

Transportation Summary Report



NIRCC Fiscal Year 2017



Produced by the Northeastern Indiana Regional Coordinating Council



Table of Contents

Introduction	I
Traffic Surveillance	3
Vehicle Miles of Travel	9
Intersection and Arterial Analysis	17
Corridor Studies	25
Travel Time and Delay Studies	
Travel Time and Delay Summary Section	35
Transportation Improvement Program	51
Federally and Locally Funded Highway Projects	53
Transit Section.	54
Locally Funded Highway Projects	55
Quarterly Review Meetings	59
TITLE VI & ADA (Americans with Disabilities Act)	63
Safety Management System	67
Traffic Incident Management (TIM)	72
Congestion Management Process	77
Intelligent Transportation Systems	81
Bicycle and Pedestrian Planning	87
Red Flag Environmental Investigations	97
Transit Planning Activities	_105
Federal Transit Administration's Section 5310 Program – Capital Funding	105
Coordinated Public Transit-Human Services Transportation Plan for Allen	106
Creating Livable Communities and Ladders of Opportunity	_115
Northeast Indiana Water Trails Initiative	115
Summary	117

Figures

Figure 1: Traffic Count Links	3
Figure 2: Traffic Count Locations	4
Figure 3: Traffic Volumes	5
Figure 4: VMT by Road Class	9
Figure 5: VMT 1986-2016 Bar Chart	_10
Figure 6: 1986, 2006, 2016 Annual Average Weekday VMT Pie Charts	_11
Figure 7: 1986 and 2016 Annual Average Weekday VMT Comparison	
for Passenger Vehicles and Trucks	_12
Figure 8: 1986 and 2016 Annual Average Weekday VMT Comparison	
of Vehicle Type by Road Classification	13
Figure 9: Completed Intersection Counts	 17
Figure 10: Fiscal Year 2017 Intersections Counted Table	 18
Figure 11: Fiscal Year 2017 Intersections Northbound Approach	
Level of Service	19
Figure 12: Fiscal Year 2017 Intersections Southbound Approach	_
Level of Service	19
Figure 13: Fiscal Year 2017 Intersections Westbound Approach	
Level of Service	20
Figure 14: Fiscal Year 2017 Intersections Eastbound Approach	
Level of Service	20
Figure 15: Fiscal Year 2017 Intersection Counts	-21
Figure 16: Completed Corridor Studies	
Figure 17: Airport Expressway Corridor Study - Study Area Aerial	
Figure 18: Completed Travel Time and Delay Studies	_ _ 31
Figure 19: Fiscal Year 2017 Travel Time and Delay Studies	-32
Figure 20: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	5_
New Haven Ave / SR 930 / Lincoln Hwy / Dawkins Rd AM Peak	36
Figure 21: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	
New Haven Ave / SR 930 / Lincoln Hwy / Dawkins Rd PM Peak	37
Figure 22: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	
Bass Rd / Spring St AM Peak	38
Figure 23: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	_50
Bass Rd / Spring St PM Peak	39
Figure 24: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	
Coliseum Blvd / SR 930 AM Peak	40
Figure 25: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	_+0
Coliseum Blvd / SR 930 PM Peak	41
Figure 26: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	
Liberty Mills Rd AM Peak	42
Figure 27: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	
Liberty Mills Rd PM Peak	43
Figure 28: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	_+3
	44
Homestead Rd / Covington Rd / Scott Rd AM Peak Figure 20: Figure 2017 Travel Time and Delay Studies Summers Sections	44
Figure 29: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	15
Homestead Rd / Covington Rd / Scott Rd PM Peak Figure 30: Figure 2017 Travel Time and Delay Studies Summers Sections	_45
Figure 30: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	16
Adams Center Rd / Marion Center Rd AM Peak Figure 21: Figure 2017 Travel Time and Delay Studies Symmetry Sections	_46
Figure 31: Fiscal Year 2017 Travel Time and Delay Studies Summary Sections	47
Adams Center Rd / Marion Center Rd PM Peak	-47
Figure 32: Local/Federal TIP Projects FY 18-21	_51

Figures

Figure 33: Example of a Local/Federal Project	52
Figure 34: Example of a Local/Federal Project	52
Figure 35: Example of NIRCC's Quarterly Review Sheet	60
Figure 36: Density map of 2016 crash frequencies	68
Figure 37: Density map of 2015 crash frequencies	69
Figure 38: Density map of 2014 crash frequencies	70
Figure 39: Attendee participation for TIM raining sessions	73
Figure 40: Congestion Management Network	78
Figure 41: AM V/C Ratios Exceeding 0.80	80
Figure 42: PM V/C Ratios Exceeding 0.80	81
Figure 43: Number of Hours a Traffic Link Exceeds 0.90 for NB and EB	82
Figure 44: Number of Hours a Traffic Link Exceeds 0.90 for SB and WB	83
Figure 45: Northeast Indiana United Trails Plan	88
Figure 46: Bicycle-Pedestrian Transportation Plan: Bike and Trail Plan	89
Figure 47: Bicycle-Pedestrian Transportation Plan: Trails Plan	90
Figure 48: Bicycle-Pedestrian Transportation Plan: Sidewalk Plan	91
Figure 49: Red Flag Analysis Projects map	97
Figure 50: Red Flag Analysis - Amstutz Rd/Hosler Rd: Water Resources Map_	99
Figure 51: Red Flag Analysis - Amstutz Rd/Hosler Rd: Infrastructure Map	100
Figure 52: Red Flag Analysis - Amstutz Rd/Hosler Rd: Water Resources Table_	100
Figure 53: Red Flag Analysis - Amstutz Rd/Hosler Rd: Infrastructure Table	101
Figure 54: Coordinated Transit Plan - Geographic Needs Example	108
Figure 55: Coordinated Transit Plan - Geographic Needs Example	109
Figure 56: Coordinated Transit Plan - Non-Geographic Needs Example	109

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, multimodal, and 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 2017. 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, vehicle miles of travel, intersection and arterial analyses, corridor studies, travel time and delay studies, Fiscal Year 2018-2021 Transportation Improvement Program (TIP) Projects for the Fort Wayne-New Haven-Allen County Metropolitan Planning Area, quarterly review, TITLE VI & ADA, Safety Management System (SMS) activities, congestion management, bicycle/pedestrian planning activities, Red Flag Investigation (RFI) studies, and transit planning.

Traffic Surveillance

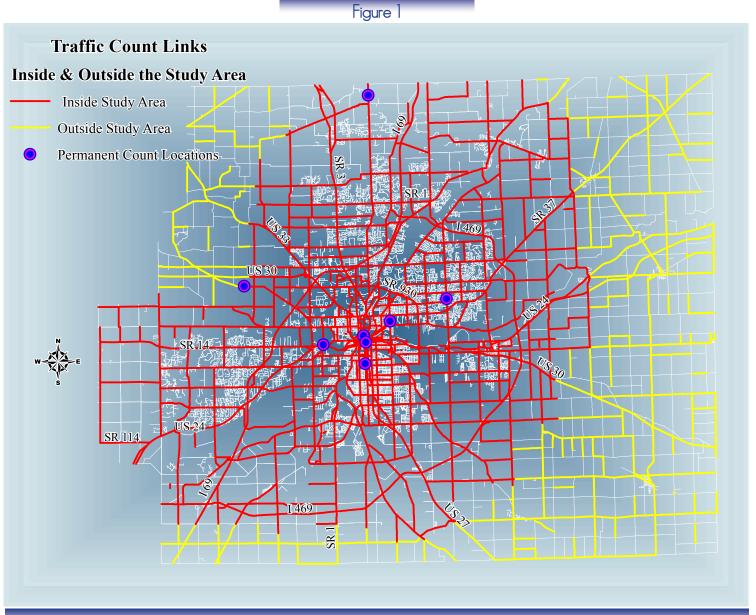
Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

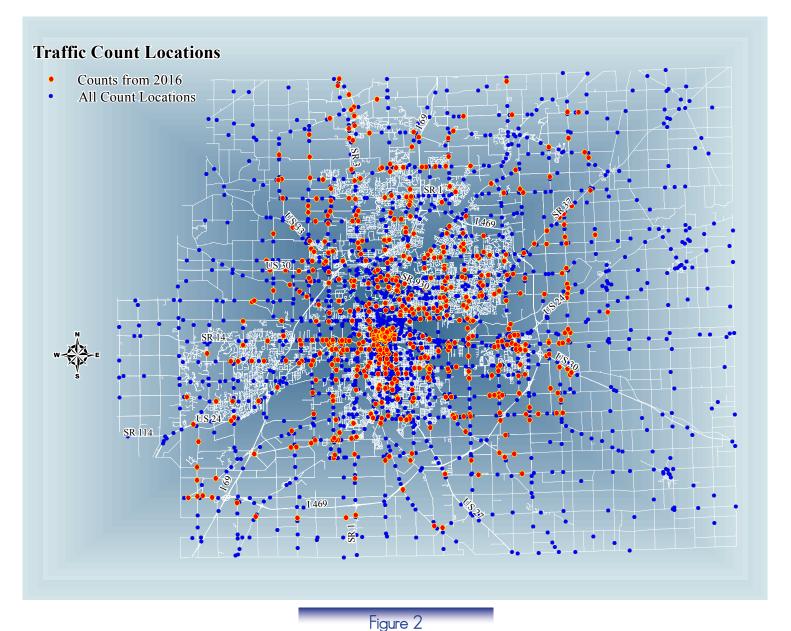
TRAFFIC SURVEILLANCE

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 just within Allen County, as illustrated in figure 1. The majority of these links are located within the Metropolitan Planning Area and are shown in red. The yellow links are collected as part of our rural traffic count program. 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 (INDOT) maintains permanent counting stations on Interstate 69 and State Road 930. The data from these stations, collected each month, is used to develop monthly count factors. Monthly count factors are important 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 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 2016 (February - November), data was collected at 702 locations within the Metropolitan Planning Area (MPA), as illustrated in figure 2. NIRCC also completed an

additional 583 counts in Adams, Wells, and DeKalb Counties. Out of these 583 counts, 141 locations were collected for the state program. All of 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.

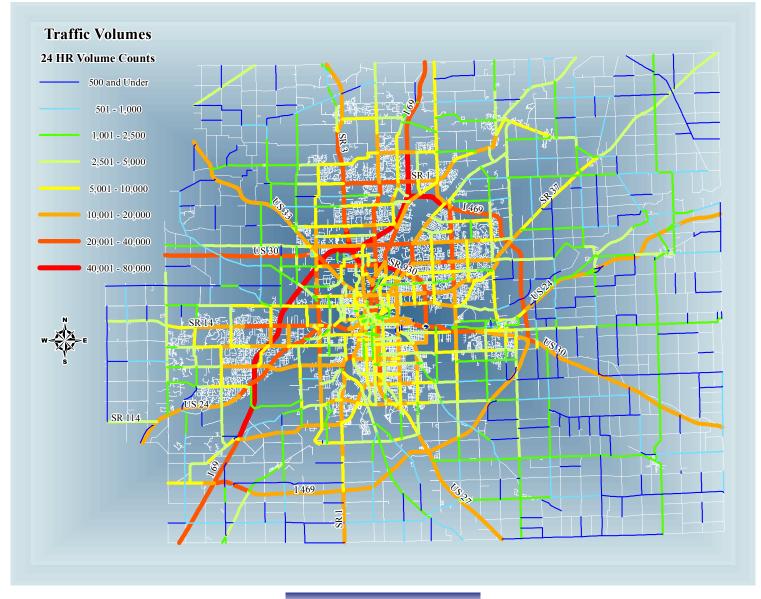


Figure 3 provides the range of traffic volumes present throughout Allen County. Some of the traffic count links shown in figure 1 and figure 3 exhibit links that may look unconnected or isolated. These links appear this way because they are usually part of the local road type samples or the railroad 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

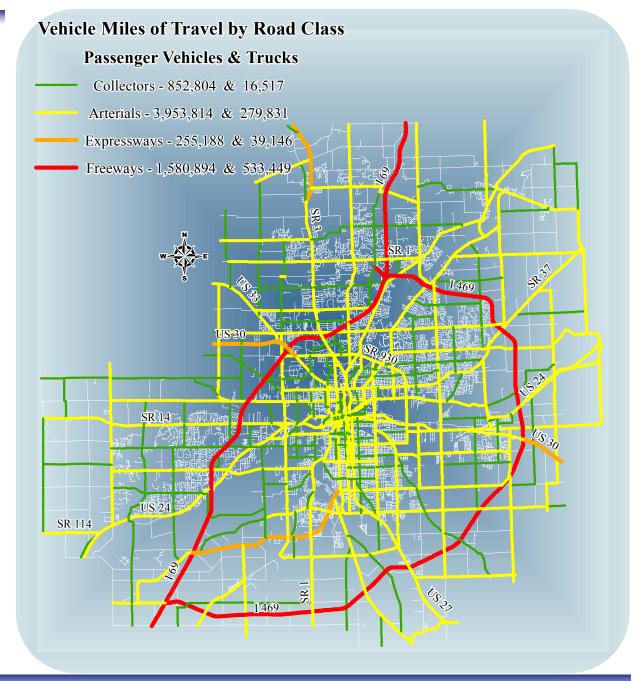
Transportation Summary Report Fiscal Year 2017

Vehicle Miles of Travel Summary FY 17

VEHICLE MILES OF TRAVEL

The purpose of the vehicle miles of travel (VMT) estimate is to provide a measurement of regional traffic growth. The VMT estimate incorporates several factors that influence quality of travel within a region including traffic volume, length and type of roadway facility, seasonal traffic variations, and vehicle types. The VMT estimate has been published annually for the region beginning in Fiscal Year 1986. With each annual estimate, NIRCC staff has attempted to improve its sampling and analytical skills to produce the most reliable estimate possible. Region wide, vehicle miles of travel increased from 7,445,728 in 2015 to 7,511,644 in 2016. This represents an increase of 0.89 percent. The VMT decreased on arterial streets (0.10%), increased on collector streets (6.49%) and increased on expressways (6.16%) over the previous year. The VMT is illustrated for 2016 in figure 4.

Figure 4

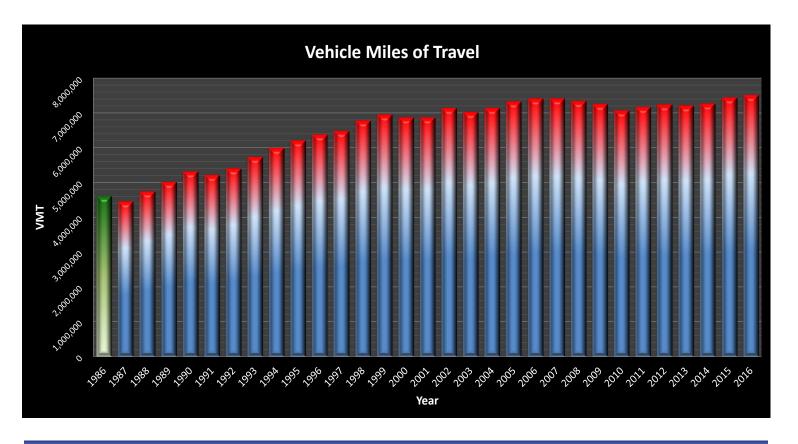


Vehicle Miles of Travel Summary FY 17

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 past 30 years spanning from 1986 to 2016 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. For the most part, the general trend shown on the chart shows only slight changes in total VMT throughout the 30 year period but 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 some years experienced a slight 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.





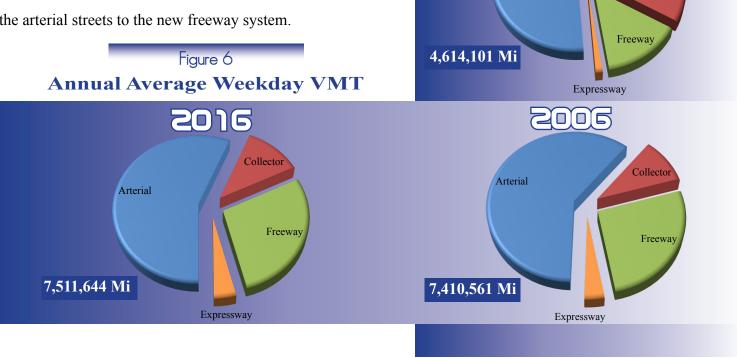
Vehicle Miles of Travel Summary FY 17

Figure 6 presents three pie charts that represent the proportions of VMT by street classification for the years 1986, 2006, and 2016. As you can see, the proportions of traffic in 1986 are different compared to the proportions of traffic

Arterial

Collector

in 2006 and 2016. 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.



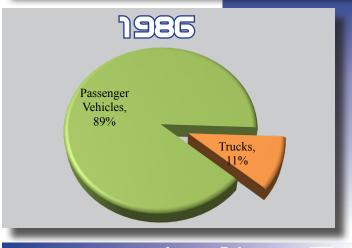
The VMT is also broken down to show the annual average VMT for passenger vehicles and trucks. The pie charts contained in figure 7 illustrate the VMT for 1986 and 2016. The proportion of truck traffic compared to passenger vehicle traffic is almost identical in 1986 and 2016. A further breakdown of the proportionate usage of passenger vehicles versus trucks on the different road classifications shows some interesting differences between 1986 and 2016. 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 2016 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 2016. The utilization of the freeway system has alleviated a significant amount of truck traffic from the arterials.

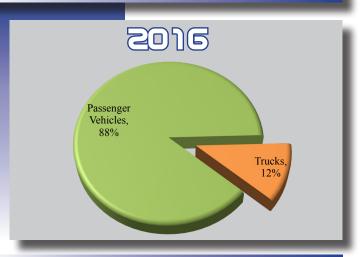
The pie charts contained in figure 8 illustrate the proportion of passenger vehicle traffic versus truck traffic for each type of road classification. Even though the amounts of truck traffic and passenger vehicle traffic significantly changed

Vehicle Miles of Travel

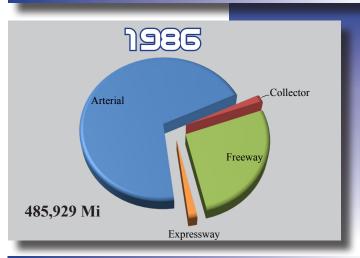
Figure 7

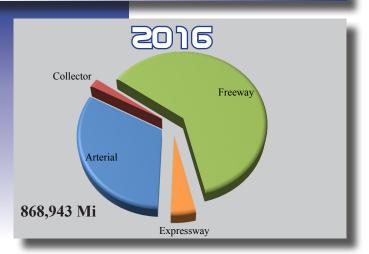
Annual Average Weekday VMT for Passenger Vehicles compared to Trucks



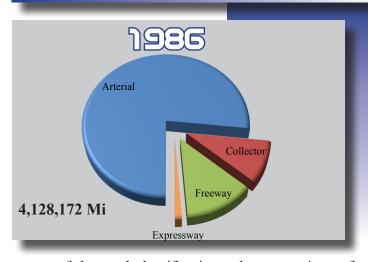


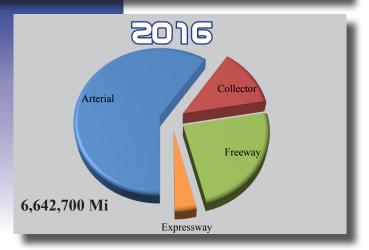
Annual Average Weekday VMT for Trucks





Annual Average Weekday VMT for Passenger Vehicles





for some of the road classifications, the proportions of passenger vehicles and trucks for each road classification remained very similar between 1986 and 2016.

Figure 8

Percentage of Annual Average Weekday VMT for Passenger Wehleles Compared to Traucks









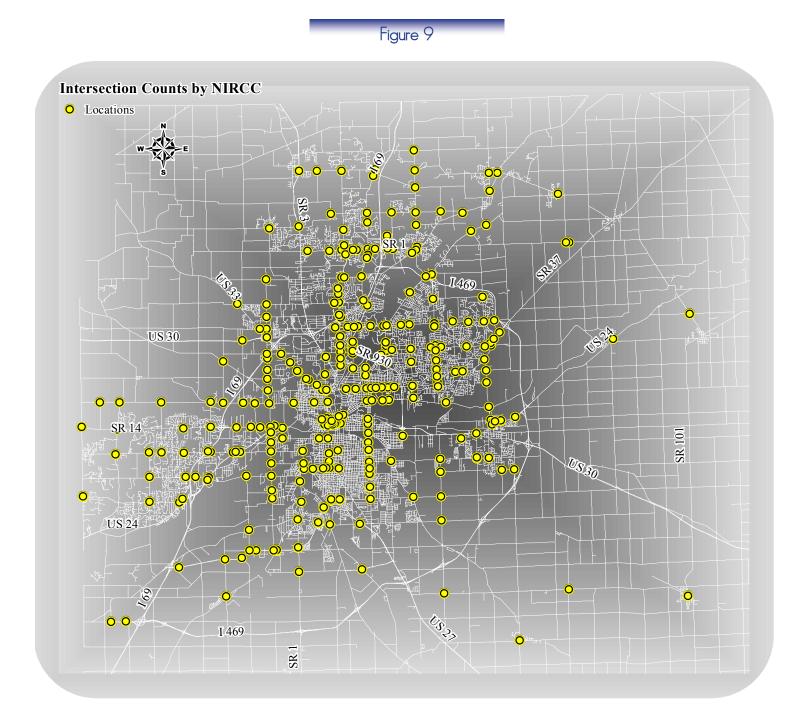
Intersection and Arterial Analysis

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

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. In Fiscal Year 2017, NIRCC evaluated 19 intersections which are listed in the table contained in figure 10. Out of these 19 intersections, 11 were signalized and 8 were unsignalized.



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 2017 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 2009 Edition. The intersections reviewed for signal warrants along with other types of intersection analyses in Fiscal Year 2017 are illustrated in figure 15.

Figure 10

Signalized Intersections

- Aboite Center Rd / Homestead Rd
- Airport Expressway / Ardmore Ave
- Airport Expressway / Bluffton Rd
 - Airport Expressway / Lower Huntington Rd (E)
- Bluffton Rd / Lower Huntington Rd
 - Clay St / Main St
- Fogwell Parkway / Lafayette Cntr Rd
 - Ice Way / Lima Rd
 - Illinois Rd / Reckeweg Rd
 - Maplecrest Rd / Rothman Rd
 - Maplecrest Rd / St Joseph Rd

Unsignalized Intersections

- Airport Expressway / Avionics Dr
- Airport Expressway / Coverdale Rd
 - Airport Expressway / Ernst Rd
- Airport Expressway / Smith Rd (E)
- Airport Expressway / Smith Rd (W)
 - Ardmore Ave / Nuttman Ave
 - Flaugh Rd / Leesburg Rd
 - Amstutz Rd / Hosler Rd

Figure 11

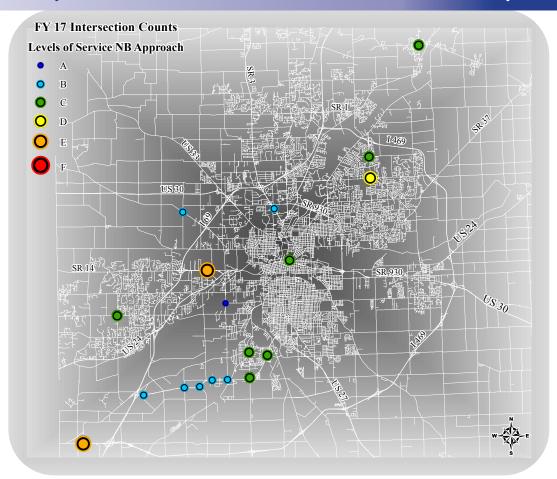
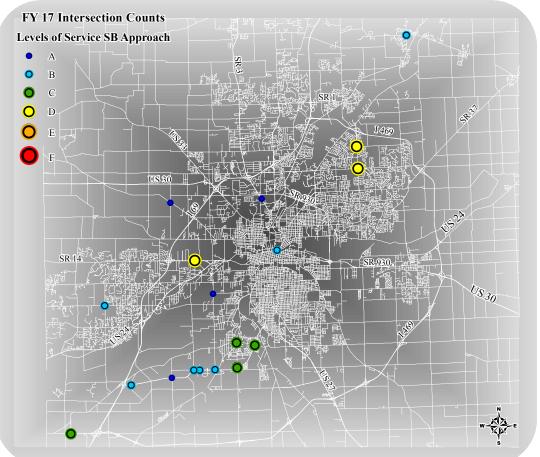


Figure 12



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

Figure 13

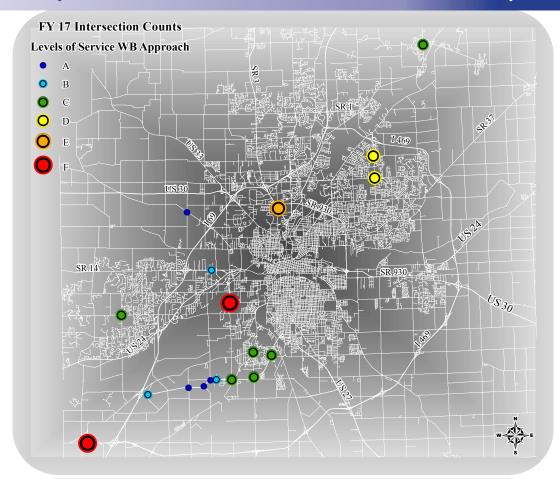
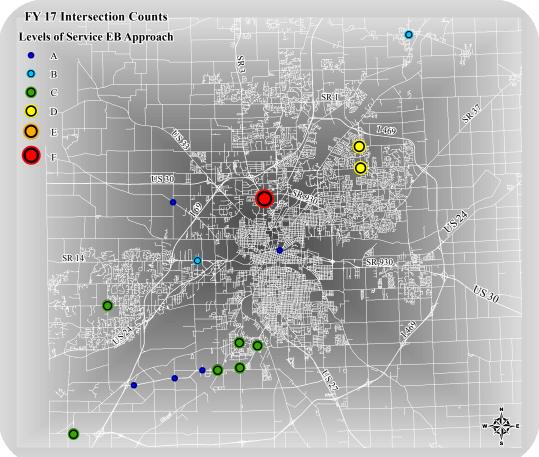
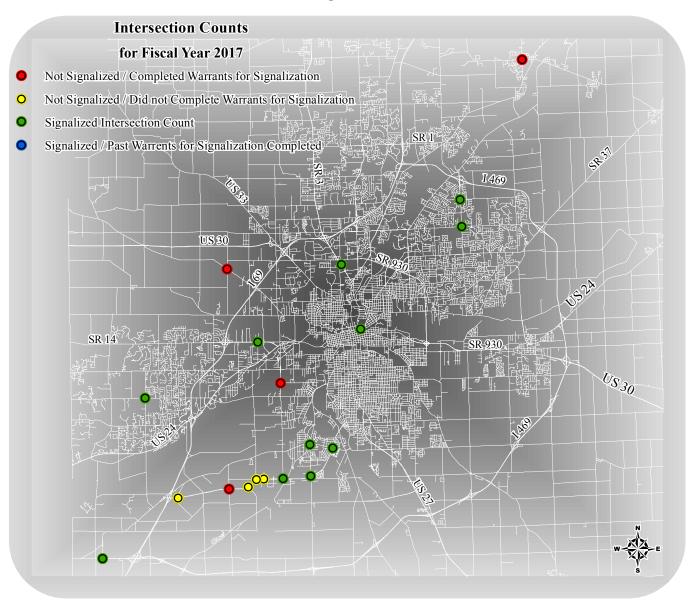


Figure 14



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

Figure 15



Corridor Studies

Studies completed by the Northeastern Indiana Regional Coordinating Council

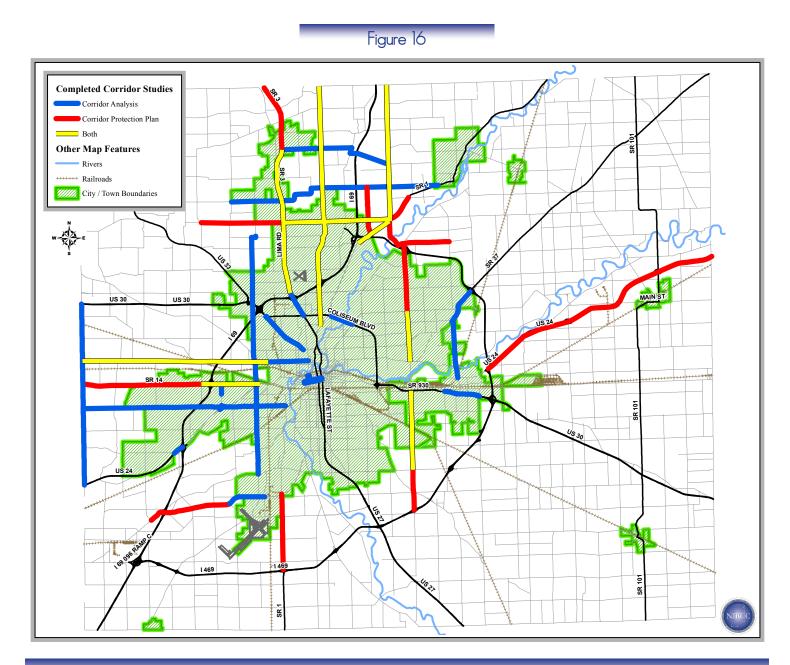
Transportation Summary Report Fiscal Year 2017

Corridor Studies Summary FY 17

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



Corridor Studies Summary FY 17

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

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

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 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 develops 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 2017, NIRCC did not complete any corridor studies or corridor protection studies and plans. NIRCC began work on the Airport Expressway corridor study but since the development of the 2040 Transportation Plan required the majority of time this past fiscal year the study will be completed in the next fiscal year. The study of Airport Expressway was initiated by NIRCC in FY17 due to the developments, planned interchange reconstruction, and increase traffic along the corridor. The Study starts at Interstate 69 and ends at Lower Huntington Road. This Corridor Study can be seen in figure 17.

Throughout the fiscal year NIRCC evaluated other corridors analyzing current roadway operation and what the impacts of developments and proposed road improvements would have on those corridors. These corridors included Adams Center Road, Union Chapel Road, Dupont Rd/State Road 1, and Fogwell Parkway/Lafayette Center Road. NIRCC also analyzed intersections along the US 30 corridor.

Corridor Studies Summary FY 17

Figure 17



Travel Time and Delay Studies

Studies completed by the Northeastern Indiana Regional Coordinating Council

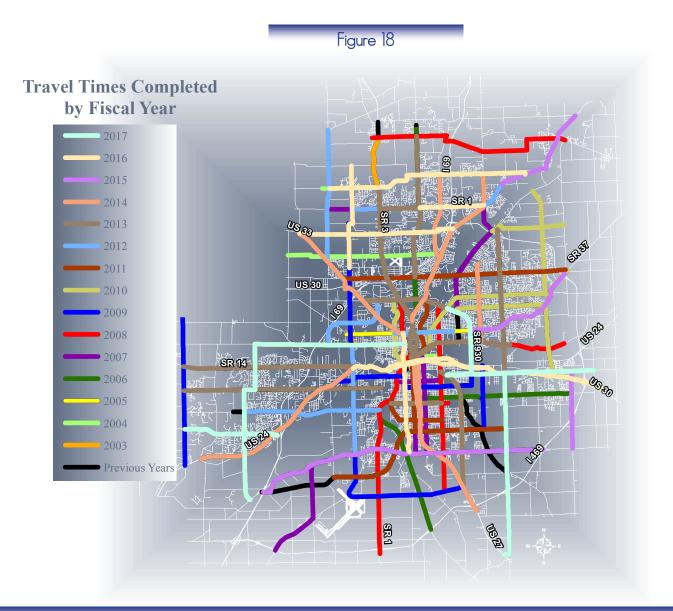
Transportation Summary Report Fiscal Year 2017

TRAVEL TIME & DELAY STUDIES

Another activity conducted by NIRCC is the travel time and delay studies. Figure 18 illustrates the travel time and delay studies that have been completed since Fiscal Year 1999. 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.

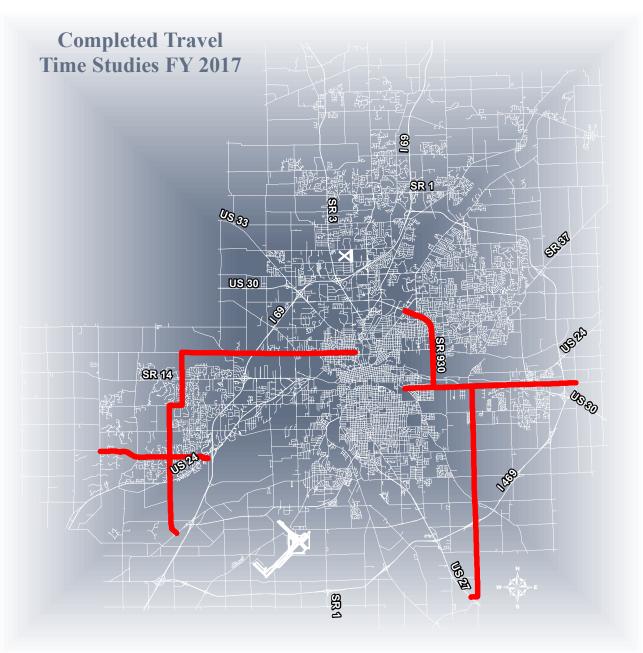
The following lists some of the uses that travel time data provide.

- *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.*



NIRCC studied seven (7) corridors during Fiscal Year 2017 including: 1) Carroll Road / Union Chapel Road from Hand Road to State Road 1, 2) Fairfield Avenue / Wells Street from Lower Huntington Road to State Boulevard, 3) Bethel Road / Huguenard Road / Till Road from Hathaway Road to Ludwig Road, 4) Washington Boulevard / SR 930 / US 30 from Kitch Street to Franke, 5) Dupont Road / SR 1 from Coldwater Road to Tonkel Road, 6) Jefferson Boulevard / Maumee Avenue / Washington Boulevard from Lindenwood Avenue to Kitch Street, and 7) Wallen Road from Johnson Road to Clinton Street. The travel time studies completed during Fiscal Year 2017 are illustrated in Figure 19.

Figure 19



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 20 - 31 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 four corridors studied in Fiscal Year 2017. 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.

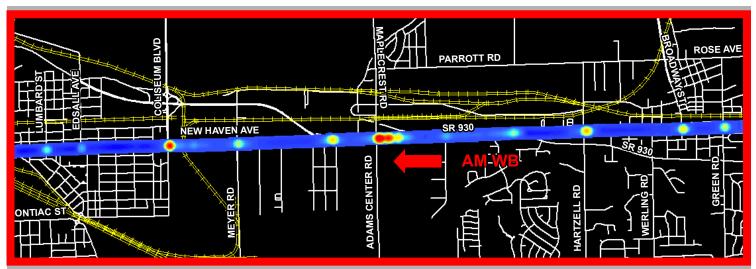
Bar graphs are also included on each page. Two of the bar charts display the average time that NIRCC staff actually encountered from the beginning to the end of the travel time corridor during the time period with the greatest amount of delay, shown in red, and the time period with the least amount of 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 2017

Figure 20
New Haven Avenue / SR 930 / Lincoln Highway / Dawkins Road
AM Peak





Travel Time with the Greatest Amount of delay



Travel Speed with the Greatest
Amount of delay

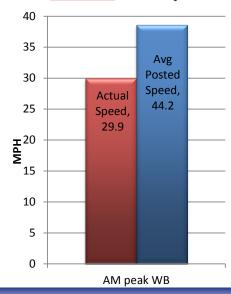
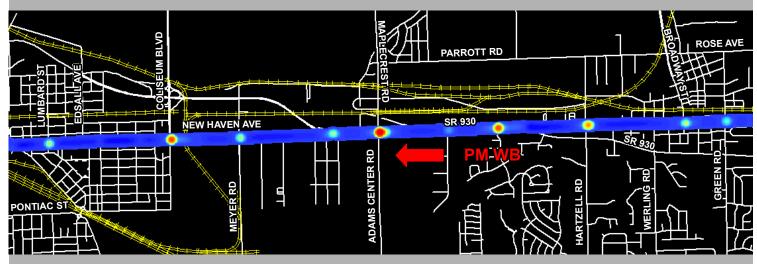
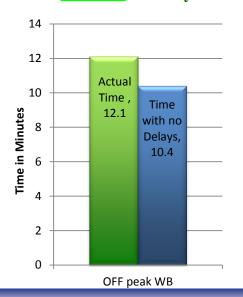


Figure 21
New Haven Avenue / SR 930 / Lincoln Highway / Dawkins Road
PM Peak





Travel Time with the Least Amount of delay



*Off Peak Travel Times are not shown graphically.

Travel Speed with the Least
Amount of delay

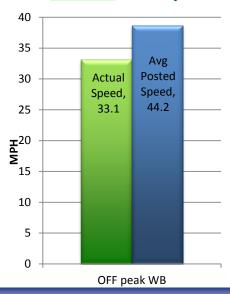
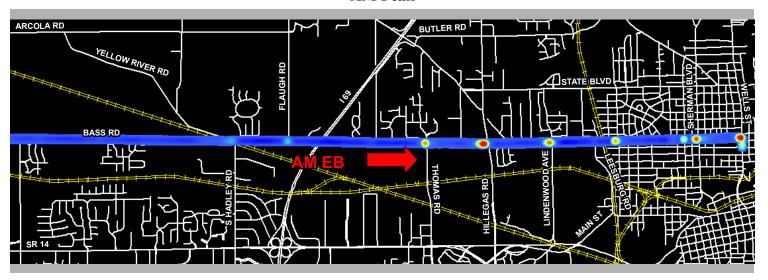
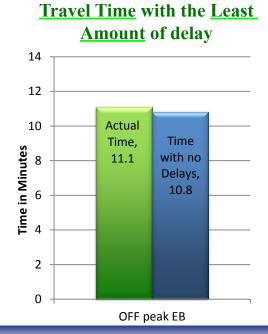


Figure 22
Bass Road / Spring Street
AM Peak







*Off Peak Travel Times are not shown graphically.

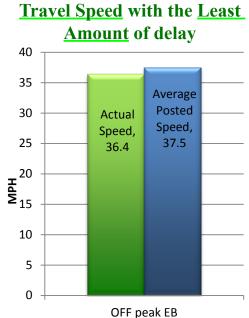
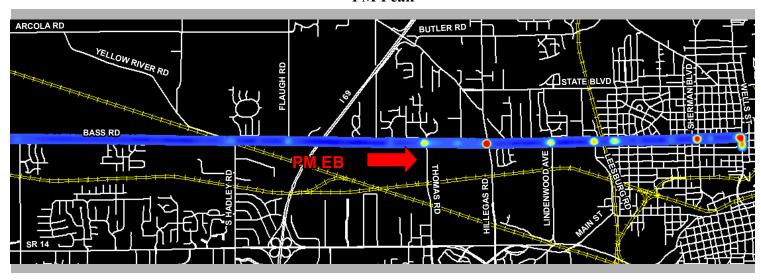
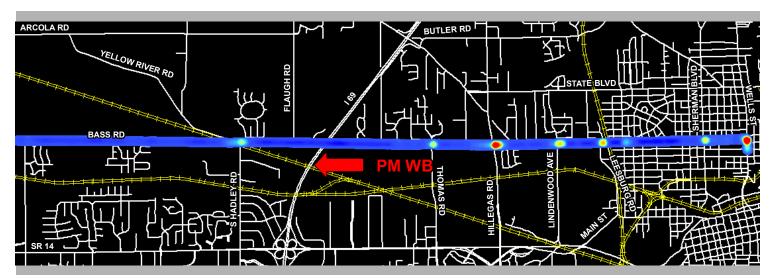
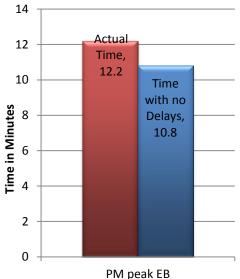


Figure 23
Bass Road / Spring Street
PM Peak





<u>Travel Time</u> with the <u>Greatest Amount</u> of delay



Travel Speed with the Greatest
Amount of delay

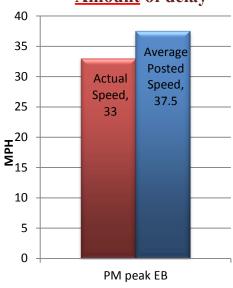
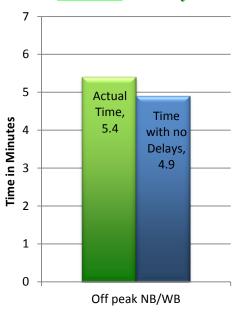


Figure 24

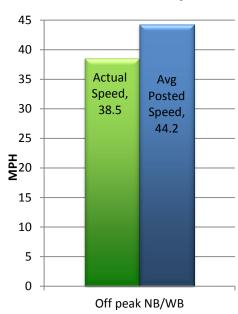
Coliseum Boulevard / SR 930 AM Peak

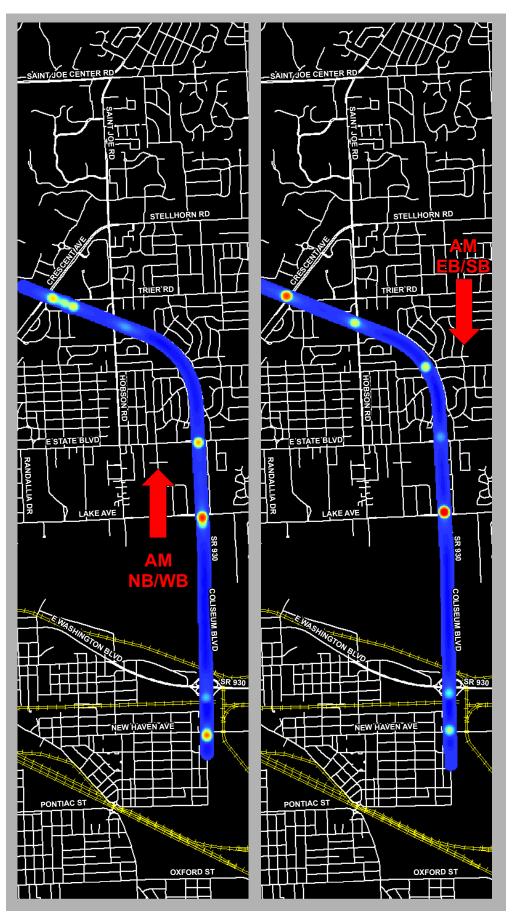
Travel Time with the Least Amount of delay



*Off Peak Travel Times are not shown graphically.

Travel Speed with the Least Amount of delay

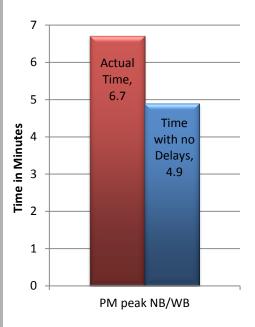




SR 930 OXFORD ST OXFORD ST

Figure 25
Coliseum Boulevard / SR 930
PM Peak

<u>Travel Time</u> with the <u>Greatest Amount</u> of delay



<u>Travel Speed</u> with the <u>Greatest Amount</u> of delay

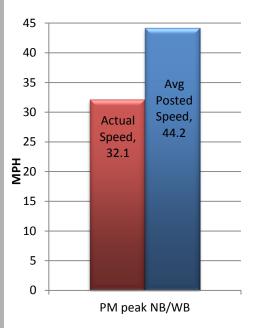
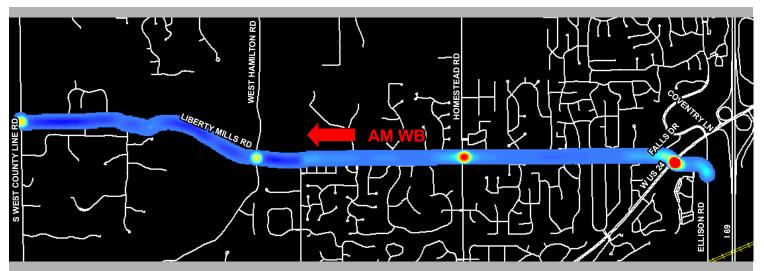
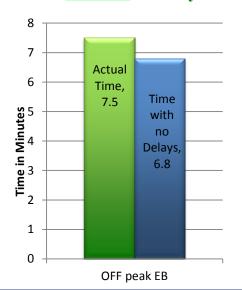


Figure 26
Liberty Mills Road
AM Peak





Travel Time with the Least
Amount of delay



Travel Speed with the Least
Amount of delay

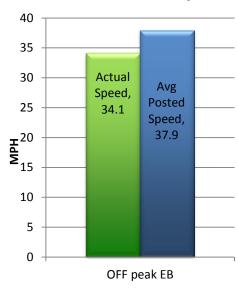
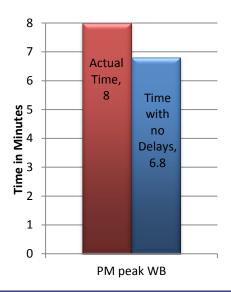


Figure 27
Liberty Mills Road
PM Peak







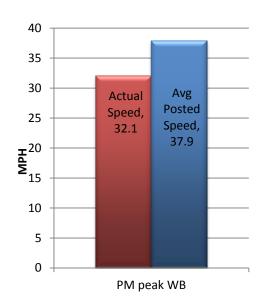
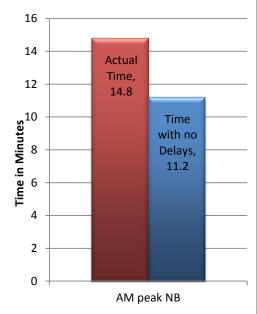


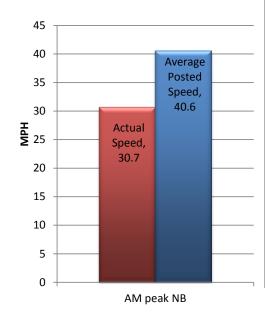
Figure 28

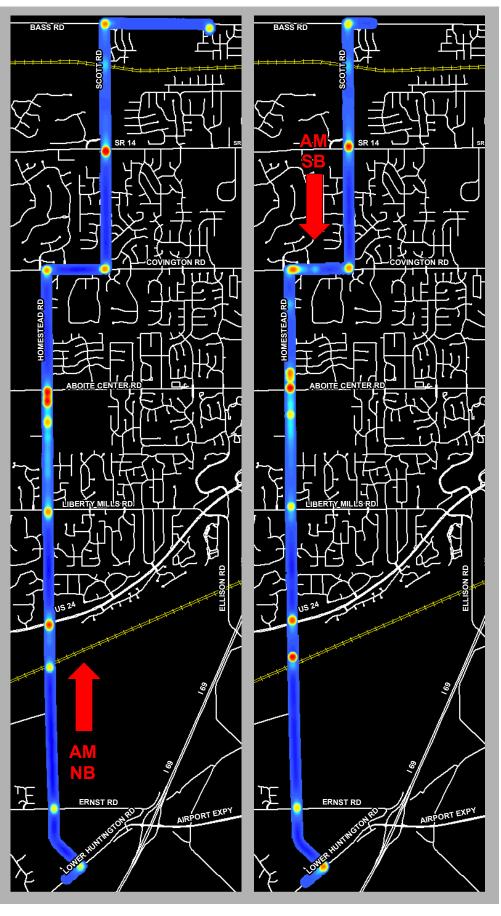
Homestead Road / Covington Road / Scott Road AM Peak

<u>Travel Time</u> with the <u>Greatest Amount</u> of delay



<u>Travel Speed</u> with the <u>Greatest Amount</u> of delay



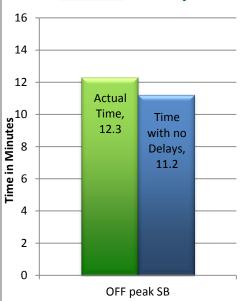


BASS RD BASS RD 1.11111 F AIRPORT EXPY AIRPORT EXPY

Figure 29

Homestead Road / Covington Road / Scott Road PM Peak

Travel Time with the Least Amount of delay



*Off Peak Travel Times are not shown graphically.

Travel Speed with the Least Amount of delay

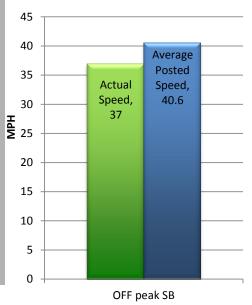
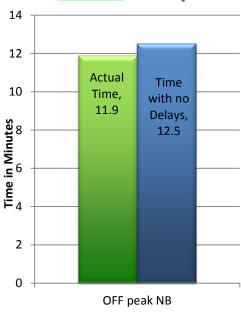


Figure 30

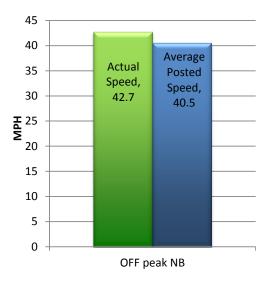
Adams Center Road / Marion Center Road AM Peak

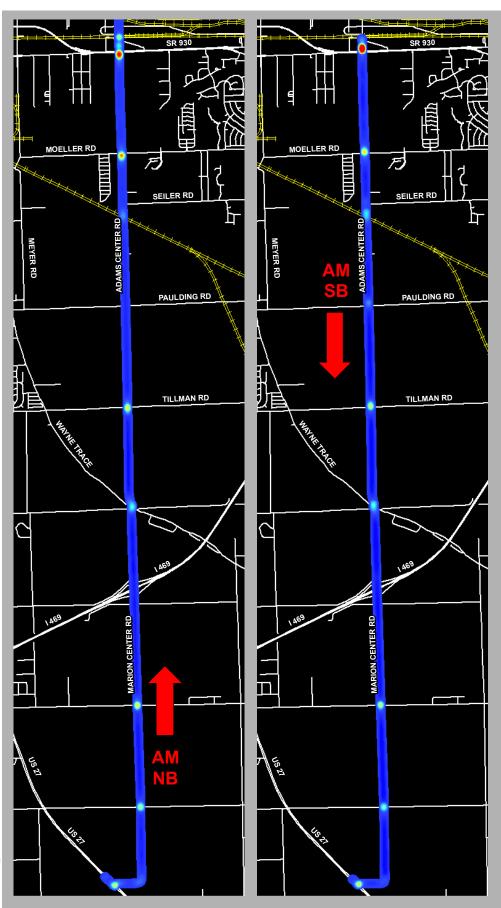
Travel Time with the Least Amount of delay



*Off Peak Travel
Times are not shown
graphically.

Travel Speed with the Least Amount of delay





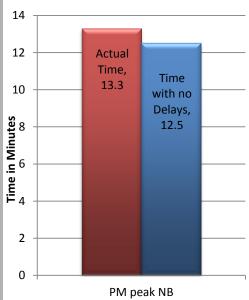
SR 930 MOELLER RD MOELLER RD 户 F SEILER RD SEILER RD MEYER RD MEYER RD PAULDING RD PAULDING RD TILLMAN RD TILLMAN RD

Figure 31

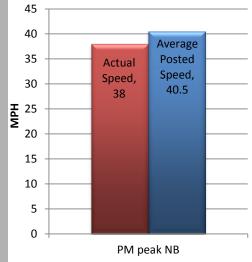
Adams Center Road / Marion Center Road

<u>Travel Time</u> with the <u>Greatest Amount</u> of delay

PM Peak



<u>Travel Speed</u> with the <u>Greatest Amount</u> of delay



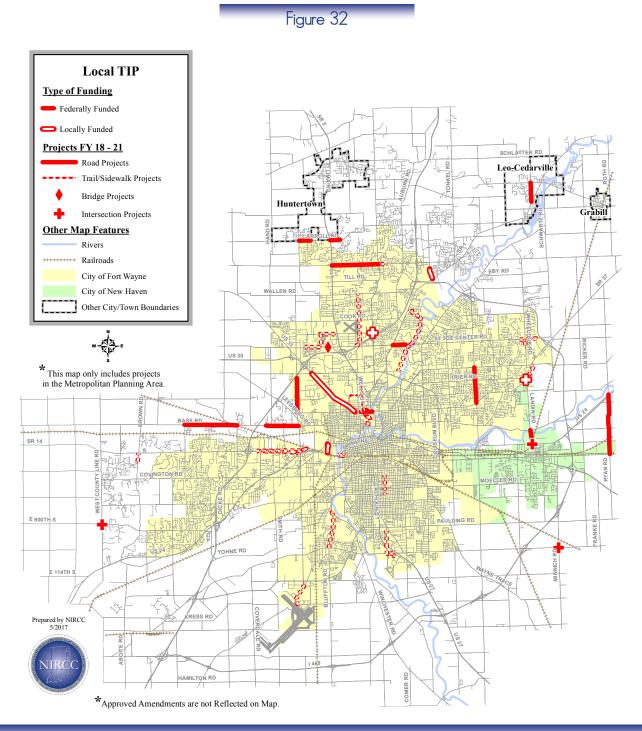
Transportation Improvement Program

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) PROJECTS

During Fiscal Year 2017, NIRCC prepared the Transportation Improvement Program for Fiscal Years 2018-2021. NIRCC began publishing the Transportation Improvement Program (TIP) in 1977 as an annual document, however now it is being produced every other year to align with the INDOT State Transportation Improvement Program (STIP). The TIP is a multi-year capital improvements program documenting highway and transit projects, which will serve the needs of the Fort Wayne-New Haven-Allen County Metropolitan Planning Area. The TIP is used to guide the expenditure of federal funds in our area. Short range and long range (2035) transportation plans including the Indiana Department



of Transportation's Capital Improvements Program are used to formulate the TIP. The TIP includes commitments of the City of Fort Wayne, Fort Wayne Public Transportation Corporation, City of New Haven, Town of Huntertown, and Allen County to utilize and match federal funds. The Indiana Department of Transportation projects listed in the TIP represents commitments that the State of Indiana makes to improve the transportation system in the Metropolitan Planning Area.



Figure 33

Each project typically goes through three different phases before construction

completion. These phases include preliminary engineering (PE), right-of-way engineering and acquisition (RW), and construction (CN). The preliminary engineering includes development of construction plans. Right-of-way engineering and acquisition includes the determination and actual purchase of the right-of-way needed for the project. The construction stage is the actual construction of the project. Each of the projects listed will go through one or more of the phases during the four-year period.



located on page 59. Transit funding is listed on page 58.

Figure 32 shows the locations of local TIP projects throughout the Metropolitan Planning Area. The local TIP map identifies projects that utilize federal aid funds with matching local funds whether it is City of Fort Wayne, City of New Haven, or Allen County. Figures 33 and 34 provide aerial views to show detailed examples of projects shown in Figure 32. The following pages provide a listing of projects for each fiscal year and the phase for each project. Federally funded highway projects are listed on page 57 and locally funded highway and trail projects are

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) PROJECTS LISTED

PHASE CLASSIFICATIONS

PE - Preliminary Engineering

RW - Right of Way

CN - Construction

FY 2018 TIP Federally and Locally Funded Projects

Project	Phase	Improvement Type
Bass Road Mitigation	RW/CN	Mitigation Site
Dupont Road: Lima Rd/SR 3 to Coldwater Rd	CN	Added Travel Lanes/Ped Underpass
Liberty Mills Rd/CR 900 at County Line Rd Int	CN	Roundabout
Minnich Road and Tillman Road Intersection	CN	Roundabout
State Boulevard: Spy Run Ave to Clinton St	CN	Added Travel Lanes
UPWP HSIP Funds	PE	Work Program Activities
Washington Ctr Road Bridge #95 over Spy Run Creek	CN	Bridge Reconstruction

FY 2019 TIP Federally and Locally Funded Projects

Project	Phase	Improvement Type
Amstutz Road: Hosler Rd to Leo Rd/SR 1	PE	Road Reconstruction
Broadway/St/Landin Rd: North River Rd to Powers St	RW	Intersection Imp/Road Reconstruct
Bass Rd - Thomas Rd to Hillegas Rd	RW	Road Reconstruction
Carroll Road: e/o Bethel Rd to Millstone Dr; Lima Rd/SR3 to		
Coral Springs Dr/Shearwater Run	PE	Road Reconstruction
St Joe Ctr/Wash Ctr Road: Clinton St to Campus Ct	CN	Intersection Imp/Added Turn Lanes
State Blvd: Clinton St to Cass St	CN	Added Lanes/Bridge/Ped Bridge

FY 2020 TIP Federally and Locally Funded Projects

Project	Phase	Improvement Type
Amstutz Road: Hosler Rd to Leo Rd/SR 1	PE	Road Reconstruction
Bass Road: Clifty Parkway to Thomas Rd	CN	Road Reconstruction
Bass Road: Thomas Rd to Hillegas Rd	CN	Road Reconstruction
Maplecrest Road: State Blvd to Stellhorn Rd - Phase 1	CN	Road Reconstruction

FY 2021 TIP Federally and Locally Funded Projects

Phase	Improvement Type
RW	Road Reconstruction
RW	Road Reconstruction
CN	Intersection Imp/Road Reconstruct
RW	Road Reconstruction
PE	Added Travel Lanes
CN	Road Reconstruction
	RW RW CN RW PE

FY 2018 Fort Wayne Public Transportation Corporation

Four (4) Replacement Minibus (Body on Chassis) ACCESS

Capitalization of Maintenance Costs

Complimentary Paratransit Costs 5307 Special Rule Operations

FY 2019 Fort Wayne Public Transportation Corporation

Two (2) Heavy Duty Replacement Hybrid Buses Three (3) Replacement Minibus (Body on Chassis) ACCESS Capitalization of Maintenance Costs Complimentary Paratransit Costs 5307 Special Rule Operations

FY 2020 Fort Wayne Public Transportation Corporation

One (1) Heavy Duty Replacement Hybrid Buses Three (3) Replacement Minibus (Body on Chassis) ACCESS Capitalization of Maintenance Costs Complimentary Paratransit Costs 5307 Special Rule Operations

FY 2021 Fort Wayne Public Transportation Corporation

Two (2) Heavy Duty Replacement Hybrid Buses Capitalization of Maintenance Costs Complimentary Paratransit Costs 5307 Special Rule Operations

FY 2018 Human Services Agencies

Community Transportation Network

Operating Funds

One (1) Small Transit Vehicle w/Lift

Two (2) Medium Transit Vehicle w/Lift

Easter Seals

One (1) Small Transit Vehicle w/Lift

*The following are Locally Funded Projects only.

FY 2018 - 2021 TIP Locally Funded Projects

Project	Phase	Improvement Type
Ardmore Ave: Airport Exp to Second St	CN	Trail
Bluffton Rd: Lower Huntington Rd to W Foster Park (3 phases)	CN	Trail
Clay St at SR 1 (Leo-Cedarville)	CN	Intersection Improvement
Coldwater Rd: Union Chapel Rd to Pion Rd	CN	Add southbound Right Turn Lane
Covington Rd: Hadley Rd to Getz Rd	CN	Trail
Diebold Rd: N Clinton St to Berger Automotive (Phase II)	CN	Reconstruction, Sidewalk & Trail
Dupont Rd: Coldwater Rd to Pine Mills	CN	Trail
Goshen Rd: State Blvd to Cambridge Blvd (Phase I)	CN	Reconstruct, Roundabout, Sidewalks
Goshen Rd: Cambridge Blvd to Butler/Harris Rds (Phase II)	CN	Reconstruction, Sidewalks
Goshen Rd: Butler/Harris Rds to Coliseum Blvd (Phase III)	CN	Reconstruction, Sidewalks
Greenmoor Dr: Scarborough Dr to Green Dr (New Haven)	CN	Reconstruction
Hanna St: Berry St to Tillman Park/Southtown Cntr (5 Phases)	CN	Trail
Hathaway Rd: at Corbin Rd and at Union Chapel Rd	CN	Intersection Improvement
Illinois Rd: Rockhill Park to Magnovox Way (2 Phases)	CN	Trail
Kirklynn Dr: Moeller Rd to Greenmoor Dr (New Haven)	CN	Reconstruction
Lake Ave: Randalia Ave to Coliseum Blvd	CN	Trail
Landin/Maysville/Trier Intersection	CN	Roundabout, Sidewalk & Trail
Leesburg Rd: Main St to W Jefferson Blvd	CN	New Road, Sidewalk & Trail
Ludwig Rd: Brotherhood Way to Coldwater Rd	CN	Road Relocation
Main St Bridge #601 (New Haven)	CN	Bridge Rehabilitation
Maysville Rd: Landin Rd to Meijer Dr (2 Phases)	CN	Trail
Norland Ln: Moeller Rd to Greenmoor Dr (New Haven)	CN	Reconstruction
Old Lima Rd Bridge #52 (Huntertown)	CN	New Bridge
Old Lima Rd: Willow Creek Ditch to SR3 (Huntertown)	CN	Resurfacing
Pawnee Way: west cul-de-sac to ~165' e/o Shawnee Tr (NH)	CN	Resurfacing
St Joe Center Rd: Meijer Dr to Chiswell Run	CN	Trail
Shawnee Tr: Pawnee Way to Arrow Pass (New Haven)	CN	Resurfacing
E State Blvd: between Maysville Rd to Lahmeyer Rd	CN	New Bridge #319 & New Sidewalk
Washington/Jefferson Blvds: St Mary's River Br to Garden St	CN	Streetscape
West Hamilton Rd Bridge #221	CN	New Bridge and Trail extension
Wheelock Rd: St Joe Ctr Rd to Mill Ridge Run	CN	Trail
Winters Rd: I-69 to Lower Huntington Rd	CN	Road Extension to GM

Quarterly Review Meetings

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

QUARTERLY REVIEW MEETINGS

Each quarter the Northeastern Indiana Regional Coordinating Council (NIRCC) schedules a quarterly review meeting for all federally funded Local Public Agency (LPA) projects in our Transportation Improvement Program (TIP). The Indiana Department of Transportation's (INDOT) quarterly report is due the 20th of the month following the end of the quarter. NIRCC's quarterly review meeting is scheduled typically 2 weeks after the INDOT date.

The INDOT quarterly report is filled out by the LPA. Once the LPA submits the report it is then sent to NIRCC for approval. After NIRCC approves the report it is sent back to the LPA, who then submits it to INDOT. The entire process is completed through INDOT's Technical Applications Pathway (ITAP).

Information from the INDOT quarterly report is reviewed by NIRCC staff and then entered into the NIRCC quarterly review sheet. NIRCC's review sheet is a condensed version of the INDOT report. Some additional information is also included on NIRCC's review sheet, most notably being the funding information from the TIP. See an example of NIRCC's quarterly review sheet in Figure 35 on the next page.

At the quarterly review meeting each project is allotted 15 minutes for review. The LPA and consultant are requested to attend the meeting. If the consultant is located outside of Fort Wayne they are able to call into the meeting rather than attending.

In addition to the LPA and consultant attending the meeting, others invited include INDOT representatives with Planning and Programming, Right of Way representatives from INDOT, and Federal Highway Administration (FHWA) representatives. We have an excellent turnout and feel this really increases communication and understanding of the project.

Important information to review at the meetings include cost totals, federal funding and LPA match funds, permits needed, right of way parcels needed, schedule updates, items completed and any potential problems. Many issues are resolved at the quarterly review meeting thus saving time and money.

The information received at the quarterly review meetings allows staff to determine if projects are progressing on schedule and on budget. This information is then used to help program the projects in the Transportation Improvement Program.

Figure 35

DES	#0710322
-----	----------

	Project	Estimated		Federal	State	Local
TIP	Phase	Cost	Year	Share	Share	Share
2016-2019	PE*	493,310	2016	394,648	0	98,662
	RW	250,000	2017	200,000	0	50,000
CMAQ	CN	3,337,500	2019	2,670,000	0	667,500
	Total	4,080,810		3,264,648	0	816,162

*includes modification increase

	Initial		Previous	Current	
	Report	_	Report	Report	
Project Cost	Jan-14		Oct-16	Jan-17	
a. Preliminary Engineering	\$300,000		\$493,310	\$493,310	
b. Right of Way Acq cost	\$250,000		\$250,000	\$250,000	
c. Reimbursable Utility cost	n/a		n/a	n/a	
d. Construction cost	\$1,700,000		\$2,773,100	\$2,773,100	
e. Constr. Eng & Inspect. cost	\$300,000		\$489,390	\$489,390	
f. Total cost	\$2,550,000		\$4,005,800	\$4,005,800	
Schedule	Jan-14		Oct-16	Jan-17	
Ready for contracts date	6/25/2016		11/8/2017	11/8/2017	

Environmental document

Type:	Statewide CE	completion date:	3/28/2016

Permits	401	404	DNR	Rule 5	drainage	
parcels	23	0		0	0	
Land acquisition	Total #	# secured	•	# secured	# secured	
		8/25/17		Oct-16	Jan-17	

yes

Needed: Approved:

ERC	LPA:	Shan Gunawardena	Certified date:	3/9/2016
	Consultant:	John Nelson	Certified date:	

Milestones	Actual			LPA	
	Start	Completion	Actual	Initiative	Percent Complete/Comment
	Date	Date	Days	Days	reitent Complete/Comment
Project Authorized	7/1/13	7/15/13		180	100%
Start Plan Develop	7/17/13	6/3/14		30	100%
Stage 1 Design	6/3/14	12/10/14		5/6/2015	100%
Prelim Field Check	6/3/14	5/6/15		30	100%
Environmental Doc.	6/3/14	3/28/16		365	100%
Pavement Design App	·			·	
CE Agreement					
RW Clear	12/16/14	2/16/18		180	
Stage 3 Design	10/21/14	2/16/18		180	
Final Tracings Due	·	4/2/18		·	
Ready for Contracts		5/2/18		60	
Letting		7/11/18			

TITLE VI & ADA (Americans with Disabilities Act)

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

TITLE VI & ADA (AMERICANS WITH DISABILITIES ACT)

The Federal Highway Administration (FHWA) Division Offices are responsible for ensuring that all Recipients (State Transportation Agencies) have an approved Title VI/Nondiscrimination Plan and submit Annual Update Reports. Additionally, the Division Offices are responsible for ensuring that the State Transportation Agencies are implementing an effective Monitoring Program of their Subrecipients' (Local Public Agencies) efforts to effectively implement Title VI and the additional Nondiscrimination requirements.

The Indiana Department of Transportation (INDOT) has made LPAs aware that they must have a Title VI Implementation Plan and an ADA Transition Plan in place (or working towards this) to remain eligible for Federal funding.

During FY 2013 the Northeastern Indiana Regional Coordinating Council (NIRCC) reached out to help LPAs (Local Public Agencies) become familiar with ADA requirements and assisted them with creating ADA Transition Plans. To remain eligible for federal transportation funding, LPAs were reminded that they need to be in compliance and have updated their transition plans. The goal was to ensure that LPAs had a specific plan of action and had reviewed and completed their updated ADA Transition Plans. NIRCC continues to assist LPAs with their ADA Transition Plans to remain compliant.

In FY 2015 NIRCC began assisting LPAs with their Title VI Implementation Plan. Most LPAs were practicing nondiscrimination, however, they did not have all the information and documents compiled into an Implementation Plan. Similar to the process taken in FY 2013 with the ADA requirements, NIRCC reached out to the LPAs to offer assistance.

A Title VI Implementation Plan consists of the following items:

- Policy Statement
- Organization and Staffing
- Title VI Coordinator Contact Information and Responsibilities
- Department Head (Liaisons) Responsibilities
- Department Head Reporting
- Title VI Training
- Complaint Process
- Complaint Investigation Procedures
- Public Participation and Outreach

- Limited English Proficiency (LEP) Plan
- Title VI Goals
- Title VI Reporting and Accomplishments
- Standard US DOT Title VI Assurances
- Title VI Compliance Review Form
- Training Log
- Complaint Log
- Voluntary Public Involvement Survey
- LEP Report
- Language Identification Flashcards

During FY 2017 NIRCC assisted with the development of the DeKalb County Title VI Implementation Plan and updating the DeKalb County ADA Transition Plan. NIRCC also assisted Huntertown on creating a Title VI Implementation Plan.

Safety Management System

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

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 2017 NIRCC obtained all crash records that occurred in Allen County during 2016. 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.

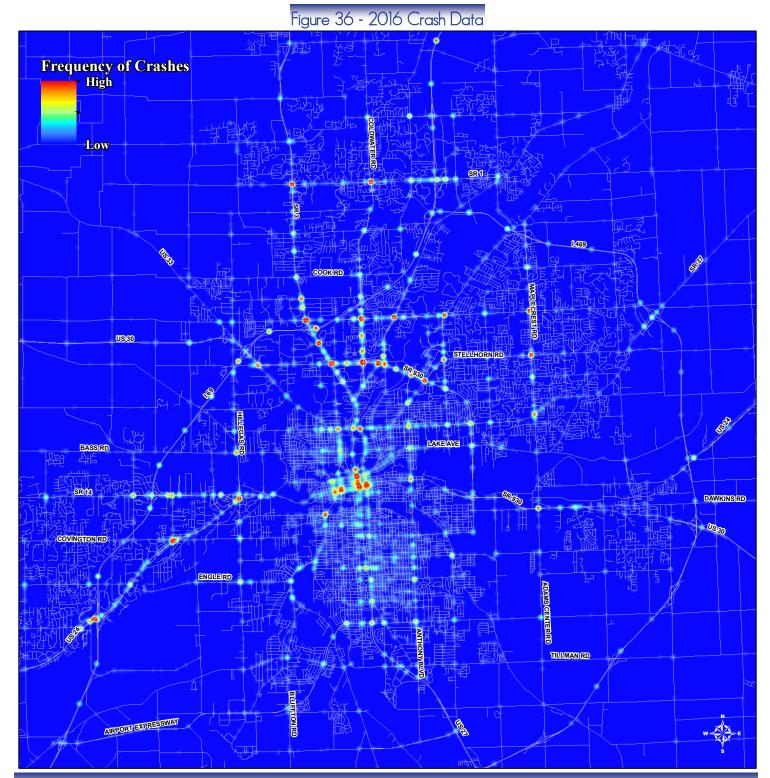
Once staff completed the "coding" process for the 2016 crash data and included it in the crash database, NIRCC combined the 2016 crash data with the 2014 and 2015 crash data to create a three year comparison. These crashes were also input into mapping software to be used with GIS (Geographical Information Systems). Figures 36, 37, and 38 display the densities of crash frequencies for the Fort Wayne, New Haven, and the 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,

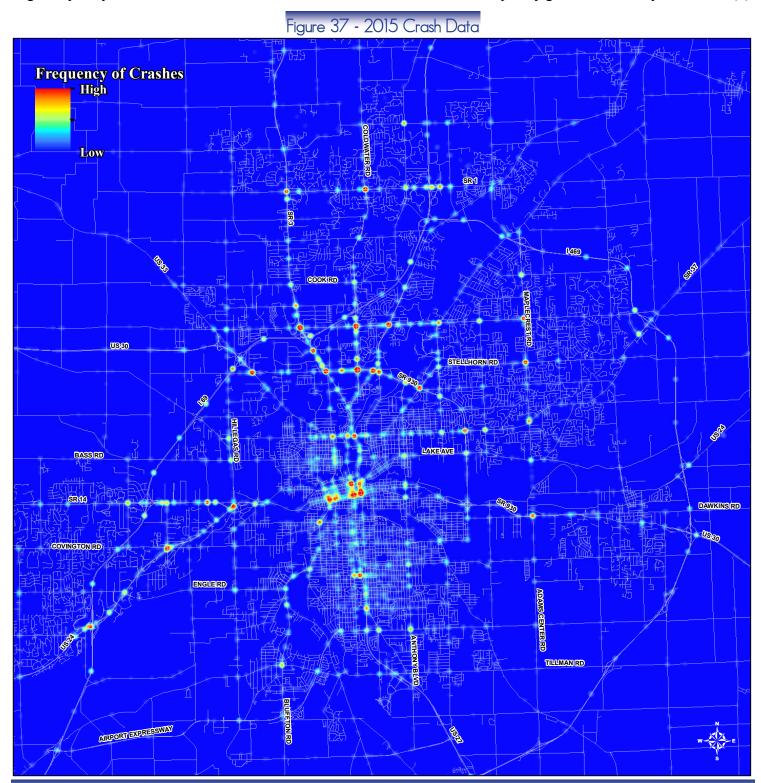
planners and law enforcement with a summary of information from the crash reports. The information includes specific data about the circumstances involved with crashes including environmental circumstances, driver information, vehicle information and other important data for all the annual crashes.

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 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.

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

Figure 38 - 2014 Crash Data Frequency of Crashes High US 30 TILLMAN RD AIRPORT EXPRESSWAY

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 2017 staff reviewed all the crash location listings created for 2014, 2015, and 2016 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 three 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 2014, 2015, and 2016. These locations were then reviewed using crash rates and 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.

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 continue to be updated annually to review trends and previously identified hazardous locations. Additional locations that meet the approved criteria will also be added.

Traffic Incident Management (TIM)

In 2007 the Indiana Quick Clearance Working Group was created to research and develop Quick Clearance practices in the State of Indiana. In 2008 the In-TIME initiative was implemented and in 2009 the Indiana Quick Clearance Working Group was changed to IN-TIME (Indiana Traffic Incident Management Effort). The purpose of the INdiana-Traffic Incident Management Effort (IN-TIME) is to have first responders, from all disciplines follow agreed upon multi-lateral policies and procedures focusing on an "Open Roads Philosophy". The Open Roads Philosophy is "Having all



First Responders, after ensuring their own personal safety and the safety and security of any incident victims, to have as their top priority reducing congestion and the increased risks of secondary incidents for public/motorist safety". The IN-TIME group also works to provide a common framework for development of traffic incident management (TIM) policies and training programs for the various responder disciplines. TIM is a planned and coordinated program process to detect, respond to, and remove traffic incidents and restore traffic capacity as safety and quickly as possible.

In 2013 the Northeastern Indiana Regional Coordinating Council (NIRCC) assisted in forming a committee of local

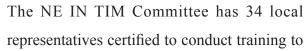
representatives to implement Traffic Incident Management (TIM) strategies in Northeast Indiana called the Northeast Indiana Traffic Incident Management Committee (NE IN TIM). NIRCC identified local public and private sector stakeholders that were interested in the concepts and fundamental mission of the initiative. The purpose of the committee is to develop and recommend policy and operational protocols for the safe and efficient mitigation of traffic incidents through training and education of all first responders.

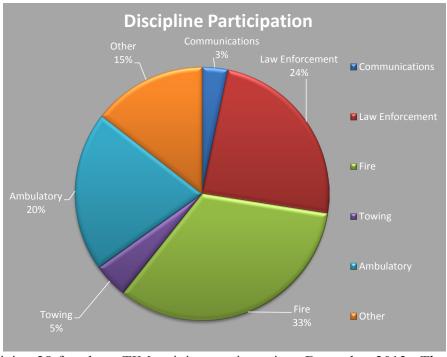




The committee is currently comprised of 41 representatives from multiple disciplines that include both public and private agencies. Disciplines represented on the committee include:

- 911 Communications/Dispatch
- Law Enforcement
- Safety & Environmental Affairs
- Fire Departments
- Coroner's Office
- Environmental Clean Up
- Health Department
- Tow Operator
- Homeland Security
- Paramedic / Medical Transport
- Prosecutors Office
- Department of Transportation
- Transportation Planning





first responders. NIRCC has assisted in organizing 28 four hour TIM training sessions since December 2013. The graph above provides a summary of the 829 responders by disciplines that have attended TIM training sessions.

Congestion Management Process

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

CONGESTION MANAGEMENT PROCESS

In December 1993, final interim guidelines were developed which established general requirements for the Congestion Management Process - CMP (previously known as the Congestion Management System - CMS) and identified deadlines for work plan submission and for the CMP to become operational. In August 1994, Purdue University, INDOT and FHWA published the draft final report for development of a prototype congestion management system for the State of Indiana as a Joint Highway Research Project. The study delineated a comprehensive set of guidelines and a nine-element work plan to be undertaken in developing the CMP in a consistent manner statewide.

NIRCC developed the initial CMP by following the guidelines provided by the Congestion Management Process Work Plan developed for the State of Indiana. That plan specified that each CMP include the following elements:

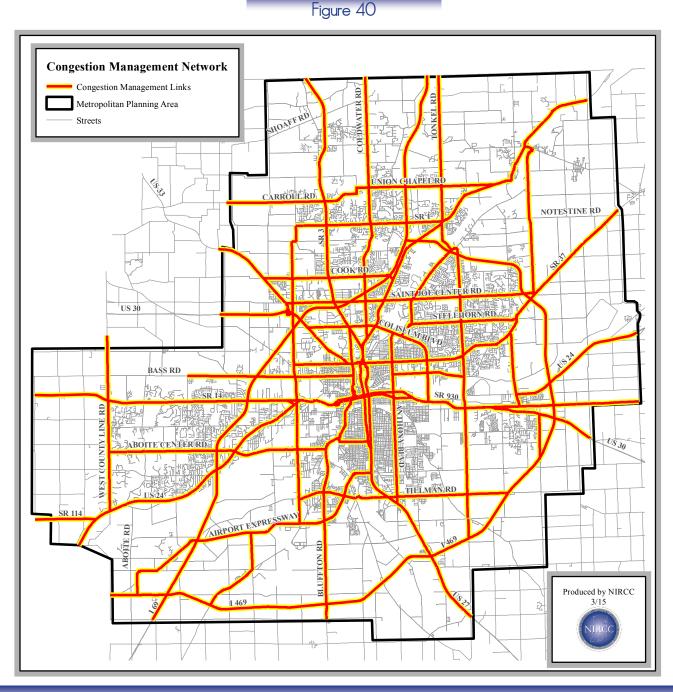
- Define CMP Network
- Establish Performance Measures
- Establish System Performance Standards
- Establish Data Collection and Monitoring Program
- Identify Roadway and Transit System Deficiencies
- Analyze and Evaluate Congestion Mitigation Strategies
- Implement Strategies
- Evaluate the Effectiveness of Implemented Strategies
- Establish CMP Update Process

NIRCC's original Congestion Management Process Work Plan was completed in May 1995 and adopted by the Urban Transportation Advisory Board at its June 6, 1995 meeting. The work plan was submitted to the Indiana Department of Transportation, and an updated work plan was submitted at the conclusion of Fiscal Year 1996 and adopted in Fiscal Year 1997. The Fiscal Year 2017 CMP continues to utilize the work plan elements listed above to ensure all federal requirements are met.

The Fort Wayne / New Haven / Allen County Metropolitan Planning Area or Transportation Management Area boundaries were established as the geographic study area for the Congestion Management Process. Urban areas with populations over 200,000 have been directed to use the Metropolitan Planning Area boundaries for the Congestion Management Network. The current congestion management network is displayed in Figure 40.

The CMP is designed to be a dynamic process. As new information on the transportation system is collected, analyzed, and reviewed, strategies are developed and evaluated for mitigating congestion. Implemented strategies are evaluated providing feedback on their success at reducing congestion. This information is documented in annual updates to the CMP report. Comprehensive reviews of the CMP takes place in conjunction with the scheduled update of the Transportation Plan.

The implementation of congestion mitigation strategies occurs within the TMA through a number of different agencies and programs. NIRCC attempts to include all projects and policies involved with congestion mitigation strategies in the transportation planning process. These projects and policies are, and will continue to be documented in the



Transportation Plan. These projects and policies will continue to be included in future Transportation Plan updates.

The transportation planning process has routinely reviewed existing congestion and projected travel demands to assess the potential for future congestion on the transportation system. Strategies, including both transit and highway projects and policies, have been developed, implemented, and evaluated. These strategies have been identified and documented in Transportation Plans and Transportation System Management Programs.

Additional projects and policies implemented to help mitigate congestion and improve overall mobility on the transportation system include Access Management, Transit Improvements, ITS/Signalization Improvements, Incident Management, Safety Management, and Pedestrian/Bicycle Access Improvements. Many of these items are described throughout the Transportation Summary Report as many of the elements summarized are used in conjunction with the CMP and utilize these elements.

NIRCC also has an extensive traffic monitoring program which collects: traffic volume and vehicle classification information; intersection turning movements and geometrics; signal phasing and timing information; travel time and delay data; crash data; and other types of traffic characteristic data. NIRCC also maintains a roadway characteristic database, which includes traffic volumes, length, number of lanes, indicates transit routes, facility classifications, and much more for specified road segments within the TMA. Data is collected annually for these programs in accordance with the Overall Work Program (OWP).

When analyzing the highway system for roads classified as collector or higher, the traffic monitoring program provides the majority of the data needed for a macro analysis. Existing traffic count data for all links within the study area is analyzed according to lane capacities. Roadway volume to capacity (V/C) ratios were calculated using morning and evening peak hour volumes. Actual directional peak hour volumes were used if available. When directional data was not available, average daily traffic (ADT) volumes, and default "D" and "K" factors were used to determine volume to capacity ratios for peak periods. Based upon the recommended benchmark V/C ratios, staff identified which road segments exhibited V/C ratios above the acceptable limits.

The volume to capacity ratio is a key indicator of the degree to which the highway system is being utilized, and is somewhat sensitive to demand responsive strategies. The vehicle miles of travel (VMT) estimate is used primarily as a weighting factor across hours and geographic areas. Total VMT is primarily a base to which changes in the percent VMT can be referenced. If the total VMT increases significantly, but the percent VMT at a given V/C ratio remains constant, the system is accommodating increases in travel demand without increased congestion.

All road segments in the TMA with V/C ratios greater than 0.80 (the most restrictive ratio) were identified, mapped, and color-coded according to levels of congestion (0.80 - 0.89; 0.90 - 0.99; 1.0 +). The macro-level analysis identified some road segments not included on the congestion management network. As a result of the analysis, all roadways in the TMA exhibiting V/C ratios exceeding 0.80 were considered as additional components of the congestion management network. The roadways with AM and PM V/C ratios exceeding 0.80 of their respective lane capacities based upon the macro analysis are displayed in Figures 41 and 42. Segments that have V/C ratios greater than 0.80; 0.90; and 1.0 have been separated by color.

In evaluating changes in congestion over time, it is important that each hour be evaluated, not just the peak hour. In locations where the V/C threshold has been exceeded, congestion generally worsens through the spreading of the peak. If hourly information is not provided, the ability to evaluate changes in congestion over time is lost. An

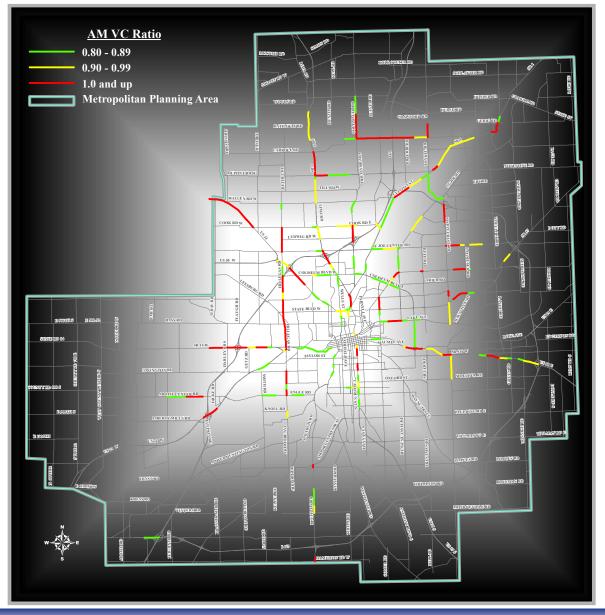


Figure 41

analysis was completed to identify the duration of the congestion beyond the peak hours. Several corridors within the congestion management network were identified for experiencing high levels of congestion (V/C ratios greater than 0.90) an extended number of hours (Figures 43 and 44). Corridors where V/C ratios were found for multiple hours were reviewed to determine the number of continuous hours. These corridors have been designated as "high risk" for congestion issues and will be monitored closely. Micro-level analysis will be performed on these corridors when warranted.

Intelligent Transportation Systems

Another part of the Congestion Management Process is updating Allen County's Regional ITS (Intelligent Transportation Systems) architecture. ITS is the use of communications, electronics and information processing to help improve the efficiency and safety of surface transportation systems. Due to the nature of information technology being most

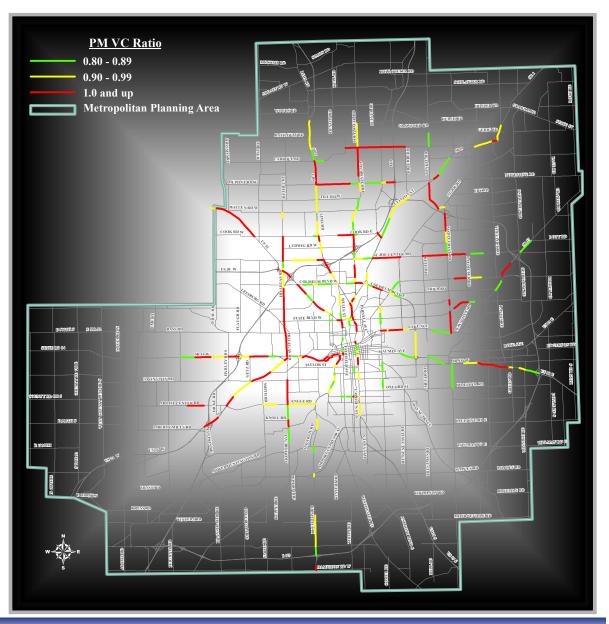
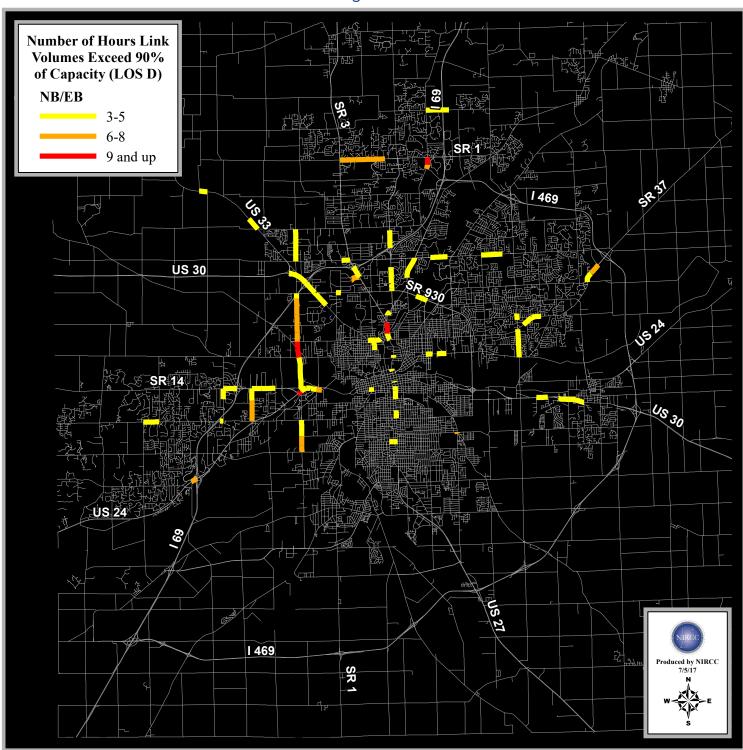


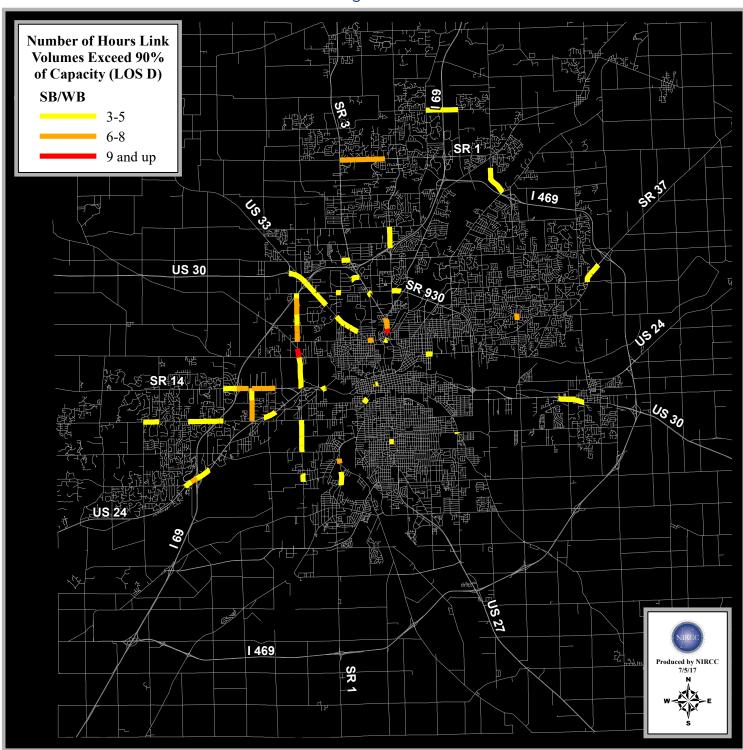
Figure 42

Figure 43



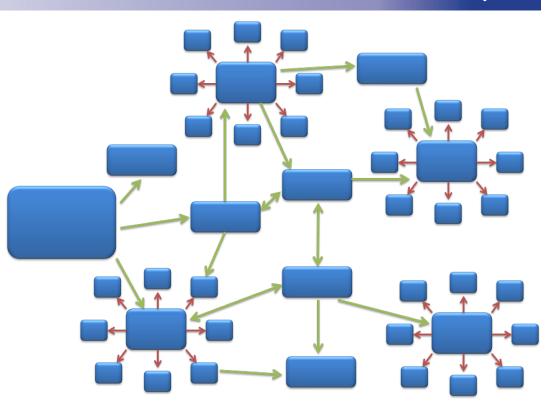
effective when systems are integrated and interoperable the USDOT developed the National ITS Architecture. When referring to architecture, it is best described as a tool that assists in organizing complex entities and relationships. It helps identify system functions and informational flows, and guides development of functional requirements for new systems and improvements.

Figure 44



The National ITS Architecture is designed to provide a common structure for which ITS projects could be based on. The National Architecture specifies what type of interface could exist between the many different components of ITS and also to show the different types of information exchanged. Processes and data flows are grouped to form particular transportation management functions and are represented graphically by data flow diagrams, or bubble charts, which decompose into several levels of detail. In these diagrams, processes are represented as bubbles and data flows as

The Allen County Regional ITS Architecture details the communications and interactions between 10 primary systems (centers) over a 10-year period (2012-2022). These systems are associated with traffic management, emergency management, maintenance and construction management, transit management, or data management. Each system is associated with a specific



stakeholder (anyone with a vested interest or "stake" in the regional ITS architecture) or group of stakeholders

The original Allen County Regional ITS architecture was completed in March 2005 to meet the requirements of TEA-21. There was an update to the architecture 2008 so that it would meet the requirements outlined in SAFETEA-LU, as well as changes in technologies that had occurred in those three years.

In 2012 the architecture was once again updated to the most current version of the national architecture. This update saw the removal of all elements which involved personnel at all agencies. FHWA did not see a reason to have them in the architecture anymore because they were the users of the technology and the architecture represents only technology. NIRCC staff updated any flows that changed between 2008 and 2012.

The ITS architecture is continually monitored for updates by NIRCC Staff. In FY 2017 input data was collected and noted for future updates ITS architecture.

Bicycle and Pedestian Planning

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

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 and 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. Since 2007 NIRCC has relied on the Greenway Coalition for guidance as well as governmental and public input 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.

Since the adoption of the Comprehensive Bicycle and Pedestrian Plan in 2006, NIRCC has continued to update and improve the plan as needed. In 2007 NIRCC incorporated the "Regional Bicycle and Pedestrian Plan for Northeast Indiana" (Figure 45). Through the years following 2007, recommendations were incorporated into the plan which included the needs expressed by public input and local advocacy groups such as Aboite New Trails, the Greenway Consortium, Little River Wetlands, Northwest Allen Trails, and Fort Wayne Trails Inc. Other plans and recommendations from Allen County, Fort Wayne, New Haven, Leo-Cedarville, and Woodburn have provided input or have been included in the plan as well.

Throughout the year NIRCC periodically updates the Comprehensive Bicycle and Pedestrian Transportation Plan for Allen County as well as the Northeast Indiana Regional Bicycle and Pedestrian Plan. Local government and 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.

In fiscal year 2013 NIRCC spent a significant amount of time updating the bicycle and pedestrian plan as part of the Transportation Summary Report Fiscal Year 2017

87

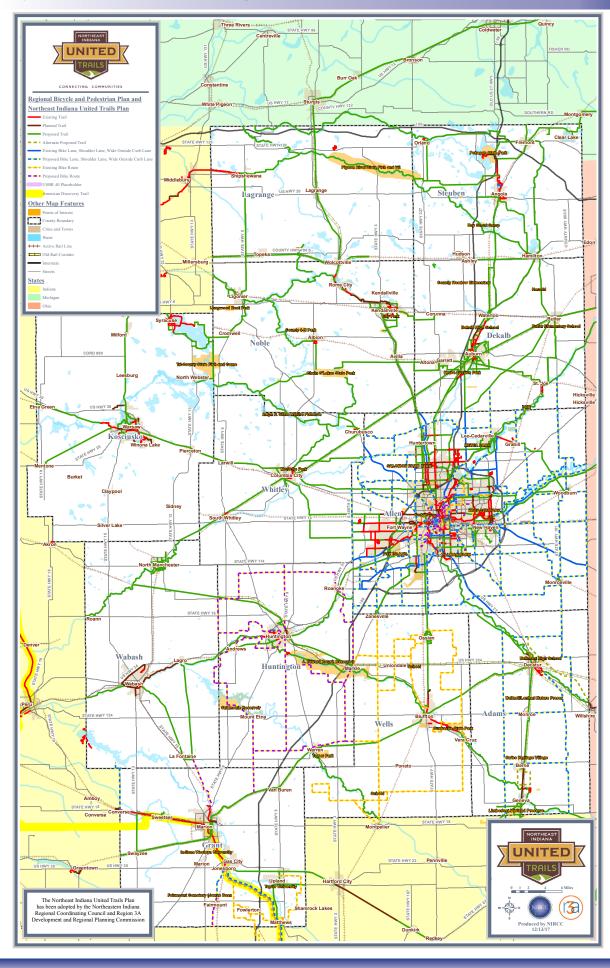
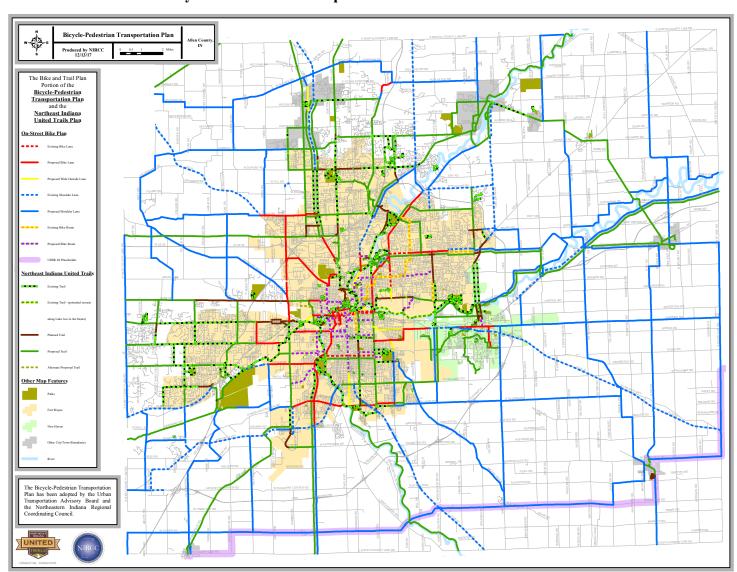


Figure 45
Regional Bicycle
and Pedestrian
Plan

2035 Long Range Transportation Plan update. To create a more usable and detailed plan this latest update to the Comprehensive Bicycle-Pedestrian Transportation Plan took what used to be one map, which included all bicycle and pedestrian infrastructure, and separated it into three individual maps. These three maps consist of a bike plan (Figure 46) which includes trails and on-street bike infrastructure, a trail plan (Figure 47), and a sidewalk plan (Figure 48). The combination of these three maps must be used to find out what is planned, proposed, or already exists for each corridor or alignment identified. For example, some corridors may only include proposed sidewalks while others may propose bike lanes in the street, a sidewalk on one side, and a trail on the other. Some corridors in the plan also identify which side of the street sidewalks and/or trails are proposed for.

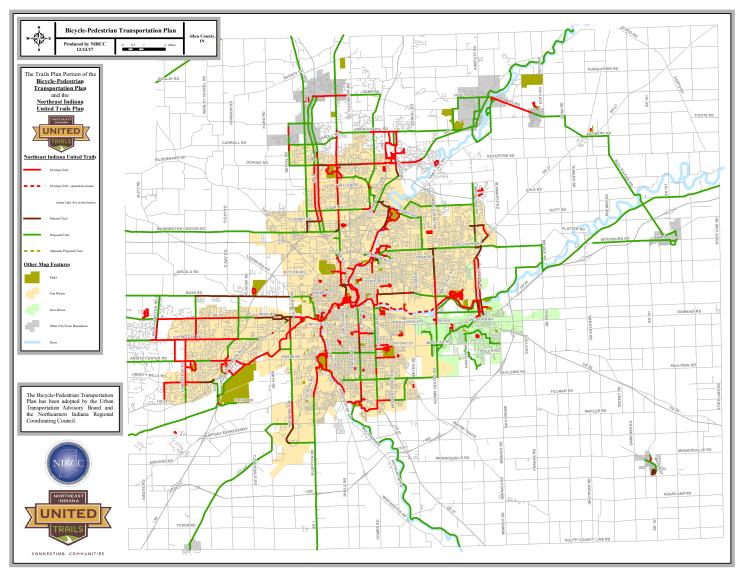
Figure 46
Bicycle-Pedestrian Transportation Plan: Bike and Trail Plan



The Bike and Trail Plan (Figure 46) is really intended to show an overall bike network along with the trails plan. Since bicyclists use a combination of on-street infrastructure and trails this map includes both to show how the entire network works together. This map displays a wide range of proposed and existing infrastructure for bicycling. The

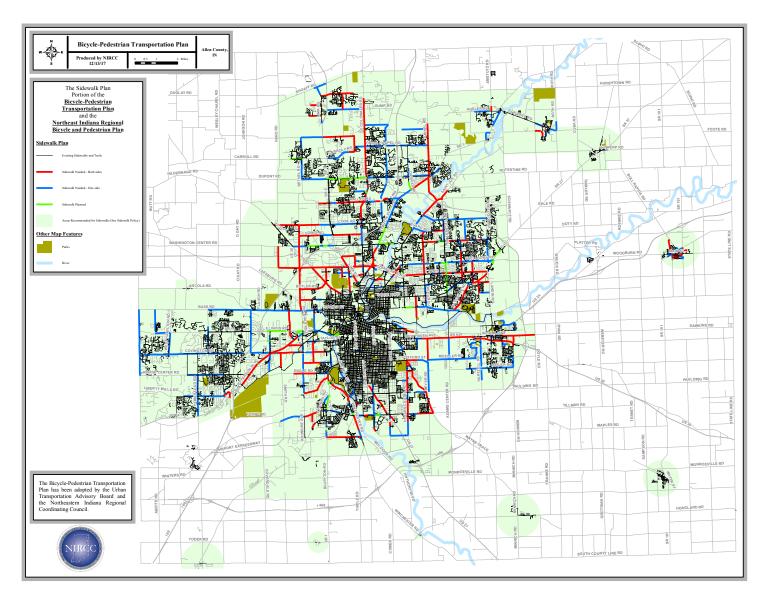
proposed and existing facilities displayed include bike lanes, widened outside curb lanes, shoulder lanes, sharrows, bike routes, and trails.

Figure 47
Bicycle-Pedestrian Transportation Plan: Trail Plan



The Trails Plan (Figure 47) shows the entire existing trail system for Allen County as well as how it will tie in with what is planned to occur over the next several years and into the future. The trails identified as "Planned" are facilities that are being built along with road projects or are standalone projects that have all or most of their funding and we are confident they will be constructed in the near future. The trails identified as "Proposed" vary in their stages of development. These trails may be very conceptual or may currently be in some stage of development but lack the funds to really push them forward to construction.

Figure 48
Bicycle-Pedestrian Transportation Plan: Sidewalk Plan



The Sidewalk Plan (Figure 48) identifies sidewalk needs along all major roadways in the urban area and some outside the urban area. This map displays all existing sidewalks and trails within Allen County and specifically identifies corridors or sections of roadways that need sidewalks on one side or both sides depending on existing features and proposed trails that parallel. The sidewalk needs identified on the map will be used to prioritize sidewalk improvements and identify the need for sidewalks as development spreads throughout the urban area. The map also includes a green shaded area that refers to the sidewalk and bicycle parking recommendations policy included in the 2035 Transportation Plan. Other than what is specifically identified on the map, these areas should always consider sidewalks and bicycle parking amenities as needed depending on development patterns and opportunities that arise.

This past fiscal year NIRCC participated in a variety of bicycle and pedestrian planning activities. Some of the

common tasks NIRCC participated in or completed for bicycle and pedestrian planning include but are not limited to the following:

- Making updates to the Allen County Bicycle and Pedestrian transportation Plan.
- Making updates to the Allen County Sidewalk and Trail Inventory.
- Meeting or talking with citizens about bicycle and pedestrian planning issues.
- Working with local advocacy groups.
- Creating maps and supporting documents or reports for bicycle and pedestrian planning.
- Working with other governmental departments and providing ideas, facts, recommendations or any other information related to bicycle and pedestrian planning upon request.
- Researching bicycle and pedestrian facility design, funding types and availability, educational information, safety information, laws and ordinances concerning bicycle and pedestrian subjects.
- Tracking progress on bicycle and pedestrian projects throughout the area.
- Reviewing development plans and transportation projects that are underway or in some stage of design to ensure bicycle and pedestrian connectivity and coordination with the Bicycle-Pedestrian Transportation Plan.
- Checking potential trail and sidewalk projects for environmental conflicts.
- Extracting and analyzing bicycle and pedestrian crash data from NIRCC's crash database.
- Making updates to various bicycle and pedestrian related plans.
- Attending meetings for bicycle and pedestrian issues.
- Creating planning documents, reports, or maps for meetings and governmental agencies.
- Assisted various local groups, governmental departments, agencies, and public with bicycle and pedestrian planning.
- Updating performance measures.

In Fiscal Year 2017 NIRCC spent a significant amount of time on the Northeast Indiana Trail Branding and Wayfinding Initiative. The Regional Trail System for Northeast Indiana needed a name and a brand. We needed something to call our system that would speak to the residents and visitors of Northeast Indiana. Part of this not only required names and logos, but also required a common signage and wayfinding system to capture visually the message of our trails. It had to be unique, and allude to Northeast Indiana's cohesiveness and future connectivity of trails and communities throughout the region. Just like new trails, there are many existing trails throughout our region with different "owners" and different "names" that while needing to maintain their identities, there was also a need for consistent signage and information regarding regional identification, visual branding, directions and destinations, and other trail related information. A named and branded system provides a simple way to market our trail system to users and potential funding

partners, thereby playing a crucial role in the development of our trail system and solicitation of private investment.



To accomplish this NIRCC contracted the consultant firm Merje to provide services that assisted in preparing a comprehensive branding initiative for the Northeast Indiana Regional Trail System which is now called the "Northeast Indiana United Trails" (Figure 45). Merje traveled to Fort Wayne several times throughout the fiscal year and conducted public meetings throughout the region. The services they provided resulted in this new regional trail system name, a new name and logo for our state priority trail from Pokagon State Park

to Ouabache State Park (Poka-Bache Connector), and a draft of the brand and wayfinding signage guidelines manual to follow for design and implementation. This draft manual provides details for designs, materials, dimensions, and location guidelines to allow communities to choose the signs needed for their unique situations.



Many existing or planned trails already have names or identities. The United Trails brand and Poka-Bache Connector brand does not intend to change unique identities already established but rather mark these trails as part of the regional system or state priority trail that can be recognized no matter what part of the Northeast Indiana Region an individual may be in. The consistent use and design of wayfinding signs will allow residents and visitors to our region to easily recognize and become familiar with our vast regional trail system. The draft brand and wayfinding signage guidelines that Merje has produced for our region will provide a manual that gives a number of options that trail owners can choose from if they decide to identify their trails as part of the United Trails regional system. These options range from simple placards that can be installed on a sign post to a complete trailhead kiosk. The draft brand and wayfinding signage guidelines manual has been produced and will soon be available to the public on our website.

As a part of the branding and wayfinding initiative NIRCC began planning for a pilot project that would showcase the new signs along an existing trail corridor. A section of the Pufferbelly Trail from Wallen Rd to Life Bridge Church was selected. The Pufferbelly Trail is also a section of the Poka-Bache Connector. This corridor would help showcase a wide range of sign types. Locations for different sign types were mapped out and renderings of what the signs would look like at each location have been made. The next step is to either have signs contracted out or completed in house with the City of Fort Wayne and installed along the trail.

The Draft of the brand and wayfinding signage guidelines manual should be finalized shortly after the end of FY 17 and provided to the public on NIRCC's website. Files of sign designs and templates will be available upon request from NIRCC once the process is final.

Red Flag Environmental Investigations

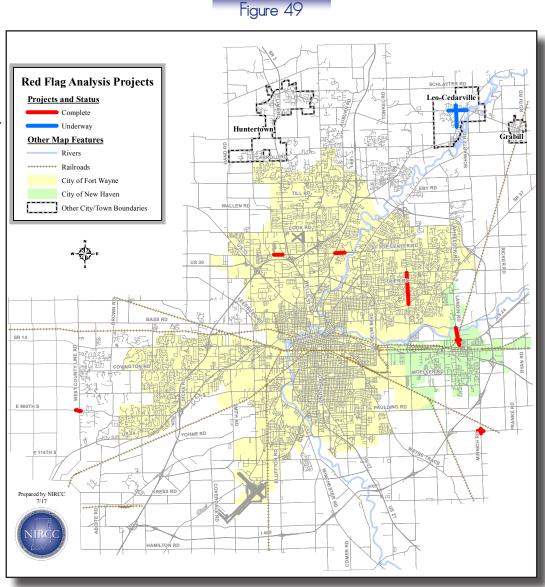
Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

RED FLAG ENVIRONMENTAL INVESTIGATIONS

When federal funds are used for projects, agencies are responsible for complying with certain guidelines and requirements throughout the project process. One of the requirements when there is a federal undertaking is that, by all practicable means, the action taking place will identify and either mitigate or avoid any adverse harm to the natural or cultural environment. The National Environmental Policy Act (NEPA) is what establishes these national environmental policies and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals.

As part of this process agencies conduct investigations during or before the project development phase to see what kinds of environmental effects may be caused as a result. In order to identify locations and issues of concern, or "red flags", an initial report is completed and referred to as a Red Flag Investigation (RFI). The report identifies these red flags that may require additional study coordination in future steps of the project development process. They may also prompt creative management or design approaches which may increase right of way and construction costs. The report also identifies



any "fatal flaws" in the study area which are locations that must be avoided all together.

In FY 17 NIRCC completed work on one Red Flag Investigation (RFI), the Amstutz Road/Hosler Road RFI, in the town of Leo-Cedarville which is in Allen County. This RFI will be completed in FY 18. The RFIs NIRCC has completed to date are shown in Figure 49. Throughout the Fiscal Year NIRCC also commented on a number of projects for

Early Coordination which requires referencing the same data used to complete Red Flag Investigations. Also, NIRCC continued to update analysis data for future Red Flag Investigations and Early Coordination efforts.

Red Flag Investigations analyze projects to find out what types of environmental red flags may be present. To do this NIRCC utilized GIS (Geographical Information Systems) to search areas within half a mile of the project limits to identify any items that may fall within any of the six main sections of the report. Here is a list of the six sections in the report with examples of what is being identified within each:

- 1. Infrastructure Examples include airports, cemeteries, schools, hospitals, parks, utilities, religious facilities, etc.
- 2. Water Resources Examples include rivers, streams, special interest waterways, wetlands, floodplain, etc.
- 3. Mining/Mineral Exploration Examples include mines, petroleum wells, and petroleum fields.
- 4. Hazmat Concerns Examples include underground storage tanks, different types of waste sites, cleanup sites, remediation sites, dumps, etc.
- 5. Ecological Information Identifies endangered, threatened, or rare species.









6. Cultural Resources – Examples include historic sites and districts, potential historical sites and districts, select and non-select bridges, and properties identified in interim reports.

Besides the sections listed above, NIRCC also completes a section identifying bicycle and pedestrian facilities, existing and proposed, throughout the project area and specific locations that may need special consideration for ADA compliance. For each RFI there are also maps providing visuals of each project's location and individual maps for each section listed above identifying all red flags within the half mile radius.

Figures 50 and 51 give you examples of three maps included in the report NIRCC worked on this past fiscal year for Amstutz Road/Hosler Road. Figure 50 is the map which identifies "Water Resources" near the project area and Figure 51 displays "Infrastrucure" items identified in the red flag analysis.

Along with the maps NIRCC also creates a table for each of the six sections. These tables show everything that is considered when conducting the red flag analysis and how many items of each are found within a half mile radius of the project. You will see an example of the "Water Resources" table and "Infrastructure" table from the Amstutz Road/Hosler Road project

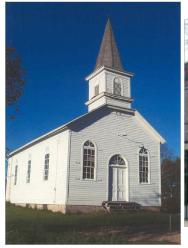
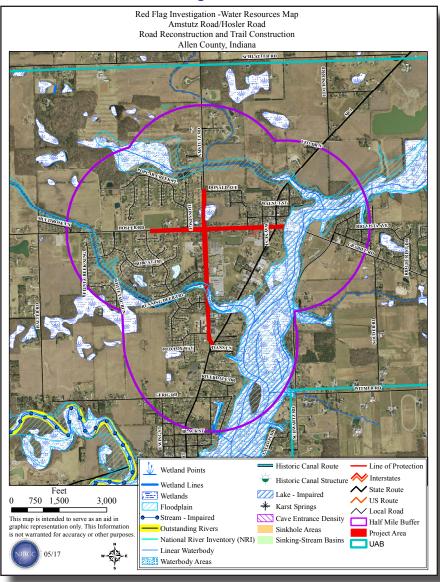




Figure 50



in Figures 52 and 53. Once the tables are complete NIRCC includes a summary of findings for each item with a description in the report that also states whether or not each item will be affected by the project. To find out further information about Red Flag Analysis or detailed information about a specific Red Flag Analysis already completed please contact NIRCC for assistance.

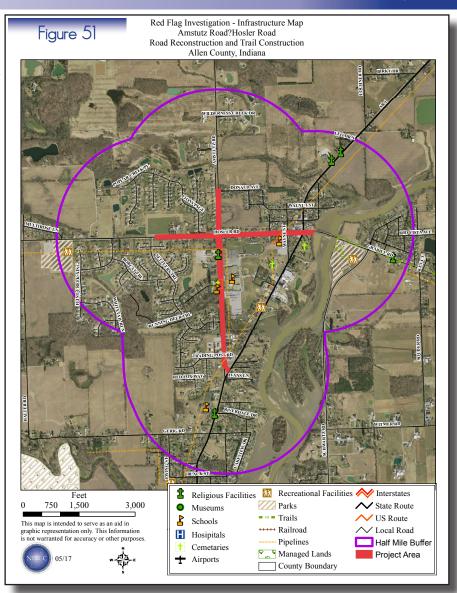


Figure 52

Water Resources

Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:

NWI - Wetlands	24	IDEM 303d Listed Lakes	N/A
Karst Springs	N/A	Lakes	7
Canal Structures – Historic	N/A	Floodplain - DFIRM	Yes
IDEM 303d Listed Rivers and Streams (Impaired)	5	Cave Entrance Density	N/A
Rivers and Streams	6	Sinkhole Areas	N/A
Canal Routes - Historic	1	Sinking-Stream Basins	N/A
Outstanding Rivers (Special Interest Waterways)	N/A	Line of Protection	N/A
*High Capacity Wells (Wellhead Protection Areas)	2	National River Inventory (NRI)	N/A

Figure 53

Infrastructure

Indicate the number of items of concern found within $\frac{1}{2}$ mile, including an explanation why each item within the $\frac{1}{2}$ mile radius will/will not impact the project. If there are no items, please indicate N/A:

Religious Facilities	5	Recreational Facilities	13
Airports	N/A	Pipelines	1
Cemeteries	1	Railroads	2
Hospitals	N/A	Trails	3
Schools	4	Managed Lands	10
Museums	N/A		

Transit Planning Activities

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

TRANSIT PLANNING ACTIVITIES

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

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

In Fiscal Year 2017, Transit Planning Activities completed by NIRCC staff included the Section 5310 Local Capital and Operational Funding programs and an update of the Coordinated Public Transit-Human Services Transportation Plan for Allen County. A summary of each of these activities is provided below.

Federal Transit Administration's Section 5310 Program

The Federal Transit Administration's (FTA) Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program provides capital and operating funding to support the provision of transportation services to meet the specific needs of seniors and individuals with disabilities. Transportation providers within the Fort Wayne Allen County Urbanized Area serving the senior and disabled populations utilize Section 5310 funding to purchase vehicles and operate services. The current Federal legislation which authorizes funding for transportation is Fixing America's Surface Transportation Act, known as the FAST Act. The FAST Act requires the establishment of a locally developed, coordinated public transit-human services transportation plan for the Section 5310 program. NIRCC has developed a

Coordinated Public Transit-Human Services Transportation Plan for Allen County. All projects selected for funding from this FTA program must be derived from this coordinated plan and be competitively selected.

NIRCC, in coordination with Citilink (designated recipient of the Section 5310 funds for the Fort Wayne Allen County Urbanized Area), has established an application process to select projects to receive capital and operational funding from the Section 5310 Program. Capital and Operational funding rounds are held separately. A Section 5310 Capital funding round is held on an annual basis. While the Section 5310 Operational funding round is held on a semi-annual basis. Any project(s) selected for funding requires the responsible agency / party to enter into a contractual agreement with Citilink (designated recipient).

The annual Section 5310 Capital program awards vehicles to area non-profit agencies providing transportation to seniors and individuals with disabilities. A call for projects was issued in February 2017 with awards announced in May 2017. The capital program provides 80% of the total vehicle cost, requiring a 20% local match from the applicant. In Fiscal Year 2017, approximately \$174,000 in Section 5310 funding was awarded to the Community Transportation Network and Easter Seals ARC to purchase a total of 4 vehicles. All of the awarded vehicles were lift or ramp equipped and had wheelchair tie-downs.

The semi-annual Section 5310 Operational program provides operating support for eligible two (2) year (24 month) operating projects targeted toward meeting the transportation needs of seniors and individuals with disabilities. A list of eligible activities and eligible recipients can be found at www.nircc.com. A call for projects is issued every other July with awards announced every other October. The operational program provides 50% of the total project cost, requiring a 50% local match from the applicant. In Fiscal Year 2017, approximately \$174,000 in Section 5310 Operational funding was awarded to the Community Transportation Network to provide additional medical transportation trips for seniors and individuals with disabilities initiating in 2017 and running through 2018.

Coordinated Public Transit-Human Services Transportation Plan for Allen County

In fiscal year 2017, NIRCC, with the assistance of the TPC, updated the Coordinated Public Transit-Human Services Transportation Plan for Allen County initially completed in fiscal year 2007 and updated in fiscal year 2013. This plan was originally required due to the 2005 SAFETEA-LU legislation which included a requirement for local areas to develop a coordinated public transit-human services transportation plan for all Federal Transit Administration (FTA) human service transportation programs that provide funding for transportation services, including: Section 5310 Elderly Individuals with Disability Program, Section 5316 Job Access Reverse Commute (JARC) Program, and Section 5317

New Freedom Program. The Elderly Individuals with Disabilities Program provided grant funding, usually for capital projects, for private nonprofit groups to meet the transportation needs of elderly and disabled persons when other transportation services (public and private) are unavailable, insufficient, or inappropriate to meeting those needs. The JARC Program was a grant program for local government authorities/agencies and non-profit agencies, to develop transportation services to transport welfare recipients and low-income persons to and from jobs (Job Access); and to transport residents of urban centers, rural and suburban areas to suburban employment opportunities (Reverse Commute). The New Freedom Program was a formula grant program for public or alternative transportation services and facility improvements to address the needs of persons with disabilities that go beyond those required by the Americans with Disabilities Act (ADA). SAFETEA-LU required that projects selected for funding under the above-named programs be "derived from a locally developed, coordinated public transit-human services transportation plan", and that the plan be "developed through a process that includes representatives of public, private and nonprofit transportation and human services providers and participation by the public." The 2007 Plan for Allen County was developed in a manner that satisfied these requirements.

A new transportation bill was passed in July of 2012 entitled Moving Ahead for Progress in the 21st Century (MAP -21) affected the Section 5310, Section 5316 and Section 5317 programs. The Section 5310 program is now known as "Enhanced Mobility of Seniors and Individuals with Disabilities" and essentially merges the Section 5317 program into the Section 5310 program. The new larger Section 5310 program will now provide both capital (old 5310) and operational (old 5317) funding. The principles of each program will remain the same and all Section 5310 projects selected for funding must be "derived from a locally developed, coordinated public transit-human services transportation plan", and that the plan be "developed through a process that includes representatives of public, private and nonprofit transportation and human services providers and participation by the public". The Section 5316 program has been terminated. However, transit agencies with JARC programs they wish to continue have the ability to utilize their formula urban Section 5307 funds to do so. The 2013 update of the coordinated plan contained and utilized the same principles established in the original 2007 plan; however it has been completed in a way to adapt to the changes of MAP-21.

This 2017 update has been prepared in accordance with a new transportation authorization passed in December 2015 entitled Fixing America's Surface Transportation (FAST) Act. The FAST Act maintained the modifications and requirements established by MAP-21 for the Section 5310 program. This update of the coordinated plan contains and utilizes the same principles established in the original 2007 plan and the 2012 update. The targeted populations (individuals with disabilities, older adults, and persons with limited incomes) will remain the same and strategies will continue to be developed for all three programs included in the original plan and previous update. This plan will serve to increase and strengthen the transportation services that are offered in Allen County.

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

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

These needs were identified geographically and non-geographically. Using census information, staff identified the distributions of individuals with disabilities, older adults, and persons with limited incomes, as well as the locations of the destinations in which these populations need or wish to travel to and from. Figures 54 and 55 are examples of the geographic needs identified in the plan. The non-geographic needs are the reasons why and when transportation is needed. The purpose of the trip and the day and time at which it is required is a major factor, especially when it is relative to the availability of transportation options. The transportation needs and demand matrix provided in Figure 56 illustrates the non-geographic needs identified in the plan.

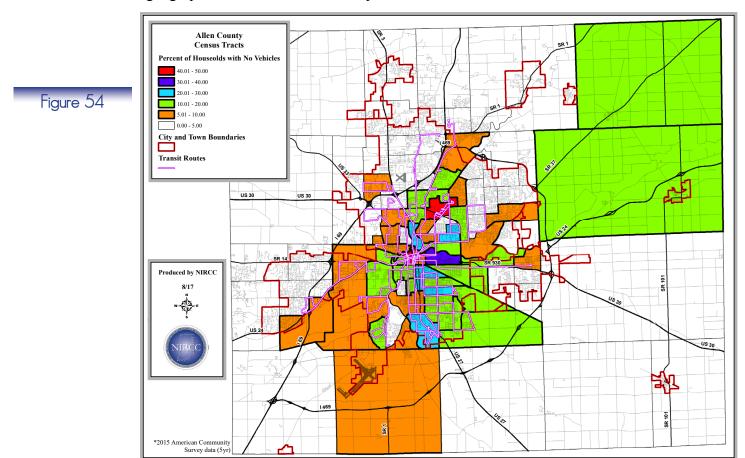
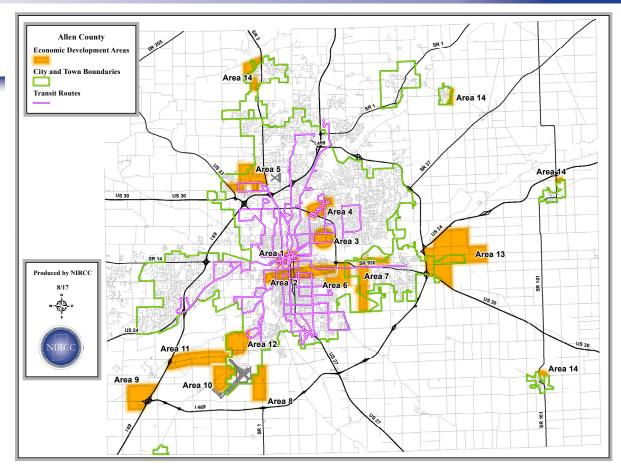


Figure 55



Transportation Need Matrix

Figure 56

Needs	Demand			
Why is Transportation Needed	High	Moderate	Lower	
Medical Appointments / Services	X			
Employment/Job Training	X			
Education		X		
Shopping		X		
Visit Family and Friends		X		
Church		X		
Recreational/Social Activities			X	
Government/Social Services			X	
Days of Week Transportation is Needed	High	Moderate	Lower	
Weekdays	X			
Saturdays		X		
Sundays		X		
Holidays			X	
Times of Day Transportation is Needed	High	Moderate	Lower	
7am-12pm	X			
12pm-5pm	X			
5pm-7pm		X		
7pm-4am		X		
4am-7am		X		

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

Hours of Operation

- No service in the early morning and late evening hours
- Saturday service is limited
- No service on Sundays or Holidays

Service Areas

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

Service Availability

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

Trip Coordination

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

Consumer Information

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

The Plan did not identify any occurrences of redundant service. Even though the transportation providers typically

operate in the same service areas and serve similar population groups containing common clients, they diversify by trip purpose and coordinate to eliminate duplication of services.

The Plan identified strategies to address the identified gaps in services. Creating transportation strategies that complement the existing transit service is the fundamental recommendation for minimizing existing transportation barriers that prevent individuals with disabilities, older adults, and persons with limited incomes from the desired destinations and services they need and wish to reach. Strategies have been broken down for the Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program – Capital Funding; Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities – Operational Funding (Former 5317); and JARC Related Projects (Projects formerly funded under 5316 but now eligible under 5307) separately.

Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program – Capital Funding Strategies:

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

Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program – Operational Funding Strategies:

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

Job Access Reverse Commute Related Projects Strategies:

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

The final section of the plan details the process for selecting local projects for each of the three federal programs. Projects will be submitted to NIRCC. Projects must address at least one of the strategies identified in Plan. All eligible

Section 5310 and JARC Related Project applicants' potential projects will be reviewed and selected by the TAC (5310 Capital) or the TPC (5310 Operational and JARC Related). The projects will receive finalized approval from UTAB and NIRCC and will be included in the Transportation Improvement Program (TIP).

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

Creating Livable Communities and Ladders of Opportunity

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2016

CREATING LIVABLE COMMUNITIES AND LADDERS OF OPPORTUNITY

The purpose of this program is to encourage community-based transportation and land use projects that support infill development in the urban area and revitalization efforts of downtown areas, neighborhoods, commercial cores and transit corridors. The primary intent is to advance community sustainability and overall access to essential services such as employment, healthcare, education and recreation.

The program will concentrate on energy conservation, climate change and lowering infrastructure operating costs with a goal of more efficiently using existing infrastructure to reduce emissions, energy use and personal transportation costs. The process will focus on transit and non-motorized transportation in Northeast Indiana. Advancing the objectives of the Transit and Bicycle-Pedestrian components of the Transportation Plan will be a primary objective.

NIRCC will develop and implement analytical methods to identify connectivity gaps of the transportation system between residential neighborhoods and essential services. Strategies will be developed to improve connectivity within the region to these services utilizing transit, bicycle, pedestrian and other non-traditional infrastructure and programs. Activities will also include reviewing development plans to recommend access control, transit friendly designs and opportunities for pedestrian and bicycle facilities. A blueway system will be defined in collaboration with the regional trail system to promote improved water quality through the use of local waterways for transportation and recreational purposes.

Northeast Indiana Water Trails Initiative

As Regional decision makers and residents are beginning to put more focus on our waterways NIRCC began exploring how it could facilitate opening the waterways up for more recreation. In early 2015, NIRCC convened a group of river advocates, outdoor recreationists, and local outfitters to learn what the interest is in increasing boat access to the waterways in the eleven county Northeast Indiana Region. That meeting led to the creation of the Northeast Indiana Water Trails Initiative (NEIWTs), a regional partnership working to increase recreation opportunities on our waterways by promoting boat access, water safety and stewardship, and the development of regional water trails that will empower our citizens to become more active and unified.

The Northeast Indiana Water Trails Initiative, housed under the NIRCC, is a regional partnership working to increase recreation opportunities on our waterways by promoting boat access, water safety and stewardship, and the development of regional water trails that will empower our citizens to become more active and unified. The NEIWTs continued

its mission in 2017 by further developing its Board of Directors and finalizing the governing by-laws, hosting the second annual Pedal, Paddle, and Play to encourage more individuals to experience our local rivers and greenways, participated in several educational events to discuss the NEIWTs, rivers, water safety, etc. for local residents, and released a request for proposal for the development the NEIWTs website (proposals are due back in early January). Additionally, in 2016 the NEIWTs and several partners including the Pelorus Project, City of Fort Wayne, Tri-State Watershed Alliance, and Fort Wayne Fire Department worked to develop consistent signage along the rivers to warn river users of the dangers of low head dams. Thirty-one warning signs and nine buoys were purchased in 2016 to be placed on the river banks, bridges, and in the water ahead of three low head dams on the St. Joseph and Maumee Rivers. Several warning signs were installed in 2017.

The NEIWTs will continue its mission in 2018 by installing the remaining low head dam warning signs and buoys, releasing their website, hosting the third annual Pedal, Paddle, and Play on June 2nd, developing a "Water Trails Kid's Club", working with area partners so encourage use and appreciation of the rivers located in NE Indiana, and develop a wayfinding signage standard for the Water Trails.

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 2017. The Summary Report highlights a majority of the transportation planning activities conducted and the products produced by NIRCC during Fiscal Year 2017. 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 2018-2021 Transportation Improvement Program (TIP) represent the improvements selected for implementation. The Fiscal Year 2018-2021 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), 2035 Transportation Plan, and many other documents and staff contact information.

Transportation Summary Report Fiscal Year 2017

Studies completed by the Northeastern Indiana Regional Coordinating Council

Transportation Summary Report Fiscal Year 2017

Northeastern Indiana Regional Coordinating Council 200 East Berry Street, Suite 230

Fort Wayne, IN 46802

Phone: 260-449-7309 Fax: 260-449-8652 Website: www.nircc.com

