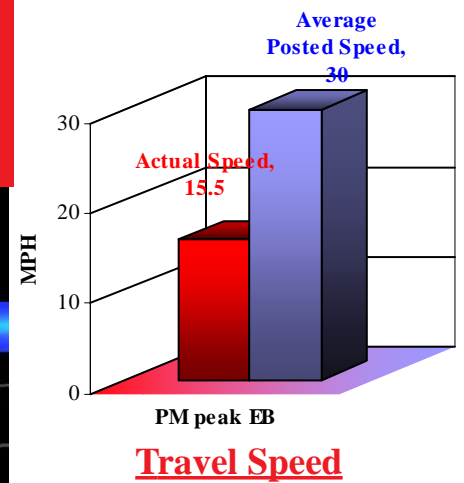
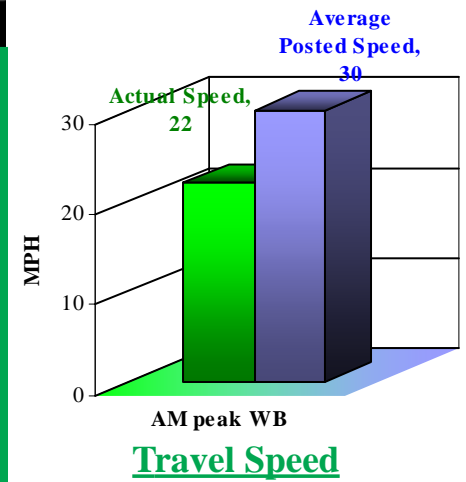


Figure 37

**Hanna Street
AM Peak**

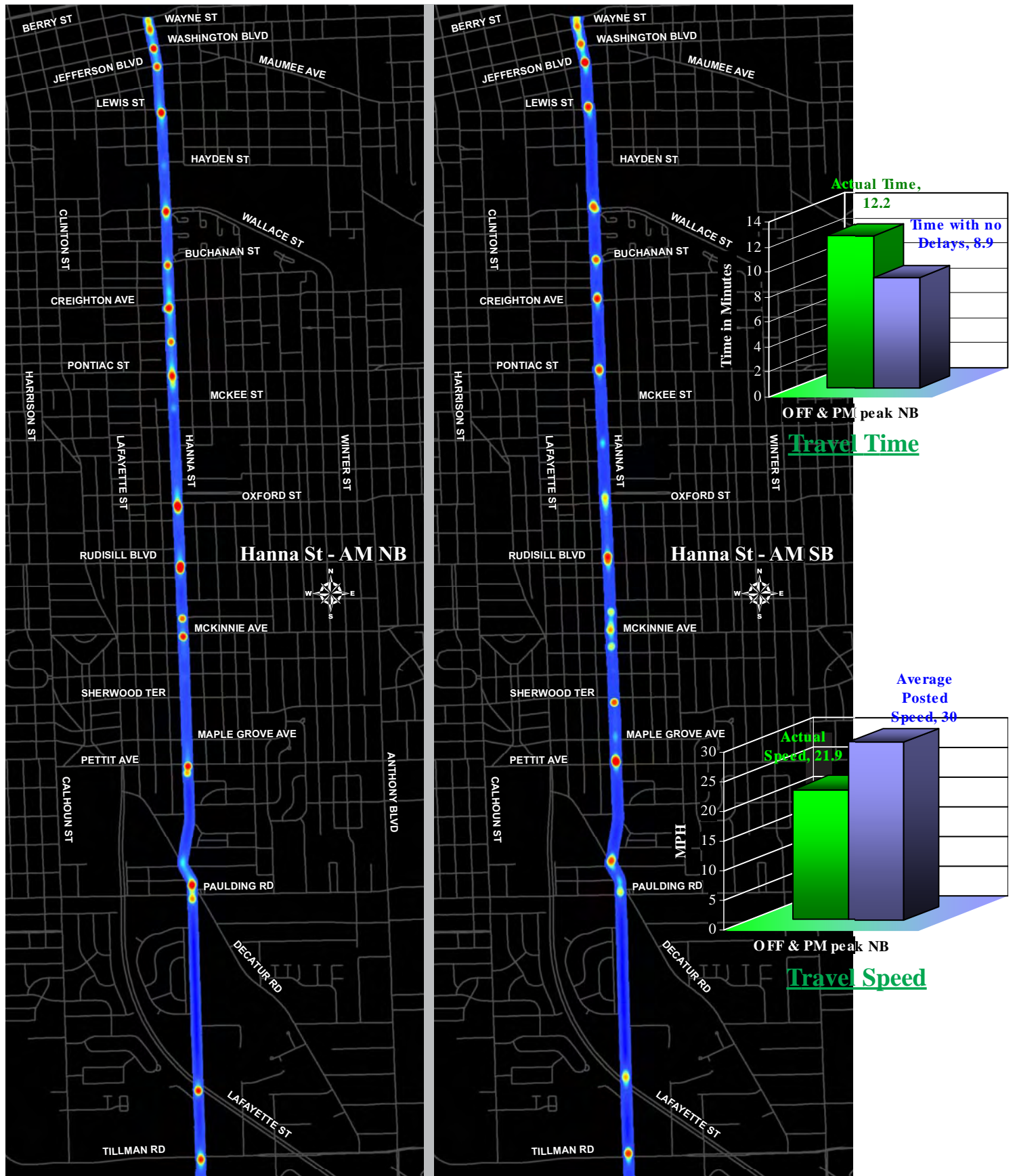


Figure 38

**Hanna Street
PM Peak**

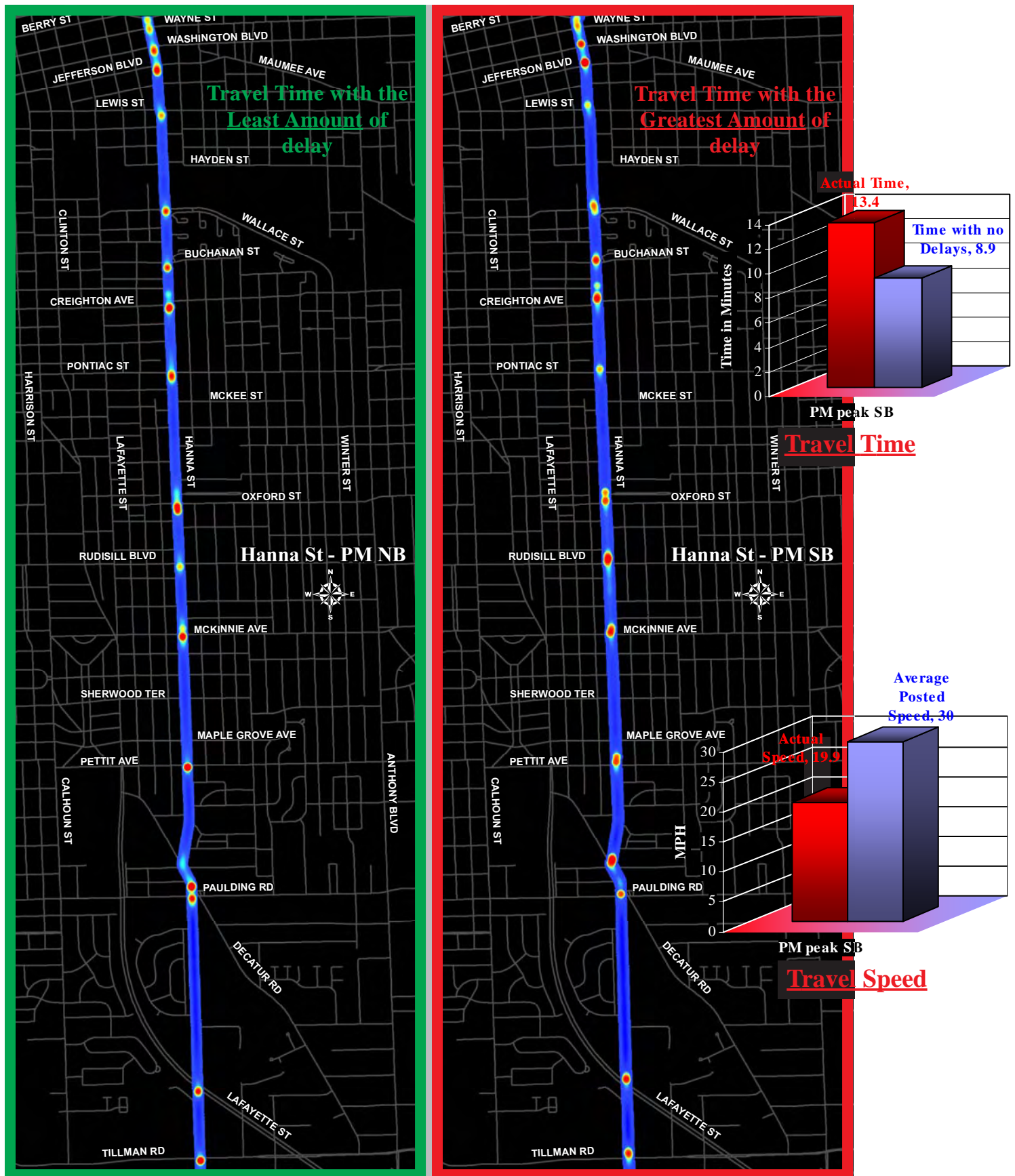
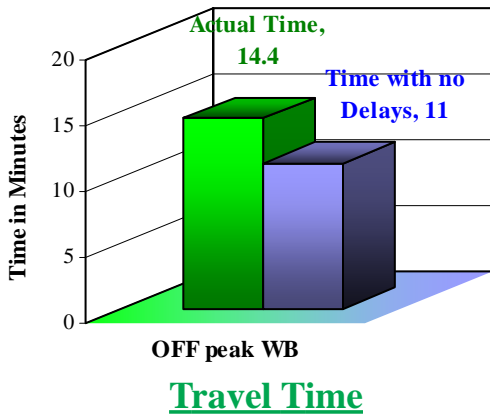


Figure 39

**Dupont Road / SR 1
AM Peak**

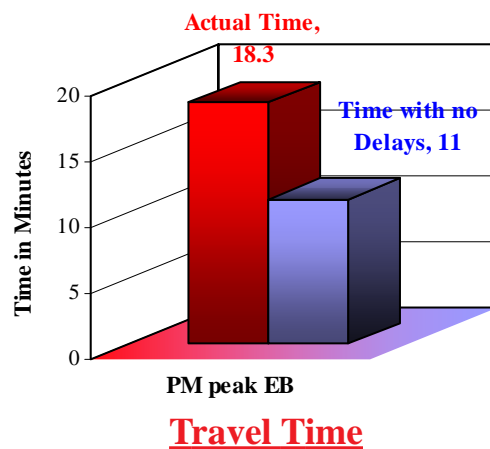


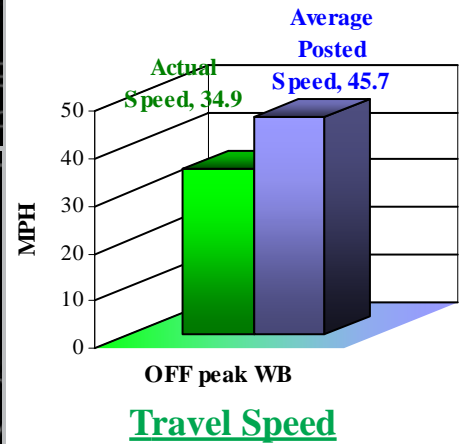
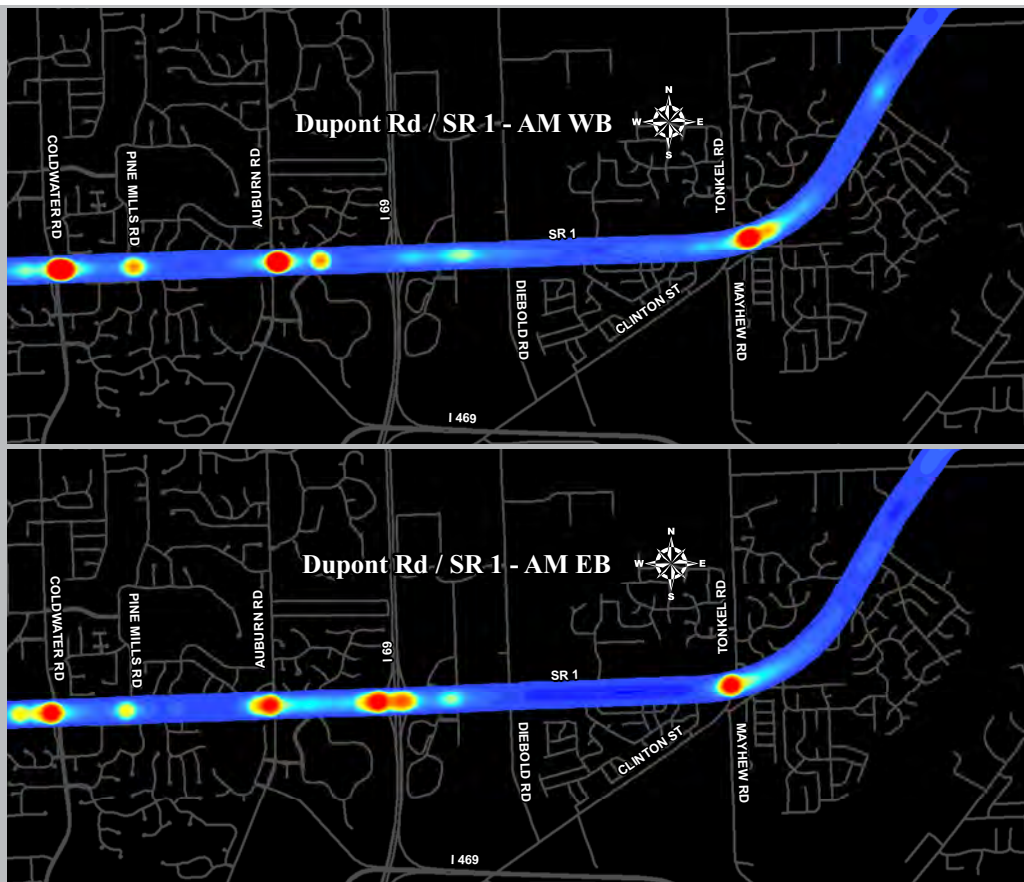
*Off Peak Travel Times are not shown graphically.



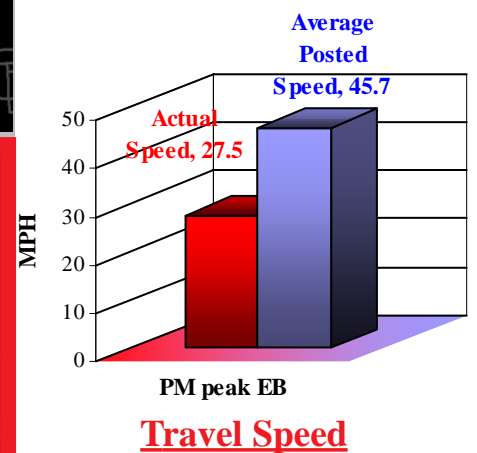
Figure 40

**Dupont Road / SR 1
PM Peak**



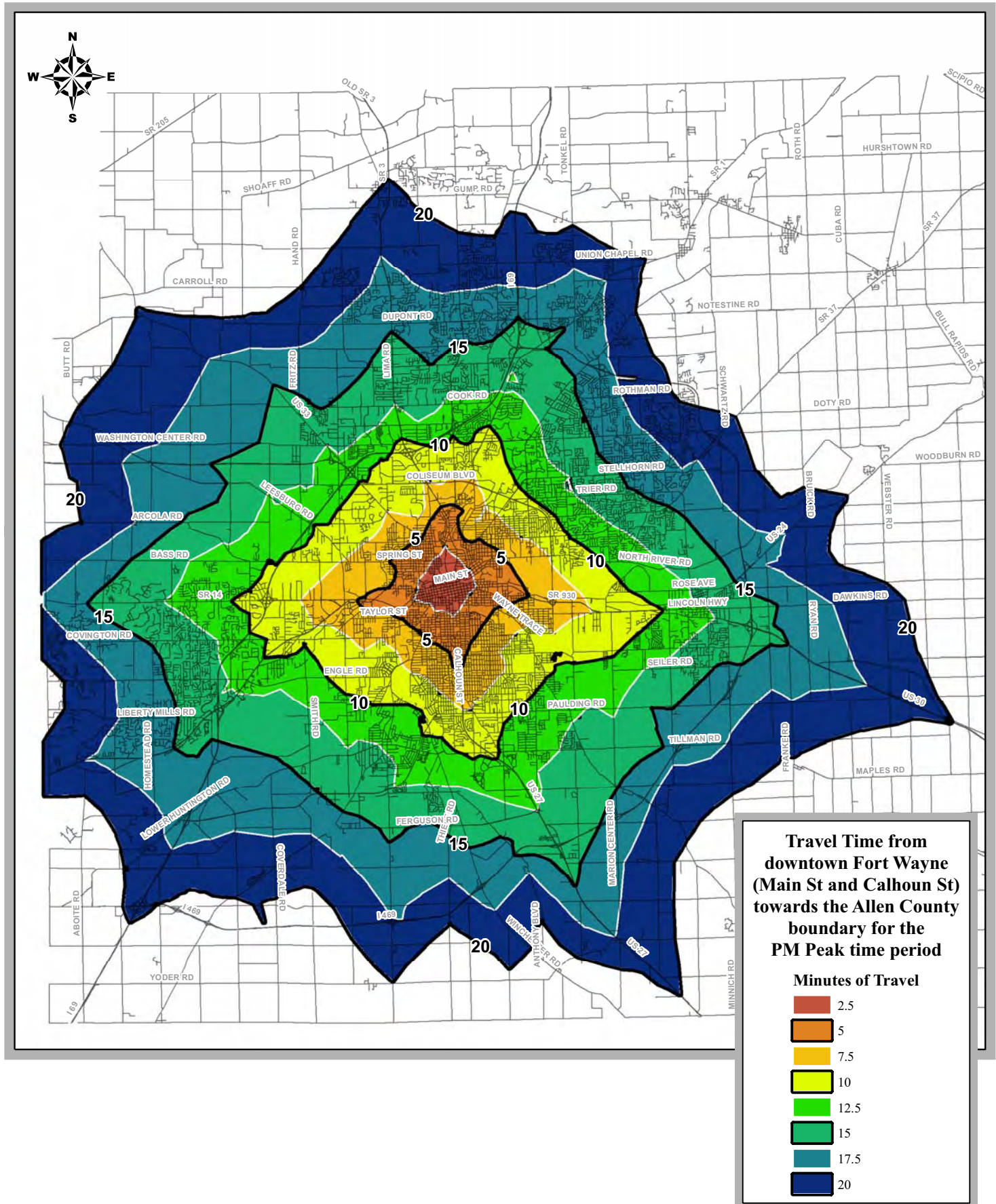


*Off Peak Travel Times are not shown graphically.



Data from travel times can be useful in many ways. One of the products produced by travel time data is shown in Figure 41. This map shows approximately how far you can travel from downtown Fort Wayne towards the Allen County line in all directions within 20 minutes. The contours express an estimate of how far a vehicle can travel every 2.5 minutes. These maps can be compared to other peak time periods to show geographically how the street networks may differ at different times of the day.

Figure 41





Transportation Improvement Program

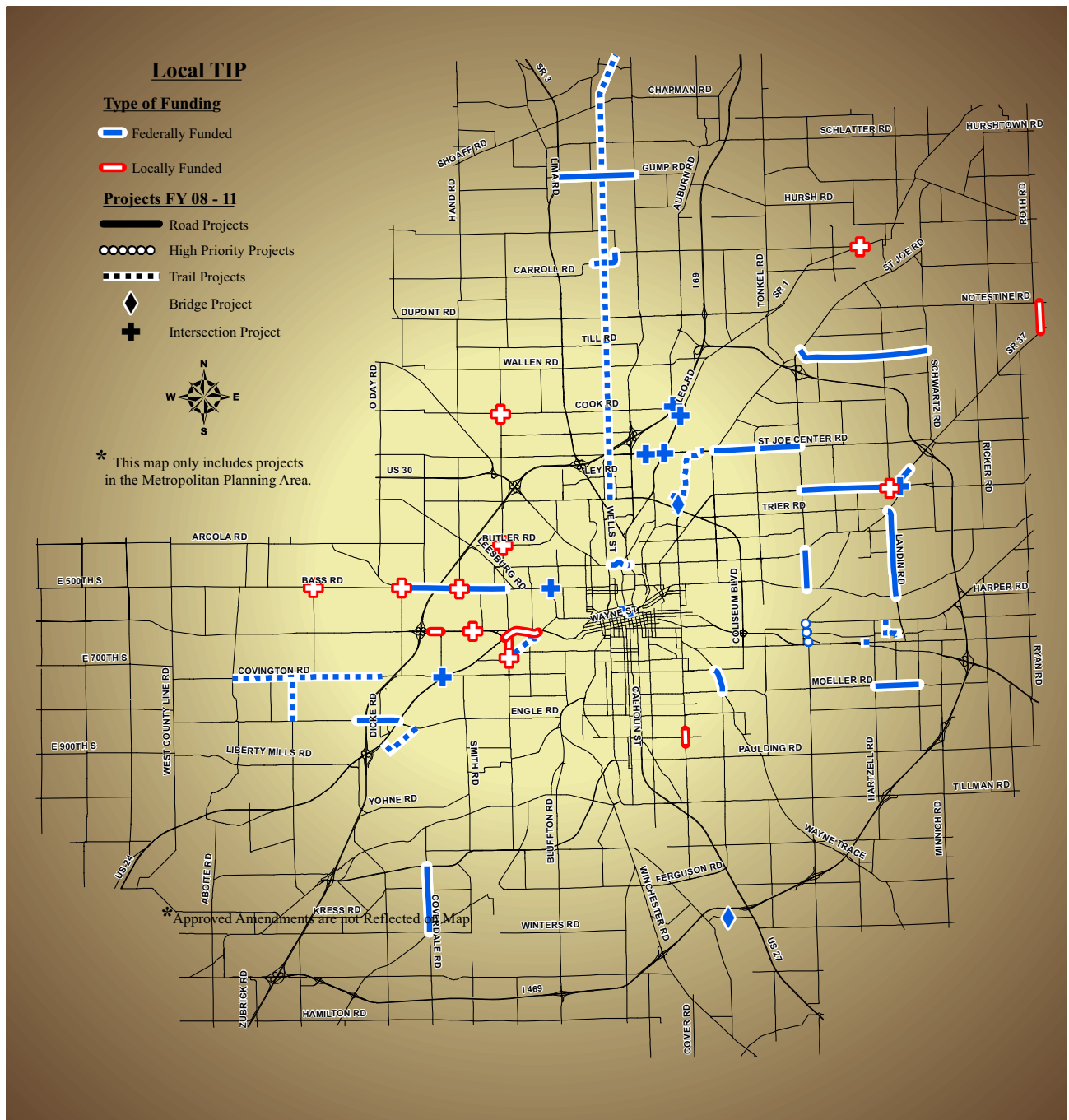
**Studies completed by the Northeastern Indiana Regional Coordinating
Council**

Transportation Summary Report Fiscal Year 2007

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) PROJECTS

NIRCC prepared the Fiscal Year 2008-2011 Transportation Improvement Program. NIRCC has published a Transportation Improvement Program each year since 1977. The TIP is a multi-year capital improvements program documenting highway and transit projects, which will serve the needs of the Fort Wayne-New Haven-Allen County Metropolitan Planning Area. The TIP is updated yearly and is used to guide the expenditure of federal funds in our area. Short range and long range (2030) transportation plans including the Indiana Department of Transportation’s Capital Improvements Program are used to formulate the TIP. The TIP includes commitments of the City of Fort Wayne, Fort

Figure 42



Wayne Public Transportation Corporation, City of New Haven, and Allen County to utilize and match federal funds. The Indiana Department of Transportation projects listed in the TIP represents commitments that the State makes to improve the transportation system in the Metropolitan Planning Area.

Each project typically goes through three different phases before construction completion. These phases include preliminary engineering (PE), right-of-way engineering and acquisition (RW), and construction (CN).



Figure 43

The preliminary engineering includes development of construction plans. Right-of-way engineering and acquisition includes the determination and actual purchase of the right-of-way needed for the project. The construction stage is the actual construction of the project. Each of the projects listed will go through one or more of the phases during the three-year period.

Figure 44



Figure 42 shows the locations of local TIP projects throughout the Metropolitan Planning Area. The local TIP map identifies projects that fit into two different categories. The projects that are colored red identify projects that utilize only local funds whether it is City of Fort Wayne or Allen County. The projects colored blue identify projects that utilize matching local funds with federal aid funds. Figures 43 and 44 provide aerial views to show examples of a project utilizing federal aid and a locally funded project. The following pages provide a listing of projects for each

fiscal year and the phase for each project. Highway projects are listed on pages 67 through 70, and transit funding is listed on pages 70 through 72.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) PROJECTS LISTED

FY 08 TIP Local Highway Projects	
ROAD PROJECTS-AREA OVER 200,000 PROJECTS FUNDED WITH STP (33C) / EB	
Project	Phase
Aboite Ctr Rd - Coventry Ln to Jefferson Blvd	RW
*Auburn Rd - Cook Rd & Clinton St	PE
Bass Rd - Hillegas Rd to Hadley Rd	PE
Flutter Rd - from Schwartz Rd to Maplecrest Rd	RW
*Maplecrest Rd - from Lake Ave to SR 930	RW
Maysville/Stellhorn Rd - Koester to Maplecrest Rd	PE
Moeller Rd - Green Rd to Hartzell Rd	PE
St. Joe Center Rd - Reed Rd to Maplecrest Rd	PE
St. Joe Center Rd - St. Joe Rd to Reed Rd	CN
State Blvd - Cass St to Spy Run Ave	PE
CONGESTION MITIGATION AIR QUALITY (CMAQ)	
Auburn Rd - Cook Rd & Clinton St	RW
Carroll Rd - Corbin Rd to .5 mi w/o Corbin Rd	PE
Clinton St & Washington Center Rd	PE/CN
Dartmouth Dr & Washington Center Rd	CN
Getz Rd / Jefferson Blvd / Covington Rd	CN
IPFW Pedestrian Bridge over St Joseph River	CN
Marketing / Education (Gas Can Exchange Program)	n/a
Spring St Bridge over NS Railroad	RW
PROJECTS FUNDED WITH STP Group IV Bridge	
Bostick Rd - Bridge over St. Mary's River	CN
Monroeville Rd Br #276- Over Hoffman-Lepper Drain	PE
Dawkins Rd bridge #187 over Litzenburg Drain	PE
HAZARD ELIMINATION SAFETY FUNDS (HES) HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)	
Dartmouth Dr & Washington Center Rd	CN
Getz Rd / Jefferson Blvd / Covington Rd	CN

*Project Amended

FY 08 TIP Local Highway Projects continued.....	
TRANSPORTATION ENHANCEMENT (TE)	
Covington Rd Trail - from West Hamilton Rd to w/o I-69	CN
Fort Wayne Urban Trails (Phase 1)	CN
IPFW Pedestrian Bridge over St Joseph River	PE/CN
Railroad Corridor Acquisition	CN
New Haven Depot & Corridor Project	CN
Tow Path & Homestead Road Trails	CN
CONGRESSIONAL HIGH PRIORITY PROJECT FUNDS	
Maplecrest Rd - Parrott Rd to SR 930	CN
RECREATION TRAILS PROGRAM (RTP)	
Towpath Trail- Rockhill Park to Ardmore/Taylor Int.	CN

FY 09 TIP Local Highway Projects	
ROAD PROJECTS-AREA OVER 200,000	
PROJECTS FUNDED WITH STP (33C) / EB	
Project	Phase
Aboite Center Rd - Coventry Ln to Jefferson Blvd	CN
Gump Rd - SR 3 to Coldwater Rd	RW
Maplecrest Rd - Lake Ave to State Blvd	PE
Moeller Rd - Green Rd to Hartzell Rd	RW
State Blvd - Spy Run Ave to Clinton St	RW
Wayne Trace - Pontiac St to Oxford St	CN
CONGESTION MITIGATION AIR QUALITY (CMAQ)	
*Auburn Rd - Cook Rd & Clinton St	CN
Carroll Rd - Corbin Rd to .5 mi w/o Corbin Rd	RW
Maysville Rd & Stellhorn Rd	RW
Marketing / Education (Gas Can Exchange Program)	n/a
New Haven Pedestrian Walkways 3 & 5	PE/CN
PROJECTS FUNDED WITH STP (33E) Group IV	
Coverdale Rd - from Indianapolis Rd to Airport Exp	CN

*Project Amended

FY 09 TIP Local Highway Projects continued.....	
TRANSPORTATION ENHANCEMENT (TE)	
Johnny Appleseed Park to Shoaff Park Trail (Phase 1)	CN
PROJECTS FUNDED WITH STP Group IV Bridge	
Dawkins Rd bridge #187 over Litzenburg Drain	CN
Monroeville Rd Br #276- Over Hoffman-Lepper Drain	CN
SAFE ROUTES TO SCHOOL (SRTS)	
*State Blvd, Lahmeyer Rd & Maysville Rd Sidewalk	CN

FY 10 TIP Local Highway Projects	
ROAD PROJECTS-AREA OVER 200,000	
PROJECTS FUNDED WITH STP (33C) / EB	
Project	Phase
Bass Rd - Hillegas Rd to Hadley Rd	RW
Flutter Rd - Maplecrest Rd to Schwartz Rd	CN
Landin Rd - North River Rd to Maysville Rd	PE
St. Joe Center Rd - Reed Rd to Maplecrest Rd	RW
CONGESTION MITIGATION AIR QUALITY (CMAQ)	
Spring St Bridge over NS Railroad @ Leesburg Rd	CN

FY 11 TIP Local Highway Projects	
ROAD PROJECTS-AREA OVER 200,000	
PROJECTS FUNDED WITH STP (33C) / EB	
Project	Phase
Gump Rd - SR 3 to Coldwater Rd	CN
Maplecrest Rd - Lake Ave to State Blvd	RW
Moeller Rd - Green Rd to Hartzell Rd	CN
CONGESTION MITIGATION AIR QUALITY (CMAQ)	
Carroll Rd - Corbin Rd to .5 mi w/o Corbin Rd	CN
Maysville Rd & Stellhorn Rd	CN

*Project Amended

Locally Funded Highway Projects FY 08-11 TIP	
ROAD PROJECTS-AREA OVER 200,000	
PROJECTS FUNDED WITH LOCAL FUNDS	
Project	Phase
Anthony Blvd - Fairfax Ave to Capital Ave	CN
Ardmore Ave & Taylor St Intersection	CN
Ardmore Ave - Jefferson Blvd to Taylor St	CN
Barnett Rd - SR 37 to Notestine Rd	CN
Bass Rd & Hadley Rd Intersection	CN
Bass Rd & Kroemer Rd Intersection	CN
Bass Rd & Scott Rd Intersection	CN
Butler Rd & Hillegas Rd Intersection	CN
Cook Rd & Huguenard Rd Intersection	CN
Illinois Rd - Interstate 69 to Getz Rd	CN
Jefferson Blvd - Illinois Rd to Railroad Viaduct	CN
Stellhorn Rd & Wheelock Rd	CN
Union Chapel Rd & Leo Rd/SR 1 Intersection	CN

Federal Transit Administration	
Section 5307 / Section 5309 - Funds	
Fort Wayne Public Transportation Corporation	
FY 2008	
Capital Equipment Purchases (Section 5307 Funds)	
	Five (5) Replacement Minibuses (body on chassis)
	One (1) Replacement Service Truck
	Computer/Office Equipment
	AVL/Communication Hardware/Subscription Cost
	Other Maintenance Equipment
	Northside Satellite Terminal
Previously Approved Funding Projects	
	CMAQ - Transit Awareness
	CMAQ - Fare Free Ozone Alert Days
	CMAQ - Additional Peak Hour Service (1/2 Hour Peak Hour Service)
	CMAQ - Biodiesel Alternative Fuel Cost Differential
Operating Funds and Preventative Maintenance Expenses	
	Capitalization of Maintenance Costs (Section 5307) ²
	Complimentary Paratransit Costs (Section 5307) ²
¹ Capital purchase listed for informational purposes only	
² Local match provided from property taxes in Operating Budget	
³ CMAQ, Capitalization of Maintenance Costs, and Complementary Paratransit Costs	

Federal Transit Administration	
Section 5307 / Section 5309 - Funds	
FY 2009	
Capital Equipment Purchases (Section 5307 Funds)	
	Six (6) Heavy Duty Replacement Buses 35'
	Four (4) Replacement Minibuses (Body on Chassis)
	AVL/Communication Hardware/Subscription Cost
	Other Maintenance Equipment
Capital Equipment Purchases (Section 5309 Funds)	
	<i>Hybrid Option for Replacement Six (6) Buses (funds requested)</i>
Operating Funds and Preventative Maintenance Expenses	
	Capitalization of Maintenance Costs (Section 5307) ²
	Complimentary Paratransit Costs (Section 5307) ²
FY 2010	
Capital Equipment Purchases (Section 5307 Funds)	
	Six (6) Heavy Duty Replacement Buses
	One (1) Replacement supervisor vehicle
	One (1) Replacement maintenance truck
	Computer/Office Equipment
	AVL/Communication Hardware/Subscription Cost
	Other Maintenance Equipment
Capital Equipment Purchases (Section 5309 Funds)	
	<i>Hybrid Option for Six (6) Replacement Buses (funds requested)</i>
Operating Funds and Preventative Maintenance Expenses	
	Capitalization of Maintenance Costs (Section 5307) ²
	Complimentary Paratransit Costs (Section 5307) ²
FY 2011	
Capital Equipment Purchases (Section 5307 Funds)	
	Four (4) Heavy Duty Replacement Buses
	AVL/Communication Hardware/Subscription Cost
	Other Maintenance Equipment
Capital Equipment Purchases (Section 5309 Funds)	
	<i>Hybrid Option for Four (4) Replacement Buses (funds requested)</i>
Operating Funds and Preventative Maintenance Expenses	
	Capitalization of Maintenance Costs (Section 5307) ²
	Complimentary Paratransit Costs (Section 5307) ²
¹ Capital purchase listed for informational purposes only ² Local match provided from property taxes in Operating Budget ³ Capitalization of Maintenance Costs and Complimentary Paratransit Costs	

Federal Transit Administration	
Section 5310 Funds	
FY 2008	
2007 Funding Cycle	
1. Allen County Council on Aging	
	Modified Passenger Van - Type B (Replacement Vehicle)
2. Byron Health Center	
	Modified Passenger Van w/lift (Replacement Vehicle)
3. Community Transportation Network	
	Modified Passenger Van w/lift (Replacement Vehicle)



Safety Management System

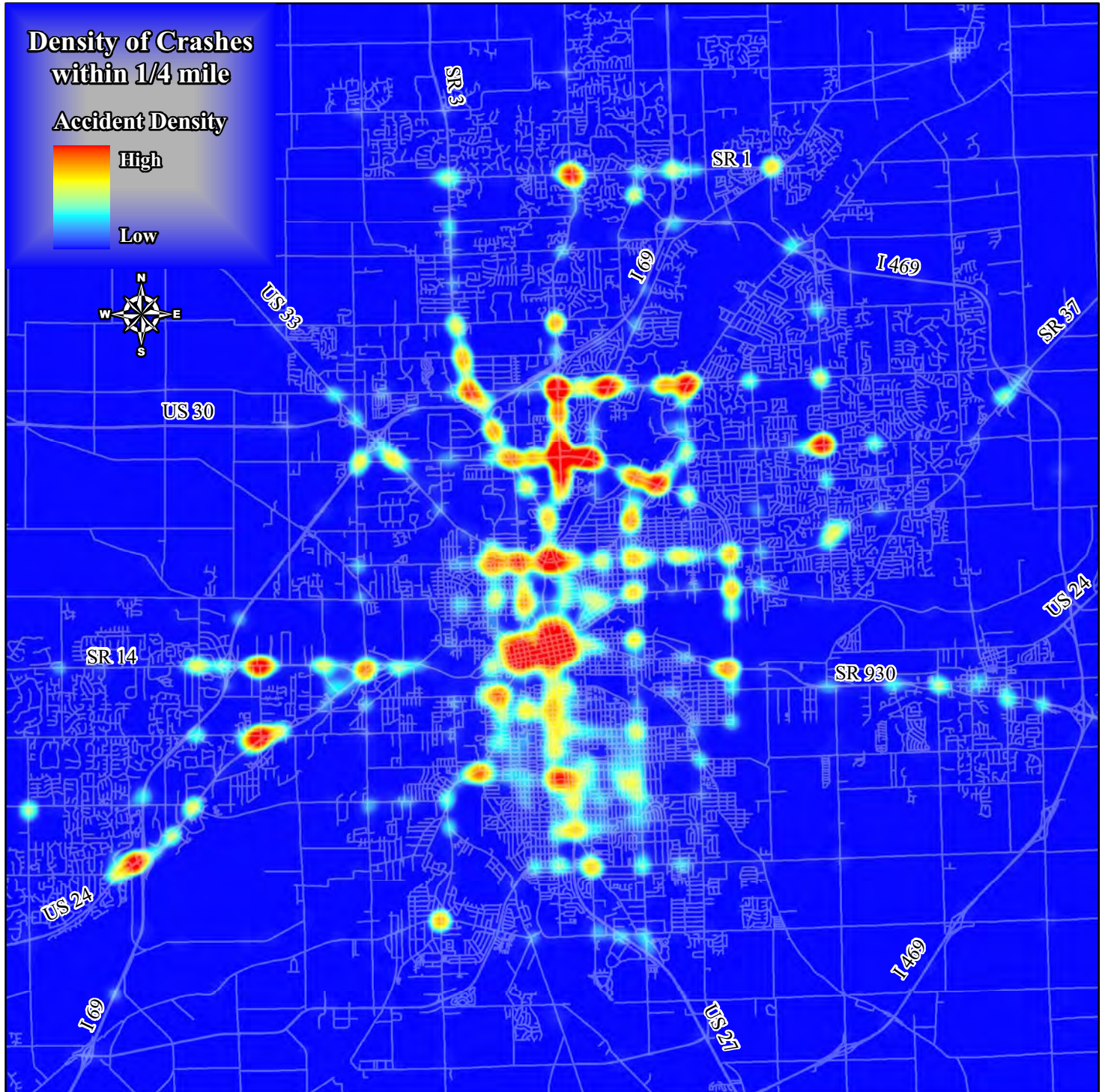
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Transportation Summary Report Fiscal Year 2007

SAFETY MANAGEMENT SYSTEM

NIRCC also maintains a Safety Management System (SMS) for the entire Allen County Area. A SMS is a systematic process that has the goal of reducing the number and severity of traffic accidents by ensuring that all opportunities to improve safety (i.e. highway planning, design, construction, maintenance, and operation) are identified, considered, implemented where appropriate, and evaluated.

Figure 45



Safety in transportation planning and project development is a high priority. The increase in available funds for safety improvements supports the importance of safety projects. Improved crash information sources and new analytical tools have created better evaluation tools to identify problematic areas. NIRCC is responding to these changes with additional resources applied to crash data analysis and GIS applications. The goal for transportation planners is to find where the problems exist, make recommendations for improvements and seek funding to implement projects. The first step is often the most difficult, which is to identify what locations are most hazardous within the community.

NIRCC evaluates crash data to identify high crash locations. The primary sources for this data are crash reports generated from state and local law enforcement agencies in Allen County. Concerns from area citizens, media and transportation officials are also used in creating a comprehensive listing of locations that have a high crash frequency (total number of crashes at a location in one calendar year).

Crashes reported by the Indiana State Police (ISP), New Haven Police Department (NHPD), Fort Wayne Police Department (FWPD) and Allen County Sheriff's Department (ACPD) are all input into databases. NIRCC processes and summarizes crash data from all agencies except FWPD, which are processed by the Fort Wayne Engineering Department. Approximately 75% of all crashes in Allen County are investigated by the FWPD. The processed data is then combined to provide a complete list of crash locations in Allen County. Locations can be ranked by frequency and a list of high crash locations is developed. GIS technology is also utilized to map all crash locations. This gives staff the ability to identify and analyze high crash areas. The technology also allows the separation and identification of crashes by crash type (i.e. rear end collision, fatal, etc.) and circumstances (i.e. drinking, drugs, etc.). Figures 45 and 46 illustrate examples of GIS technology being used as identification and analysis tools for crash data.

The frequency listing has some drawbacks and limitations. Low frequency crash locations are often discounted even though a potential safety issue may be present and high frequency locations are not necessarily the most dangerous. The number of crashes at a location may increase or decrease based on additional analysis that associates and/or disassociates certain crashes to a particular location. These issues create confusion and uncertainty in the process. In addition, the general public often has a preconceived notion of high crash locations. These notions are based on personal experience and media attention paid to high crash frequency locations, and may not account for the correlation between traffic volume and crash frequency. This can easily lead to false assumptions that locations are hazardous based on frequency alone.

A second way of evaluating and ranking crash locations is by utilizing a crash rate. The crash rate, or Rate per Million Vehicles, (RMV), is the average annual number of crashes divided by the traffic volume multiplied by 365 and divided by 1,000,000. This is used to compensate for the wide discrepancy in traffic volumes between locations. The RMV levels the playing field and is more accurate in comparing multiple locations. The drawback from simply using crash rates is that low volume and low frequency crash locations can indicate an unusually high rate that over estimates the actual hazard level. The crash rate can also lead to false assumptions of hazardous locations without proper review and evaluation.

The following examples demonstrate how utilizing crash frequencies, crash rates and conducting site specific analysis can lead to confusion and varied conclusions when identifying and evaluating hazardous crash locations.

Example 1. A request is received to evaluate a specific location for crash information. The crash information and traffic data are reviewed and evaluated. It is determined that the location has only one crash and a traffic volume of 500 vehicles per day. The calculated rate based on the crash frequency and traffic volume is 5.48, a high rate by comparison to most locations. Based on the rate, this location would rank as one of the highest crash locations in Allen County. This is an example of how locations with low traffic volumes and low crash frequencies can display an unusually high crash rate.

Example 2. The Transportation Technical Committee requests a site specific analysis for an intersection that may have a safety problem. A quick review of crash and traffic information indicates a three year history of sixty crashes within twenty-five feet of the intersection and a total traffic volume of 25,000 vehicles per day. The calculated rate is 2.19 ranking it number five. A site inspection determines that vehicles are stacking over three hundred east and west of the intersection. Further analysis identifies forty-five additional crashes (rear-ends and sideswipes) in the three year period that are directly attributed to the operation of the intersection. The revised three year crash history is now 105, with an annual average of 35 crashes and crash rate of 3.84. The location moves up to number one based on crash rate.

As these examples show, crash frequencies and crash rates at a location must be reviewed and evaluated to establish credible numbers. A site specific analysis can increase, and sometimes decrease the final number of crashes at a particular location. The purpose of a site specific analysis is to determine a pattern in crashes, roadway safety deficiencies,

potential solutions, estimated improvement cost/benefit ratio determine a final priority and ensure the location meets the basic federal and state requirements of a high crash location.

NIRCC has developed a process that incorporates both frequency and crash rates to identify and rank hazardous locations in a fair and responsive manner. The list of crash locations by frequency is reviewed, and for locations meeting or exceeding seven crashes in a single year, a crash rate is calculated. Locations below this threshold are not automatically analyzed unless a special issue or concern is identified by NIRCC or another governmental agency. A list is developed and locations are ranked based on the crash rates. This procedure is the most cost efficient and accurate method at this time. The principle of using a minimum frequency threshold and ranking by RMV is a nationally established practice by transportation safety experts.

This listing is then discussed and reviewed by local officials, technical committees, law enforcement officers, and citizens for additional input that planners use in the analysis of crash locations. The crash rate list is then used to select locations for site specific analyses. The site specific analyses look very closely at the crash location, types of crashes and crash characteristics, and the surrounding area. Information obtained through the site specific analyses may alter the crash frequency and crash rate. Additional crashes may be attributed to intersections that were not identified in the initial frequency list, and conversely some originally identified crashes may be removed. These actions will alter the final ranking and can be a point of confusion to those unfamiliar with the process. Through the site specific analysis and evaluation by staff and the Transportation Technical Committee, safety improvements are identified, projects are initiated including the consideration of low-cost and/or short-term solutions and currently scheduled improvement are reviewed to ensure safety strategies are included.

Federal Highway Administration (FHWA) funds are made available to correct hazardous locations in each state. NIRCC staff reviews crash locations in the region to determine whether any of the crash locations would be considered for Hazard Elimination Safety (HES) funds. HES funds can provide up to 100% of the total costs for the improvement project. Following methods described above, staff focuses on the number of crashes, type of crashes, RMV, number of personal injury crashes vs. property damage crashes, and overall ranking of location in the county. To date, NIRCC has applied for and received HES funding on behalf of local jurisdictions for three (3) area projects. During Fiscal Year 2007, seven (7) locations were reviewed for potential safety deficiencies and consideration for safety funding.

Since 2005, NIRCC has held the annual Allen County Transportation Safety Forum. This forum is held to allow representatives from all law enforcement agencies and engineering departments within Allen County the opportunity to

review high crash locations identified by staff over a three year period. Staff uses the forum to discuss issues with data collection, high crash location identification and the review process of site specific problem areas. The main focus of the forum is to get input from both law enforcement officers and engineers. Law enforcement is given the opportunity to bring additional locations of concern to the attention of staff for potential review. The forum also allows staff the opportunity to emphasize and provide an understanding to officers of the importance of accurate collision location information.

Evaluation of crash locations within a community is a very important process. Many variables must be considered with the recognition that each location has unique characteristics that cannot always be quantified. Limited resources require a selection process to identify potentially hazardous crash locations that warrant additional analysis and evaluation. The goal of identifying hazardous locations and pursuing projects to address the issues will remain a high priority and focus for NIRCC. Staff will continue to receive input from the Transportation Safety Forum, Transportation Technical Committee, law enforcement agencies, engineering and highway departments, media, and citizens in a continuing effort to provide a safe and efficient transportation network for all citizens of Allen County.



Bicycle and Pedestian Planning

**Studies completed by the Northeastern Indiana Regional Coordinating
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Transportation Summary Report Fiscal Year 2007

BICYCLE AND PEDESTRIAN PLANNING

NIRCC has a significant involvement in area bicycle and pedestrian planning activities. The need and desire for bicycle and pedestrian facilities has dramatically increased over recent years. The four county region represented by NIRCC has many individuals and organizations advocating improvements to the existing bicycle-pedestrian transportation system as well as expanding the system in the future. The Fort Wayne, New Haven, and Allen County area has been at the forefront for local advocacy groups to begin their planning efforts. Local government has begun taking a more active role in their planning efforts to include bicycle and pedestrian amenities.

To better coordinate local efforts, NIRCC began sponsoring the Northeastern Indiana Regional Bicycle and Pedestrian Forum in 2002. This forum represents a task force comprised of governmental parks, planning and highway agencies, advocacy groups, and special project organizations. The forum has increased the communication and coordination between these groups. In addition, the forum was integral in developing and completing the Allen County Comprehensive Bicycle and Pedestrian Transportation Plan in 2006. This plan was included in the 2030 Long Range Transportation Plan. Staff continues to update the plan annually. The plan is available on the NIRCC website at www.nircc.com.

During Fiscal Year 2007, NIRCC continued these efforts. NIRCC participated in the review of the Draft Bicycle and Pedestrian Facility Planning and Design Manual. The City of Fort Wayne invested in the creation of this manual to create a guide for planners, engineers, and other interested groups to follow as they plan and design pedestrian facilities. This design manual is expected to become the standard design manual for Allen County. NIRCC researched a number of resources for designing bicycle and pedestrian facilities and attended several meetings for the review of this document.

One of the major undertakings this past fiscal year was the creation of the 2007 Regional Bicycle and Pedestrian Plan. Figure 47 contains the regional plan and Figure 49 contains the Allen County portion. In order to create a regional plan, NIRCC along with Region III-A Economic Development District and Regional Planning Commission began planning a regional charrette that would include 11 counties in northeast Indiana. Participating counties included Adams, Allen, Dekalb, Grant, Huntington, Lagrange, Noble, Steuben, Wabash, Wells, & Whitley. Figure 48 contains the charrette brochure.

The charrette provided the means for creating a regional plan that would insure connections throughout the northeast Indiana region. With Allen County being at the hub of the regional effort, a large amount of organization and planning was required to prepare for the charrette. The Allen County Comprehensive Bicycle and Pedestrian Transportation Plan was incorporated into the regional plan.

Figure 47
2007 Regional
Bicycle and
Pedestrian Plan

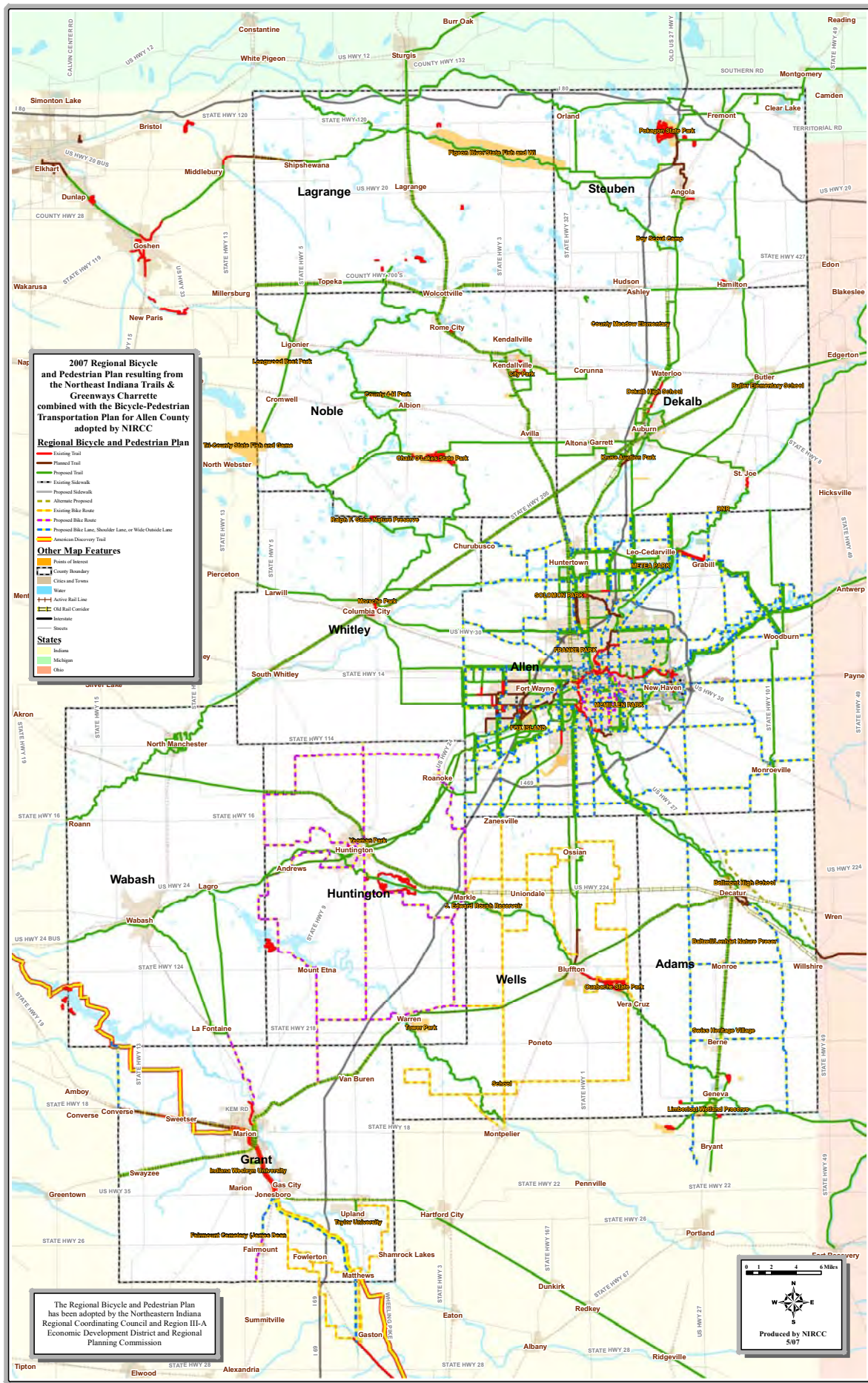


Figure 48

2007 Northeast Indiana Trails and Greenways Charrette

Brochure Front

*Charrette Agenda
November 17, 2006*

- 8:30 Registration, Continental Breakfast
- 9:00 Welcome / Overview
- Moderator: Rory Robinson, National Park Service
- 9:15 County Work Sessions
- Each county will review their own plans.
- 9:30* County to County Visionary Sessions
- Each county will have a chance to meet.
- 12:00* Lunch - Guest Speaker
- 1:00 Put the Pieces Together
- Identify the connectivity throughout the Northeast Indiana Region as well as with surrounding areas.
- 2:30 Implementation Strategies
- 3:00 Wrap Up and Conclusions

**Participative Session for State Legislators, Mayors, and Commissioners.*

November 17, 2006

8:30 AM to 3:00 PM
World War II Victory Museum
Auburn, Indiana

Sponsors, Partners, & Supporters

- Aboite
- DLZ DESIGN EXCELLENCE
- REGION III-A Economic Development District & Regional Planning Commission
- Bonar Group Engineers Surveyors Planners
- NATIONAL PARK SERVICE
- B&S Butler, Fairman & Seufert CIVIL ENGINEERS
- LEHMAN & LEHMAN Transforming Horizons
- STATE OF INDIANA
- gal consultants

Brochure Back

Why is a Charrette important?

"Often times planners are restricted by jurisdictions or by plans already in place. Or they're limited because they just don't know what other counties are planning. Sometimes a greenway is built, only to discover it doesn't line up with another city or county's greenway. I think one of the goals of this Charrette is to meet the representatives from surrounding jurisdictions and to help each other see possibilities we may have overlooked."

Rory Robinson of the National Park Service

Charrette?:
Charrette is a French word meaning organized planning and brainstorming session.

Purpose:
To explore regional coordination of trail and greenway development throughout the Northeast Indiana area utilizing a visiting method.

Goal:
To better coordinate the regional development of trails and greenways across county boundaries connecting communities and people by alternative means of transportation.
To provide a plan that will add continuity throughout the Northeast Indiana region.

Why plan trails?

Greenways and trails offer many benefits by enhancing the quality of life and building a connected and sustainable community. The following are some of the many benefits derived from greenway and trail development.

- Adds to the character and vitality of the community
- Enhances a sense of community among people and neighborhoods
- Improves the health and fitness of the population
- Provides a safe alternative transportation option
- Reduces motorized traffic
- Improves air quality
- Supports economic development
- Adds to property values

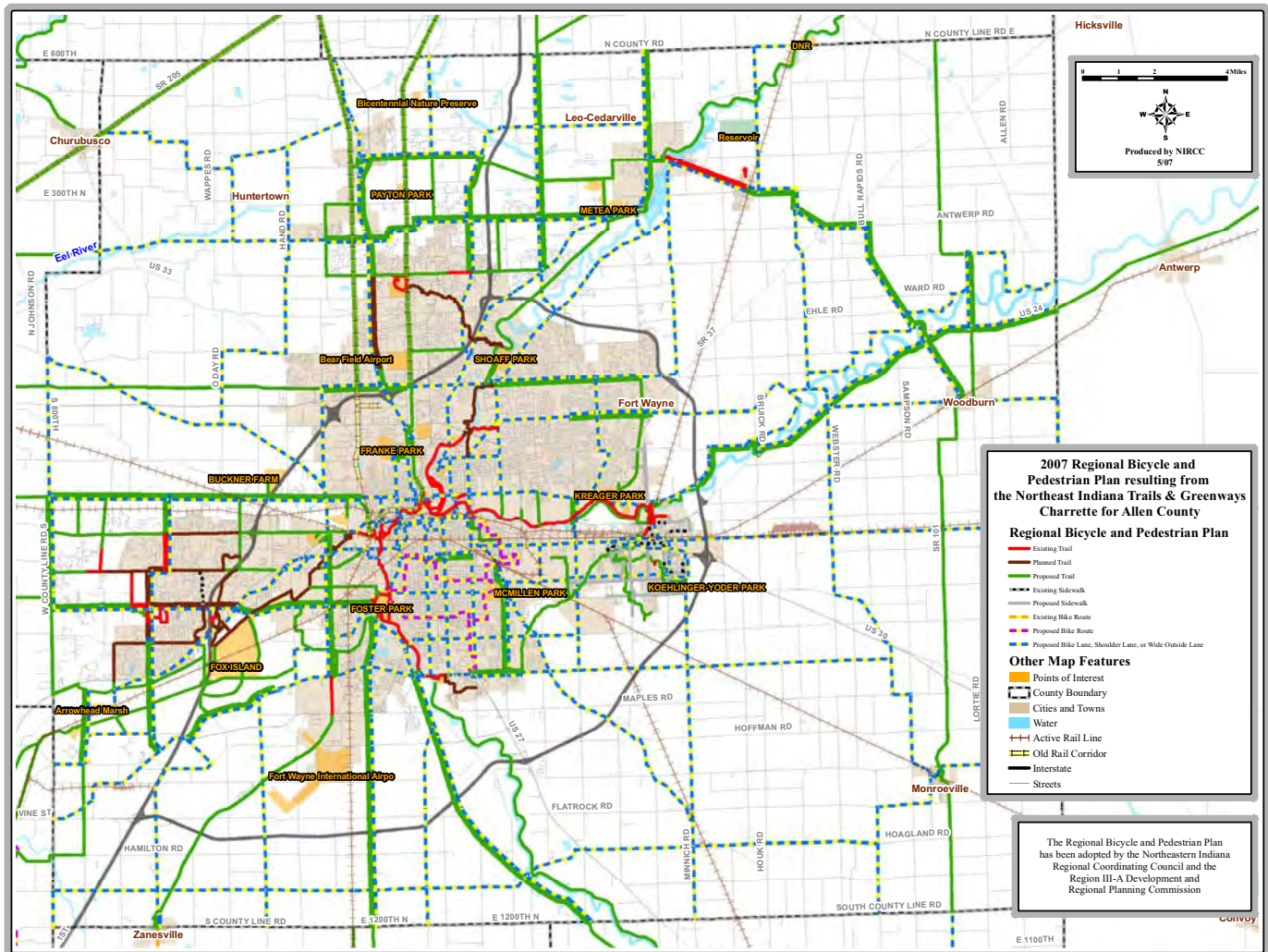
Participating Counties

Adams, Allen, Dekalb, Grant, Huntington, Lagrange, Noble, Steuben, Wabash, Wells, & Whitley Counties.

The Charrette will be held on November 17, 2006 from 8:30 AM to 3:00 PM at the World War II Victory Museum located west of I-69, exit 126, Auburn, Indiana. A continental breakfast and lunch will be provided. By invitation only, please RSVP.

Figure 49

The Allen County portion of the 2007 Regional Bicycle and Pedestrian Plan





Transit Planning Activities

**Studies completed by the Northeastern Indiana Regional Coordinating
Council**

Transportation Summary Report Fiscal Year 2007

TRANSIT PLANNING ACTIVITIES

NIRCC has an integral role in the transit planning activities that occur within Allen County. NIRCC has a working relationship with most of the areas transit providers. These providers, along with representatives from local government, social service agencies, and consumers, serve on committees overseen by NIRCC that focus on transit related activities within Allen County.

There are two committees that deal with transit related activities in Allen County, the Transit Planning Committee (TPC) and the Transportation Advisory Committee (TAC). The TPC meets monthly and the TAC meets quarterly. The TPC was established in 1993 as a working committee of the Urban Transportation Advisory Board (UTAB). The main focus of the TPC is to assist in coordinating and facilitating local public transit and para-transit services. The TAC serves as a subcommittee of the TPC focusing mainly on the local transportation issues faced by persons with disabilities and low income individuals. The TPC has been integral in projects such as the Coordinating Development and Transportation Services Guide, the Citilink Transit Development Plan, and most recently the Coordinated Public Transit-Human Services Transportation Plan for Allen County. The TAC takes the lead role in organizing, evaluating, and submitting local Section 5310 Elderly and Individuals with Disabilities Program Applications and is responsible for maintaining the local Transportation Resource Guide.

Coordinated Public Transit-Human Services Transportation Plan Allen County

In fiscal year 2007, NIRCC, with the assistance of the TPC, developed a Coordinated Public Transit-Human Services Transportation Plan for Allen County. This plan was required due to the 2005 SAFETEA-LU legislation which included a requirement for local areas to develop a coordinated public transit-human services transportation plan for all Federal Transit Administration (FTA) human service transportation programs that provide funding for transportation services. This plan will serve to increase and strengthen the transportation services that are offered in Allen County.

The FTA programs include the Section 5310 Elderly and Individuals with Disabilities Program, the Section 5316 Job Access and Reverse Commute (JARC) Program and the Section 5317 New Freedom Program. These programs are currently or will be utilized by the transportation providers within Allen County. The Elderly Individuals with Disabilities Program provides grant funding, usually for capital projects, for private nonprofit groups to meet the transportation needs of elderly and disabled persons when other transportation services (public and private) are unavailable, insufficient, or inappropriate to meeting those needs. The JARC Program is a grant program for local government authorities/agencies and non-profit agencies, to develop transportation services to transport welfare recipients and low-income

persons to and from jobs (Job Access); and to transport residents of urban centers, rural and suburban areas to suburban employment opportunities (Reverse Commute). The New Freedom Program is a new formula grant program for public or alternative transportation services and facility improvements to address the needs of persons with disabilities that go beyond those required by the Americans with Disabilities Act (ADA).

SAFETEA-LU requires that projects selected for funding under the above-named programs be “derived from a locally developed, coordinated public transit-human services transportation plan”, and that the plan be “developed through a process that includes representatives of public, private and nonprofit transportation and human services providers and participation by the public.” The Plan for Allen County was developed in a manner that satisfied these requirements.

The Plan for Allen County is separated into five sections: the identification of area transportation providers and services, identification of transportation needs, identification of transportation service gaps and redundant service, identification and prioritization of strategies to address the gaps in service, and project selection.

Due to the close working relationship with area transportation providers, the identification of providers and their services was relatively simple. NIRCC staff documented service areas, type of service, hours of service, cost of service, size of fleets, and annual trips and mileage.

The identification of the transportation needs of the populations targeted by the three programs was more intensive. These needs were identified geographically and non-geographically. Using census information, staff identified the distributions of individuals with disabilities, older adults, and persons with limited incomes, as well as the locations of the destinations in which these populations need or wish to travel to and from. Figures 50 thru 51 are examples of the geographic needs identified in the plan. The non-geographic needs are the reasons why and when transportation is needed. The purpose of the trip and the day and time at which it is required is a major factor, especially when it is relative to the availability of transportation options. Figures 52 thru 54 provide examples of the non-geographic needs identified in the plan.

The gaps in services were identified using the information gathered from the identification of the providers and the transportation needs of the targeted populations. The gaps were separated into five categories including hours of operation, service areas, service availability, trip coordination, and consumer information. The gaps are listed below:

Hours of Operation

- No service in the early morning and late evening hours
- Saturday service is limited

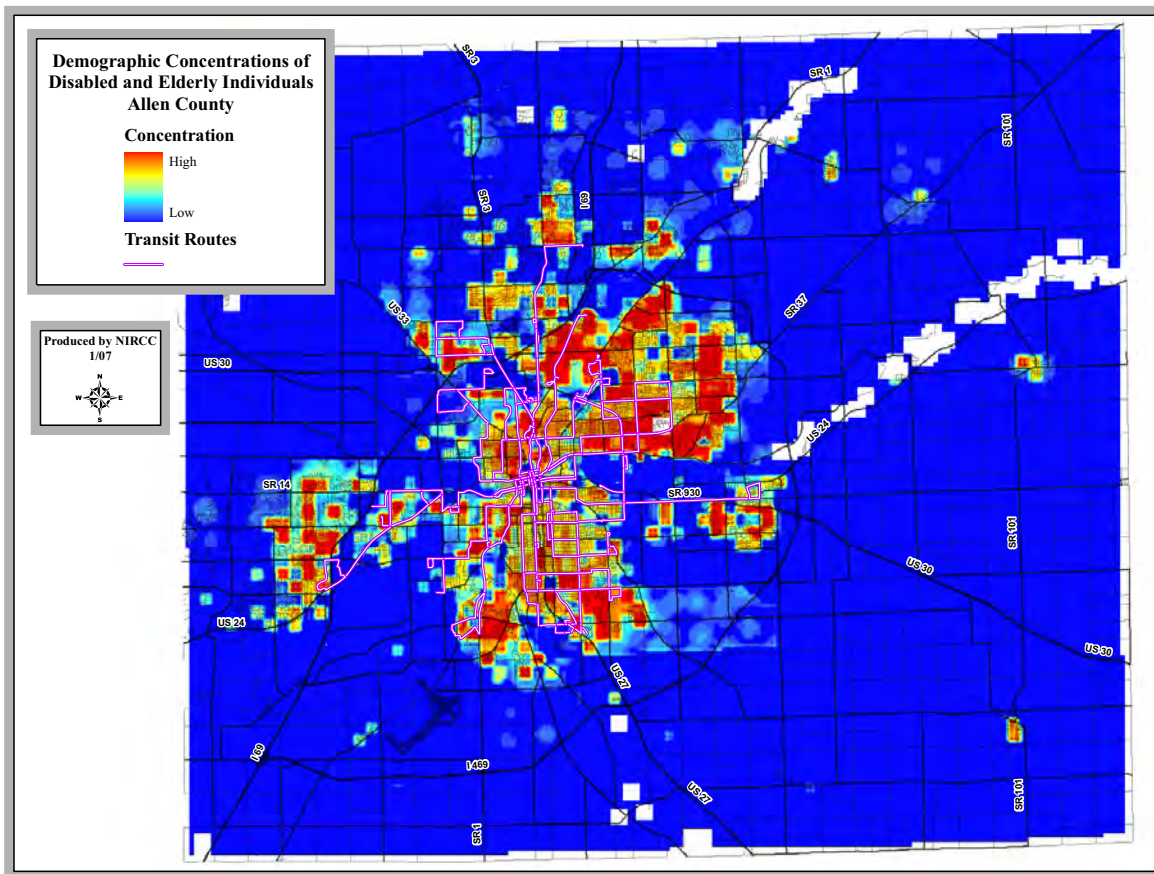


Figure 50

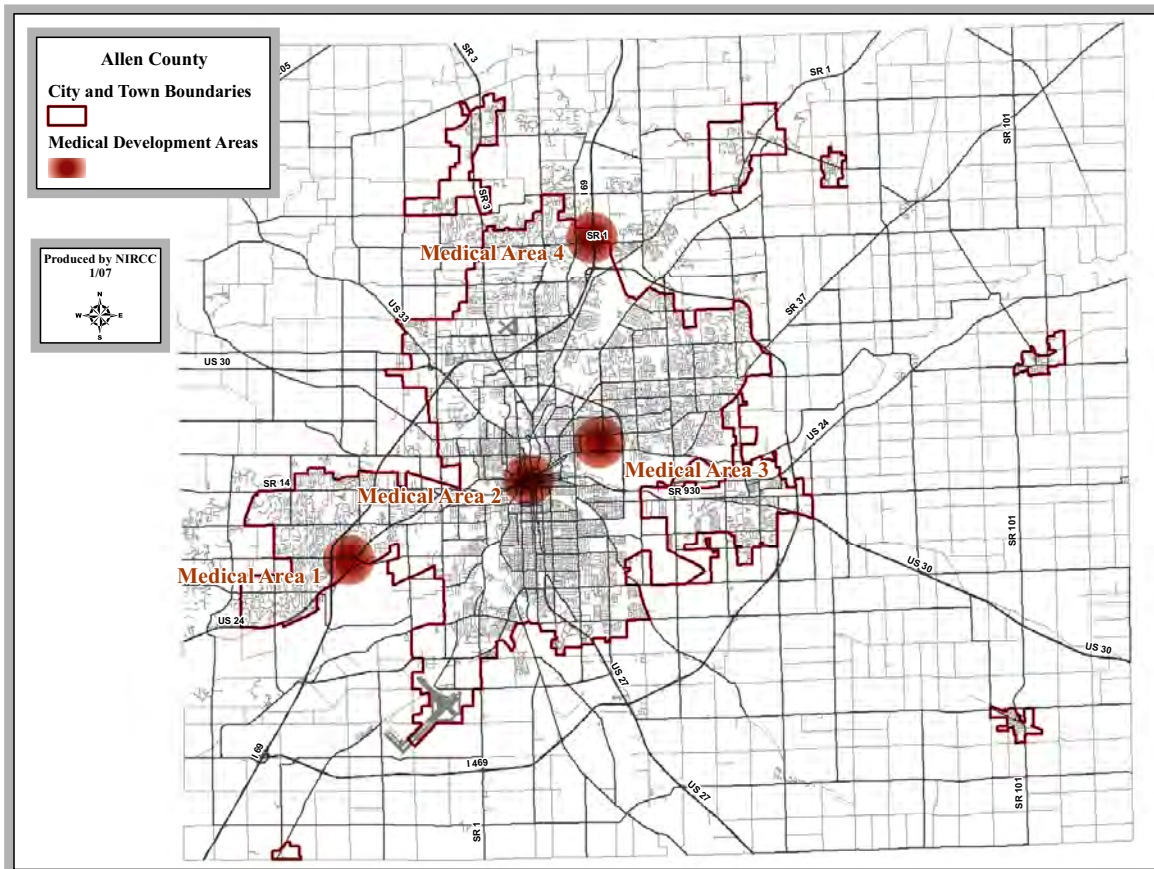


Figure 51

- No service on Sundays
- No service on major holidays

Service Areas

- Areas not served by public transit
- Areas not served by public para-transit
- Travel outside of Allen County limited

Service Availability

- Frequency of Service
 - Headways
 - Trip Limitations (grocery store trips, Medicare/Medicaid trips)
- Limited transit routes in some suburban areas
- Service limited in Rural Areas
- Restrictive Scheduling Requirements
- Accessibility to transit routes (sidewalks and mobility obstacles)

Trip Coordination

- Multiple Destinations
- Trip Length-Time
 - Excessive Wait and Travel Time

Consumer Information

- Public awareness of service
- Scheduling Information
- Training/Education/Outreach

The Plan did not identify any occurrences of redundant service. Even though the transportation providers typically operate in the same service areas and serve similar population groups containing common clients, they diversify by trip purpose and coordinate to eliminate duplication of services.

The Plan identified strategies to address the identified gaps in services. Creating transportation strategies that complement the existing transit service is the fundamental recommendation for minimizing existing transportation barriers that prevent individuals with disabilities, older adults, and persons with limited incomes from the desired destinations and services they need and wish to reach. Strategies have been broken down for

Figure 52

What are your most important reasons for needing transportation?

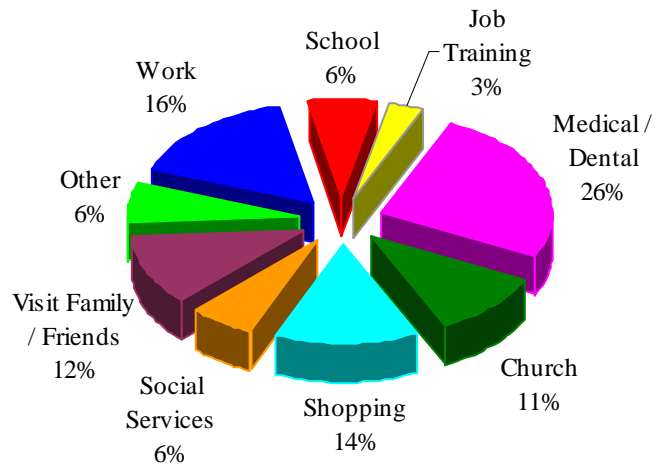


Figure 53

What days of the week do you need transportation?

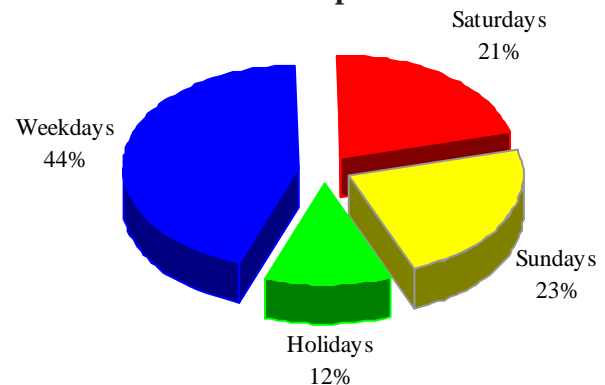
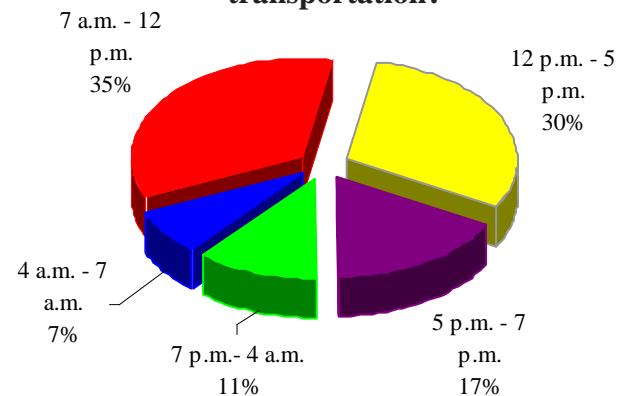


Figure 54

What times of day do you need transportation?



the Elderly and Individuals with Disabilities Program, JARC Program, and New Freedom Program separately.

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.

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

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

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

The final section of the plan details the process for selecting local projects for each of the three federal programs. Projects will be submitted to NIRCC. Projects must address at least one of the strategies identified in Plan. All eligible projects will be reviewed and selected by the TAC (Elderly and Individuals with Disabilities Program) or the TPC (JARC and New Freedom Programs). The projects will receive finalized approval from UTAB and NIRCC and will be included in the Transportation Improvement Program (TIP).

The Coordinated Public Transit-Human Services Transportation Plan is available at www.nircc.com

SUMMARY

The Transportation Summary Report provides an overview of some of the transportation planning activities performed by the Northeastern Indiana Regional Coordinating Council (NIRCC) during Fiscal Year 2007. The Summary Report highlights a majority of the transportation planning activities conducted and the products produced by NIRCC during Fiscal Year 2007. The document provides a basic overview of the transportation planning activities, data and products produced as part of the transportation planning process. Various types of traffic data integral to the planning process are collected and processed. Traffic volume and classification data are two examples of this basic information. The vehicle miles of travel provides a mechanism for assessing travel demand growth within the region.

Traffic studies help monitor the transportation system, identify problem areas and assist in the development of viable solutions. Crash analyses, intersection analyses, and different types of corridor studies serve to improve safety and efficiency. Through a cooperative and coordinated process the cities of Fort Wayne and New Haven, Allen County, Citilink, and the State of Indiana review the information and recommend improvements. The multimodal nature of the planning process includes public transit, para-transit, bicycle and pedestrian travel. The projects listed in the Fiscal Year 2008-20011 Transportation Improvement Program (TIP) represent the improvements selected for implementation.

The staff of the Northeastern Indiana Regional Coordinating Council will continue to monitor the transportation system striving to provide a complete transportation system. A system that enhances efficiency, promotes safety, and maintains a conscious regard for the quality of life. For this goal to become a reality, constant monitoring of the existing system must occur. Staff is continually collecting data on the existing system to support the short-range planning process and to identify the challenges and opportunities of the future.

The primary purpose of this report is to familiarize the readers with the techniques used by NIRCC and the resulting products to promote a more functional transportation process in our community. However, this report only provides a summary of the wide variety of activities conducted by NIRCC and its staff. NIRCC is constantly striving to provide relevant information to the public and communities it serves to support a decision-making process that improves the transportation system.

If you would like additional information concerning the studies and reports referenced in this document or have questions regarding the transportation planning process, please contact NIRCC staff at (260) 449-7309. NIRCC also maintains a website that contains many of the transportation planning documents and products at WWW.NIRCC.COM. The site also contains an amended Transportation Improvement Program (TIP), 2030 Transportation Plan, and many other documents and staff contact information.

Transportation Summary Report Fiscal Year 2007

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