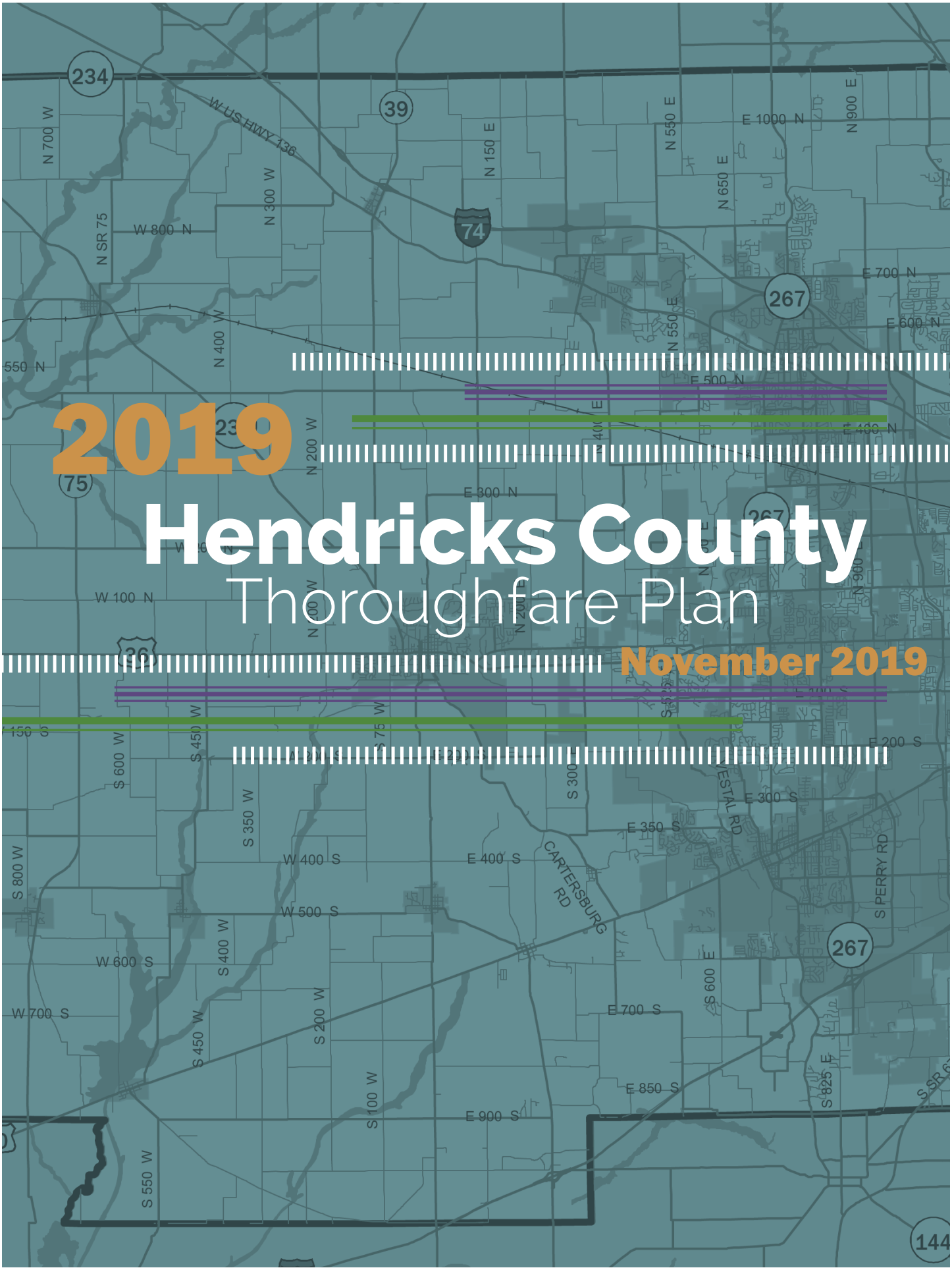
December 10, 2019 - Adoption Draft



2019

Hendricks County

Thoroughfare Plan

November 2019

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Acknowledgments

Prepared for:

Hendricks County, Indiana

Indianapolis Metropolitan Planning Organization

Steering Committee:
Brett Clark
Damon Palmer
David Wyeth
Eric Wathen
Larry Hesson
Paul Miner
Phyllis Palmer
Tim Dombrosky
Tim Whicker
Walt O'Riley
Cory Himsel
Suzanne Baker
John Ayers

Prepared by:

HWC ENGINEERING

135 North Pennsylvania Street
Suite 2800
Indianapolis, IN 46204

shrewsberry

Prepared in cooperation with the State of Indiana, Indiana Department of Transportation and the Federal Highway Administration.

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Key Terms

There are several technical terms used throughout this plan that are specific to transportation planning. Some of these key terms are listed below.

Annual Average Daily Traffic (AADT): The total traffic volume passing a point or segment of a highway facility in both directions for one year divided by the number of days in a year.

Capacity: The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions, usually expressed as vehicles per hour or persons per hour.

Functional Classification: The classification of roadways are based on two key characteristics: roadway mobility (traffic volume) and roadway accessibility (entry and exit onto the roadway). Functional classifications are defined by the Federal Highway Administration (FHWA).

Land Use: The classification of geographic land areas according to their primary use. Examples can include agricultural, residential, commercial, industrial, open space, and recreation. Land use classifications are defined in the municipality Comprehensive Plan.

Level of Service: A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, safety, comfort and convenience.

Multi-Modal: Utilizing multiple forms of transportation, including transit, vehicular, cycling and pedestrian.

Right of Way: Areas of land reserved for public infrastructure purposes such as roadways, railroads, utilities, greenways, etc.

FHWA: The acronym for the Federal Highway Administration, which is the agency within the U.S. Department of Transportation that supports state and local governments in the design, construction and maintenance of the nation's highway system (Federal-Aid Highway Program) and various federally and tribally owned lands.

Indianapolis MPO: Indianapolis Metropolitan Planning Organization. Responsible for conducting a continuing, cooperative and comprehensive transportation planning process within the Indianapolis region.

INDOT: The acronym for the Indiana Department of Transportation.

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Executive Summary

Plan Purpose

Why Plan?

As one of the fastest growing counties in Indiana, Hendricks County growth plays a significant role in understanding and planning for the future of the transportation network. This Plan allows the county to be proactive in managing growth by addressing past and present transportation needs.

Prior to this Plan, a transportation plan chapter was adopted in the 2006 Hendricks County Comprehensive Plan to address the county's priority transportation concerns. The transportation chapter of the comprehensive plan has a heavy focus on multi-modal connections. This Plan also emphasizes coordination with Marion County and the city of Indianapolis and other communities within and adjacent to the county. The Hendricks County Comprehensive Plan was used as a reference to this plan as well as current planning efforts in the towns and surrounding areas regarding transportation and thoroughfare planning.

Key Transportation Corridors in Hendricks County:

- ***U.S. 36***
- ***S.R. 39***
- ***I-70***
- ***I-74***
- ***S.R. 267***
- ***U.S. 40***
- ***U.S. 136***
- ***Ronald Reagan Parkway***
- ***S.R. 75***

Source: Shrewsberry

Key Plan Elements

Thoroughfare Plan Map

The proposed Future Thoroughfare Plan Map was created as a vision for the Hendricks County Transportation Network. Although the terminology is similar, this map should not be confused with the Existing Functional Classification Map. The Thoroughfare Plan Map outlines changes for the transportation network over the next 15 to 20 years, while the Existing Functional Class map (Chapter 4) displays the current transportation network.

Functional Classification Changes

Federal Functional Classification is how roadways are grouped based on the service they are intended to provide. Functional classifications are determined primarily by roadway mobility and roadway accessibility. Road improvements can include changing road widths and accommodations and ultimately functional classification. This map showcases recommendations for changes in the roadway classification. Classification changes that fall within the Indianapolis MPO's Metropolitan Planning Area (MPA) must be submitted through the MPO. Proposed changes to roads not within the MPA must be submitted with the Indiana Department of Transportation (INDOT). Considering these rodways is important as roads that are classified are open to more funding opportunities from INDOT. The Functional Classification Changes Map is shown in Figure 6.2 on page 60 in Chapter 6.

Congestion

Based on stakeholder conversations, survey results, and available data, congestion has been identified as the most significant transportation issue in Hendricks County. Figure 5.5 in Chapter 5 showcases where congestion is located in the county. This informs both the Thoroughfare Plan Map as well as the Changes in Functional Classification Map. This also helps prioritize future projects throughout the county from a congestion mitigation standpoint.

Proposed Improvements

Based on the analysis done in Chapter 5, proposed improvements have been identified and displayed in Figure 6.3 in Chapter 6. Improvements on this map are based on recommendations from stakeholders, the steering committee, and public input.

Right-of-Way Standards

Right-of-way standards help keep roadway development consistent throughout the county. Having a county-wide set of right-of-way standards helps inform developers when they make changes to the roads within the county. These standards were developed with the input of the steering committee while referencing existing standards in the county and municipalities within. Right-of-way standards for this plan can be found in Chapter 6.

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Goals and Objectives

Introduction

Overview

This chapter outlines the goals and objectives for the Hendricks County Thoroughfare Plan. These goals were created based on analysis, public input, and guidance from the steering committee.

There are five guiding principles that were used to create these goals and objectives:

- ***Connectivity***
- ***Commerce***
- ***Coordination***
- ***Safety***
- ***Plan Relevance***

Key Project Goals

- ***Improve local and regional transportation connectivity.***
- ***Enhance the transportation network to boost regional economic development opportunities.***
- ***Facilitate local and regional coordination and partnerships on future county transportation initiatives.***
- ***Increase safety for all users of the Hendricks County Transportation Network.***
- ***Complete regular reviews of the plan to ensure goals and action items are up to date with local and regional changes.***

Connectivity

Connectivity benefits communities by providing manageable ways to navigate through different areas. Completing existing route options is a way to increase connectivity throughout Hendricks County. Providing alternatives to currently congested routes can be accomplished by extending incomplete routes to allow for better connectivity to more locations. A proposed example of this is to fill in the gaps in C.R. 200 N. to make it a continuous east-west corridor. See item 16 on Figure 6.3 Proposed Improvements Map for the location.

An additional optional north/south connector is proposed on Figure 6.3 as numbers: 15, 21, 24, and 25. This could provide an additional route across the county, increasing connectivity.

The importance of complete connectivity extends beyond just primary vehicular routes. As a primarily residential county, this community can benefit from connecting roads, sidewalks, and trails where appropriate. Connecting trails and multi-use paths in these areas can increase recreational opportunities throughout the county. Roads within these communities can also be connected to make it easier to reroute trips to avoid congestion elsewhere.

Increasing connectivity in the county is necessary, but it must come with a mindset towards preservation of rural corridors. This can be accomplished by exploring alternative routes and only expanding lanes where appropriate.

Connectivity

Goal: *Improve local and regional transportation connectivity.*

Objective 1:

- *Increase mobility throughout the eastern part of the county by providing more complete route options.*

Objective 2:

- *Determine possible site level connections allowing subdivision and neighborhood connection and broader street pattern connectivity.*

Objective 3:

- *Expand bicycle and pedestrian connectivity and safety throughout Hendricks County while contributing to the regional, non-motorized, transportation network.*

One of the biggest influencing factors on congestion is not the number of travel lanes on a single route but how many, or how few, alternate route options are available.

Commerce

Providing increased opportunity for economic development in Hendricks County can influence its transportation networks. Understanding how projects in the county will boost economic vitality and quality of life is one way to utilize the transportation network to boost regional and economic development opportunities.

Identifying which roads are desired prominent truck routes is essential in the management of commerce in an area. In Hendricks County, these routes are primary corridors such as Ronald Reagan Parkway, U.S. 40, U.S. 36. Although semi-traffic often means that an area's business is doing well, these vehicles can be hard on infrastructure. Determining areas where this traffic should be directed can mitigate safety and congestion concerns and allow for more traffic calming measures to be installed on other streets.

Rail also provides commerce and economic development opportunities in the county. Coordinating with CSX to determine future plans is important as rail currently brings opportunities to the county. Rail activity in Hendricks County creates some challenges for north/south connectivity and near existing rail underpasses.

Interchanges can increase connectivity and commerce options by opening the door to new route options and hot spots for development. New interchanges will incentivize development so they should be carefully reviewed to ensure balancing the goals of the county.

A new north/south corridor was identified as a need in Hendricks County. This route could be located along the boundary between the urban intensity zone and the transitional intensity zone. The proposed north/south connector route would increase economic development opportunities in this area of the county by creating better access and connections between towns.

The steering committee and other regional transportation plans have identified that another interchange along I-70 near Plainfield is desired. As seen in Figure 6.4, this interchange, if located near the intersection of I-70 and C.R. 525 E. (as proposed by the Town of Plainfield),would provide more opportunity for connection with Morgan County. Interchange improvements could be made at the existing I-74 interchange in Pittsboro to promote commercial uses in the area as well.

Commerce

***Goal:** Enhance the transportation network to boost regional economic development opportunities.*

Objective 1:

- *Prioritize future projects based on their potential to help boost economic vitality and quality of life throughout Hendricks County.*

Objective 2:

- *Determine roads with heavy truck traffic and plan infrastructure to safely handle heavy loads..*

Objective 3:

- *Explore opportunities for future interchanges where appropriate.*

Coordination

Due to the expanse of the roadway network in Hendricks County, coordination of specific needs and desires for rural areas is important. County leadership facilitating local and regional partnerships will allow for more consistent regional goals, more predictable outcomes, and greater opportunities. Coordinating with each area and municipality will help create a more cohesive and efficient transportation network to meet the community's needs. Below are some specific examples of additional coordination efforts recommended as a result of this plan:

- ***Coordination with state and local jurisdictions as necessary for the funding and completion of projects and for increasing connectivity.***
- ***Coordination with the Indianapolis MPO on roads within the MPA for funding requests, proposing new roadways, and updating functional class.***
- ***Coordination on roadway improvement projects with future utility needs as more areas in the county become developed.***
- ***As the county continues to grow, coordination with schools during the planning process to understand their plans and ideas for the future is necessary.***

Hendricks County is adjacent to Marion County, and many residents travel to Marion County for employment. Considering additional regional public transportation options within the county is important. IndyGo is currently increasing transit capacity and efficiency that will influence future regional transportation network development. Hendricks County needs to consider how this developing transit system will impact local transportation systems and the desired future transit development within the county. Transportation is changing rapidly and it is important that the county be prepared for future technologies that will change the way people travel.

Coordination

Goal: *Facilitate local and regional coordination and partnerships on future county transportation initiatives.*

Objective 1:

- ☐ *Work with towns and other jurisdictions within Hendricks County for a more comprehensive network improvement approach.*

Objective 2:

- ☐ *Partner with state and local jurisdictions to ensure transportation and desired land uses support one another.*

Objective 3:

- ☐ *Coordinate roadway improvement projects with future utility improvement/ installation needs.*

Safety

Safety is a crucial part of thoroughfare plans and has been identified as a priority for Hendricks County. The Indianapolis MPO is a resource for crash statistics which can help identify trends like dangerous intersections and road segments.

Although the county continues to grow in population, it will always have significant influence from agricultural operations. Retaining appropriate right-of-way for agricultural equipment is essential in maintaining economic benefits and safety of county roadways outside of developed areas.

Implementing traffic calming designs to slow traffic and keep drivers more aware are proven initiatives that increase safety. Requiring new developments to implement appropriate traffic calming designs will help build a safer future.

Safety is critical for all users, including motorists and non-motorists. Creating a pedestrian and bicycle network throughout the county can help minimize potential conflicts with vehicular traffic. Bicycle and pedestrian safety and education have been identified as a priority for this plan. As more people begin cycling and enjoying the recreational amenities in the county, providing opportunities for the expansion and connectivity of off-road trails and multi-use paths can help increase safety throughout the county.

Safety

Goal: *Increase safety for all users of the Hendricks County Transportation Network.*

Objective 1:

- *Create a pedestrian and bicycle network throughout the county that minimizes conflicts with vehicular traffic.*

Objective 2:

- *Coordinate with the Indianapolis MPO regarding crash studies conducted within the MPA. Conduct an assessment of crash statistics to identify trends for areas outside of the MPA.*

Objective 3:

- *Maintain sufficient right-of-way to allow for safe and efficient transport of modern agricultural equipment.*

Objective 4:

- *Require new developments to implement appropriate traffic calming designs.*

Plan Relevance

Regularly reviewing the findings and recommendations of this long-range plan will allow it to stay relevant to the current needs and desires of the community. This is especially important in Hendricks County because of the rapidly changing nature of the county and the region. Understanding the costs and timeline of transportation projects can assist in prioritizing projects based on predicted available resources and will allow for greater project feasibility.

The first step of keeping the plan relevant is adopting the Thoroughfare Plan into the County Comprehensive Plan. At this time, the County should review the Hendricks County Comprehensive Plan and determine if any additional changes are warranted.

Setting new transportation and development standards and guidelines will help maintain a consistent transportation network throughout the county. Making sure that new developments dedicate and/or improve right-of-ways for existing and proposed corridors is a priority in this plan.

Reviewing the contents of a plan can go by the wayside when the document is finished, and things continue to change. Therefore, it is necessary to set aside regular and repeated review time-frames and to review the plan every other year as a minimum. Appointing a group of individuals who can do this every other year will help ensure it gets accomplished.

Plan Relevance

Goal: *Complete regular reviews of the plan to ensure goals and action items are up to date with local and regional changes.*

Objective 1:

- *Adopt the thoroughfare plan into the county comprehensive plan.*

Objective 2:

- *Budget appropriately for necessary thoroughfare maintenance and repair.*

Objective 3:

- *Require all new developments dedicate and/or improve right-of-way for existing and proposed corridors.*

Objective 4:

- *Review plan every other year (odd years) to ensure the goals are still relevant to the community.*

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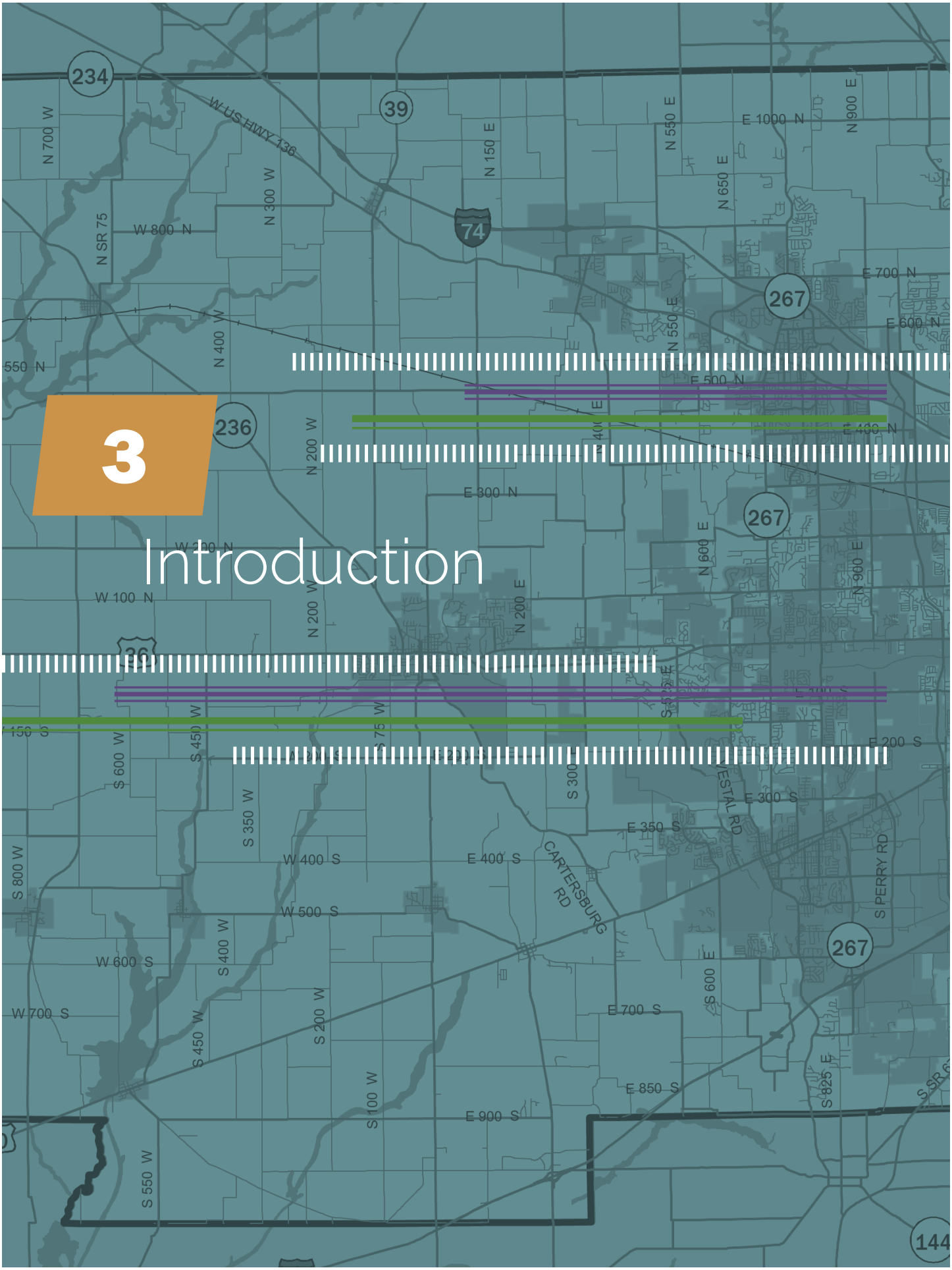


3

Introduction

Introduction

Overview

The Hendricks County Thoroughfare Plan provides the communities of Hendricks County with the tools and guidance necessary to create a safe and efficient transportation network. This Plan outlines the existing conditions of the Hendricks County transportation network and how it might be improved or changed.

Existing conditions have been recognized and analyzed in this document to reveal key goals for Hendricks County, which are found in Chapter 2. The guiding principles of this Plan along with an analysis of current conditions inform the objectives necessary to implement the County's transportation goals. Focus areas are the eastern portion of the county in particular the north east corner as well as along major corridors and interstates.

Source: Ryan Lemley

Plan Process

Project Kick-off Winter 2019

- County tour
- Plan Review
- Research
- Current issues and opportunities

Analysis Spring 2019

- Creation of goals
- Creation and analysis of maps
- Analysis of public input materials

Public Input Summer 2019

- Public Survey
- Open House
- Stakeholder Interviews
- Committee Meetings

Plan Review & Adoption Fall 2019

- Public meeting for draft review
- Adoption of final draft

Participation

Steering Committee

A steering committee of ten individuals helped with the development of this plan. The steering committee met on four different occasions to discuss the current Thoroughfare Plan as well as what is intended for the future of Hendricks County.

Stakeholders

Stakeholder meetings were held to discuss how this plan would impact different communities in Hendricks County. Stakeholders were identified by county officials and included representatives from various municipalities throughout Hendricks County. These conversations helped identify transportation issues and inform projects in all regions of the county.

Public Workshops

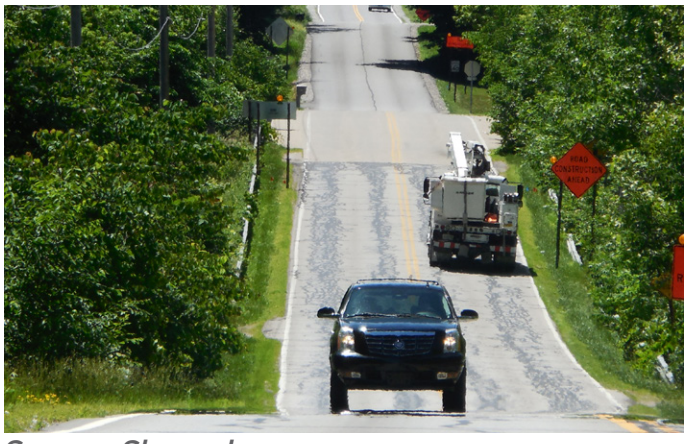
A public input session was held at the Hendricks County Fair on Thursday, July 18th. Those visiting the fair could stop and provide input regarding the current road conditions in Hendricks County and how they can be improved. Roughly 30 individuals provided input at the fair including insightful conversations from those attending.

Online Survey

An online survey was created to allow individuals to provide input remotely. This survey received 396 responses within three weeks. The survey is a helpful, anonymous way for individuals to provide input. This is especially important for those who were unable to attend the public workshop. A full survey summary is located in the appendix of this document.

Public Input Takeaways

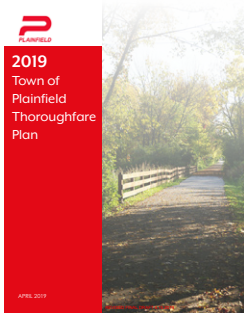
- **Most respondents live between 21-40 miles from work.**
- **Road/street infrastructure is what respondents ranked as the highest priority improvements.**
- **Increasing bicycle and pedestrian facilities and safety also ranked high for many respondents.**
- **Increasing traffic/congestion/delay is the most significant challenge facing Hendricks County according to the public.**
- **Many respondents are interested in public transportation opportunities.**
- **Late afternoon is the worst time for traffic in Hendricks County.**
- **Maintaining existing roads ranked as a high priority for respondents.**
- **Increased east/west and north/south connectivity is a priority.**



Source: Shrewsberry

Reference Documents

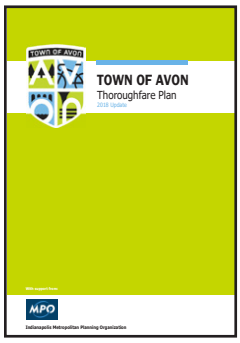
The following documents were referenced heavily throughout the planning process. Other documents were also referenced for the creation of this plan, however these are the documents that were used most frequently.



2019 Town of Plainfield Thoroughfare Plan

The town of Plainfield Thoroughfare Plan identifies ways the town can help manage expected growth to the western boundary into the county, ways Plainfield and the county can expect to add new connections, and projects that can reduce traffic congestion in other areas of the town. This plan moved ahead with the concept of a potential I-70 interchange to serve western growth and provide regional connection through Hendricks County.

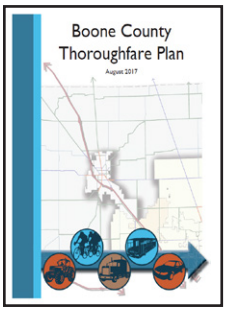
2019 Town of Avon Thoroughfare Plan



This plan's congestion-reducing initiatives offer insight on key roadways that affect the town and its adjacent communities. The Hendricks County Thoroughfare plan outlines some changes shown in the 2019 Town of Avon Thoroughfare Plan, however that plan should be referenced for more detailed information. Collaboration amongst these adjacent communities is essential as Avon has experienced exponential growth the past 10 years.

Hendricks County Quality Growth Strategy 2006

This plan has helped influence development of the Hendricks County Thoroughfare Plan by analyzing future land uses in areas that will generate traffic. It also acknowledges county-wide needs such as preservation of land in certain areas and driving economic development into the county.



2017 Boone County Thoroughfare Plan

As one of the fastest growing counties in the state, Boone County has experienced similar challenges to Hendricks County. This plan outlines concepts such as flexible design standards near Ronald Reagan Parkway's connection to I-65 which also impacts Hendricks County as Ronald Reagan is a main north south corridor through Hendricks County. This connection will dramatically change the land use and development interest along this corridor, affecting northern Hendricks County.

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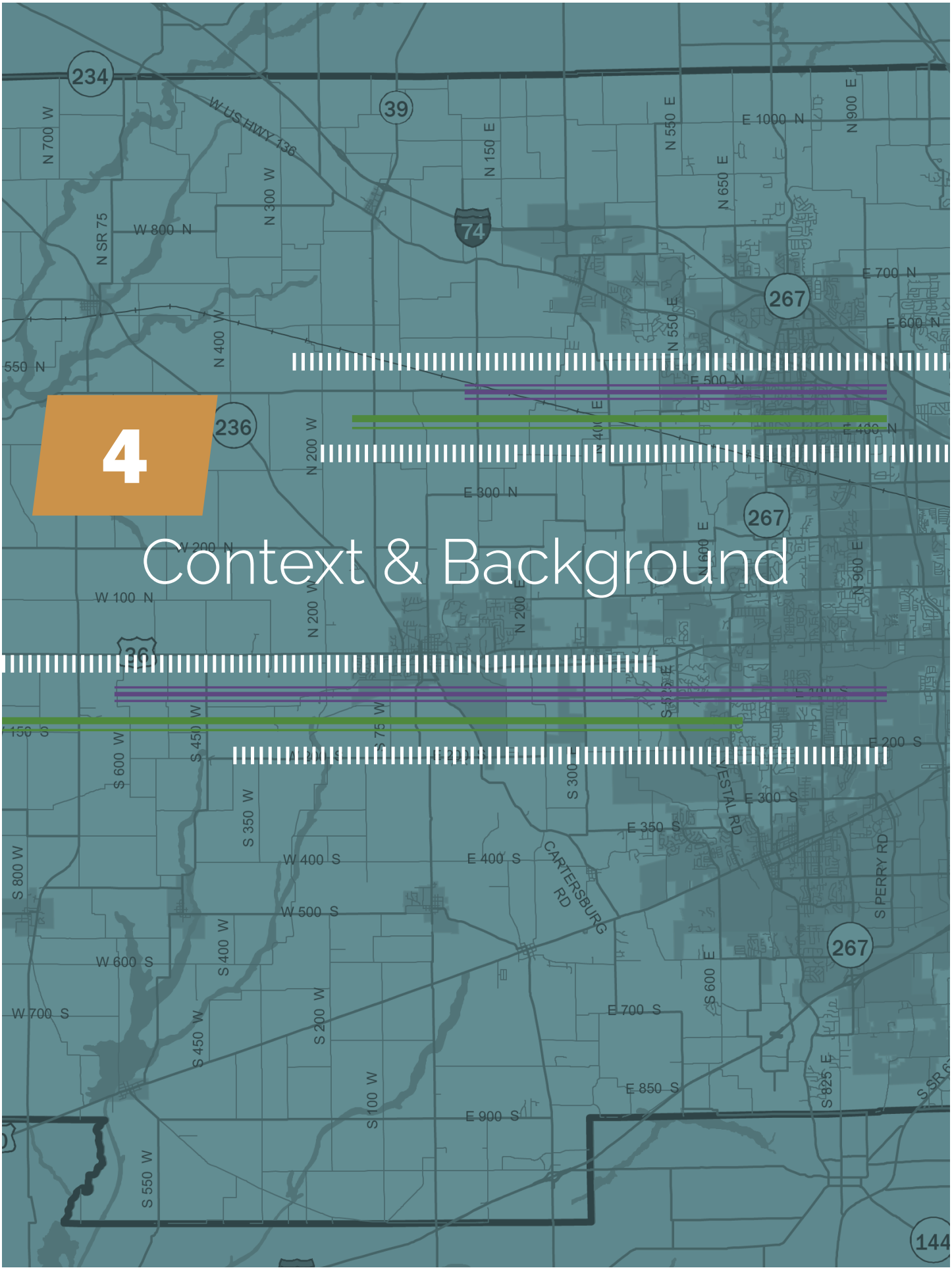


4

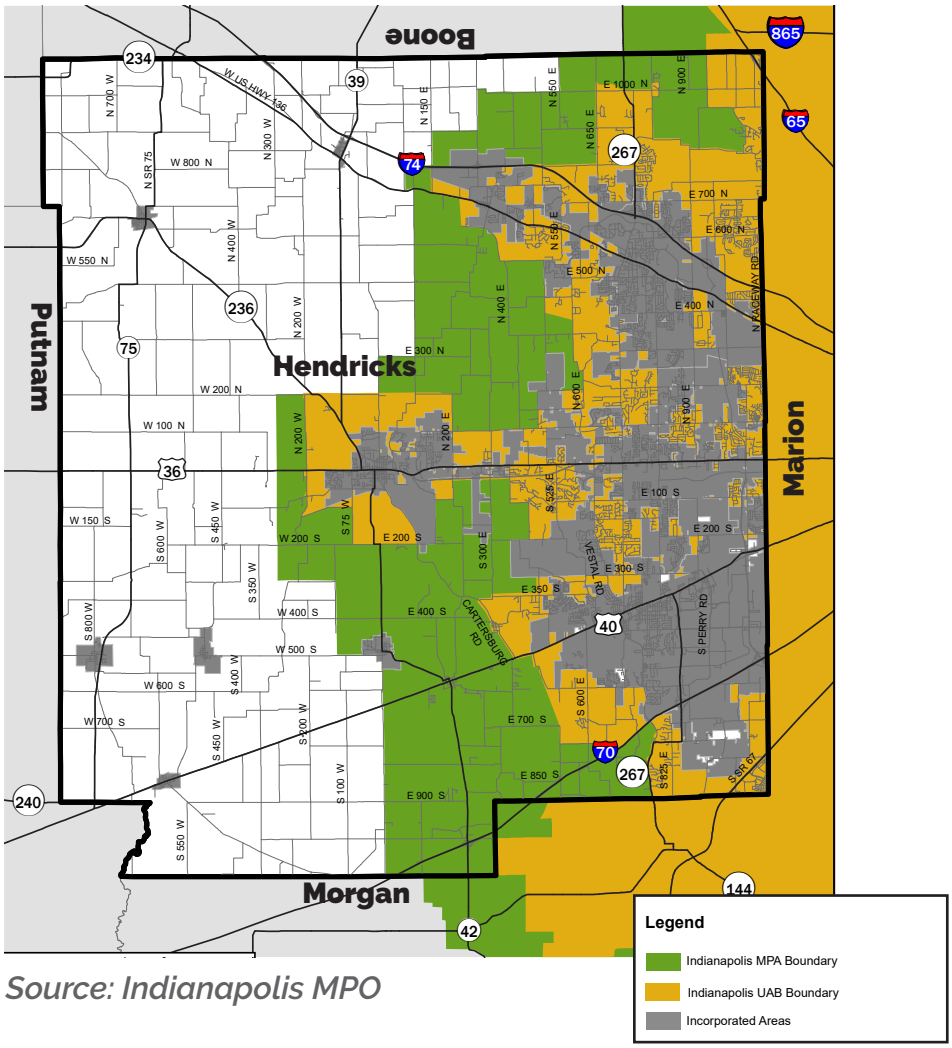
Context & Background

Location

Regional Advantages

Hendricks County is located immediately west of Marion County, home of the state's capital, the City of Indianapolis. While its proximity to Indianapolis has greatly influenced development patterns in the towns located within the eastern portion of Hendricks County, central and western portions of the county have maintained their rural character. Like many of the other counties surrounding Indianapolis and Marion County, Hendricks County has continued to experience significant population growth in recent years and is facing many of the challenges that come along with it, which is why coordination and connectivity are especially important for this plan. Hendricks County has a variety of communities that range from rural, to urban, with Avon, Brownsburg, Plainfield, and Danville being the four largest incorporated areas. With the eastern portion of Hendricks County within the Indianapolis MPO Metropolitan Planning Area (MPA) as well as the Indianapolis MPO Urbanized Area Boundary (UAB), coordination with the Indianapolis MPO is crucial for this plan.

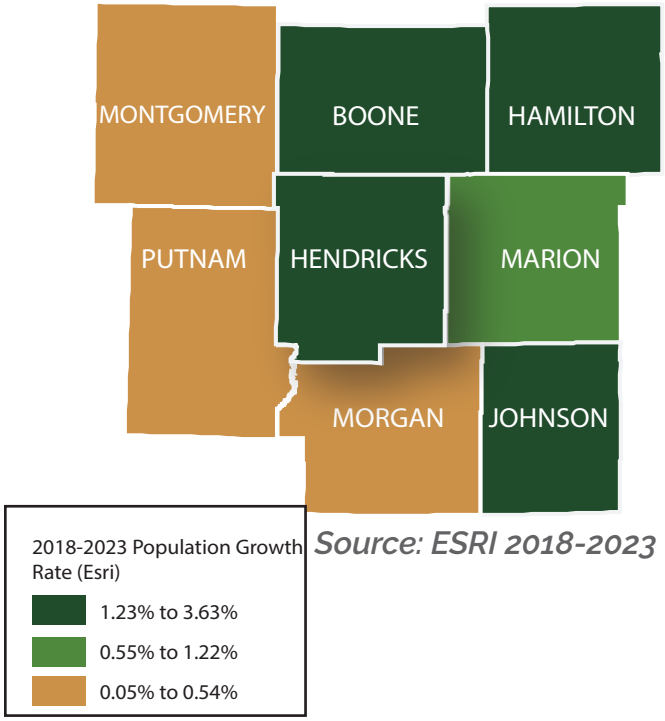
Figure 4.1 | *Indianapolis MPO Boundary*



Source: Indianapolis MPO

Community Context

Population Growth



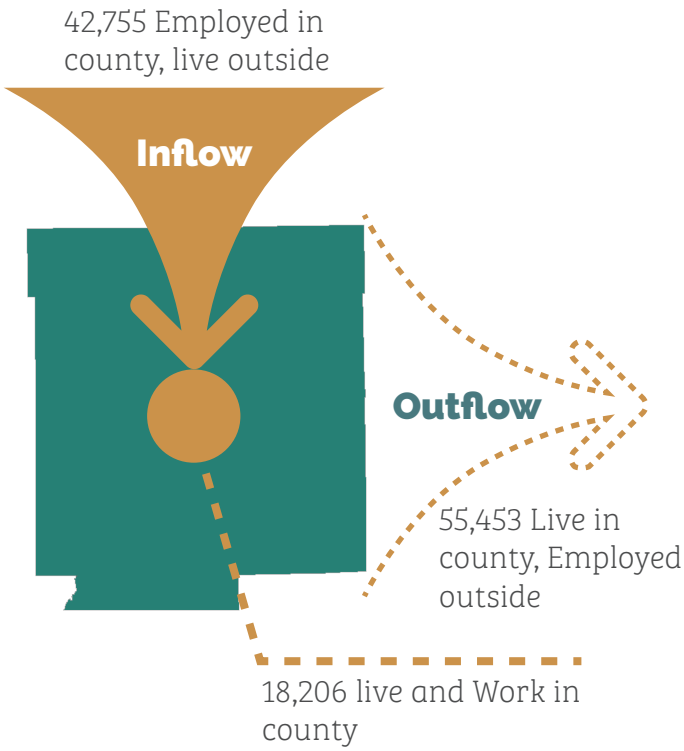
Source: ESRI 2018-2023

As one of the fastest growing counties in the state, Hendricks County faces challenges preparing for and managing growth. Anticipating the transportation needs related to projected population growth can be difficult but is necessary for the success of the county.

Commuting Patterns

The majority of people who live within Hendricks County and commute out travel to Marion County to reach their primary work. The average commute for Hendricks County residents is roughly 15-20 miles. However; commute times are comparatively long due to congestion in the eastern half of the County. This is one factor that individual communities are working to address due to the potential impacts commute times have on their ability to attract future economic and housing expansion. Decreasing congestion is especially important as the county continues to grow in particular the east side specifically the north east corner of the county.

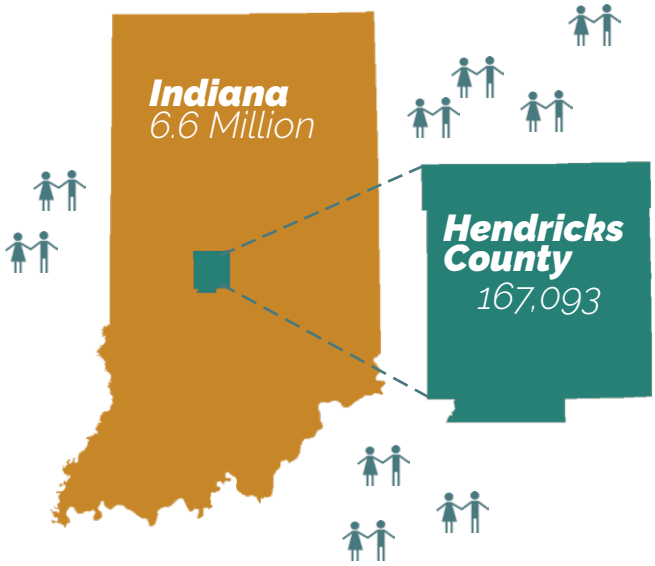
Hendricks County imports nearly as many employees as it exports.



Source: Census on the Map

Existing Conditions

Population



Transportation

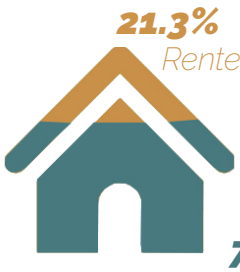
151.6 miles of state routes / highways

43.6 miles of trails

45.2 miles of active rail

1,600 miles of local road

Housing



21.3% *Renter occupied*

61,738 *Total Units*

78.7% *Owner occupied*

Of 61,738 total units within the county, about 80% are owner occupied with an average of 2 vehicles per household. Based on recent construction trends it is estimated that housing units will continue to be constructed in Hendricks County over the next 10 years. Most of this growth is expected to occur in the eastern half of the county and will place additional burden on already stressed county transportation infrastructure within this area.

Employment

Hendricks County maintains significant economic marketability due to the location of three interstates (I-70, I-74, I-65) and the Indianapolis International Airport adjacent to its borders.

Rail

Hendricks County has two operational, active rail lines. Both railroads are used for CSX freight movement which helps provide economic benefits to the county. The southern CSX line that runs east west through the center of the county, has impacts on congestion and transportation particularly in the eastern half of the county. The Hendricks County Comprehensive Plan designates the northern line as federally designated for future high-speed passenger rail. This should be considered as the state works to expand transportation options for all users.

Referenced Figures

Future Land Use

Figure 4.2: Future County Land Use Map, comes from the 2006 Hendricks County Comprehensive plan and displays the general plan for land use in the future of Hendricks County. The eastern half of the county more closely reflects urban and suburban areas while the western portion of the county is primarily agricultural. Based on conversations with stakeholders and the steering committee, this map still reflects the future goals for county land uses.

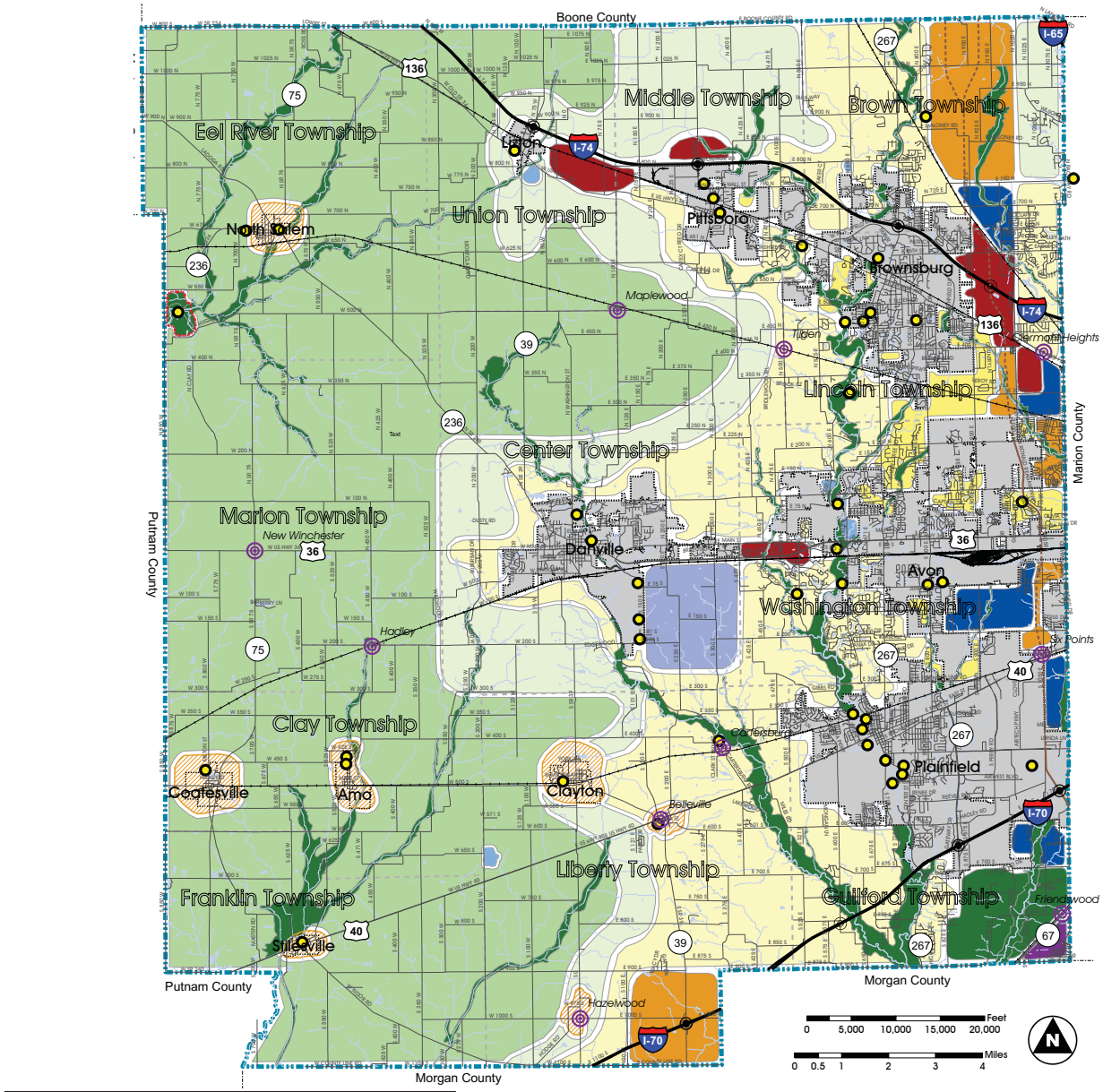
The Future Land Use for the county has been used to identify where key connections might be important as the eastern half of the county continues to grow. New county future land use policy and ordinance updates should consider the following thoroughfare related topics:

- ***Restricting growth outside of areas where transportation connections are not feasible because of either funding or demand.***
- ***Requiring all future subdivisions to provide gridded connections to the larger transportation system.***
- ***Developing a specific subdivision street hierarchy which includes a main through street with smaller and lower speed feeder streets connecting to residential areas.***

Land Use Intensity Zones

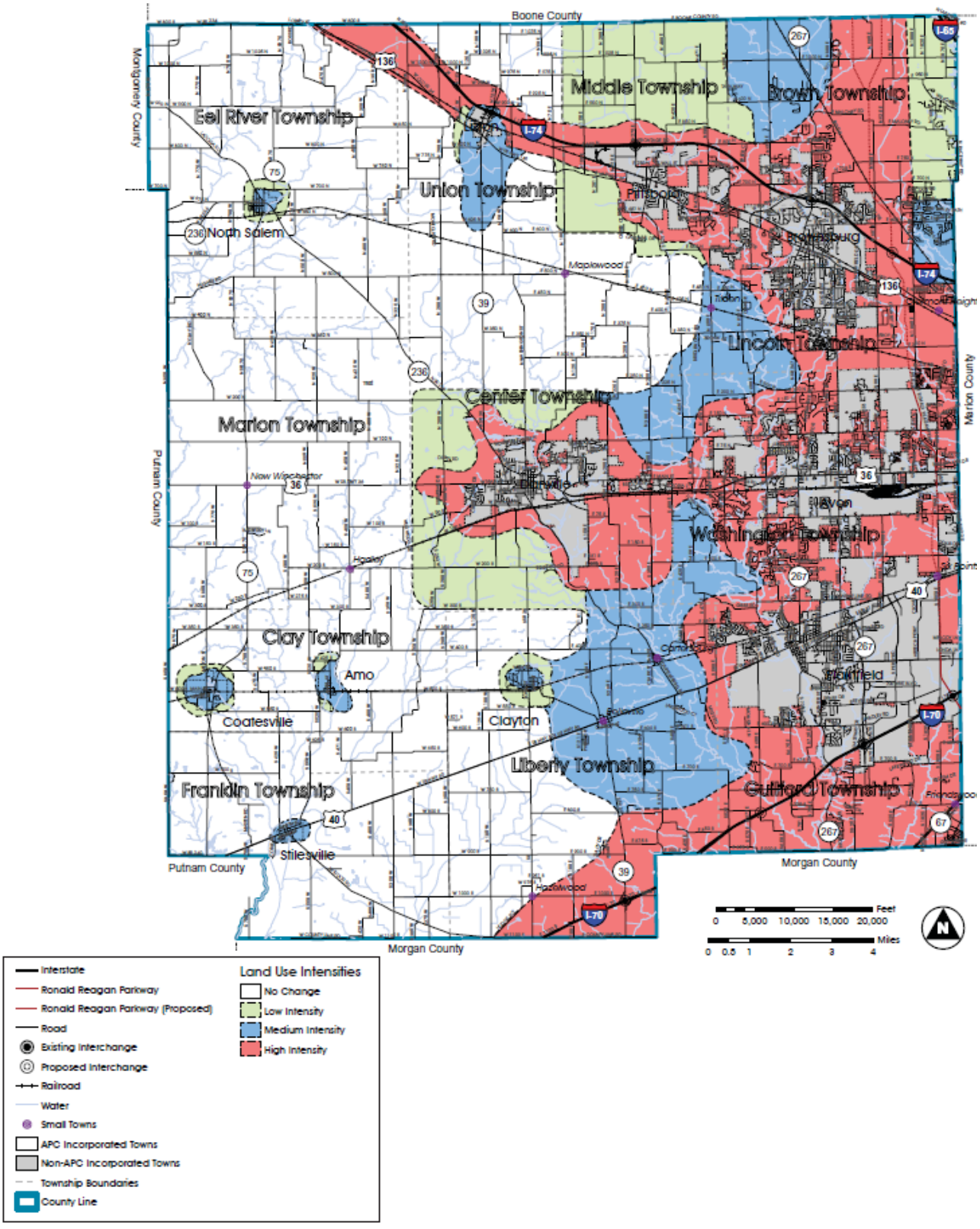
Figure 4.3: Land Use Intensity Zones, comes from the 2006 Hendricks County Comprehensive Plan. This map reflects the existing Indianapolis MPO boundary with more clarity regarding the intensity of land use in the county. As depicted, higher intensities are found on the east side of the county and medium and low intensities are found primarily around incorporated areas on the west side of the county. Based on this map, agricultural areas in the county should remain that way. This section of the comprehensive plan is most in need of update to better align with current county goals.

Figure 4.2 | *Future County Land Use Map*



Source: 2006 Hendricks County Comprehensive Plan

Figure 4.3 | *Land Use Intensity Zones*



Source: 2006 Hendricks County Comprehensive Plan

County Zone Map

Figure 4.4 depicts the thoroughfare intensity zones developed for this plan. These zones were developed by referencing the Indianapolis MPO urban boundary, the Hendricks County Future Land Use Map, Hendricks County Land Use Intensity Zones Map, and current roadway standards.

These zones are especially important as the County looks to preserve agricultural and rural character while managing growth and welcoming new residents. Hendricks County is experiencing rapid development in the eastern half of the County caused by high population growth rates. Contrary to the eastern part of the county, the western part of the County is not experiencing significant growth and is still made up of small, rural communities.

The zones help identify areas where future transportation needs differ, especially where transitional boundaries between incorporated growth areas and land under county jurisdiction occur. These zones support this plan goals of plan relevance, coordination, and connectivity which should be considered as this plan is used in the future.

Urban Zone

The urban zone, located on the east side of the county, is shown in purple in Figure 4.4 and is the zone experiencing the largest amount of growth. This zone borders Marion County and experiences a lot of commuting between the counties. A primary goal for the urban zone as well as this plan is improving key east/west connections to and from Marion County. This also involves preparing for growth and development in areas that are not currently developed. Urban zone improvements should adhere to urban thoroughfare standards referenced in Chapter 6.

Transitional Zone

The transitional zone is shown on the map in blue and is considered a transition area between the high-intensity east and the low-intensity west. The primary focus of the transitional zone is making sure long range growth plans are accommodated with future improvements. This zone has experienced some growth but not at the rate that the eastern part of the County has. Congestion in this zone is increasing and is expected to worsen as towns bordering Marion County grow and expand westward. As coordination is a primary goal of this plan, working with different communities in the county to ensure the future of this area is planned for. Careful thought should be given to road improvements in this zone so as to avoid encouraging unsustainable growth and land use that will increase congestion. The transitional zone should adhere to transitional thoroughfare standards referenced in Chapter 6.

Rural Zone

The rural zone is made up of the western part of the County and shown in Figure 4.4 as orange. This zone is currently seeing the least amount of growth in Hendricks County and is expected to remain rural for extended periods into the future. Road maintenance is the primary focus of the rural zone as well as ensuring that roadways meet agricultural needs. Maintaining safety in rural areas that allows for the transport of modern agricultural equipment is an objective of this plan. Roads in the rural zone should follow the rural thoroughfare standards referenced in Chapter 6.

Figure 4.4 | *Thoroughfare Intensity Zones*

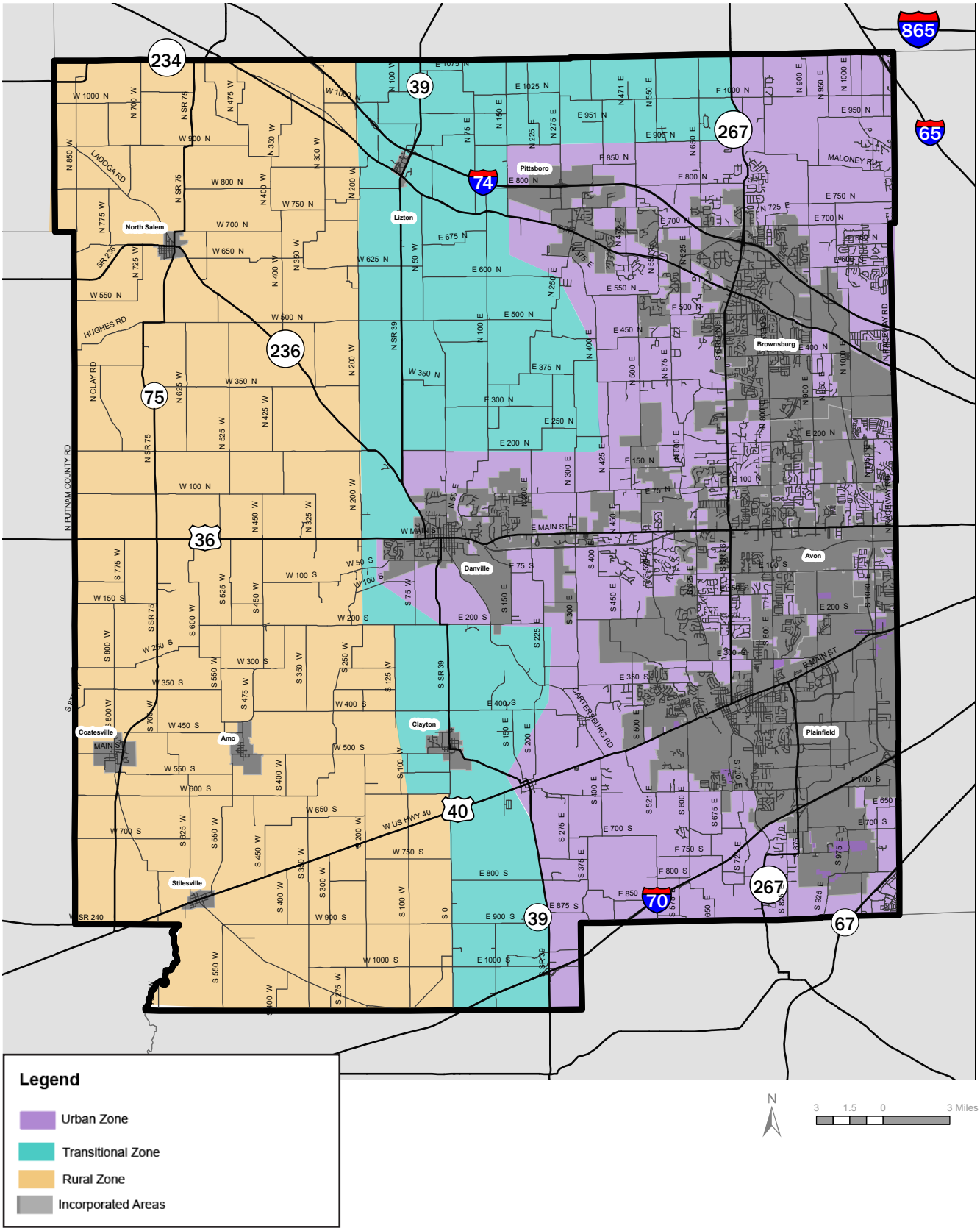
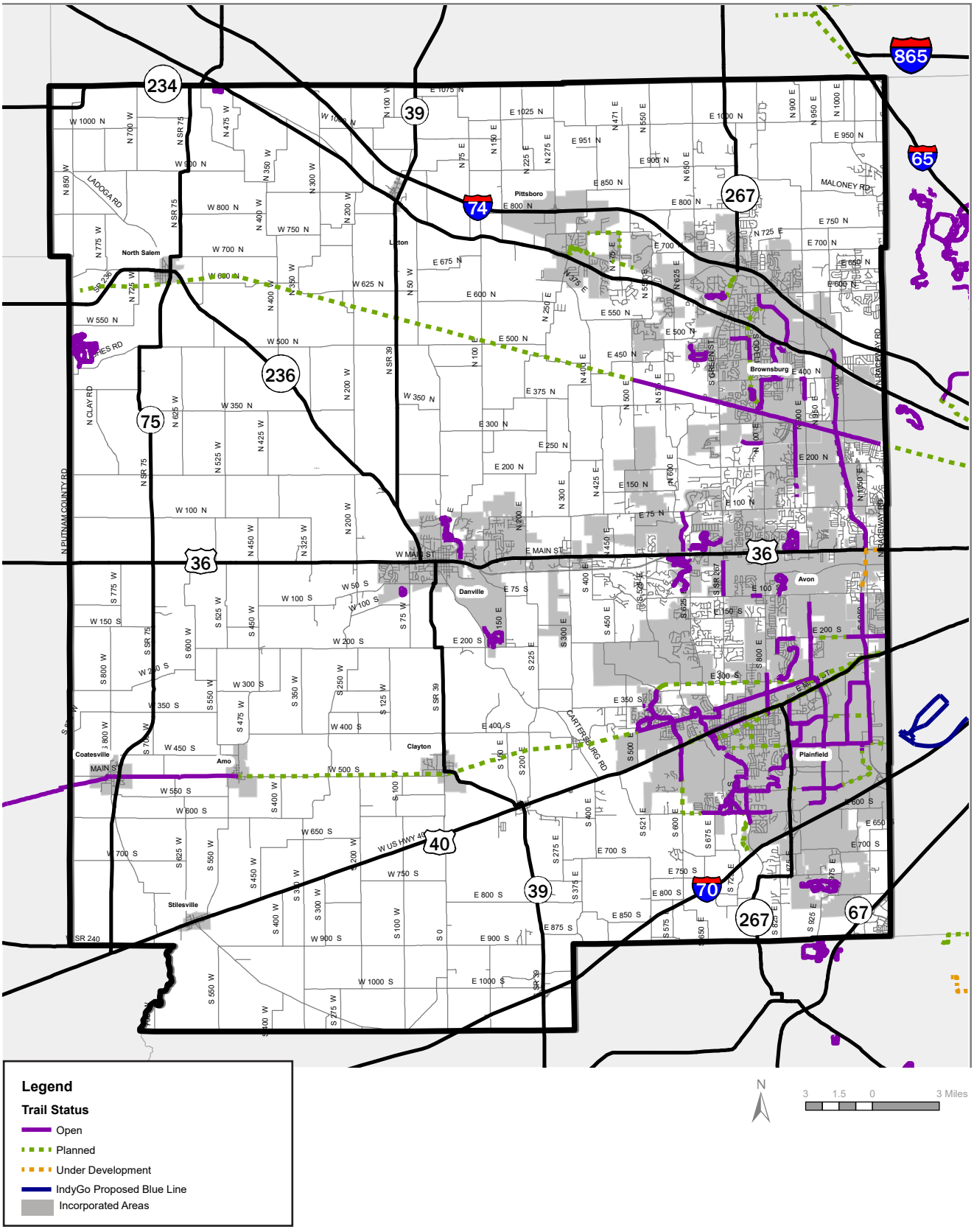


Figure 4.5 | *Alternative Transportation Networks*



Alternative Transportation Networks

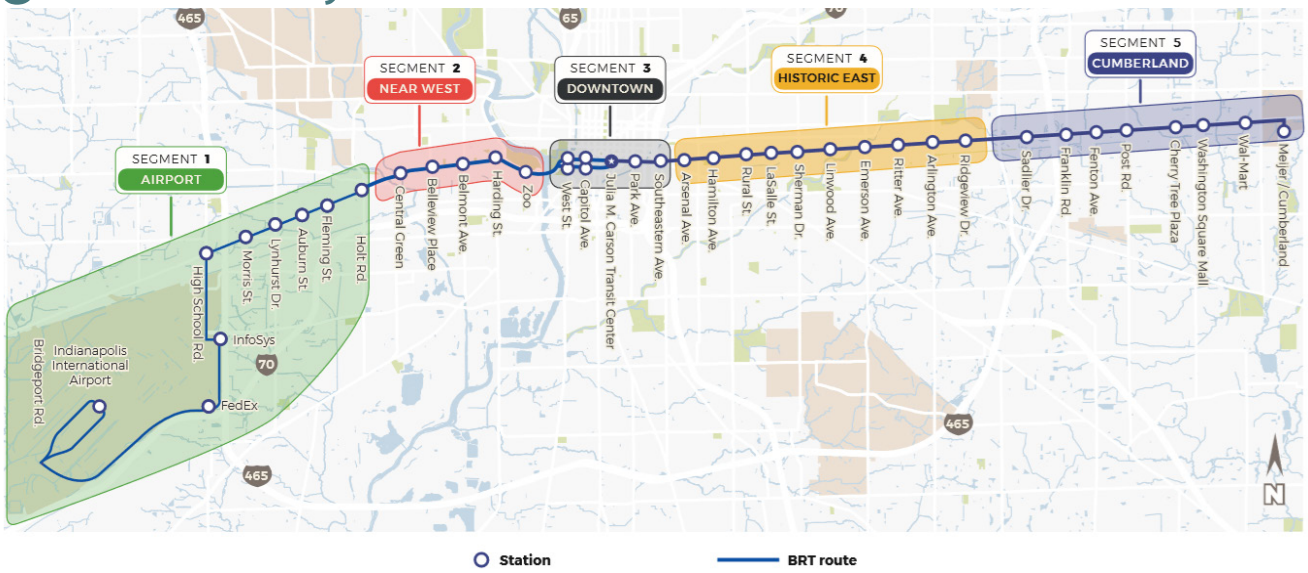
Recreational Networks

Figure 4.5: Alternative Transportation Networks, displays trails in and around Hendricks County. The map displays existing and proposed trails as well as trails that are currently being worked on. Hendricks County is well known for trails and outdoor recreation particularly on the east side of the county. There are currently 43.6 miles of trails in Hendricks County. Trails help increase recreational activities and promote a healthy lifestyle. Providing safe and efficient ways for people to engage outdoors can help increase quality of life in an area and is supported by the safety goal of this plan.

Transit

The city of Indianapolis' transit agency, IndyGo, is expanding transit networks throughout Marion County and can be seen in Figure 4.6 below. The Blue Line Rapid Transit Line will be along Washington Street starting on the east side of Indianapolis and continuing all the way to the Indianapolis International Airport. The Blue Line is expected to be operational in 2024, but there are no plans for extension into Hendricks County. The Central Indiana Regional Transportation Authority (CIRTA) is a governmental organization that works to connect the Indianapolis metropolitan region. Currently, there are two CIRTA routes in Hendricks County: Plainfield North Connector and Plainfield South Connector which help provide transportation to workers in the area. Public transportation benefits communities in ways such as providing access to jobs, congestion mitigation, air pollution mitigation, creating desirable business and recreational districts. The Blue Line is a good chance for the county to consider public transportation opportunities which are supported by increased connectivity and coordination as goals of this plan.

Figure 4.6 | *IndyGo Blue Line*



Source: IndyGo https://www.indygo.net/blueline/

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5

Transportation Needs & Analysis

Existing Conditions

The transportation network in Hendricks County is made up of a variety of roads based on the capacity needed throughout different areas of the County. Each of the roads within the County's network is given a classification based on designations established by the Federal Highway Administration (FHWA).

Existing Functional Classifications

The Federal Highway Administration (FHWA) defines a series of functional roadway classifications based on the priority of through-traffic mobility versus access to adjacent land. These classifications are found throughout Hendricks County and area interstates, state highways, urban and suburban streets, and local lower volume roads. FHWA roadway functional classifications are based on a variety of factors including:

- ***Access Control***
- ***Speed Limit***
- ***Traffic Volume***
- ***Route Spacing***
- ***Number of Travel Lanes***
- ***Regional Significance***

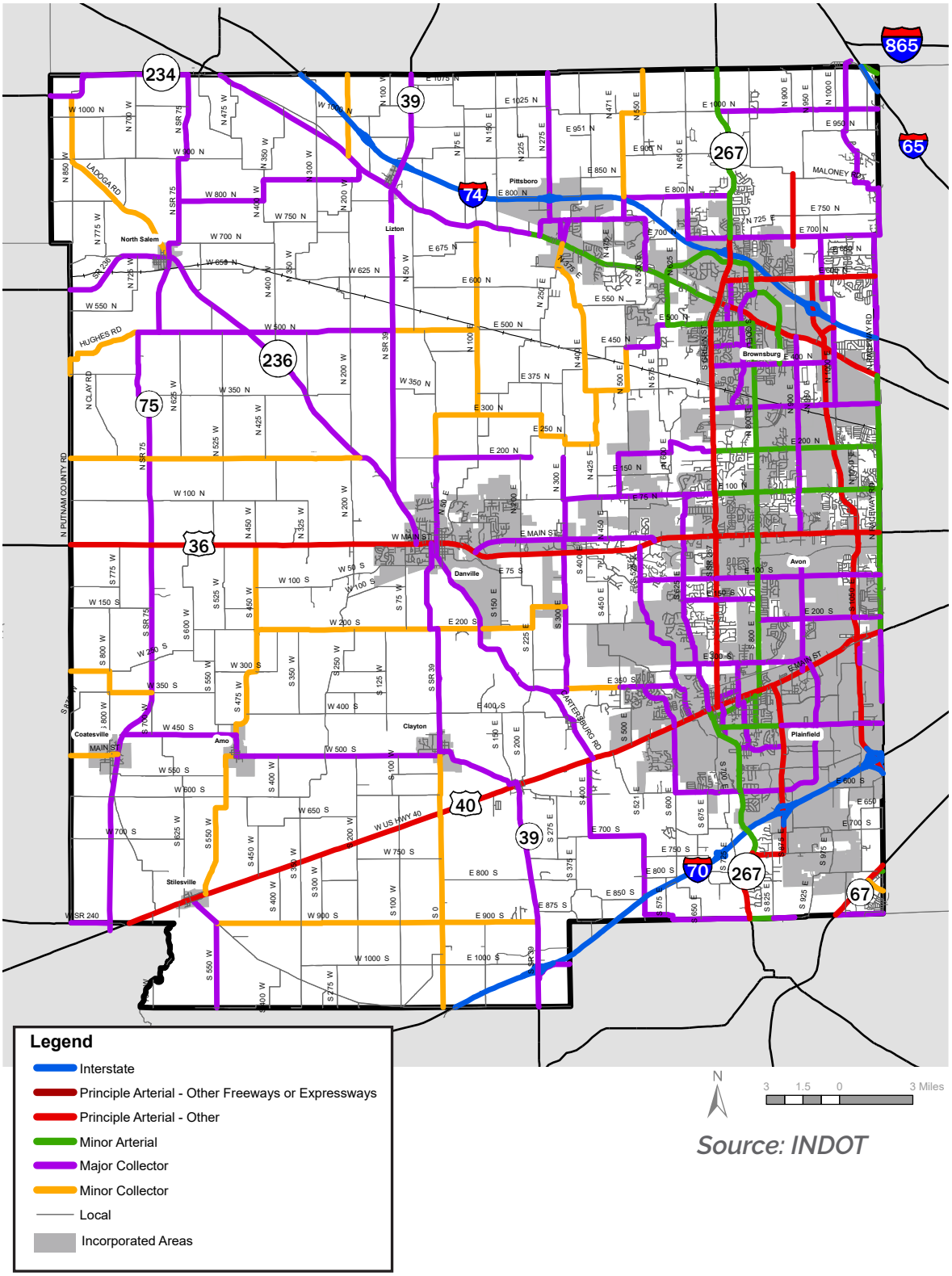
Functional Classification is a great resource for determining road viability based on vehicular traffic but it does not take into account motorist and non-motorist safety. Additional safety measures along with functional class upgrades should be explored as safety is a key goal in this plan.

Source: Shrewsberry

Context

Considering the design of a roadway given the context is especially important in Hendricks County. What is needed in the urban zone is not always appropriate in the transitional zone. Considering the location of the roadway is also important in determining necessary non-vehicular facilities. Sidewalks aren't always necessary in rural areas but are considered very important in urban areas. Being sensitive to the context of different areas around the county is crucial in determining existing and future roadways.

Figure 5.1 | *Existing Functional Classification*



Definitions

Figure 5.2 on page 43 displays the functional classification hierarchy. Following are descriptions of the major FHWA functional classifications used for roadways in Hendricks County:

Interstates, such as I-70 and I-74, are a special classification of freeway and hold the highest classification for roadways in the FHWA functional classification system. Interstates prioritize vehicular mobility and allow minimal access points with specific minimum distances separating them. Interstates are intended to be high speed, high traffic volume corridors with statewide and national significance. They are planned and maintained by state authorities with federal oversight. Interstates in Indiana are under the jurisdiction of the Indiana Department of Transportation, otherwise known as INDOT.

Principal Arterials (Other Freeways and Expressways) look very similar to interstates, but without the interstate designation. These have regional or statewide significance. Sam Jones Expressway in Marion County is an example of this classification; there are none in Hendricks County at this time.

Principal Arterials are roadways that carry regionally significant volumes of traffic. They typically serve major population centers from multiple directions and provide primary connectivity between population centers in rural areas. Major arterials allow direct access onto the roadway from adjacent land but may limit the number and frequency of intersections and driveways to prioritize through-traffic. Major arterials are generally spaced at two to three-mile intervals in suburban areas and can be spaced further apart in rural areas. U.S. 40 is an example of a principal arterial in Hendricks County.

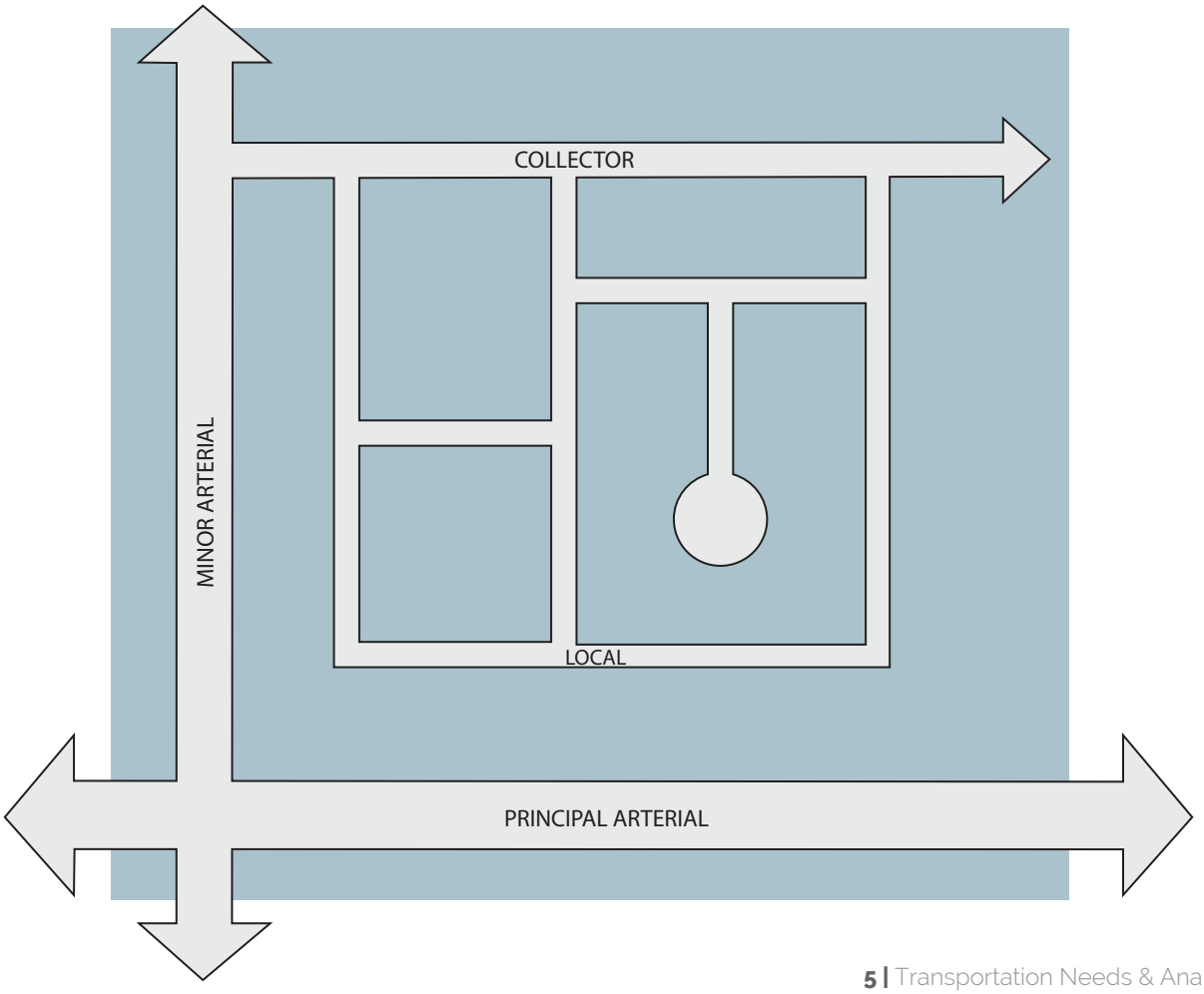
Minor Arterials are similar to major arterials but occur more frequently and are spaced in a manner to serve local trips of moderate length. Recommended spacing of minor arterials is between one and three miles in suburban areas and can be further apart in rural areas where traffic volumes diminish. Minor arterials provide connectivity between collector roadways and freeways in a similar manner as primary arterials, but they may have lower volumes of traffic and more frequent intersection spacing. Minor arterials can help divert some peak hour volume away from major arterials if properly spaced and designed. C.R. 200 N. between S.R. 267 and Ronald Reagan Parkway is an example of a minor arterial.

Major Collectors have the primary function of collecting traffic from the local roads and connecting it to the arterials and freeways. Major collectors help balance the needs for access to adjacent land and corridor mobility. Major collectors provide connectivity to high traffic generators not located on the arterial system such as schools, parks, and major employment centers. S.R. 39 is a major collector in Hendricks County.

Minor Collectors are similar to major collectors but are used for shorter trips. They provide traffic circulation in lower-density developed areas where traffic volumes are diminished. They also serve as connections between rural areas and higher functioning roadways. C.R. 0 is classified as a minor collector in Hendricks County.

Local Roads make up the largest percentage of roadways within any functional classification network. Their primary function is to provide access to individual parcels of land and subdivisions. Local roadway trips are shorter in duration and speeds are lower. Cut-through traffic is typically regulated to help keep traffic volumes low and to reduce potential conflict between transportation and pedestrian uses. Any roads that are not explicitly classified as arterials or collectors are considered local roads. Local roads are typically not eligible for federal funding and must be maintained by local authorities.

Figure 5.2 | Primary Roadway Function



Analysis

Existing Traffic Volumes

The Thoroughfare Plan study area includes all collectors, arterials, and freeways within Hendricks County, excluding the incorporated Towns of Danville, Plainfield, Avon, Brownsburg, and Pittsboro, which have completed their own plans which were referenced for context and coordination. Traffic counts on thoroughfares were obtained from INDOT's Traffic Count Database System, the Town of Avon, and the Town of Brownsburg. Most counts were collected in 2018, so this was used as the base year traffic conditions. The various traffic data were reviewed and adjusted to represent typical traffic conditions. Figure 5.2 shows the 2018 Existing Traffic Volumes within the study area.

Growth Rates

Growth rates for each thoroughfare were determined by reviewing data from traffic counts, historical growth rates, and the Indianapolis MPO travel demand model projections. The steering committee provided further input on the areas of the County most likely to experience growth. Average annual growth rates are shown in Figure 5.3: Average Annual Growth Rates

Future Traffic Volumes

The growth rates were applied to the 2018 existing traffic volumes to project traffic to the future year of 2028. Figure 5.4 shows the projected 2028 Traffic Volumes.

Figure 5.2 | *Existing Traffic Volumes (2018)*

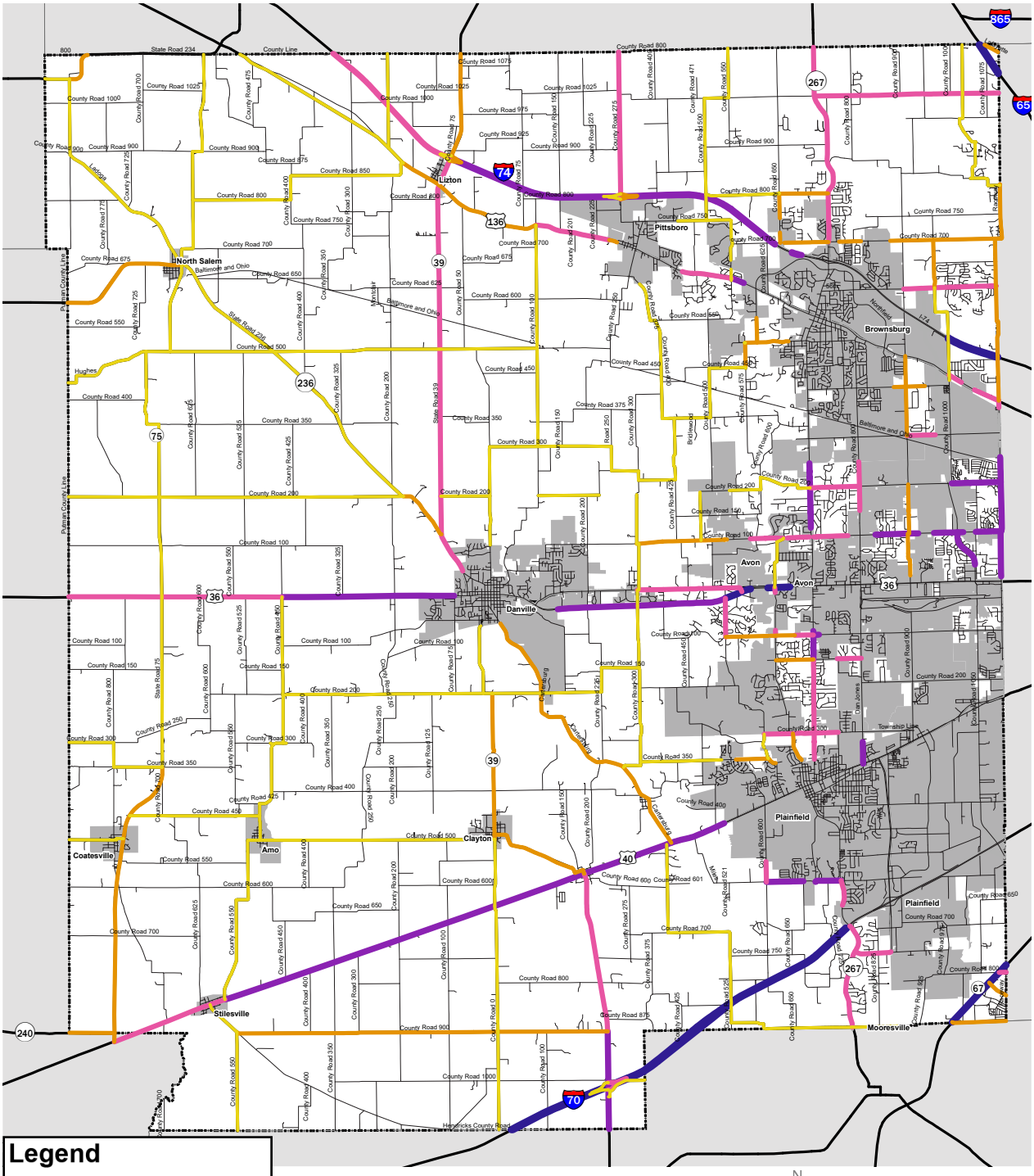


Figure 5.3 | *Average Annual Growth Rates*

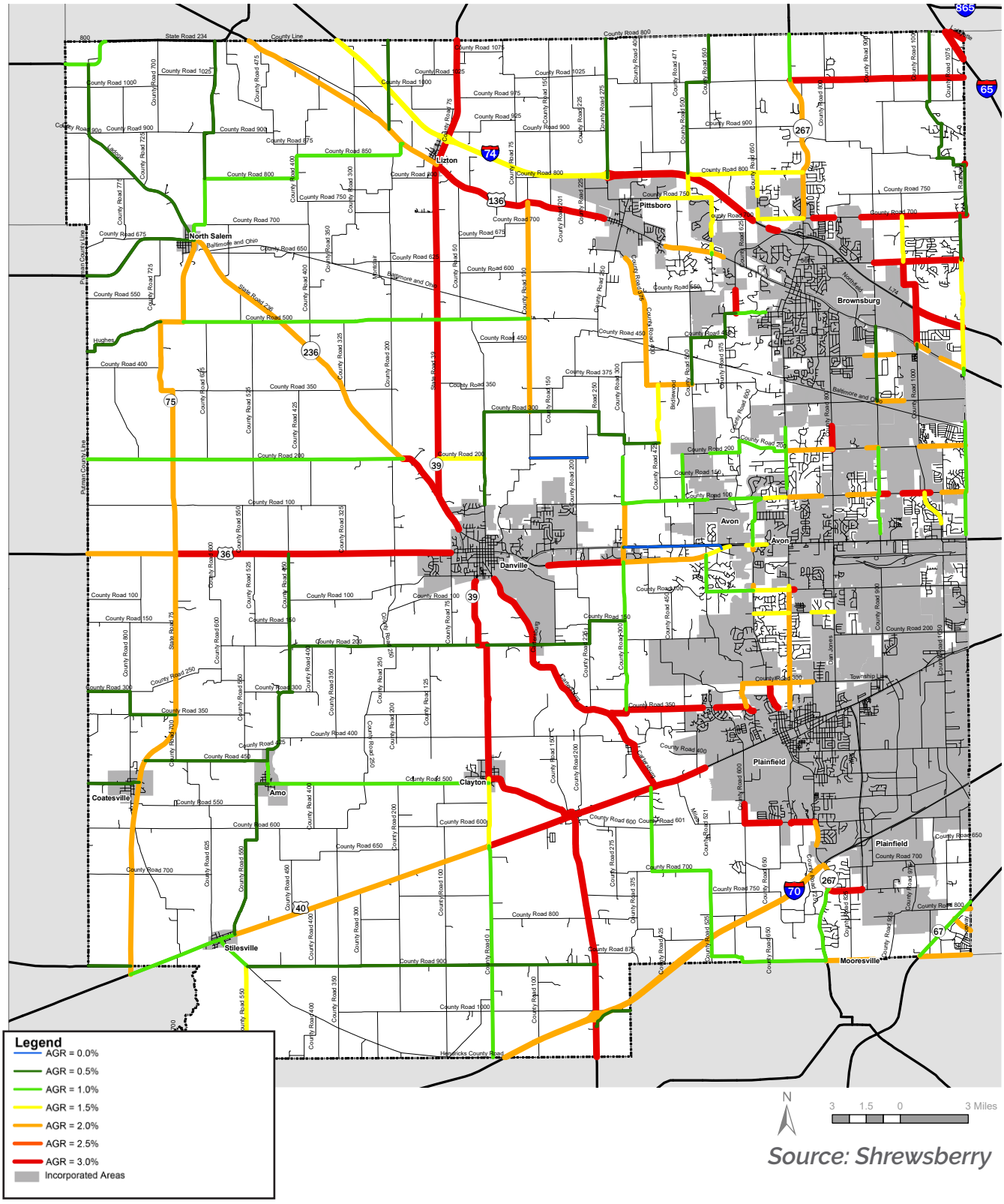
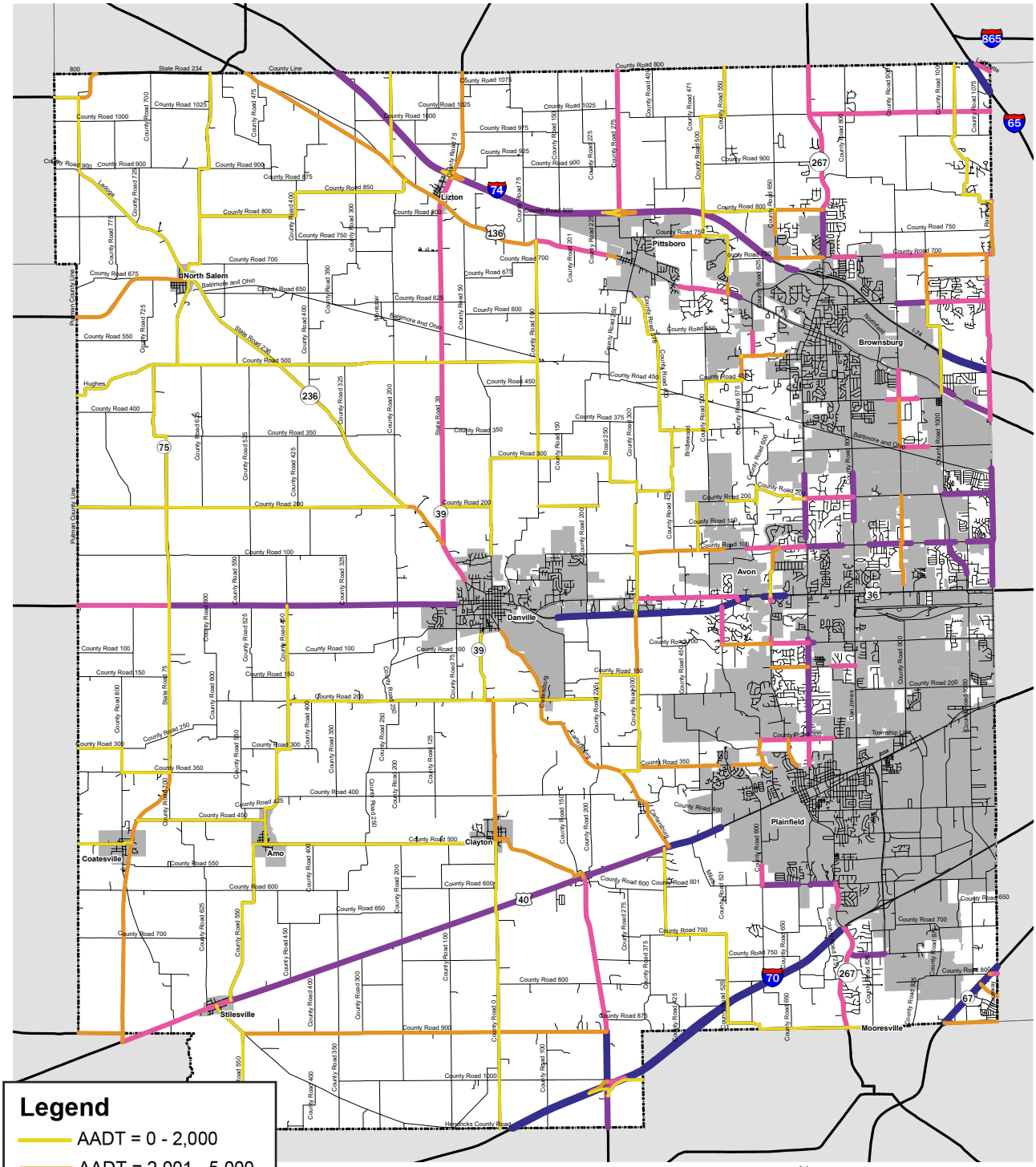


Figure 5.4 | *Future Traffic Volumes (2028)*



Intersection Capacity

Existing and future traffic volumes were analyzed with respect to the overall capacity of the intersection control type. Intersections, where the volume is approaching capacity, will experience congestion. Based on public feedback, east/west traffic is an issue, particularly in the eastern half of the County and should be considered a priority. North/south connectivity is also mentioned as an issue in improving traffic mobility. Figure 5.5 shows the relative congestion based on 2018 data. The following intersections had high congestion:

- ***U.S. 136 and S.R. 39 in Lizton***
- ***S.R. 67 and Hendricks County Line Road near Mooresville***
- ***U.S. 40 and S.R. 75, located about 500' outside of Hendricks County, but included for consideration since both S.R. 75 and U.S. 40 are key highways utilized by Hendricks County drivers***
- ***S.R. 267 and C.R. 1000 N., north of Brownsburg***
- ***Moon Road and C.R. 600 S. near Plainfield***
- ***C.R. 100 S. and C.R. 525 E. near Avon***

Congestion

Figure 5.6 shows the projected congestion in 2028. The congestion maps are based on an approximation of Level of Service methodology in the Highway Capacity Manual. For this plan, estimated daily traffic volumes are compared to the approximate capacity of the intersection by type of control. Although this information is useful at the planning level, a detailed traffic study is needed before moving forward with improvements based on congestion maps The following intersections have projected long-term future congestion issues:

- ***All the intersections listed in 2018, assuming no improvements are constructed***
- ***U.S. 36 and C.R. 300 E.***
- ***C.R. 600 N. and C.R. 1000 E., near Brownsburg***

Figure 5.5 | *Existing Congestion (2018)*

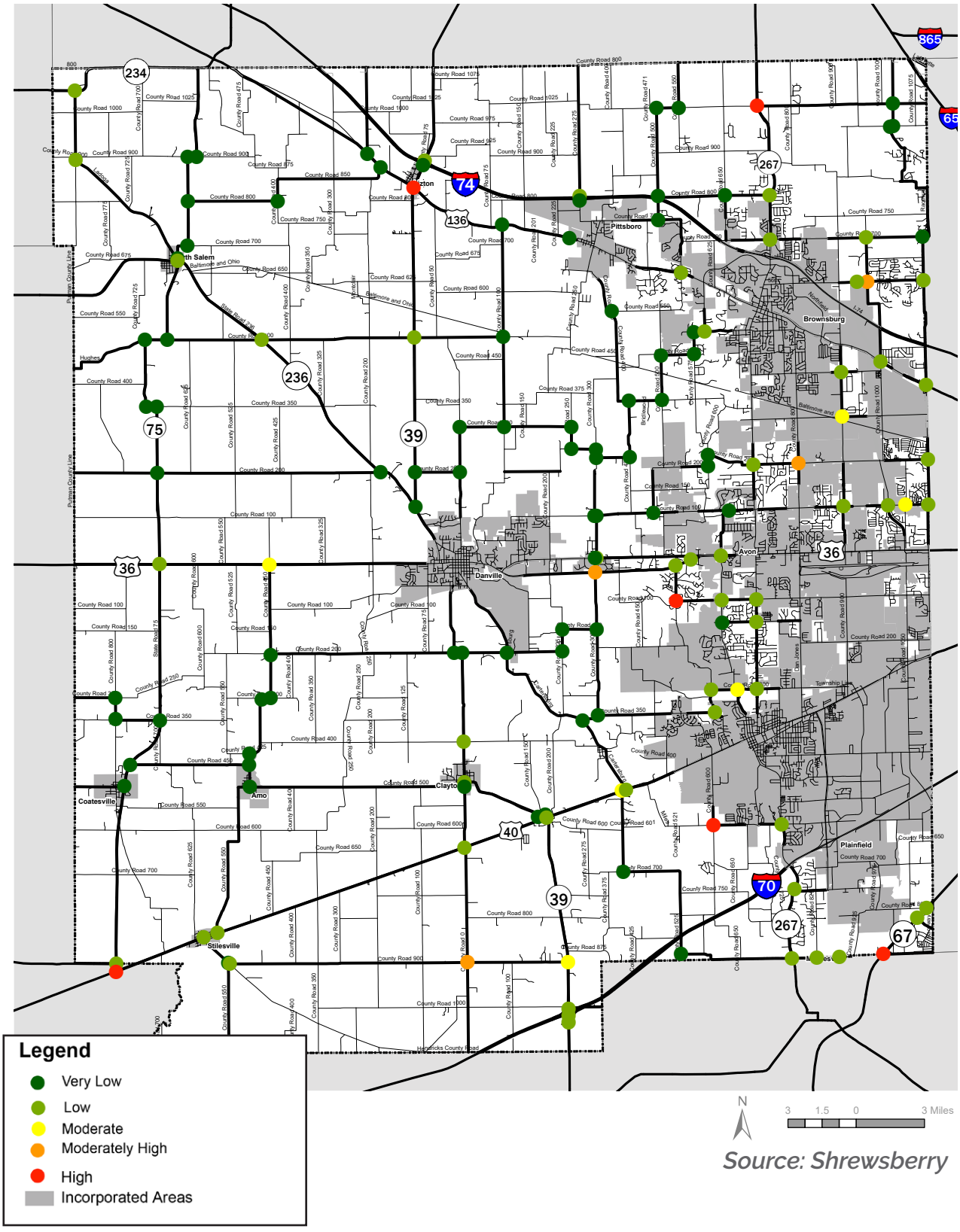


Figure 5.6 | *Projected Congestion (2028)*

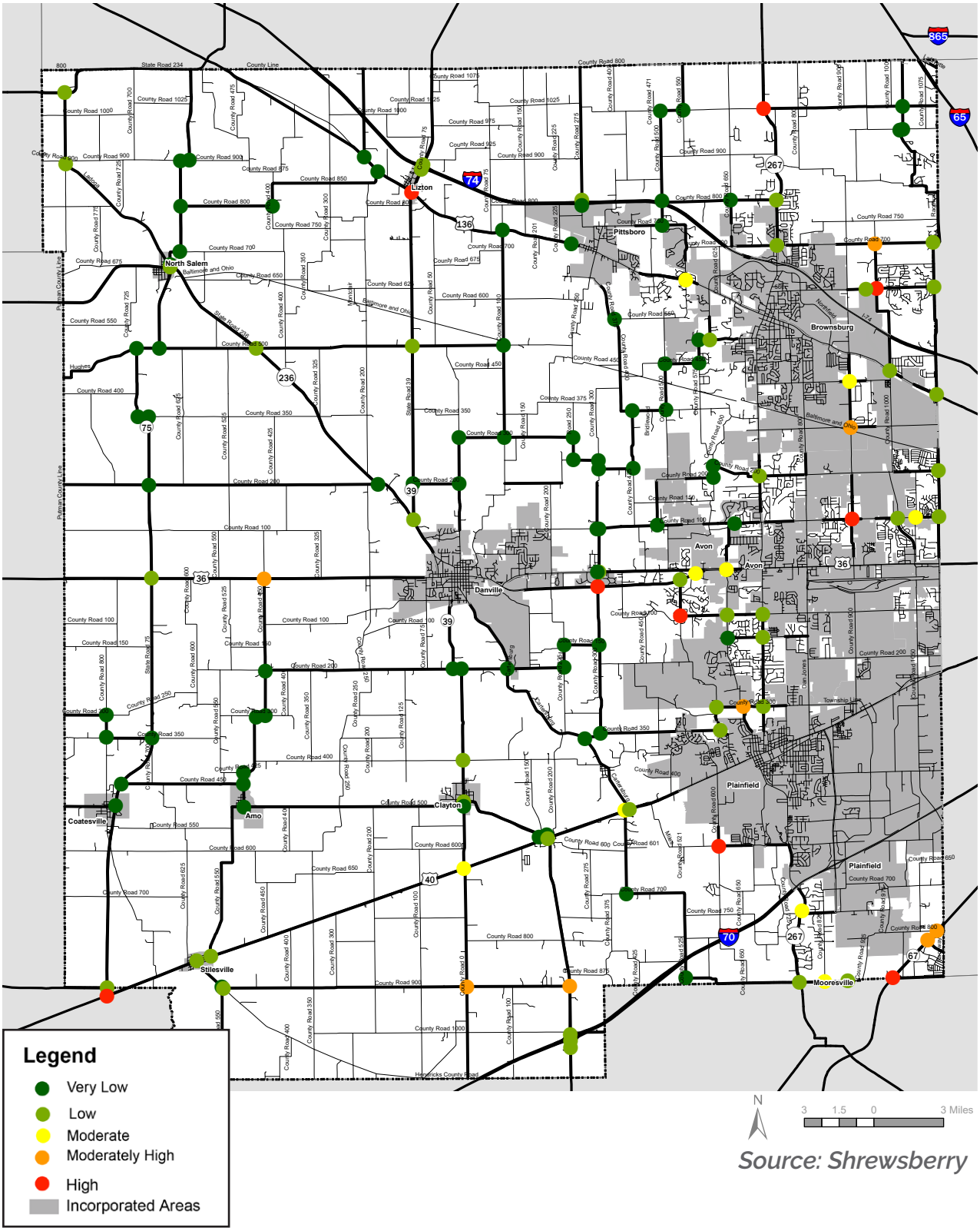
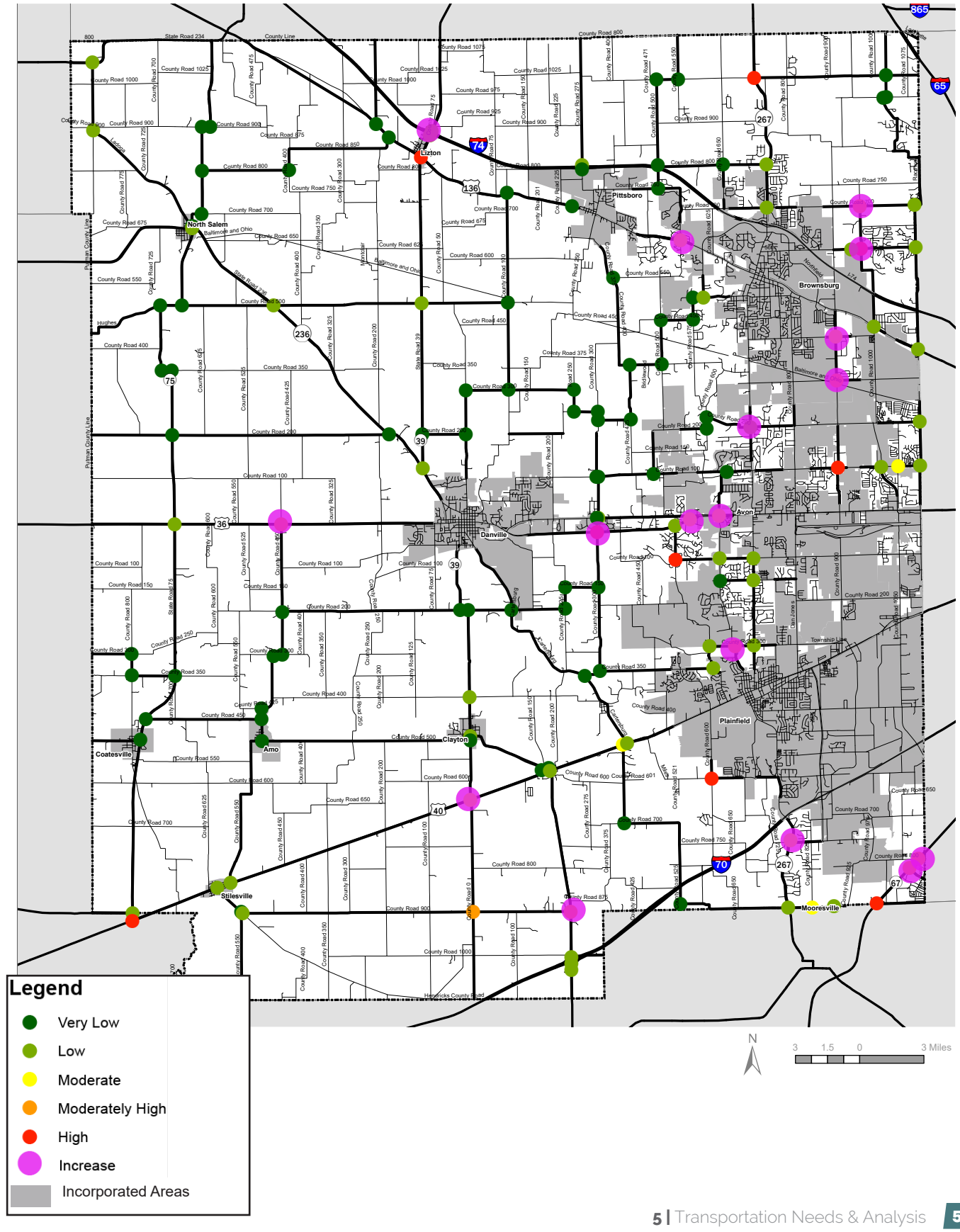


Figure 5.7 | *Increase In Congestion*



Crash Data Analysis

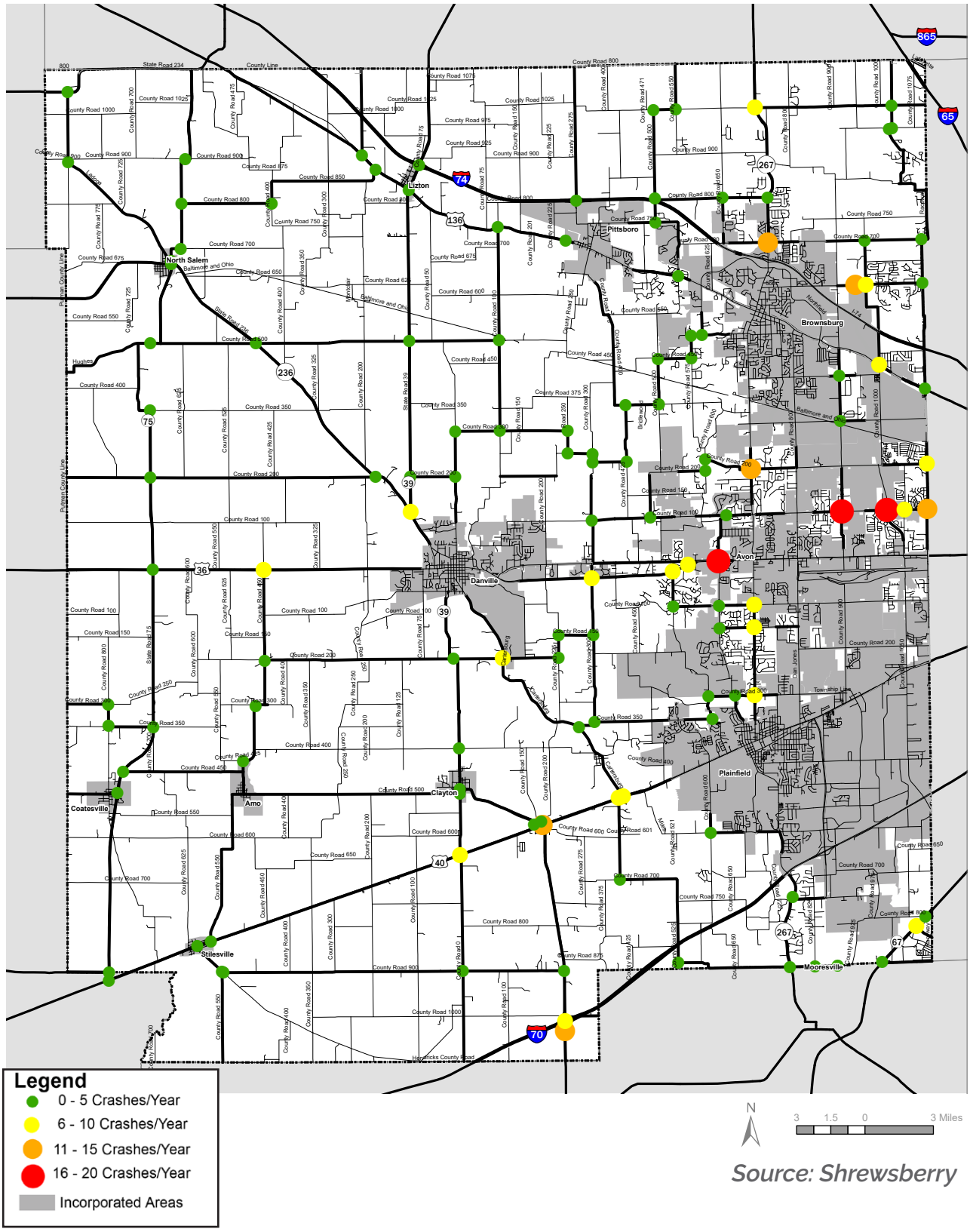
Crash data for Washington Township was provided by the Town of Avon, and crash data for Lincoln and Brown Townships was provided by the Town of Brownsburg. Crash history for the balance of Hendricks County was downloaded from the statewide Automated Reporting Information Exchange System (ARIES) for a four-year period between 2014 and 2017. This data was filtered to find the total number of crashes per thoroughfare intersection. The average number of crashes per year is shown in Figure 5.8. The locations with more crashes are primarily within the urbanized eastern portion of the County.

Locations with more traffic are also expected to have more crashes. A standardized crash rate was calculated to compare the relative risk of all the study intersections. This calculation divided the total number of crashes per year by one million entering vehicles (MEV). The crash rate per MEV is shown in Figure 5.9. As safety is a primary goal for this plan, considering improvements for locations with a high volume of crashes is especially important.

The intersections with the highest crash rates are:

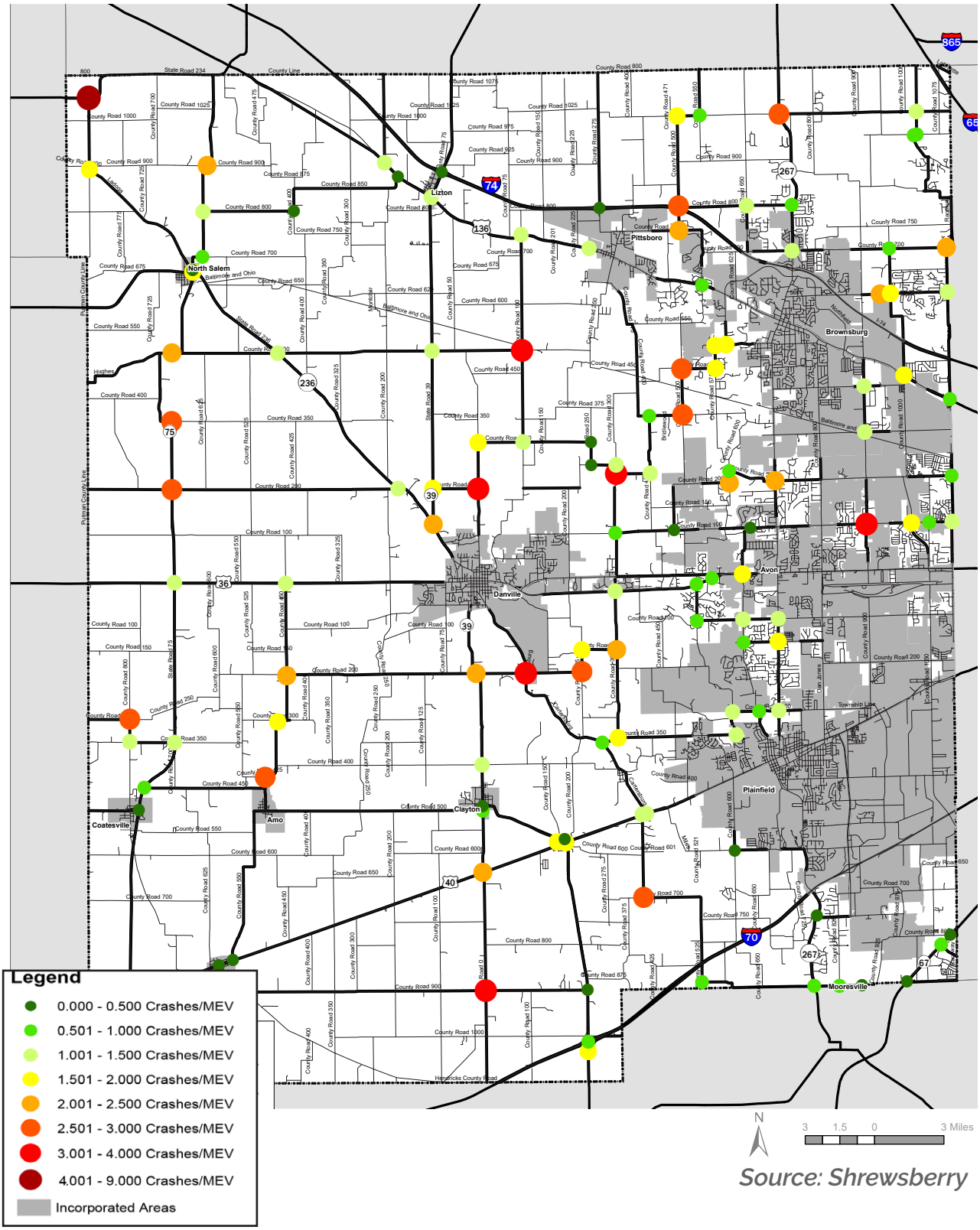
- ***S.R. 234 and C.R. 850 W. near Jamestown***
- ***C.R. 200 N. and Washington Street near Danville***
- ***C.R. 100 N. and C.R. 900 E. near Avon***
- ***C.R. 225 N. and C.R. 300 E. near Danville***
- ***C.R. 500 N. and C.R. 100 E.***
- ***C.R. 900 S. and C.R. 0***
- ***S.R. 75 and C.R. 350 N.***
- ***C.R. 450 N. and C.R. 500 E. near Brownsburg***
- ***C.R. 200 S. and C.R. 225 E. near Danville***
- ***C.R. 350 N. and C.R. 500 E. near Brownsburg***
- ***C.R. 700 S. and C.R. 400 E.***
- ***S.R. 267 and C.R. 1000 N.***
- ***S.R. 75 and C.R. 200 N.***
- ***C.R. 425 S. and C.R. 500 W.***
- ***C.R. 300 S. and C.R. 800 W.***
- ***C.R. 800 N. and C.R. 500 E.***

Figure 5.8 | *Annual Crashes*



Source: Shrewsberry

Figure 5.9 | *Crash Rates*



Additional Future Capacity Considerations

Regional Connector

Located somewhere between SR 39 and SR 267, the "regional connector" corridor, is a north south corridor that takes some burden off of Ronald Reagan. This corridor would utilize the existing interchange in Pittsboro with some upgrades to improve efficiency and increase business in the area. The exact location of this corridor is not solidified as it would have to be studied. This new proposed corridor offers multiple benefits, including:

- ***Improved traffic flow on key north/ south corridors for morning and evening commutes.***
- ***Economic development opportunities for Hendricks County.***
- ***Better transportation connectivity between Hendricks County communities.***

IndyGo Blueline

Upon completion in 2024, the Blue Line will reach the Hendricks County border. There has been discussion in the County about an extension of a local bus service to the Blue Line like the current Plainfield Connector that connects to IndyGo's Route 8 bus. There currently are no plans to extend the IndyGo Blue Line or any other IndyGO transportation options into Hendricks County. However, the County should work with IndyGo to determine the feasibility of transit extension into Hendricks County. This has been supported by public input from this plan as well as the Plainfield Thoroughfare Plan. Coordination with Marion County as well as other adjacent counties can help ease congestion and increase connectivity throughout.

The Indianapolis MPO is currently working on a Suburban Transit Plan. This plan considers Guilford Township, in Plainfield and possible connections to the Indianapolis International Airport and the Blue Line.

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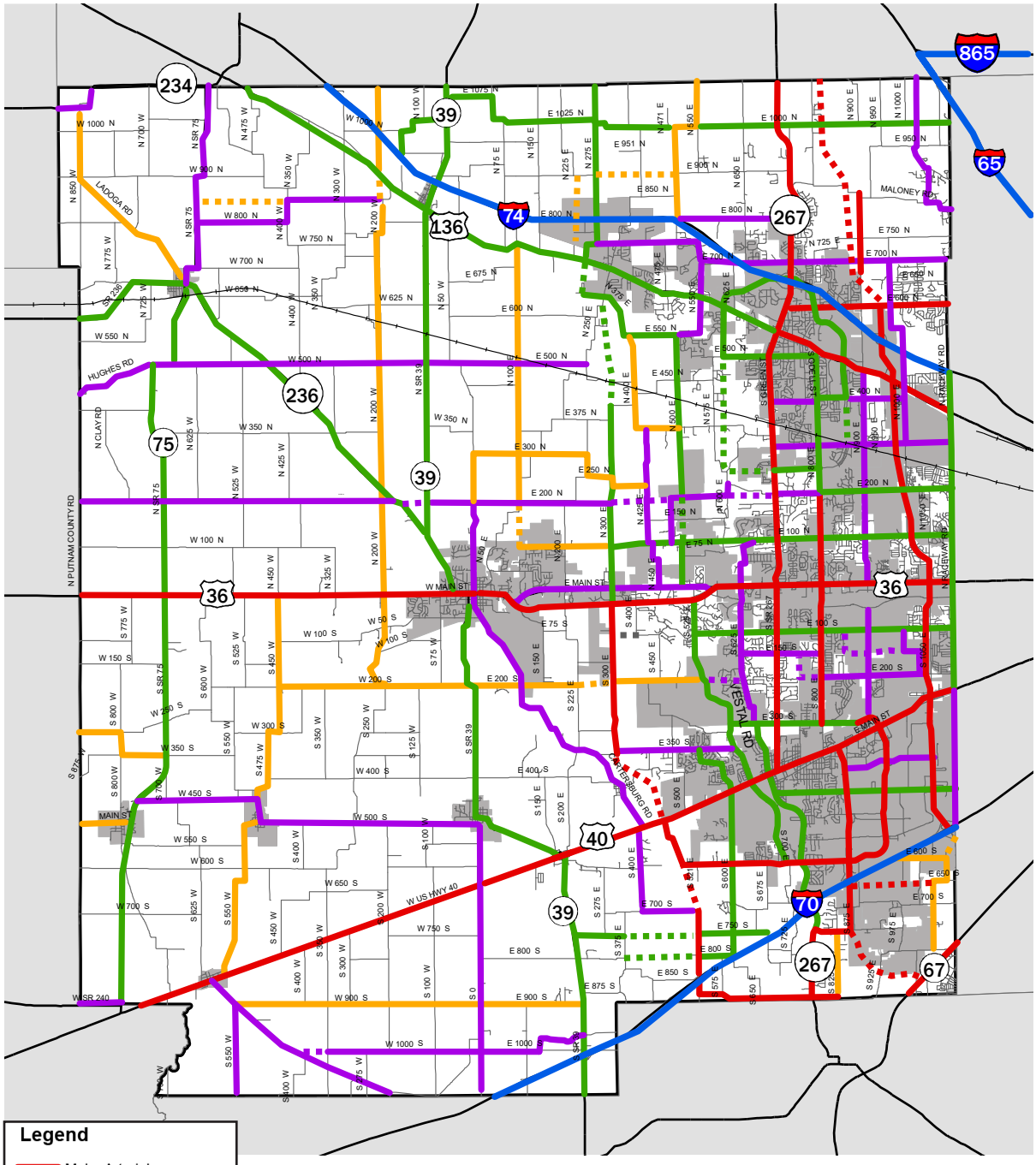
6 Transportation Recommendations

Figure 6.1 | *Future Thoroughfare Plan*



*Classifications found within town limits were taken from current town thoroughfare plans when available.

Future Thoroughfare Plan

Figure 6.1: The Future Thoroughfare Plan Map shows the potential future road network for Hendricks County. This map is based on the analysis in Chapter 5 as well as public engagement and conversations with the steering committee. The road designations on this map are used to determine appropriate right-of-way standards throughout the County. The classifications on the Future Thoroughfare Plan map are similar to the INDOT functional classifications (arterials and collectors) but are not identical as this map is specific for the county to plan changes to its transportation network over the next 15-20 years. The classifications on the Thoroughfare Plan Map are intended to provide a hierarchy and go hand-in-hand with the proposed right-of-way standards on Table 6.3. These right-of-way standards should be implemented if and when development occurs along the routes or as improvements are made to establish appropriate right-of-way dedication for needed future roadway improvements.

A primary influencing factor on the Future Thoroughfare Plan is the rapid growth of many Hendricks County municipalities. Increasing coordination between municipalities and throughout the county was identified as a priority goal by the steering committee, therefore, referencing corresponding county and municipal plans is essential to the success of this plan. Using this plan to guide discussions for improvements and future plans for the county will allow for increased coordination.

This map supports the goals of this plan by increasing connectivity throughout the county and filling in missing gaps within the existing network. The new proposed north south connector will help encourage regional economic development opportunities which is a goal of this plan.

Proposed Functional Classification Changes

Figure 6.2: Proposed Functional Classification Changes shows recommended roadway functional classification updates throughout the County. Recommended changes are based on research and analysis of current classification and predicted future needs for specific road segments. These changes are based on the Federal Highway Administration (FHWA) designation for functional classification. For Hendricks County, functional classification changes must be completed in cooperation with the Indianapolis MPO and INDOT. These changes are to take place as road improvements and development happen along the corridors.

Figure 6.2 | *Proposed Functional Classification Changes*

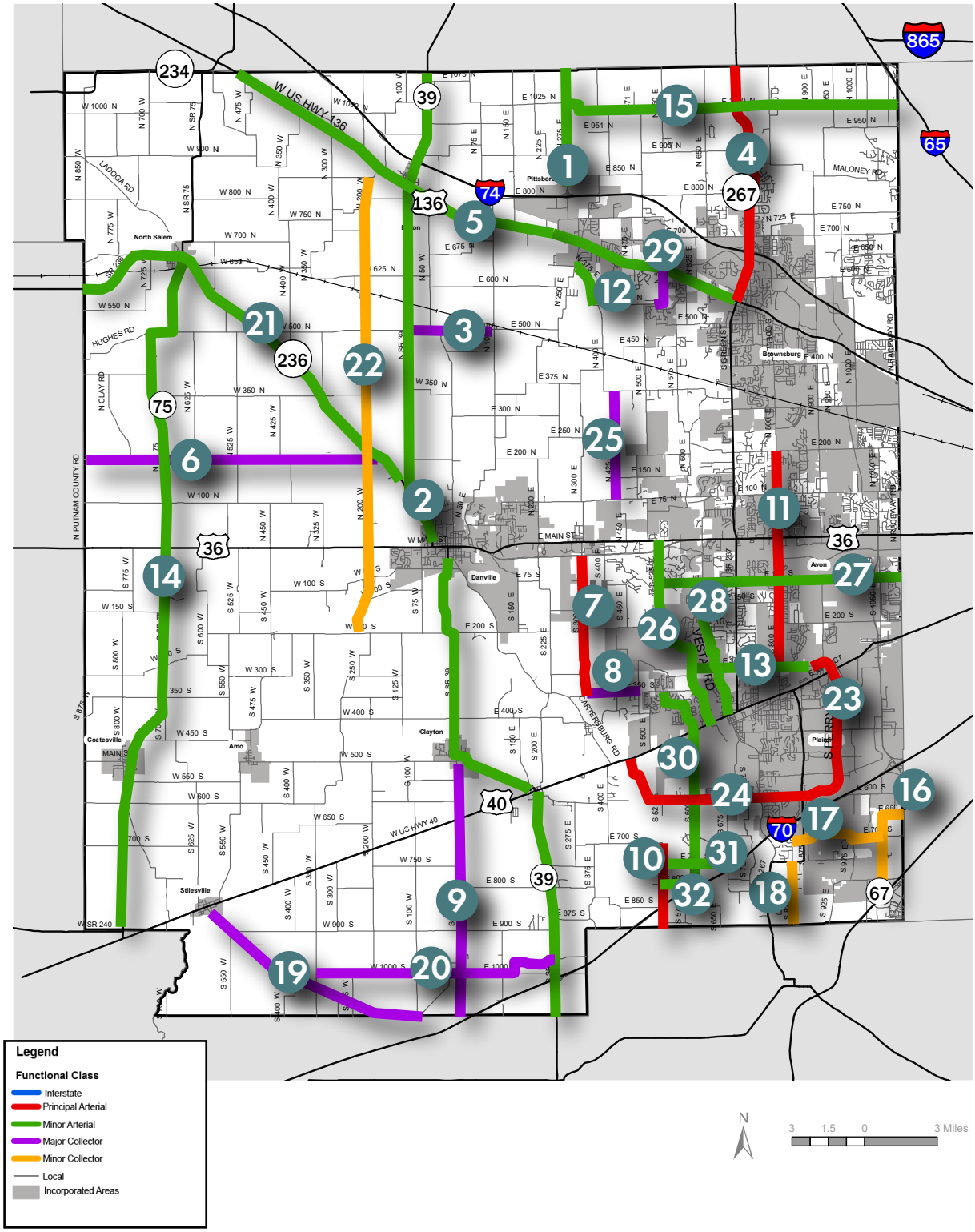


Table 6.2: *Changes In Functional Class*

#	Roadway	Existing Classification	Future Classification	Responsible Parties
1	C.R. 275 E.	Major Collector	Minor Arterial	County
2	S.R. 39	Major Collector	Minor Arterial	INDOT
3	C.R. 500 N	Minor Collector	Major Collector	County
4	S.R. 267	Minor Arterial	Principal Arterial	County
5	U.S. 136	Major Collector	Minor Arterial	INDOT
6	C.R. 200 N.	Minor Collector	Major Collector	County/Towns
7	C.R. 300 E.	Major Collector	Principal Arterial	INDOT/Town
8	C.R. 350 S.	Minor Collector	Major Collector	County
9	C.R. 0	Minor Collector	Major Collector	County
10	C.R. 575 E.	Minor Collector	Principal Arterial	County
11	C.R. 800 E.	Minor Arterial	Principal Arterial	County/Town
12	C.R. 375 E.	Minor Collector	Minor Arterial	County/Town
13	C.R. 300 S.	Major Collector	Minor Arterial	County
14	S.R. 75	Major Collector	Minor Arterial	INDOT
15	C.R. 1000 N.	Major Collector/Local	Minor Arterial	County
16	C.R. 650 S.	Local	Minor Collector	County/Town
17	C.R. 700 S.	Local	Minor Collector	County/Town
18	C.R. 825 E.	Local	Minor Collector	County
19	Tudor Rd	Local	Major Collector	County
20	C.R. 1000 S.	Local	Major Collector	County
21	S.R. 236	Major Collector	Minor Arterial	INDOT
22	C.R. 200 W.	Local	Minor Collector	County
23	Perry Rd.	Major Collector	Principal Arterial	County/Town
24	C.R. 600 S.	Major Collector	Principal Arterial	County/Town
25	C.R. 425 E.	Minor Collector	Major Collector	County
26	C.R. 525 E	Major Collector	Minor Arterial	County/Town
27	C.R. 100 S.	Major Collector	Minor Arterial	County/Town
28	Vestal Rd.	Major Collector	Minor Arterial	County/Town

Table 6.2: *Changes In Functional Class*

#	Roadway	Existing Classification	Future Classification	Responsible Parties
29	C.R. 550 E.	Minor Collector	Major Collector	INDOT
30	C.R. 600 E.	Major Collector/Local	Minor Arterial	County/Town
31	C.R. 700 S.	Local	Minor Arterial	County
32	C.R. 800 S.	Local	Minor Arterial	County

Proposed Right-of-Way Standards

Typical Sections

The proposed right-of-way standards are based on the existing standards for communities in Hendricks County. These standards were also created by referencing standards in other counties within the Indianapolis MPO. Figure 4.4 Thoroughfare Intensity Zone Map in Chapter 4, displays where these standards would be applied throughout the county. Right-of-way standards support increased safety which is a goal of this plan. Maintaining sufficient right-of-way will help the county provide efficient transportation throughout the county and is identified as an objective for this plan.

The urban section would apply primarily to the eastern third of the County. These communities are experiencing growth that constitutes standards that can support and mitigate congestion. These standards also consider multi-modal uses throughout this zone in the County.

The transitional sections mainly reflect the middle portion of the County. As the name implies, these areas are transitioning points in the County between areas with a higher population and usage and areas that are seeing less growth and have a lower population.

Rural standards apply to the western third of the county. The roads on this side of Hendricks County are primarily in need of condition upgrades and maintenance regarding farm equipment and county bridges.

Table 6.3 displays the proposed right of way standards. These standards have been broken up by functional classification as well as the thoroughfare intensity zones displayed in Figure 4.4 These recommendations are context sensitive and should be carefully considered before changes are made.

The graphics displayed on pages 66 - 70 depict desired typical road sections. These sections were created based on the proposed right-of-way standards in Table 6.3. These standards are to be used as minimum requirements and can be increased on a case by case basis.

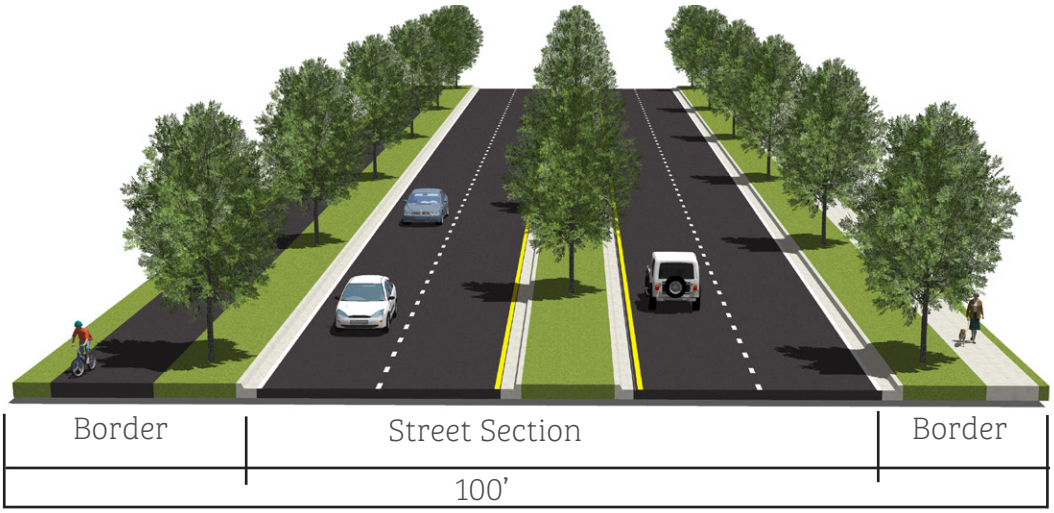
Table 6.3: Proposed Right-of-Way Standards

	Urban	Transitional	Rural
MAJOR ARTERIAL			
Right-Of-Way	100'	110'	130'
Number Of Lanes	4-5	4-5	3-4
Edge Treatments	2' Chairback curb and gutter	7' Chairback curb and gutter	10' width shoulder with side ditches
Median	10' median or 16' center turn lane	10' median or 16' center turn lane	median may be installed for access management
Sidewalk Width	6' sidewalk	6' sidewalk	6' sidewalk
Shared Use Trail Width	10' trail	10' trail	10' trail
MINOR ARTERIAL			
Right-Of-Way	100'	100'	110'
Number Of Lanes	3-4	2-4	2-4
Edge Treatments	2' Chairback curb and gutter	10' width shoulder with side ditches	10' width shoulder with side ditches
Median	10' median or 16' center turn lane	10' median or 16' center turn lane	median may be installed for access management
Bike Accommodation	10' bike lane	Not dedicated	Not dedicated
Sidewalk Width	6' sidewalk	6' sidewalk	6' sidewalk
Shared Use Trail Width	10' trail	10' trail	10' trail
MAJOR COLLECTOR			
Right-Of-Way	90'	100'	100'
Number Of Lanes	2-3	2	2
Edge Treatments	2' Chairback curb and gutter	7' width shoulder with side ditches	7' width shoulder with side ditches
Median	10' median or 16' center turn lane	10' median or 16' center turn lane	n/a
Sidewalk Width	6' sidewalk	6' sidewalk	n/a
Shared Use Trail Width	10' trail	10' trail	n/a

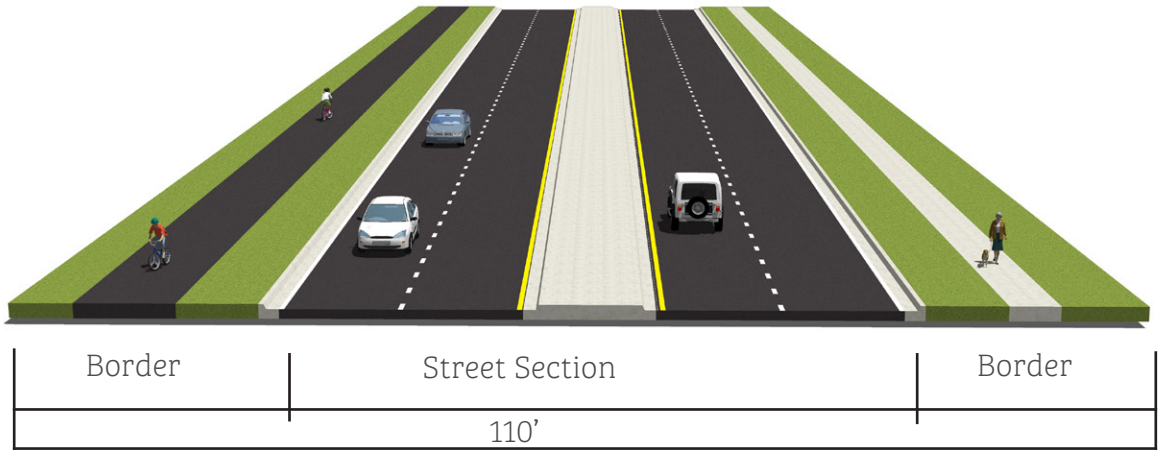
Table 6.3: Proposed Right-of-Way Standards

	Urban	Transitional	Rural
MINOR COLLECTOR			
Right-Of-Way	70'	80'	80'
Number Of Lanes	2-3	2-3	2
Edge Treatments	2' Chairback curb and gutter	7' width shoulder with side ditches	7' width shoulder with side ditches
Median	median may be installed for access management	median may be installed for access management	n/a
Sidewalk Width	6' sidewalk	6' sidewalk	n/a
Shared Use Trail Width	10' trail	10' trail	n/a
LOCAL ROADS			
Right-Of-Way	50'	50'	60'
Number Of Lanes	2	2	2
Edge Treatments	2' Chairback curb and gutter	7' width shoulder with side ditches	7' width shoulder with side ditches
Median	median may be installed for access management	median may be installed for access management	median may be installed for access management
Sidewalk Width	6' sidewalk	6' sidewalk	n/a
Shared Use Trail Width	10' trail	10' trail	n/a

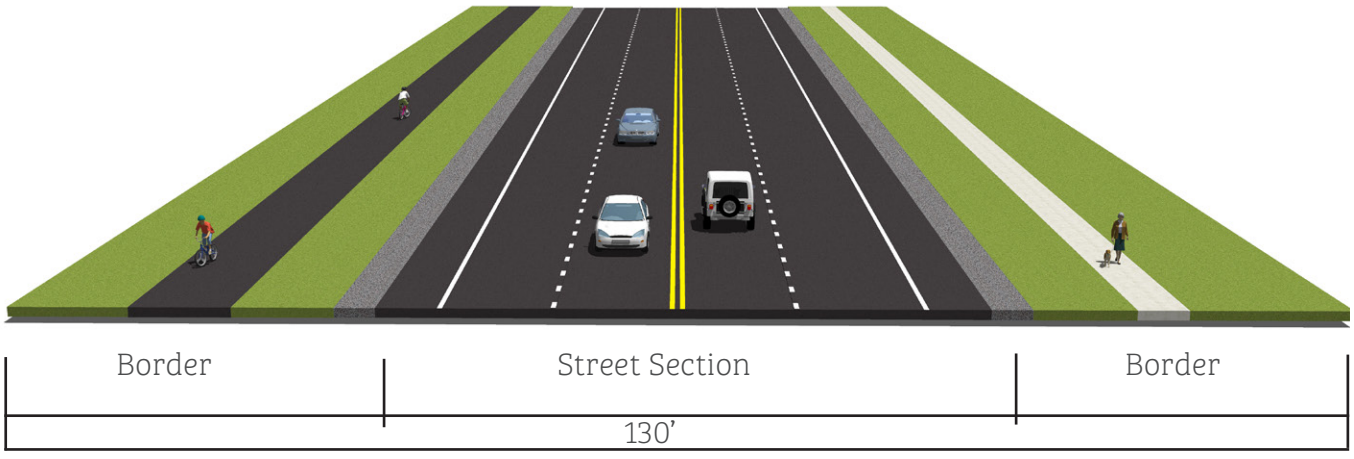
Urban Major Arterial



Transitional Major Arterial



Rural Major Arterial



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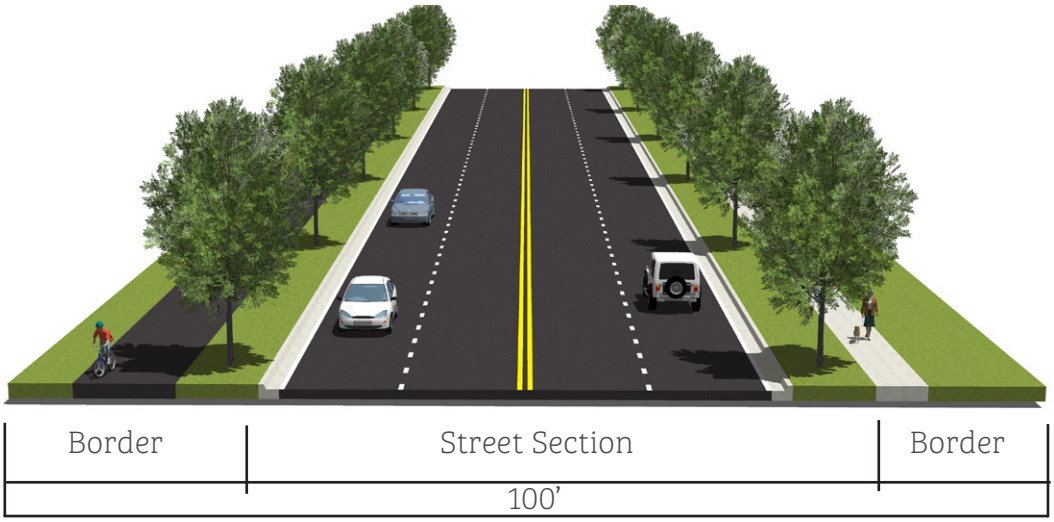

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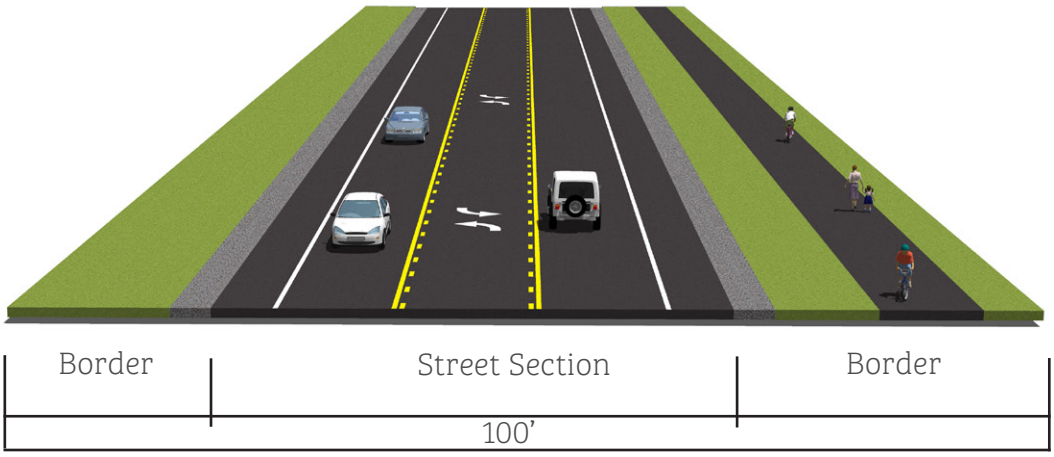

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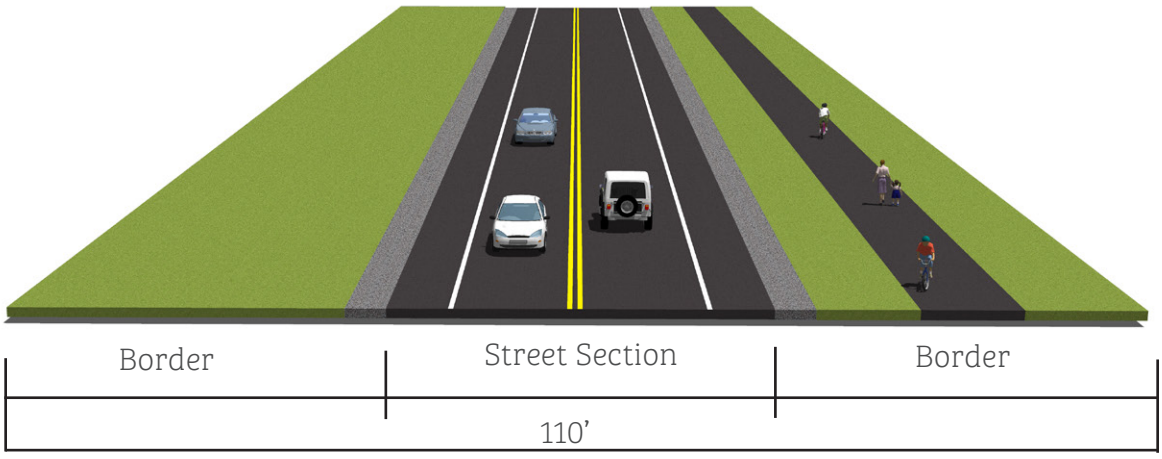
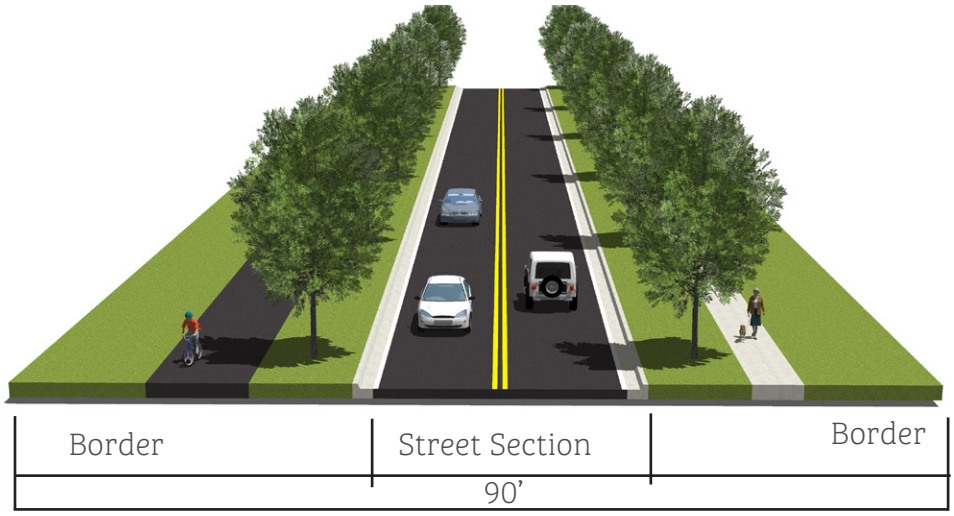


Urban Major Collector



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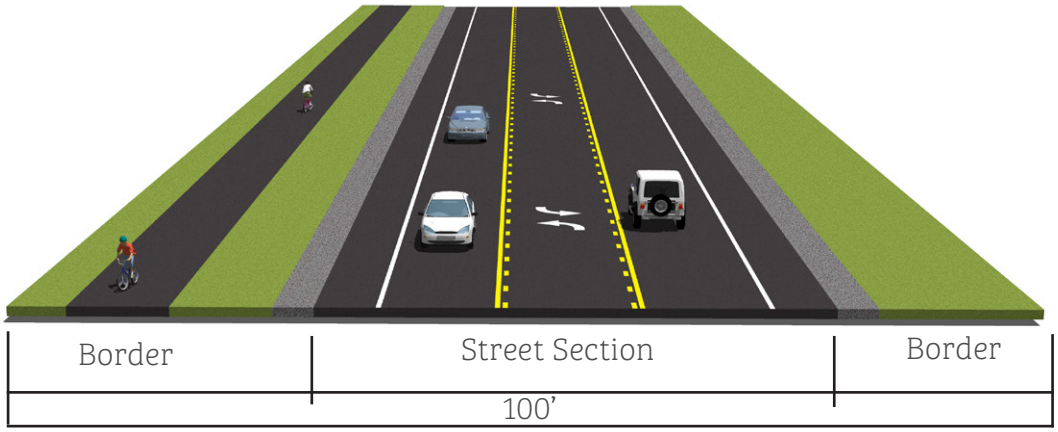

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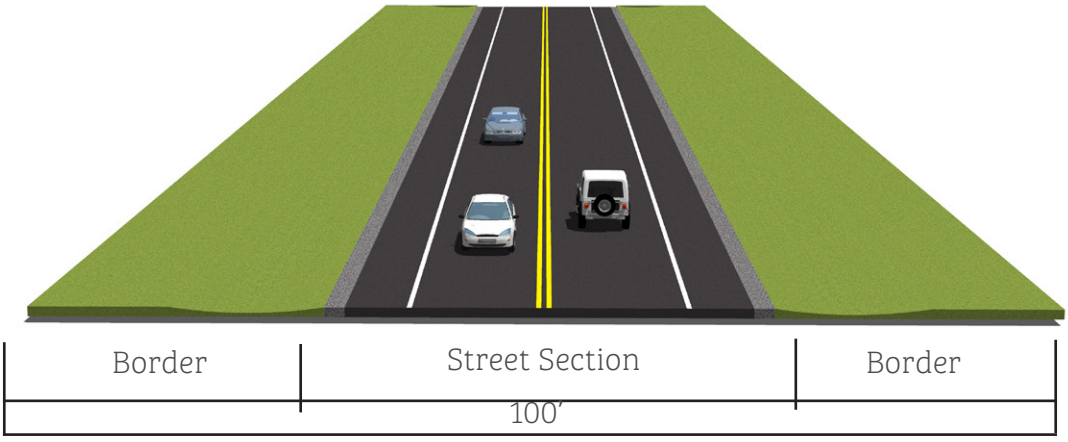

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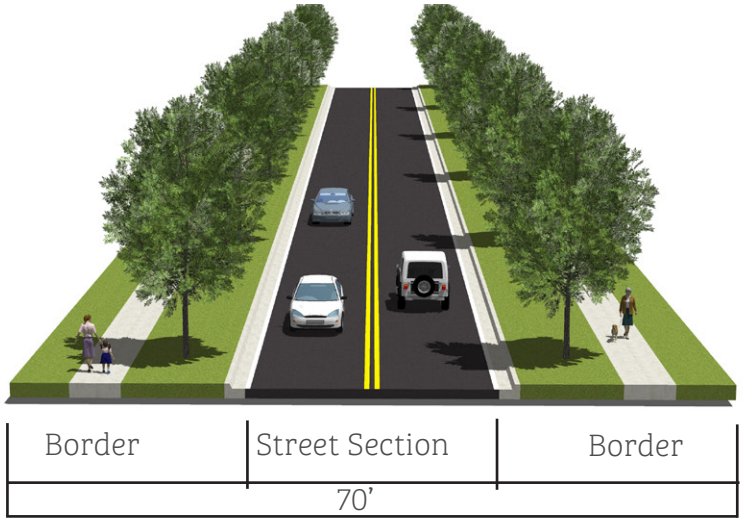

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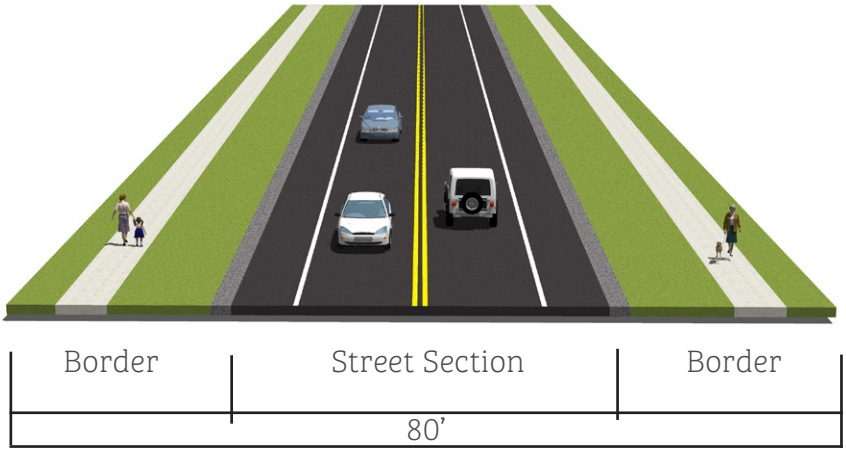

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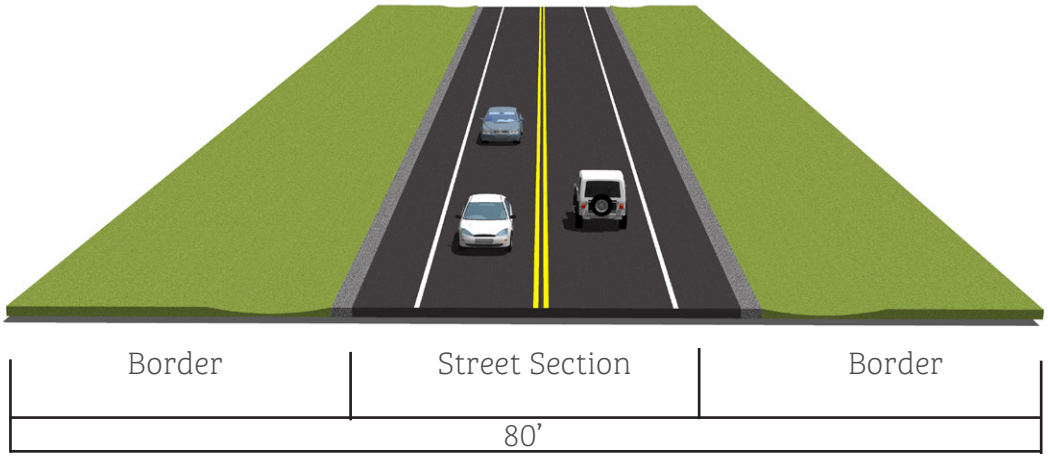
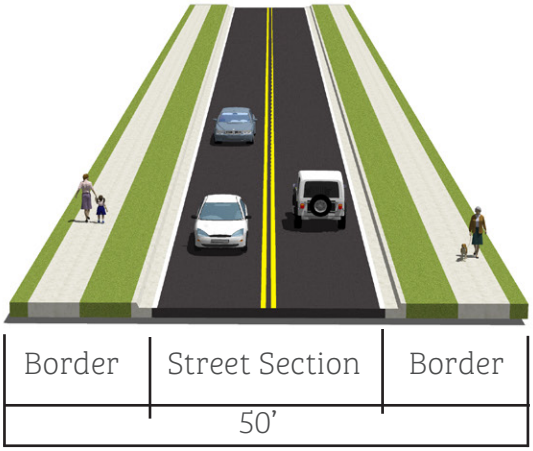
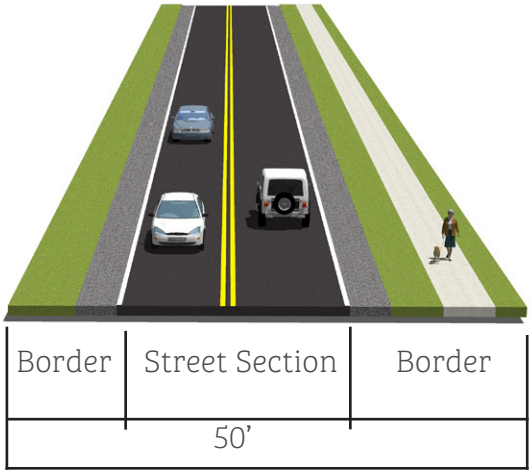


Urban Local Road



Transitional Local Road



Rural Local Road

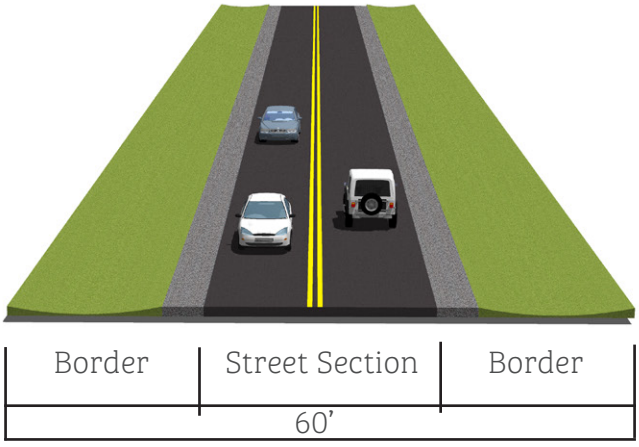


Figure 6.3 | *Proposed Improvements*

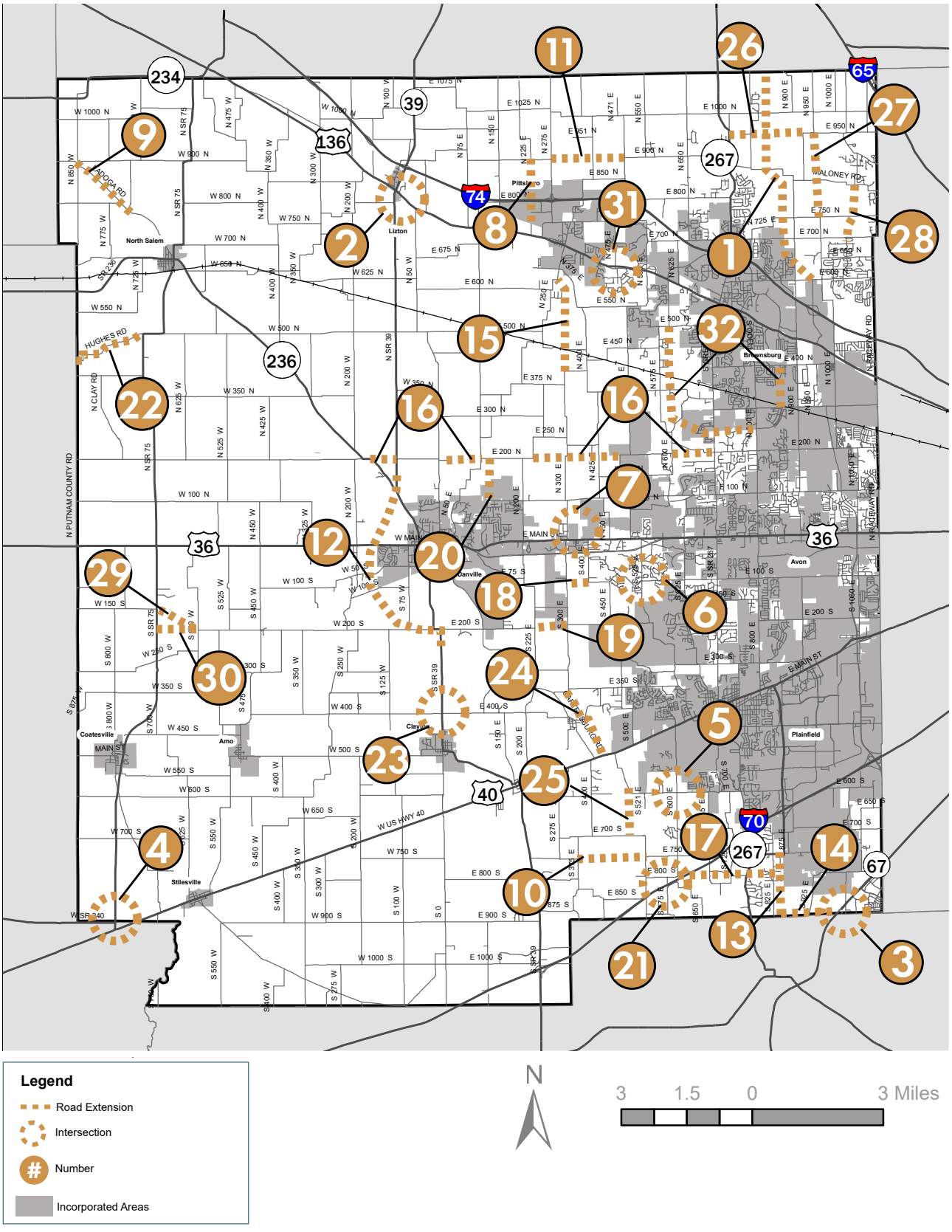


Table 6.3: *Proposed Improvements*

#	Roadway	Segment	Improvement
1	Ronald Reagan Pkwy.	C.R. 600 N. to I-65	Extension
2	S.R. 39 and U.S. 136	Intersection	Intersection Improvements
3	S.R. 67 and Hendricks County Line Rd.	Intersection	Intersection Improvements
4	U.S. 40 and S.R. 75	Intersection	Intersection Improvements
5	Moon Rd. and C.R. 600 S.	Intersection	Intersection Improvements
6	C.R. 100 S. and C.R. 525 E.	Intersection	Intersection Improvements
7	U.S. 36 and C.R. 300 E.	Intersection	Intersection improvements
8	C.R. 225 E.	C.R. 225 E. South of I-74 to C. R. 225 E. North of I-74	Extension
9	Ladoga Rd.	C.R. 725 W. to Montgomery County Line	Widening
10	C.R. 750 S.	C.R. 525 E. to C.R. 375 E.	Extension
11	C.R. 900 N.	C.R. 500 E. to C.R. 275 E.	Extension
12	S.R. 39	C.R. 200 N. to C.R. 200 S.	Bypass
13	C.R. 825 E.	C.R. 750 E. to County Line Rd.	Extension
14	County Line Rd.	C.R. 825 E. to S.R. 67	Extension
15	C.R. 300 E.	C.R. 400 N. to C.R. 600 N.	Extension
16	C.R. 200 N.	Various to S.R. 236	Extension
17	C.R. 800 S.	C.R. 600 E. to C.R. 825 E.	Extension
18	C.R. 100 S.	C.R. 300 E. to C.R. 400 E.	Extension
19	C.R. 200 S.	C.R. 225 E. to C.R. 300 E.	Extension
20	C.R. 100 E.	100 N. to 200 N.	Extension
21	C.R. 525 E. and I-70	Interchange	Potential Interchange
22	Hughes Rd.	S.R. 75 to Putnam County Boundary	Safety Improvements
23	S.R. 39 and C.R. 400 S.	Intersection	Intersection Improvements
24	Cartersburg Rd.	C.R. 350 S. to U.S. 40	Realignment
25	Miles Rd.	C.R. 600 S. to C.R. 700 S.	Extension
26	C.R. 950 N.	S.R. 267 to C.R. 925 E.	Extension
27	C.R. 950 E.	C.R. 950 N. to C.R. 750 E.	Extension
28	C.R. 1000 E.	Maloney Rd. to C.R. 700 N.	Extension
29	C.R. 150 S.	S.R. 75 to C.R. 600 W.	Extension
30	C. R. 200 S.	S.R. 75 to C.R. 600 W.	Extension
31	C.R. 475 E. and U.S. 136	Intersection	Intersection Improvements
32	Northfield Dr.	C.R. 600 E., C.R. 350 N., Northfield Dr.	Extension

***Improvements in this table are suggested in no particular order.**

Indianapolis MPO Projects in Hendricks County

The Indianapolis Regional Transportation Improvement Program (IRTIP), identifies transportation projects proposed by agencies in the Indianapolis MPO. These projects can be seen online via the Indianapolis MPO's interactive Metropolitan Indianapolis Transportation Improvement Program (MiTIP). MiTIP is used to track state funded, federally funded, and locally funded transportation improvement projects within the IRTIP. Currently, there is one Hendricks County capital project identified on MiTIP which is shown in table 6.4. Although this project is funded locally, it has regional significance which is why it is shown in the IRTIP. There are also several other municipal projects identified on the Indianapolis MPO's website.

The Ronald Reagan Parkway extension to I-65 will increase transportation connectivity throughout the County and adjacent communities, help eliminate current congestion, and will also increase economic development opportunities throughout the County.

This project as well as the proposed improvements in this plan will help create connectivity in the county and increase coordination with surrounding counties.

Table 6.4: *Indianapolis MPO 2018-2021 IRTIP Road Project in Hendricks County*

Location	Title	Category
Hendricks County	Ronald Reagan Pkwy. from C.R. 600 N. to I-65	Road.

Recommended Improvements

Safety

Increasing safety is a goal of this plan for all modes of travel in and out of Hendricks County. As the transportation network in Hendricks County changes, safety should be prioritized as it is a primary theme of this plan. Many of the locations with high crash rates are in rural areas and have a relatively low number of crashes. Even though the overall number of crashes at these intersections is low, they still have a comparatively higher number of crashes compared to other rural intersections. For these, low-cost safety improvements are the most effective; these may include:

- ***Updating signs and pavement markings***
- ***Trimming foliage that limits visibility***
- ***Adding supplemental signs or conspicuity enhancements to existing signs***
- ***Dynamic warning signs which are activated only when traffic conflicts are present***

A detailed analysis of the crash types and causes should be conducted. Potential improvements, depending on the prevailing crash types, may include enhanced conspicuities such as flashing beacons, high-visibility stop bars, and rumble strips on approaches where noise is not a concern. Potential improvements that address both safety and capacity may include new roundabouts or new traffic signals.

Road segments for safety improvements:

- ***Huges Rd. - S.R. 75 to County Line Rd.***
- ***Connector Road(s) from S.R. 267 to S.R. 67***
- ***S.R. 267 and C.R. 1000 N.***

Congestion

For intersections experiencing high congestion, improvements can take the form of adding capacity or reducing vehicular demand. Capacity-adding improvements may include adding turn lanes or changing the traffic control from a two-way stop or all-way stop to a signalized or roundabout intersection. Each location should be analyzed in detail to determine the appropriate capacity improvements. Alternately, construction of major improvements nearby can reduce the vehicle demand to the point where no additional improvements are necessary.

The following locations are recommended for short-term capacity improvements:

- ***US 136 and SR 39 in Lizton (coordinate with INDOT)***
- ***SR 67 and Hendricks County Line Road near Mooresville (coordinate with INDOT)***
- ***US 40 and SR 75 (coordinate with INDOT)***
- ***Moon Road and CR 600S near Plainfield***
- ***CR 100S and CR 525E near Avon***

The following intersections may need capacity improvements in the next ten years. Growth should be monitored, and capacity improvements pursued when needed:

- ***US 36 and CR 300E (coordinate with INDOT)***
- ***CR 600N and CR 1000E near Brownsburg***

Additional Considerations

North/South Connector:

An additional North/South route between I-70 and I-74 through the county was identified as desirable within the 2019 Plainfield Thoroughfare Plan as well as through feedback from this plan. This route could act as the primary north/south connector for areas on the urban zone/transitional zone boundary.

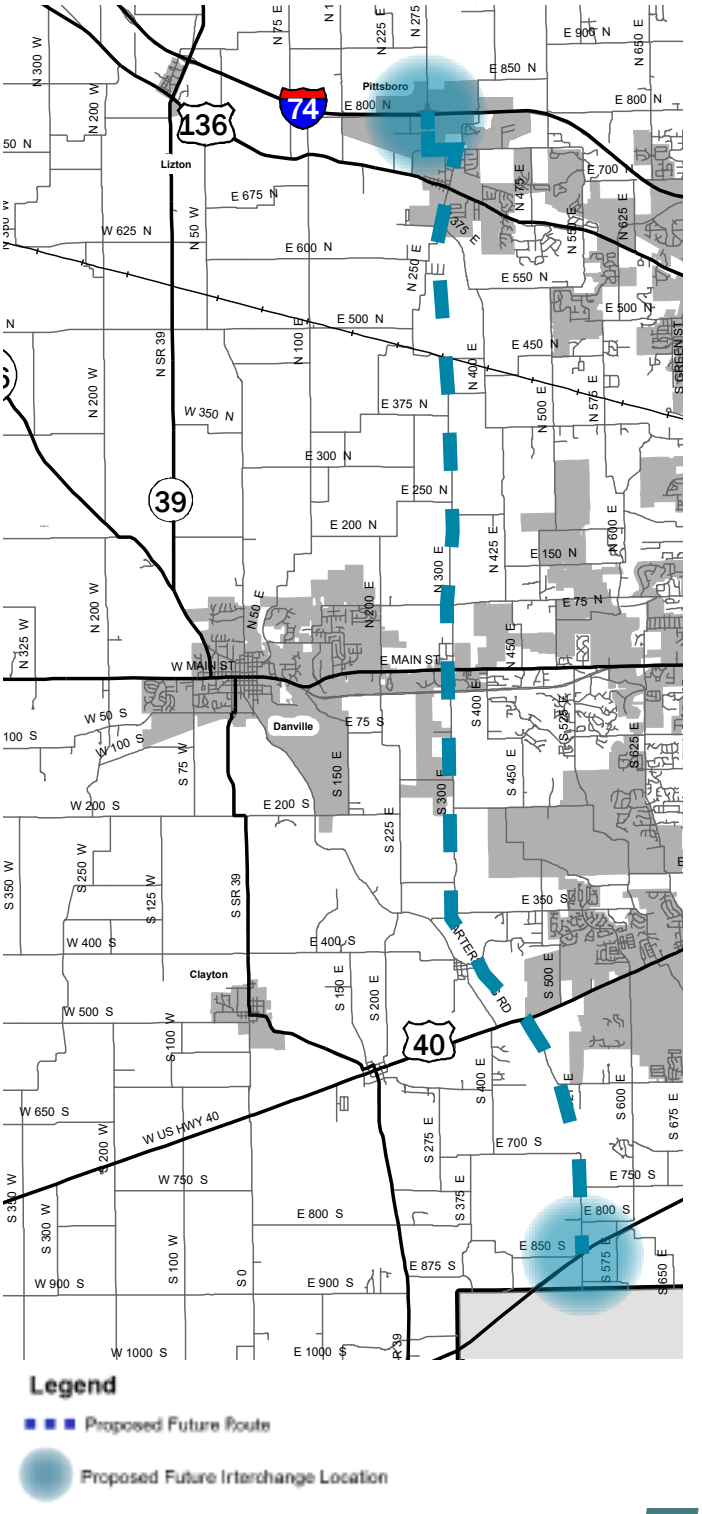
Figure 6.4 depicts one possible route for this connector. The main goal of this corridor would be a connection from I-74 to I-70 increasing commerce, and connectivity throughout the county.

This route could utilize a potential new interchange located along I-70 west of Plainfield and would require significant upgrades to the existing I-74 interchange in Pittsboro. These segments have been identified on Figure 6.3 Proposed Improvements along with table 6.3 Proposed Improvements as numbers 15, 21, 24, and 25.

The intent for this north/south connector is to reduce congestion in the eastern part of the county while increasing connectivity from Pittsboro to Danville to Plainfield. This connector can also help provide future economic development opportunities in this area of the county. Both connectivity and commerce are listed as goals of this plan and supported by public feedback.

Currently, the town of Plainfield is undergoing a study to define a location for the interchange on I-70. Coordination between the town and the county is crucial for ensuring the best outcome. It is noted that there is community opposition to Plainfield's proposed I-70 interchange.

Figure 6.4 | *Proposed North South Connector*



County-wide Trail Master Plan:

Survey results and public feedback indicate that new multi-modal transportation options and bicycle/pedestrian safety are both very important to Hendricks County residents. According to the 2016 Hendricks County Parks and Recreation 5-Year Comprehensive Plan, there are currently seven separate entities working on trails development within the County. Right-of-way dedication and design of future roadways should adequately accommodate future bicycle, and pedestrian needs, as mentioned as a goal for this plan, to ensuring that future projects will be cost-effective and timely.

One meaningful way to accomplish this is to complete a comprehensive county-wide trails master plan that consolidates plans from all organizations currently working on these facilities in order to help the County prepare for future growth and recreational opportunities. A trails plan should consider future shared-use facilities and also on-road and primary connection routes such as bicycle lanes and sidewalks. Local connections to regional trails need to be identified to help the county adequately establish right-of-way.

Figure 6.4 shows areas that should be considered for lateral connections from towns and population centers to the major trail routes. These are important to consider as the county plans for trail expansion and increasing pedestrian and bicycle safety and connectivity. A more advanced study is needed to understand where future trails should potentially be located. A county-wide master trail plan will help increase pedestrian and bicycle safety and connectivity which are supported by the goals of this plan.

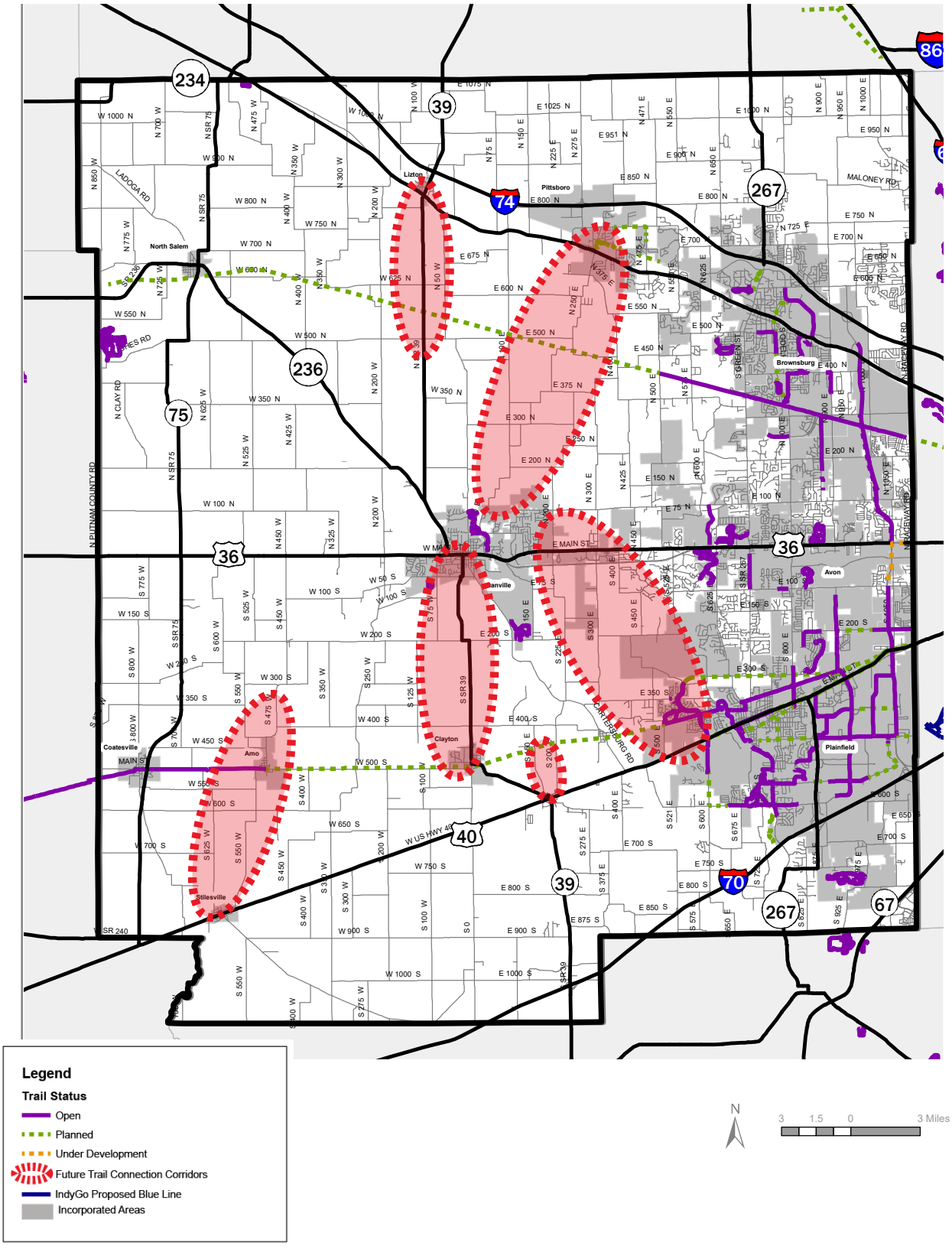
Public Transportation:

As the Indianapolis Metro Region continues to grow, increasing accessibility to public transportation is gaining importance. Public transportation provides service to help round out a complete transportation network and, if properly planned, can help replace local and regional automobile trips. Transit provides an opportunity to reduce congestion in the County which is an objective of this plan.

Rapid transit projects are one example of public transportation currently underway within Marion County that will potentially increase demand for public transportation options in Hendricks County. Transit service is expected to expand over time and will eventually provide new transit opportunities within Hendricks County. Hendricks County needs to stay abreast of plans to extend public transit into the county and develop local plans to facilitate public transportation options that will help serve as feeder routes to major transit destinations.

Many survey respondents referenced successful public transit projects and indicated that they are interested in a transit system connecting to Indianapolis. Increasing connectivity is a goal of this plan and providing transit options for residents is a way the county can increase connectivity. This can happen in coordination with Marion County which is also a goal of this plan. Given the high number of Hendricks County residents who commute to Marion County each day for work, the County should increase its efforts to facilitate the planning and implementation of expanded public transportation options for Hendricks County residents, including rapid transit.

Figure 6.4 | *Proposed Trail Connections*



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