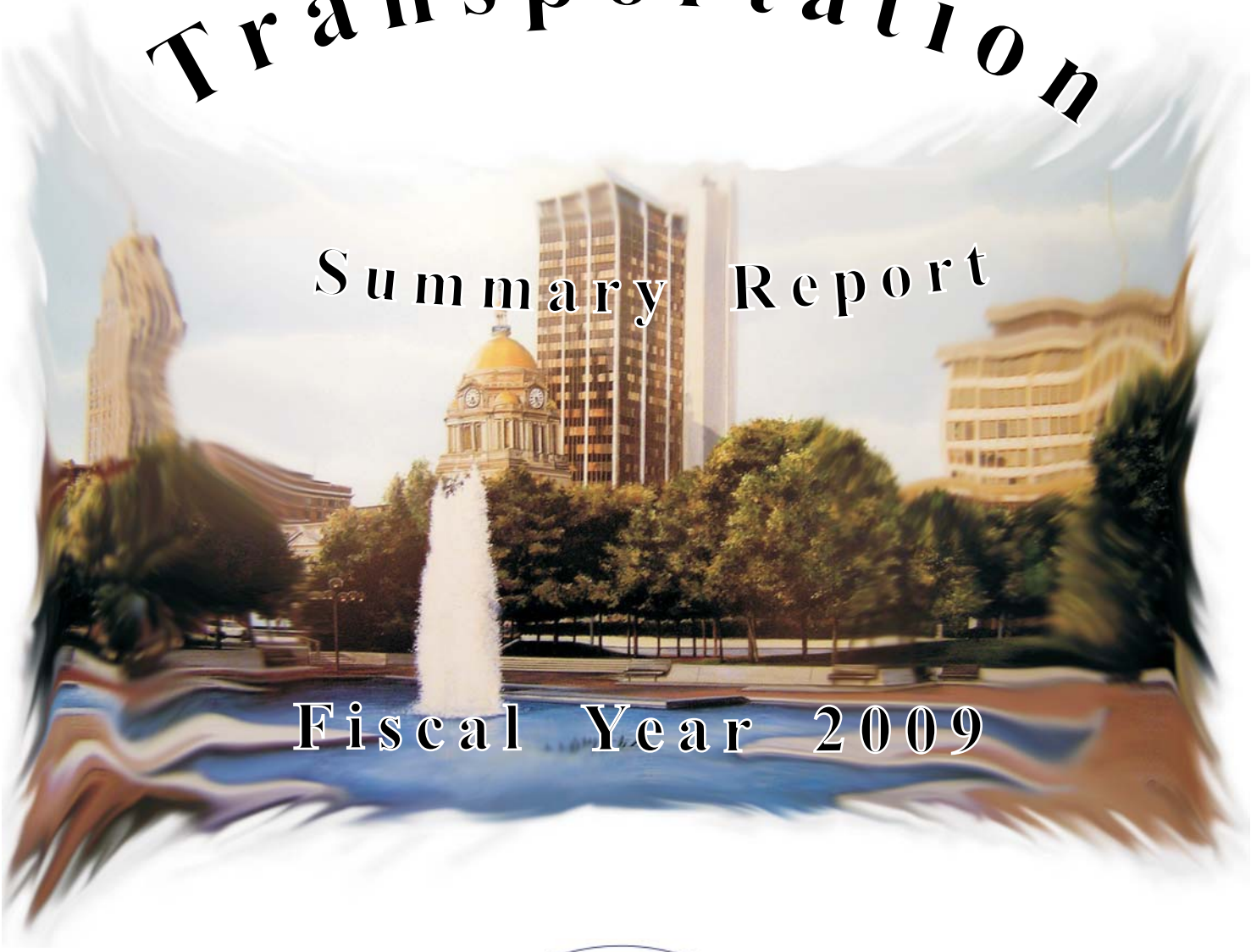
Transportation



Summary Report

Fiscal Year 2009

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 2009. 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. Included in this report is a summary of the traffic surveillance activities, intersection and arterial analyses, corridor studies, travel time and delay studies, Safety Management System (SMS) activities, and bicycle/pedestrian planning activities. The Transportation Improvement Program (TIP) Projects for the Fort Wayne-New Haven-Allen County Metropolitan Planning Area are also usually highlighted in this report but were omitted this year. Due to budgetary reasons last year's TIP, the Fiscal Year 2009-2012 TIP, is still in effect and can be viewed on NIRCC's website.

Traffic Surveillance

Studies completed by the Northeastern Indiana Regional Coordinating Council

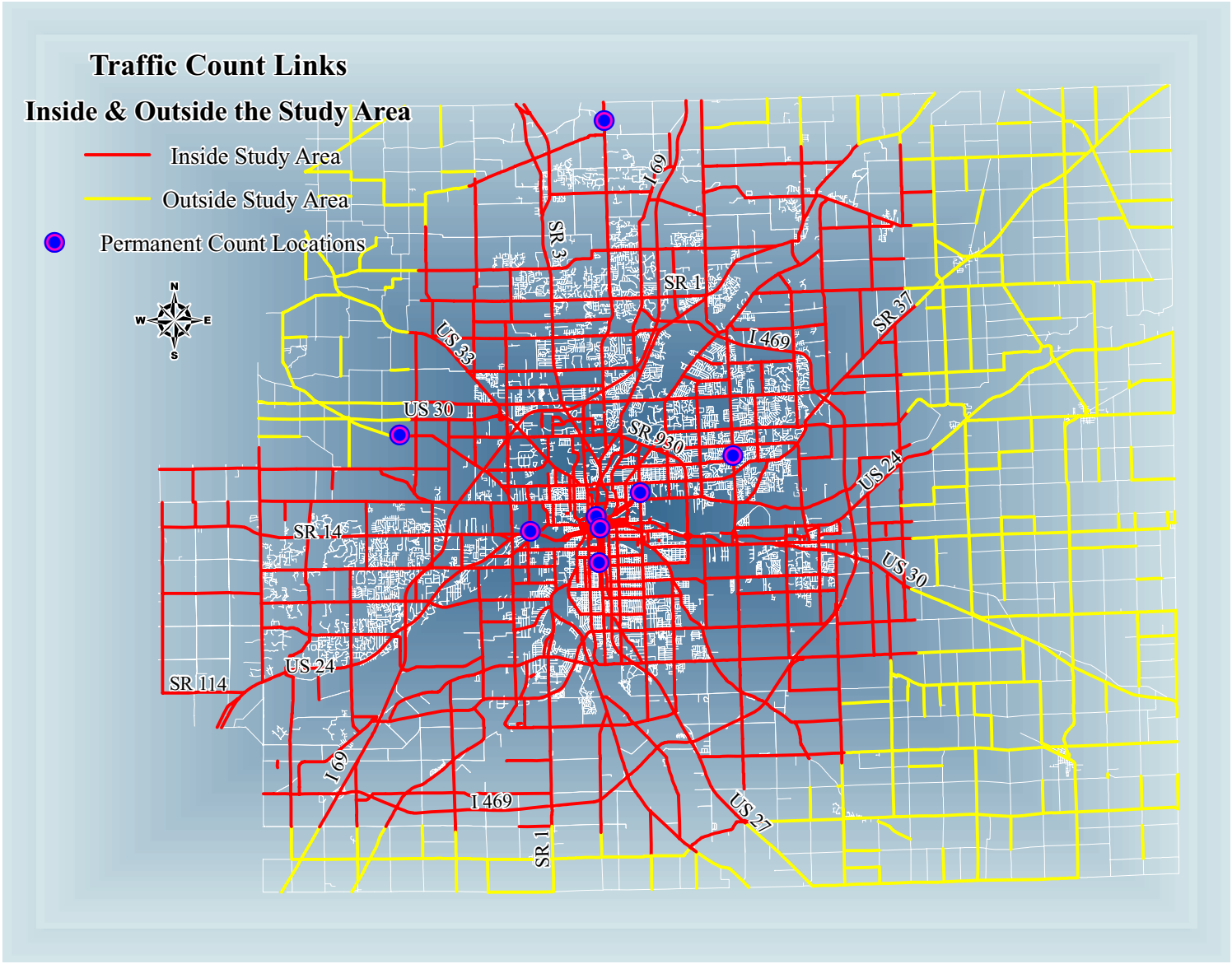
Transportation Summary Report Fiscal Year 2009

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

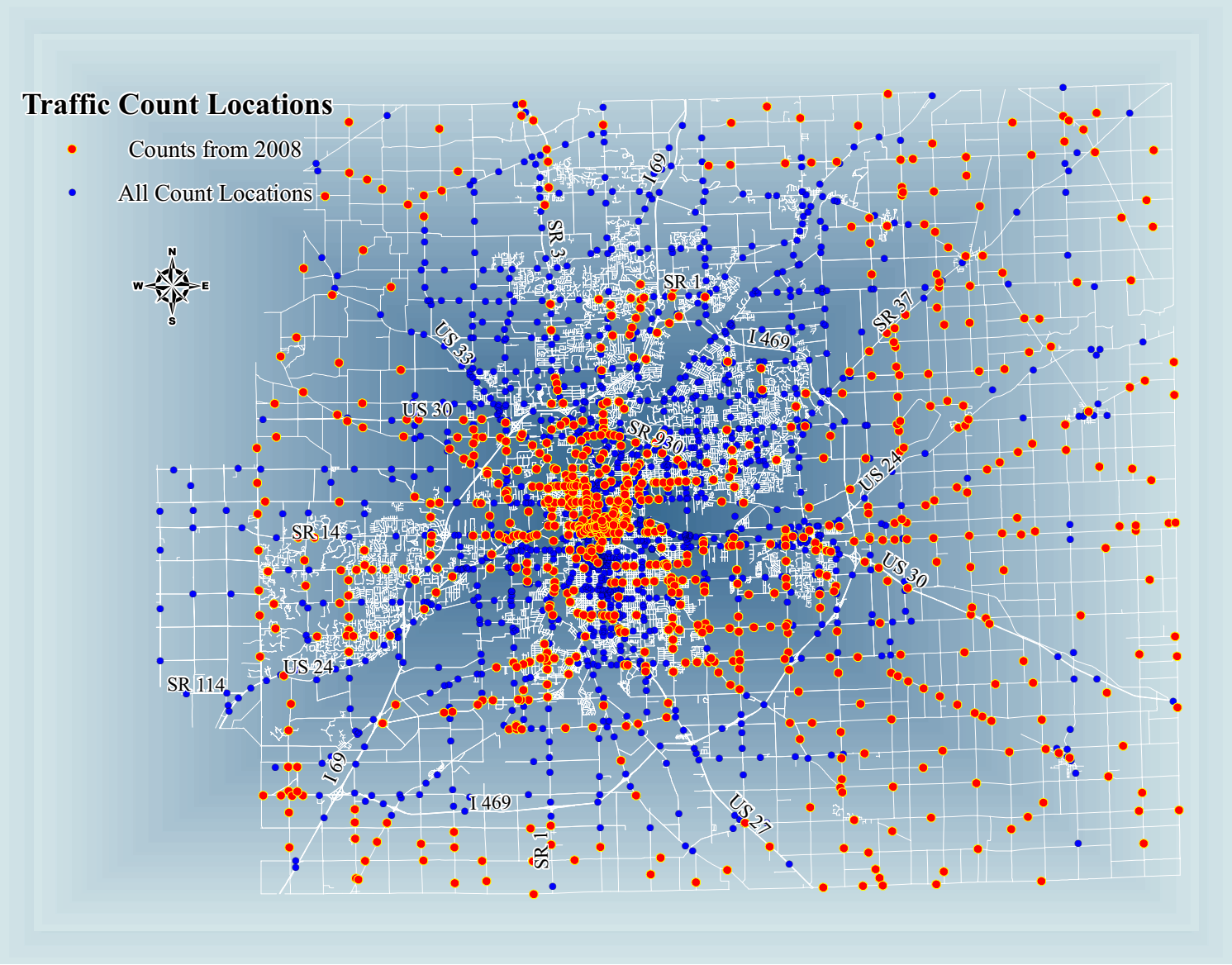


Figure 2

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 2008 (April - November), data was collected at 599 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

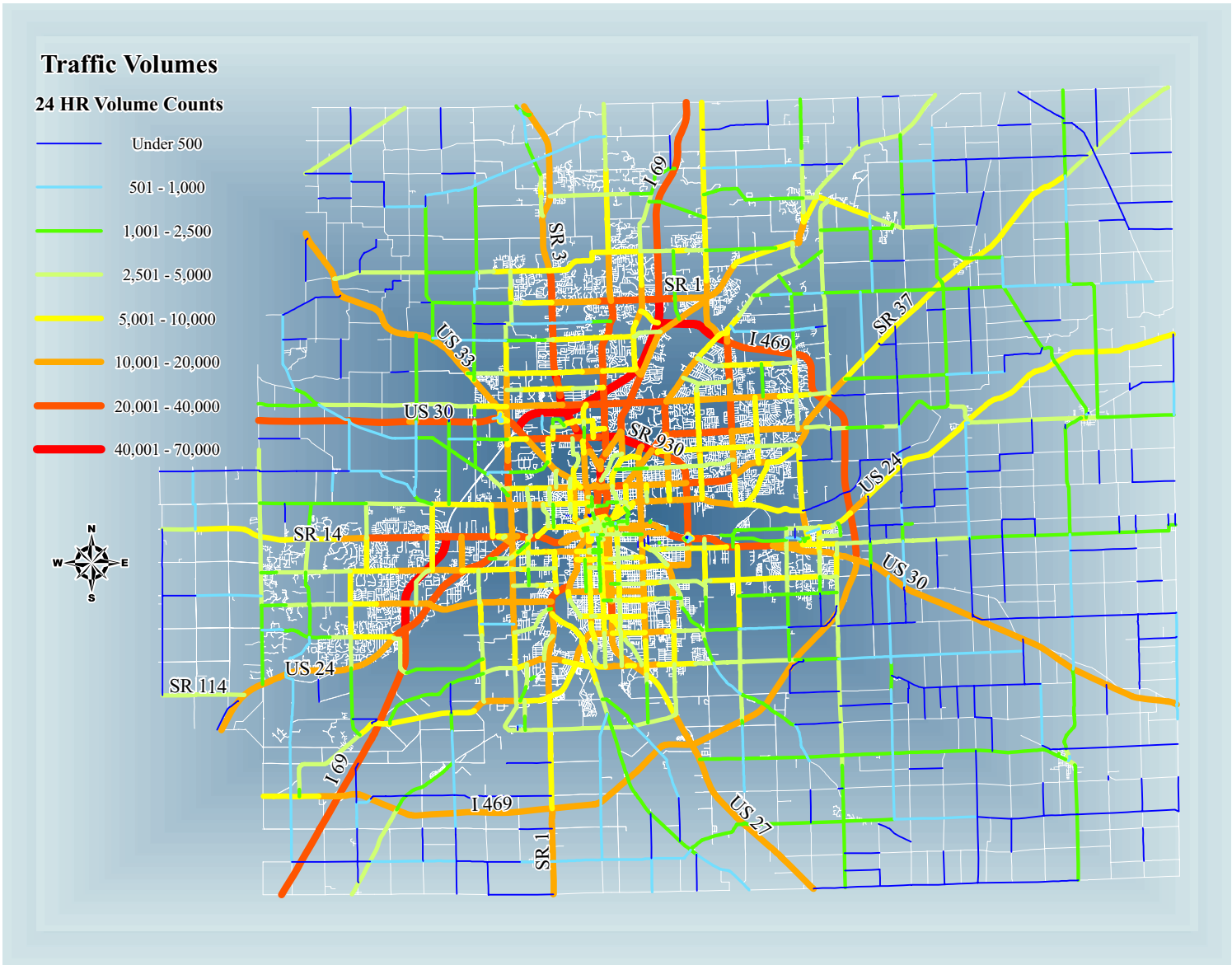


Figure 3

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

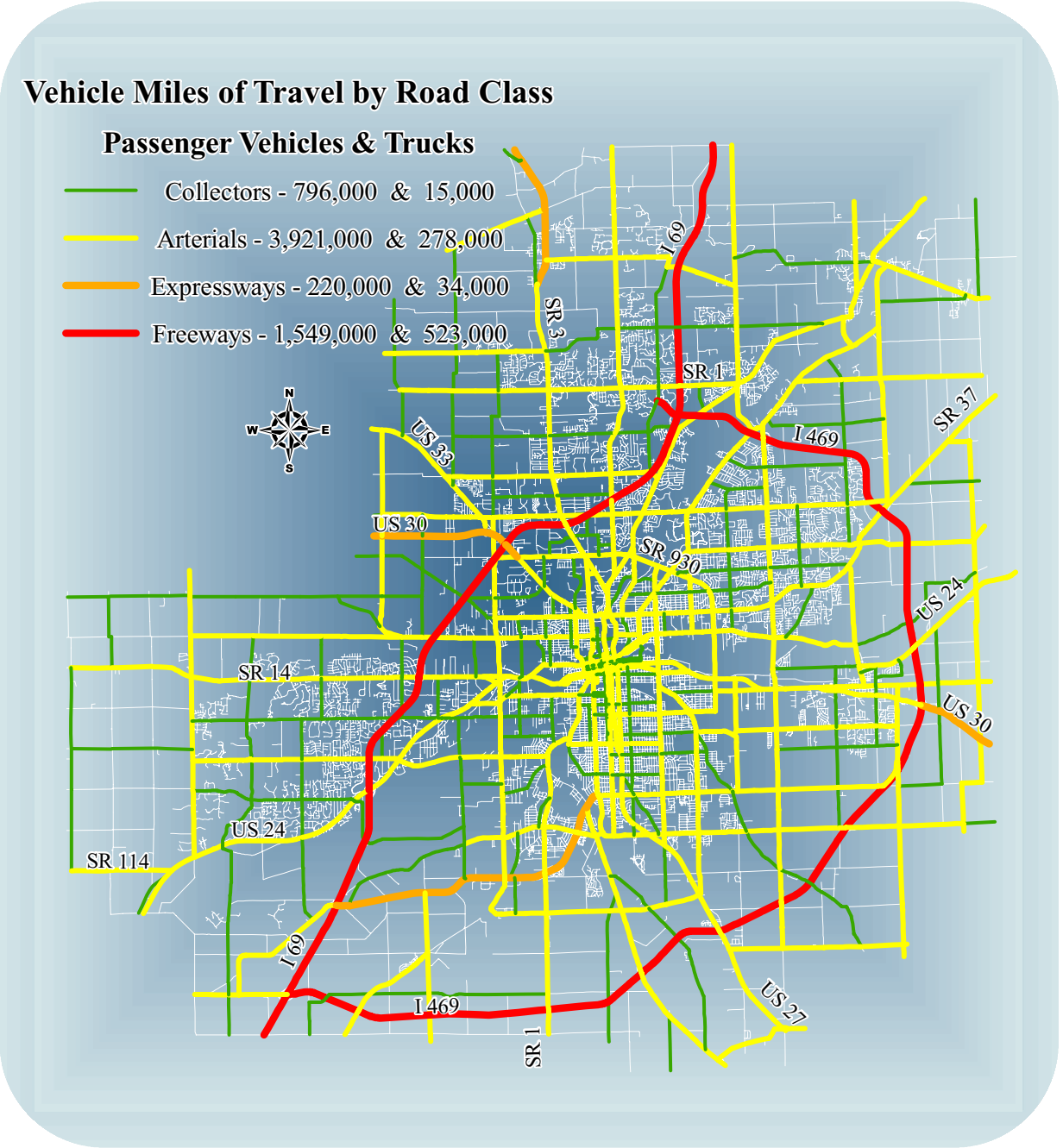
Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2009

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 decreased from 7,418,167 million in 2007 to 7,336,515 million in 2008. This represents a decrease of 1.10 percent. The VMT decreased on expressways (4.83%), decreased on arterial streets (3.84%), and increased on collector streets (13.85%) from 2007. The VMT is illustrated for 2008 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 1998 to 2008 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 level out or continue to slightly increase. Even though gas prices and economic hardships may slightly change the growth patterns of VMT, there still seems to be factors that will continue to keep the VMT increasing a little even though 2008 experienced a decrease. These factors include 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 1998 - 2008

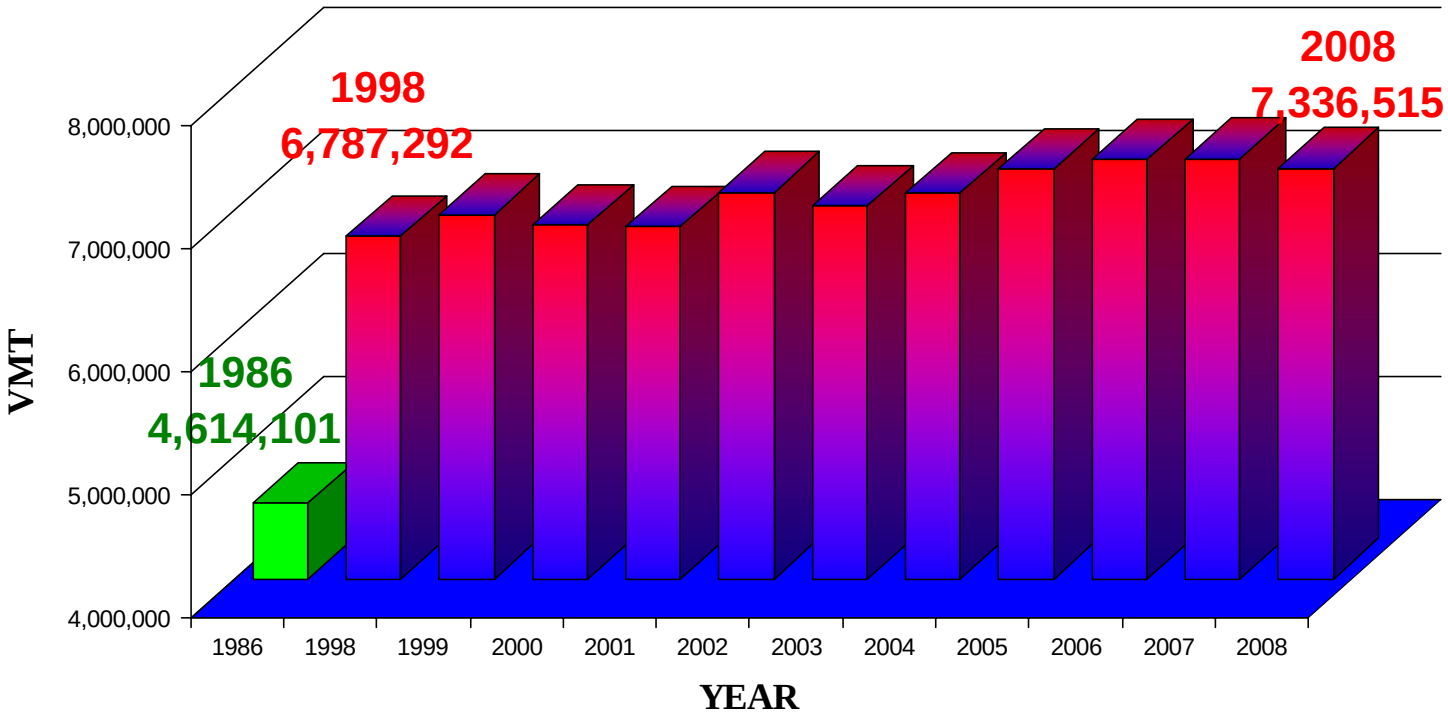


Figure 6 presents three pie charts that represent the proportions of VMT by street classification for the years 1986, 1998, and 2008. As you can see, the proportions of traffic in 1986 are different compared to the proportions of traffic in 1998 and 2008. Freeway traffic increased significantly while 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.

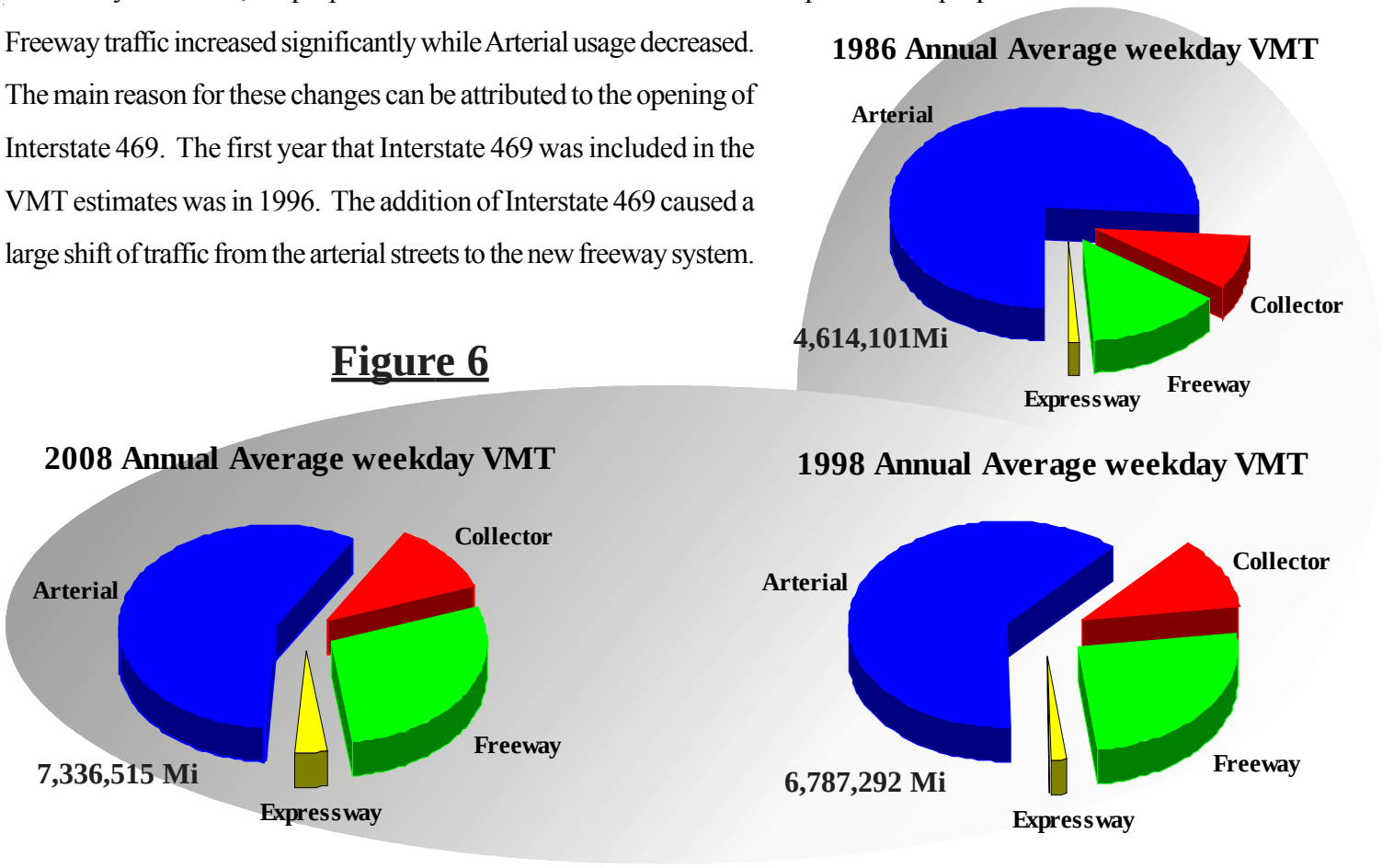
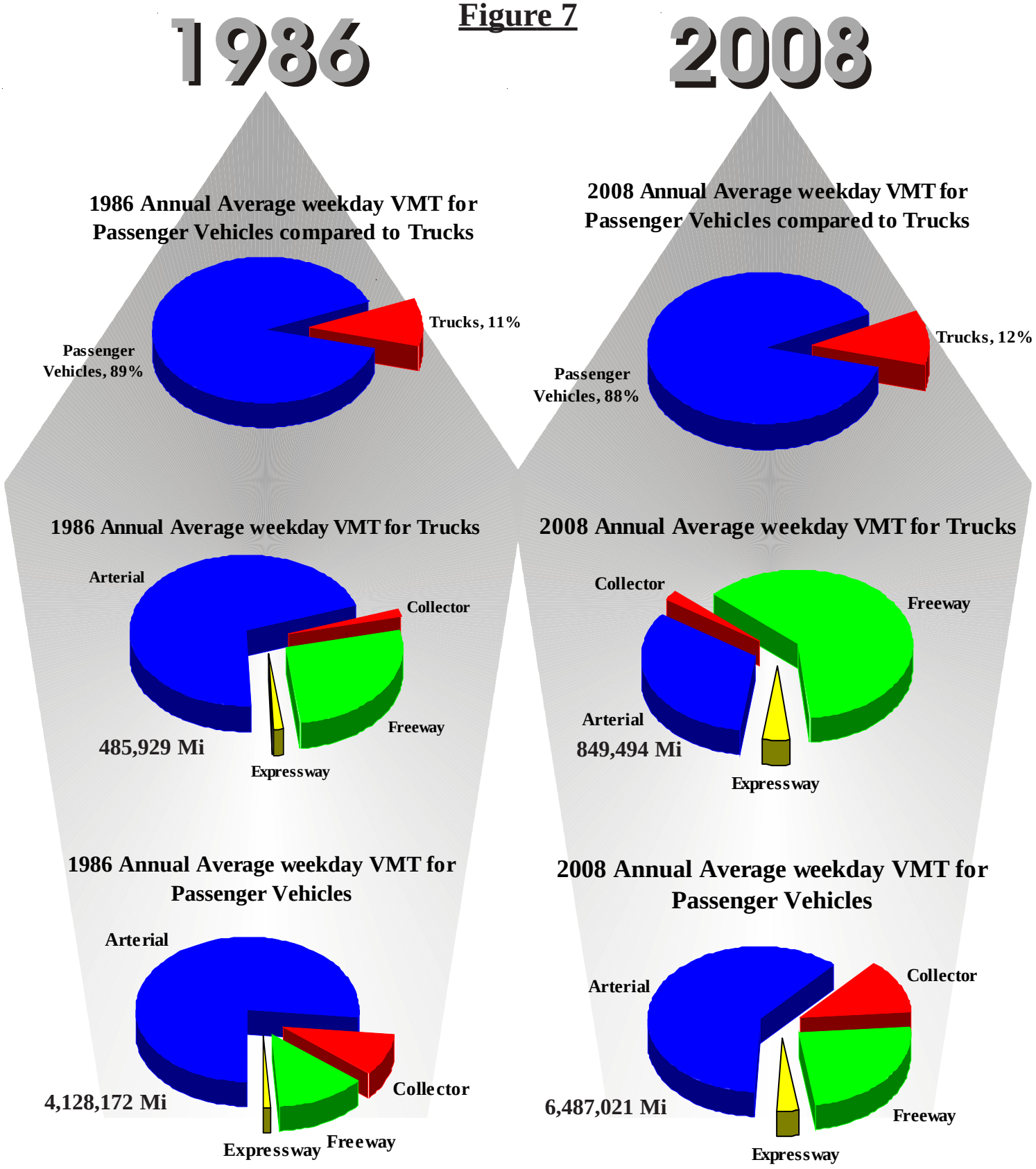


Figure 6

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 2008. The proportion of truck traffic compared to passenger vehicle traffic is almost identical in 1986 and 2008. A further breakdown of the proportionate usage of passenger vehicles versus trucks on the different road classifications shows some interesting differences between 1986 and 2008. Even though the proportion of truck traffic compared to passenger vehicle traffic is nearly 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 2008 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 2008. 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

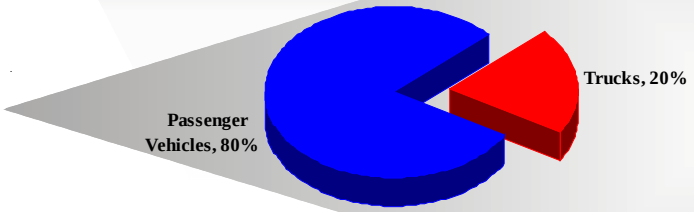


for some of the road classifications, the proportions of passenger vehicles and trucks for each road classification remained very similar between 1986 and 2008.

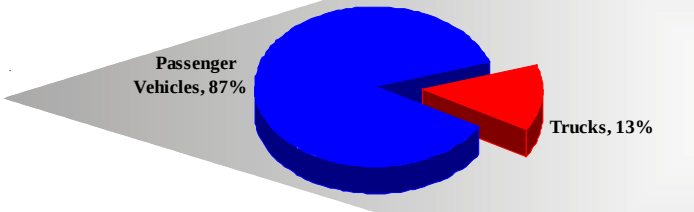
Figure 8

1986

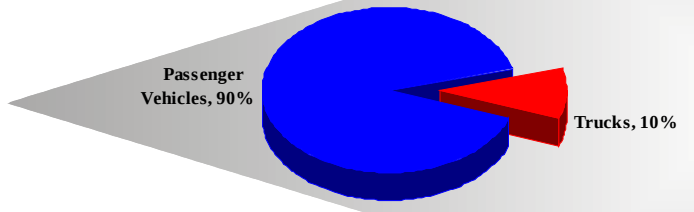
Freeways
Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



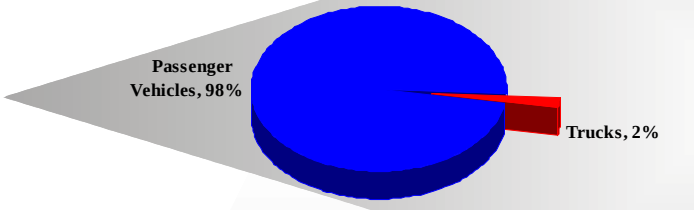
Expressways
Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



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

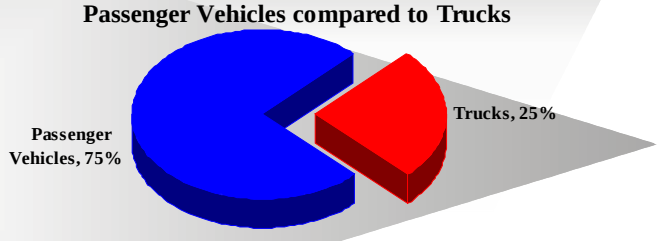


Collectors
Percentage of 1986 Annual Average weekday VMT for Passenger Vehicles compared to Trucks

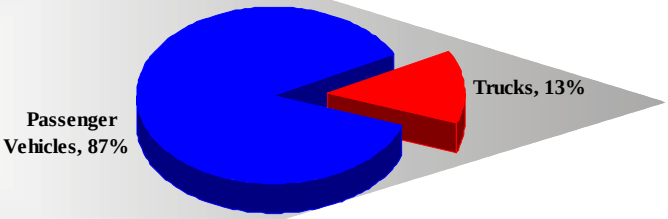


2008

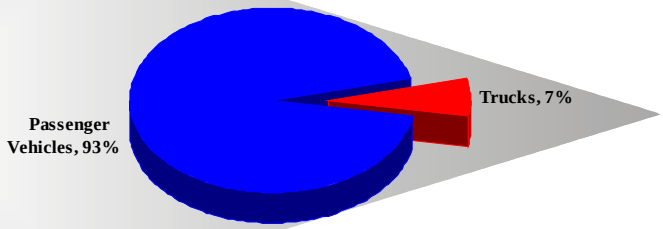
Freeways
Percentage of 2008 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



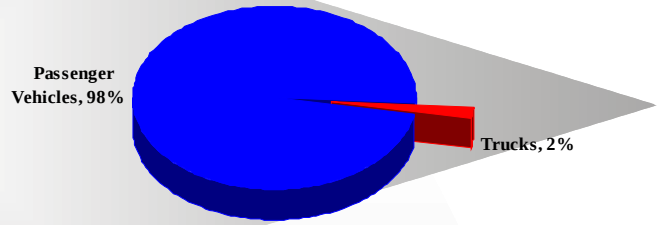
Expressways
Percentage of 2008 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



Arterials
Percentage of 2008 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



Collectors
Percentage of 2008 Annual Average weekday VMT for Passenger Vehicles compared to Trucks



Intersection and Arterial Analysis

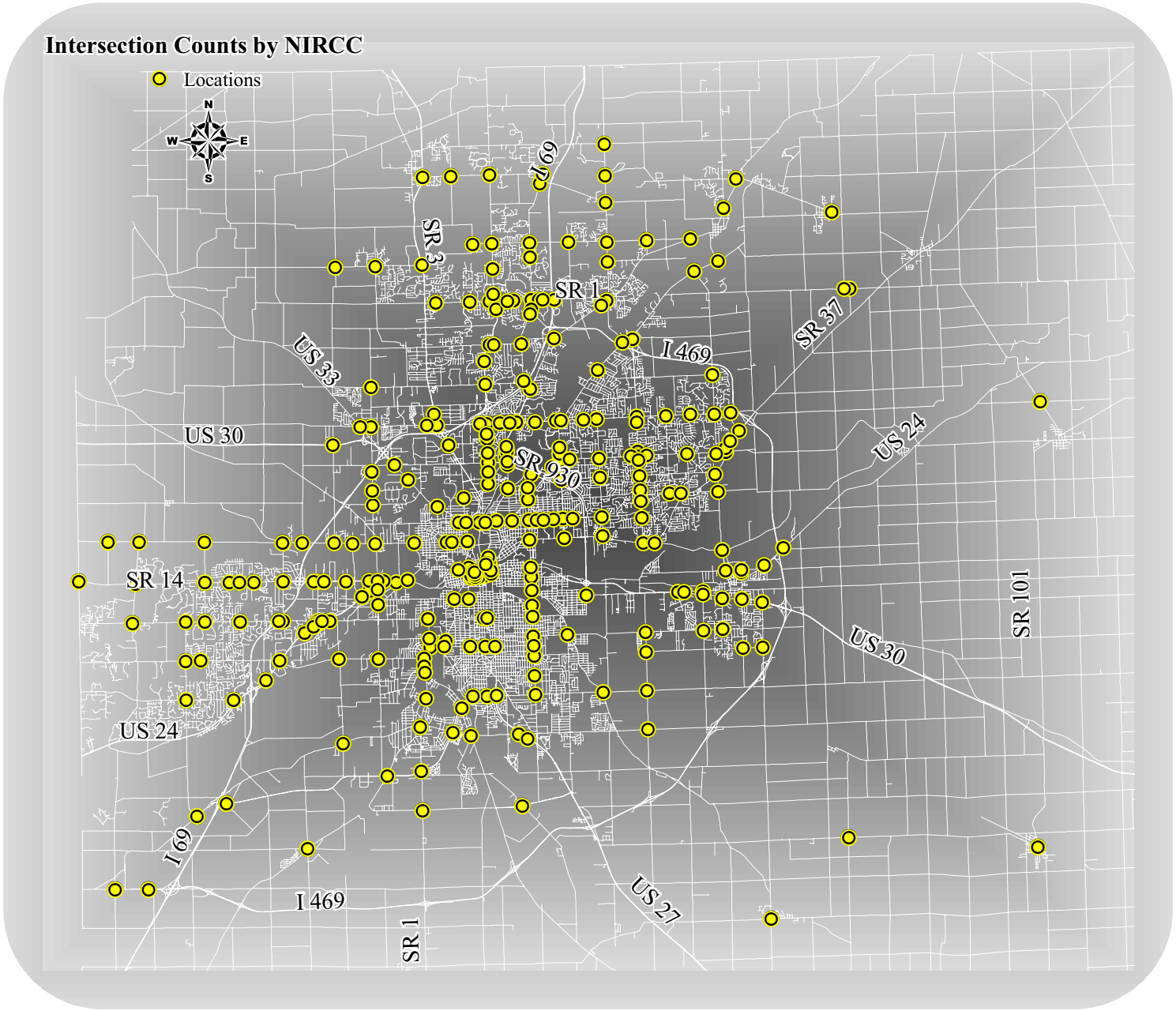
Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2009

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 9 illustrates all the intersections that have been studied by NIRCC in the past.

Figure 9



In fiscal year 2009, NIRCC evaluated 31 intersections which are listed in the table contained in Figure 10. Out of these 31 intersections, 21 were signalized and 10 were unsignalized.

Figure 10

Signalized Intersections	Unsignalized Intersections	Unsignalized All-way Stops
Anthony Blvd / Paulding Rd	Auburn Rd / Interstate 469	Covington Rd / Homestead Rd
Auburn Park Blvd / Auburn Rd	Bass Rd / Flaugh Rd	Landin Rd / Maysville Rd
Auburn Rd / Dupont Rd	Bass Rd / Hadley Rd	
Bass Rd / Hillegas Rd	Bass Rd / Kroemer Rd	
Bass Rd / Thomas Rd	Bass Rd / Scott Rd	
Bluffton Rd / Broadway	Bass Rd / West Hamilton Rd	
Broadway / Rudisill Blvd	Bass Rd / Yellow River Rd	
Coldwater Rd / Coldwater Crossing	Parnell Ave / St Joe River Dr	
Coldwater Rd / Collins Dr		
Coldwater Rd / Essex Ln		
Coldwater Rd / Glenbrook Square		
Covington Rd / Getz Rd		
Covington Rd / W Jefferson Blvd		
Getz Rd / W Jefferson Blvd		
Hobson Rd / Trier Rd		
Jefferson Blvd / Covington Plaza East		
Jefferson Blvd / Times Corners		
Jefferson Blvd / Village @ Times Corner		
Maplecrest Rd / Northwood Plaza		
Maplecrest Rd / Stellhorn Rd		
Northwood Plaza / Stellhorn 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 2009 are illustrated in Figures 11 through 14 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 2009 are illustrated in Figure 15.

Figure 11

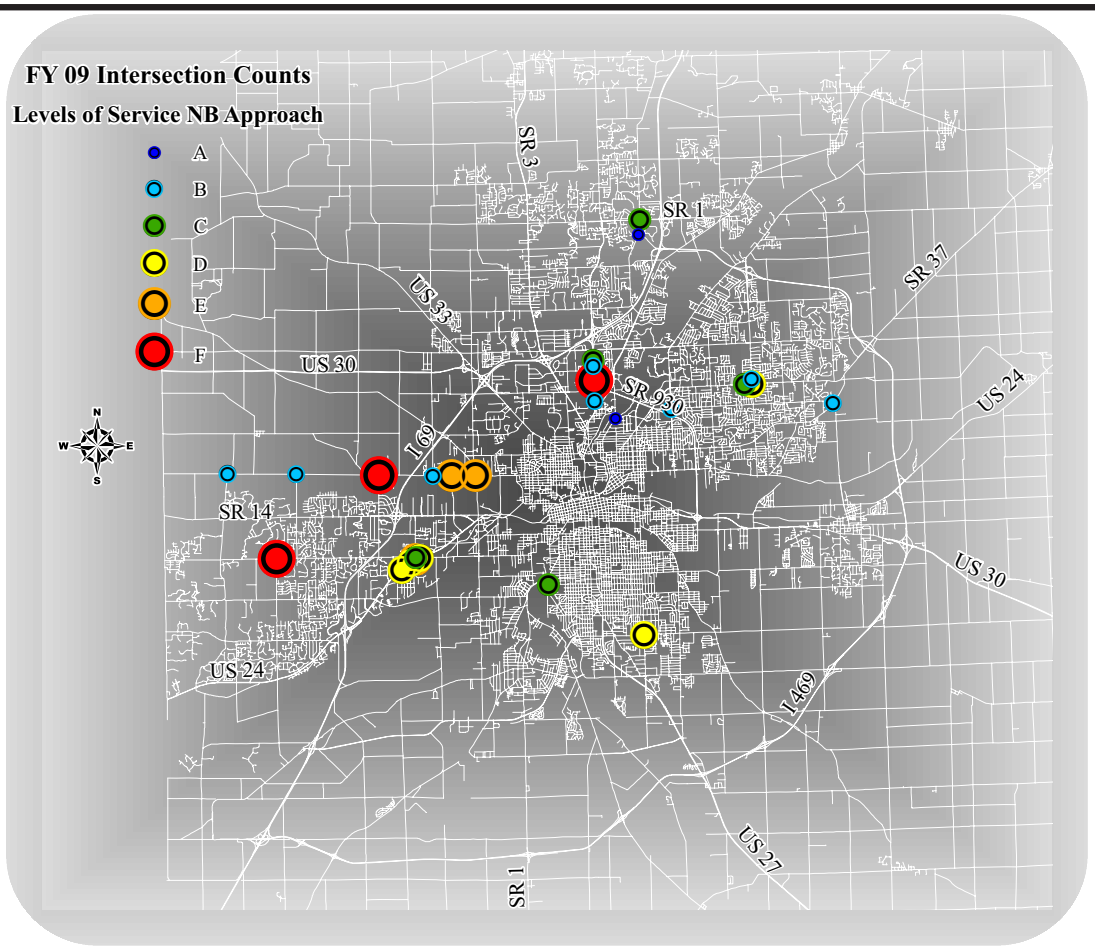
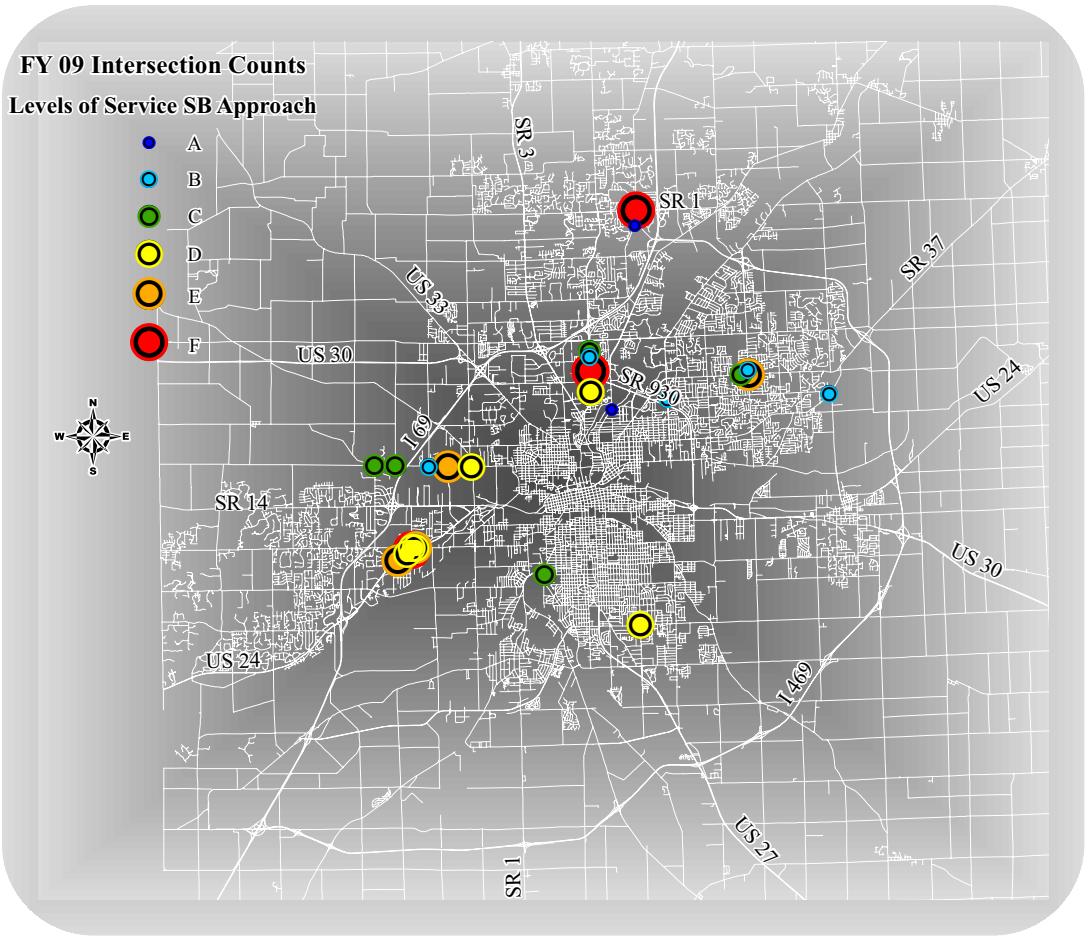


Figure 12



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

Figure 13

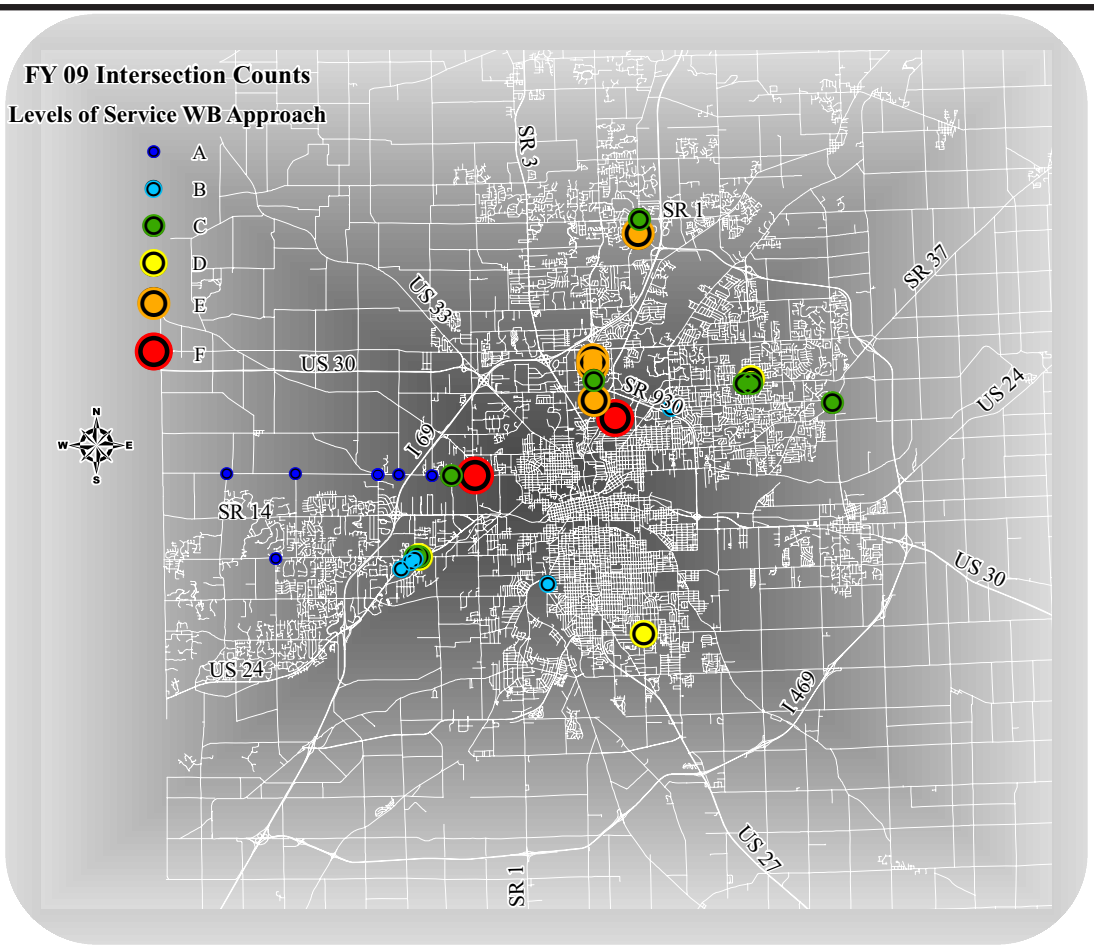
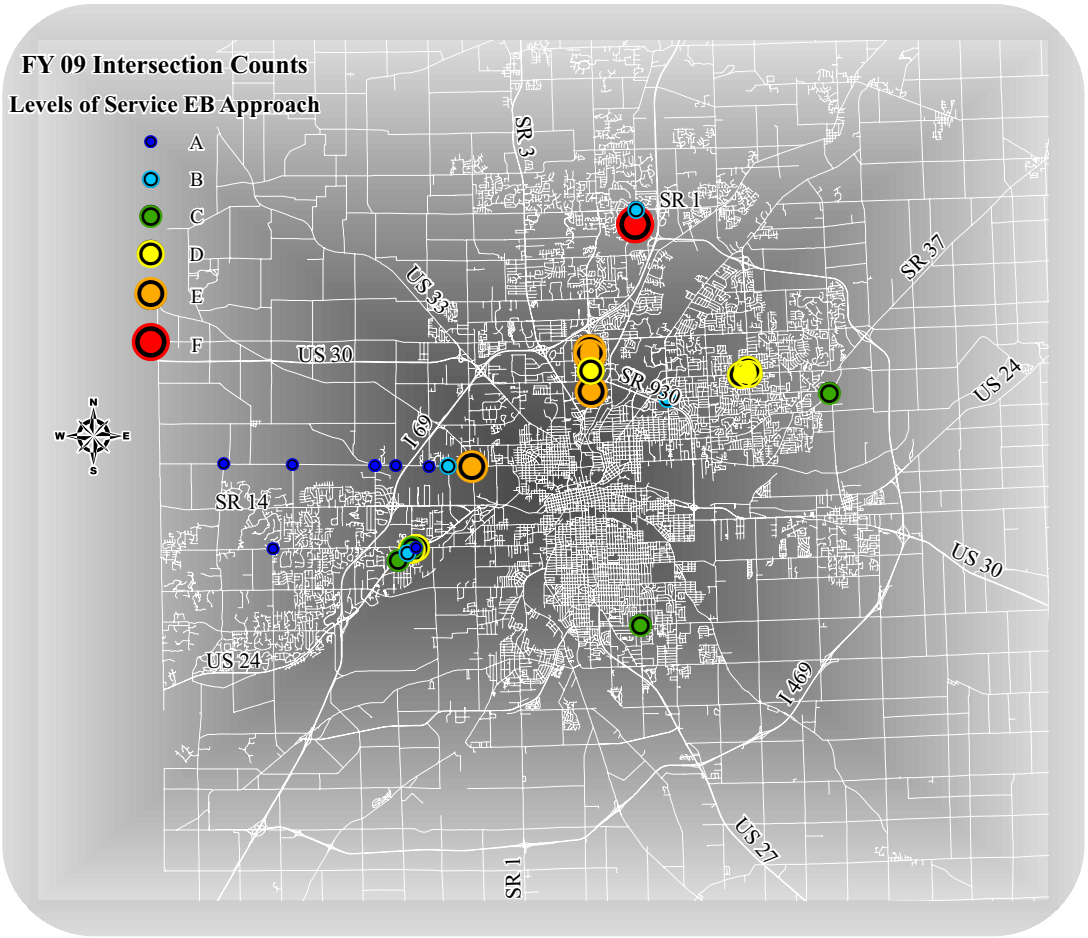
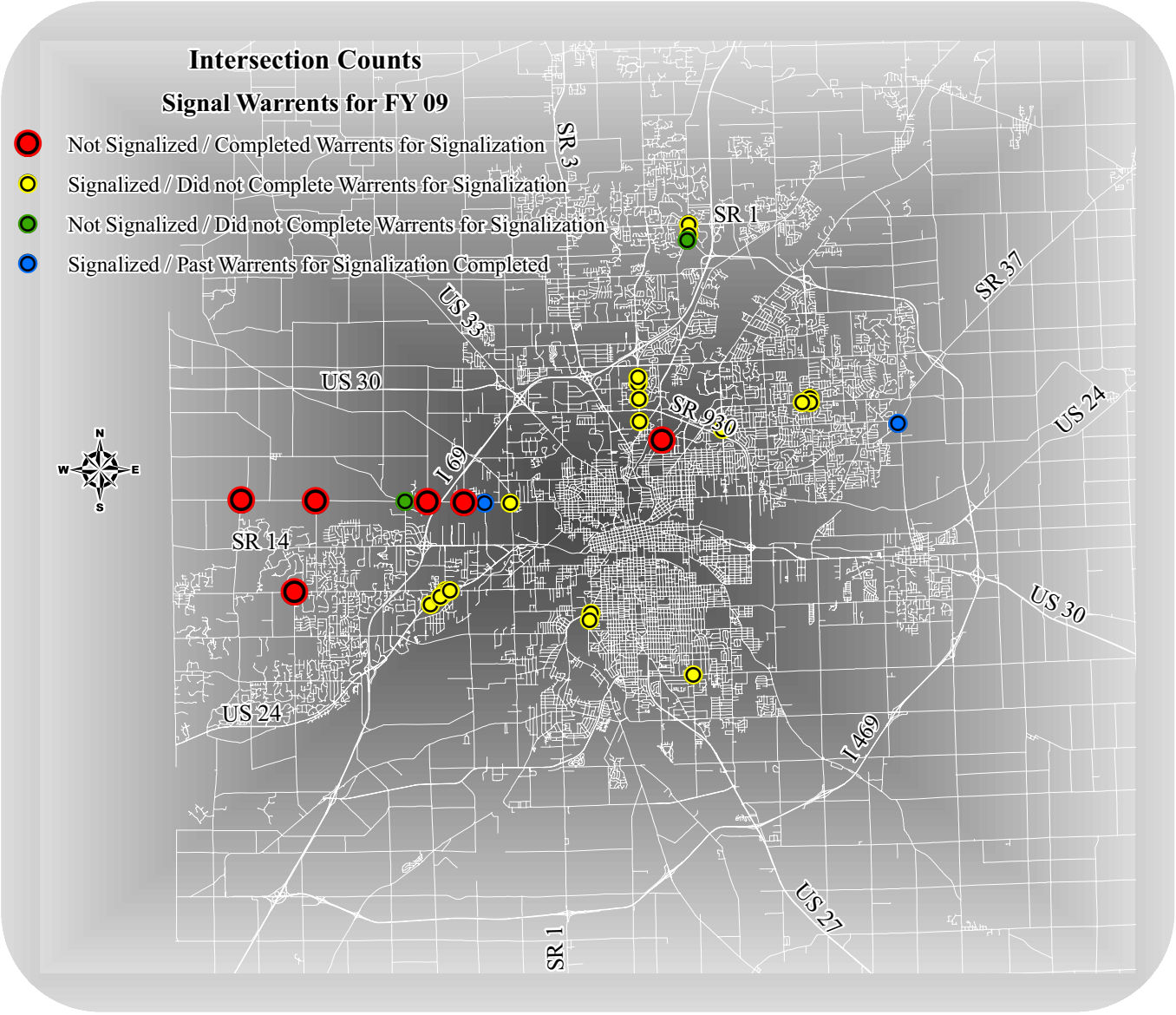


Figure 14



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

Figure 15


Intersection Counts
Signal Warrents for FY 09
Not Signalized / Completed Warrents for Signalization
Signalized / Did not Complete Warrents for Signalization
Not Signalized / Did not Complete Warrents for Signalization
Signalized / Past Warrents for Signalization Completed
N
W
E
S
SR 3
SR 1
US 33
US 30
SR 930
SR 37
US 24
I 69
SR 14
US 30
US 24
I 469
US 27
SR 1

Corridor Studies

Studies completed by the Northeastern Indiana Regional Coordinating Council

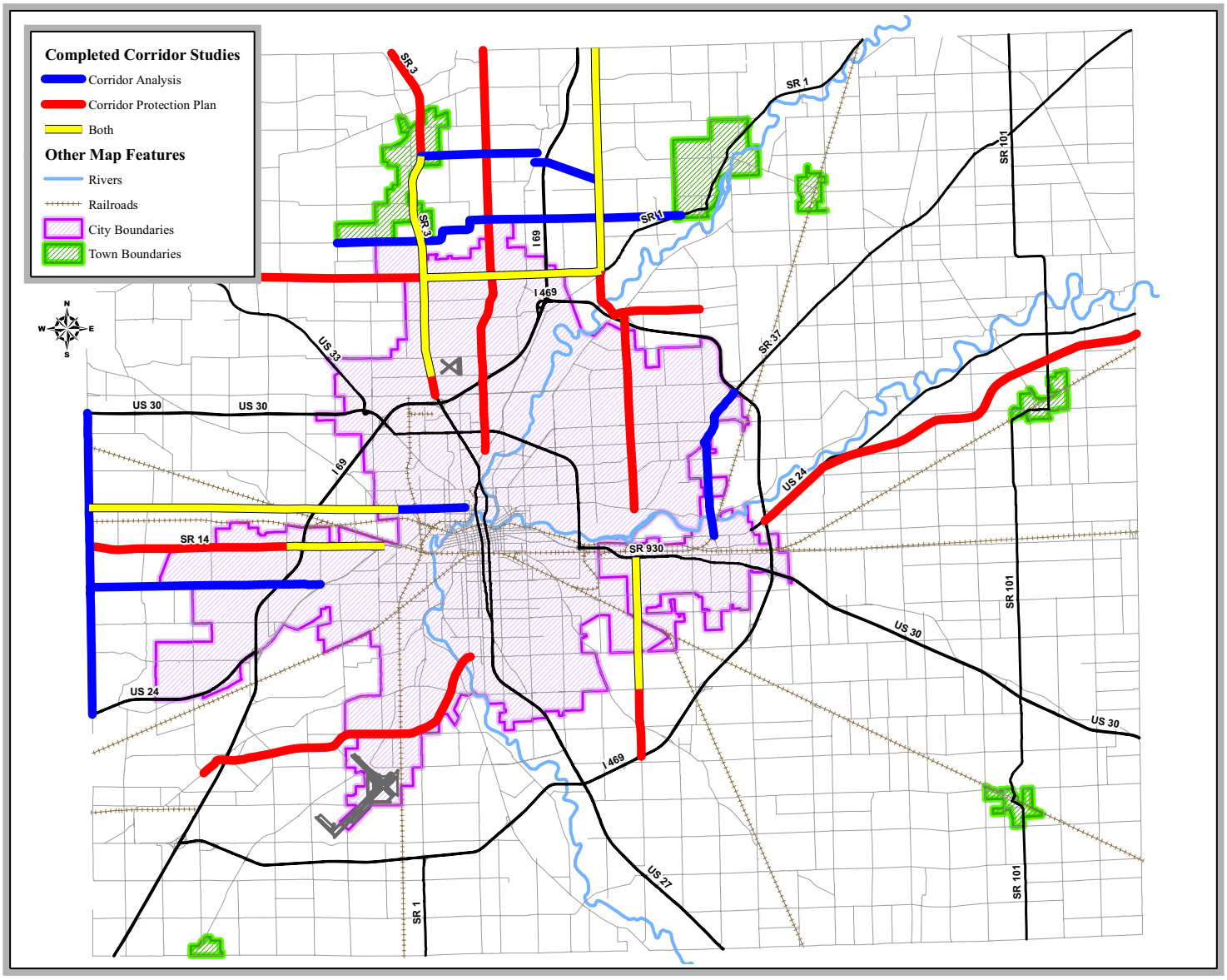
Transportation Summary Report Fiscal Year 2009

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 16 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 future traffic and relieve

Figure 16



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.

Besides the traditional corridor studies which often only analyze one corridor or set of continuous corridors NIRCC also performs a study called a sub-area analysis. A sub-area analysis 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.

In Fiscal Year 2009, NIRCC completed one corridor protection plan shown in figure 17 and one sub-area analysis which is shown in figure 18. These studies are detailed in the following sections of Corridor Studies called Corridor Protection Studies and Plans and Sub-area Analysis.

Figure 17

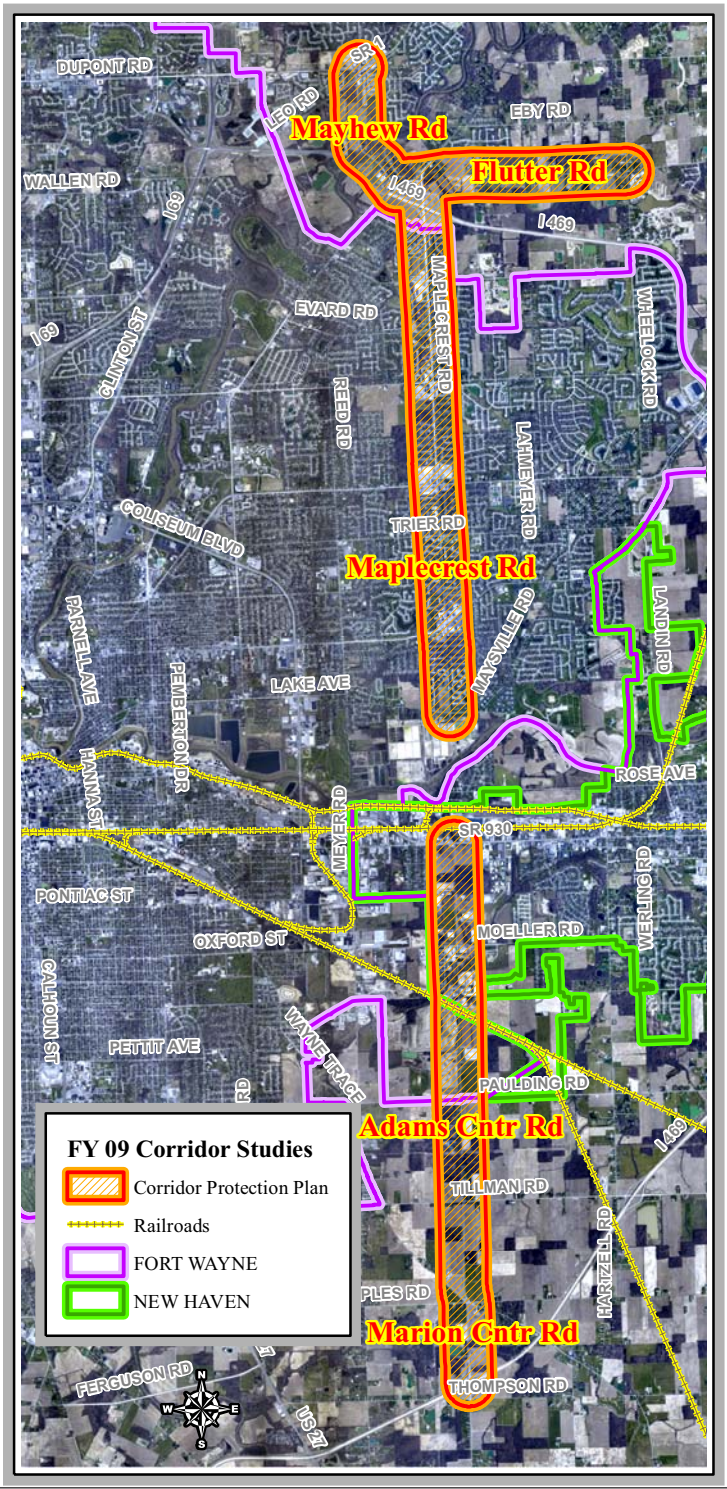
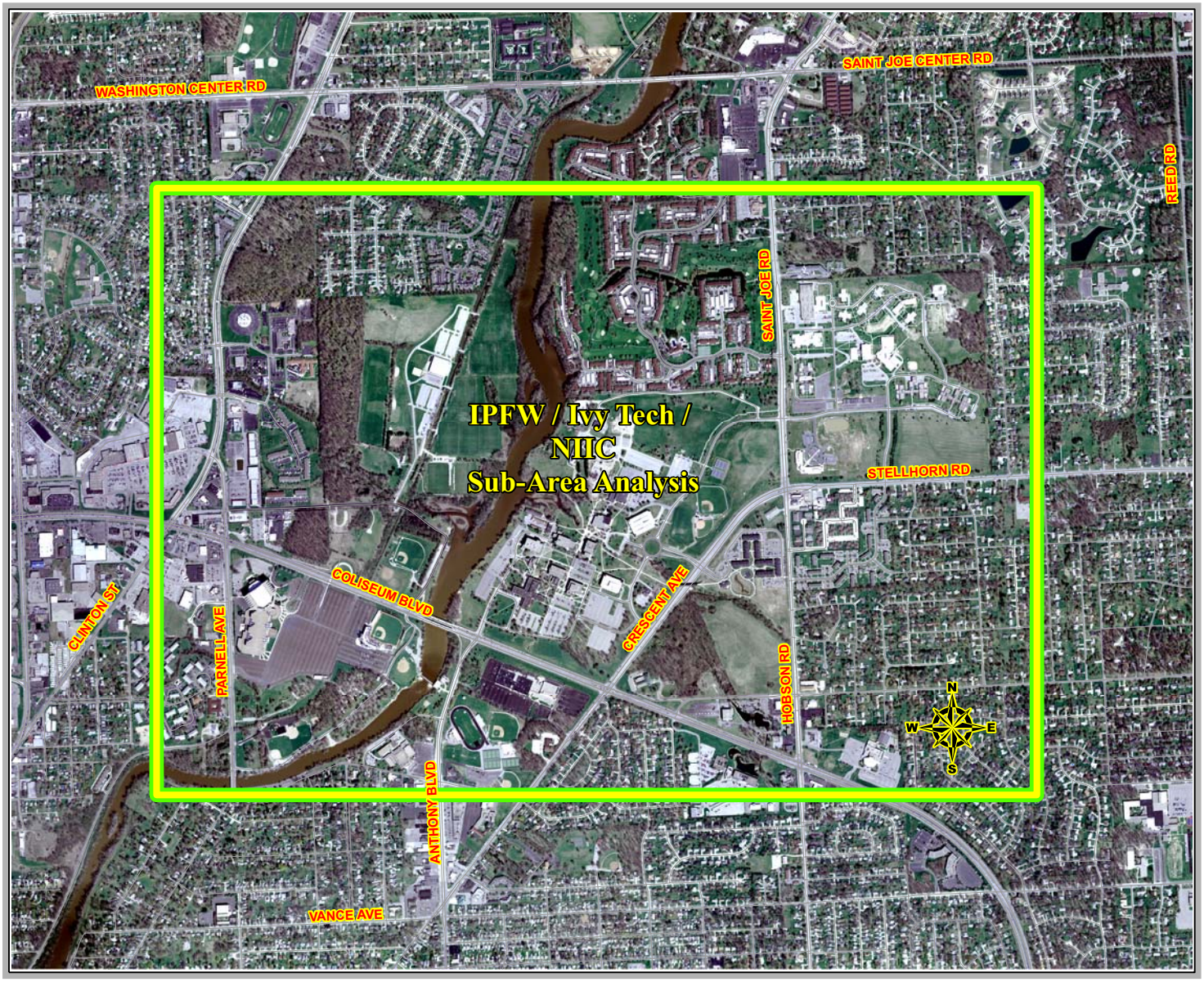


Figure 18


WASHINGTON CENTER RD
SAINT JOE CENTER RD
REED RD
SAINT JOE RD
IPFW / Ivy Tech /
NIIC
Sub-Area Analysis
STELLHORN RD
COLISEUM BLVD
CRESCENT AVE
CLINTON ST
PARNELL AVE
HOBSON RD
N
W
E
S
ANTHONY BLVD
VANCE AVE

Corridor Protection Studies and Plans
Maplecrest Road Corridor Protection Plan

Corridor Protection Studies and Plans

Maplecrest Road Corridor Protection Plan

The policy of protection for the Maplecrest Road corridor has become a recent priority of local government due to the Maplecrest Road Extension Project and the planned improvements along the corridor documented in the 2030-II Transportation Plan. Included in the Maplecrest Road corridor is Mayhew Road, Flutter Road from St. Joe Road to Wheelock Road, Maplecrest Road from St. Joe Road to State Road 930, Adams Center Road from State Road 930 to Maples Road, and Marion Center Road from Maples Road to Interstate 469. The Corridors included in this protection plan are classified as arterials with the exception of Flutter Road being a collector. With the completion of the Maplecrest Road Extension this corridor will function primarily as a north-south route connecting I-469 on the north side of Fort Wayne and New Haven to I-469 on the south side of Fort Wayne and New Haven. The extension and the planned road widening projects throughout the corridor will have a significant impact on both the traffic and development throughout this corridor. The optimal goal of the access recommendations included in this corridor protection plan is to complement and sustain the current and planned improvements along the corridor to maintain and improve both the efficiency and the safety of the corridor. The following pages summarize some of the recommendations provided by NIRCC in the final report. Please note that this is a brief summary and that the full recommendations and visuals are provided in the final report.

The following are access recommendations for the Maplecrest Road corridor from St. Joe Road to Interstate 469 South. Recommendations were also given for Mayhew Road and Flutter Road from St. Joe Road to Wheelock Road. These recommendations are subject to engineering review and adjustments as needed. All accesses and developable land will have the following recommendations.

- *Encouragement of interconnection of developments by way of streets and sidewalks, when and where appropriate*
- *Accesses to meet Access Standards Manual requirements*
- *Full Accesses off of Maplecrest, Mayhew, and Flutter to be a minimum of 1000' from major intersections (unless noted)*
- *Full Accesses off of connecting roads to be a minimum of 1000' from Maplecrest, Mayhew, and Flutter Road (unless noted)*
- *Recommended Right-of-way:*
  - *Maplecrest Road a minimum of 60' from centerline*
  - *Mayhew Road a minimum of 60' from centerline*
  - *Flutter Road a minimum of 50' from centerline*
- *Signals to be no less than 1 mile apart*
- ***All recommendations were made with consideration for the planned extension and road widening projects of Maplecrest Road and the planned intersection realignment of St Joe Road and Flutter Road.**

Mayhew Road: SR 1 to St. Joe Road (Refer to Figure 19)

On SR 1 west of Mayhew Rd

- If current Oak Creek Estates is redeveloped, full access off of SR 1 to be directly across from Oak Blvd., right-in / right-out access between the full access and Tonkel Road will be allowed.

On North Clinton St west of Mayhew Rd

- If current Oak Creek Estates is redeveloped, full access off of North Clinton should be a minimum of 1000' from the intersection with Mayhew Road, and directly across from full access to the south.
- Access to the properties south of North Clinton should be a minimum of 1000' from the intersection with Mayhew Road off of North Clinton, and directly across from full access to the north.

On Mayhew Rd

- Full access to the east/west a minimum of 1000' from the intersection with North Clinton and a minimum of 300' north of the bridge structure.
- Full access to property south of St Joe Road bordered by St. Joe Road, I-469 and Maplecrest will be directly across from Mayhew Road.

Flutter Road: St. Joe Road to Wheelock Road (Refer to Figure 19)

(Plans currently exist to realign Flutter Road with intersection of St. Joe Road and Maplecrest Road)

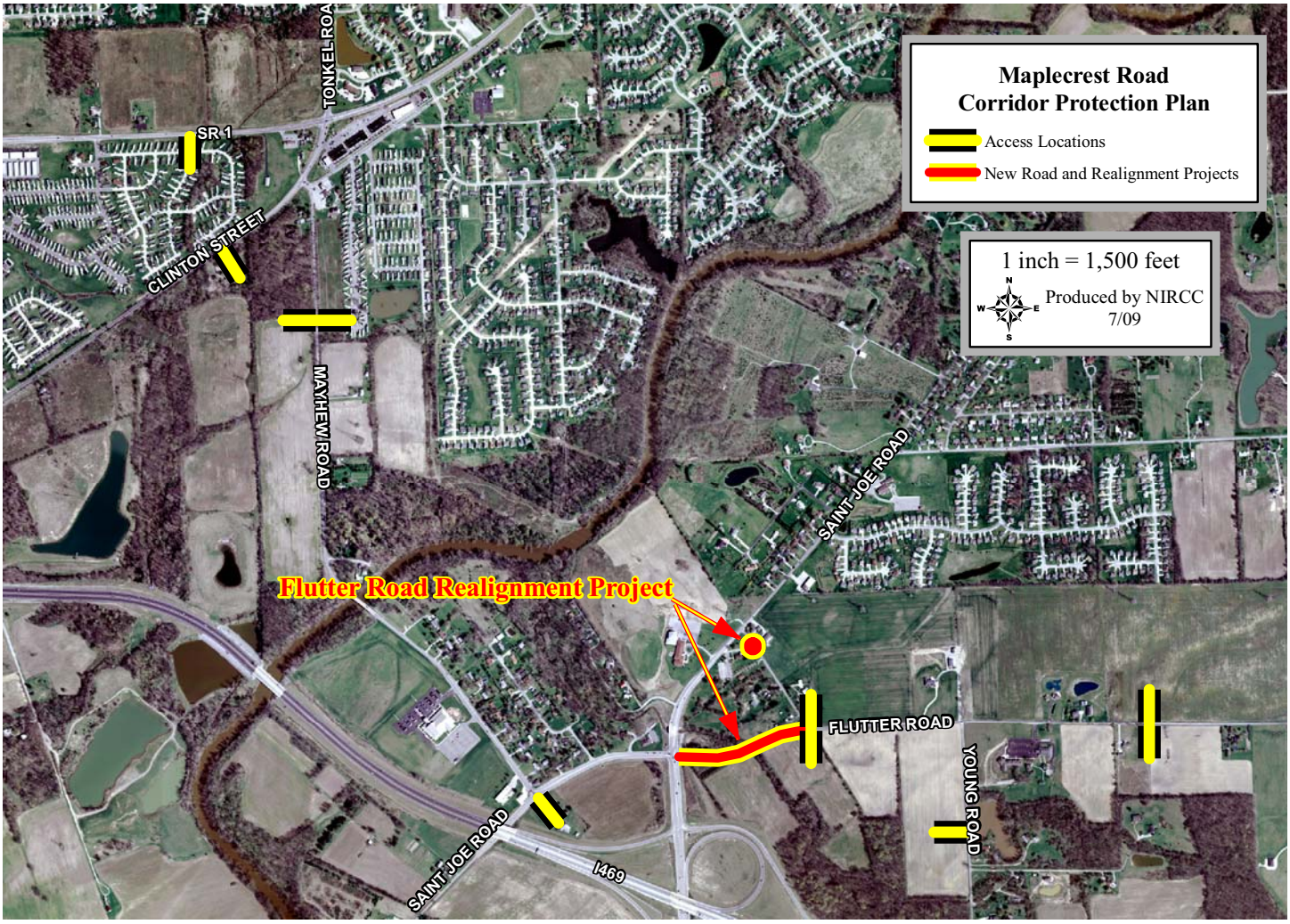
On Flutter Rd

- Existing Flutter Road to be cul-de-saced prior to intersection with St. Joe Road
- Full access to the north/south at intersection of existing Flutter Road and new alignment.
- Full access to the north/south approximately 1,700' east of Young Road at joint property lines

On Young Rd

- Full access to properties south of Flutter Road and west of Young Road to be off of Young.

Figure 19



Maplecrest Road: Evard Road to St. Joe Center Road (Refer to Figure 20)

On Evard Rd

- Full access off of Evard Road to the properties west of Maplecrest Road and north of Evard Road approximately 650' west of Maplecrest Road at the joint property line

On Maplecrest Rd

- Full access a minimum of 1000' south from the intersection with Evard Road.

St. Joe Center Road

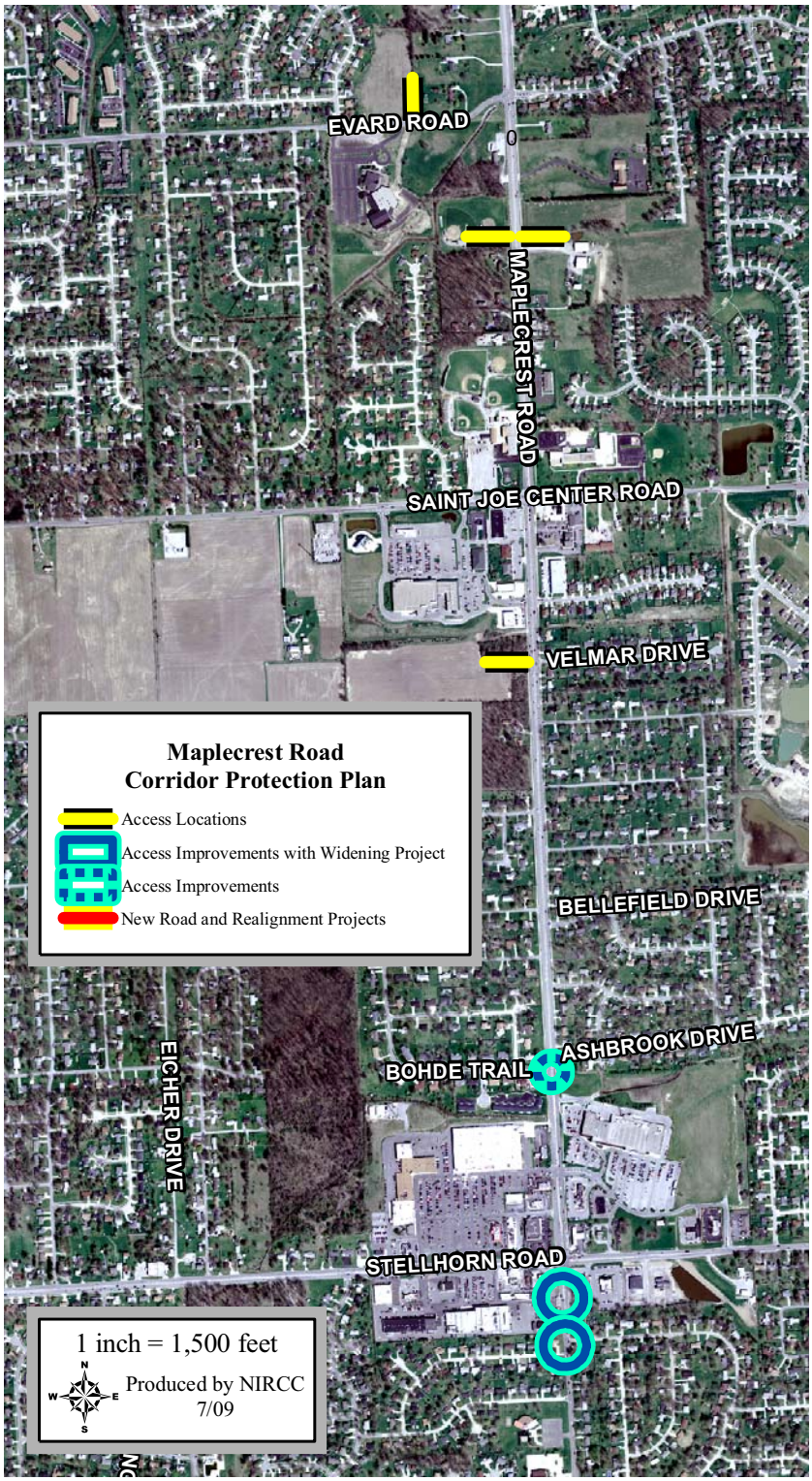
Maplecrest Road: St. Joe Center Road to s/o Stellhorn Road (Refer to Figure 20)

West Side: from north to south

On Maplecrest Rd

- Full access to the west directly across from Velmar Dr.
- Improvements should be considered to address northbound left turns from Maplecrest Road onto Bohde Trail due to congestion mitigation and safety concerns
- Primary entrance to Maplewood Plaza should be reviewed for possible modifications to address congestion mitigation and safety concerns, as Maplecrest Road widening project is being constructed.
- Plantation Drive should be made into a right in / right out only, as Maplecrest Road widening project is being constructed.
- Access to Birchdale Drive should be made into a right in / right out only, as Maplecrest Road widening project is being constructed.

Figure 20



Adams Center Road: SR 930 to Moeller Road (Refer to Figure 21)

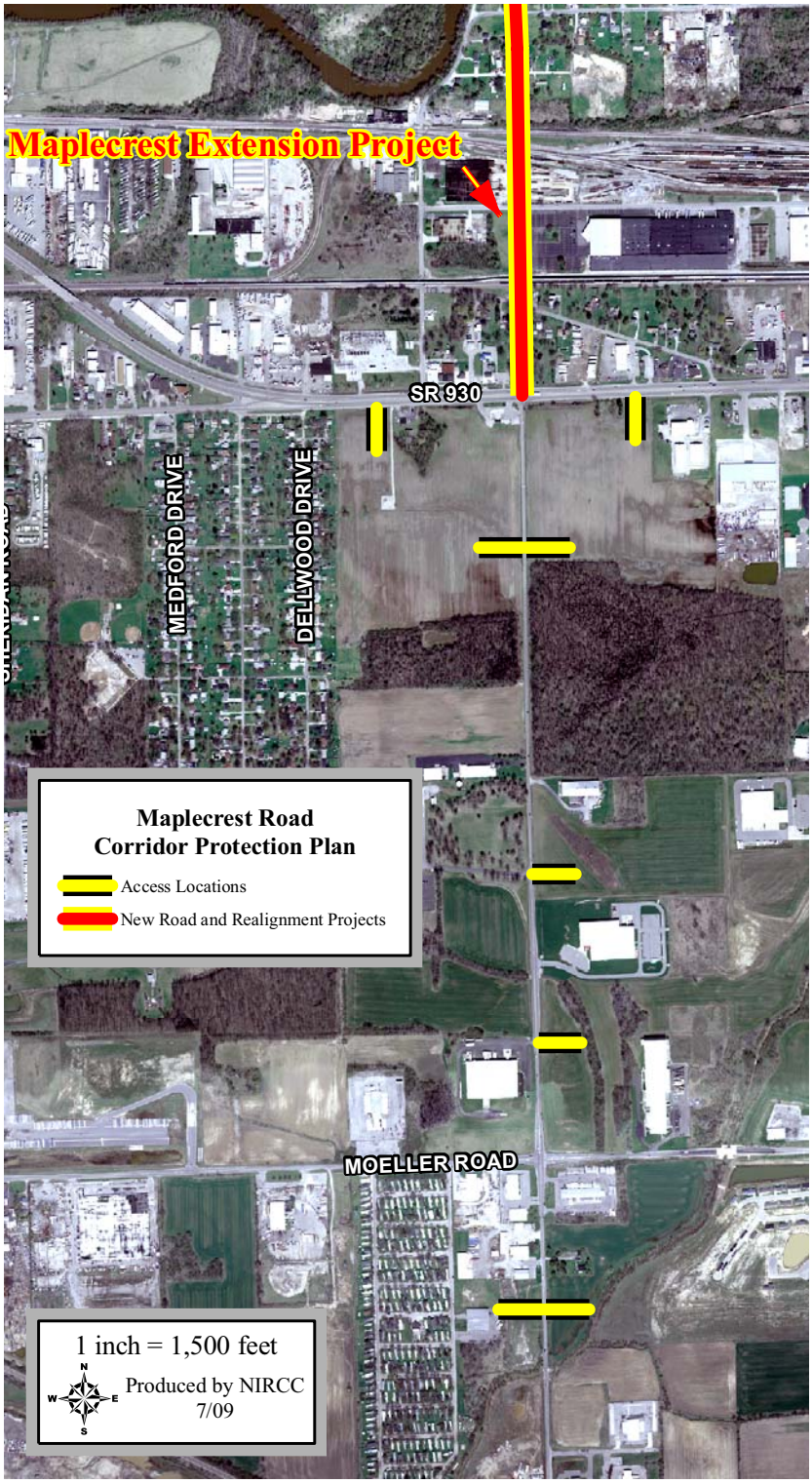
On SR 930

- Full access to properties south of SR 930 to be off of SR 930 a minimum of 1000' west of Adams Center Road, right-in / right-out access within the 1,000' will be allowed. Engineering and design of access off of SR 930 to be coordinated with INDOT to address congestion mitigation and safety concerns.
- Full access to property south of SR 930 to be off of SR 930 approximately 800' east of Adams Center Road, directly across from existing access to the north, right-in / right-out access within the 800' will be allowed. Engineering and design of access off of SR 930 to be coordinated with INDOT to address congestion mitigation and safety concerns.

On Adams Center Rd

- Full access a minimum of 1000' south of SR 930, right-in / right-out access within the 1,000' will be allowed
- Full access to Parrish Leasing property approximately 2,000' north of Moeller Road preferably directly across from full access to the west
- Full access to property at northeast corner of Moeller Road and Adams Center Road approximately 800' north of Moeller Road preferably directly across from full access to the west, right-in / right-out access within the 800' will be allowed
- Full access a minimum of 1000' south of Moeller Road

Figure 21



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), the War Memorial Coliseum, and the Fort Wayne State Developmental Center (FWSDC)

Sub-area Analysis

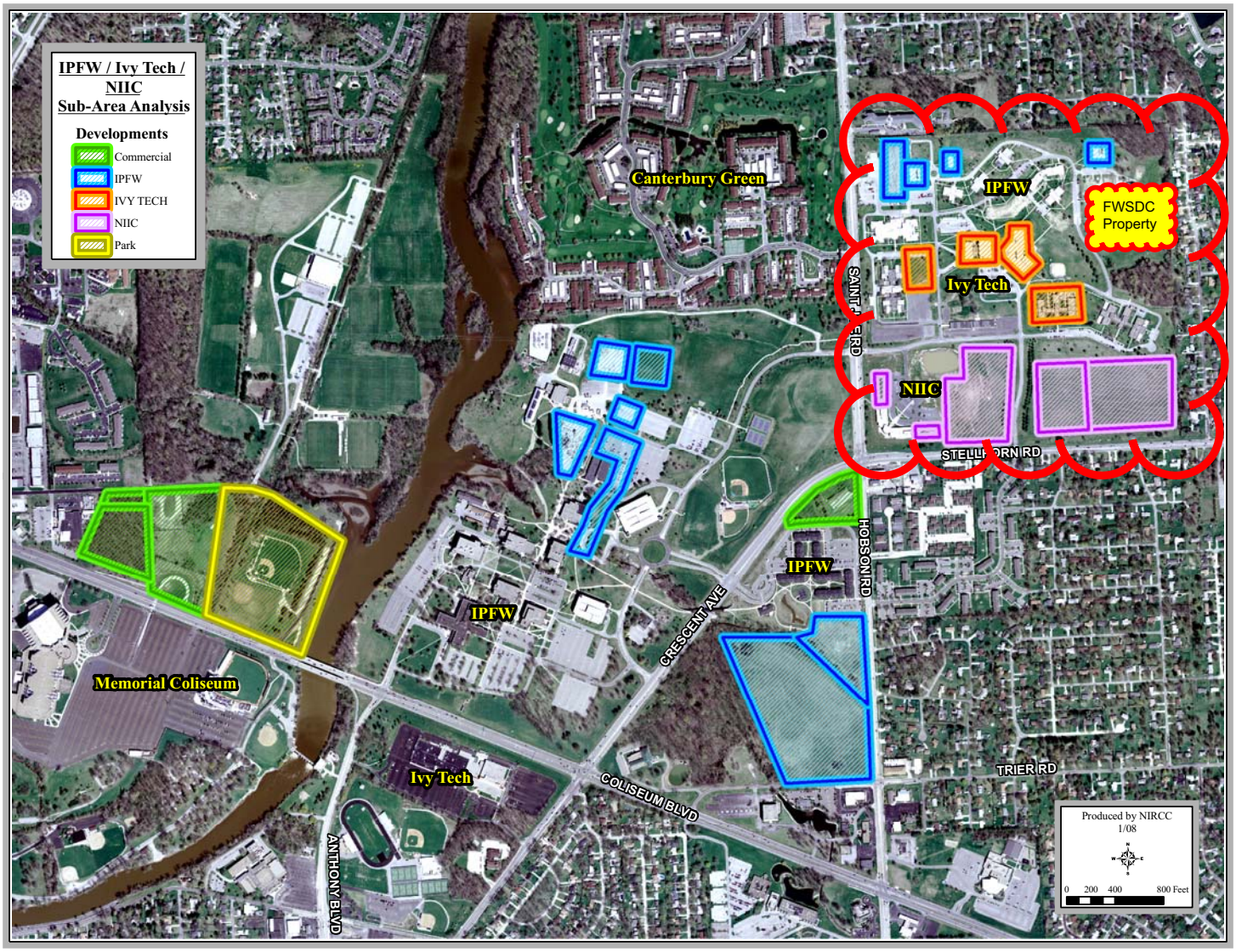
The area surrounding Indiana University Purdue University Fort Wayne (IPFW), Ivy Tech Community College (Ivy Tech), the Northeast Indiana Innovation Center (NIIC), the War Memorial Coliseum, and the Fort Wayne State Developmental Center (FWSDC)

A sub-area analysis was initiated by the Northeastern Indiana Regional Coordinating Council (NIRCC) based on discussions with Indiana-Purdue Fort Wayne University (IPFW), Ivy Tech Community College (Ivy Tech), Northeast Indiana Innovation Center (NIIC), and the Allen County War Memorial Coliseum (Memorial Coliseum) and their collective desire to improve connectivity between campuses and the surrounding area. Additional input was received from City of Fort Wayne's Greenways Manager and Division of Community Development. The Fort Wayne State Developmental Center (FWSDC) property which includes the Northeast Indiana Innovation Center (NIIC) is also part of the study area (See Figure 18 for Study Area). In addition to land under the control of IPFW, Ivy Tech, NIIC, and Memorial Coliseum, the study area also includes the North Anthony Boulevard Campus Corners, Market Place of Canterbury Shopping Center, new commercial area north of Coliseum Boulevard (including hotel, out-lots and planned park), and area apartment complexes that cater to university students. Information and materials produced by this analysis will provide local policymakers with an additional tool for assessing the impacts of new and expanding development.

The analysis focuses on assessing the current and future operating characteristics of the corridors and developing alternative strategies to improve safety, connectivity, and mitigate congestion. Staff evaluated the highway, transit, pedestrian and bicycle transportation systems as the major components of the analysis as well as the future development of the old 140 acre FWSDC site which has been subdivided into three large tracts allowing IPFW, Ivy Tech, and NIIC each a share (See figure 22). Staff also reviewed how the educational facilities interact with each other through student programs, activities, and transportation opportunities.

IPFW's main campus is approximately 210 acres with approximately 12,000 students. There is also 50 acres east of the main campus on property bounded by Crescent Avenue, Trier Road and Hobson Road which is primarily reserved for student housing with 570 units currently occupied. IPFW has approximately 150 additional acres with an indoor soccer facility, and numerous outdoor soccer fields located west of the main campus across the St Joseph River. Ivy Tech's main campus is approximately 25 acres and consists of a 194,000 sq/ft building with approximately 7,000 students. In 2006 Ivy Tech built a 22,000 sq/ft classroom building on their portion of the FWSDC site. The NIIC site currently consists of a 40,000 sq/ft facility that has 100 employees on their section of the FWSDC site. Construction is actively underway on the former FWSDC site by Ivy Tech and NIIC.

Figure 22



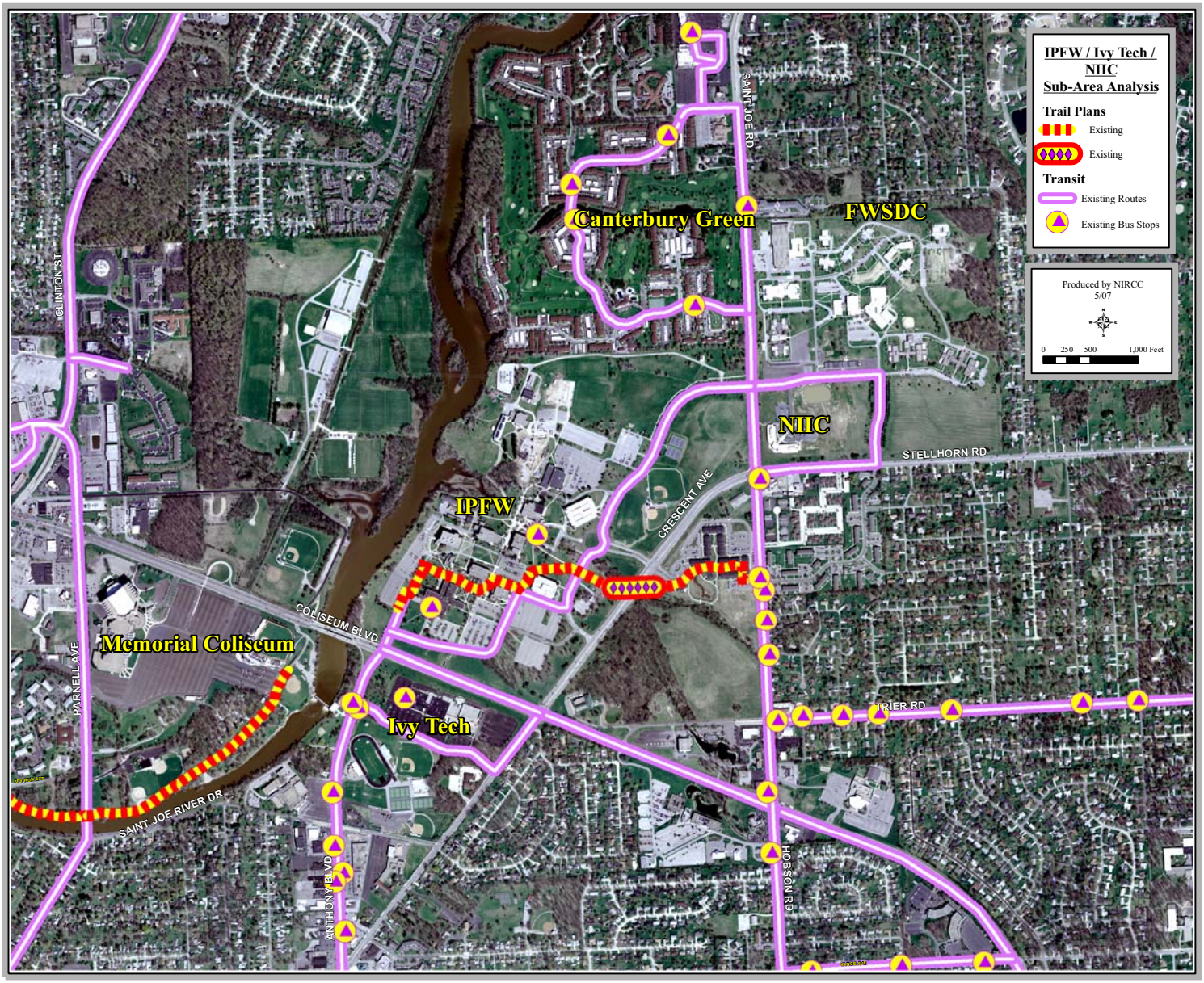
The study was facilitated by input from administrators of the universities, representatives from the Memorial Coliseum, NIIC, and Citilink, the local transit provider. Information regarding improvements to North Anthony was provided by the City of Fort Wayne Division of Planning and information on trail development was provided by the Greenways Manager. Trip patterns, trip generations, and growth projections were analyzed to provide a foundation for the study. Special trip generation formulas were developed for IPFW and Ivy Tech. Existing transit routes, bus stops, and existing and planned bicycle/pedestrian facilities were also determined as part of the initial data collection process (see figure 23).

IPFW has recently completed a 105,000 sq/ft Music building, and is building a 43,000 sq/ft Medical building on their main campus. They plan on constructing parking facilities, classroom buildings, services buildings, and more student housing in the future. They also have an intricate pedestrian system on the main campus and a pedestrian bridge over Crescent Avenue connecting it with student housing. A pedestrian bridge over the St. Joseph River is currently under construction and will

connect IPFW's main campus to their property west of the river. This bridge will connect to the new Hotel and tie in with the Fort Wayne Rivergreenway system. As of this time though, the system lacks good connectivity to the Ivy Tech campus and surrounding amenities.

The Ivy Tech's main campus is virtually built out with little room for expansion. All of their future growth within the study area is anticipated to be on the FWSDC site. The separation of these two Ivy Tech sites presents some transportation and scheduling challenges for students. Without direct transit service and a safe bicycle/pedestrian passage between these sites, students and faculty who will travel between campuses will be forced to travel by automobile.

Figure 23



The Northeast Indiana Innovation Center nurtures technology businesses through start-up, early development, and the various growth stages. NIIC has a 60,000 sq/ft expansion to their existing facility under construction. The expansion includes an "emerging growth" area that will accommodate approximately 2000 additional employees. In addition, a 500 employee corporate anchor manufacturing facility is also in the planning stages. Approximately 15 acres of the NIIC site will remain for additional expansions.

Property west of the St. Joseph River and north of Coliseum Boulevard was also reviewed by staff. A 150 room hotel is currently under constructed. The hotel provides a place close to the Memorial Coliseum for overnight stays during special events and will provide lodging for persons doing business with IPFW, Ivy Tech and NIIC. The hotel will also be utilized by IPFW and Ivy Tech for its large meeting rooms and for educational activities in the way of culinary and hotel management programs.

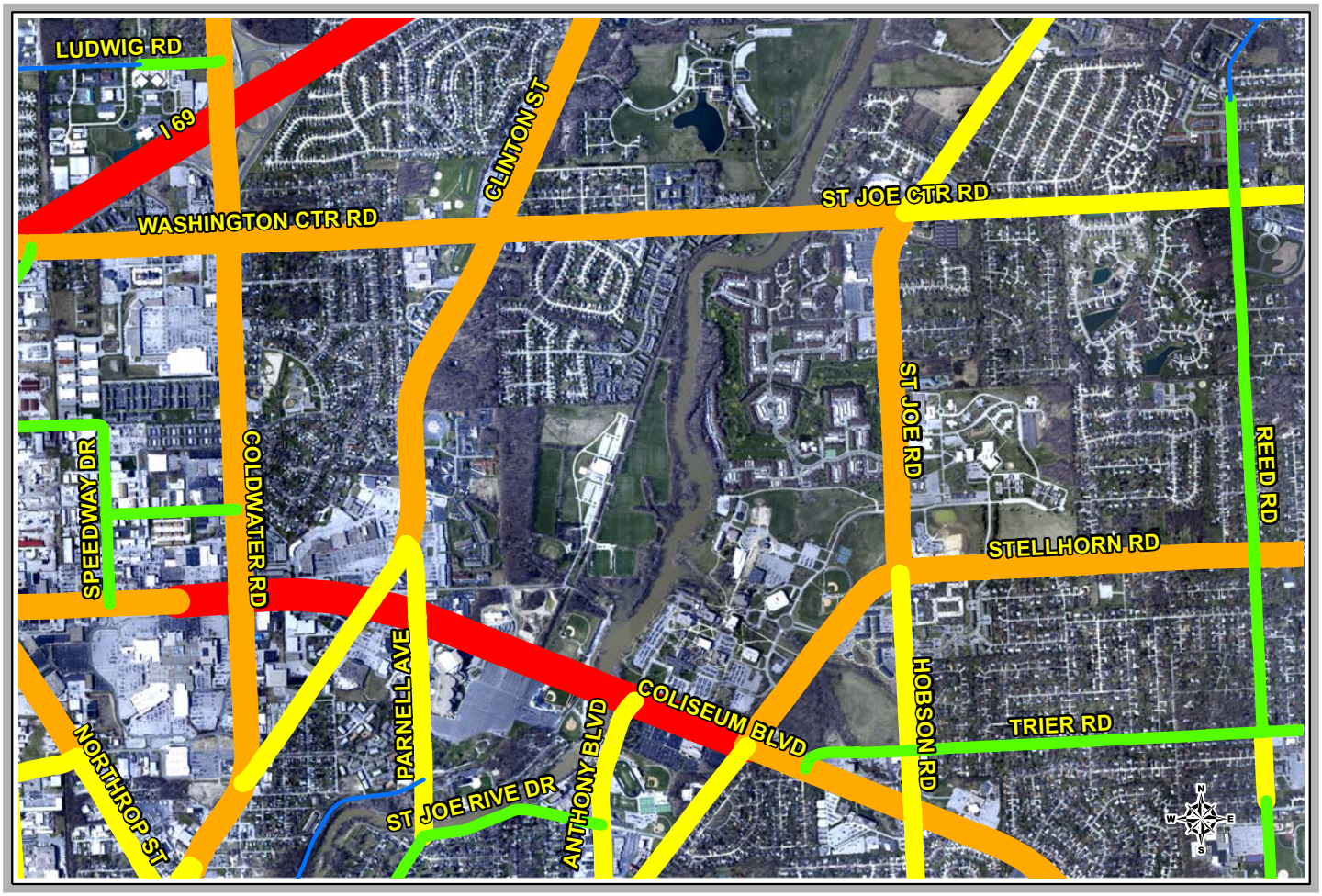
Information was collected for the current and planned land-use developments and development types for all of the IPFW, Ivy Tech, NIIC and Memorial Coliseum properties within the study area. The potential for additional development was also assessed for each location. Current employment data and student enrollment information was gathered for each location. Based on planned growth at each site and historic trends, employment and enrollment figures were forecasted for future years. Staff surveyed surrounding apartment complexes to estimate how many students reside at each complex. Student information regarding place of residence was identified by zip code areas. This information was used to evaluate transit and bicycle/pedestrian alternatives and help determine how student trips will access the various campus sites.

The proposed developments are used in determining the generated traffic volumes, distributions, and assignment of these newly generated trips to the study area. The ITE Trip Generation Manual 7th edition was used to forecast the number of new trips from developments. Current traffic conditions can be seen in figure 24.

Also, intersection turning movement data was collected at 12 intersections within the study area including eight signalized, and four unsignalized intersections. The intersections were analyzed for the existing conditions and the 2020 horizon year. The analysis produced from this study estimates the number of new trips from anticipated developments that will be added to an existing facility to examine the changes in the level of service (LOS) and determine if improvements will be needed to maintain acceptable traffic flow.

LOS is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. LOS is based upon the average stopped delay per vehicle for various movements within the intersection. LOS "A" describes

Figure 24



Traffic Volumes

24 HR Volume Counts

- 2,500 - 5,000
- 5,001 - 10,000
- 10,001 - 20,000
- 20,001 - 40,000
- 40,001 - 70,000

operations with very low delays; most vehicles do not stop at all. LOS "C" describes operations with longer delays, stopping vehicles are significant but many still pass without stopping. LOS "F" describes operations with delays unacceptable to most drivers, or if specific movements of the intersections are exceeding capacity. When service levels fall below acceptable levels, recommendations are tested to accommodate future traffic and relieve anticipated congestion problems.

Current LOS for the intersections included with this study along with diagrams of the actual intersection movements can be seen in figure 25. 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.

Figure 26 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.

Figure 25

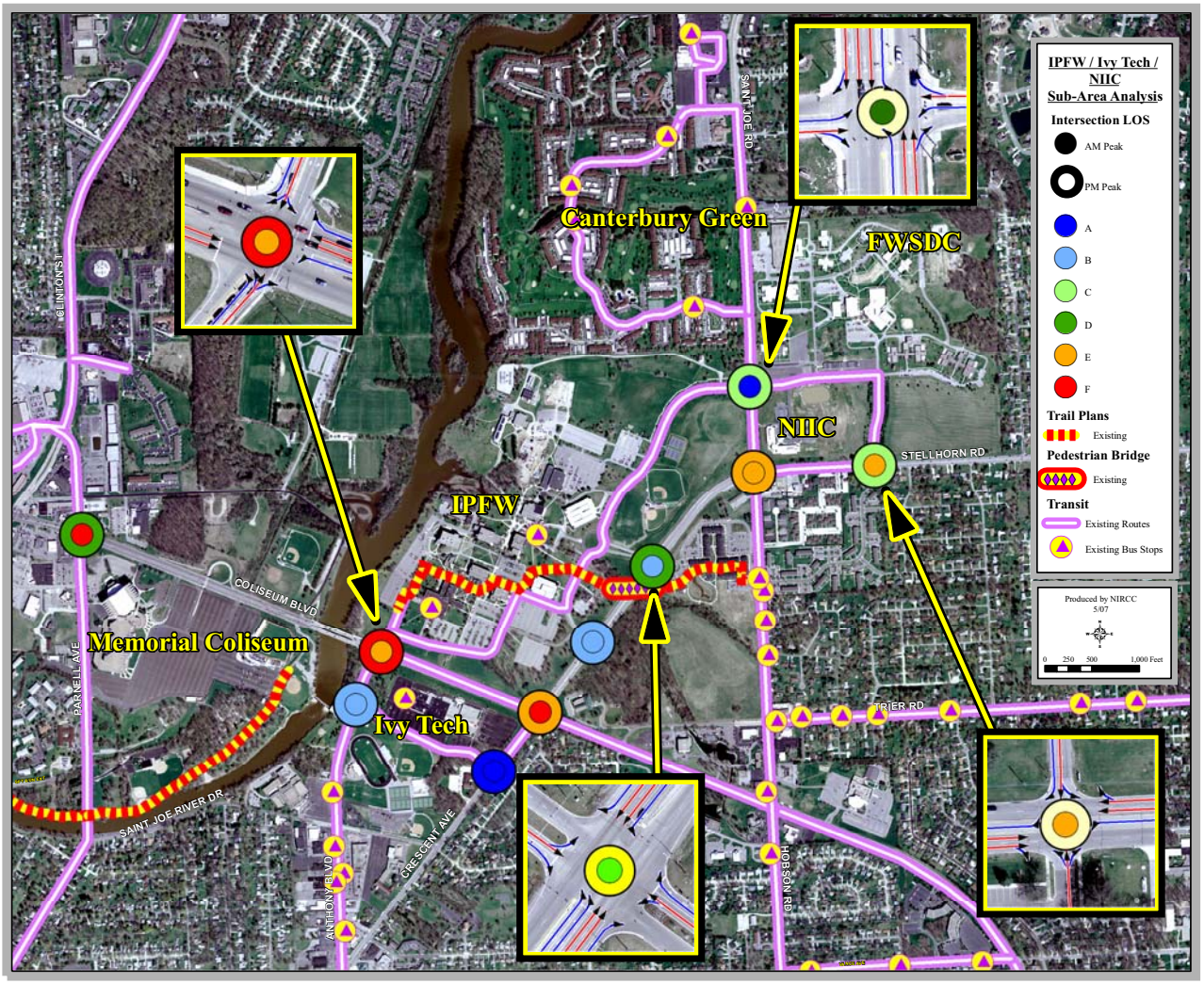
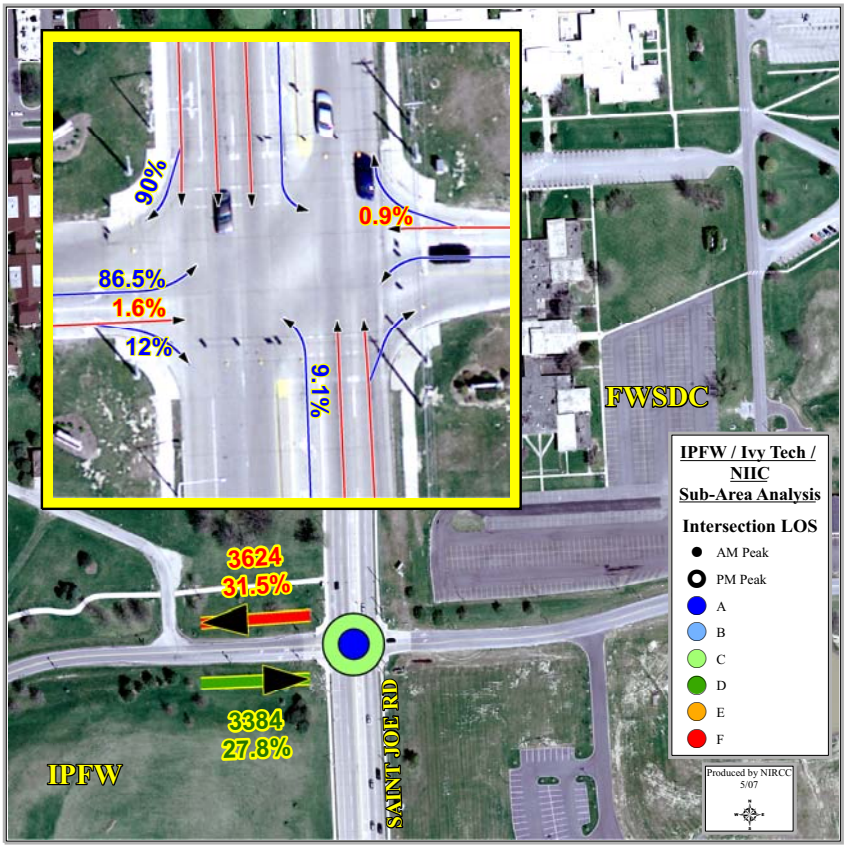


Figure 26



In FY 2009 NIRCC completed the recommendation phases and submitted the final report. The recommendations included with this sub-area analysis includes a specific list of roadway improvements that has been developed to address safe and efficient traffic flow along corridors and through intersections within the sub-area analysis study area. In addition, this analysis contains recommendations for pedestrian and bicycle connectivity (proposed and underway) provided by NIRCC, IPFW, Ivy Tech, and City of Fort Wayne. Also, transit and shuttle alternatives have been established to provide options for students to get around campus and the surrounding areas. The following pages summarize the

recommendations provided by NIRCC in the final report. Please note that in this brief summary only one intersection recommendation includes a visual. Visuals for each intersection recommendation are provided in the final report.

INTERSECTIONS and ROADWAY IMPROVEMENTS

The recommended intersection improvements are listed below based on the 2020 traffic projections:

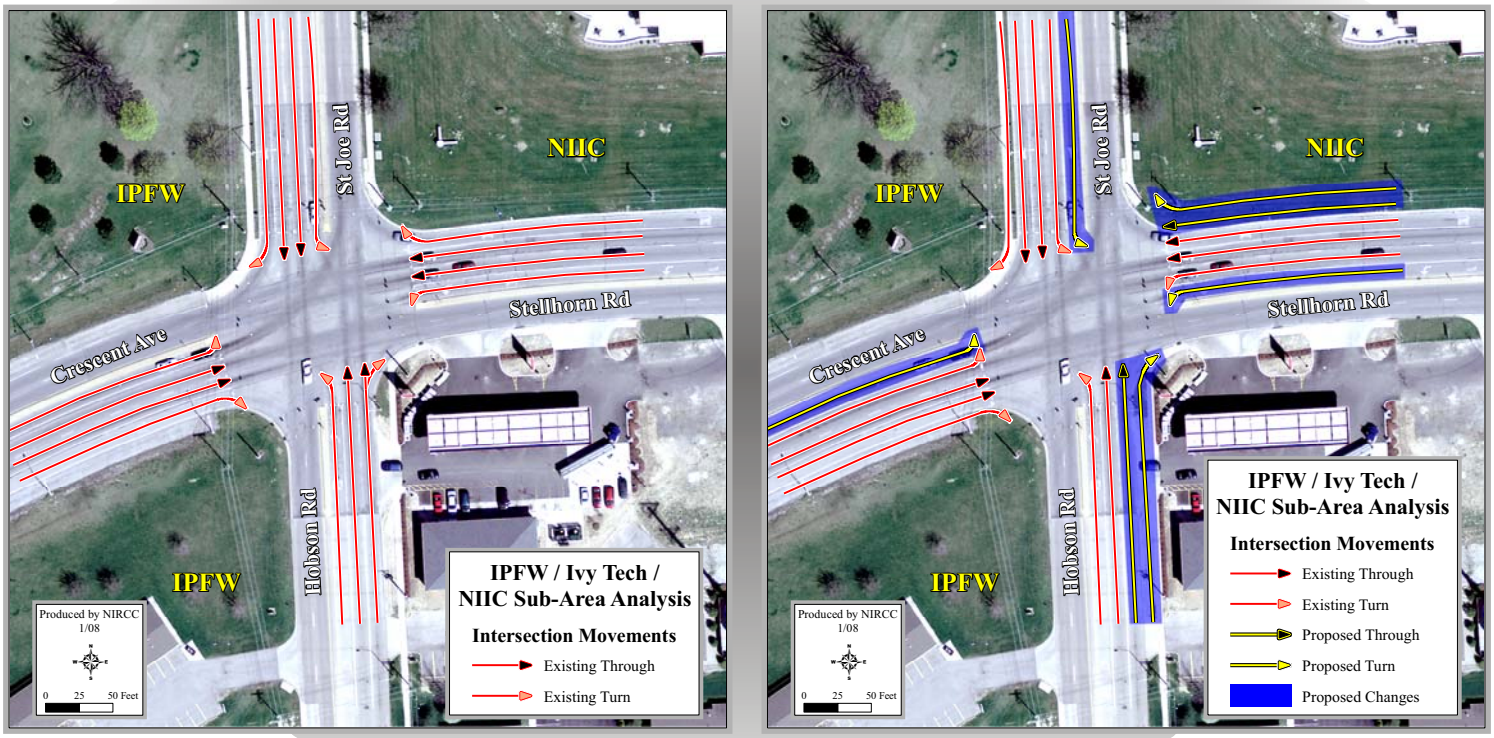
1. **Canterbury Boulevard / St Joe Road;** the addition of a northbound right turn lane added to the proposed construction of a new campus access road that will add an east approach to the intersection.

2. **Broyles Avenue / St Joe Road;** the addition of exclusive right turn lanes for the northbound movement.

3. **Sirlin Drive / Stellhorn Road;** the addition of a third through lane for the westbound movement, shifting the southbound traffic and signalizing the intersection.

4. **Crescent Avenue / Hobson Road (figure 27);** the addition of a third westbound through lane, a second left turn lane on the east, west, and north approaches, and an exclusive right turn lane on the south and east approach.

Figure 27



5. **Crescent Avenue / Lawshe Drive;** the addition of the third through lane on Crescent Avenue and shifting the eastbound and westbound traffic.

6. **Coliseum Boulevard / Crescent Avenue;** the addition of a third westbound through lane, a second left turn lane on the east, and north approaches, and an exclusive right turn lane on the east approach.

7. **Anthony Boulevard / Coliseum Boulevard;** the addition of a third westbound and eastbound through lanes and reopening the eastbound left turn lane into the IPFW campus, a second exclusive left turn lane on the south and west approaches, and a second exclusive right turn lane on the north approach. Additional improvements will need to be made on the IPFW campus before the second westbound left turn lane can be added.

8. **Coliseum Boulevard / Paul Shaffer Drive;** the addition of a third eastbound through lane. There is a proposal to continue Paul Shaffer Drive north along the west edge of the IPFW property and connect it with North Clinton Street. Once Paul Shaffer Drive is completed additional traffic will utilize this intersection and it will need to be re-evaluated, currently no additional changes are recommended at this time.

9. **Coliseum Boulevard / Parnell Avenue;** the addition of the third eastbound through lane. There is a proposal to continue Paul Shaffer Drive north along the west edge of the IPFW property and connect it with North Clinton Street. Once Paul Shaffer Drive is completed a portion of the traffic will divert from this intersection and it will need to be re-evaluated, currently no additional changes are recommended at this time.

10. Extend Paul Shaffer Drive north along the west edge of the IPFW property and connect it with North Clinton Street. It should include sidewalks on both sides of the road.

PEDESTRIAN AND BICYCLE

In general, there is a lack of connectivity between the pedestrian networks in the various sites within the study area. Pedestrian and bicycle connectivity between IPFW, Ivy Tech, NIIC, student housing, and the commercial areas are poor to nonexistent. It is highly desirable to provide connectivity between the various campuses and interrelated land uses.

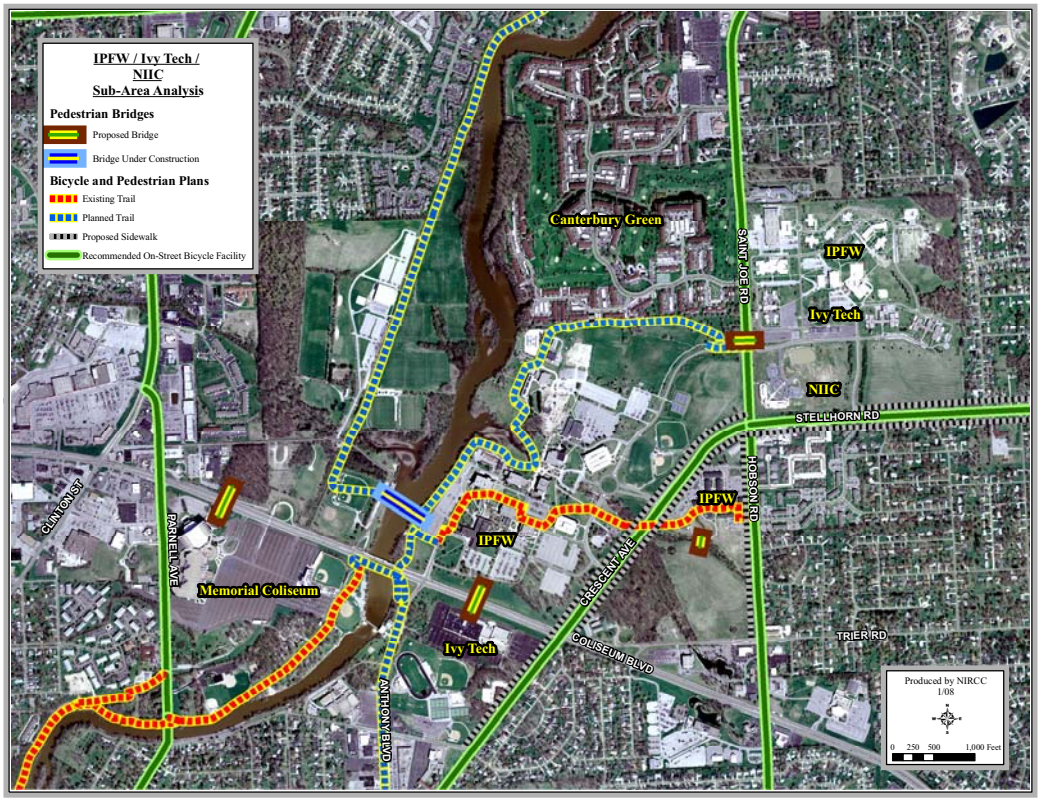
The recommended pedestrian and bicycle plans (shown in figure 28) are listed below based on the 2020 traffic projections:

1. The sidewalk that crosses St Joe Road at Broyles Avenue but it currently connects into a parking lot on the FWSDC site, and needs to be connected to the existing or proposed sidewalk network.

2. The sidewalk along Stellhorn Road needs to be extended east to Blum Drive along with additional sidewalks on the south side of the road.

3. Sidewalks need to be constructed on both sides of Crescent Avenue between Hobson Road and Coliseum Boulevard where they don't already exist. Also on the west side of the road from Coliseum Boulevard to St Joe River Drive.

Figure 28



4. As part of the pedestrian bridge project over the St Joseph River, which is currently under construction, a bicycle/pedestrian connection needs to be made to the surrounding area and hotel.

5. Completion of the project to connect the existing bicycle/pedestrian trail that terminates in Johnny Appleseed Park to the IPFW campus is funded and currently under design.

6. Improve connectivity between IPFW and Canterbury Green Apartments, and IPFW dorms to the bus stop on Hobson Road.

7. Completion of the proposed North Anthony Boulevard corridor project and connecting it to the river greenway.

8. Construct a pedestrian bridge over Coliseum Boulevard connecting the IPFW and Ivy Tech main campuses.

9. Construct a pedestrian bridge over St Joe Boulevard connecting IPFW and the FWSDC.

10. Construct a pedestrian bridge over Coliseum Boulevard connecting the hotel site with the Memorial Coliseum.

11. NIRCC also recommends that the proposed and existing pedestrian bridges be interconnected with trails, sidewalks, and adjacent buildings.

12. NIRCC's Bicycle-Pedestrian Transportation Plan recommends on-street bicycle facilities on Stellhorn Road, Hobson Road and St Joe Road.

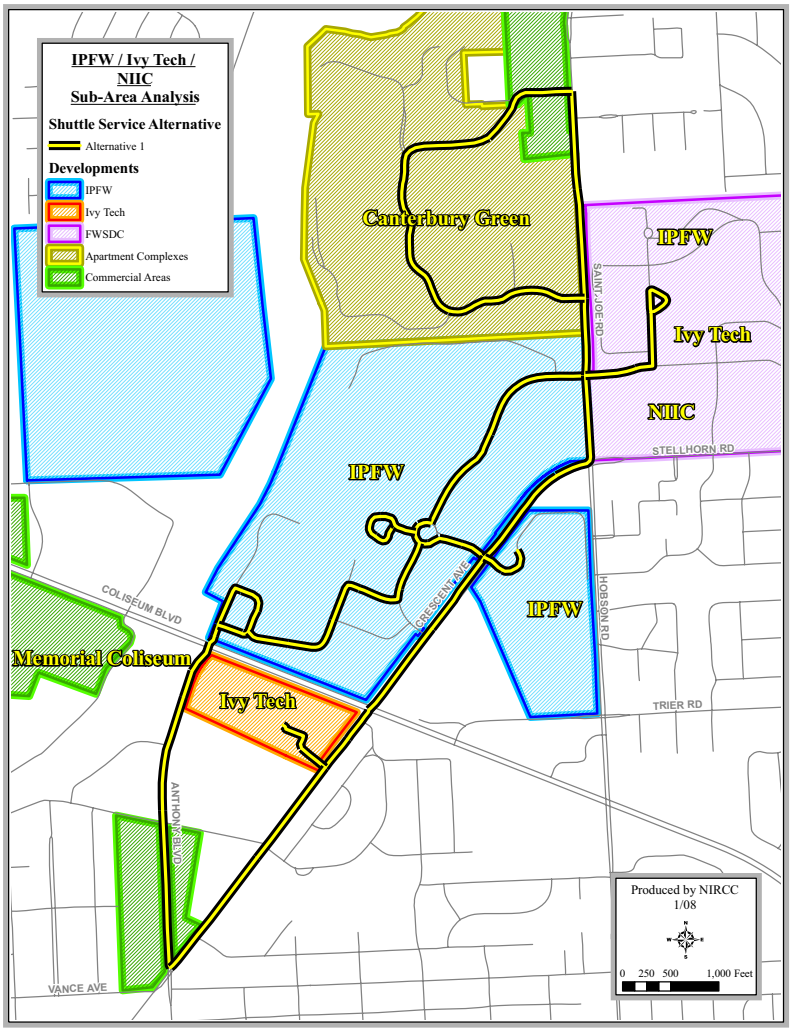
TRANSIT

Three alternatives were established to improve transportation options for students to access the campus sites and surrounding area.

Alternative 1 (figure 29) - Campus Shuttle would use one light transit vehicle operating on fifteen minute headways, compliment Routes 3 and 4, service all campus areas and the North Anthony Boulevard and Market Place of Canterbury commercial areas. This transit service would provide direct transportation to on-campus housing, multiple campus sites and retail/commercial areas for dining and recreation.

Alternative 2 (figure 30) - Campus Shuttle would utilize two light transit vehicles operating on fifteen minute headways, compliment Routes 3 and 4, extend alternative #1 service to include off-campus student housing. Students will have an alternative way to utilize the two commercial areas, and to access some of the off-site student housing. Currently there is not a safe and efficient alternative to driving for the students that live northeast of the campuses in a number of apartment complexes that will be served by the shuttle.

Figure 29



Alternative 3 (figure 31) - Glenbrook Express would use one light transit vehicle operating one hour service and compliments Route 3 and intersects with Routes 1, 6, 8 and 21. This service would supplement the Campus Shuttle by providing service to Memorial Coliseum, Holiday Inn Hotel, Glenbrook Mall, and Northcrest Shopping Center. This service would increase opportunities for students to utilize some of the many attributes that this area of the city has to offer.

All three transit alternatives would improve service to the campuses and surrounding areas. Students would have a viable and efficient transportation option to driving their vehicles to access on-campus and off-campus housing, travel between campus areas, and access commercial and retail businesses near the campuses. Service would be provided on weekdays while the universities are in session. The shuttle service will help to alleviate congestion, accommodate students with limited transportation options, and provide a viable alternative to private automobile usage.

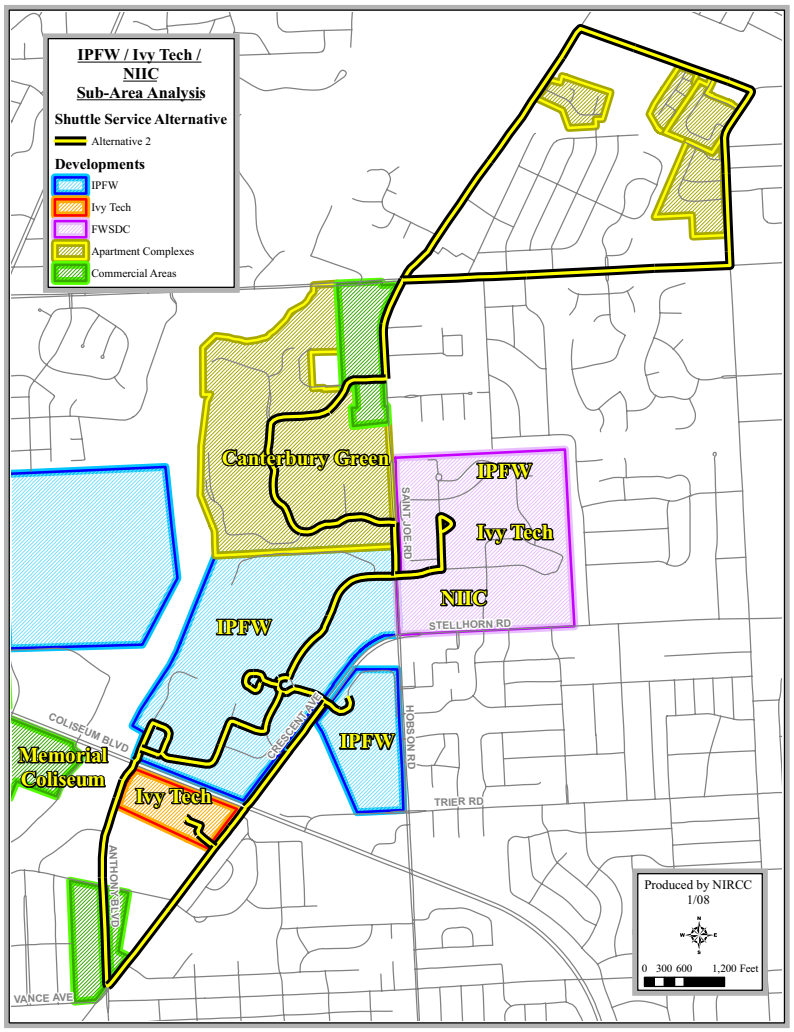
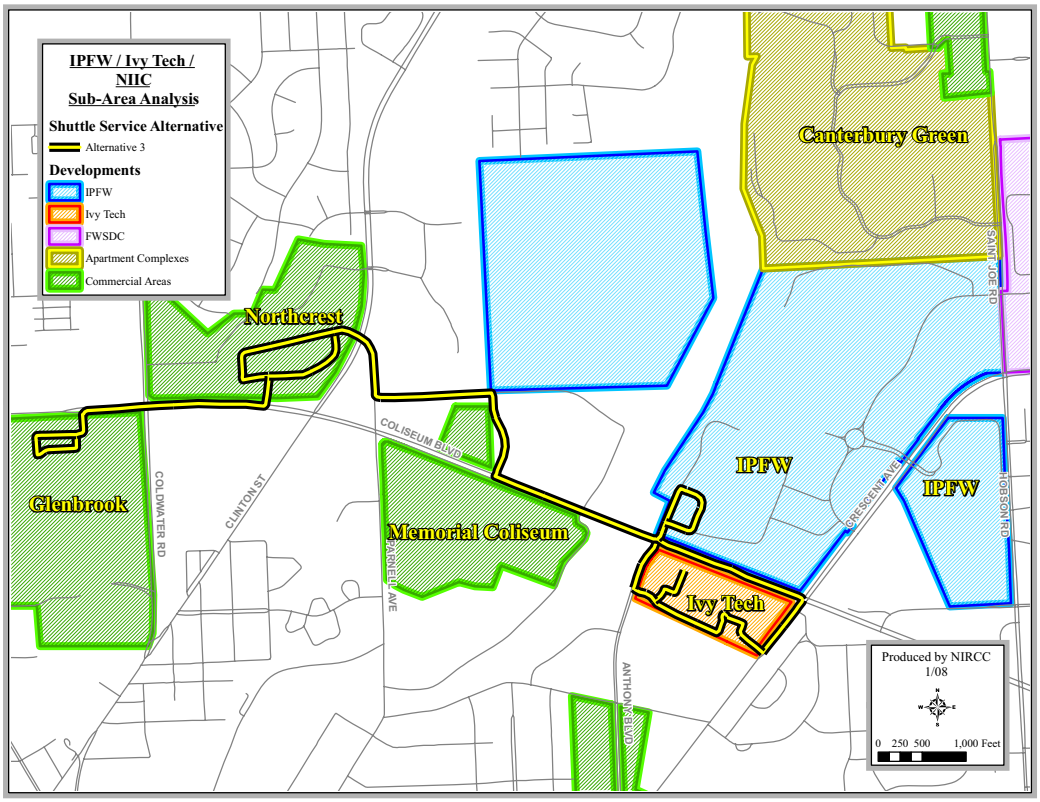


Figure 30

Figure 31



Travel Time and Delay Studies

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2009

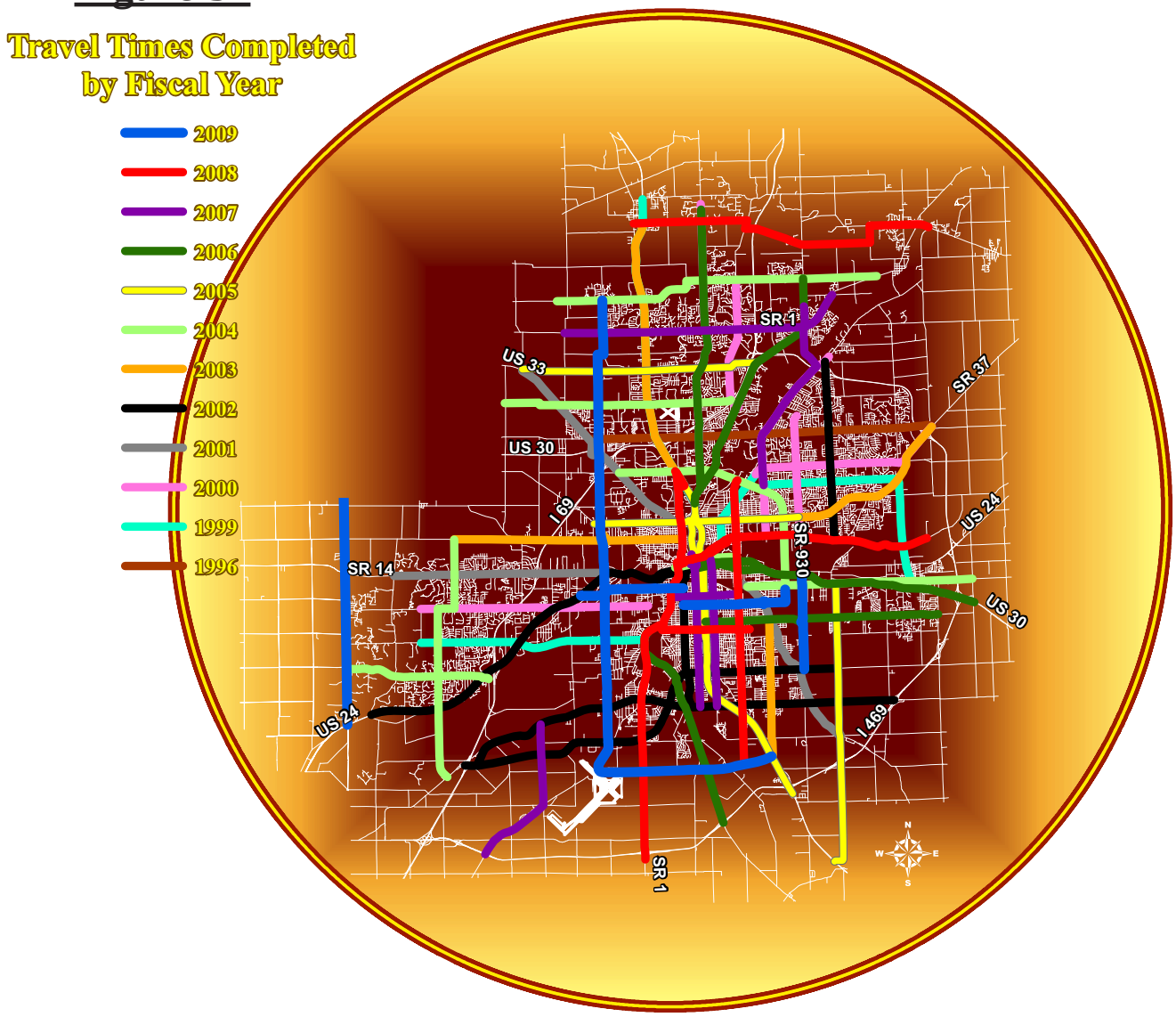
TRAVEL TIME & DELAY STUDIES

Another activity conducted by NIRCC is the travel time and delay studies. Figure 32 illustrates the travel time and delay studies that have been completed since Fiscal Year 1996. Since all the travel times from fiscal year 1997 and 1998 have been redone, those years are not displayed. 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.

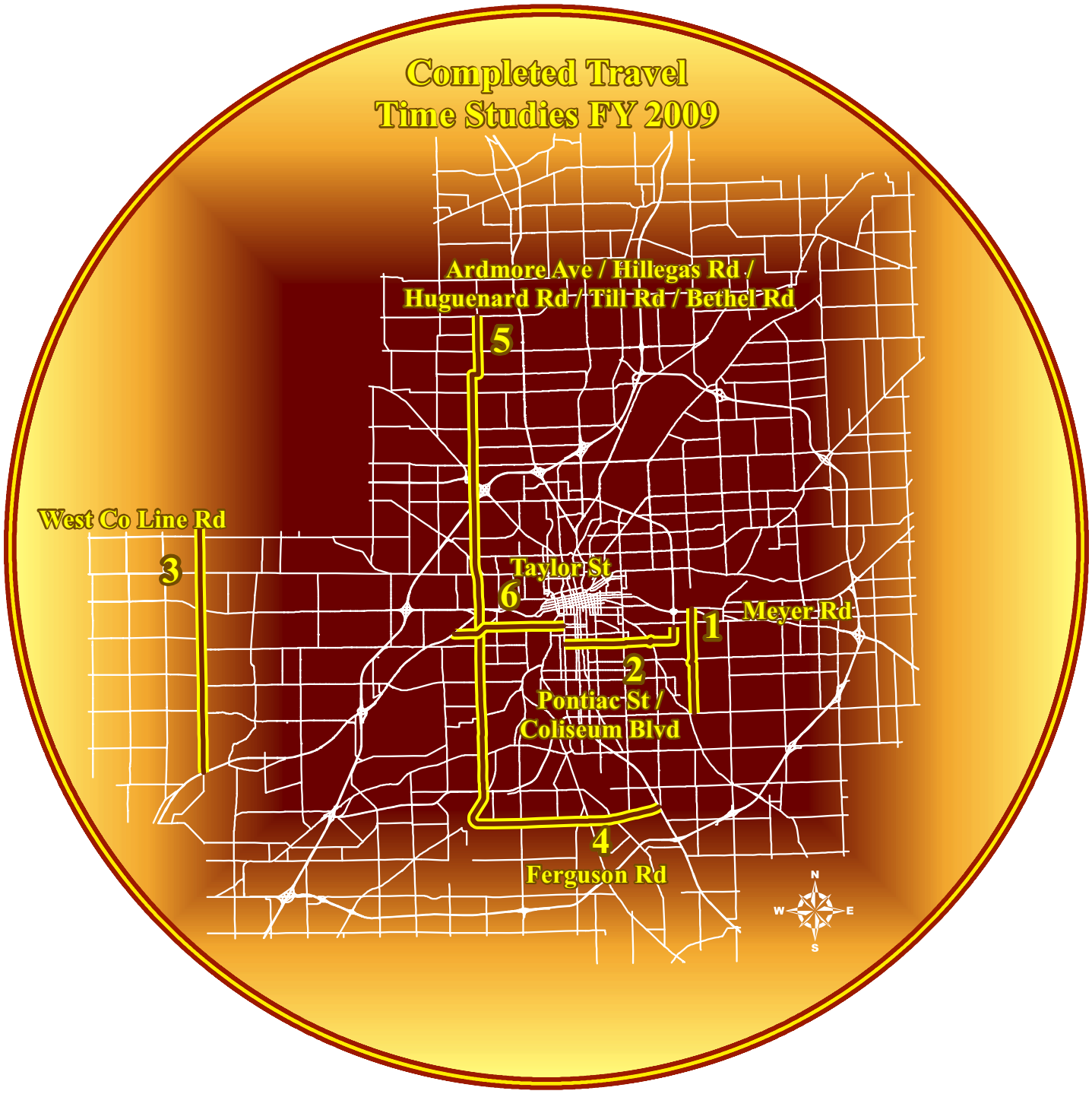
- *Identification of problem locations on facilities by virtue of high travel times and delay.*
- *Measurement of arterial level of service.*
- *Input into transportation planning models.*
- *Evaluations of route improvements.*
- *Input to economic analysis of transportation alternatives.*

Figure 32



NIRCC studied six (6) corridors during Fiscal Year 2009 including: **1) Meyer Road** from Old Maumee Road to Paulding Road, **2) Pontiac Street / Coliseum Boulevard** from Fairfield Avenue to Schele Avenue, **3) West County Line Road** from Leesburg Road to US 24 West, **4) Ferguson Road** from Airport Expressway to US 27, **5) Ardmore Avenue / Hillegas Road / Huguenard Road / Till Road / Bethel Road** from Airport Expressway to Carroll Rd, and **6) Taylor Street** from Jefferson Boulevard to Fairfield Avenue. The travel time studies completed during Fiscal Year 2009 are illustrated in Figure 33 below.

Figure 33



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 34 - 49 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 six corridors studied in fiscal year 2009. 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.

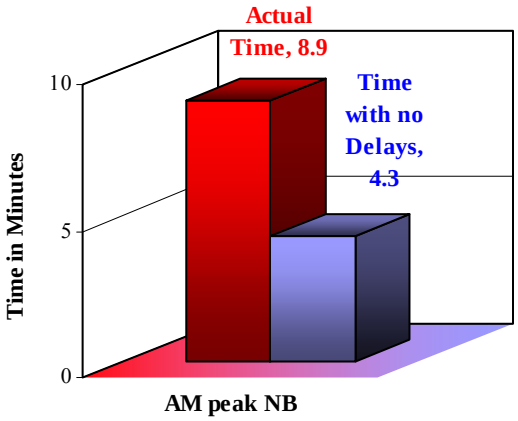
The other two bar charts display the average speed that NIRCC staff actually encountered from the beginning to the end of the travel time corridor during the time period with the greatest amount of delay, shown in red, and the time period with the least amount of delay, shown in green. These two bar 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 2009

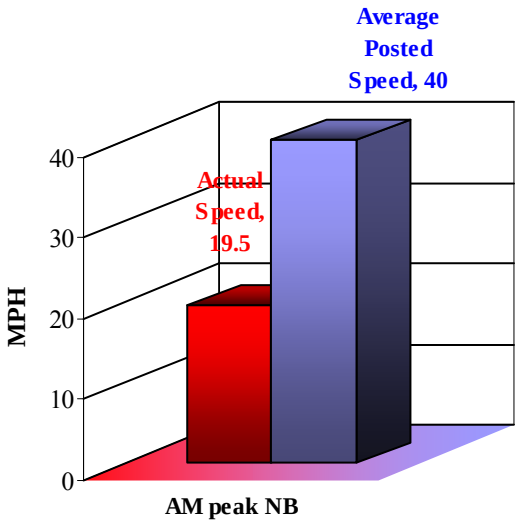
Figure 34

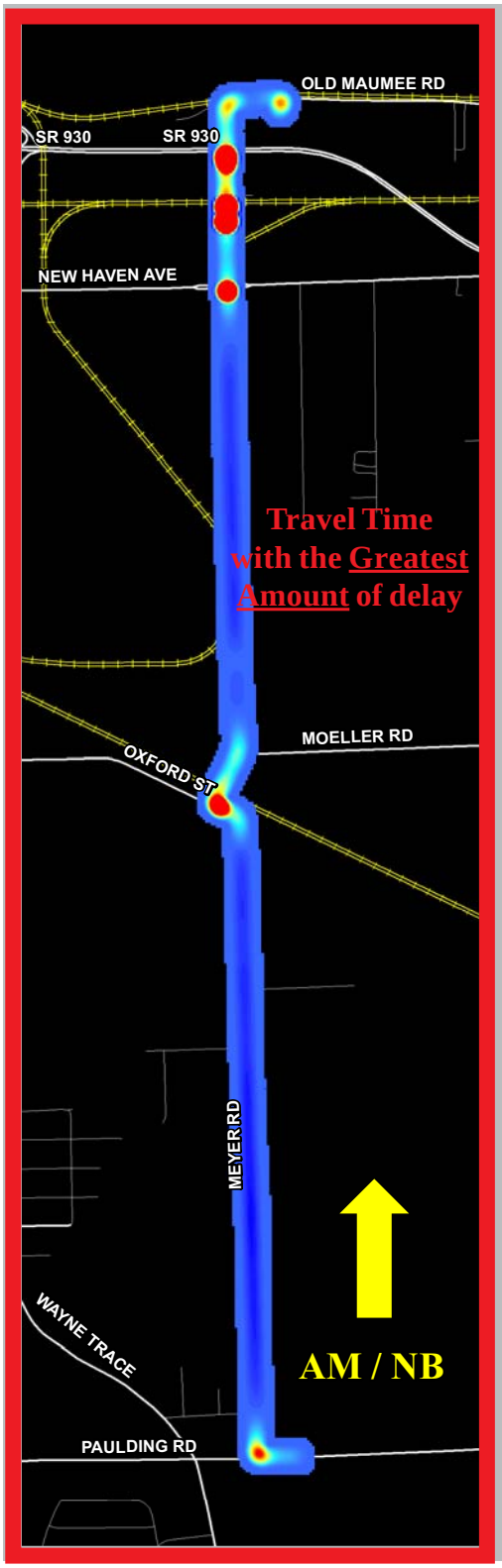
Meyer Road
AM Peak

Travel Time with the Greatest Amount of delay



Travel Speed with the Greatest Amount of delay





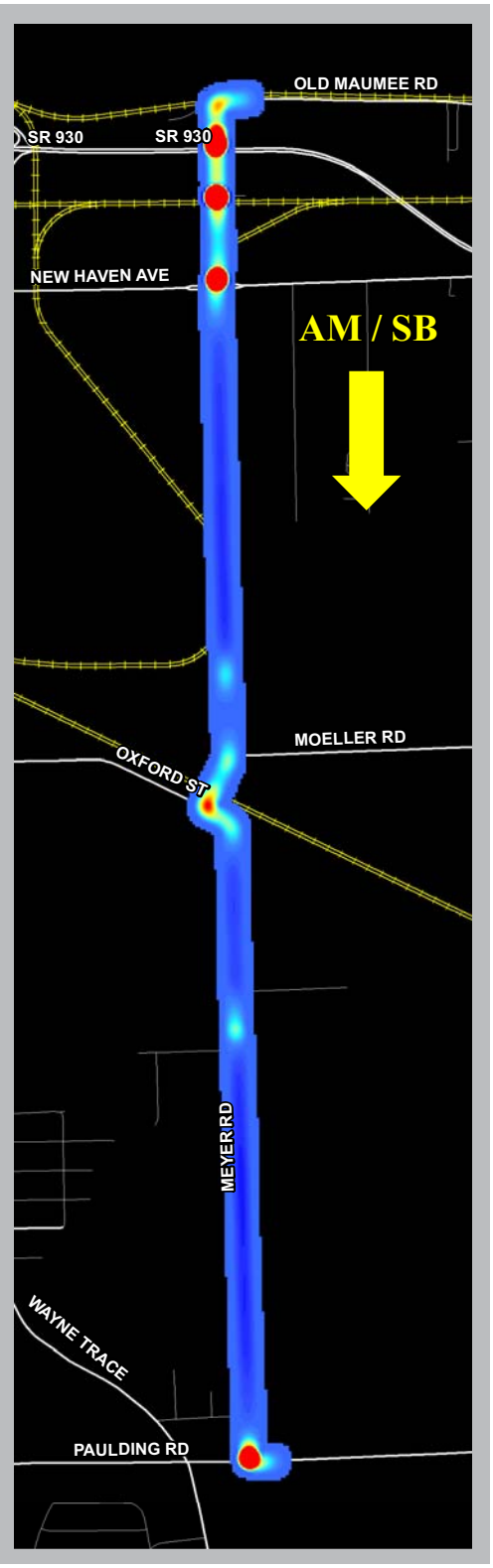
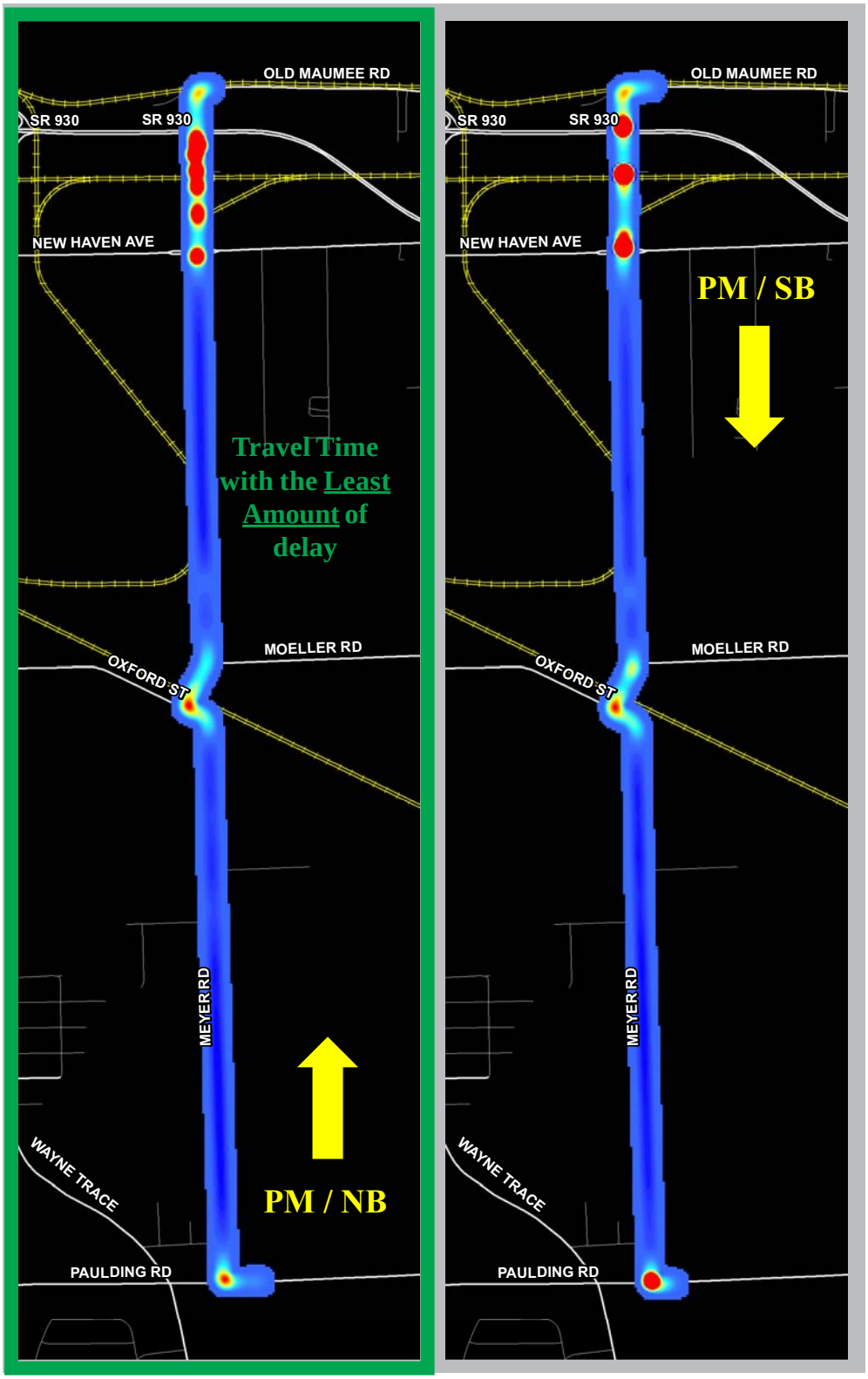
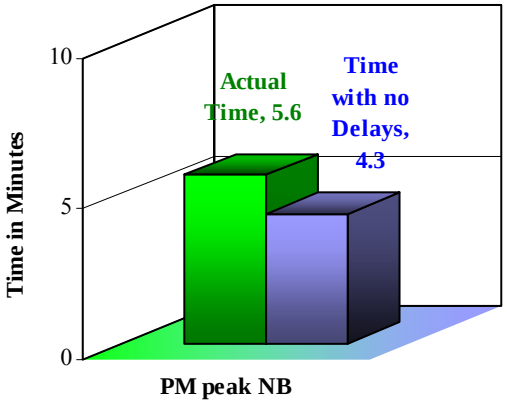


Figure 35

Meyer Road
PM Peak



Travel Time with the Least Amount of delay



Travel Speed with the Least Amount of delay

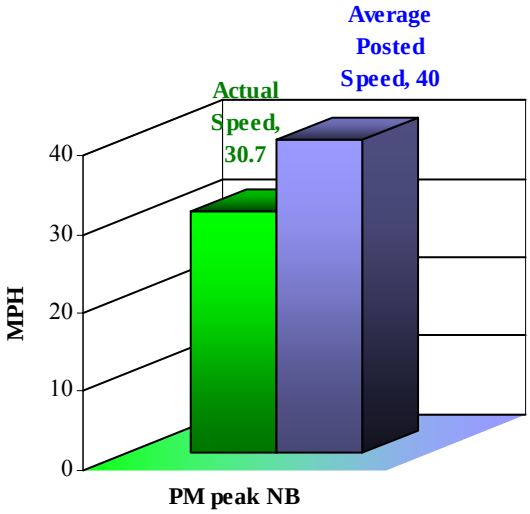
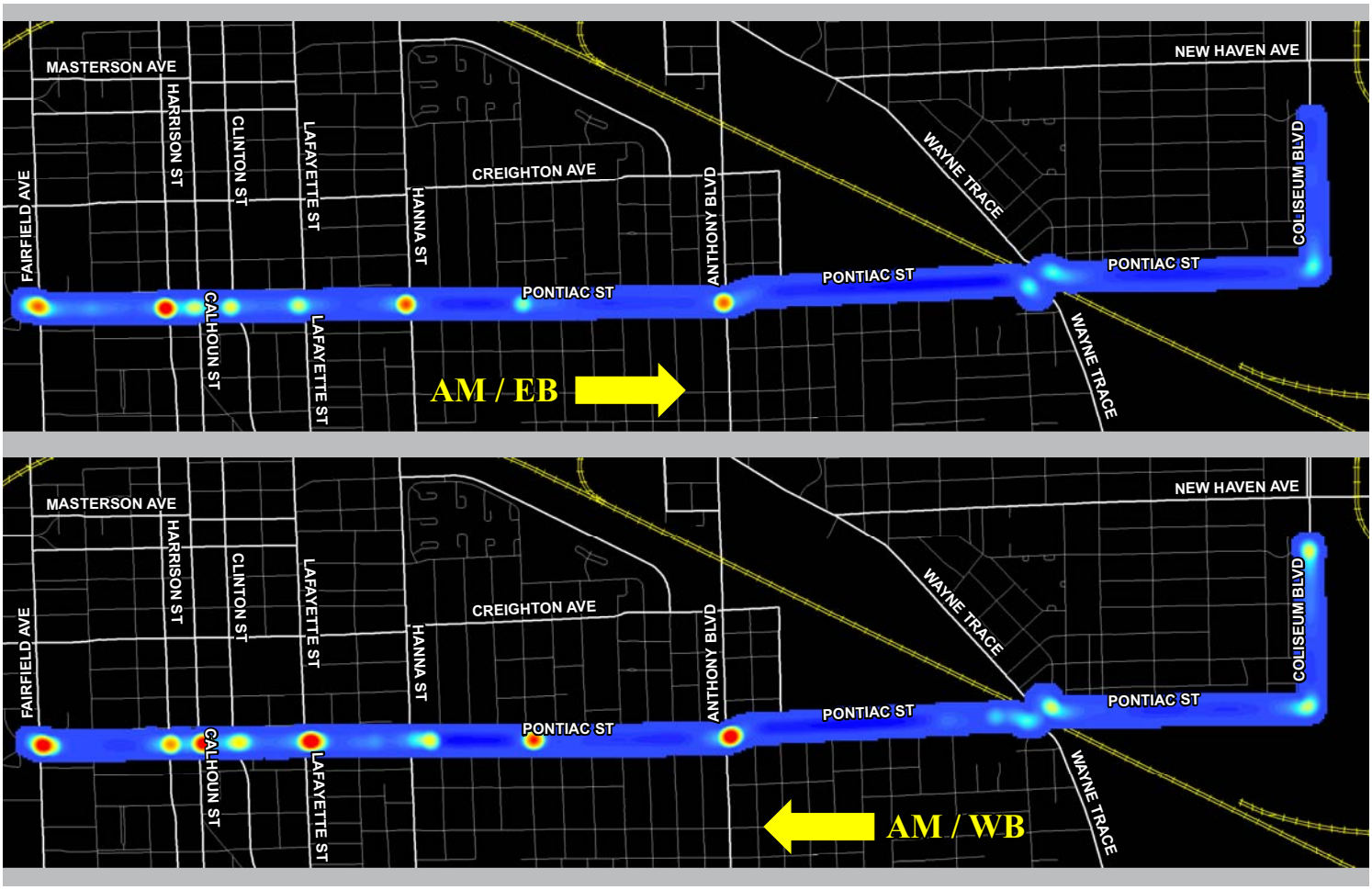


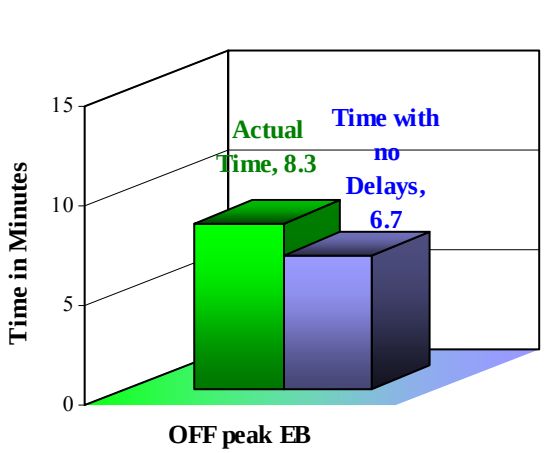
Figure 36

Pontiac Street / Coliseum Boulevard
AM Peak



***Off Peak Travel Times are not shown graphically.**

Travel Time with the Least Amount of delay



Travel Speed with the Least Amount of delay

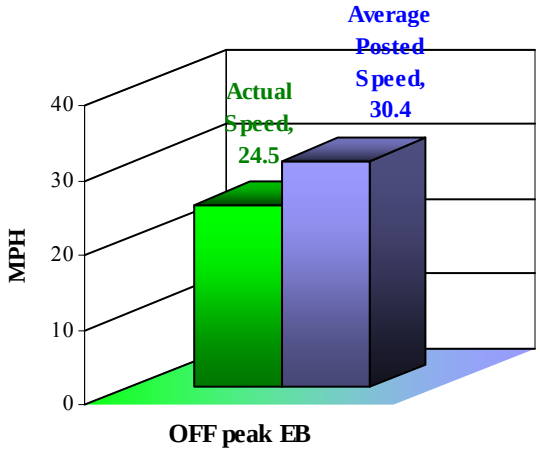
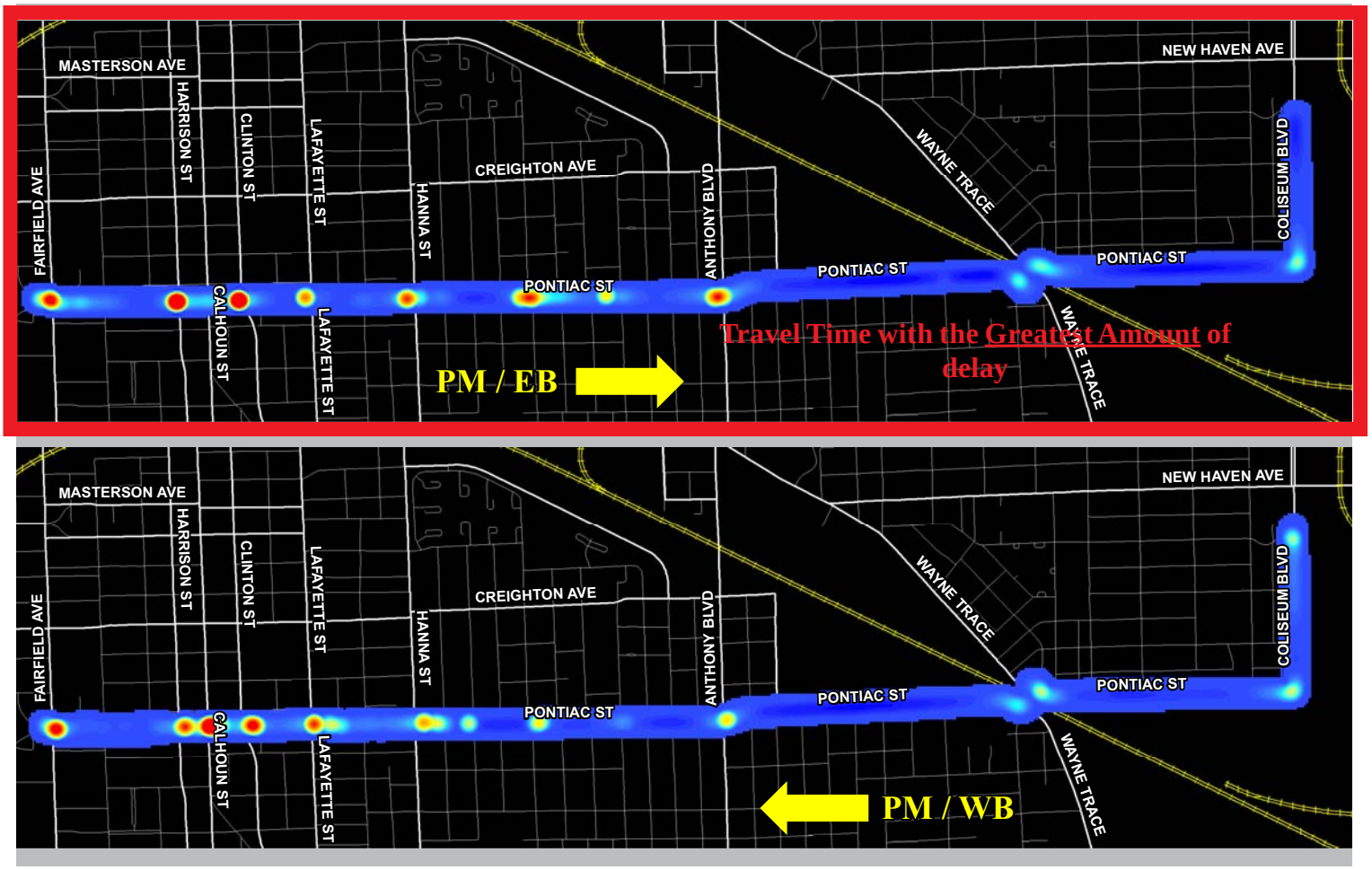
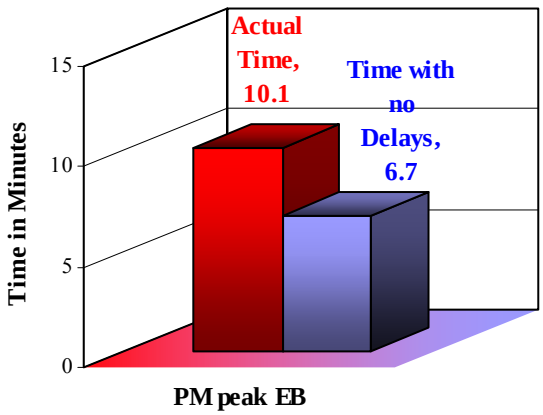


Figure 37

Pontiac Street / Coliseum Boulevard
PM Peak



Travel Time with the Greatest Amount of delay



Travel Speed with the Greatest Amount of delay

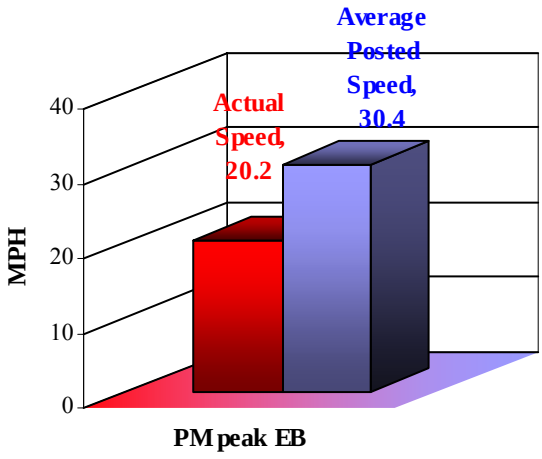
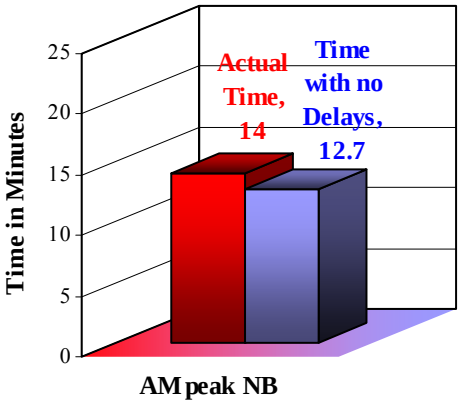


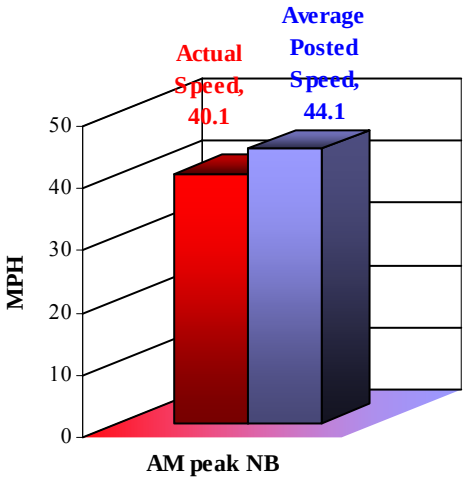
Figure 38

West County Line Road
AM Peak NB

Travel Time with the Greatest Amount of delay



Travel Speed with the Greatest Amount of delay



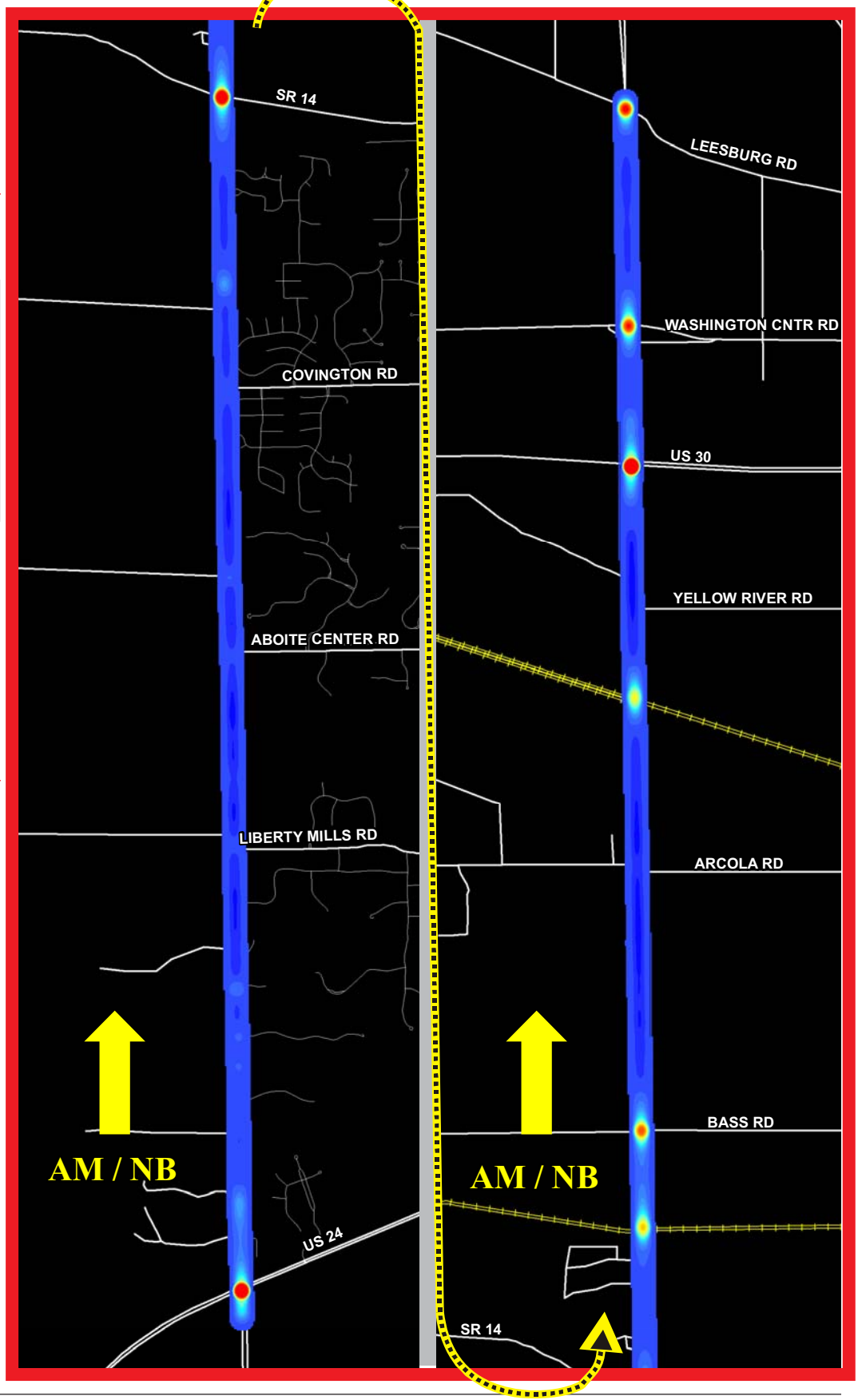


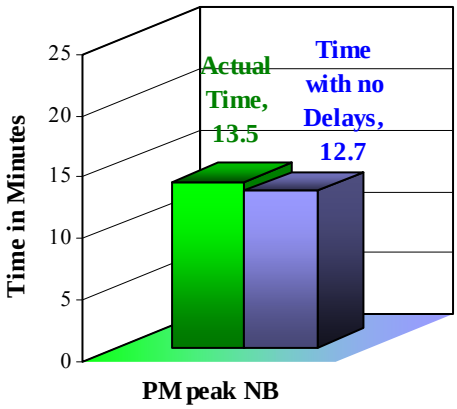
Figure 39

West County Line Road
AM Peak SB

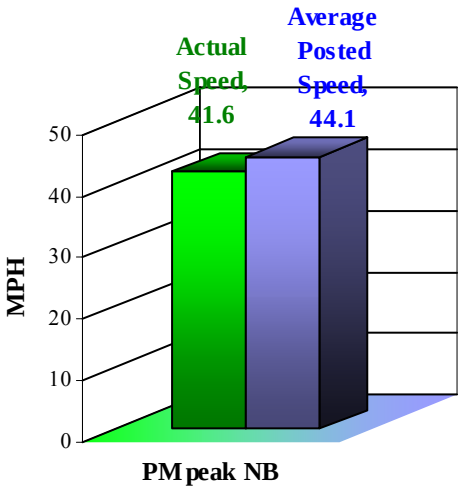
Figure 40

West County Line Road
PM Peak NB

Travel Time with the Least Amount of delay



Travel Speed with the Least Amount of delay



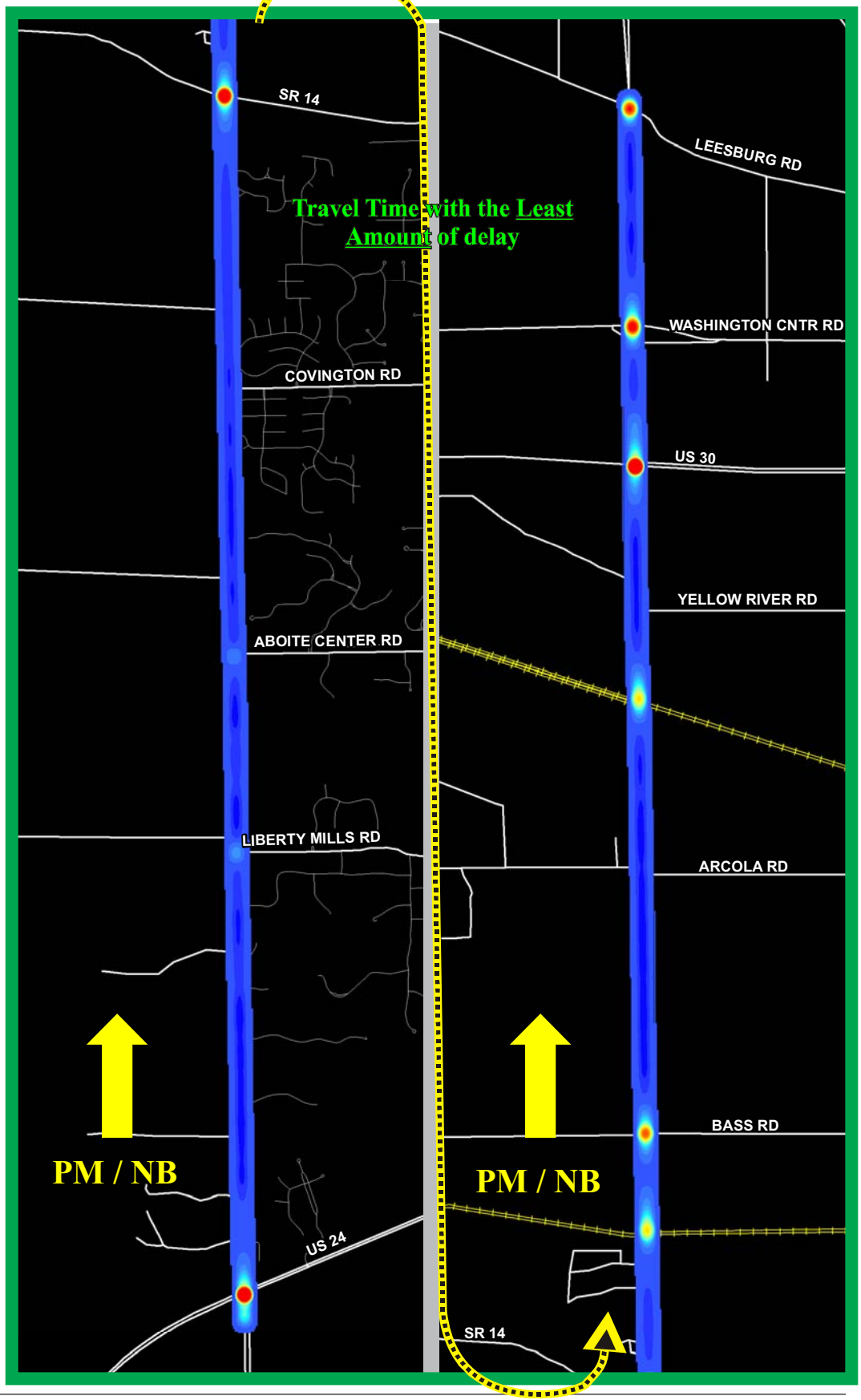


Figure 41

West County Line Road
PM Peak SB

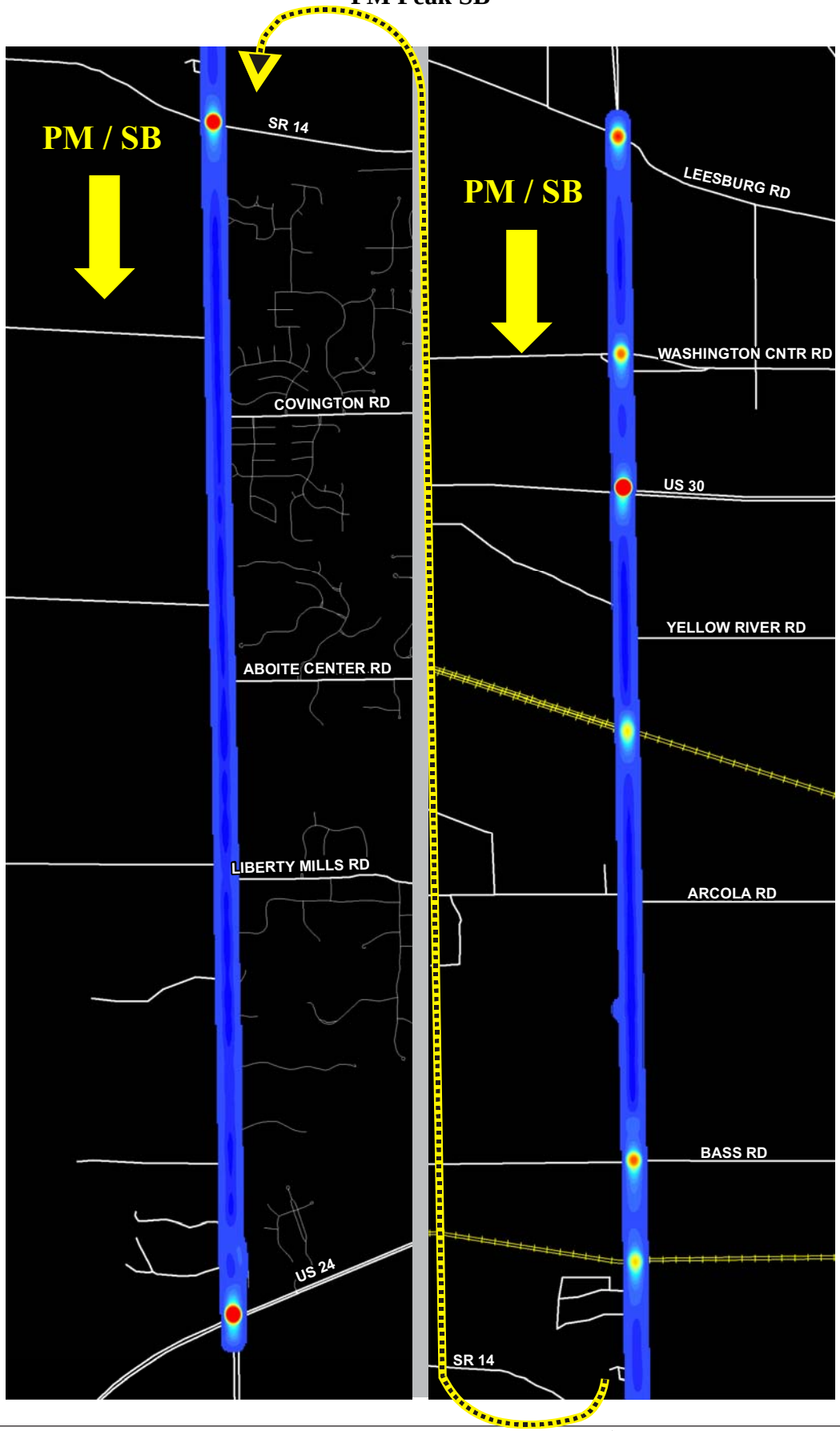
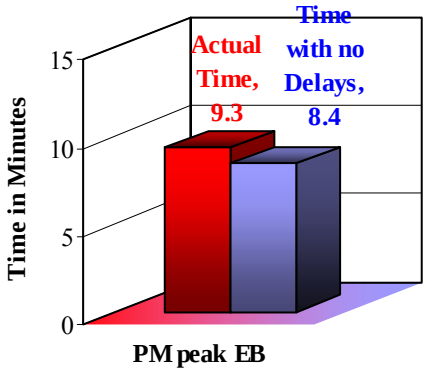


Figure 42

Ferguson Road
AM Peak

Travel Time with the Greatest delay



Travel Speed with the Greatest delay

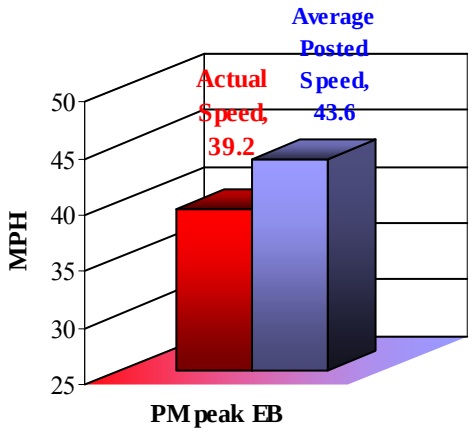
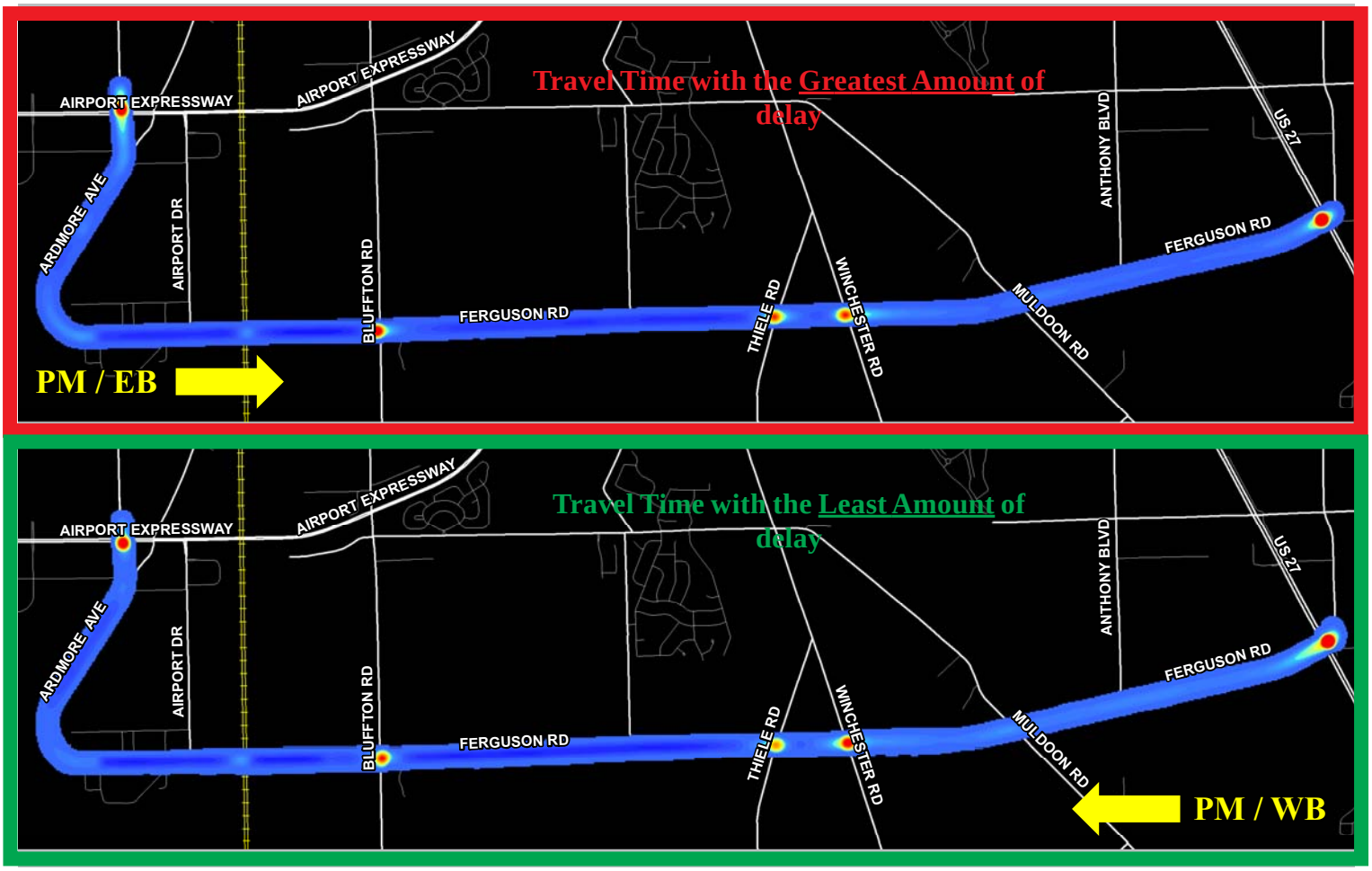
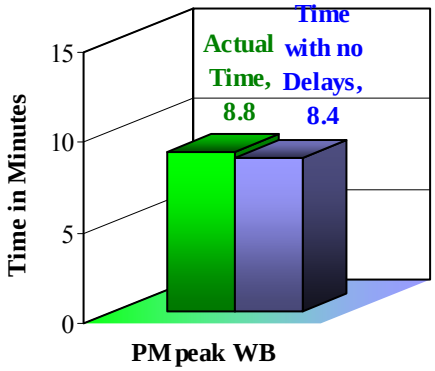


Figure 43

Ferguson Road
PM Peak



Travel Time with the Least delay



Travel Speed with the Least delay

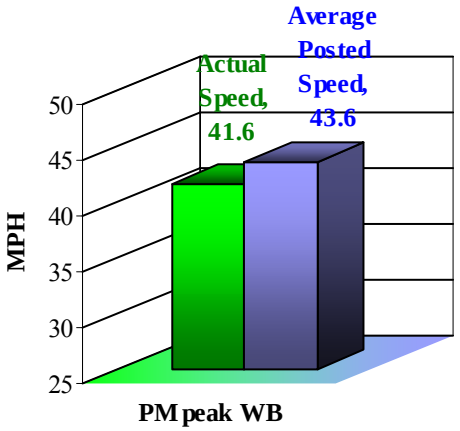
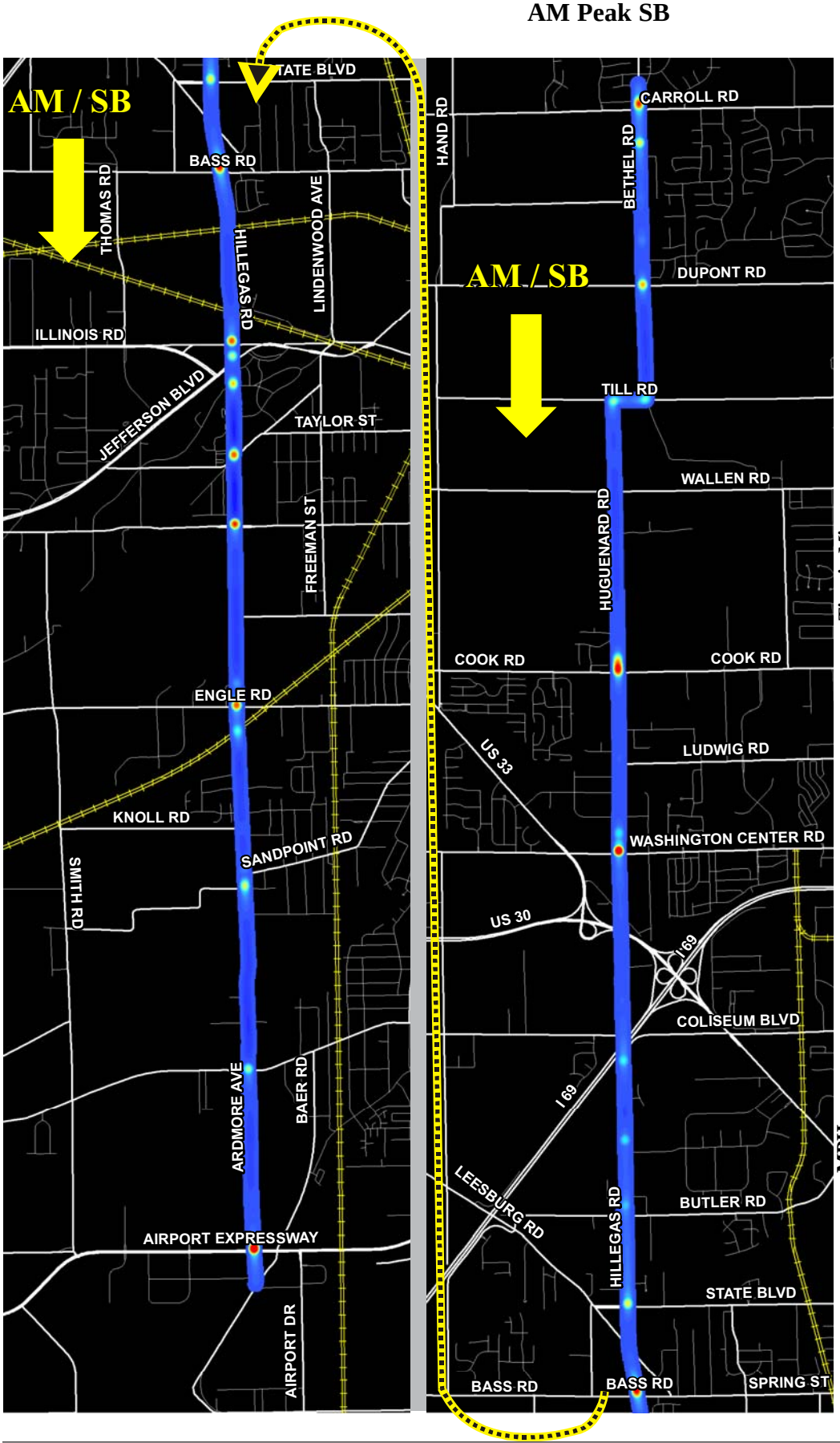


Figure 44

Ardmore Avenue / Hillegas Road / Huguenard Road / Till Road / Bethel Road
AM Peak NB

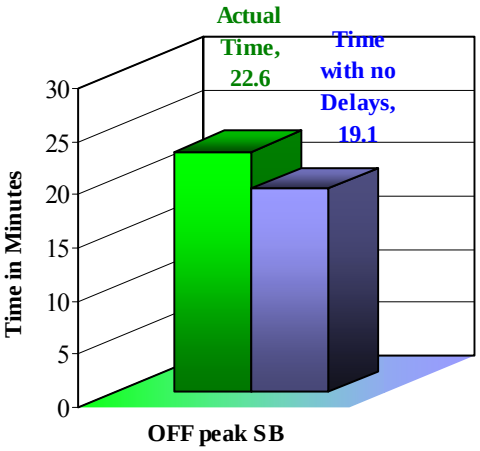
Figure 45

Ardmore Avenue / Hillegas Road / Huguenard Road / Till Road / Bethel Road
AM Peak SB



*Off Peak Travel Times are not shown graphically.

Travel Time with the Least Amount of delay



Travel Speed with the Least Amount of delay

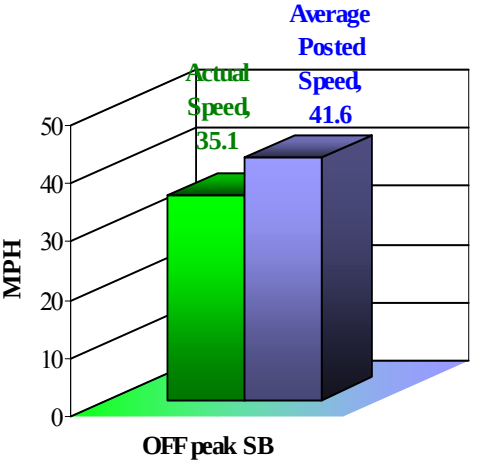
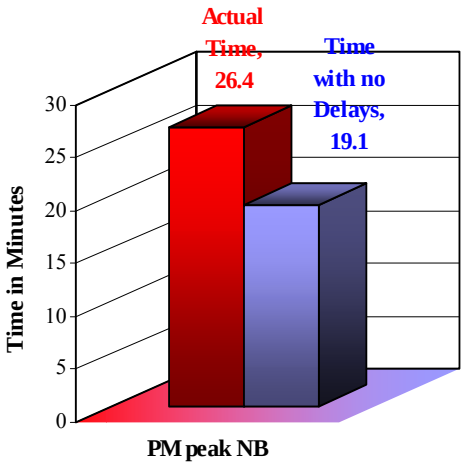


Figure 46

Ardmore Avenue / Hillegas Road / Huguenard Road / Till Road / Bethel Road
PM Peak NB

Travel Time with the Greatest Amount of delay



Travel Speed with the Greatest Amount of delay

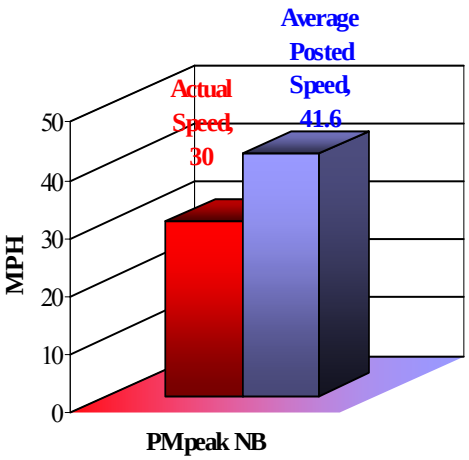


Figure 47

Ardmore Avenue / Hillegas Road / Huguenard Road / Till Road / Bethel Road
PM Peak SB

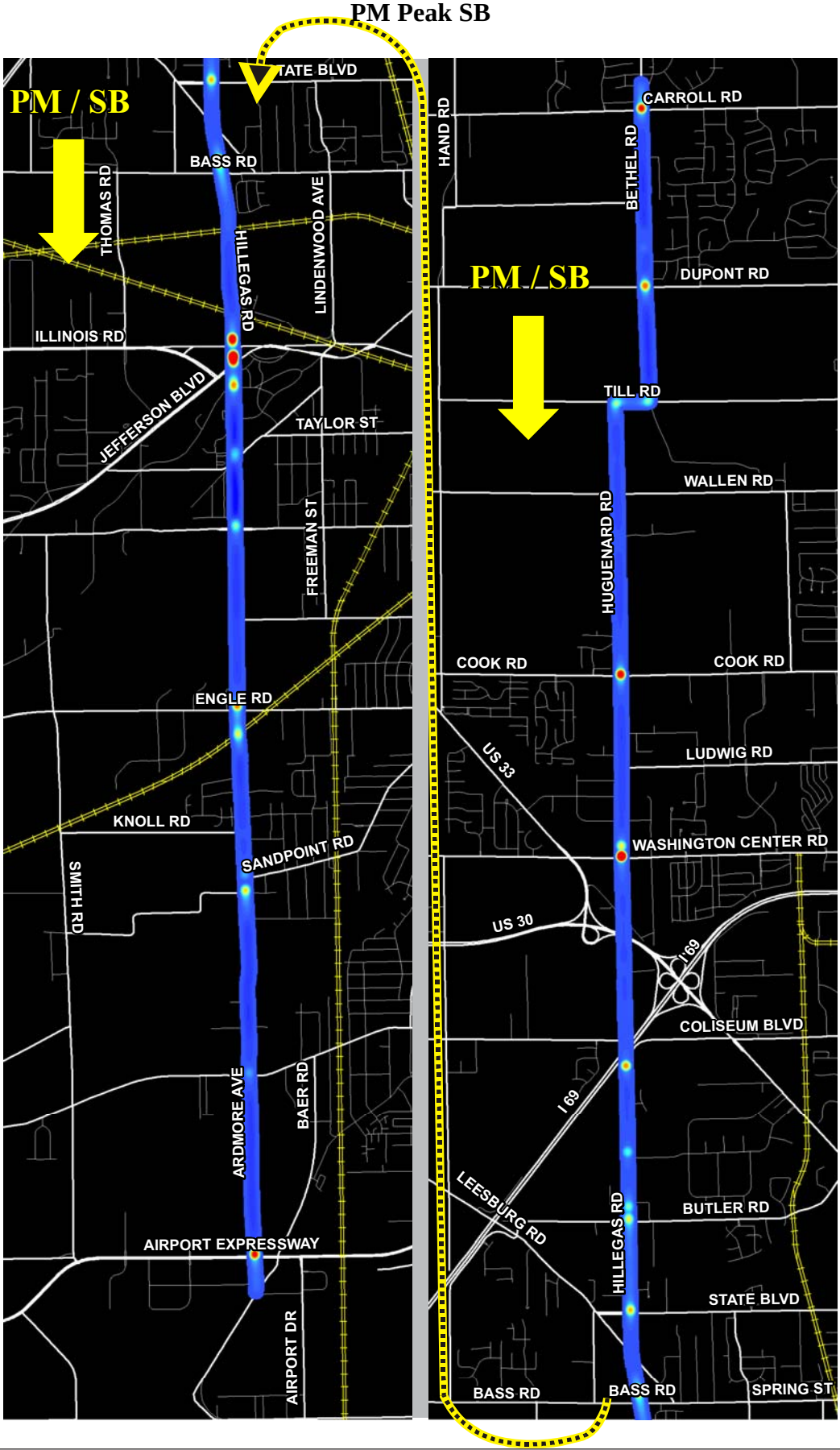
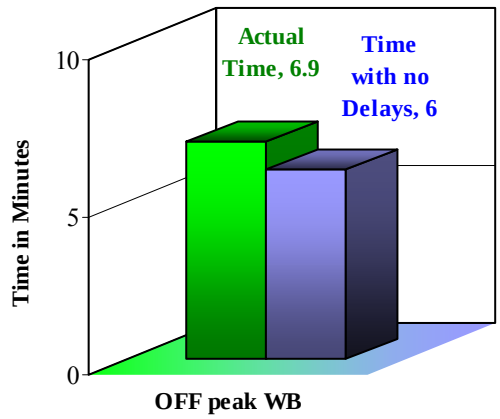


Figure 48

Taylor Street
AM Peak

***Off Peak Travel Times are not shown graphically.**

Travel Time with the Least delay



Travel Speed with the Least delay

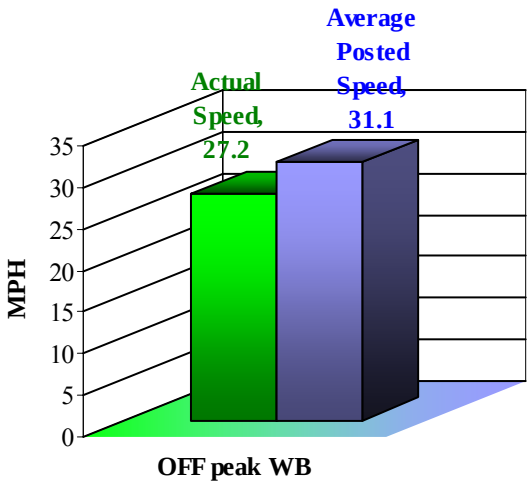
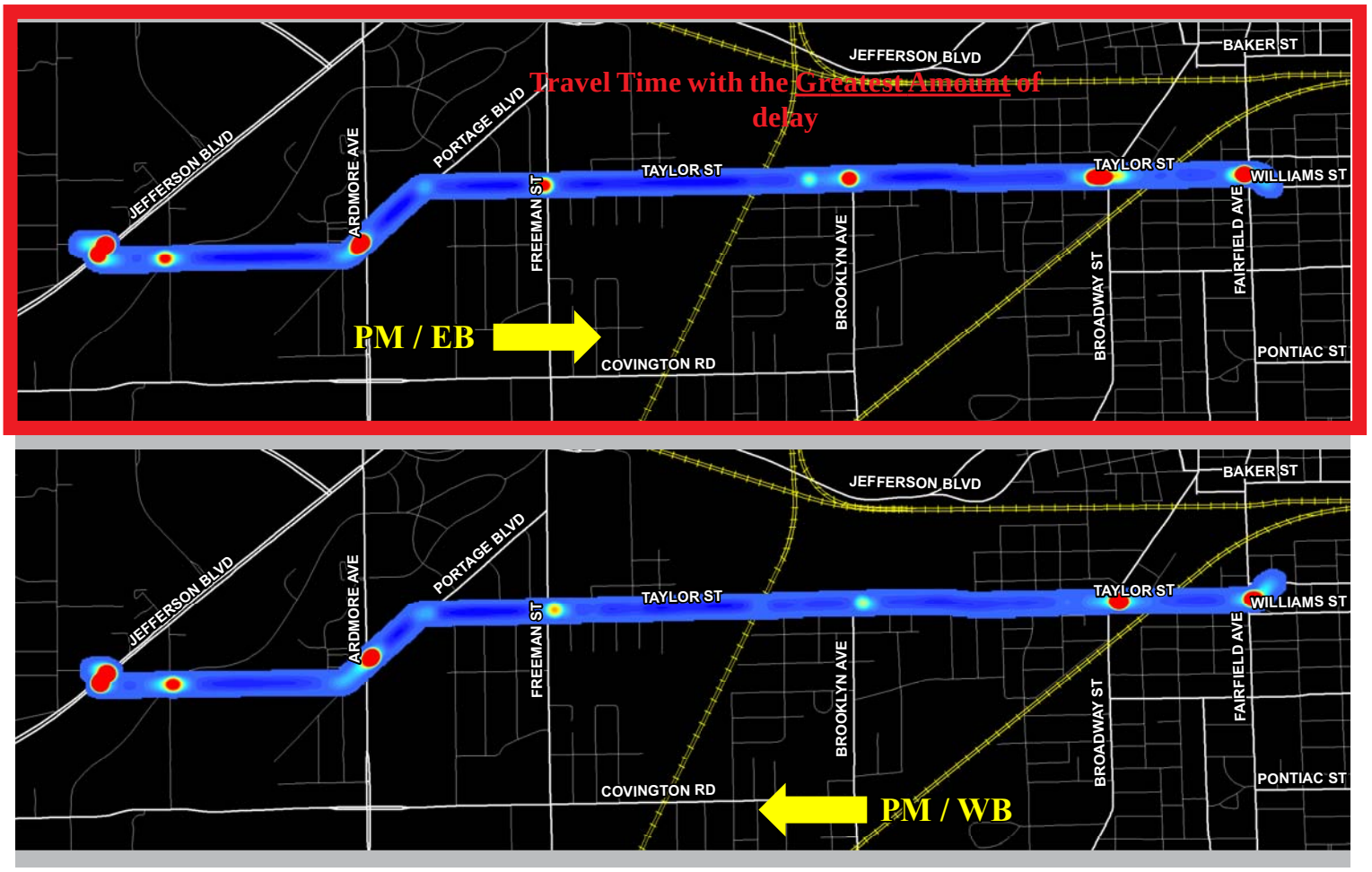
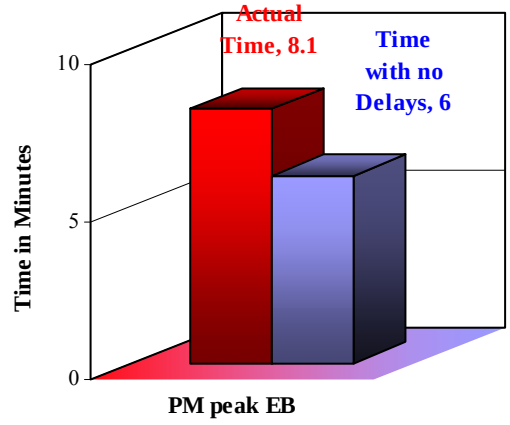


Figure 49

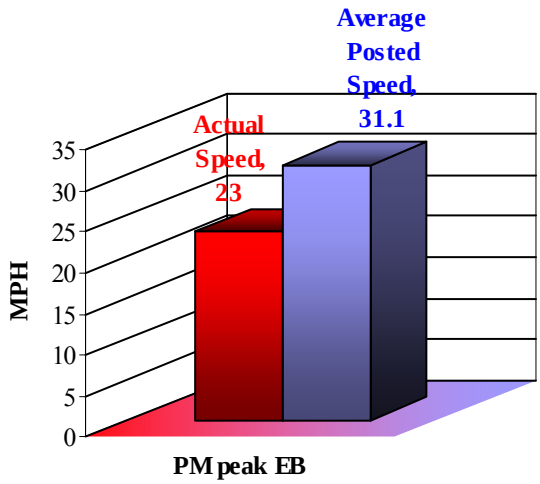
Taylor Street
PM Peak



Travel Time with the Greatest delay



Travel Speed with the Greatest delay



Safety Management System

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2009

SAFETY MANAGEMENT SYSTEM

NIRCC 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.

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.

In fiscal year 2009 NIRCC obtained all crash records that occurred in Allen County during 2008. The data was extracted from the Indiana State Police database ARIES (Automated Reporting Information Exchange System). Staff worked to "code" each crash location with like descriptions to ensure that all crashes occurring at a specific site were grouped together. Crash descriptions were reviewed for spelling and alphabetical order resulting in a listing of crashes that could be summarized to identify a total number of crashes at various geographical points. All crash information is included in the database to aid in various types of analysis. The final summary for each year is provided to local technical representatives to aid in review of locations and to respond to citizen requests for improvements at a location for safety reasons. Officials can review the data provided to determine the crash experience and other variables that may be present.

Staff worked to code all crashes for 2008 within Allen County and input them into the crash database. Once the 2008 crashes where input into the database NIRCC combined them with crash data from 2006 and 2007 to create a three year comparison. These crashes were also input into mapping software to be used with GIS (geographical information systems). Figures 50, 51, and 52 display the densities of crash frequencies for the Fort Wayne, New Haven, and Allen County area.

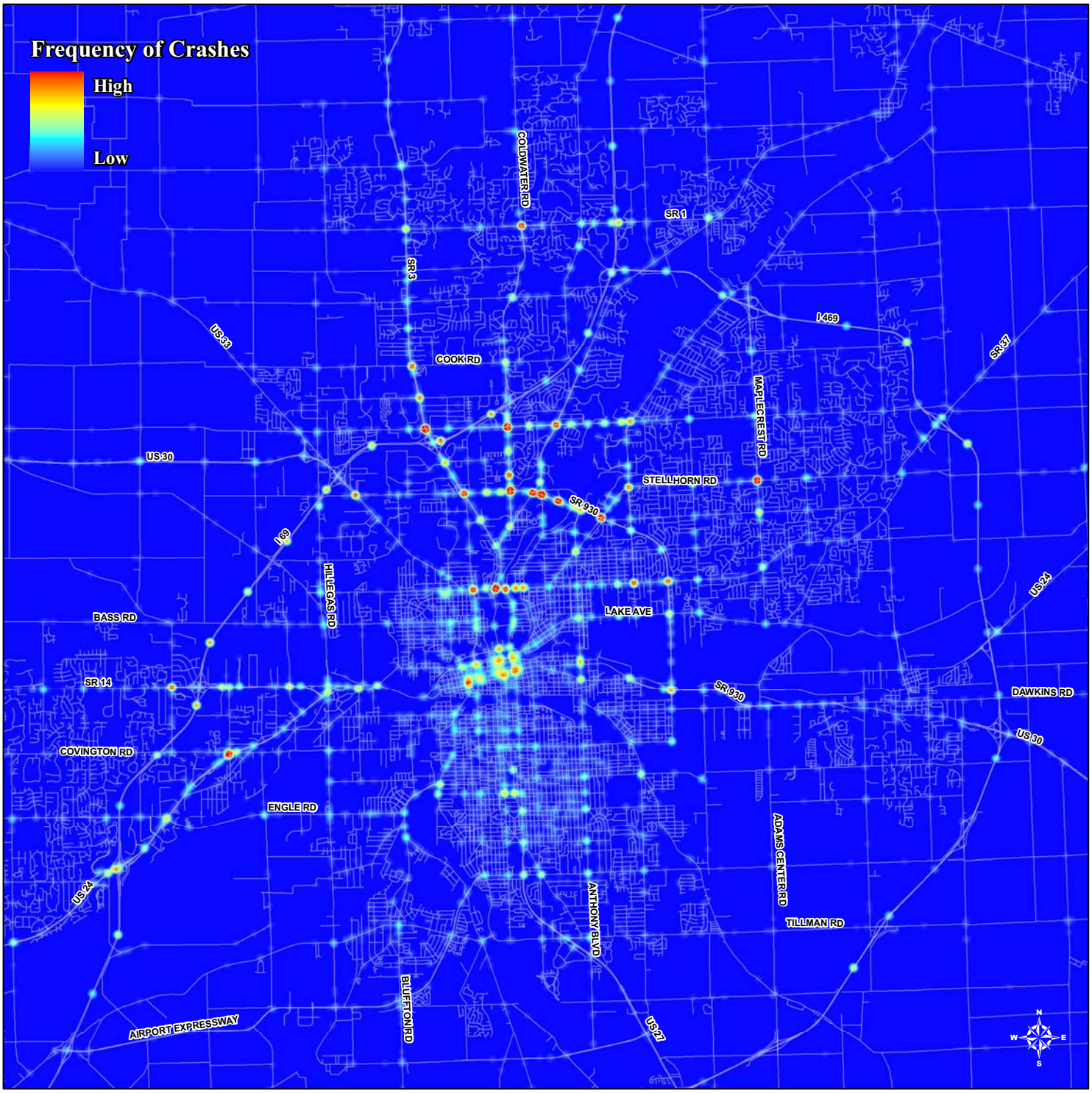
Annual Summary and Listing of Crash Locations

The annual crash record database is first used to provide an annual crash summary report for local jurisdictions (Allen County - all cities and towns, Fort Wayne, and Allen County - outside incorporated areas). The summaries include statistical data that focuses on detailed crash information from the crash reports. The information provides engineers, planners and law enforcement

with a summary of information from the crash reports. The information includes specific data about the circumstances involved with crashes including environmental circumstances, driver information, vehicle information and other important data for all the annual crashes.

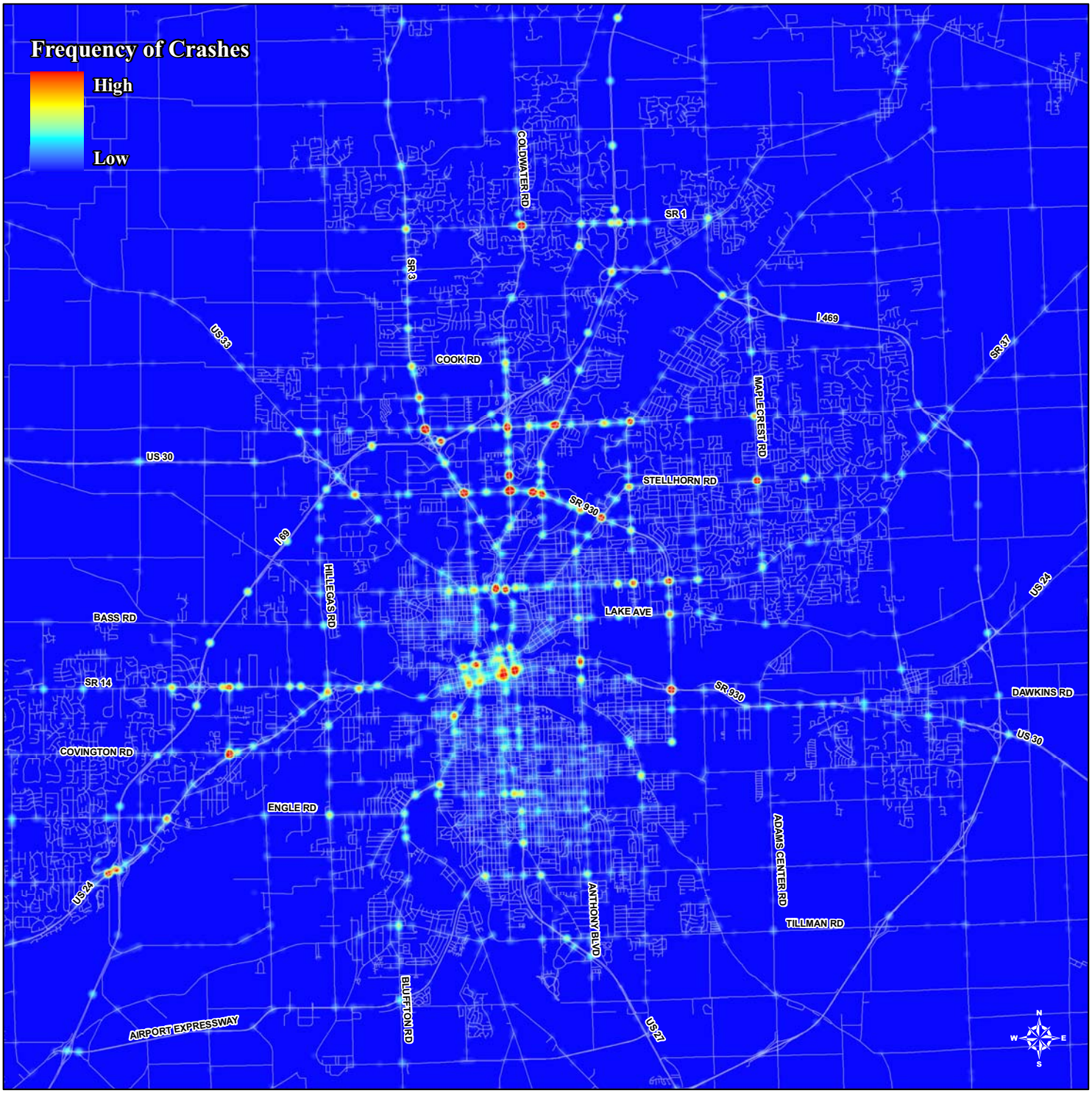
The second product from annual crash data is a summary or listing of the hazardous crash locations from the previous year. Every year staff utilizes two procedures to identify crash locations with a higher frequency of crashes and another for locations

Figure 50 - 2008 Crash Data



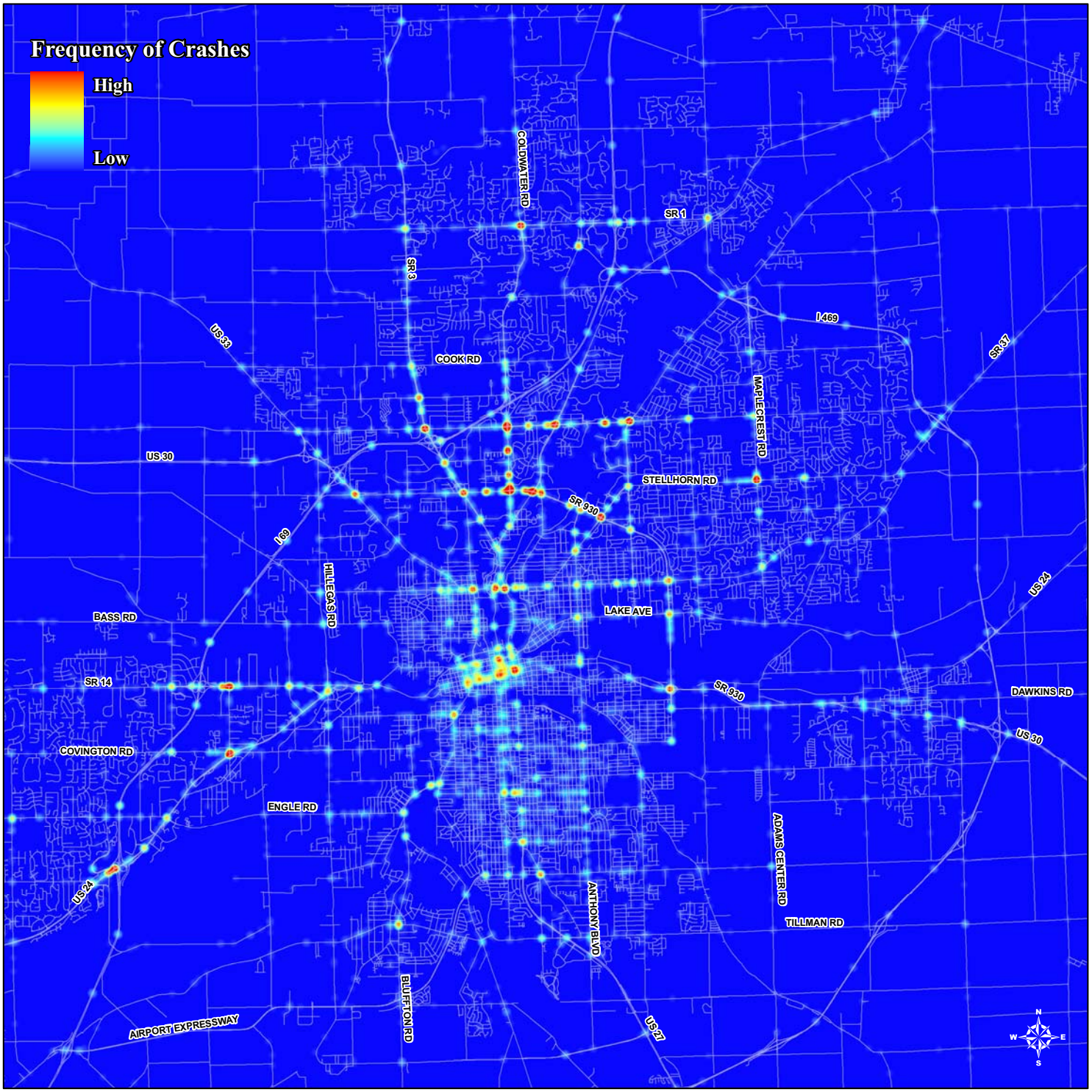
with a lower crash frequency. Identification of crash frequency is provided through use of GIS software that creates buffers around intersection crash locations. The buffers are created using a 250 foot radius around each crash location and grouping all crashes within itself. This process resulted in crash locations that reflect crashes that occurred at approaches to intersections in addition to crashes within an intersection.

Figure 51 - 2007 Crash Data



High frequency crash locations were defined as those with an annual crash frequency greater than or equal to seven (7). Locations identified with this frequency are listed and traffic volumes are applied to each of the locations to determine the RMV (rate per million entering vehicles). The RMV value is then used to sort locations. Locations that have a RMV greater than or equal to 2.00 for one year remain in the listing for further review. Additional locations are also added to the listing of crashes

Figure 52 - 2006 Crash Data



with a frequency greater than or equal to seven (7). Locations with a high crash severity or crash locations that result in a high percentage of injuries or fatalities are included.

Staff reviewed crash locations and recorded the total number of crashes that resulted in injury or fatality. This information was used to determine the percentage of total crashes at each location that were property damage only and the percentage that resulted in injury or fatality. Staff and the Transportation Technical Committee agreed to include any location that experienced an injury or fatality percentage greater than 66% in the annual list for further review.

A process to review crash locations with a lower crash frequency was also established to ensure that locations with a low volume of traffic are not experiencing a consistently high percentage of crashes based on the number of vehicles using a location. The lower crash frequency crashes were also included where the percentage of injury or fatal crashes was higher. Crash locations with an annual crash frequency of 6, 5, 4, or 3 were included in the annual listing of locations for further review if the rate per million entering vehicles was greater than or equal to 1.00 and the percentage of injuries and fatalities exceeded the following thresholds;

Frequency	Percentage of I/F
6	100% to 33 %
5	100% to 40%
4	100% to 50%
3	100 % to 66%

Hazardous Location Identification

In Fiscal Year 2009 staff reviewed all the crash location listings created for 2006, 2007, and 2008 based on the approved process described above. In the past, staff worked with TTC to determine the most accurate manner to identify hazardous locations from data collected for a thee year period. TTC members and staff agreed that crash locations identified annually were not necessarily hazardous unless the location experienced similar patterns over the previous two years. Staff created a listing of locations that met the hazardous criteria for 2006, 2007, and 2008. These locations were then reviewed using HAT (Hazard Analysis Tool) software developed by the Indiana Department of Transportation and Purdue University.

HAT software considers the total number of crashes, traffic volume, total number of injury/fatal crashes, facility type and location type (US Route, State Route, Rural or Urban). The software was developed to compare the number of crashes and severity of the crashes at a location being reviewed to other locations that are similar throughout the state. A crash frequency index and crash cost index is determined with the software to determine if a location is operating above or below what is anticipated. Locations with an index greater than or equal to 1.00 are considered to be operating below an acceptable level.

The final step in identifying the hazardous locations was to determine how to select locations from the listing for further review. Representatives from TTC provided input to staff on methods to screen the final listing of the three years. The first locations selected for further review were those locations that met the criteria for all three years. The second group of locations selected were those that had a crash frequency index and crash cost index greater that 2.00 (twice the acceptable value for the standard deviation) based on the data input in the HAT software.

Staff will review the locations selected to determine the cause of all the crashes and provide collision diagrams to TTC to determine what course of action to take to mitigate crashes at each location. The listing of locations will be updated annually to review trends and previously identified hazardous locations. Additional locations that meet the approved criteria will also be added.

Bicycle and Pedestian Planning

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2009

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 began 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 which met from 2002 to 2007. This forum represented a task force comprised of governmental parks, planning and highway agencies, advocacy groups, and special project organizations. The forum increased the communication and coordination between these groups. In addition, the forum played an integral part in developing and completing the Allen County Comprehensive Bicycle-Pedestrian Transportation Plan in 2006. This plan (shown in figure 53) was included in the 2030 Long Range Transportation Plan and is now included in the newly produced 2030-II Transportation Plan. Since 2007 NIRCC has relied on the Greenway Coalition for guidance as well as governmental and public impute towards bicycle and pedestrian planning. The coalition is also made up of governmental parks, planning and highway agencies, advocacy groups, and special project organizations. The coalition has been meeting since April of 2005. Staff continues to update the plan annually. The plan is also available on the NIRCC website at www.nircc.com.

Throughout the year NIRCC periodically updates the Comprehensive Bicycle and Pedestrian Transportation Plan for Allen County as well as the 2007 Regional Bicycle and Pedestrian Plan for northeast Indiana. Local trail groups are continually planning and completing their trail projects. Also, new opportunities develop and some corridors may need to slightly shift their priorities to create the most practical options for developing a realistic and cost effective bicycle and pedestrian system. This past year NIRCC also updated the long range transportation plan. This gave NIRCC the opportunity to improve and update the Comprehensive Bicycle-Pedestrian Transportation Plan even more since it is a component of the long range transportation plan. The most current plans for Allen County and the region can be seen in Figures 53 and 54.

One of the improvements to the bicycle and pedestrian plan was the prioritization of local planning efforts. NIRCC, along with the Fort Wayne Greenways Manager, asked local trail advocacy groups and governmental agencies to prioritize their planning efforts to give a better idea of what may be accomplished in the next 10 to 15 years. The local advocacy groups and governmental agencies consulted during this process included Aboite New Trails, Greenway Consortium, Little River Wetlands

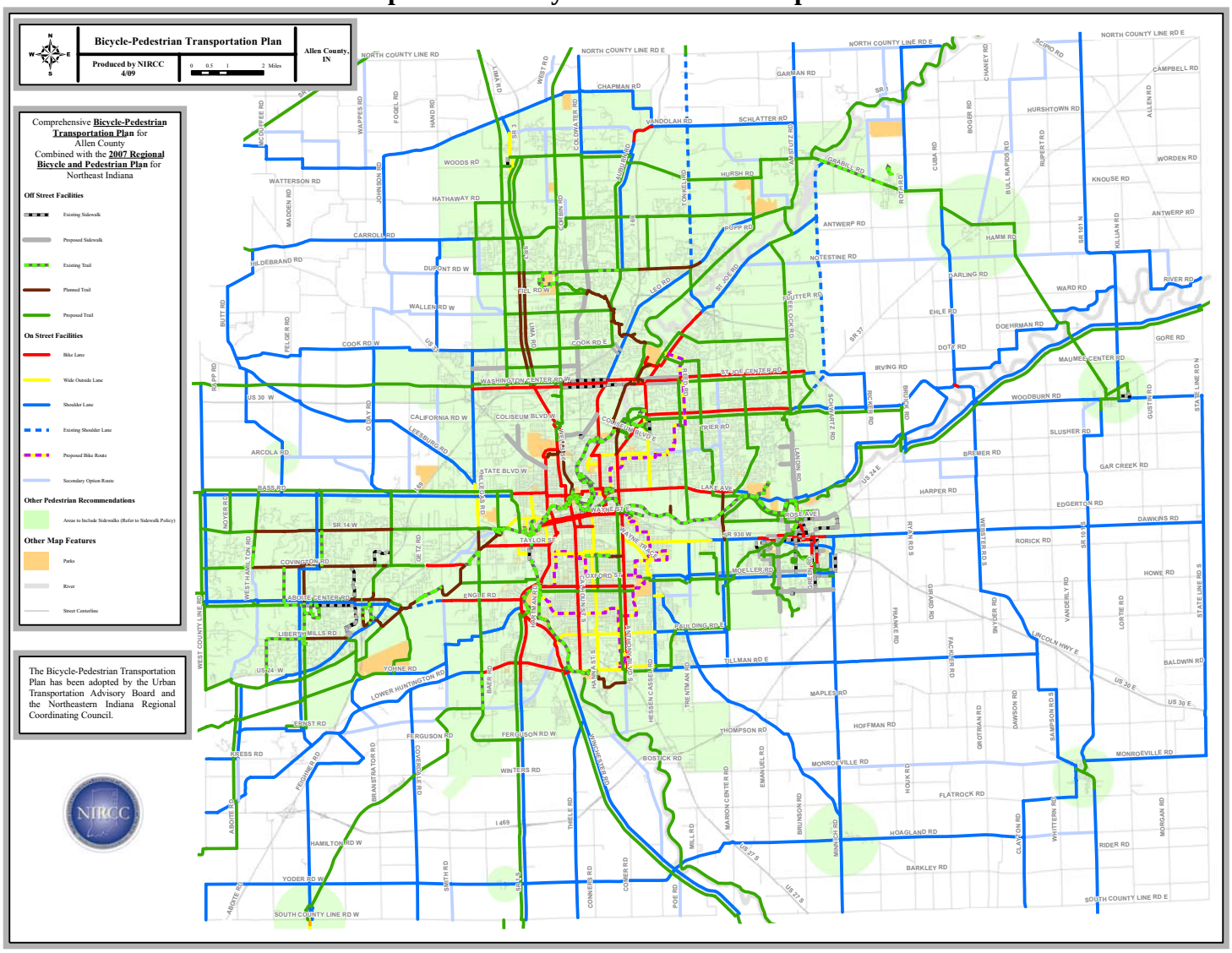
Project, Northwest Allen Trails, City of Fort Wayne, and City of New Haven Parks Department. Figure 55 shows the priorities set by the appropriate group or agency for corridors identified in their plans with a priority level of 1, 2, or 3.

Priority 1 is identified by a dark purple color for the off street facilities and an orange color for the on street facilities. Priority 1 corridors represent the highest priority for local groups or agencies to complete. These trails may already be partly constructed, partially funded, fully funded, and/or design has already begun in some capacity. These are corridors that local groups and governmental agencies are pursuing with completion goals that range from the near future to within the next 10 to 15 years.

Priority 2 corridors, identified in yellow, are the next highest priority. There is currently no funding and/or no design for these proposed corridors. These are corridors that are of significant importance to the local groups and agencies but they are not the

Figure 53

The Comprehensive Bicycle-Pedestrian Transportation Plan



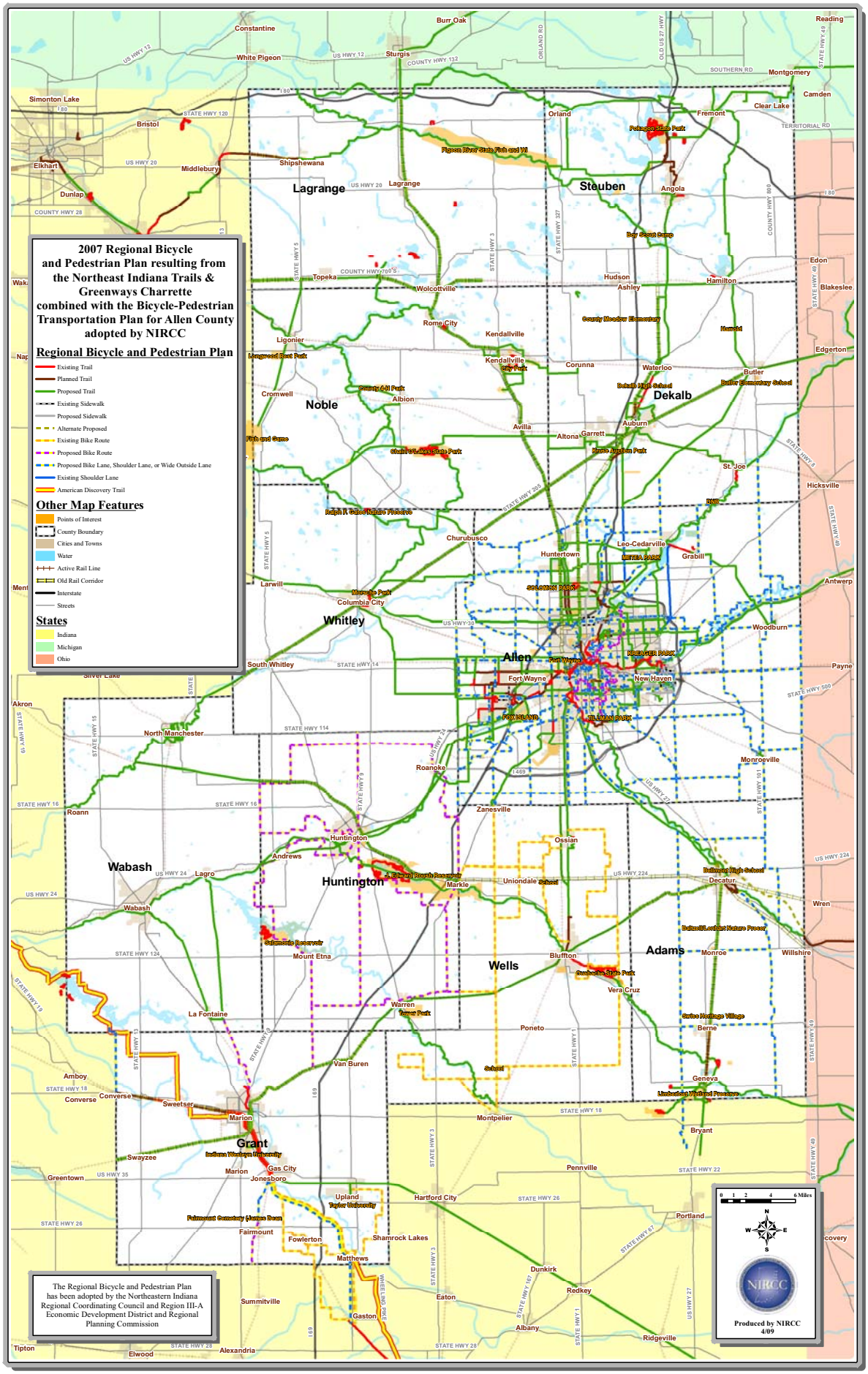
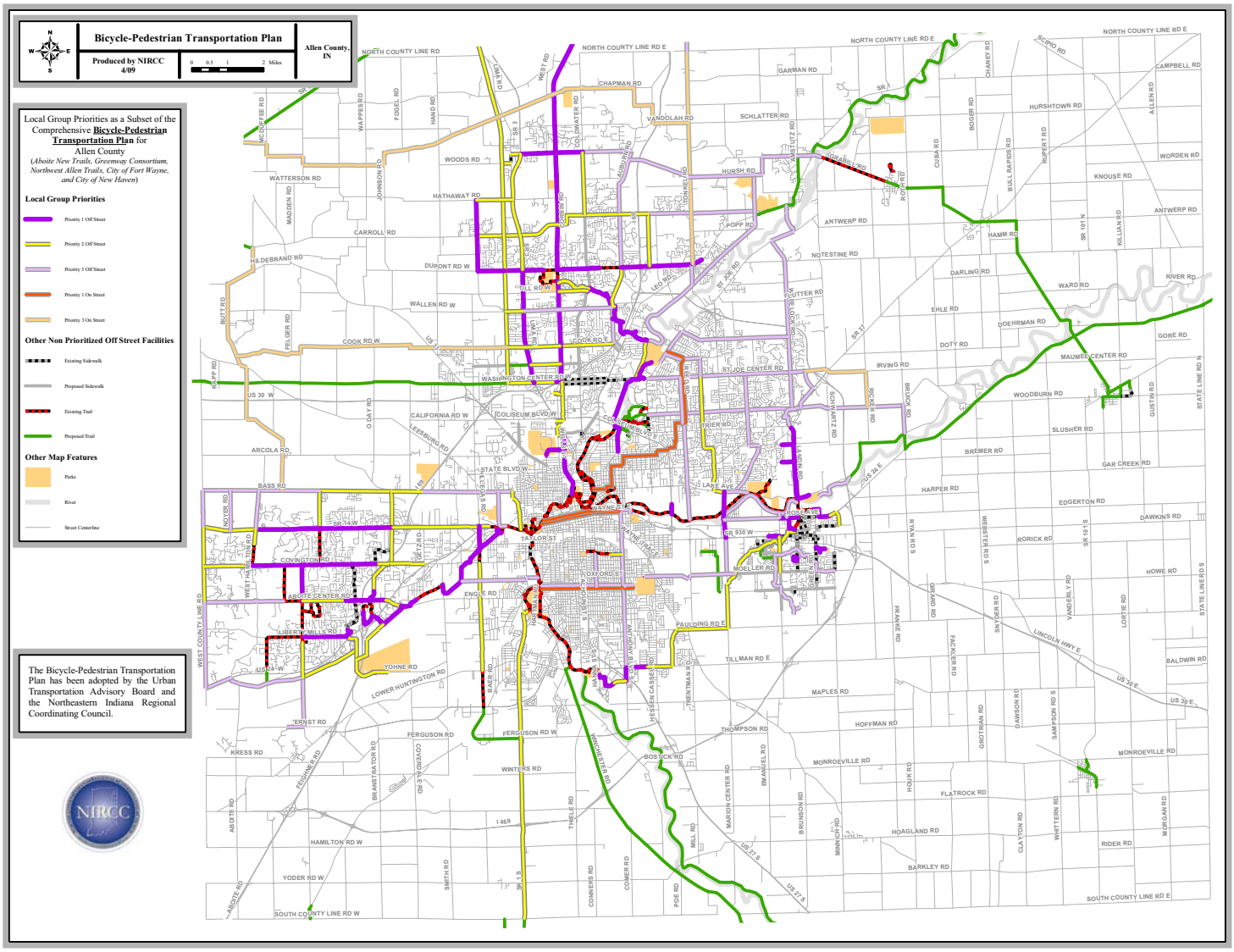


Figure 54

2007 Regional Bicycle and Pedestrian Plan

Figure 55

Local Group Priorities of The Comprehensive Bicycle-Pedestrian Transportation Plan



current focus of their efforts. These are corridors that will likely be identified as priority 1 once some of the current priority 1 projects are complete.

Priority 3 corridors, identified by the light purple color for the off street facilities and the light orange color for the on street facilities, are the lowest priority. These corridors are more conceptual in nature. These corridors are identified on local group and governmental agency plans but there is no foreseeable source of funding for completing them. If opportunities arise, these are corridors that may change in priority levels. At this point these corridors are not being actively pursued.

This past fiscal year NIRCC has participated in two planning efforts lead by the City of Fort Wayne. NIRCC staff is on the Bicycle Planning Team which is charged with developing a bike plan for the City of Fort Wayne and the Sidewalk Planning Team which is charged with developing the Comprehensive Connectivity Sidewalk Plan for the City of Fort Wayne.

The bike plan that the Bicycle Planning Team is working on will set goals for implementing bicycle infrastructure throughout the next 10 years. The bike plan, for the most part, utilizes corridors identified on NIRCC's Bicycle-Pedestrian Transportation Plan to help plan and prioritize these types of improvements. Two corridors from NIRCC's plan have been identified as pilot projects for bike lane improvements to be constructed in 2009/2010. These two corridors seen in figure 56 are the Wayne Street and Berry Street corridors and the Rudisill Boulevard Corridor.

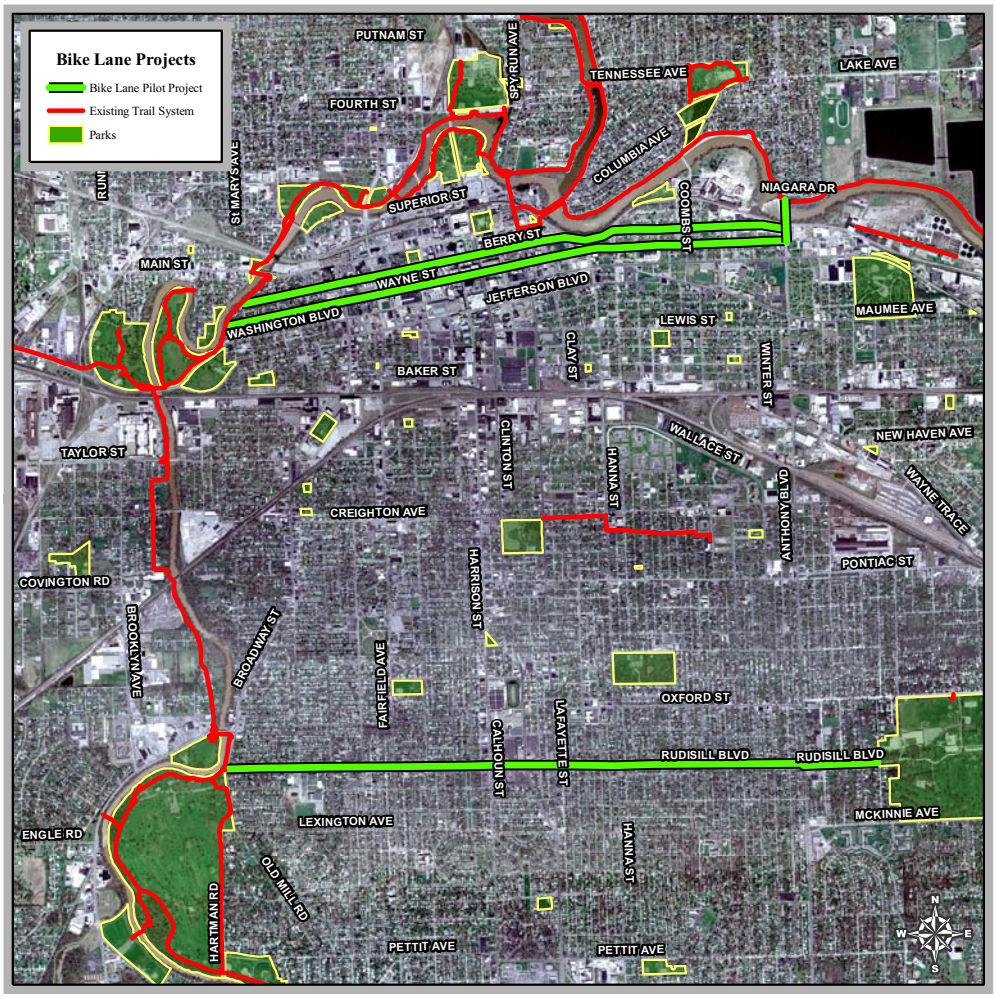


Figure 57

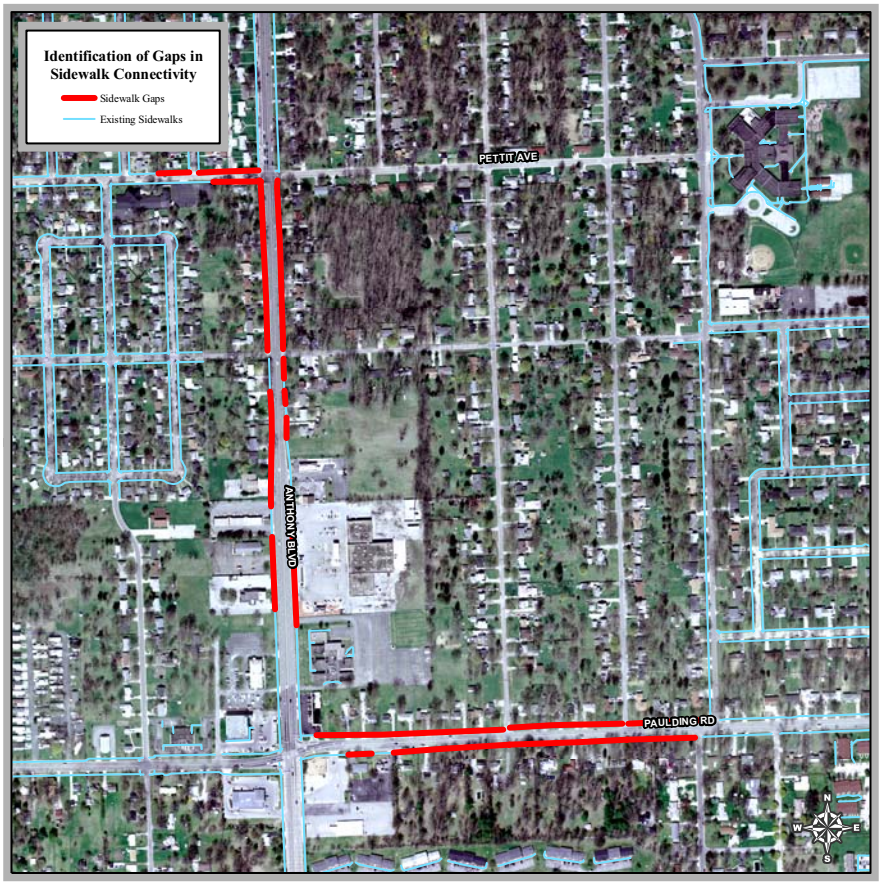


Figure 56

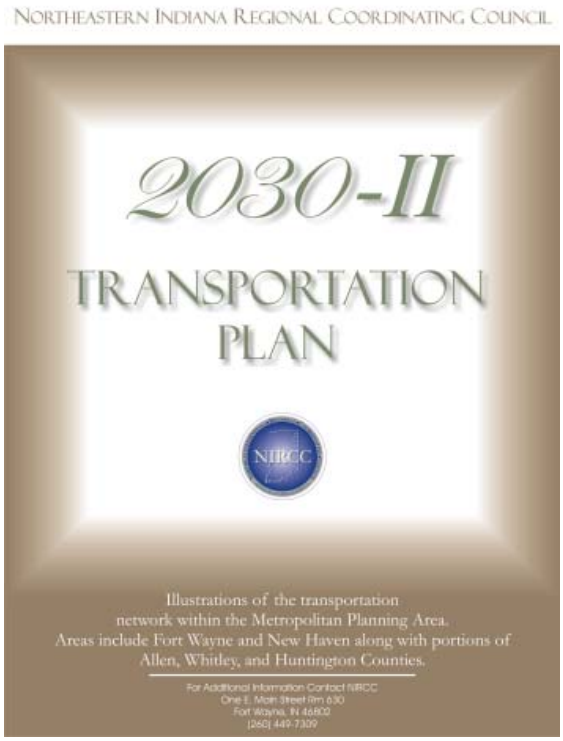
The Fort Wayne Comprehensive Sidewalk Connectivity Plan being developed by the Sidewalk Planning Team is a 10 year plan that will provide guidance on how and where to fill in sidewalk gaps along Fort Wayne's arterial and collector roadways, through the use of new sidewalks and shared-use paths. The plan will prioritize pedestrian capital improvements within the city of Fort Wayne. Some of the tools being utilized to help facilitate this process are the sidewalk inventory created by NIRCC and the sidewalk gap inventory created by NIRCC and the Fort Wayne Planning Department. An example of these two tools can be seen in figure 57.

2030-II Transportation Plan

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2009

2030-II TRANSPORTATION PLAN



Every four years the Northeastern Indiana Regional Coordinating Council (NIRCC) updates the long-range transportation plan. The long-range plan is a comprehensive transportation plan that addresses the future needs of the transportation system for at least the next 20 years. As changes occur in the Fort Wayne-New Haven-Allen County Metropolitan Planning Area, the transportation system must be improved to respond to new and increasing travel demands. As part of the plan we make recommendations on all modes of transportation. Recommendations included improvements to the Highway network, Transit system, and Bicycle/Pedestrian facilities. The policies and projects were selected on their potential for mitigating congestion and improving mobility throughout the metropolitan area. A safe and efficient transportation system is the primary goal of the recommended plan.

In fiscal year 2009 NIRCC created the 2030-II Transportation Plan. The entire plan can be downloaded or viewed on NIRCC's website at nircc.com. Also, NIRCC printed a new brochure featuring the 2030-II Transportation Plan. Copies of the new brochure are available upon request. A downloadable version is available on NIRCC's website as well.

The following three sections give a brief summary of the main components included in the 2030-II Transportation Plan. These sections include the Highway Network, Transit System, and the Bicycle-Pedestrian Transportation Plan. A project list is also included in the section labeled "Highway Network".

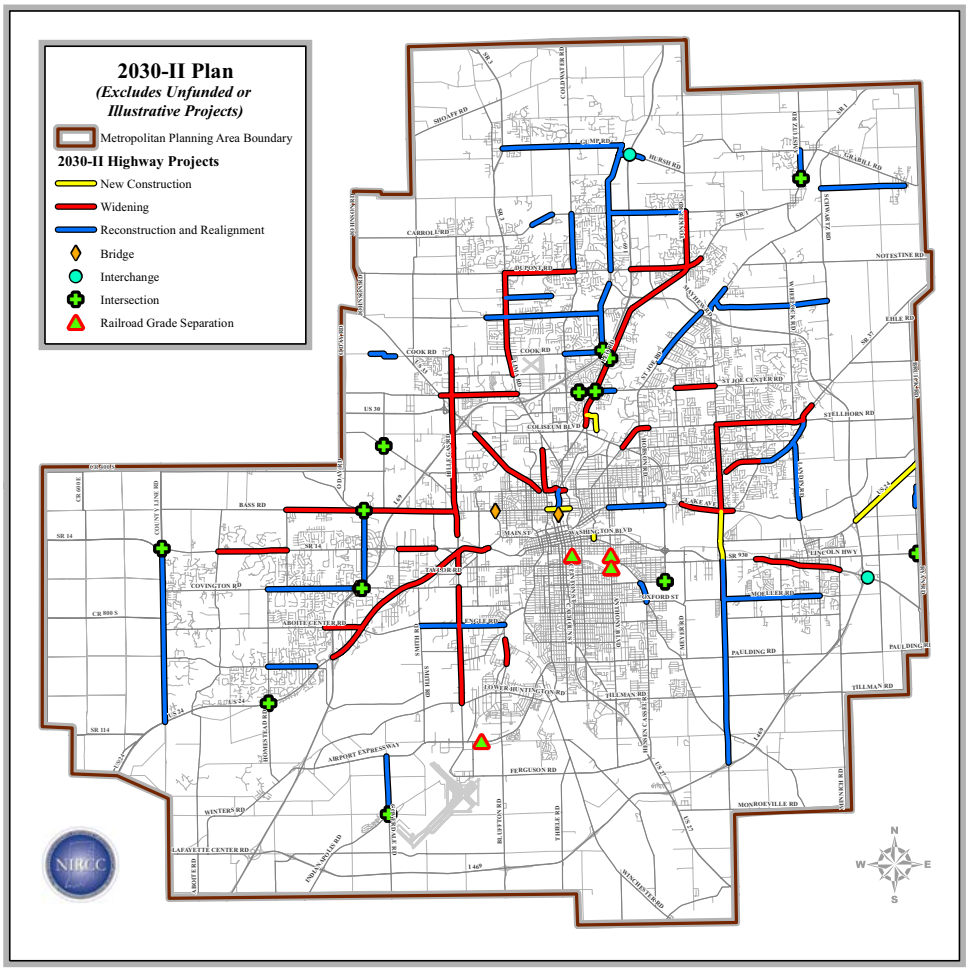


Figure 58

Highway Network

The highway network component of the plan is a comprehensive list of transportation projects and policies carefully developed to meet future travel demands. The projects (figure 58) fit into four categories; New Construction, Widening, Congestion Management, and Other Highway Improvements. New construction projects enhance the mobility of drivers in areas that become increasingly important as the community grows. Widening projects improve the accessibility of the area, add to street continuity and provide relief in congested areas. Congestion Management Strategies include improvements aimed at maximizing existing highway capacity. Other highway improvements includes the construction and reconstruction of railroad

grade separations, interchange construction and modifications, and the Congressional high priority corridor improvement for US 24 between Fort Wayne and Toledo (Fort to Port).

A more efficient system allows the traveler to take a quicker route reducing vehicle miles of travel, air pollution, energy consumption and travel delay. Relieving congestion also equates to a reduction in accident potential and improved air quality. The improvement projects will increase mobility and accessibility for transit, freight movement, and passenger vehicles. The projects will also establish a consistent roadway design reducing motorist confusion and improving traffic flow. The following three pages provide a list of projects included in the 2030-II Transportation Plan.

2030-II Transportation Plan Projects

Project Time Periods
Time Period 1 - 2010-2019
Time Period 2 - 2020-2030

New Construction
1 Coombs Street - Maumee Avenue to Wayne Street
1 Maplecrest Road - Lake Avenue to State Road 930
1 Paul Shaffer Drive - California Road to Clinton Street
1 Spring Street - Wells Street to Spy Run Avenue

Widening Projects - six lanes
2 Clinton Street - Parnell Avenue to Auburn Road
1 Crescent Avenue - Sirlin Drive to Coliseum Boulevard
2 Illinois Road - Getz Road to Thomas Road
1 Jefferson Boulevard - Illinois Road South to Main Street
2 Jefferson Boulevard - Interstate 69 to Illinois Road South
1 State Road 3/Lima Road - Ludwig Road to Dupont Road

Widening Projects - four lanes
2 Adams Center Road - State Road 930 to Moeller Road
1 Aboite Center Road - Coventry Lane to Jefferson Boulevard
1 Ardmore Avenue - Jefferson Boulevard to Taylor Street
1 Ardmore Avenue - Covington Road to Engle Road
2 Ardmore Avenue - Engle Road to Lower Huntington Road
1 Bass Road - Hillegas Road to Scott Road
2 Bluffton Road - Winchester Road to Old Trail Road
1 Clinton Street - Auburn Road to Wallen Road
2 Clinton Street - Wallen Road to Dupont Road/State Road 1
1 Dupont Road - Coldwater Road to Lima Road/State Road 3
2 Goshen Avenue - State Boulevard to Coliseum Boulevard/State Road 930
1 Hillegas Road - s/o Bass Road to Washington Center Road
2 Huguenard Road - Washington Center Road to Cook Road
2 Lake Avenue - Reed Road to Maysville Road
1 Maplecrest Road - Lake Avenue to State Boulevard
1 Maysville Road/Stellhorn Road - Maplecrest Road to Koester Ditch
2 State Boulevard - Maysville Road to Georgetown North Boulevard
1 State Boulevard - Spy Run Avenue to Clinton Street
1 State Boulevard - Clinton Street to Cass Street
1 State Road 1/Dupont Road - Interstate 69 to Tonkel Road
1 State Road 14/Illinois Road - Scott Road to West Hamilton Road
1 State Road 930 - Minnich Road to Brookwood Drive

2030-II Transportation Plan Projects Continued...

Project Time Periods
Time Period 1 - 2010-2019
Time Period 2 - 2020-2030

Widening Projects - four lanes
2 Tonkel Road - Dupont Road/State Road 1 to Union Chapel Road
1 Washington Center Road - Lima Road/State Road 3 to US 33
2 Wells Street - State Boulevard to Fernhill Avenue

Center Turn Lane Improvement
1 Auburn Road - Cook Road to Interstate 469 Exit Ramp
1 Auburn Road - Dupont Road to Hursh Road
1 Coldwater Road - Mill Lake Road to Union Chapel Road
1 Cook Road - Auburn Road to Coldwater Road
1 Covington Road - Scott Road to Homestead Road
2 Covington Road - Interstate 69 to Scott Road
2 Engle Road - Bluffton Road to Smith Road
1 Gump Road - State Road 3 to Coldwater Road
1 Gump Road - Coldwater Road to Auburn Road
1 Hadley Road - Illinois Road/State Road 14 to Bass Road
2 Hadley Road - Illinois Road/State Road 14 to Covington Road
2 Liberty Mills Road - Falls Drive to Homestead Road
1 Maysville Road - State Boulevard to Stellhorn Road
1 Saint Joe Center Road - Clinton Street to River Run Trail
2 Saint Joe Road - Evard Road to Mayhew Road
2 Saint Joe Road - Maplecrest Road to Eby Road
1 Union Chapel Road - Auburn Road to Tonkel Road
1 Wayne Trace - Oxford Street to Pontiac Street

Turn Lane Extension
1 Jefferson Boulevard - Interstate 69 Ramp to Lutheran Hospital Entrance

Bridge Reconstruction/Modification
1 Covington Road over Interstate 69
1 Spring Street Bridge over Norfolk Southern Railroad
1 US 27/Clinton Street Bridge over Saint Mary's River w/Pedestrian Treatment

Intersection Reconstruction
1 Auburn Road and Cook Road/Auburn Road and Clinton Street
1 Clinton Street and Washington Center/Saint Joe Center Road
1 Coliseum Boulevard and Pontiac Street Intersection
1 Coverdale Road, Winters Road and Indianapolis Road
1 Covington Road and Dicke Road/Covington Road and Hadley Road
1 Dartmouth Drive and Washington Center Road
1 Flaugh Road and Leesburg Road
1 Hadley Road, Bass Road and Yellow River Road
2 Homestead Road and US 24
2 Ryan Road and Dawkins Road
1 State Road 1/Leo Road and Amstutz Road
1 State Road 14/Illinois Road and Allen/Whitley County Line Road

2030-II Transportation Plan Projects Continued...

Project Time Periods
Time Period 1 - 2010-2019
Time Period 2 - 2020-2030

Reconstruction and Realignment
1 Adams Center Road - State Road 930 to Interstate 469
2 Allen County/Whitley County Line Road - US 24 to State Road 14
1 Amstutz Road - Hosler Road to State Road 1/Leo Road
1 Carroll Road - w/o Corbin Road to Corbin Road
2 Cook Road - Fritz Road to O'Day Road
1 Coverdale Road - Indianapolis Road to Airport Expressway
1 Flutter Road - Schwartz Road to Saint Joe Road
2 Lake Avenue - Anthony Boulevard to Coliseum Boulevard
1 Landin Road - North River Road to Maysville Road
1 Maplecrest Road - State Boulevard to s/o Stellhorn Road
1 Moeller Road - Green Road to Hartzell Road
2 Moeller Road - Hartzell Road to Adams Center Road
2 Ryan Road - Harper Road to Bremer Road
2 Saint Joe Center Road - Reed Road to Maplecrest Road
1 Till Road - Lima Road to Dawson Creek Boulevard
2 Wallen Road - Hanauer Road to Auburn Road
1 Witmer Road/Second Street - Page Road to Main Street
1 Witmer Road - Schwartz Road to Page Road
1 US 27/Clinton Street - State Boulevard to Elizabeth Street

New Railroad Grade Separation
2 Airport Expressway and Norfolk Southern Railroad
1 Anthony Boulevard and Norfolk Southern Railroad

Reconstruct Railroad Grade Separation
1 Anthony Boulevard and CSX Railroad
2 US 27/Lafayette Street and Norfolk Southern/CSX Railroads

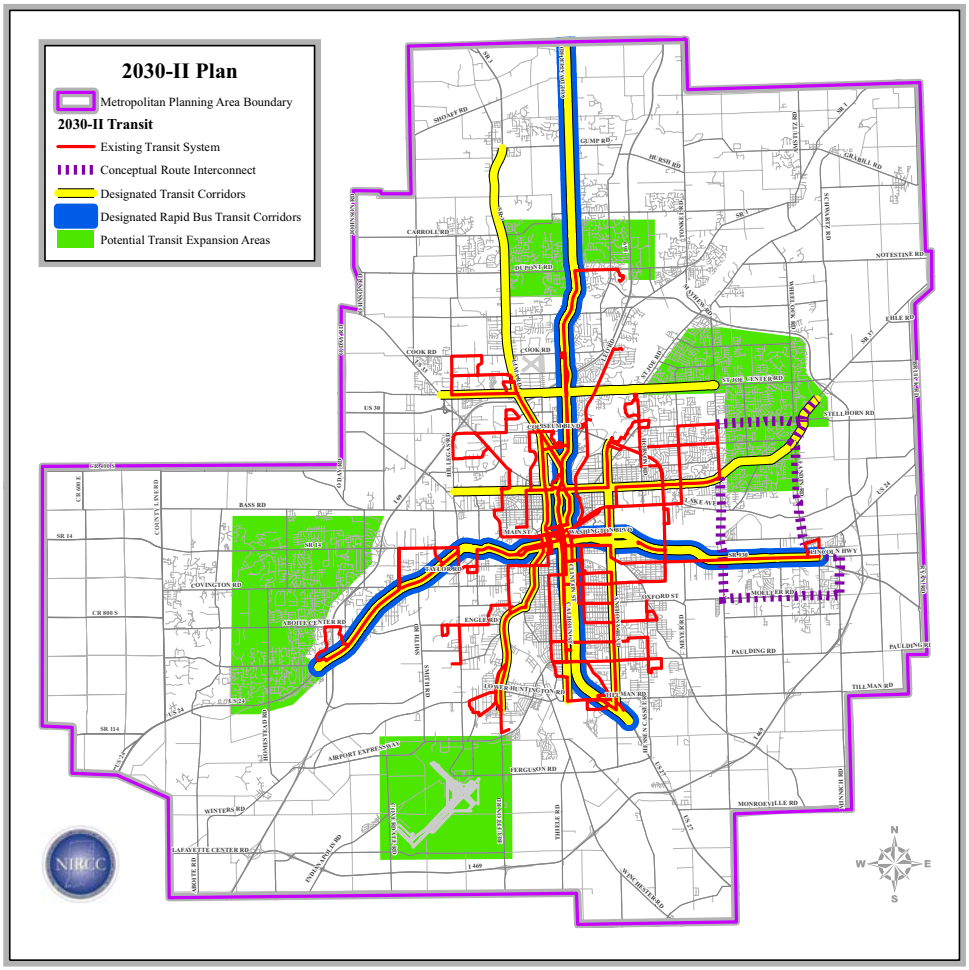
Congressional High Priority Corridor Improvement
2 US 24 - Interstate 469 to Bruick Road/Ryan Road
1 US 24 - State Road 101 to Indiana/Ohio State line including interchange (outside MPA)
2 US 24 - Bruick Road/Ryan Road to Webster Road including interchange (outside MPA)
2 US 24 - Webster Road to State Road 101 (outside MPA)

Interchange - New Construction
2 Interstate 69 and Hursh Road

Interchange - Modification
1 Interstate 469 and US 30 Interchange

Transit System

Figure 59



The transit system component of the plan consists of public transit policies and transit improvements (figure 59). All transit improvements have been derived from the public transit policies that guide future transit growth, methods of service delivery, and transit efficiency. The transit improvements include route modifications, capital projects, and service modifications designed to increase transit efficiency and improve transit service. The policies and improvements were developed with the input of the Transit Planning Committee and the area transit providers. Reducing headways, providing Sunday service, potential transit expansion areas, and developing a downtown intermodal transportation center are examples of the improvement projects. Specific improvements from the Citilink Transit Development Plan and the identified strategies from the Coordinated Public Transit - Human Services Transportation Plan for Allen County have also been included. The policies and improvements primarily affect the two public transit providers within the MPA: Citilink and the new rural transit provider, Countilink. However, the policies and improvements were designed to benefit all transit providers within the MPA: public, non-profit, and private; in order to create a coordinated and efficient transit system and to compliment the overall transportation system.

Bicycle-Pedestrian Transportation Plan

The region has many individuals and organizations advocating improvements to the existing bicycle-pedestrian transportation system. To coordinate these efforts, NIRCC sponsored the Northeastern Indiana Regional Bicycle and Pedestrian Forum which met from 2002 to 2007. This forum was made up of governmental parks, planning and highway agencies, advocacy groups, and special project organizations. The goal of this forum was to create a bicycle and pedestrian plan for the region that would provide a planning tool for planners and highway officials by identifying a prioritized set of routes based on an analysis of significant destinations within the region. Once these routes were identified NIRCC, along with the forum, recommended them for enhancement and protection. A combination of these identified routes and plans completed by other local groups and governmental agencies are what make up the comprehensive Bicycle-Pedestrian Transportation Plan (figure 60) and are included as a subset of the 2030-II Transportation Plan.

The Bicycle-Pedestrian Transportation Plan is referred to as comprehensive as it includes a broad range of existing and proposed bicycle and pedestrian facilities. The plan includes trails, some sidewalks, bike lanes, wide outside curb lanes, shoulder lanes, and bike routes. Also, with the update to the 2030-II Transportation Plan, NIRCC has asked local groups and governmental agencies to prioritize their projects so that the plan can reflect what may actually be accomplished in the next 10 to 15 years.

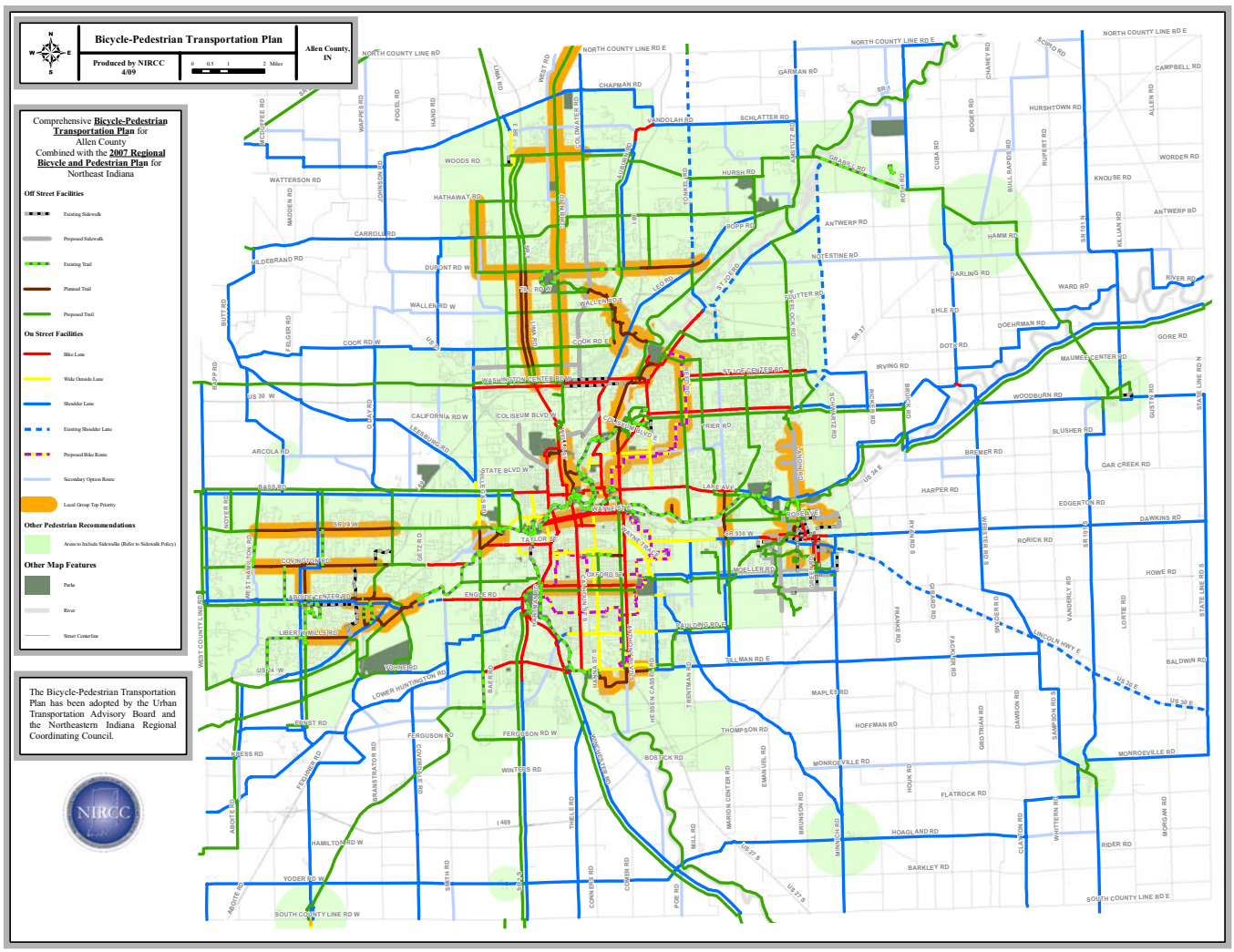

Bicycle-Pedestrian Transportation Plan
Produced by NIRCC 4/09
Allen County, IN
Comprehensive Bicycle-Pedestrian Transportation Plan for Allen County
Combined with the 2007 Regional Bicycle and Pedestrian Plan for Northeast Indiana
Off Street Facilities
Existing Sidewalk
Proposed Sidewalk
Existing Trail
Planned Trail
Proposed Trail
On Street Facilities
Bike Lane
Wide Outside Lane
Shoulder Lane
Existing Shoulder Lane
Proposed Bike Route
Secondary Option Route
Local Group Top Priority
Other Pedestrian Recommendations
Areas to Include Sidewalks (Refer to Sidewalk Policy)
Other Map Features
Parks
River
Street Centerline
The Bicycle-Pedestrian Transportation Plan has been adopted by the Urban Transportation Advisory Board and the Northeastern Indiana Regional Coordinating Council.
NIRCC

Figure 60

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 2009. The Summary Report highlights a majority of the transportation planning activities conducted and the products produced by NIRCC during Fiscal Year 2009. 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 2009-2012 Transportation Improvement Program (TIP) represent the improvements selected for implementation. The Fiscal Year 2009-2012 TIP can be found on NIRCC's website

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-II Transportation Plan, and many other documents and staff contact information.

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