

CITY OF GREENFIELD

Thoroughfare Plan 2020 Update

ADOPTED BY
CITY COUNCIL RESOLUTION 2020-08 (AMENDED)



Acknowledgements

The City of Greenfield Thoroughfare Plan 2019 Update was prepared in response to the 2015 Comprehensive Plan and amends the previous Thoroughfare Plan 2007 Update.

The City of Greenfield wishes to thank all stakeholders who contributed to the content of this plan. The efforts of staff and the steering committee provided critical direction for the planning process and plan content. Additional valuable input was received from the Plan Commission, City Council, residents, and business owners.

Elected Officials:

Chuck Fewell, Mayor

Greenfield City Council:

Mitch Pendlum
Gary A. McDaniel
Dan Riley
Jeff Lowder
Kerry Grass
John Jester
George Plisinski

Plan Commission:

Paulette Richardson
Kristi Baker
Becky Riley
Jeff McClarnon
Steve Cooper
Gary McDaniel
Jason Koch
David Spencer
Mike Terry

Consultants:

Shrewsbury & Associates, LLC
Indianapolis, IN
Convergence Planning, LLC
Indianapolis, IN

Steering Committee:

Jenna Wertman, Associate Planner; City of Greenfield
Kelly McClarnon, Board of Works of Public Safety;
City of Greenfield
Kerry Grass, City Council; City of Greenfield
Ellen Kuker, Greenfield Parks and Recreation
Superintendent
Tyler Rankins, Street Commissioner; City of Greenfield
Jason Koch, City Engineer; City of Greenfield
Joanie Fitzwater, Planning Director; City of Greenfield
Steve Long, CEO, Hancock Health
Ron Pritzke, Pritzke & Davis
Gary McDaniel, City Council; City of Greenfield
Michael Fruth, Director of Utilities; City of Greenfield
Mike Terry, Greenfield BZA and Plan Commission
Dr. Harold Olin, Greenfield-Central Community
School Corp
Josh Gentry, Greenfield Parks and Recreation
Steve Foreman, Retired

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Introduction

About the Plan
Implementation
Plan Jurisdiction



Introduction

The City of Greenfield experienced modest growth in decades past. After recovering from the Great Recession, and as the Indianapolis Metropolitan Area expands eastward, Greenfield is poised for significant growth in housing and employment in the 2020s.

The transportation system in the 2000s saw new infrastructure solutions come to Greenfield, including roundabout intersections and multi-use trails. This period of growth also brought about increased congestion and safety concerns.

With the city on the cusp of a major growth spurt, the transportation system needs to be able to handle additional cars, trucks, pedestrians, and cyclists. The Thoroughfare Plan Update seeks to quantify the effects of growth and identify the improvements needed to keep the city moving. Priorities within the plan include supporting economic development opportunities, accommodating increased traffic volumes, properly maintaining existing infrastructure, identifying and funding necessary improvements, and promoting a healthy lifestyle with active modes of transportation.

About the Plan

Transportation and the Comprehensive Plan

Under Indiana law, a comprehensive plan is the basis for all land use, transportation, development/redevelopment, and zoning actions in a community. Greenfield adopted a new comprehensive plan on December 9, 2015. The transportation section of that plan, called a thoroughfare plan, is part of the next step in implementing the comprehensive plan.

Greenfield's thoroughfare plan contains background information, summaries of related studies, public input, goals and objectives, as well as an implementation section. Maps are also included in the document. This new thoroughfare plan is meant to last a decade, and should be continuously updated, not held static until 2030.

The City of Greenfield last adopted a thoroughfare plan in 2007. Having an updated thoroughfare plan will put Greenfield in a better position to work proactively with the Indiana Department of Transportation (INDOT), the Indianapolis Metropolitan Planning Organization (MPO) and neighboring jurisdictions. Having an updated thoroughfare plan in place will also improve chances of federal funding for transportation projects.

Plan Requirements

Indiana Code states that comprehensive plans must contain a statement of policy for the development of public ways, public places, public lands, public structures, and public utilities. Indiana Code defines a public way as including highways, streets, avenues, boulevards, roads, lanes, or alleys. Note that there are already transportation-related goals in the City of Greenfield Comprehensive Plan, and that this thoroughfare plan's goals expand upon those.

Regarding thoroughfare plan requirements, IC 36-7-4-506 says:

- A. A thoroughfare plan that is included in the comprehensive plan may determine lines for new, extended, widened, or narrowed public ways in any part of the territory in the jurisdiction.
- B. The determination of lines for public ways, as provided in subsection (a), does not constitute the opening, establishment, or acceptance of land for public way purposes.
- C. After a thoroughfare plan has been included in the comprehensive plan, thoroughfares may be located, changed, widened, straightened, or vacated only in the manner indicated by the comprehensive plan.
- D. After a thoroughfare plan has been included in the comprehensive plan, the plan commission may recommend to the agency responsible for constructing thoroughfares in the jurisdiction the order in which thoroughfare improvements should be made.

Adoption of Plan

A thoroughfare plan must go through the same adoption process as a comprehensive plan, per Indiana law:

1. Plan Commission holds a public hearing.
2. Plan Commission recommends adoption to City Council.
3. City Council adopts the plan by resolution.

The city may wish to update the functional classification of some area roadways, based on the thoroughfare plan recommendations. After adoption, the city can apply through the MPO for changes to the Federal Highway Administration (FHWA) functional classification map.

Implementation

This plan will only be successful if it is implemented and referenced often throughout its life. Planning is an ongoing process. Plans must be evaluated and updated as the city changes through demographic trends, new technologies, economic growth or decline, annexations, and major transportation improvements.

Using the Thoroughfare Plan

Local government officials should use the thoroughfare plan as follows:

1. As the basis for budgeting and planning of transportation-related improvements in Greenfield.
2. To identify the need for additional public right-of-way dedication and improvements during the platting process, based on the thoroughfare plan.
3. As a guideline in rezoning decisions per IC 36-7-4-603 (1), which requires the Plan Commission and the City Council to consider the comprehensive plan.

Annual Review of Thoroughfare Plan

In conjunction with the comprehensive plan, the thoroughfare plan should be reviewed on an annual basis by the Plan Commission. That assessment should include an evaluation of how well the plan is working:

- Is the city actively working toward the plan's goals and objectives?
- What goals and objectives have been achieved?
- Have there been any big changes that the plan needs to respond to?

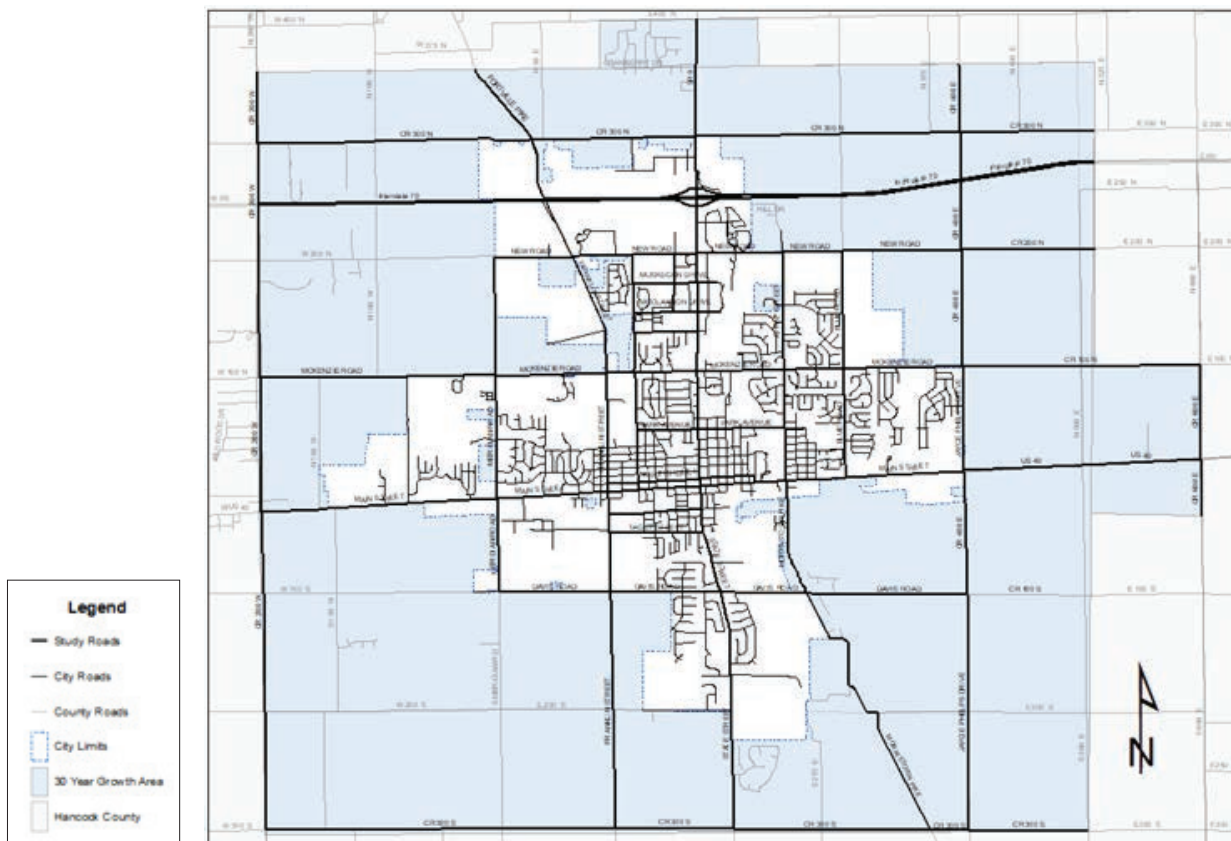
Amendments to the plan may be initiated by the Plan Commission or by the City Council. The procedure for adopting an amendment is the same as the procedure for originally adopting the plan.

A complete update of the thoroughfare plan should be scheduled about every ten years, generally after the update of the comprehensive plan.

Plan Jurisdiction

Greenfield and Hancock County were established in the early 1800s. Proximity to the National Road (U.S. 40) and the Pennsylvania Railroad (now the Pennsy Trail) contributed to the city's growth in the 1800s, as did the construction of I-70 in the 1960s. As the city's population and size have continued to expand, planners established a 30-year growth boundary to be proactive in planning efforts. This area outside of city boundaries is included in the plan to account for locations likely to develop and be annexed into the city within the next three decades.

The thoroughfare plan study area includes roadways under city, county, and INDOT jurisdiction. Upon adoption, the thoroughfare plan recommendations are applicable to roadways within the City of Greenfield's current jurisdictional boundaries. Other areas are subject to the plan only if and when they are annexed into the city.





Where Are We Now?

The first chapter of the thoroughfare plan, “Where are we now?” evaluates the current condition of the transportation network in Greenfield.

Background

Related Planning Efforts – Greenfield

Related Planning Efforts – Regional

Demographic Trends

Transportation Network Analysis

FHWA Functional Classification

Traffic Counts

Travel Demand Model

No-Build Growth Rates, and Traffic Projections

Crash Data Analysis



Background

The previous City of Greenfield Thoroughfare Plan was prepared in 2007. Since then, many of the recommended transportation improvements have been completed, including several roundabout intersections. With the 2007 list nearly completed, it was time to re-evaluate the transportation needs and priorities for the City of Greenfield. Greenfield joined the MPO after the 2010 census, changing the way federal funds used in Greenfield are administered. To start this process, the planning team reviewed Greenfield's related planning efforts, as well as regional planning efforts, demographic trends, existing roadway networks, traffic and crash data.

Related Planning Efforts – Greenfield

City of Greenfield Thoroughfare Plan 2007

The City of Greenfield Thoroughfare Plan 2007 Update replaces the previous City of Greenfield Thoroughfare Plan Map dated October 22, 1999. This long-range planning tool provided guidance for the promotion of infrastructure development. The Thoroughfare Plan accounted for the recommendations of the Greenfield Comprehensive Plan and stated a goal to provide a better transportation network to serve the residents of and those who visit the city. Thirteen recommended projects are listed, of which more than half are completed.

City of Greenfield Comprehensive Plan 2015

The comprehensive plan guides future growth and development. The objective of the plan was to capture the personal connections that residents feel for the city, identify unique characteristics, and craft a unified message to serve as guidance for future community decisions. Section 6 of the Comprehensive Plan outlines the transportation-related objectives, which support the stated goals of the plan and ensure that developments are done in a “big-picture” way. These goals are the basis of the goals for this Thoroughfare Plan.

City of Greenfield Trail System Master Plan

The Trail System Master Plan dated 2017 was used as a basis for determining pedestrian and bicycle infrastructure needs within the city. This plan includes existing trails, planned city trails, and future potential county trails. A separate effort by the city mapped the existing sidewalk locations throughout the city.

City of Greenfield Capital Improvement Plan, 2019-2029

Focusing on the downtown core, this action plan serves as a guiding document for decision makers in implementing the results of several planning efforts. Eligible projects were divided into categories: street improvements, such as roads, intersections, and trail projects; private investment, including new and renovated private buildings; and civic enhancement, which are improvements to publicly owned buildings and parks. Six street improvement projects were identified, in order of short-term to long-term:

- 1. North Street Living Alley Phase 2** – Pedestrian enhancements to existing alley
- 2. Depot Street Redesign** – Improve pedestrian infrastructure along this historic brick street
- 3. Riley Literary Trail** – Multiuse trail loop connecting heritage sites
- 4. Gateway Intersection Improvements** – Aesthetic treatments at SR 9 and US 40
- 5. East Street Connector** – Multimodal improvements to enhance walking and biking
- 6. South Street Redesign** – Streetscape to encourage redevelopment investment

Hancock County Trails Plan 2018

In 2018, Hancock County and its communities created an amended Trails Plan to guide the development and design of bicycle and walking facilities within Hancock County. The plan seeks to improve non-motorized accessibility, promote safety for bicyclists and pedestrians and make the county a more enjoyable place to live, work and visit.

Hancock County Comprehensive Plan Thoroughfare Plan Map

In 2012, Hancock County updated the transportation plan portion of its comprehensive plan. The thoroughfare classifications proposed by the county were considered when developing the current plan, to ensure continuity across jurisdictions.

Downtown Revitalization Plan 2013

The 2013 Downtown Revitalization Plan was commissioned through a grant by the Indiana Office of Community and Rural Affairs (OCRA). The plan seeks to restore civic pride and prosperity in downtown Greenfield by encouraging people and businesses to locate downtown. Trails and improved pedestrian experiences are part of this plan.

Related Planning Efforts – Regional

MPO 2045 Long-Range Transportation Plan – 2017

The following goals of the Long-Range Transportation Plan (LRTP) reflect the MPO's ideal regional transportation system function. Any major added-capacity projects must be included in the LRTP.

Move: Provide transportation choices for people to easily access homes, jobs, recreation and services.

Prosper: Foster shared economic vitality through strategic investments in regional infrastructure to increase competitiveness and affordability.

Make Safe: Support a safe travelling environment for all users. Making strategic investments in our region's infrastructure that preserve and enhance the condition of the existing system.

Sustain: Ensure a convenient transportation network that offers healthy lifestyle options, is accessible to all people, and preserves or enhances the environment.

Environmental Justice

According to the LRTP, Greenfield includes areas of Environmental Justice Concern, indicating concentrations of minority populations and low-income households. These areas are located near and surrounding downtown Greenfield, especially areas south of U.S. 40 and west of S.R. 9. FHWA requires the MPO to ensure that such populations are treated fairly in transportation planning and programming. Greenfield should also strive to ensure these areas treated equitably with respect to transportation improvements.

The Central Indiana Transit Plan (Indy Connect)

Indy Connect is a regional transit initiative through a partnership between public agencies (Central Indiana Regional Transit Authority or CIRT, the Indianapolis MPO and IndyGo). Indy Connect recommends a regional transit system, connecting multiple counties and making it easy to connect people to jobs, education, healthcare, and fun.

According to the 2016 plan, none of the proposed bus rapid transit lines would enter Hancock County. Route 8 and the proposed Blue Line bus rapid transit comes the closest, running along Washington Street through Indianapolis with a terminus in Cumberland. Technical assistance is offered for communities wanting to start transit systems by CIRT.

The plan recommends communities do the following to get ready for a regional transit system:

1. **Plan for Transit Connections** — Regional transit systems rely upon local routes and infrastructure to get people to transit. Plan for shuttles and bus routes that feed people to the regional transit system.
2. **Plan for Bicycle and Pedestrian Connections** — Most transit trips begin or end with walking or biking. Assess the sidewalk and trail network, and make sure that policies maintain and expand these networks.
3. **Education** — Educate on transit in general. Visit IndyConnect.org to see what transit routes and technologies are under consideration, and what is planned short- and long-term.

MPO Travel Demand Model

The Indianapolis MPO provided base year and future year model results indicating projected travel volumes on major roadways. The difference between the base year and future year volumes were used to help determine average growth rates for road segments within the Greenfield Thoroughfare Plan area.

Central Indiana Regional Bikeways Plan

The Indianapolis MPO commissioned the Regional Bikeways Plan in 2015 to encourage an interconnected system of bicycle facilities that crosses county and municipal lines within the metropolitan area. For the Greenfield area, the plan shows the existing Pennsy Trail and proposed extension in both directions. There's also a proposed bikeway along County Road 200 West.

Traffic Counts

Traffic counts from various sources were collected and assembled for the thoroughfare plan. Sources of traffic data include INDOT's online traffic count database system and counts by the City of Greenfield.

Demographic Trends

Greenfield's 2017 estimated population of 22,094 makes it the largest municipality in Hancock County and the 40th largest city in Indiana. The US Census Bureau estimates that Hancock County was the third fastest-growing county in Indiana from 2017-2018. Greenfield has kept a moderate and consistent rate of growth. The following table compares recent growth rates for the township, the county, and the state, based on estimates by the US Census Bureau.

TABLE 1 | POPULATION ESTIMATES

Geographic Area	2017 Population	2010 Population	Number Change	Percent Change
Center Township	27,432	25,819	1,613	6.2%
Hancock County	74,985	70,002	4,983	7.1%
State of Indiana	6,691,878	6,484,125	207,753	3.2%

Regional Population Growth

Population in the nine-county Indianapolis MPO area increased 7.7% between 2010 and 2017, compared to an 2.8% increase in population statewide. Counties in this MPO experiencing the highest growth rate from 2010-2017 were Hamilton County (17.9%), Boone County (16.3%), Hendricks County (12.6%), and Johnson County (10%).

Population in Hancock County is projected to continue growing to 81,796 people by the year 2020, as opposed to many counties in the state that will see static population or even loss. In 2018, Hancock County ranked 2nd in the state for in-migration, meaning growth is attributed to people moving to the county, not increased birth rates. This is due in large part to the available residential construction and the perception of quality schools.

Home Ownership

The 2008 housing crisis pushed homeownership rates in central Indiana down for several years, but 2017 Census Bureau estimates show that Hancock County continues to have a high rate of home ownership at 77.5%, with Greenfield at 63.9%, compared to 61% for the State of Indiana.

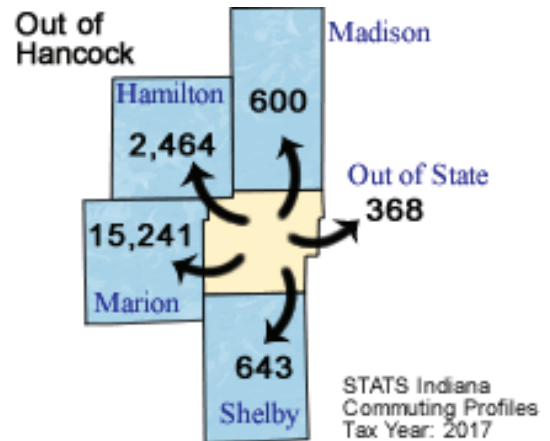
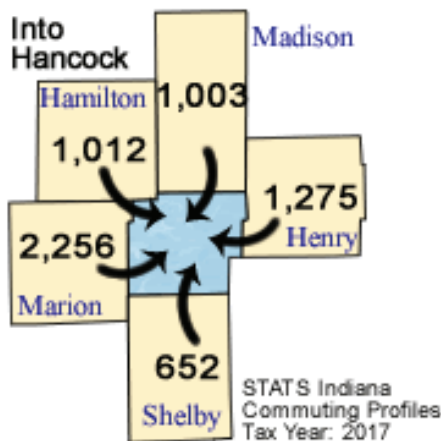
Employment

The September 2018 Unemployment Rate for Hancock County was 2.7%, which was below the Indiana average of 3.9%. This low unemployment rate is commonly considered to be full employment, accounting for people who are changing jobs, etc.

Commuting

The average journey-to-work commute time for Indiana was 25.9 minutes in 2017, but it was 21.8 minutes for Greenfield residents. 90.6% of Greenfield's residents drove alone, with only 6.89% carpooling, which was less than the Indiana average of 8.9%. 0.397% of the workforce in Greenfield have "super commutes" in excess of 90 minutes.

The percentage of people commuting to work by motorcycle, bicycle or walking was 1.5%, far lower than the state average of 3.5%. Note that transit is not available locally for commuting. Less Greenfield residents worked from home (1.45%) in 2017 than the state average (3.7%). Based on Indiana IT-40 Returns for Tax Year 2016, 21,351 people lived in Hancock County but worked outside the county, while 7,608 lived in another county (or state) but work in Hancock County.



Transportation Network Analysis

FHWA Functional Classification

Each roadway segment plays a role in moving traffic through the transportation system. Functional classifications define the roles that each roadway segment plays in this movement of traffic.

The Federal Highway Administration (FHWA) assigns classifications of roadways based on two factors. The first factor is access, which is defined as the number of opportunities for entry and exit. The second factor is mobility, which is defined as traffic’s ability to flow without interruption. A highly accessible roadway has many opportunities for entry and exit but has limited mobility. A highly mobile roadway flows with limited interruption but has few opportunities for entry and exit.

The FHWA defines the following classifications of roadways. Moving down the list, access increases while mobility decreases.

- Interstates
- Other Freeways and Expressways
- Principal and Minor Arterials
- Major and Minor Collectors
- Local Roads

Within the City of Greenfield, the only interstate is I-70. This highway is controlled by INDOT and has statewide and national significance. Access on interstates is limited, while travel speeds and mobility are high. There are no Other Freeways and Expressways in the project area.

Most roadways in the City of Greenfield are arterials, collectors, and locals. The table below (from FHWA) shows the common type of travel characteristics for these classifications.

TABLE 2 | FHWA FUNCTIONAL CLASSIFICATION

Functional Classification	Distance Served	Access Points	Speed Limit	Distance between Routes	Usage	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

All functional classifications higher than local are a part of the federal-aid system and are eligible for federal funding assistance for upgrades. The current federal functional classifications are shown on Map 1.

The federal functional classifications are very similar to the thoroughfare classifications discussed elsewhere in this plan. However, federal functional classifications represent how the roadway functions in the current year, while thoroughfare classifications represent how Greenfield desires the roadway to function in the future. Once future conditions (such as roadway upgrades) are implemented, the city can apply to change the federal functional classification.

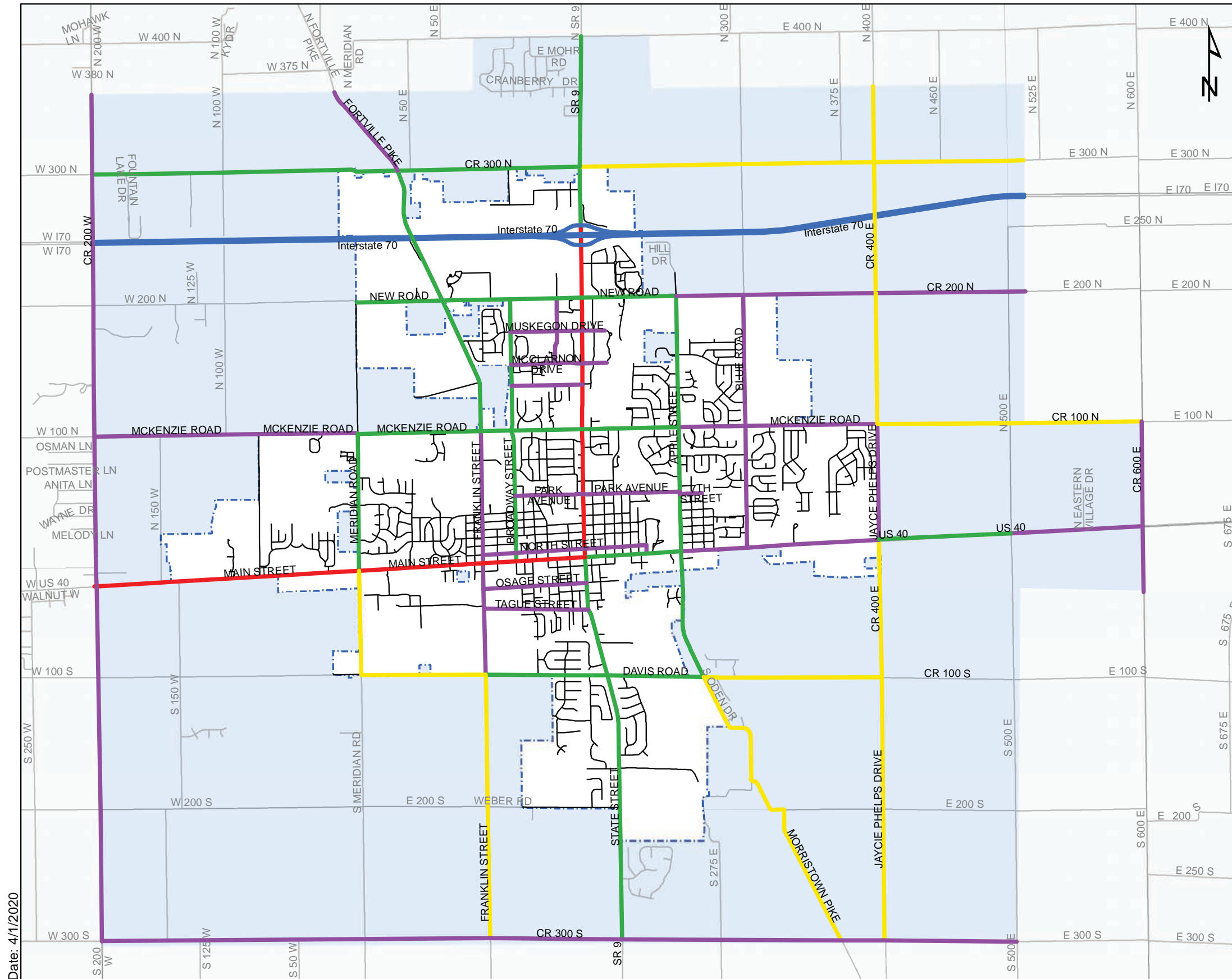
Traffic Counts

Traffic counts on thoroughfares were gathered from two sources. The first source was INDOT traffic counts conducted in this area of Hancock County in 2018. These counts were supplemented by traffic counts performed by the City of Greenfield. These two sources of traffic data were reviewed for consistency, and in some cases, were adjusted to represent typical traffic conditions in the study area. The base year traffic conditions for 2018 are shown on Map 2.

Map 1 | FHWA Functional Classification



**Map 1:
FHWA Functional
Classification**



Legend

- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- City Roads
- County Roads
- 30 Year Growth Area
- City Limits
- Hancock County

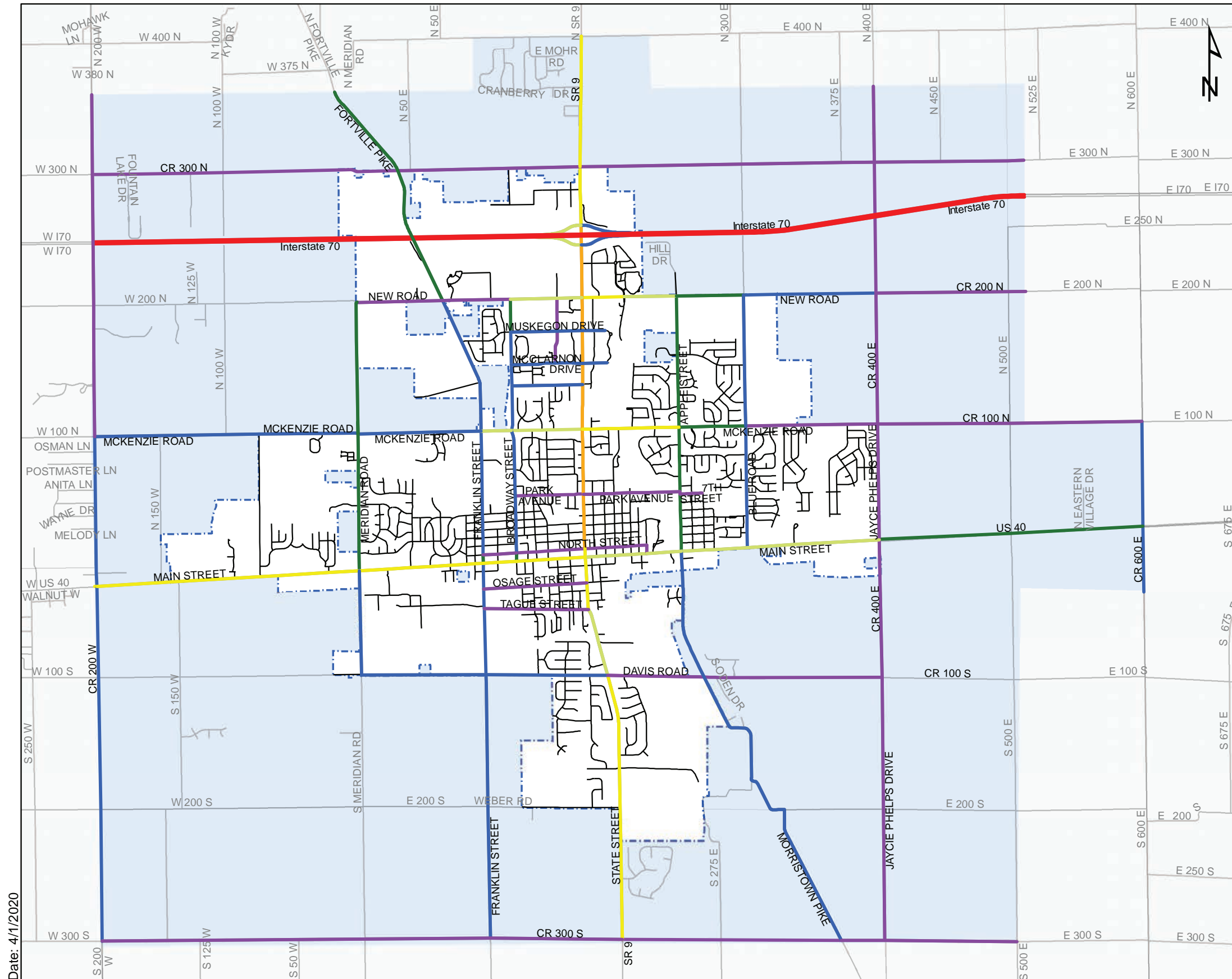


Date: 4/1/2020

Map 2 | 2018 Average Annual Daily Traffic



Map 2:
2018 A.A.D.T.



Legend

- AADT = 0 - 2,000
- AADT = 2,001 - 4,000
- AADT = 4,001 - 7,000
- AADT = 7,001 - 10,000
- AADT = 10,001 - 15,000
- AADT = 15,001 - 30,000
- AADT = 30,001 +
- City Roads
- County Roads
- 30 Year Growth Area
- City Limits
- Hancock County

Date: 4/1/2020





S.R. 9 Corridor Spotlight

S.R. 9 runs for seven miles north-south through the thoroughfare plan study area. Regionally, it covers most of east-central Indiana, from Columbus to the Michigan State Line. It has the heaviest traffic volumes of any non-interstate route in the vicinity. Known locally as State Street, it is classified as a Primary Arterial, along with U.S. 40. Both are state routes, which means they are controlled and maintained by INDOT.

Through the historic downtown area, S.R. 9 traffic volumes are stable, with a modest growth rate over the next ten years. Portions of S.R. 9 in developing areas north of the city and near I-70 are expected to continue rapid growth.

Because of the high traffic volumes, intersections with S.R. 9 sometimes experience congestion. Data indicates that the intersections at Park Avenue, Osage Street, and Tague Street experience long delays. All of these are two-way stop intersections, with the side street stopping for S.R. 9.

The S.R. 9 corridor also has some of the highest crash rates in the study area. Intersections at County Road 300 North, I-70, New Road, Green Meadows Drive, and McKenzie Road have high crash rates.

The public involvement yielded numerous complaints about the S.R. 9 corridor. At the Riley Festival, top concerns included the intersection of S.R. 9 and McKenzie Road, and the general comment to get trucks out of downtown and utilize a truck bypass. From the electronic survey, 73% of participants listed a location on S.R. 9 as most congested, and over 76% of respondents listed a location on S.R. 9 as a traffic safety hazard. Many participants also suggested that sidewalks be installed along S.R. 9.

INDOT has plans to resurface pavement and improve safety along S.R. 9 in 2020. The resurfacing project extends throughout the planning area. Raised medians will be installed between McKenzie Road and I-70 to limit left turns to signalized intersections only. The City of Greenfield has coordinated with INDOT to add beautification elements to the project, with landscaping installed in the raised concrete medians.

Travel Demand Model

A travel demand model specific to the City of Greenfield was created as a part of the thoroughfare planning process. This macro model shows how traffic moves through the study area today versus in the future. The model can also be adjusted to show the impact various roadway network improvements will have to Greenfield's network. The future year for the travel demand modeling was taken as 2045.

The base network of this travel demand model was the existing road network within the City of Greenfield, the study area, and most of Hancock County. Various data was assigned to these roadways including existing traffic volumes, number of lanes, functional classification, speed, and intersection control.

Future land use was then assigned at the US Census Block level. Future land use was assigned based on the City's Comprehensive Plan and Future Land Use Map.

Growth rates for the model were taken from the Woods and Poole (W&P) Forecast as the primary source. This data is the same source that INDOT uses for their traffic forecasting. The W&P growth was also compared to the growth rates in the Indianapolis Travel Demand Model, in the City's Park Impact Fee Study, and received the backing of the steering committee.

The model then determines where growth is most likely to occur based on historic growth, future land use, how growth occurred in similar communities, and capacity of the roadway network. The number of trips (volume of traffic generated by a land use) was assigned for future land use based on trip generation methods outlined by the 10th Edition of the ITE Trip Generation Manual.

The model predicted high growth in the following areas as shown on Map 3:

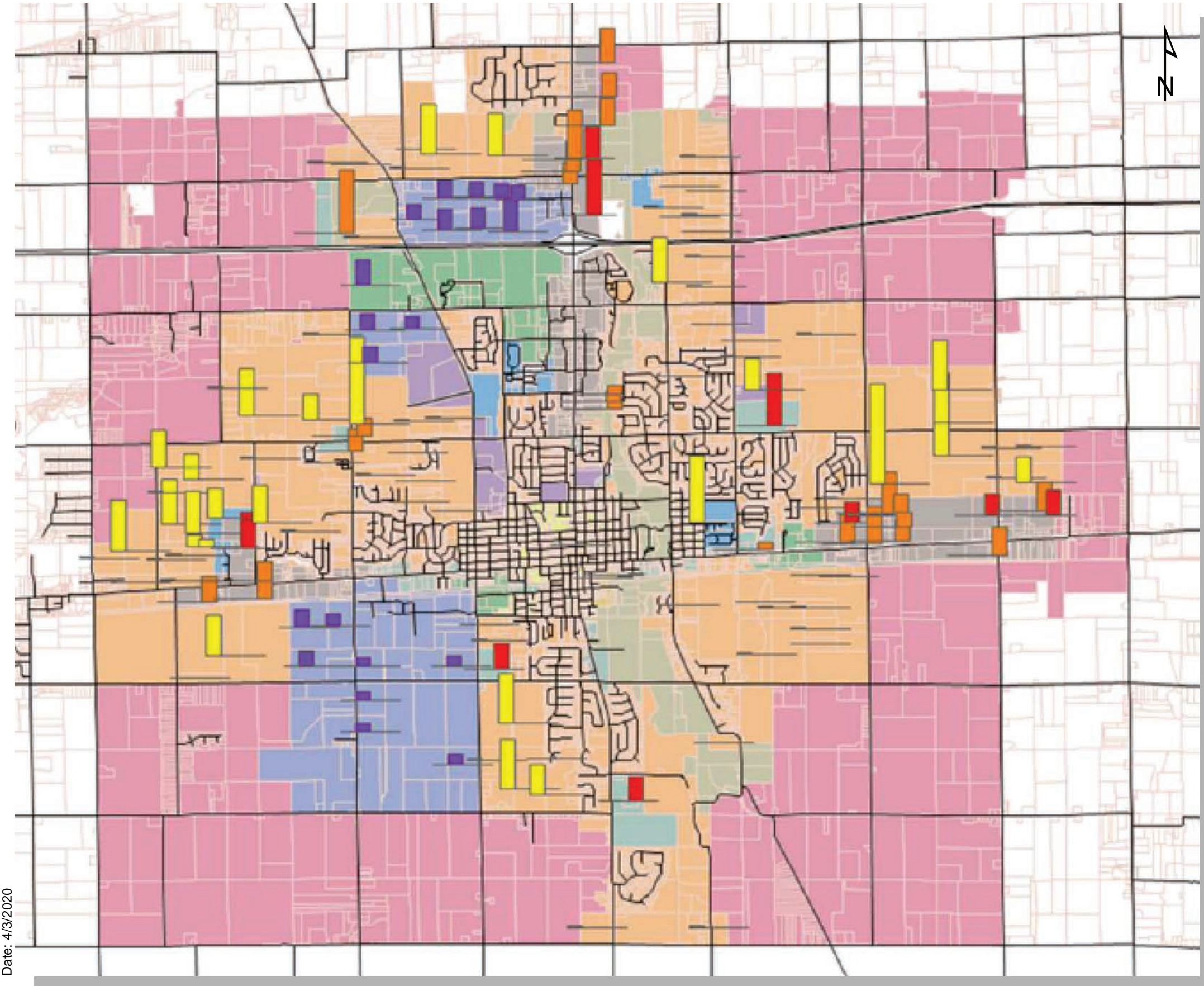
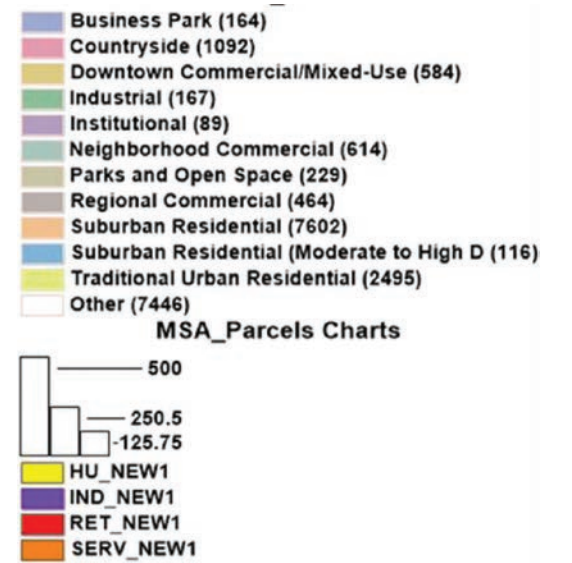
- Industrial growth in the northwest corner of the SR 9 and I-70 Interchange.
- Housing growth west of the City.
- Housing growth east of the City.
- Service industry and retail growth north of the SR 9 and I-70 Interchange.
- Service Industry Growth along US 40.

The model also showed poor level of service (LOS) along the following roadway segments in 2045 if no improvements are made to the roadway network (i.e. a no build scenario). These results are also shown in MAP 4. Poor LOS is representative of congestion and long delays.

- SR 9 north of the I-70 Interchange.
- State Street between the I-70 Interchange and New Road.
- McKenzie Road between Franklin Street and Broadway Street.
- State Street just north of McKenzie Road.
- State Street from McKenzie Road to 5th Street.



Map 3: Future Growth by Land Use 2045

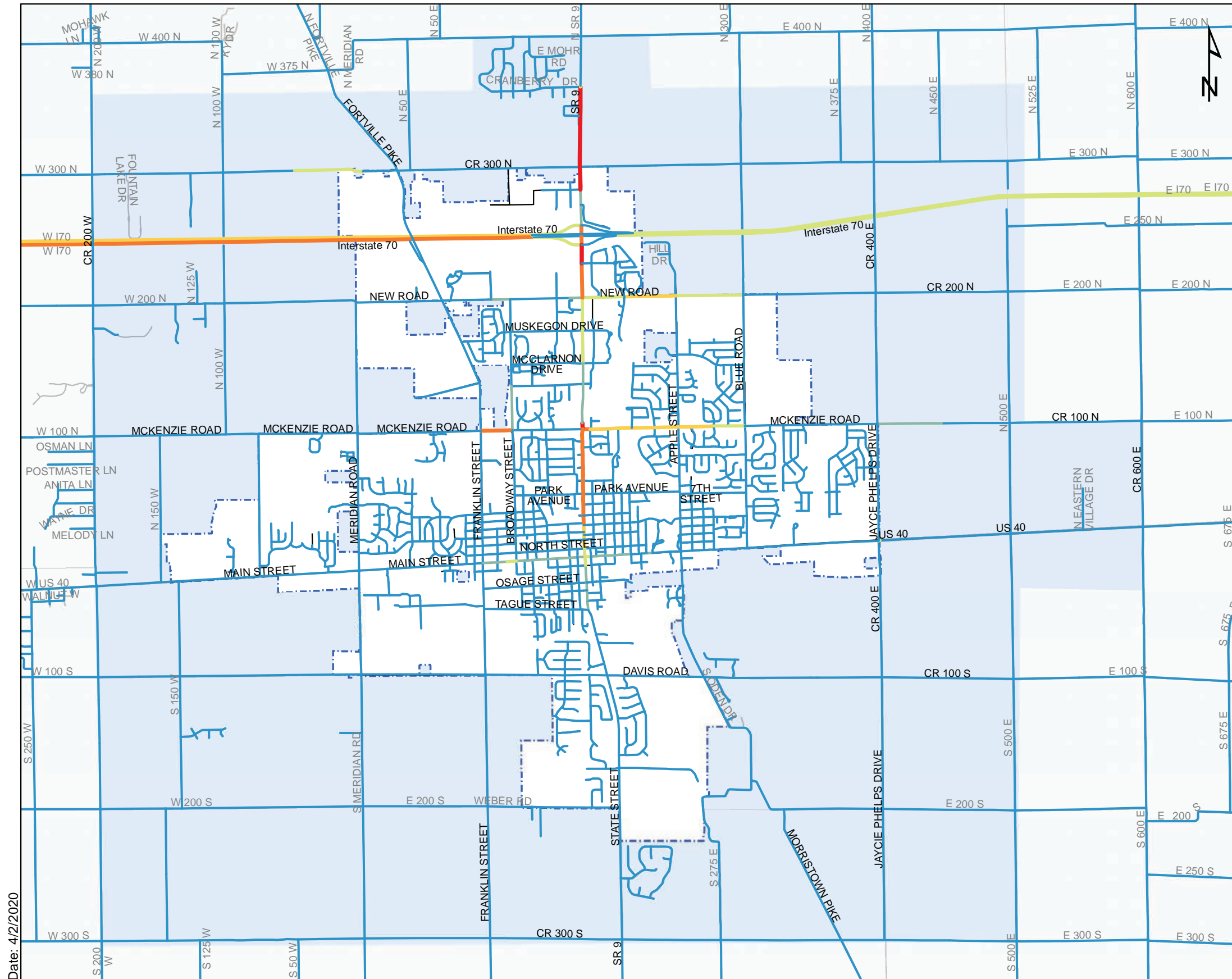


Date: 4/3/2020





Map 4: No Build Scenario 2045 LOS



Legend

- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F
- City Roads
- County Roads
- City Limits
- 30 Year Growth Area
- Hancock County

Date: 4/2/2020



Growth Rates

The growth rate used by the travel demand model was the basis for the average growth rate assigned to each roadway segment. Where necessary, adjustments were made based on historic growth rates and the MPO travel demand model. A review of Greenfield's zoning and planning documents, future land use maps, proposed land uses, and existing development patterns and trends was also used when adjusting the growth rates from the travel demand model. The growth rate for each road segment is shown on MAP 5.

Traffic Projections

The growth rate was applied to the 2018 traffic volumes to project traffic to the future year of 2030. Future year traffic volumes are shown on MAP 6.

Intersection Capacity

Existing and future traffic volumes, along with existing roadway and intersection conditions such as number of lanes and intersection control, were used to analyze the capacity of each thoroughfare intersection. Capacity was calculated based on concepts outlined in the Highway Capacity Manual (HCM) published by the Transportation Research Board (TRB). Intersections identified as having a capacity deficit will suffer congestion and delays, particularly during periods of peak traffic volumes. These intersections are shown on MAP 7.

The following intersections have capacity deficits under the 2018 existing conditions, and were identified as having a need for capacity improvements in the short-term:

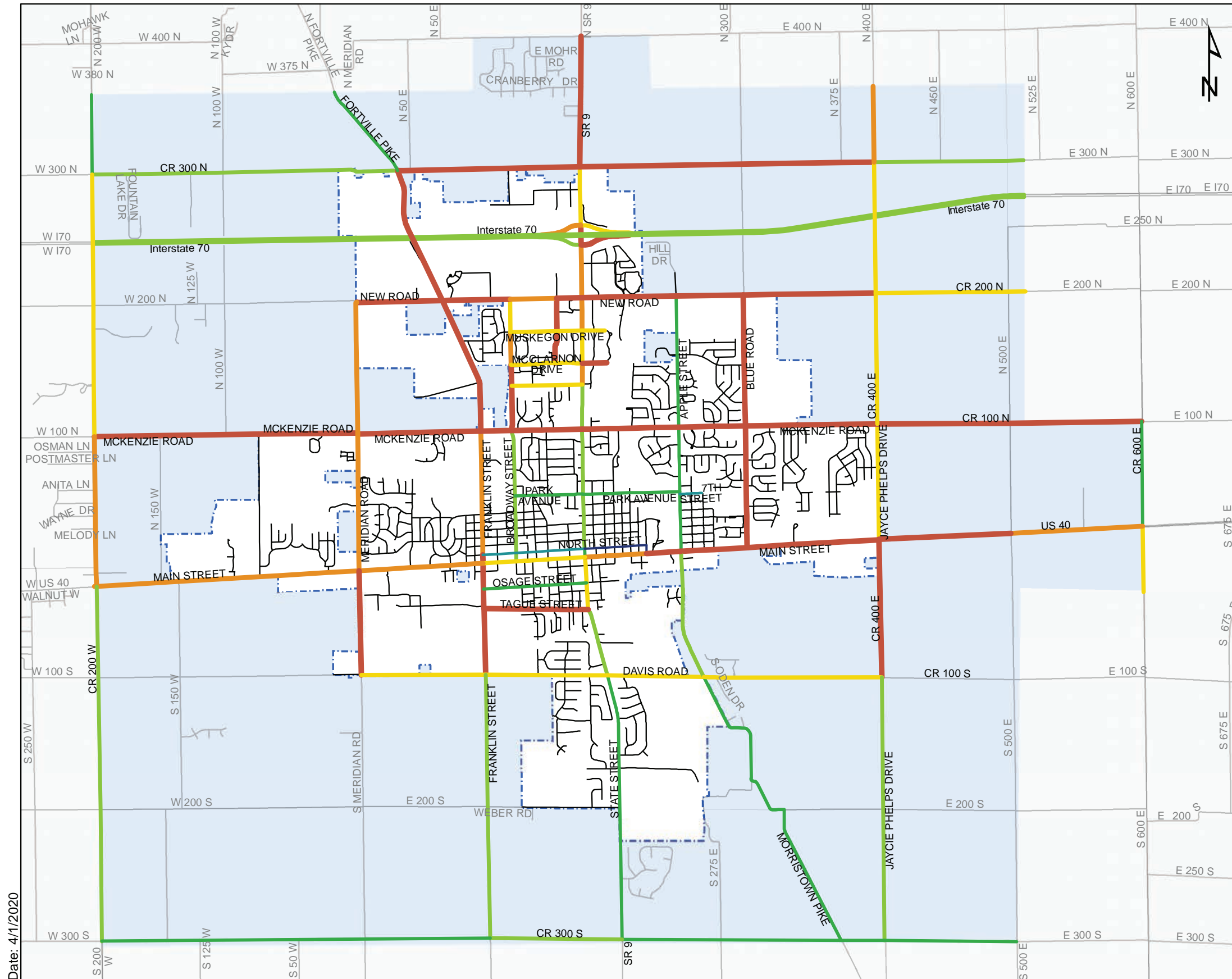
- Blue Road and New Road
- Broadway Street and Muskegon Drive
- S.R. 9 and Park Avenue
- S.R. 9 and Osage Street
- S.R. 9 and Tague Street
- Davis Road and Meridian Road
- Davis Road and Franklin Street
- S.R. 9 and County Road 300 South

The following intersection have capacity deficits in the 2030 future year, and were identified as having a need for long-term capacity improvements:

- Franklin Street and County Road 300 North
- McKenzie Road and Franklin Street
- McKenzie Road and Broadway Street
- McKenzie Road and Apple Street
- McKenzie Road and Blue Road
- U.S. 40 and County Road 600 East



Map 5: Average Growth Rates



Legend

- AGR = 0.00%
- AGR = 0.01% - 0.50%
- AGR = 0.51% - 1.00%
- AGR = 1.01% - 1.50%
- AGR = 1.51% - 2.00%
- AGR = 2.01% - 2.50%
- AGR = 2.51% - 3.00%
- City Roads
- County Roads
- 30 Year Growth Area
- - - City Limits
- Hancock County

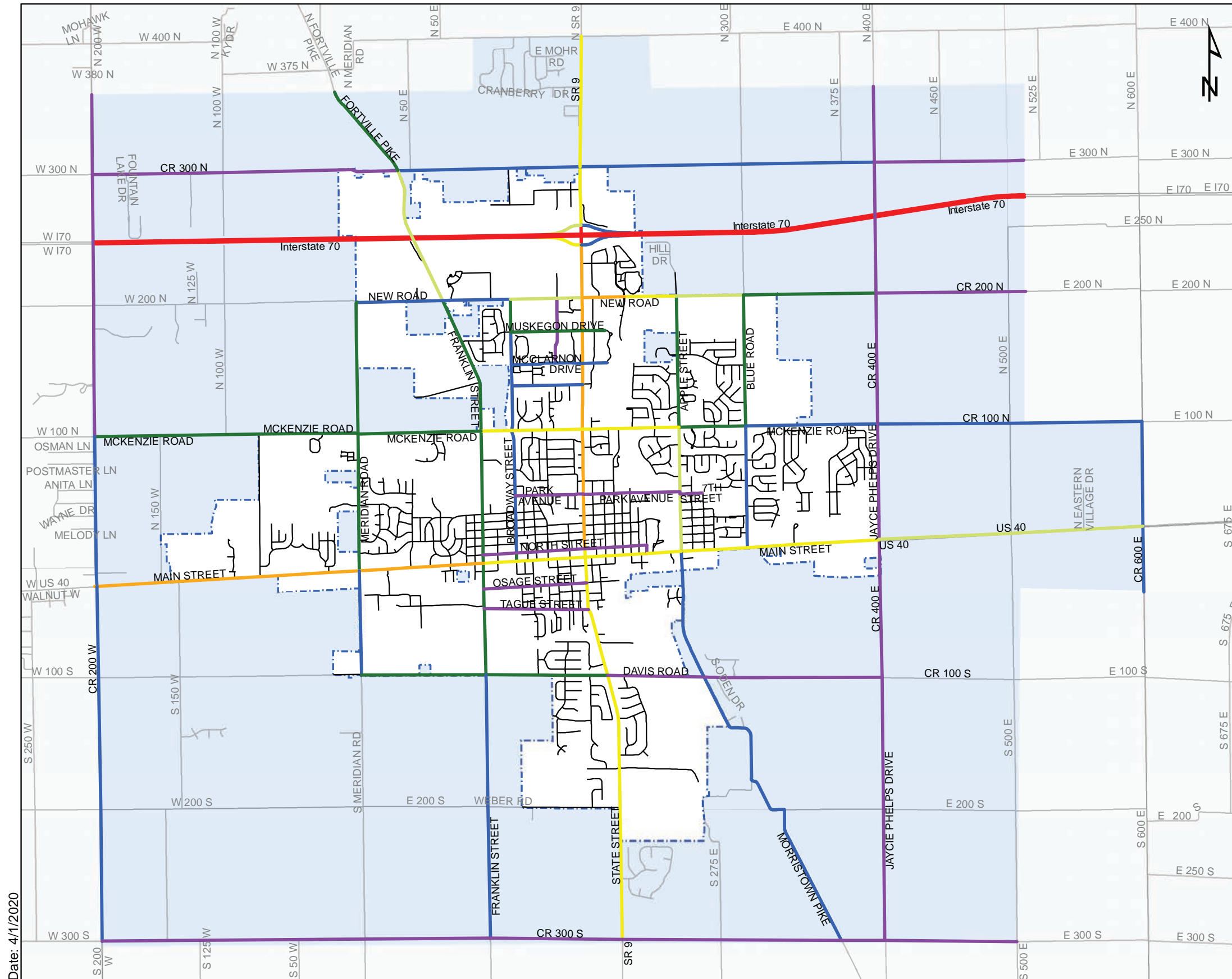
Date: 4/1/2020



Map 6 | 2030 Average Annual Daily Traffic



Map 6:
2030 A.A.D.T.



Legend

- AADT = 0 - 2,000
- AADT = 2,001 - 4,000
- AADT = 4,001 - 7,000
- AADT = 7,001 - 10,000
- AADT = 10,001 - 15,000
- AADT = 15,001 - 30,000
- AADT = 30,001+
- City Roads
- County Roads
- 30 Year Growth Area
- City Limits
- Hancock County

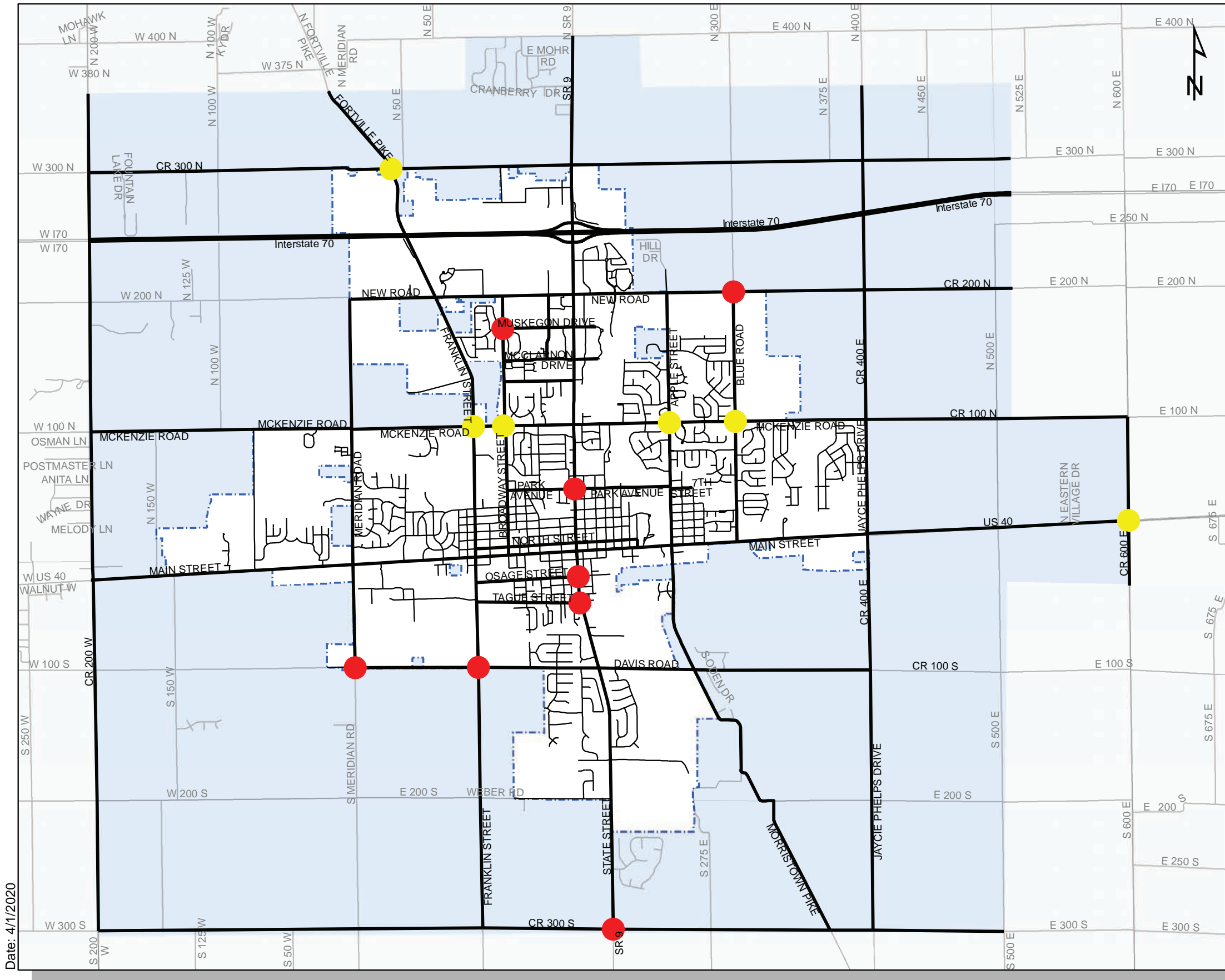
Date: 4/1/2020



Map 7 | Intersection Congestion



Map 7: Intersection Congestion



Legend

- Short Term Capacity Need
- Long Term Capacity Need
- Study Roads
- City Roads
- County Roads
- 30 Year Growth Area
- City Limits
- Hancock County

Date: 4/1/2020



Crash Data Analysis

Crash data from a three-year period of 2015 to 2018 was downloaded from the statewide Automated Reporting Information Exchange System (ARIES). This data was then filtered down to crashes that occurred at each thoroughfare intersection. The raw crash data was reviewed against knowledge of city staff, steering committee input, and public comments to verify the reported crash data trends. The total number of crashes is shown on MAP 8.

Intersections with higher traffic volumes are prone to have more crashes. To compare the relative risk at all the study intersections, a standardized crash rate was calculated by dividing the total number of crashes by one million entering vehicles (MEV) per year. The crash rate at each intersection is shown on MAP 9. Locations with the highest crash rates are:

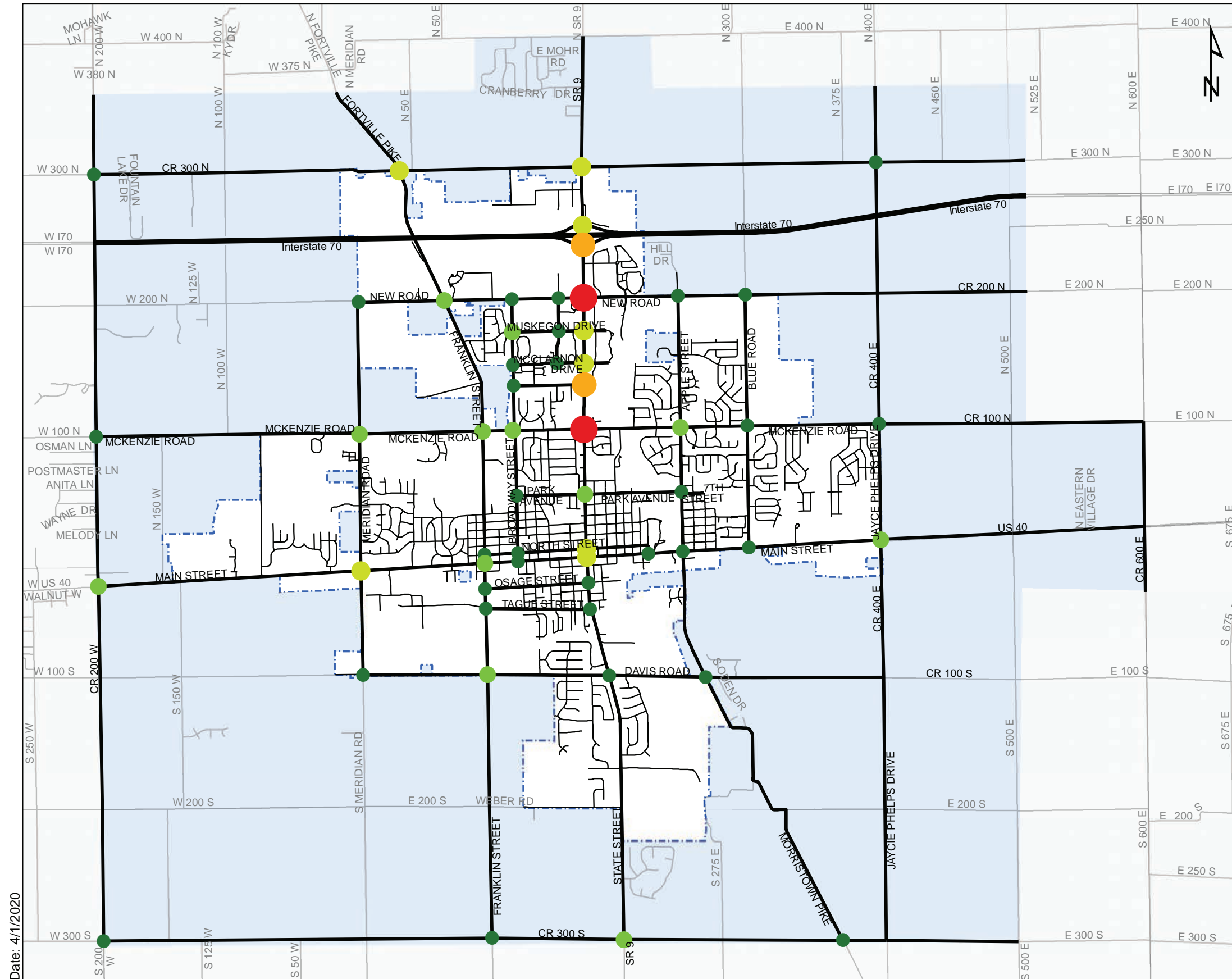
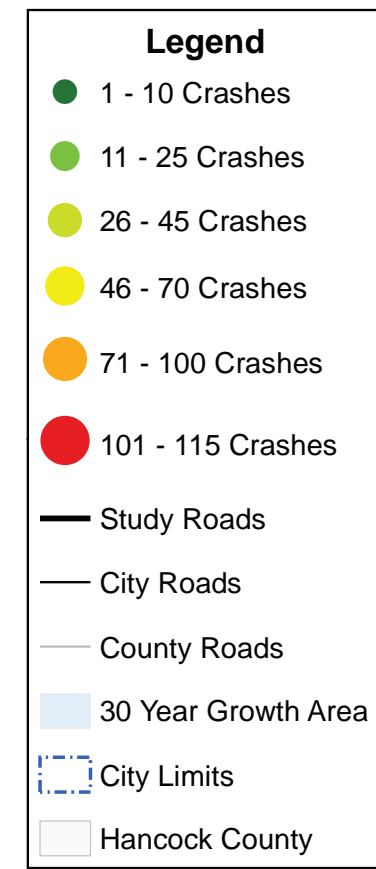
- Franklin Street/Fortville Pike and County Road 300 North
- S.R. 9 and County Road 300 North
- County Road 300 North and County Road 400 East
- S.R. 9 and McKenzie Road
- McKenzie Road and Jaycie Phelps Drive

The traffic data, demographics summary, and review of planning documents conclude the analysis of existing conditions. Additional map exhibits have been included in the Appendix. The next chapter, "Where do we want to go?" sets the parameters for this update of the thoroughfare plan.





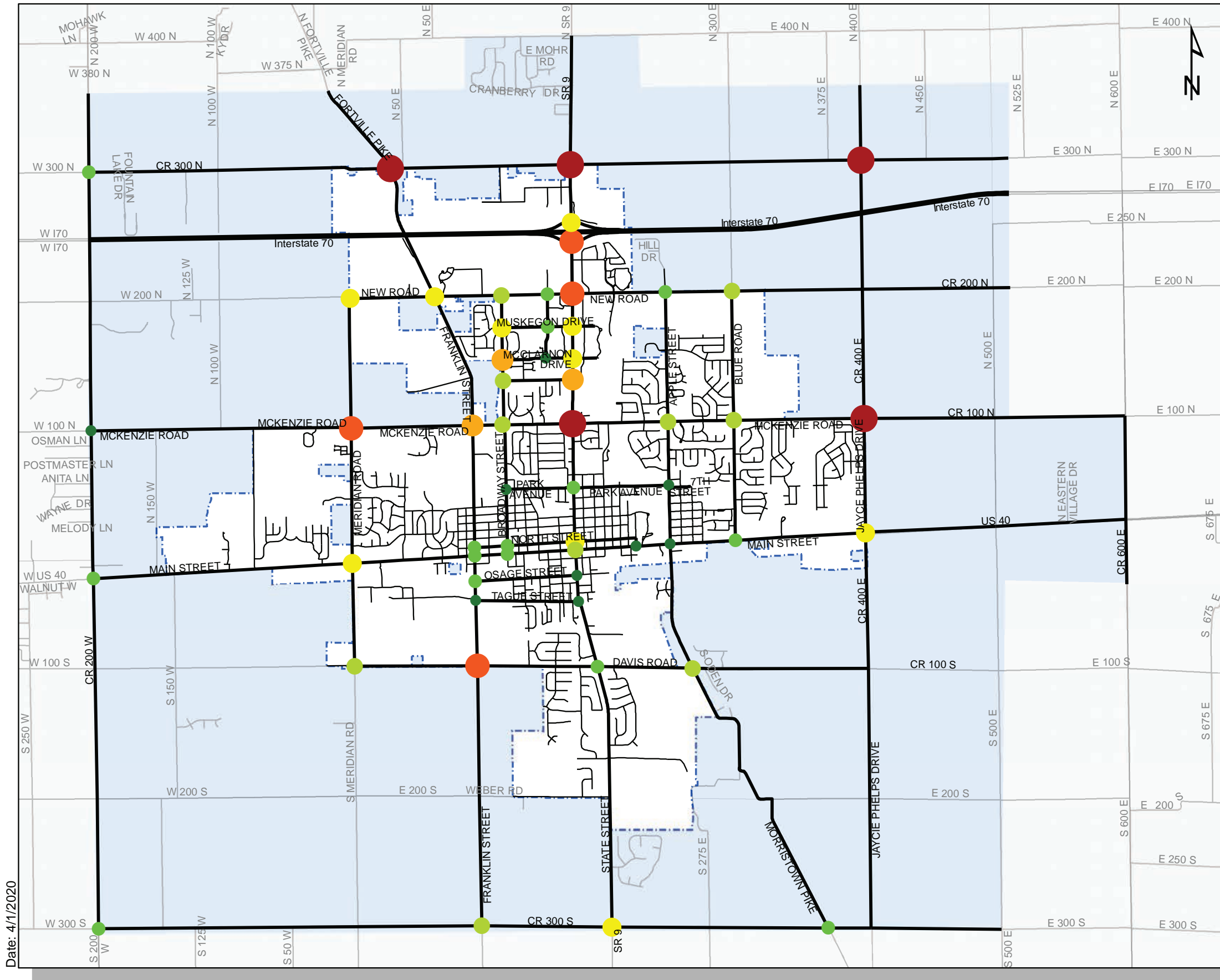
Map 8: 3 Year Crash Total



Date: 4/1/2020



Map 9: Crash Rate per M.E.V.



Legend

- 0.001 - 0.500 Crashes/MEV
- 0.501 - 1.000 Crashes/MEV
- 1.001 - 1.500 Crashes/MEV
- 1.501 - 2.000 Crashes/MEV
- 2.001 - 2.500 Crashes/MEV
- 2.501 - 3.000 Crashes/MEV
- 3.001 - 4.400 Crashes/MEV
- Study Roads
- City Roads
- County Roads
- 30 Year Growth Area
- City Limits
- Hancock County





Where Do We Want to Go?

Planning Process

Land Use

Vision, Goals, and Objectives



Planning Process

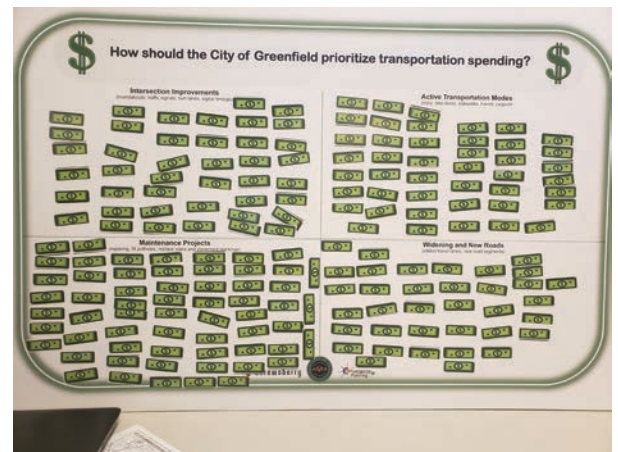
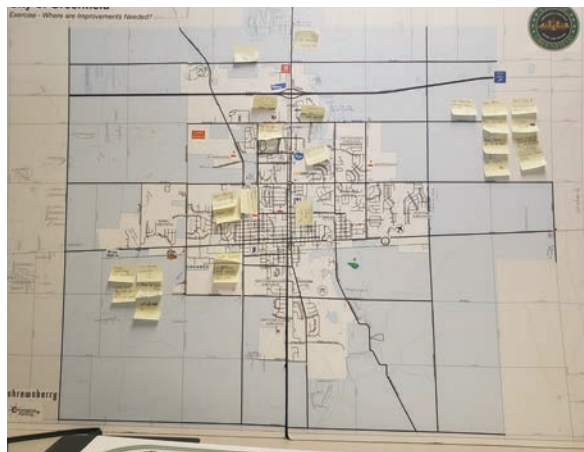
The 2015 Comprehensive Plan recommended an update to the 2007 Thoroughfare Plan. The planning process was kicked off in 2018 with the goals of collecting updated traffic data, analyzing regional trends, and developing a plan for transportation improvements for the next ten or so years. Goals and objectives from the Comprehensive Plan were carried through to set the tone for the updated thoroughfare plan.

Steering Committee

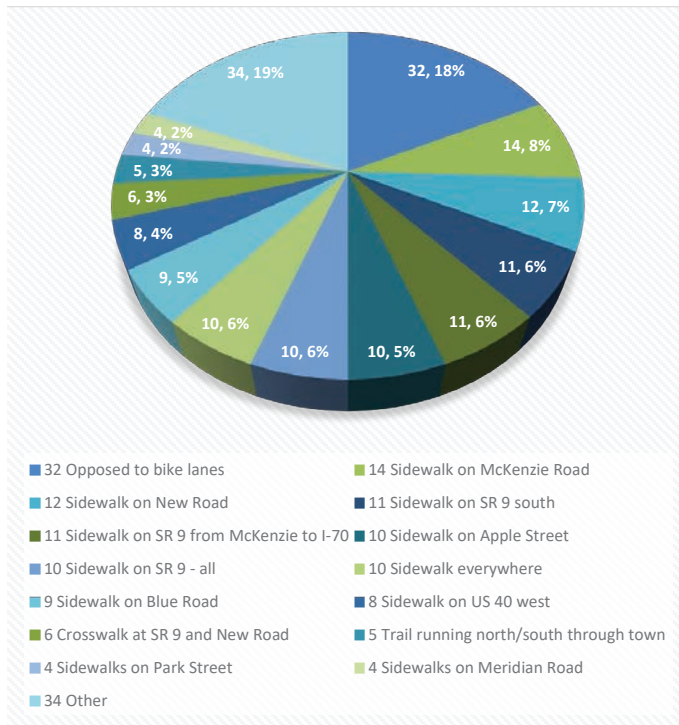
A steering committee of residents, representatives of local businesses and organizations, and local government officials was appointed by the city to guide the planning process. The committee met four times during the thoroughfare planning process. In the first meeting, the committee members provided valuable local perspective and history regarding transportation issues facing the community. In the second meeting, they helped provide calibration for the travel demand model by exchanging growth forecast data. In the third meeting, they contributed to the development of goals and objectives for the plan and narrowed down potential transportation projects for further evaluation. In the fourth meeting, they helped to refine recommendations and draft content for the plan. Steering committee meeting minutes can be found in the Appendix.

Public Workshop and Survey

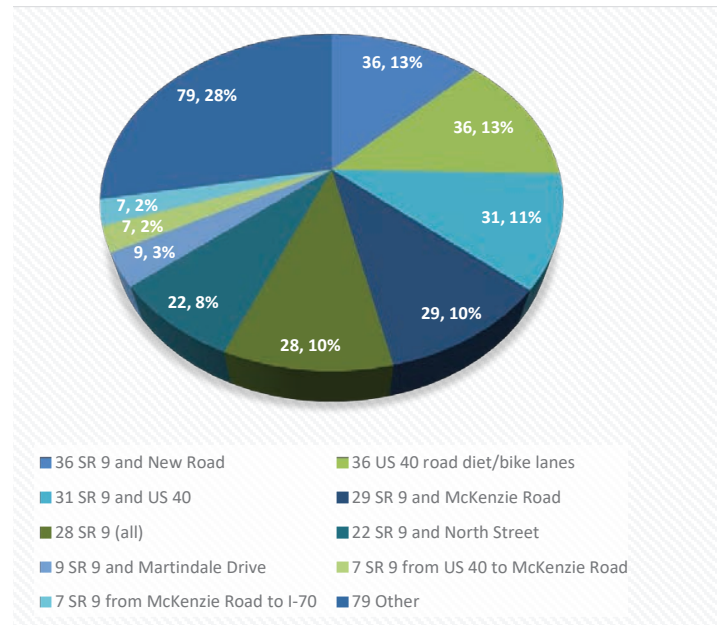
In October 2019, Thoroughfare Plan representatives attended the Riley Festival and solicited input regarding the existing transportation system from residents, workers, and regular visitors of the Greenfield area. Subsequently, the city facilitated an electronic survey for additional public input. Nearly 250 surveys were completed online. A summary of results follows, and the full public survey results can be found in the Appendix.



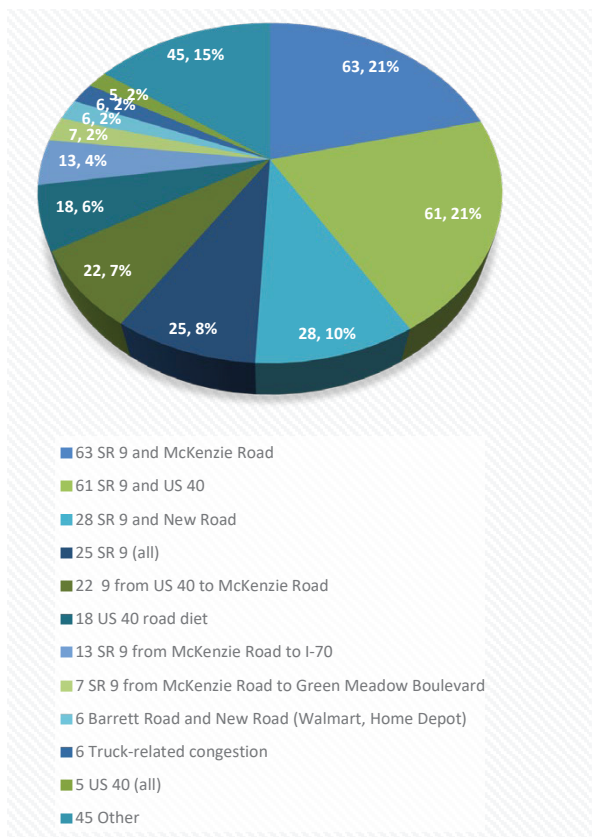
1. What location most needs a sidewalk, trail, bike lane, or crossing?



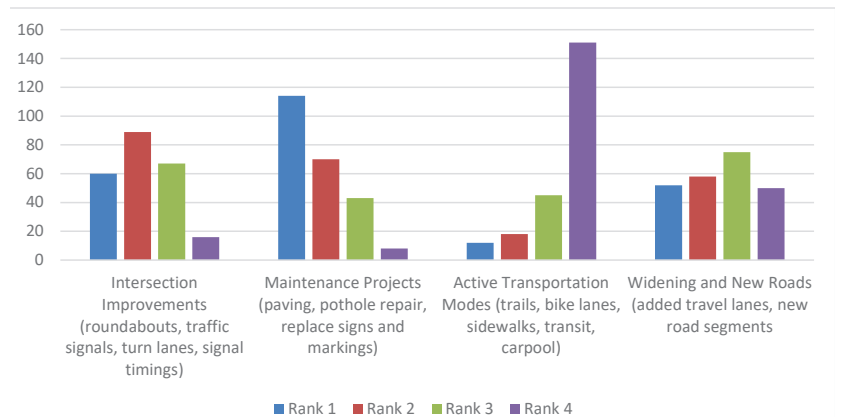
3. What location in Greenfield is a traffic safety hazard?



2. Where in Greenfield is the road or intersection too congested?



4. How should the City of Greenfield spend its tax dollars on transportation improvements? Rank the options from 1 (top priority) to 4 (low priority).

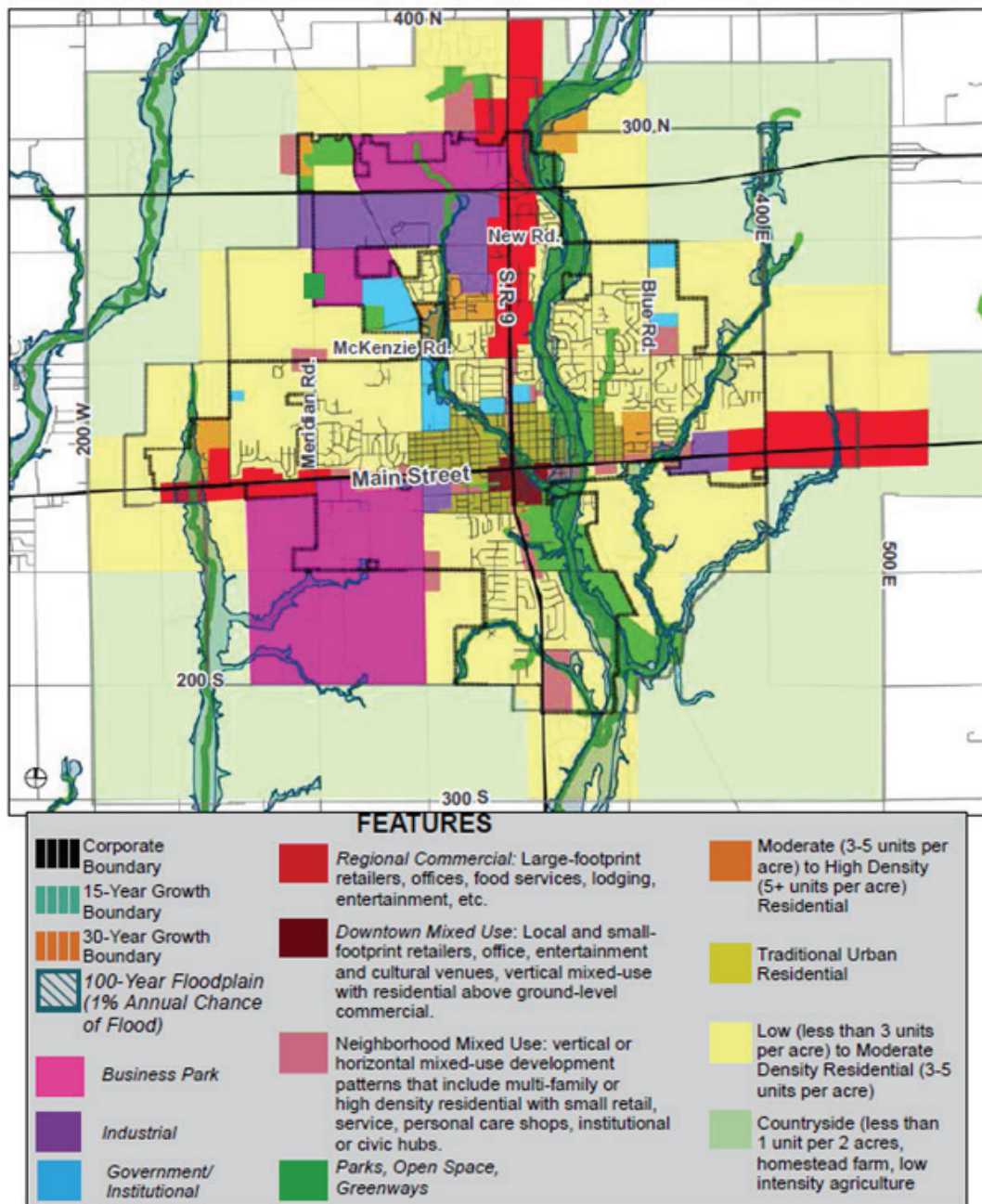


Land Use

The future land use impacts the transportation system by determining the type and intensity of future development, which contributes to the need for future transportation improvements. Areas planned for commercial uses and higher densities will generate more traffic, while areas designated for agriculture generate very little traffic.

The 2015 Comprehensive Plan established land uses to guide future development. The future land use map established the 30-year growth boundary, also used for the Thoroughfare Plan, indicating areas likely to develop and be annexed. The plan includes business park and industrial uses along I-70 west, where Elanco is currently located, and around the Covance facility south of US 40. The SR 9 and US 40 corridors are primarily commercial. Land along Brandywine Creek is reserved for parks, urban space, and greenways. The downtown core permits mixed uses. Most of the remainder is residential, with denser residential along major roadways and rural residential on the farthest extents.

FUTURE LAND USE MAP





Vision, Goals, and Objectives

The thoroughfare plan sets forth using guiding principles, including the vision, goals, and objectives. The vision statement is a commitment to future action, and generally describes what the community wants to be.

In support of the vision, specific goals have been identified. For each goal, there are a series of objectives which outline explicit actions to be taken by staff and policy makers when implementing the plan. These vision, goals, and objectives were developed by evaluating goals from the previous thoroughfare plan and comprehensive plan, removing those which have been achieved, and adding new ones based on today's needs. The steering committee helped to refine the goals and objectives.

Vision

Greenfield will maintain and grow a transportation network that supports the movement of people and goods while preserving quality of life.

Goals and Objectives

- **Promote a healthy lifestyle by encouraging pedestrian and bicycle modes of travel.**
 - Develop a complete streets policy to be included in the city's development standards.
 - Include sidewalks and/or trails on all new or reconstructed roadways.
 - Use appropriate infrastructure improvements (shared roads, traffic calming) to encourage pedestrian and bicycle use within the historic downtown area.
 - Use federal and state funding sources to assist in constructing new trails and connections between existing trails according to the Trails System Master Plan.
 - Accommodate all users by building new pedestrian facilities to meet ADA requirements and retrofitting existing facilities according to the city's ADA plan.
 - Promote bicycle and pedestrian safety through educational programming at public events and schools.
 - Explore funding opportunities for beautification, placemaking, and other aesthetic treatments to make pedestrian and bicycle travel more appealing.

- **Plan for future growth and economic development opportunities.**
 - Utilize access management techniques to prioritize the safe and efficient movement of vehicles on arterial streets, and encourage frontage roads for business access.
 - Require right-of-way dedication by new developments per the Thoroughfare Plan in order to accommodate future roadway network improvements.
 - Update development standards to improve connectivity between new developments and existing developments where feasible. Use the Thoroughfare Plan map to identify points of connection.
 - Coordinate with INDOT, Hancock County, and the MPO regarding a potential future interchange and major new/upgraded roadways.
 - Develop alternate routes for truck traffic outside of the city center, and restrict or minimize trucks through the historic downtown to preserve its character.
 - Track the development of IndyGo's Blue Line Rapid Transit, which is planned for construction in the next few years. The Blue Line will extend from the Indianapolis International Airport to Cumberland along U.S. 40. This terminus is ten miles from downtown Greenfield or six miles from the western edge of the Thoroughfare Planning area. Consider whether a local extension (similar to the Plainfield Connector) might be desirable to help connect people and jobs in Indianapolis and Greenfield.
- **Maintain the existing transportation system while also planning for future improvements.**
 - Coordinate with the MPO, INDOT, and local police/fire to determine locations where safety improvements are needed. Apply for Highway Safety Improvement Program (HSIP) funds where appropriate to help offset the cost of improvements.
 - Use roundabout intersections where appropriate to help traffic move more safely and efficiently at a lesser cost than new or widened roadways. Apply for HSIP or Congestion Management and Air Quality (CMAQ) funds to help bring projects to reality.
 - Use asset management programs to regularly assess pavement condition, determine pavement maintenance needs, and budget for ongoing pavement maintenance projects.
 - Also use an asset management program for the maintenance of trails, sidewalks and ADA ramps.
 - Add traffic capacity outside of the downtown area to preserve historic downtown businesses and streetscapes.

The culmination of the planning process is the resulting thoroughfare plan and transportation plan. The following chapter, "How will we get there?" provides guidance for the future in the form of roadway classifications, cross-section details, and prioritized transportation improvements.





How Will We Get There?

Thoroughfare Plan

Classification System

Cross-Sections

Thoroughfare Plan Map

Active Modes Map



Thoroughfare Plan

The thoroughfare plan component provides guidance for future improvements of the transportation system. The street classifications dictate the intended use of each roadway. The cross-sections indicate how each roadway should be built.

Facilities for pedestrians and bicycles have also been included with each cross-section. It is essential for all modes of transportation to be considered when a new roadway is constructed, or when an existing roadway is reconstructed.

Classification System

The Greenfield thoroughfare classifications are based on the FHWA functional classifications. While the FHWA functional classifications indicate the current function of the roadway, the thoroughfare classification indicates a future planned function. Thoroughfares may include roadways that are not yet built, or roadways that will take a higher function once major improvements have been constructed. The thoroughfare plan indicates a roadway network that is envisioned for the future.

INTERSTATE

Interstates have the highest traffic volumes and serve the longest trips. These roadways will have high mobility with access limited to interchange locations.

PRIMARY ARTERIAL

The primary arterial serves high traffic volumes with high mobility across Greenfield and Hancock County. These roadways service commuting traffic into and out of Greenfield. Access to adjoining land is limited in favor of free-flowing traffic.

SECONDARY ARTERIAL

These roadways are like primary arterials but provide more access to adjoining land uses and serve both commuter and local trips. Arterial streets spaced a mile apart form a grid that serves as the backbone of the city's vehicular transportation system.

MAJOR COLLECTOR

Major collectors connect neighborhoods and local roads to the arterial network. These roads will carry less traffic than arterials while providing a higher level of access to surrounding land uses. Trips are shorter and at lower speeds than arterials.

MINOR COLLECTOR

Minor collectors are primarily located within developments. These streets move trips through the development to the nearest major collector and arterial. Collectors located in between arterials form a half-mile grid to improve connectivity and reduce demand on the major streets.

LOCAL STREETS

Local streets connect individual driveways to collectors and arterials. These routes generally serve very little traffic at low travel speeds.

Cross-Sections

The cross-sections indicate the width of right of way, roadway features, and pedestrian facilities for each thoroughfare classification.

The City of Greenfield Public Improvement Design Standards and Specifications Manual (PIDSSM) contains additional details regarding construction materials and pavement thickness for each thoroughfare classification and may be updated on a more frequent basis than the thoroughfare plan.

TABLE 3 | CROSS-SECTIONS

Classification	Total Right of Way Width	Median	Travel Lane Width	On-Street Parking Width	Curb Type	Tree Row	Sidewalk or Trail	Clearance Behind Sidewalk/Trail
Primary Arterial	120'	14' raised	12'	None	Upright	Variable	10' trail both sides	1'
Secondary Arterial	80'	14' TWLTL or raised	12'	None	Upright	8' both sides	10' trail both sides	0.5'
Major Collector	70'	12' TWLTL	11'	None	Upright	7' both sides	5' sidewalk 10' trail	1'
Minor Collector	65'	None	11'	8' both sides	Rolled or upright	7' both sides	5' sidewalk both sides	1'
Local Street	50'	None	11.5'	8' both sides, optional	Rolled or upright	4' both sides	5' sidewalk both sides	0.5'

Thoroughfare Plan Map

Thoroughfare classifications were assigned to roadways as shown on MAP 10, based on the desired use of each roadway. Traffic data, past planning efforts, adjacent land uses, input from steering committee members, and relative proximity to similar roadways were all considered when assigning the thoroughfare classifications. For roads that continue beyond the extents of the study area, the Hancock County thoroughfare classification was considered for continuity.

MAP 10 also shows new roadways, and extensions of existing roadways. These lines are not intended to show a specific alignment, but rather the connection between two points.

As development occurs along thoroughfares, the right-of-way dedication along the site frontage shall correspond to the thoroughfare classification assigned on this map and the corresponding right-of-way width in the cross-section details.

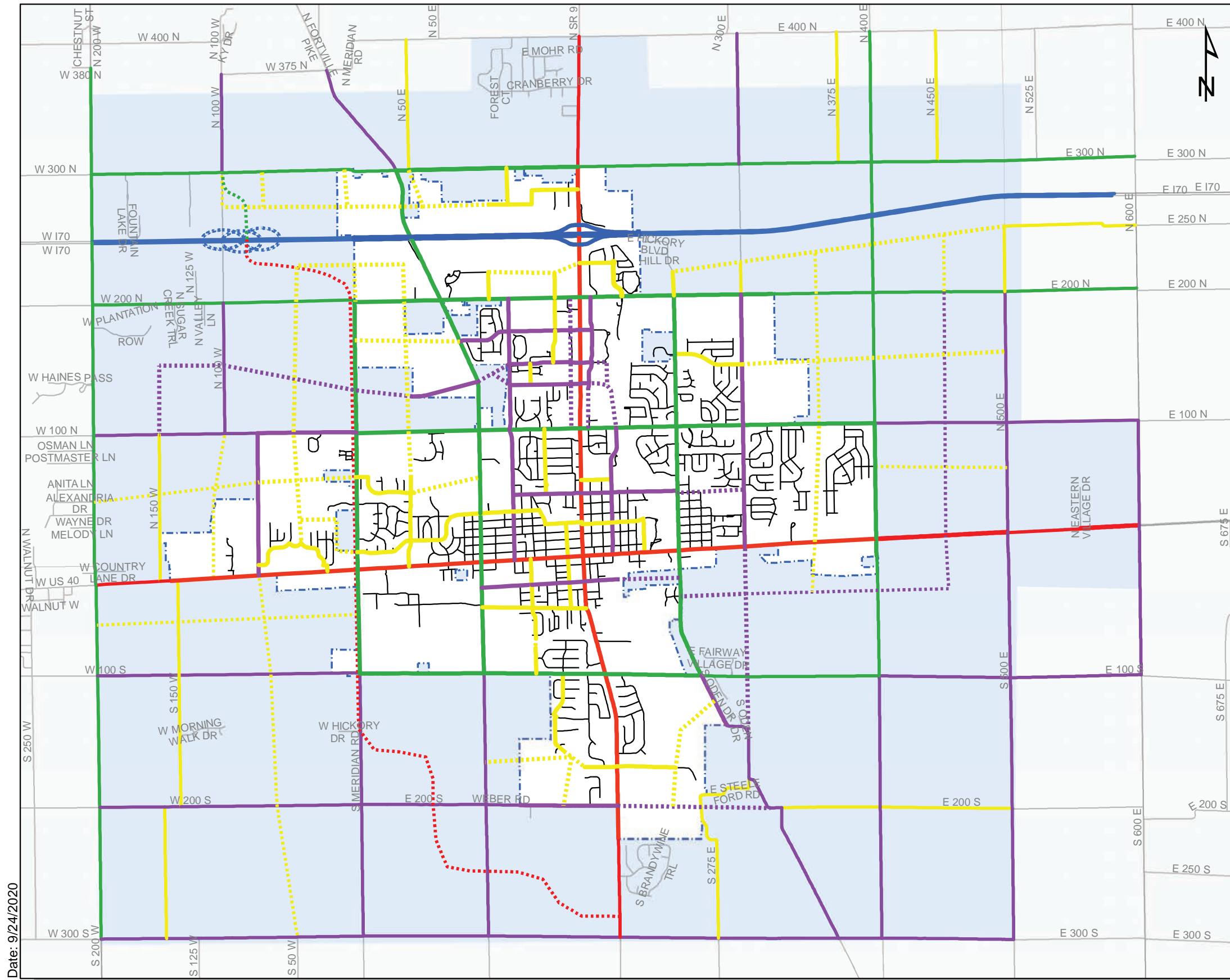
MAP 10 has an area along I-70 that is marked as a Future Interchange Zone, which represents an approximate location for a new interchange to help relieve congestion and safety issues along SR 9. A full Interchange Justification Study should be performed and submitted to INDOT to substantiate any proposed changes to the interstate system.



MAP 10: THOROUGHFARE PLAN MAP

Legend

- Interstate
- Future Interstate
- Principal Arterial
- Future Principal Arterial
- Minor Arterial
- Future Minor Arterial
- Major Collector
- Future Major Collector
- Minor Collector
- Future Minor Collector
- City Roads
- County Roads
- City Limits
- 30 Year Growth Area
- Hancock County



Date: 9/24/2020



Active Modes Thoroughfare Plan Map

Active transportation modes include walking, bicycling, and other human-powered travel. These activities sometimes share space with vehicles (shared roadway), sometimes exist alongside roadways (sidewalks and trails), and sometimes take their own non-motorized route (Pennsy Trail). Existing and proposed facilities for active transportation modes are shown on MAP 11. This map is largely based on the master plan for the trails system outlined in the 2015 Comprehensive Plan. The Hancock County Trails Plan from 2018 was also considered for how Greenfield's active transportation network can connect to larger regional systems.

The Active Mode Map focuses primarily on expanding the existing trail system. MAP 11 shows proposed trails along natural corridors such as Brandywine Creek, along vacated railroad right of way such as the Pennsy Trail, and along existing roadways. Trails and sidewalks should be included with construction of new roadways, and reconstruction of existing roadways, as shown in the cross-section details.

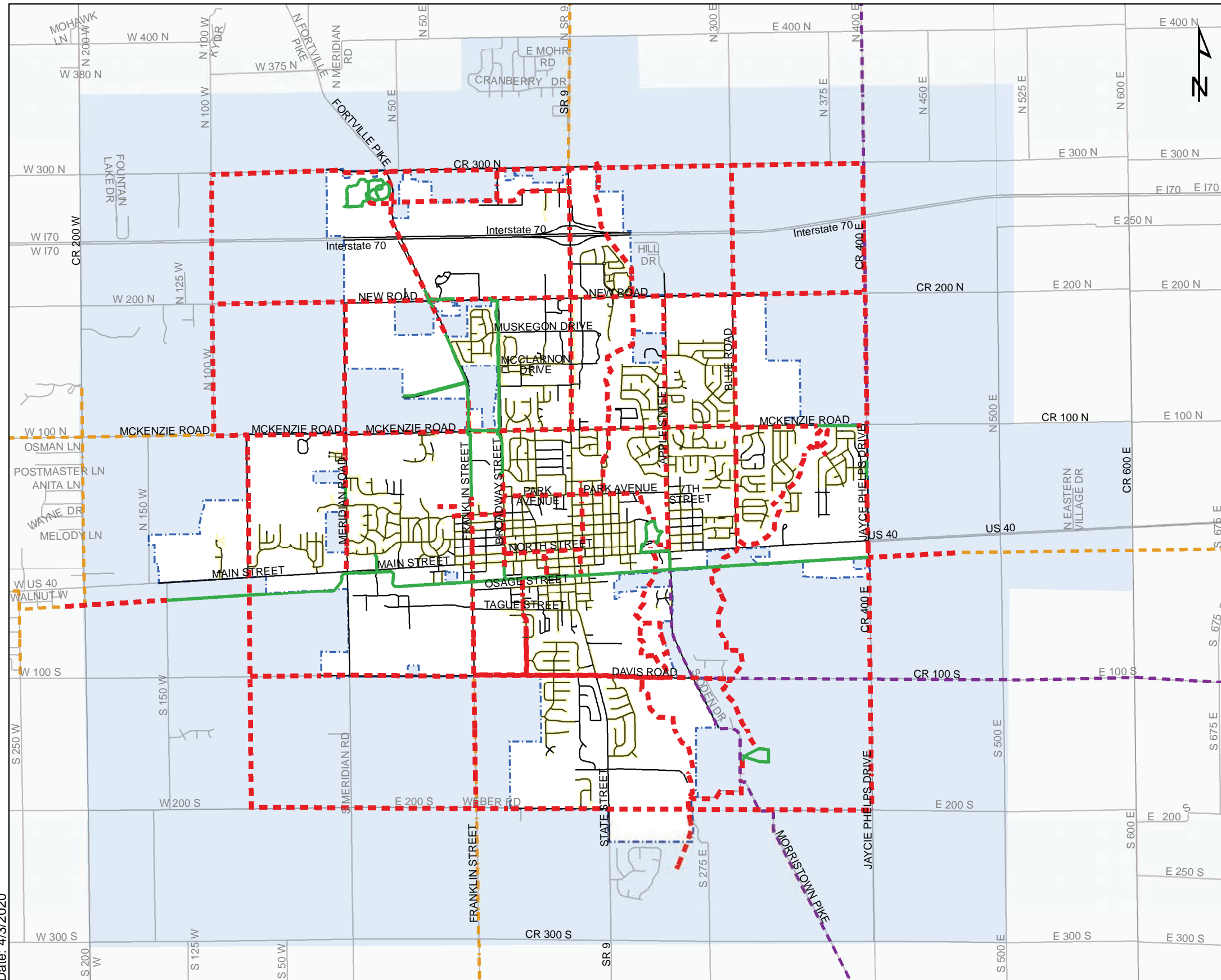




Map 11: Active Mode Thoroughfare Plan Map

Legend

- Existing Trails
- Existing Sidewalks
- City Trail Masterplan
- County Prop. Trail
- County Prop. Shared Roadway
- City Roads
- County Roads
- City Limits
- 30 Year Growth Area
- Hancock County



Date: 4/3/2020





Transportation Improvement Plan

Identifying Potential Projects

Developing Project Priority

Project Lists/Tables/Maps

Complete Streets Policy



Transportation Improvement Plan

Data analysis and public involvement yielded a list of potential improvement projects. Each project was labeled with one or more of the following categories: safety, congestion, or pedestrian/bicycle.

Projects were also classified by the responsible jurisdiction, which may include the City of Greenfield, Hancock County, INDOT, or some combination of agencies.

In accordance with the principals of complete streets, all major roadway projects were assumed to include a sidewalk and/or trail component, per the cross-section details.

Identifying Potential Projects

Data sources included traffic counts and forecasts, crash data analysis, and existing planning documents. The steering committee members provided their input on issues, independent of the data results. The public also had the opportunity to identify transportation needs at the Riley Festival and through the electronic survey.

Travel Demand Model

The travel demand model showed where areas of high growth can be expected, and which roadways will experience poor level of service if no improvements were made. Subsequently, the model was updated to reflect the impact of proposed improvements. With the input of City Staff and steering committee members, the following scenarios containing various improvement projects were modeled:

- **New I-70 Interchange Only:** This interchange is proposed to be located northwest of the City in the vicinity of County Road 100 West and would connect to Meridian Road. The interchange is shown on MAP 10.
- **New I-70 Interchange + Alternate Route:** This improvement included the new interchange described above, plus improvements to Meridian Road including upgrading it to a primary arterial and widening/improving it to accommodate trucks and increased traffic.

- **8 Additional Projects Only:** The eight additional projects included various roadway widenings, access roads, and connections throughout the transportation network.
- **New Interchange + Alternate Route + 8 Additional Project:** This model included all improvements listed above.

The impact the various scenarios had to the transportation network were measured in a number of ways including daily vehicle miles traveled (VMT), daily vehicle hours traveled (VHT), daily vehicle delay hours, and level of service (LOS). The results of just the base conditions, the no build scenario, and the 4 improvement scenarios described above are shown in Maps 12-16 as well as Tables 4-5.

Recommended 8 Added Capacity Projects in Greenfield:

- Franklin Street as three-lane road from New Road to Davis Road
- McClarnon extension from the terminus east of SR 9 to Apple Street, as a minor collector.*
- Park Avenue extension from Apple Street to Blue Road
- McKenzie Road as a three-lane road from Meridian Road to Jaycie Phelps Drive
- A new roadway "Jason Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.
- Widen CR 300N from Fortville Pike to SR 9 to three lanes
- Widen New Road from SR 9 to CR 400E to three lanes
- Widen Blue Road to three lanes from US 40 to New Road

*McClarnon Drive has been removed from the recommended project priority lists per City Council Resolution 2020-08.

TABLE 4 | DAILY VMT AT LOS

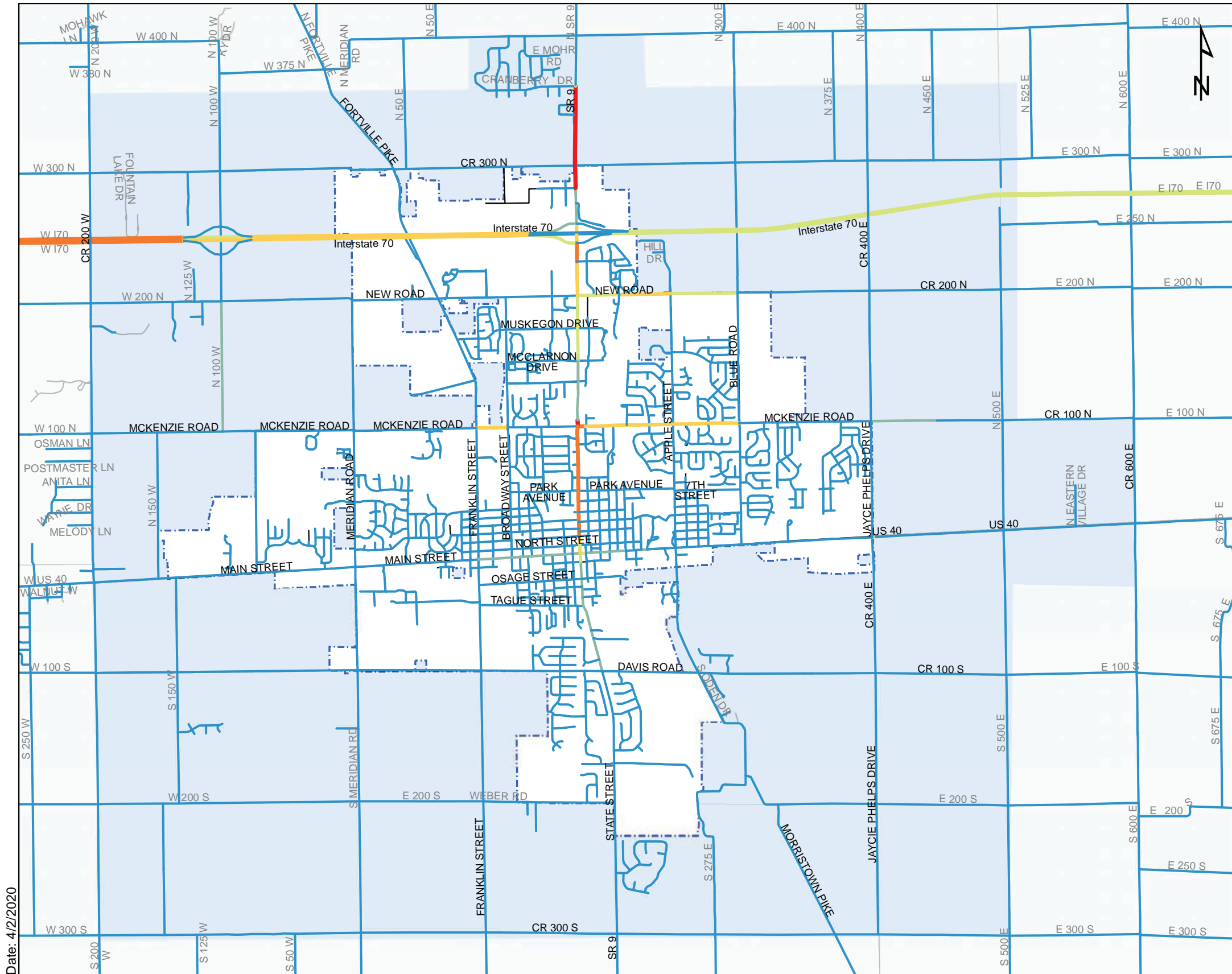
Land Use	2017	2045	2045	2045	2045	2045	2045
Scenario	Base	NB	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Network	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
Statistic							
Daily VMT at LOS							
A	1,306,230	995,825	983,671	1,029,693	1,059,196	1,083,410	1,135,397
B	412,214	113,453	117,182	108,028	128,673	105,322	519,148
C	9,815	714,122	697,038	678,094	654,390	665,286	654,856
D	1,652	299,642	304,029	265,926	301,130	234,611	183,083
E	1,166	336,281	366,376	394,744	325,437	389,437	9,288
F	-	31,912	24,117	23,978	31,724	23,826	3,597

TABLE 5 | DEFICIENT LANE MILES

Deficient Lane Miles							
Interstate		29.28	29.48	29.21	30.52	29.21	8.05
Principal Arterial	0.09	4.14	4.20	4.14	4.14	4.14	1.93
Minor Arterial		4.32	4.32	4.32	1.86	1.58	
Major Collector	0.22	5.42	5.90	5.90	4.88	4.88	4.88
Minor Collector							
Total	0.31	43.17	43.90	43.58	41.41	39.81	14.86
Excluding I-70	0.31	13.89	14.43	14.37	10.89	10.60	6.81
Estimated Cost to Fix (Mil)	\$ 0.99	\$ 44.46	\$ 46.17	\$ 45.98	\$ 34.85	\$ 33.93	\$ 21.79
Percent of No Build		100.0%	103.8%	103.4%	78.4%	76.3%	49.0%



Map 12: Scenario 1 2045 LOS With New I-70 Interchange

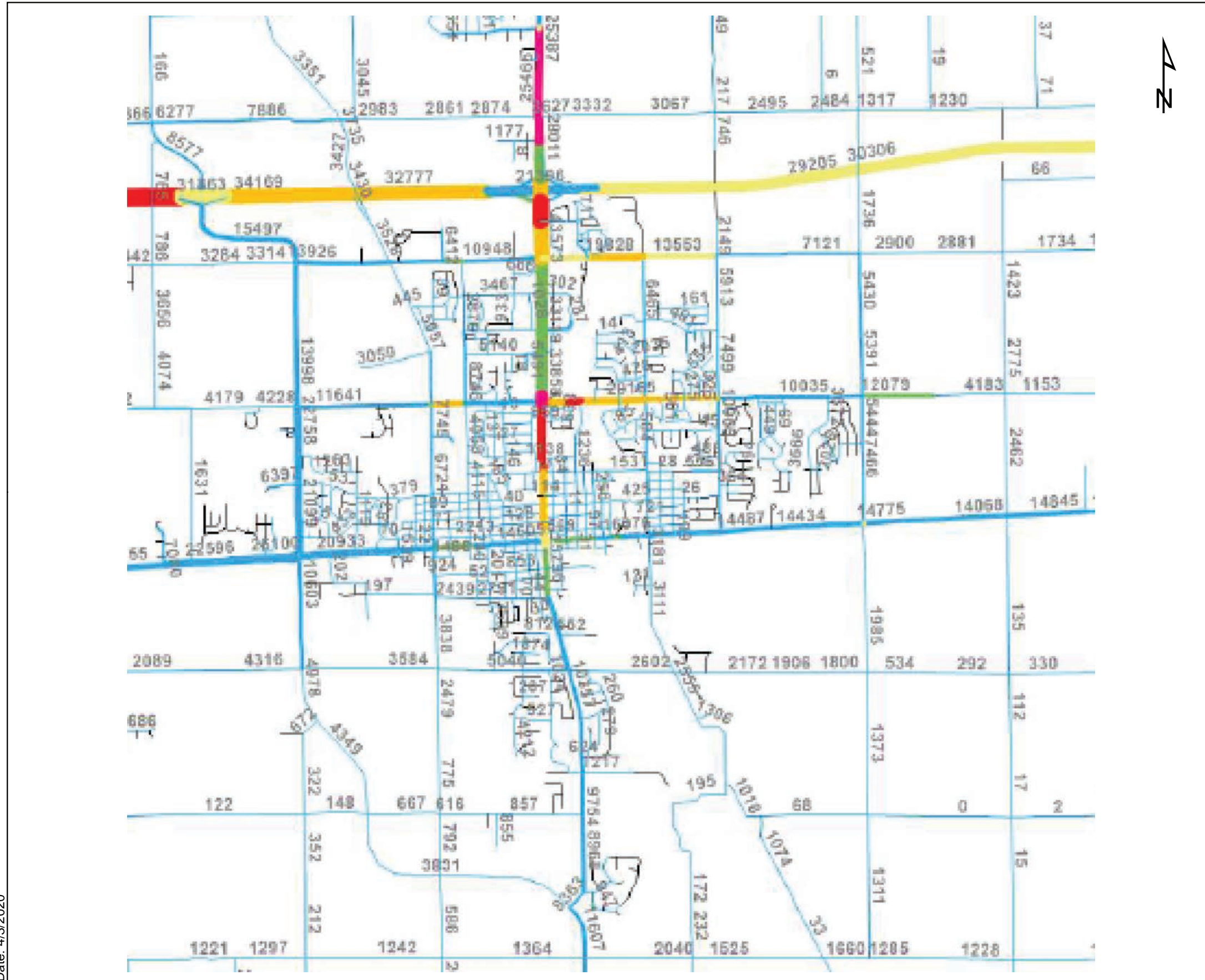


Date: 4/2/2020

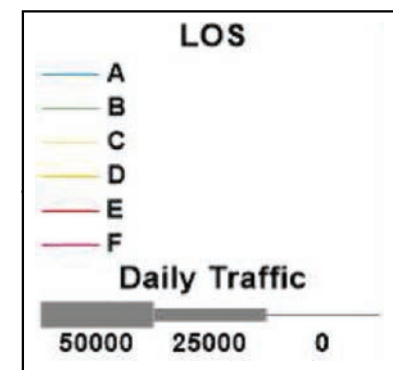
Legend

- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F
- City Roads
- County Roads
- City Limits
- 30 Year Growth Area
- Hancock County

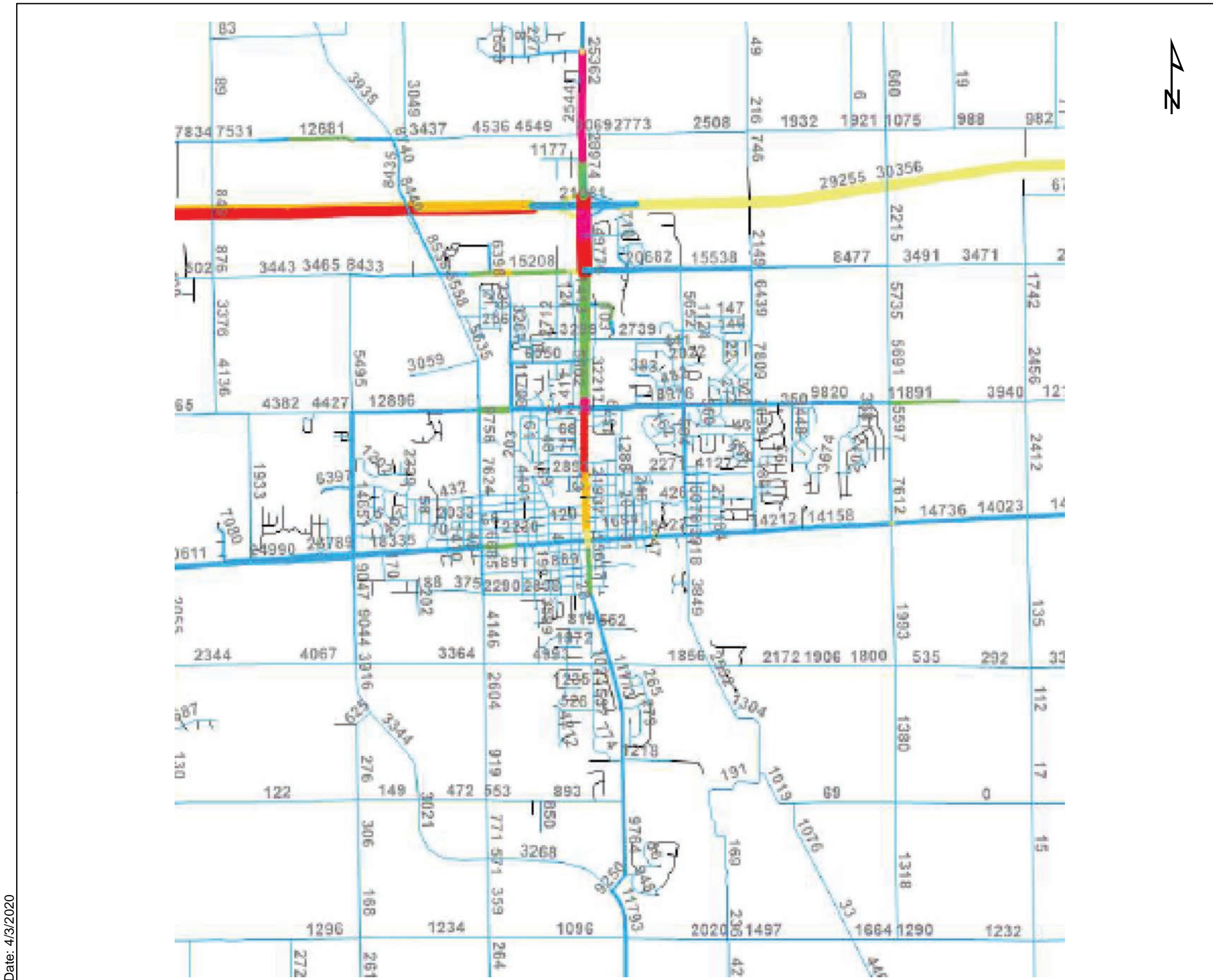




**Map 13:
Scenario 2
2045 Peak LOS
With New
Interchange
and West
Corridor**



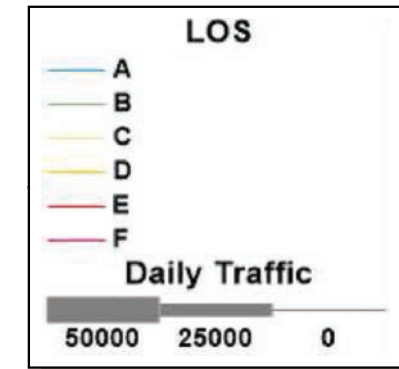
Date: 4/3/2020

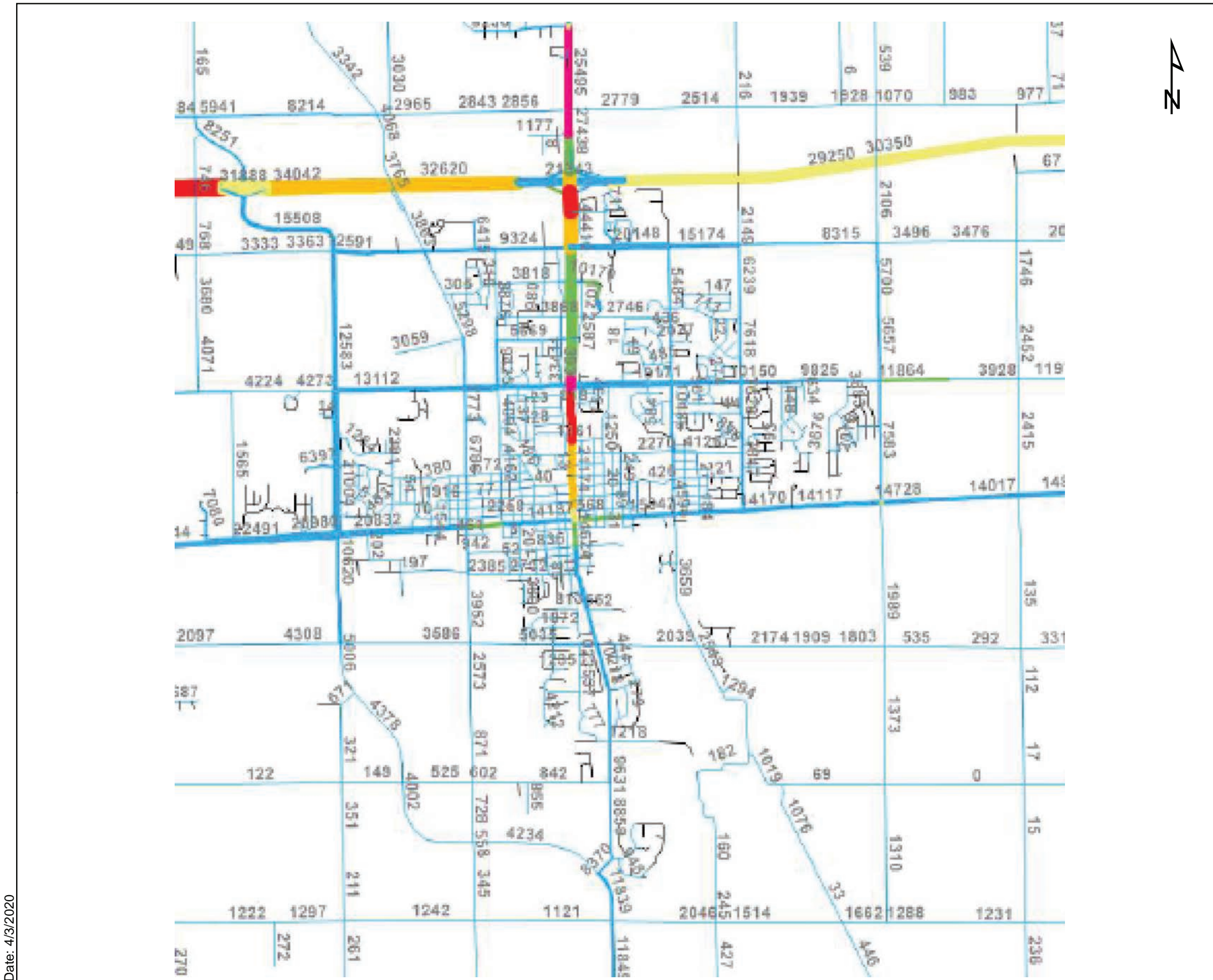


Date: 4/3/2020



**Map 14:
Scenario 3
2045 Peak LOS
With 8 Added
Capacity
Projects**

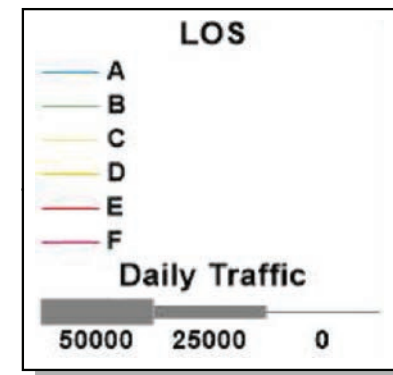


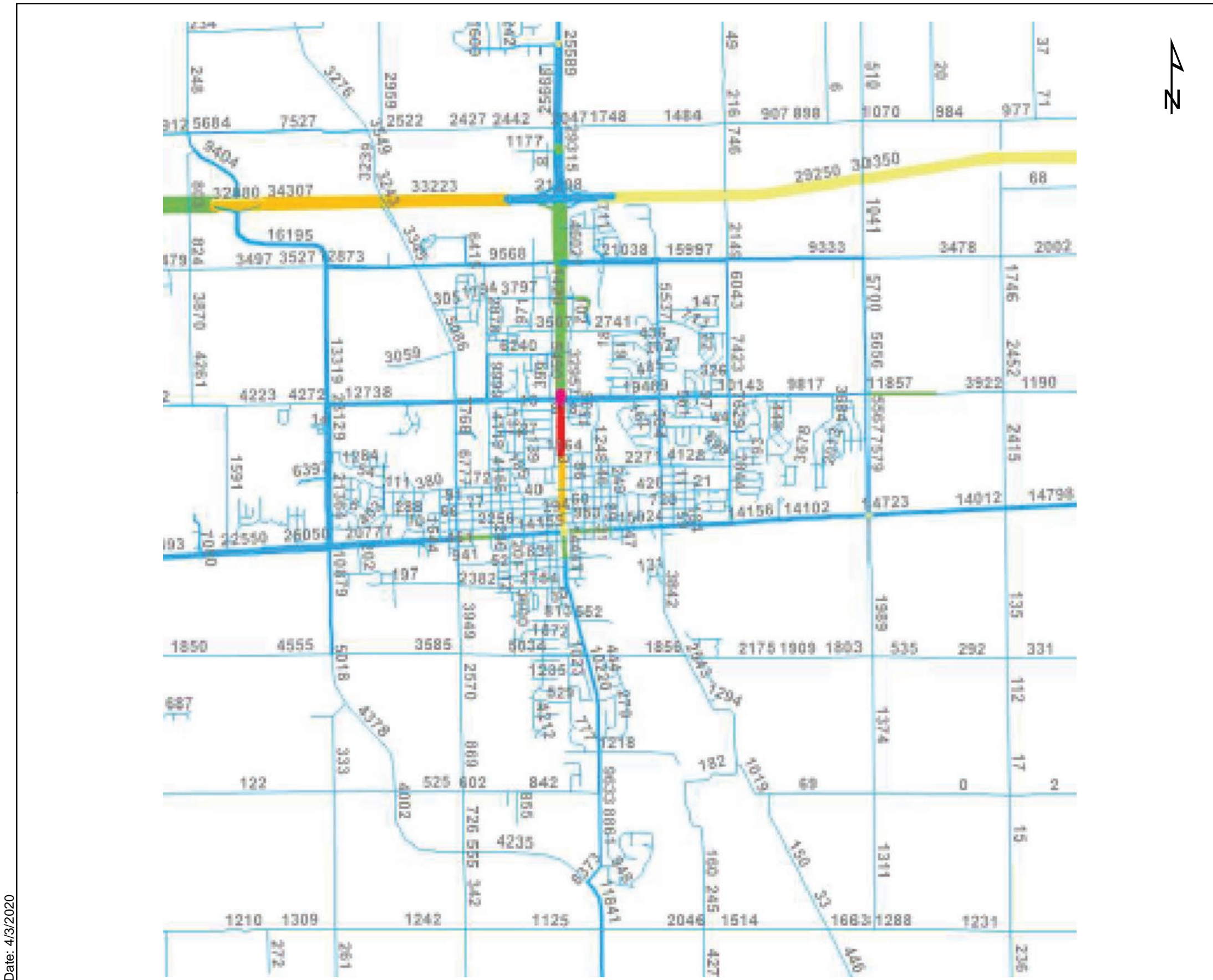


Date: 4/3/2020



**Map 15:
Scenario 4
2045 Peak LOS
With I-70
Interchange,
West Corridor,
and 8 Projects**

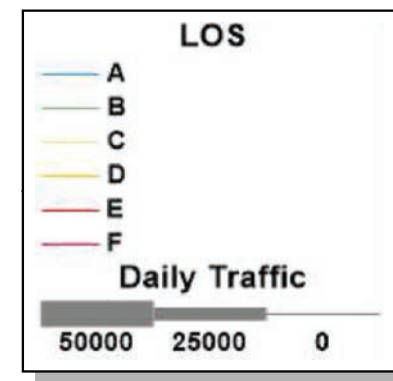




Date: 4/3/2020



**Map 16:
Scenario 5
2045 Peak LOS
Scenario 4
Plus INDOT
Improvements
to I-70 and
S.R. 9**



Overall, the model shows the following in 2045:

- New I-70 Interchange Only: This improvement helps to relieve some congestion along SR 9, but does not improve congestion across the City if no additional improvements are made because of the lack of a supporting roadway network to bring traffic to it.
- New I-70 Interchange + Alternate Route: The scenario improves congestion along SR 9, and does a better job of improving congestion across the City.
- 8 Additional Projects Only: Making only these improvements will prove relief along the roadway network where they are made. However, congestion along SR 9 will continue to worsen if only these improvements are made.
- New Interchange + Alternate Route + 8 Additional Project: This scenario provided the best results across the City. It removes all congestion along SR 9 with the exception of one segment near the existing I-70 interchange.

The model shows that the 8 Additional Projects should be constructed to help relieve congestion at various locations throughout the roadway network. In order to relieve congestion on SR 9, the model shows that the New I-70 Interchange and connecting Alternate Route need to be constructed. The results of the travel demand model were used to help determine and prioritize projects that improve congestion to the roadway network in Greenfield.

Detailed reports, maps, and data regarding the travel demand model can be found in the Appendix.

Developing Project Priority

The steering committee assisted in developing a scoring system used to help prioritize the proposed projects. Projects in each category were given points based on the various data sources and public input weight. For example, the most frequently nominated congested intersection received the highest points for that category, and the locations with the most crashes scored highest for safety. Some improvements got points in more than one category; for example, a road widening project that includes multi-use trail scores points for congestion relief and points for pedestrian/bicycle improvements.

Once each project was scored by category, the steering committee determined how much weight to give to each source: the data analysis, the public input, and the steering committee input. They determined that data analysis should comprise 65% of the total score, public survey 10%, and the steering committee 25%. In addition, the steering committee determined that safety projects should be weighted higher than congestion relief or active transportation projects.

Project List and Map

Two potential projects have an outsized impact on the rest of the city’s infrastructure needs: a new interchange with I-70 and an improved alternate route on the west side of the city. This route would connect the new interchange to S.R. 9 on the south side and be designed to accommodate commercial vehicles. These two projects are expensive and require extensive coordination with INDOT and Hancock County. With those projects constructed, there is less need for improvements along S.R. 9. However, if these projects are not constructed, then S.R. 9 will need upgrades to continue serving as the primary north-south route through Greenfield. As the result, there are two priority lists: one showing top improvements with the interchange and alternate route in place, and one without them.

The steering committee Top 20 priority projects are listed below, both with and without the proposed interchange and alternate route. The tables showing the complete project scoring are included in the Appendix.

TABLE 4 | TOP 20 PRIORITY PROJECTS WITHOUT INTERCHANGE AND ALTERNATE ROUTE

Rank	Jurisdiction	Location	Project Description
1	INDOT	S.R. 9 and McKenzie Road	Intersection Safety & Congestion
2	COG/HC	Fortville/Franklin and CR 300 North	Intersection Safety & Congestion
3	COG/HC	Franklin Street and Davis Road	Intersection Safety & Congestion
4	INDOT	S.R. 9 and New Road*	Intersection Safety & Congestion
5	COG/HC	Jaycie Phelps Drive and McKenzie Road	Intersection Safety
6	HC	Jaycie Phelps Drive and CR 300 North	Intersection Safety
7	INDOT	S.R. 9 and CR 300 South	Intersection Safety & Congestion
8	COG/HC	McKenzie Road from Meridian to Franklin	Widen & Trail
9	INDOT	S.R. 9 and Park Avenue	Intersection Safety & Congestion
10	COG/HC	McKenzie Road from Blue to Jaycie Phelps	Widen & Trail
11	COG/HC	Franklin Street and McKenzie Road	Intersection Safety & Congestion
12	COG	New Road from S.R. 9 to Apple Street	Widen & Trail
13	COG	Blue Road and McKenzie Road	Intersection Safety & Congestion
14	COG	McKenzie Road from Franklin to S.R. 9	Widen & Trail
15	INDOT	S.R. 9 and Green Meadow Blvd*	Intersection Safety
16	COG/HC	Meridian Road and McKenzie Road	Intersection Safety
17	COG/HC	Blue Road and New Road	Intersection Safety & Congestion
18	COG	McKenzie Road from Apple to Blue	Widen & Trail
19	COG	McKenzie Road from S.R. 9 to Apple	Widen & Trail
20	INDOT	S.R. 9 and I-70 EB Ramps	Intersection Safety

TABLE 5 | TOP 20 PRIORITY PROJECTS INCLUDING NEW INTERCHANGE AND ALTERNATE ROUTE

Rank	Jurisdiction	Location	Project Description
1	INDOT	S.R. 9 and McKenzie Road	Intersection Safety & Congestion
2	COG/HC	Fortville/Franklin and CR 300 North	Intersection Safety & Congestion
3	INDOT	S.R. 9 and New Road*	Intersection Safety & Congestion
4	COG/HC	Franklin Street and Davis Road	Intersection Safety & Congestion
5	INDOT	S.R. 9 and CR 300 South	Intersection Safety & Congestion
6	HC	Jaycie Phelps Drive and CR 300 North	Intersection Safety
7	COG/HC	Jaycie Phelps Drive and McKenzie Road	Intersection Safety
8	COG/HC	Blue Road and New Road	Intersection Safety & Congestion
9	COG	Blue Road and McKenzie Road	Intersection Safety & Congestion
10	COG/HC	McKenzie Road from Meridian to Franklin	Widen & Trail
11	COG/HC	Alternate Route from I-70 to S.R. 9 south	New Road & Trail
12	COG/HC	McKenzie Road from Blue to Jaycie Phelps	Widen & Trail
13	COG	New Road from S.R. 9 to Apple Street	Widen & Trail
14	COG	McKenzie Road from Franklin to S.R. 9	Widen & Trail
15	INDOT	S.R. 9 and Green Meadow Blvd*	Intersection Safety
16	COG/HC	Meridian Road and McKenzie Road	Intersection Safety
17	COG	McKenzie Road from Apple to Blue	Widen & Trail
18	COG	McKenzie Road from S.R. 9 to Apple	Widen & Trail
19	INDOT	S.R. 9 and Park Avenue	Intersection Safety & Congestion
20	INDOT	S.R. 9 and I-70 EB Ramps	Intersection Safety

Notes:

- INDOT = Indiana Department of Transportation
- COG = City of Greenfield
- HC = Hancock County
- *These intersections along S.R. 9 will be impacted by a 2020 safety project. They should be re-evaluated afterward to see if the planned project has adequately improved safety.
- S.R. 9 and U.S. 40 – This intersection was the subject of many citizen complaints, but the data does not indicate any need for improvements. There’s no way to improve the intersection without negatively impacting historic downtown buildings, so the steering committee agreed that no project should be pursued.
- U.S. 40 from Windswept to Franklin – Many people complained about the road diet completed by INDOT in 2019. Studies have shown this type of improvement can reduce crashes. INDOT will compare before-and-after crash statistics to determine whether this project was effective. The steering committee agreed that safety is the top priority, even if the project is unpopular. Therefore, “get rid of the bike lanes” was eliminated as a potential project.

The City of Greenfield will coordinate with INDOT and Hancock County regarding shared-jurisdiction projects. The city will focus its available funding on projects within their own jurisdiction. The top priority projects for the City of Greenfield are discussed further below.

For all projects, the estimated cost includes engineering, right of way, construction, and inspection costs. More detailed project scoping reports, including traffic studies for intersections, should be conducted to refine the project scope and evaluate alternative solutions. The rankings are shown "X/Y" for without/with the interchange and alternate route.



FORTVILLE PIKE/FRANKLIN STREET AND COUNTY ROAD 300 NORTH

Project Rank: 2/2

Estimated Total Project Cost: \$3-4 million

Project Description: This intersection is a two-way stop on a skewed alignment. There are both vertical and horizontal curves north of the intersection, and trees on the southeast corner, which may impact visibility. The intersection has a high crash rate and long delays on the stop approaches.

The recommendation is an intersection safety and capacity improvement, which could mean a roundabout or traffic signal. Overhead utilities are present along both streets. A signal could be constructed with limited right of way acquisition, while a roundabout would require more land. No structures would be affected by either improvement. Beckenholdt Park is on the southwest corner, which may require additional environmental study.



FRANKLIN STREET AND DAVIS ROAD

Project Rank: 3/4

Estimated Total Project Cost: Signal \$1.6 million

Roundabout \$3.5-4 million

Project Description: This intersection is a two-way stop in a mostly rural area. It had a high crash rate and long delays on the stop approaches.

The recommendation is an intersection safety and capacity improvement, which could mean a roundabout or traffic signal. Overhead utilities are present along both streets. Right-of-way acquisition will be necessary for any improvements. A potentially historic structure is located in the southeast quadrant, so shifting the alignment to the north and/or west is preferred.



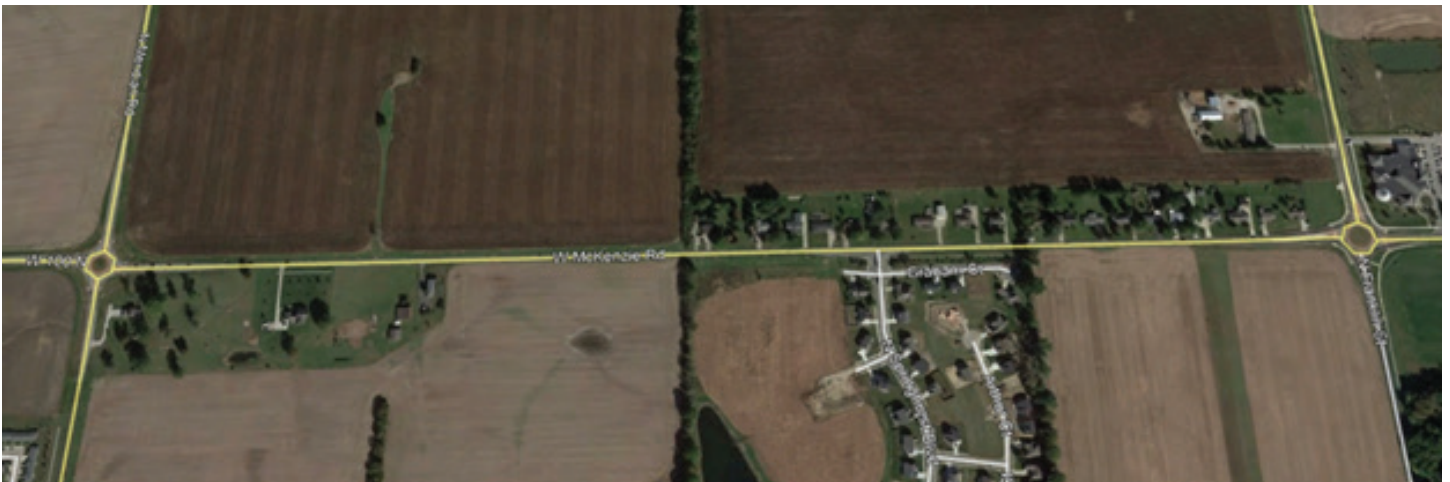
JAYCIE PHELPS DRIVE AND MCKENZIE ROAD

Project Rank: 5/7

Estimated Total Project Cost: \$3.5-4 million

Project Description: This intersection is a two-way stop in a fast-developing area. The primary concern is safety, as it has a high crash rate.

The recommendation is for a roundabout intersection to improve safety. Overhead utilities are present along both streets. Right-of-way acquisition will be necessary but shifting the intersection to the southwest may reduce costs.



MCKENZIE ROAD FROM MERIDIAN ROAD TO FRANKLIN STREET

Project Rank: 8/10

Estimated Total Project Cost: \$19 million

Project Description: This segment is 0.9 mile in length and is flanked by roundabout intersections at either end. The existing roadway is two lanes and about 20 feet wide. This section was nominated by steering committee members and the public as being too narrow and unsafe. There are numerous single-family homes along this stretch, and one subdivision entrance. A right-turn lane at the subdivision is the only auxiliary lane present. The travel demand model shows that capacity improvements on McKenzie Road would be very beneficial to the region.

The recommendation is to widen McKenzie Road to a three-lane urban section, including one travel lane in each direction, a center two-way left-turn lane, curb and gutter, and trails on both sides of the roadway. Where left turns aren't needed, the center turn lane can be replaced with a raised landscaped median. Overhead utilities are present along both sides of the street at the west end but limited to the south side from the subdivision to the east end of the segment. Widening primarily to the south will reduce the impact to the homes on the north side. This project also supports the city's Trails System Master Plan by including trails on both sides.



MCKENZIE ROAD FROM BLUE ROAD TO JAYCIE PHELPS DRIVE

Project Rank: 10/12

Estimated Total Project Cost: \$15.5 million

Project Description: This segment is 1.0 mile in length. The existing roadway is two lanes and about 21 feet wide. This section was nominated by steering committee members and the public as being too congested and a good potential route for pedestrian/bicycle infrastructure. A trail exists on the south side from near Little Brandywine Creek to near Jaycie Phelps Drive, adjacent to the Keystone Development, about 1550' in length. Also on the south side, there is sidewalk adjacent to other developments. There are a few single-family homes and one business adjacent to the road along this stretch, and three subdivision entrances on the south side of the street. Right-turn lanes are present at each of the subdivision entrances. There are overhead utility poles on the south side for part of the segment, and a few service poles on the north side. The travel demand model shows that capacity improvements on McKenzie Road would be very beneficial to the region.

The recommendation is to widen McKenzie Road to a three-lane urban section, including one travel lane in each direction, a center two-way left-turn lane, curb and gutter, and trails on both sides of the roadway. Where left turns aren't needed, the center turn lane can be replaced with a raised landscaped median. Widening appears to be feasible to the north, south, or to both sides of the street. There may be rights of way dedicated along much of the south side adjacent to newer developments. This project also supports the city's Trails System Master Plan by including trails on both sides.



FRANKLIN STREET AND MCKENZIE ROAD

Project Rank: 11/25

Estimated Total Project Cost: \$150,000-\$3 million

Project Description: This single-lane roundabout was constructed in 2010. Data shows the intersection may be reaching capacity as the area continues to grow and develop. A traffic study should be conducted to determine what improvements would be most cost-effective, such as adding right-turn slip lanes, or reconstructing approaches and the circulating roadway.



NEW ROAD FROM S.R. 9 TO APPLE STREET

Project Rank: 12/13

Estimated Total Project Cost: \$10 million

Project Description: This total segment length is 0.7 mile. The western portion from S.R. 9 to Martindale Drive has already been improved with turn lanes at the shopping center entrances. That leaves a segment of about 0.4 mile to be widened, including a bridge over Brandywine Creek. The existing roadway is two lanes. This section was nominated by steering committee members and the public as being too congested and a good potential route for pedestrian/bicycle infrastructure. There are overhead utility poles on the south side for about half of the length, then poles on the north side for the rest. The travel demand model shows that capacity improvements on New Road would be beneficial to the region.

The recommendation is to widen the remaining 0.4-mile segment of New Road to a three-lane urban section, including one travel lane in each direction, a center two-way left-turn lane, curb and gutter, and trails on both sides of the roadway. The trails should be extended to S.R. 9 to complete the segment. Where left turns aren't needed, the center turn lane can be replaced with a raised landscaped median. This project also supports the city's Trails System Master Plan by including trails on both sides.



BLUE ROAD AND MCKENZIE ROAD

Project Rank: 13/9

Estimated Total Project Cost: \$3.5-4 million

Project Description: This intersection is an all-way stop with residential development in three quadrants and agriculture in the fourth quadrant. JB Stephens Elementary School is located 0.25 mile to the north on Blue Road. The primary concern is congestion, as mentioned by the public and backed up by traffic data.

The recommendation is for a roundabout intersection to improve both congestion and safety. Overhead utilities are present along the west side of Blue Road. Right-of-way acquisition will be necessary but shifting the intersection to the northeast may reduce costs.



MCKENZIE ROAD FROM FRANKLIN ROAD TO S.R. 9

Project Rank: 14/14

Estimated Total Project Cost: \$13.3 million

Project Description: This segment is about 0.65 mile in length, excluding the roundabout intersection at Broadway Street. The existing roadway is two lanes wide. This section was nominated by steering committee members and the public as being too congested and a good potential route for pedestrian/bicycle infrastructure. Sidewalks are present on portions of the segment. The adjacent land is heavily developed with single-family homes and subdivision entrances lining the street. Overhead utility poles are mostly limited to the section between Broadway Street and Franklin Road. The travel demand model shows that capacity improvements on McKenzie Road would be very beneficial to the region.

The recommendation is to widen McKenzie Road to a three-lane urban section, including one travel lane in each direction, a center two-way left-turn lane, curb and gutter, and trails on both sides of the roadway. Where left turns aren't needed, the center turn lane can be replaced with a raised landscaped median. This project also supports the city's Trails System Master Plan by including trails on both sides.



MERIDIAN ROAD AND MCKENZIE ROAD

Project Rank: 16/16

Estimated Total Project Cost: TBD

Project Description: This intersection is a single-lane roundabout built in 2011. The primary concern is safety, as documented by a history of crashes.

The recommendation is to review the roundabout geometrics and the crash history to determine what is the primary cause of crashes and how to reduce their frequency.



BLUE ROAD AND NEW ROAD

Project Rank: 17/8

Estimated Total Project Cost: \$3.5-4 million

Project Description: This intersection is a two-way stop. Traffic data indicates congestion for the stop approaches and a moderate crash history.

The recommendation is for a roundabout intersection to improve both congestion and safety. Overhead utilities are present along both streets. Right-of-way acquisition will be necessary but shifting the intersection to the north may reduce costs.



MCKENZIE ROAD FROM APPLE ROAD TO BLUE ROAD

Project Rank: 18/17

Estimated Total Project Cost: \$7.3 million

Project Description: This segment is 0.5 mile in length. The existing roadway is two lanes with right-turn lanes at intersections. This section was nominated by steering committee members and the public as being too congested and a good potential route for pedestrian/bicycle infrastructure. Sidewalks are present on both sides for about 90% of the segment. Residential development lines the corridor along with Park Chapel Christian Church at the west end. Utilities are mostly underground between the sidewalk and edge of pavement. The travel demand model shows that capacity improvements on McKenzie Road would be very beneficial to the region.

The recommendation is to widen McKenzie Road to a three-lane urban section, including one travel lane in each direction, a center two-way left-turn lane, curb and gutter, and trails on both sides of the roadway. Where left turns aren't needed, the center turn lane can be replaced with a raised landscaped median. Widening appears to be feasible to both sides of the street. There may be rights of way dedicated along the newer developments. This project also supports the city's Trails System Master Plan by including trails on both sides.



MCKENZIE ROAD FROM S.R. 9 TO APPLE ROAD

Project Rank: 19/18

Estimated Total Project Cost: \$17.8 million

Project Description: This segment is 0.7 mile in length, including a bridge over Brandywine Creek. The existing roadway is two lanes. This section was nominated by steering committee members and the public as being too congested and a good potential route for pedestrian/bicycle infrastructure. Sidewalks are present along the south side and a small segment of the north side of the street. Residential development lines the corridor with commercial uses at the far west end. Utilities are mostly underground between the sidewalk and edge of pavement. The travel demand model shows that capacity improvements on McKenzie Road would be very beneficial to the region.

The recommendation is to widen McKenzie Road to a three-lane urban section, including one travel lane in each direction, a center two-way left-turn lane, curb and gutter, and trails on both sides of the roadway. This project also supports the city's Trails System Master Plan by including trails on both sides.

I-70 NEW INTERCHANGE AND ALTERNATE ROUTE

Project Rank: NA/11

Estimated Total Project Cost: Interchange \$38 million; Alternate Route varies

Project Description: These two projects are most effective when implemented together, starting with upgrades to the existing roadway network to create the alternate improved route, while planning for the interchange. The proposed interchange would be located in the vicinity of CR 100W, which is sufficiently far from both S.R. 9 and Mt. Comfort Road existing interchanges. The Alternate Route would be a combination of upgraded existing roads connecting the interchange to New Road, McKenzie Road, U.S. 40, and south S.R. 9. North of I-70, it would connect to County Road 300 North. The Alternate Route would be designed to accommodate commercial truck traffic and draw trucks away from the historic downtown area, along with relieving congestion on S.R. 9. There are safety benefits as well, according to the Travel Demand Model. The Alternate Route construction would include trails on both sides of the roadway in support of the city's Trails System Master Plan. The Travel Demand Model shows a significant impact to local streets by providing this alternate route between I-70 and the west/south sides of Greenfield.

Complete Streets Policy

Introduction

A complete street is a roadway that is designed and operated to enable safe, comfortable, and convenient access for all users, of all ages and abilities, regardless of their mode of transportation. This includes motorists, pedestrians, bicyclists, delivery and freight, transit, and emergency responders.

This Complete Streets Policy will provide high-level direction to city staff as they plan for and oversee the design, construction, operation, and maintenance of streets and right of way within Greenfield.

Vision and Intent

The City of Greenfield shall work to create an integrated, complete, and connected roadway network that provides accommodations for all roadway users of all ages and abilities. This includes motorists, pedestrians, bicyclists, delivery and freight, transit, and emergency responders.

By creating this network of complete streets, the City of Greenfield aims to improve the safety of the transportation network for all users, enable the community to lead healthier lifestyles, provide the opportunity to choose alternative means of transportation, and reduce/eliminate costs associated retrofitting existing infrastructure.

Commitment in All Projects and Phases

Every transportation project, including new construction and reconstruction, shall be viewed as an opportunity to implement this Complete Streets Policy. Complete streets should be considered during all phases of the project lifecycle including planning, design, construction, operation, and maintenance.

Jurisdiction

This Complete Streets Policy shall apply to all city-owned transportation facilities within city right of way as well as privately constructed streets and parking lots. Projects shall be designed, constructed, operated, and maintained in accordance with this Complete Streets Policy.

Exceptions

Any exception to this policy must be documented in writing, contain supporting data, and receive written approval from the City of Greenfield Department of Engineering and Planning. The following exceptions may be considered for approval.

- Along any roadway where specified users are prohibited by law (such as an interstate).
- For ordinary maintenance activities including, but not limited to, mowing, sweeping, or pothole repair.
- For pavement maintenance activities that do not alter the existing geometric layout of the roadway including, but not limited to, patching, mill and overlay, or crack sealing.
- Where the application of complete streets would create a prohibitive undue cost burden.
- Available data, city plans, or other means indicate an absence of current or future need.
- A reasonable equivalent alternate along the same corridor already exists.
- Where there are extreme topographic, natural resource, or property acquisition constraints.
- For emergency repairs (i.e. a water main break).

Design

The city shall follow the latest accepted design standards per industry best practices. The city shall continually work to ensure internal design policies and standards reflect current industry best practices.

Land Use and Context Sensitivity

In order to be effective, a complete street should be sensitive to the surrounding land use. This may include current/future zoning, current/planned buildings, historic properties, nearby schools, parks, trails, and sidewalks, and the surrounding street network.

In recognition of context sensitivity, public input and the needs of many users, a flexible, innovative and balanced approach that follows other appropriate design standards may be considered, provided that a comparable level of safety for all users is present.

Performance Measures

To ensure the success of this Complete Streets Policy, the City of Greenfield may monitor data of the following metrics. The below list is not an exhaustive list of the metrics the city may consider monitoring.

- Total length of pedestrian/bicycle facilities (i.e. trails and sidewalks).
- Percentage of curb ramps compliant with the American's with Disabilities Act (ADA).
- Rate of crashes, injuries, and fatalities by mode.
- The percentage of annual spending used for crosswalk and intersection improvements.

Implementation Steps

In order to ensure that this Complete Streets Policy is implemented, the city shall take the following steps:

- Integrate complete streets into all future city planning documents, manuals, regulations, and design standards. This shall include when current documents are updated.
- Review existing city planning documents, manuals, regulations, and design standards to ensure they support this Complete Streets Policy.
- Encourage professional development and training of city staff regarding complete streets.
- Foster relationships with neighboring governmental entities to promote complete streets on roadways beyond Greenfield's jurisdictional control. Neighboring governmental entities include Hancock County, the Indianapolis Metropolitan Planning Organization, and the Indiana Department of Transportation.
- Provide educational opportunities to the community to ensure that all users of the transportation network understand and can safely use complete street elements.



Appendix

References

Steering Committee Meeting
Minutes and Input Exercise Results

Community Night Out

Riley Festival Content

Travel Demand Model

Public Survey Content

Project Scoring

Additional Maps

References

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Greenfield Thoroughfare Plan Steering Committee #1 Meeting Minutes 7/8/2019



1. Introductions

- a. The meeting began at approximately 3:30 PM with the following people in attendance:
 - i. Jason Koch City Engineer; City of Greenfield
 - ii. Jenna Wertman Associate Planner; City of Greenfield
 - iii. Kelly McClarnon Board of Works and Public Safety; City of Greenfield
 - iv. Kerry Grass City Council; City of Greenfield
 - v. Ellen Kuker Greenfield Parks and Recreation Superintendent
 - vi. Tyler Rankins Street Commissioner; City of Greenfield
 - vii. Joanie Fitzwater Zoning Administrator; City of Greenfield
 - viii. Steve Long Hancock Health
 - ix. Ron Pritzke Pritzke & Davis
 - x. Gary A. McDaniel City Council; City of Greenfield
 - xi. Michael Fruth Director of Utilities; City of Greenfield
 - xii. Mike Terry Greenfield BZA and Plan Commission
 - xiii. Jill Palmer Shrewsberry & Associates
 - xiv. Mark St. John Shrewsberry & Associates
 - xv. Dean Munn Convergence Planning
- b. Shrewsberry & Associates, LLC of Indianapolis was introduced by Jason Koch as the prime consultant for the thoroughfare plan update.
- c. Shrewsberry also has Convergence Planning of Indianapolis as a subconsultant on this project. Convergence Planning will be focusing on modeling existing and future traffic conditions within the City of Greenfield.

2. What is a Thoroughfare Plan?

- a. Jason Koch explained to the Steering Committee that a thoroughfare plan is a specific component of the comprehensive plan that focuses on the transportation system.
 - i. A goal of Greenfield's 2015 Comprehensive Plan was to update the thoroughfare plan.
 - ii. A thoroughfare plan is used as a long-term planning tool to set policies and priorities for future transportation related improvements.
 - iii. A thoroughfare plan should cover all modes of transportation including cars, freight, pedestrians, and bicycles.
- b. Jill Palmer stated that many transportation improvement projects start out on a thoroughfare plan.
- c. Jill Palmer identified several major transportation related improvements that have occurred in the last 10 years that were on the previous thoroughfare plan.

- i. These projects included a bridge over I-70 and multiple roundabouts across the City.
 - ii. Of the 13 projects identified in the 2019 Thoroughfare Plan, about half have been accomplished.
- d. Jill Palmer explained to the Steering Committee that part of the planning process is data driven. Various data sources will be used to help prioritize transportation projects.
 - i. These sources will include data on crash history, traffic volumes, City growth, previous City, County, and State traffic related studies, and congestion.
- e. In addition to being data driven, Jill Palmer explained that the thoroughfare plan will also focus on input from the public.
 - i. The Steering Committee is a part of the public input process. Steering Committee members were selected by the City for the type of input and expertise they can bring to the planning process.
 - ii. The thoroughfare plan will also provide a chance for input from the general public in the form of various public meetings, open houses, and surveys.
- f. Shrewsberry stated that the thoroughfare plan will include the following elements:
 - i. A 2029 Thoroughfare Classification Map that will create a hierarchy of roads across Greenfield.
 - ii. Set out right-of-way requirements for different classifications of roads.
 - iii. A project priority list. This list will help Jason Koch and the City of Greenfield obtain monies from various funding sources.
 - iv. Cross sections for various roadway classifications. These cross sections will set the tone of what roadways in the City of Greenfield will look like into the future.

3. Project Area

- a. The City of Greenfield identified the study area as the City's 30-Year Planning Boundary. By setting the study area outside of current city limits the City can control how transportation improvements occur should future areas of the County be annexed into Greenfield.
- b. Shrewsberry stated that the roads and intersections studied will primarily be those that occur on federally classified roads.
 - i. These roadways are the ones most heavily used by the community.
 - ii. These roadways are also the ones that are eligible for federal funding opportunities.
- c. Jill Palmer explained that roads currently controlled by INDOT, such as Main Street (US 40) or State Street (SR 9) will also be included on the thoroughfare plan.
 - i. Being able to provide the State with factual and study-based evidence for improvements can help to improve the City's ability to have INDOT make changes to their roadways.
 - ii. It also ensures the City is prepared should they decide to have INDOT relinquish these roadways to them in the future.

4. Input Exercise

- a. Jill Palmer asked the Steering Committee the general question; what do you hope to see this thoroughfare plan accomplish? The Steering Committee provided the following responses:
 - i. More roundabouts.
 - ii. Trail additions, improvements, and infill.
 - iii. To set the tone for developers. Especially regarding the required amount of right-of-way.
- b. Shrewsberry next ran a map exercise with the Steering Committee. Each Steering Committee member was provided with a map of the City of Greenfield and asked to markup the map as follows:
 - i. Red to show areas the Steering Committee member feels have congestion.
 - ii. Blue to show areas the Steering Committee member feels are unsafe.
 - iii. Green to show areas the Steering Committee member feels have pedestrian and bicycle needs.
 - iv. Black to show areas the Steering Committee member feels have been positive improvements/accomplishments the City has made to the existing transportation network.
- c. Shrewsberry will combine these responses and present them to the Steering Committee at a future Steering Committee meeting. Shrewsberry will also use these responses to identify areas to focus our planning efforts on.

5. Project Schedule

- a. Jill Palmer informed the Steering Committee that there will be three more Steering Committee meetings. The exact schedule for these meetings has not yet been identified.
 - i. Jason Koch added that he will send out another Doodle Poll to identify the best times/dates for the Steering Committee to meet.
 - b. Jill Palmer stated that the thoroughfare plan process will also include two public meetings.
 - c. Jason Koch added that he plans to complete the planning process for the thoroughfare plan before the end of the year. Adoption of the thoroughfare plan will likely occur in early 2020.
 - d. Jill told the Steering Committee that the next meeting will discuss the 2029 thoroughfare plan's goals. To prepare for that she read the Steering Committee the transportation goal of the 2015 Comprehensive Plan.
 - i. Continue to provide and enhance the travel network to allow safe and efficient transportation for motorists, cyclists, and pedestrians.
6. The floor was opened to the Steering Committee for any general questions. No questions were asked at this time.
7. The meeting ended at approximately 4:10 PM.



Greenfield Thoroughfare Plan

Steering Committee #2
8/7/2019



1. The meeting began at approximately 3:00 PM with the following people in attendance:
 - a. Jason Koch City Engineer: City of Greenfield
 - b. Steve Long Hancock Health
 - c. Ron Pritzke Pritzke & Davis
 - d. Gary A. McDaniel City Council; City of Greenfield
 - e. Mike Terry Greenfield BZA and Plan Commission
 - f. Steve Foreman Citizen
 - g. Harold Olin Greenfield-Central Community School Corp.
 - h. Jill Palmer Shrewsberry & Associates
 - i. Mark St. John Shrewsberry & Associates
 - j. Dean Munn Convergence Planning

2. Dean Munn with Convergence Planning began the meeting with a slideshow presentation on how the process to create the traffic demand model for the City of Greenfield works.
 - a. Dean stated that a travel demand model will identify the specific needs of the transportation network and community.
 - b. Dean explained that a travel demand model works by:
 - i. Using existing traffic volumes on the roadway network that are taken from a variety of sources including INDOT historical traffic data and City of Greenfield traffic counts.
 - ii. Determining future trips that will be added to the network based off of future land use.
 - iii. The model will then be adjusted based on proposed improvements.
 - c. Dean explained that the road network in the model is based off of public road centerlines. The model also takes into account the number of lanes, functional classification, speed, and intersection control.
 - d. The travel demand model will extend well outside of thoroughfare plan's study area and incorporate most of Hancock County. This is done to better accommodate where trips are generated from.
 - e. Dean showed that current land use was summarized at the US Census Bureau block level.
 - i. Using the Census Bureau blocks also allows the model to incorporate Census Bureau data such as population, employment, school enrollment, and income.
 - f. Dean explained that future land use was assigned to the model based on the City of Greenfield's Comprehensive Plan and Future Land Use Map. Trips are created for future land use based on trip generation methods outlined by the Institute for Transportation Engineers (ITE).

- g. Dean stated that the schools have a large impact on the travel demand.
 - h. Dean described how growth will be assigned to the model from a variety of sources:
 - i. Dean reviewed the Indianapolis Metropolitan Planning Organization’s (MPO) travel demand model which he believes shows too high of a rate of growth that needs to be corrected for Greenfield’s purposes.
 - ii. Dean recommended using the Woods & Poole (W&P) Forecast as the source for future growth.
 - This is the same data source that INDOT uses for their traffic forecasting.
 - This data is taken at a county-wide level. Convergence Planning will need to assign the data down to a level that is more specific to the travel demand model for Greenfield.
 - Steve Long with Hancock Health stated that the hospital has also reviewed future county growth, and that their numbers are more in line with the values Dean was proposing. Steve asked Dean Munn if he could receive copies of the data for review.
 - Harold Olin also agreed that, in general, the school’s growth projections for their school corporation area is more in line with the numbers Dean is proposing.
 - iii. Dean stated that it was important to have the buy in of Steering Committee members and City staff on using the W&P Forecasts.
 - There was a general consensus that it would be appropriate to use the W&P Forecasts.
 - i. Convergence Planning will also review this data against the growth data that was used for the Park Impact Fee.
 - j. Dean stated that he will provide the numbers and trend data for everyone to review.
 - k. Dean also added that the travel demand model can be run for different growth scenarios.
 - i. Jason Koch stated that he likes the idea of a sensitivity analysis.
3. Mark St. John presented the analysis of the existing traffic data that Shrewsberry has performed to date.
- a. Mark explained that this data analysis is one of the tools that is used in the thoroughfare planning process to identify road segments with safety and/or congestion concerns. These areas of concerns are turned into a priority project list for the City.
 - b. Mark stated that the Steering Committee should understand the following in regard to the data analysis:
 - i. The study area has been set as the City’s 30-Year Planning Boundary. This allows for the City to be prepared for growth.
 - ii. The study roads are all roadways that are currently federally classified roadways.

- iii. The data presented to the Steering Committee is preliminary. This data will be refined and may change when presented in the final thoroughfare plan report.
 - c. Mark St. John presented the Steering Committee with a map of 2018 Annual Average Daily Traffic (AADT). The values on this map represent the number of vehicles on a roadway segment on any average day of the year.
 - i. Mark added that these counts were taken from INDOT historical traffic data, and Greenfield traffic counts.
 - ii. This traffic volume data has been shared with Convergence Planning so that both Shrewsbury and Convergence are working from the same base set of data.
 - iii. This traffic volume data is the basis of all of the traffic data analysis that follows.
 - d. Mark next presented a map showing intersections that are currently experiencing congestion. Mark explained that this was determined from a high-level analysis using methodologies outlined in the Highway Capacity Manual (HCM).
 - i. A discussion was had by the Steering Committee regarding this map.
 - The Steering Committee was surprised that the intersection of Davis Road and Franklin Street, Davis Road and Meridian Road, and Apple Street and New Road experience congestion.
 - The Steering Committee was surprised that the intersections of Broadway Street and New Road, and McKenzie Road and State Street did not show up on the congestion map.
 - ii. Mark St. John stated that the analysis reviews each leg of the intersection. It is possible that only the minor street approach experiences congestion.
 - iii. Shrewsbury will review the results of the capacity analysis at these locations.
 - e. The next map presented by Mark showed the total crashes per study intersection.
 - i. Mark explained that this map used crash data collected from the statewide crash reporting system ARIES and includes the years 2015 to 2018.
 - ii. A discussion was had by the Steering Committee regarding this map.
 - In general, the Steering Committee felt that this map was indicative of crashes in Greenfield.
 - The Steering Committee added that raised medians were recently constructed at State Street and New Road.
 - f. The third map presented to the Steering Committee was the crash rate map.
 - i. Mark explained that if an intersection has a higher volume of traffic entering it, it will likely have a higher number of crashes.
 - ii. To account for this, Shrewsbury calculated how many crashes would occur at an intersection if every intersection in the City had the same amount of entering traffic (in this case 1 million vehicles).
 - iii. Mark pointed out how many of the high crash locations shown on the total crashes map were along the heavily traveled State Street corridor. However,

on the crash rate map there are several other intersections (not on that corridor) that show a high rate of crashes.

- iv. A discussion was had by the Steering Committee regarding this map.
 - The Steering Committee was surprised that the intersections along McKenzie Road that are roundabouts have a higher crash rate.
 - The Steering Committee stated that the flashing yellow arrow installed at State Street and New Road is confusing to drivers.
 - It was pointed out that the intersection of CR 300 N and State Street has had a temporary signal placed at it by INDOT in the last year. This will likely reduce the crash rate at this intersection.
- g. The final map Mark presented to the Steering Committee was a map of crash severity.
 - i. This map showed how often each of the following crash types occurred at each study intersection.
 - Property Damage Only (PDO) crashes.
 - Injury/Fatal crashes.
 - ii. Mark St. John noted that knowing what type of crash occurs at intersection can help in identifying appropriate improvements at that location.
 - iii. A discussion was had by the Steering Committee regarding this map.
 - The Steering Committee noted how roundabout intersections showed a lower rate of injury/fatal crashes. Mark stated that this is common in roundabouts due to lower circulating speeds and reduced number of conflict points.
 - The intersection of New Road and Franklin Street was described by the Steering Committee as dangerous due to the location of a utility pole within one on the splitter islands.

4. Jill Palmer next explained roadway functional classifications to the Steering Committee.

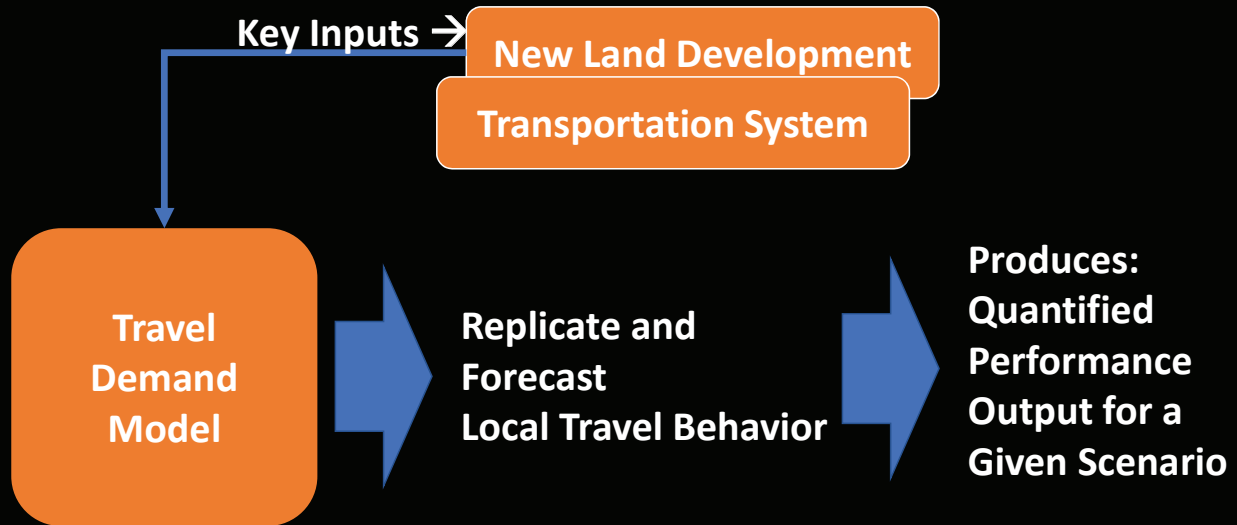
- a. Jill explained that roadway classifications come from the Federal Highway Administration (FHWA) and categorize roadways based on their accessibility and mobility.
 - i. Freeways – have high mobility and travel speeds. However, they have a low number of access points.
 - ii. Arterials – have high mobility with few access points. These are often state routes that run through towns.
 - iii. Collectors – “collect” traffic from lower classified roads and circulates it to higher classified roads.
 - iv. Local Roads – roads with high access and low mobility. These best visualized by thinking of neighborhood roads.
- b. Jill showed the Steering Committee a map of roads that are currently on the federal classification system. These are the roadways that are eligible to receive federal funding for improvements.
- c. Jill then compared this map to the 2007 Thoroughfare Map from the 2007 Thoroughfare Plan.

- i. This map shows slightly different classifications from the federally classified roads. This is something a thoroughfare plan allows for a city to do and provides Greenfield with the flexibility to have roads within their transportation network look and act how they desire.
 - These Greenfield classifications are assigned cross sections. Cross sections will show how a roadway should look in regard to width, landscaping, medians, on-street parking, pedestrian/bike facilities, etc.
 - ii. This map also shows roads not currently federally classified, future roads, and possible connections. This helps the City of Greenfield plan for the future.
 - d. Jill asked for the Steering Committee members to review both of these maps prior to the next Steering Committee meeting, and to be prepared to discuss how they envision the 2019 Thoroughfare Map will look.
5. Jill discussed the idea of context zone with the Steering Committee.
 - a. Jill explained that two roadways can have the same classification, but two very different appearances. For example, a roadway that is classified as a collector in downtown Greenfield will appear very different from a roadway a roadway that is classified as a collector in the rural areas of Hendricks County.
 - b. Jill explained that context zones can help to reconcile this difference and provide more cross section options for the City to use.
 - c. Jill proposed the following context zones for the City of Greenfield:
 - i. Urban – will be used within historic downtown Greenfield. Space and right of way are limited and roads will often have to make do with the space that is there.
 - ii. Countryside – will be used in areas that will remain mostly undeveloped. Roads in this context zone may have no sidewalk/trails and may have open shoulders and roadside ditches
 - iii. Suburban – will be used everywhere else in Greenfield. The appearance of these roads will fall somewhere between the urban and countryside context zones.
 - d. Jill stated that she would like to discuss the idea of context zones further when City planning staff are present.
 - e. Jill asked that the Steering Committee members keep these context zones in mind when they are thinking about the 2019 Thoroughfare Map.
6. The meeting ended at approximate 4:30 PM.

Travel Demand Modeling Overview

Greenfield Thoroughfare Plan
Steering Committee #2
August 7, 2019

Travel Demand Models are Useful for Evaluating Scenarios



Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



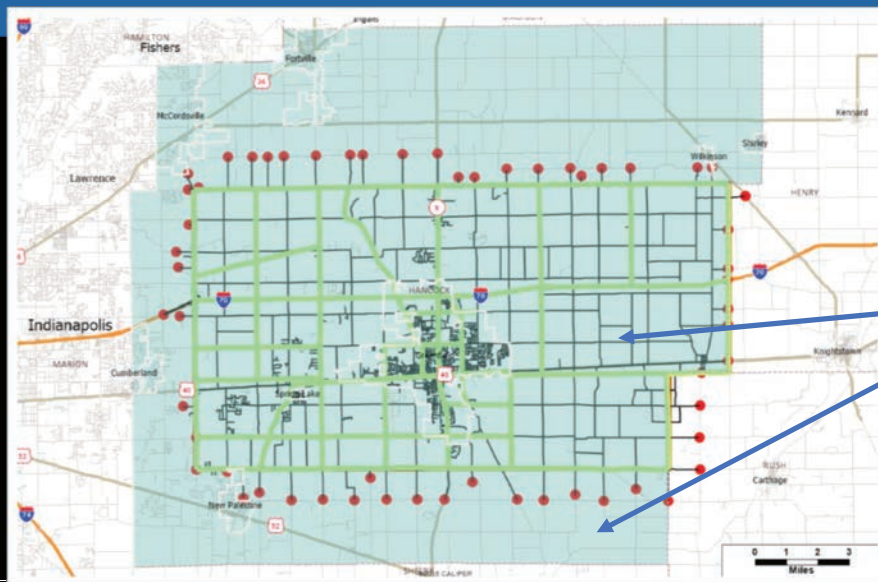
Elements of Travel Demand Models Development

- Design model to cover the appropriate area with the right level of detail
- Represent roadways and code with key data
- Represent land use via Traffic Analysis Zones (TAZ)
- Code each TAZ with number of households and employment by sector
- Develop trip generation and trip attraction functions for households and employment
- Trip Distribution, connect trips from where they are generated to where they are attracted
- Mode Share, identify percentage of trips to each destination that are auto, transit, non-motorized
- Traffic Assignment, each trip finds it's way through the network based on dynamic travel times that vary by amount of traffic vs the roadway capacity
- Calibrate each step above until the model closely replicates observed traffic
- Process calibrated or forecasted outputs into performance measures
- Automate the entire modeling process so that it runs with a graphical user interface

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Model Coverage Area

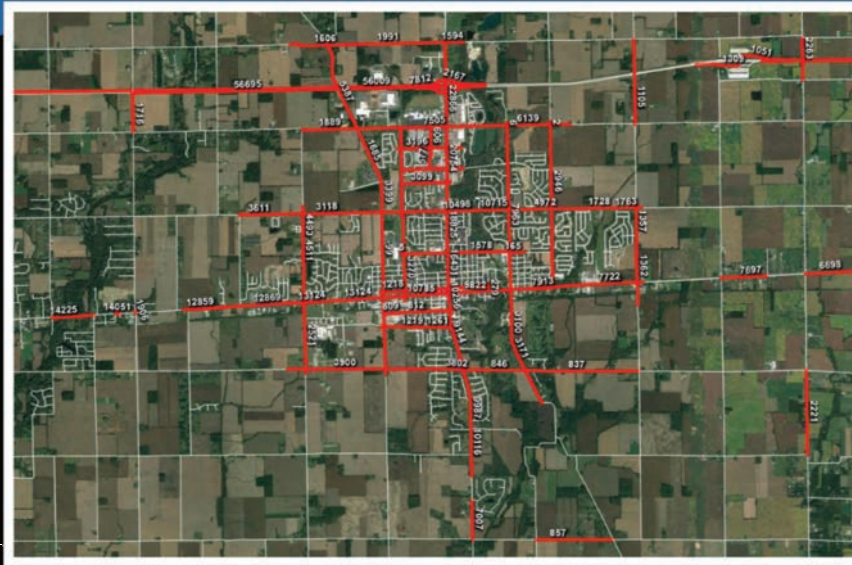


Modeled Area
Hancock County

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Travel Demand Models Network Detail

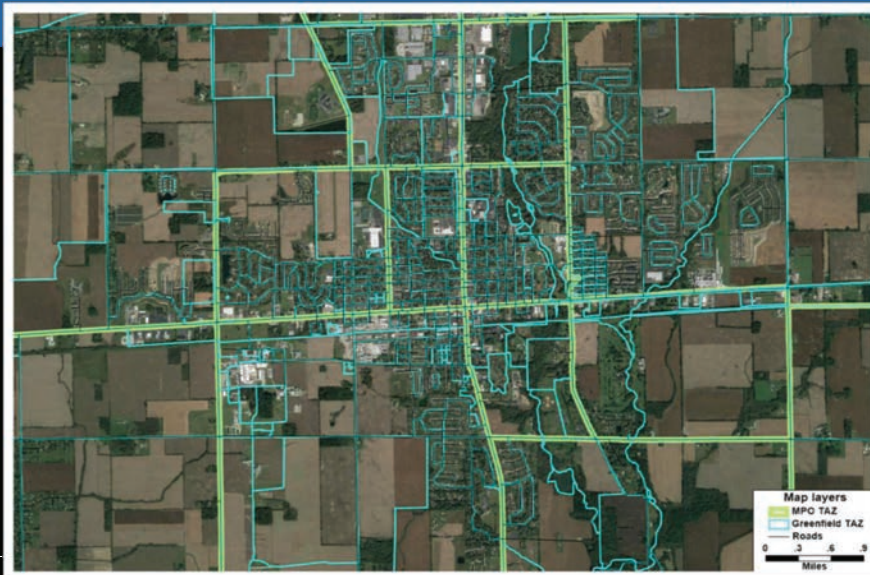


- Uses all roads
- No. of Lanes
- Speed
- Functional Class
- Signals
- Traffic Counts
- Etc.

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Travel Demand Model Land Use Detail



- Housing Units
- Workers
- Auto Ownership
- Income
- Employment
- School Enrollment

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Land Use Forecast

- Control Totals Normally from MPO Forecast
- Growth Allocation Models Calibrated for:
 - Housing
 - Retail Employment
 - Service Employment
 - Basic Employment (mostly industrial/light industrial)

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



MPO Land Use Forecast

Hancock County MPO Forecast			
YEAR	2015	2045	Net Gain
POP	78,802	148,893	70,091
HH	29,302	55,365	26,063
EMPL	23,015	88,726	65,711

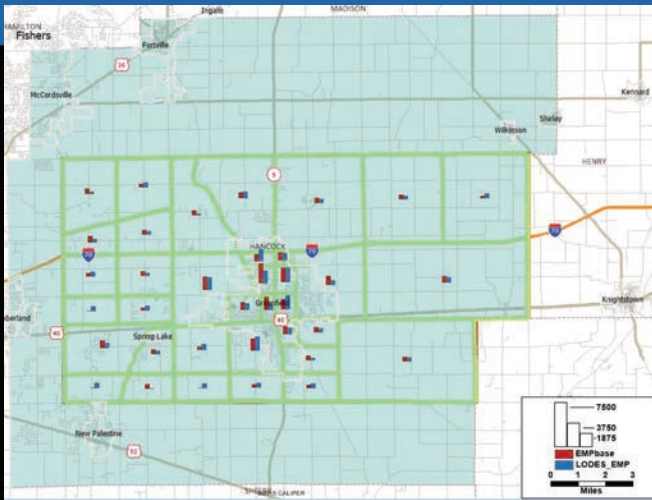
Greenfield Area MPO Forecast			
YEAR	2015	2045	Net Gain
POP	36,439	68,937	32,498
HH	15,203	25,945	10,742
EMPL	16,768	54,189	37,421

- These are not realistic values
- The MPO info contains several known errors

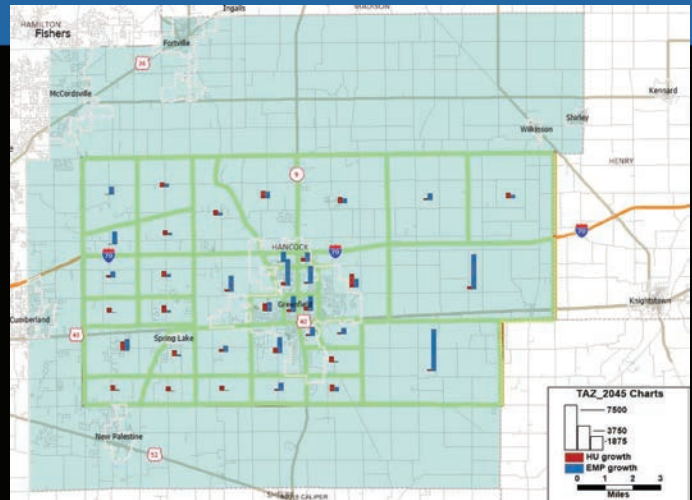
Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



MPO Land Use Forecast



• Base Year Employment Incorrect Total and Locations



• 2045 Employment Incorrect Locations

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Recommended Control Total Forecast

Hancock County MPO Forecast			
YEAR	2015	2045	Net Gain
POP	78,802	148,893	70,091
HH	29,302	55,365	26,063
EMPL	23,015	88,726	65,711

County W&P Forecast			
YEAR	2015	2045	Net Gain
POP	72,520	104,406	31,886
HH	28,579	40,266	11,687
EMPL	32,134	47,999	15,865

Proposed Greenfield Study Area Forecast			
YEAR	2015	2045	Net Gain
POP	36,439	52,461	16,022
HH	15,104	21,321	6,217
EMPL	15,252	23,531	8,279

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Land Use Forecast

Growth Allocation Models

Each Vacant Parcel is Competing for Growth using a Measure of “Economic Utility”

Influenced by:

- Accessibility to Jobs
- Accessibility to Workers
- Accessibility to Retail
- Travel time to nearest interchange
- Travel time to Indianapolis
- Proximity to similar land uses
- Parcel size
- Land cost
- Incentives (TIF)

Constrained by:

- Land uses allowed by Comp. Plan
- Maximum densities
- Floodplain
- Other constraints?

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



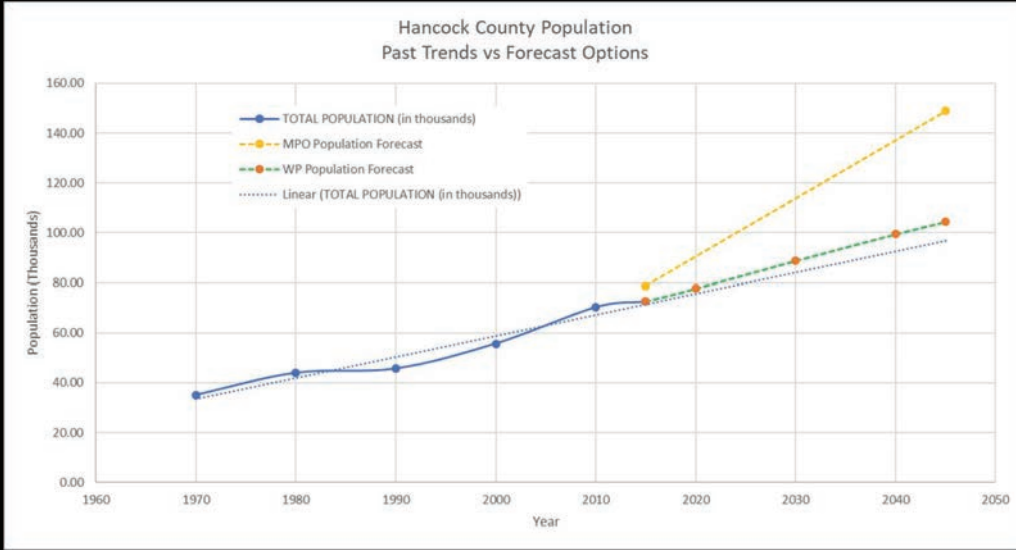
Past Trends and Forecast Comparison

Hancock County, Actual and WP Forecast	Actual	Actual	Actual	Actual	Actual	Actual	WP Forecast	WP Forecast	WP Forecast	WP Forecast	
	1970	1980	1990	2000	2010	2015	2020	2030	2040	2045	
TOTAL POPULATION (in thousands)	35.11	43.98	45.69	55.71	70.22	72.52	77.71	88.76	99.42	104.41	
TOTAL NUMBER of HOUSEHOLDS (in thousands)	10.86	14.50	16.02	20.86	26.40	28.58	31.24	35.10	38.30	40.27	
TOTAL EMPLOYMENT (in thousands of jobs)	7.52	10.79	13.97	19.29	29.06	32.13	34.94	40.29	45.44	48.00	
Hancock County from MPO TAZ Layer							MPO Base Year				MPO Forecast
							2015				2045
TOTAL POPULATION (in thousands)							78.80				148.89
TOTAL NUMBER of HOUSEHOLDS (in thousands)							29.30				55.37
TOTAL EMPLOYMENT (in thousands of jobs)							23.02				88.73

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Past Trends and Forecast Comparison

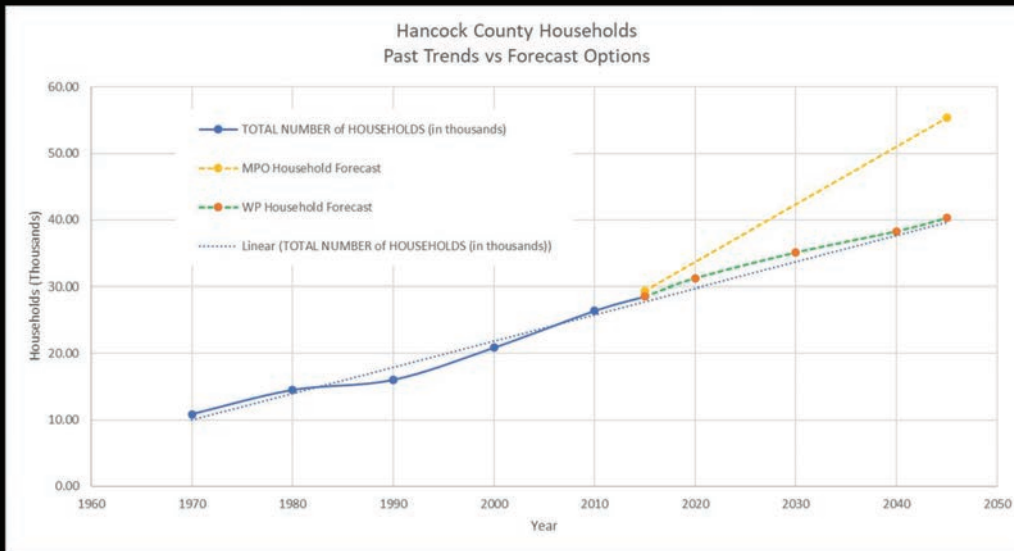


- Recommend Woods And Poole Economics Forecast
- Consistent with INDOT Planning Assumptions

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



Past Trends and Forecast Comparison

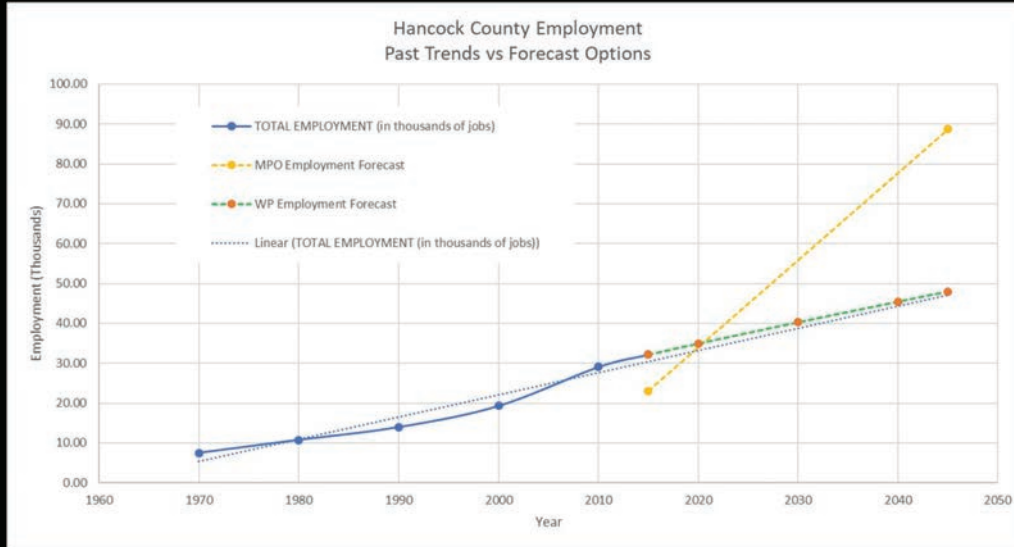


- Recommend Woods And Poole Economics Forecast
- Consistent with INDOT Planning Assumptions

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019



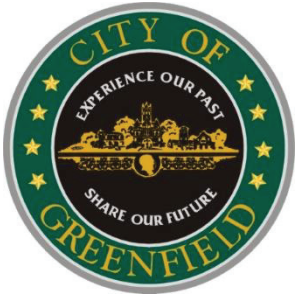
Past Trends and Forecast Comparison



- Recommend Woods And Poole Economics Forecast
- Consistent with INDOT Planning Assumptions

Greenfield Thoroughfare Plan: Steering Committee #2
August 7, 2019





Greenfield Thoroughfare Plan

Steering Committee #3
10/9/2019



Meeting Minutes

1. The meeting began at approximately 4:00 PM with the following people in attendance:
 - a. Jason Koch City Engineer: City of Greenfield
 - b. Jenna Wertman Associate Planner: City of Greenfield
 - c. Josh Gentry Parks Department: City of Greenfield
 - d. Dan Riley City Council: City of Greenfield
 - e. Gary A. McDaniel City Council; City of Greenfield
 - f. Steve Long Hancock Health
 - g. Mike Terry Greenfield BZA and Plan Commission
 - h. Jill Palmer Shrewsberry & Associates
 - i. Mark St. John Shrewsberry & Associates
2. Shrewsberry had steering committee members work on a vision statement, goals, and objectives exercise.
 - a. Steering committee members were asked to add a green checkmark next to keywords they thought should be included in the plan's vision statement, goals, or objectives.
 - b. Steering committee members were asked to add a red "X" next to keywords they thought should not be included in the plan's vision statement, goals, or objectives.
 - c. Steering committee members were given a chance to write-in additional keywords they thought should be included.
 - d. A copy of the exercise results has been attached to these meeting minutes.
3. Shrewsberry had steering committee members work on a project prioritization exercise at the same time as the vision statement, goals, and objectives exercise.
 - a. Steering committee members were given three dollar stickers and asked to place sticker in categories they felt should receive prioritized transportation funding.
 - b. The following is a summary of the results. A copy of the exercise board has been attached to these meeting minutes.
 - i. Intersection Improvements – 7 stickers
 - ii. Maintenance Projects – 4 stickers
 - iii. Active Transportation Modes – 7 stickers
 - iv. Widening and New Roads – 3 stickers
4. Mark St. John with Shrewsberry summarized recent planning efforts to collect public input on the thoroughfare planning process.
 - a. Shrewsberry & Associates attended the Riley Festival on 10/5/2019 and shared booth space with the City of Greenfield Fire and Police Departments.

- b. Shrewsberry had a large map of the study area and asked the public to provide locations where they thought improvements were needed. Locations were marked on the map using pins and notes.
 - c. Shrewsberry also had the public provide input by using the same dollar sticker exercise the steering committee members just completed.
 - d. Mark highlighted some of the top responses received at the Riley Festival, and summarized the results of the dollar sticker exercise. A full summary of the Riley Festival public input has been attached to these meeting minutes.
5. Mark St. John with Shrewsberry provided an update on Convergence Planning’s travel demand model as Dean Munn was unable to attend this meeting.
- a. Mark provided a rundown of the travel demand modeling process. Dean’s model takes existing traffic volumes along road segments and adds growth to each segment based on future growth.
 - i. The model determines growth for individual parcels using a learning algorithm.
 - ii. The algorithm reviews growth in other communities and assigns future growth to individual parcels in Greenfield based on existing land use, proposed future land use, and the transportation network.
 - b. Convergence Planning has completed the 2019 base year travel demand model.
 - c. In the base year, the model shows poor Level of Service (LOS) at the following locations:
 - i. State Street just north of McKenzie Road.
 - d. Convergence Planning has also completed a future year travel demand model that shows how Greenfield’s transportation network will function in 2045 if no improvements or changes are made to it. The model predicts high growth in the following areas:
 - i. Industrial growth in the northwest corner of the SR 9 and I-70 Interchange.
 - ii. Housing growth west of the City.
 - iii. Housing growth east of the City.
 - iv. Service industry and retail growth north of the SR 9 and I-70 Interchange.
 - v. Service industry growth along US 40.
 - e. The model predicts poor Level of Service in 2045 at the following locations:
 - i. SR 9 north of I-70.
 - ii. State Street between I-70 and New Road.
 - iii. McKenzie Road between Franklin Street and Broadway Street.
 - iv. State Street just north of McKenzie Road.
 - v. State Street from McKenzie Road to 5th Street.
 - f. A general discussion was had in regard to the travel demand model. The following items were brought up by the steering committee:
 - i. SR 234 in northern Hancock County has worse congestion than anything in Greenfield.
 - ii. Steering committee members were surprised that more growth along State Street was not shown south of Main Street.
 - iii. Members discussed what could be done along State Street within downtown Greenfield as there is little to no room for improvements. Mark St. John stated

that it is possible to improve capacity on State Street by improving capacity at other parallel roadways and intersections.

6. Jill Palmer with Shrewsberry discussed the purpose and need of a thoroughfare plan map.
 - a. Jill explained that a thoroughfare map provides general locations of classified roadways, and roadway connections, so that the City can obtain the appropriate amount of right of way as development occurs.
 - b. The map can also guide the City on connections and improvements to make on existing roadways.
 - c. Jill showed the steering committee a draft thoroughfare map that she had prepared. Jill asked steering committee members to provide input based on what they would like the transportation network to look like.
 - d. The steering committee came up with the following suggestions for the thoroughfare map. Shrewsberry has updated the thoroughfare map and attached it to these meeting minutes.
 - i. Focus the I-70 interchange zone to the area around CR 100 W.
 - ii. Connect the new interchange to Meridian Road.
 - iii. Remove the interchange zone east of the City.
 - iv. Determine a truck route from the new interchange that removes trucks from downtown Greenfield.
 - v. When the new interchange is constructed, Meridian Road should be made a primary arterial.
 - vi. Connect Meridian Road, as a primary arterial, back to SR 9 south of Greenfield.
 - vii. Make Franklin Road a 3-lane section to become a bypass for State Street.
 - viii. Extend McClarnon Drive from Meridian Road to Apple Street.
 - ix. Extend Park Avenue from Apple Street to Blue Road.
 - x. Extend McKenzie Road from Meridian Road to Blue Road.
 - xi. Provide frontage roads and frontage road connections along State Street (from I-70 to McKenzie Road).
 - xii. Downgrade the classification of Fields Boulevard with the construction of frontage roads along State Street.
 - xiii. Connect Swope Street to Melody Drive.
 - xiv. Make CR 300 N a 3-lane section.
 - xv. Add travel Lanes to New Road.
 - xvi. Make Blue Road a 3-lane section from US 40 to New Road.
 - e. The steering committee also provided the following list of intersection improvement projects they believe would be beneficial to the City of Greenfield.
 - i. McKenzie Road and Blue Road.
 - ii. McKenzie Road and Jaycie Phelps Drive.
 - iii. New Road and Jaycie Phelps Drive.
 - iv. New Road and Blue Road.
 - v. New Road and Meridian Road.
 - vi. Fortville Pike and CR 300 N.
 - vii. Proposed McClarnon Drive extension and Apple Drive.

- viii. Proposed McClarnon Drive extension and Blue Road.
 - ix. Davis Road and Meridian Road.
 - x. Davis Road and Franklin Street.
 - xi. State Street and McKenzie Road.
 - f. City Staff and Shrewsberry will work with Convergence Planning to create scenarios in which some, or all, of these projects are completed. Convergence Planning will then be able to run additional travel demand models to determine how these proposed projects will impact the transportation network.
- 7. Jill Palmer explained that a cross section would be applied to each classification of roadway.
 - a. Jason Koch handed out proposed cross sections for the various roadway classifications.
 - b. Steering committee members were asked to review these cross sections and let Shrewsberry or City staff know if they had any questions or comments.
- 8. The meeting concluded at approximately 5:30 PM.

KEYWORD EXERCISE

Vision Statement, Goals, and Objective Keywords:

✓ **Should be included** ✗ **Should not be included**

✓✓✓✓ Healthy Lifestyle

✓✓✓✓ Economic Development

✓✓✓✗✗ Collaborate/Coordinate with Neighboring Communities

✓✓✓✗ Access Management

✓✗✓✗ Multimodal Infrastructure

✓✓✓✓ Connectivity

✓✓✓✗✗ Complete Streets

✓✓✓✓ Maintain Existing Infrastructure

✓✓✓✓ Universal Accessibility

✓✓✓✓ Pedestrian/Bicycle Safety

✓✗✓✗ Traffic Calming

✓✓✓✓ Beautification

✓✓✓✓ Historic Preservation

✓✓✓✓ Vehicular Safety

✓✗✗✓✗ Transit

✓✓✓✓ Efficient Movement of Vehicles

_____ (something not listed above)

_____ (something not listed above)

_____ (something not listed above)

_____ (something not listed above)



How should the City of Greenfield prioritize transportation spending?



Intersection Improvements
(roundabouts, traffic signals, turn lanes, signal timings)



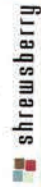
Active Transportation Modes
(trails, bike lanes, sidewalks, transit, carpool)



Maintenance Projects
(repaving, fill potholes, replace signs and pavement markings)



Widening and New Roads
(added travel lanes, new road segments)



Public Input Exercise: Where are Improvements Needed

On October 5, 2019 Shrewsberry & Associates attended the Riley Festival in Greenfield, Indiana to solicit public input for the thoroughfare planning process. Shrewsberry had the public provide input by adding pins and notes to a map of the City of Greenfield in locations where they felt improvements were needed. Below is a table summarizing the responses.

Location	# of Responses	Comments
SR 9 and CR 400 N	1	Dangerous intersection.
SR 9 and Cranberry Drive	1	No turn lane into subdivision sight distance issues.
SR 9 North of CR 300 N	1	Pedestrian facilities needed.
SR9 and CR 300 N	1	Needs intersection improvement.
CR 300 N and Fortville Pike	2	Unsafe intersection.
State Street and Martindale Drive	1	Difficult to get in/out of gas stations.
New Road at Fire Station 22	3	Add traffic signal for Fire Department.
New Road and Barrett Drive	1	Traffic signal for Walmart adds to congestion.
New Road between James Boulevard and Blue Road	1	Add sidewalks.
New Road and Blue Road	1	Add roundabout.
State Street between New Road and Muskegon Drive	1	Add sidewalk.
Apple Street between New Road and McKenzie Road	1	Add sidewalk.



Location	# of Responses	Comments
McClarnon Drive between State Street and Broadway Street	1	No speed limit is posted.
State Street and McClarnon Drive	3	Needs intersection improvement.
McClarnon Drive (General)	1	Connect roadway segments across City (Meridian Road to Apple Street).
Green Meadows Boulevard	1	No speed limit is posted.
McKenzie Road and Franklin Street	1	Congested during school dismissal times.
McKenzie Road and Broadway Street	1	Congested during school dismissal times.
State Street and McKenzie Road	6	Unsafe. Congested.
McKenzie Road and Blue Road	2	Add roundabout.
Jaycee Phelps Drive from McKenzie Road to Main Street	1	Widen and repair.
Windswept Road from McKenzie Road to Main Street	1	Widen road.
Main Street and Windswept Road	1	Trucks cause congestion at this intersection.
Meridian Road from Main Street to Davis Road	2	Resurface.
Culvert along Meridian Road (280 LFT north of Davis Road)	1	Roadway is narrow over culvert.
State Street from McKenzie Road to Main Street	1	Repave.
State Street and North Street	3	Traffic signal should not have been removed.



Location	# of Responses	Comments
Main Street and State Street	2	Congested.
Main Street and Howard Street	1	State Street shifts from 2 lanes to one. More signage is needed.
US 40 and CR 600 E	2	Add a traffic signal.
US 40 and CR 600 E	1	J-turns are a stupid idea.
Davis Road and Franklin Street	1	Change the TWSC to an AWSC.
State Street and Longfellow Lane	1	Road is too narrow. "Fake" turn lane.
Morristown Pike south of the Pennsy Trail	1	Add sidewalk to connect to trail.
Morristown Pike and Davis Road	1	Intersection improvement needed.
Weber Road between Franklin Street and State Street	1	High travel speeds.
SR 9 (General)	2	Complaint (not specified).
Interstate 70/State Street Interchange	1	Beautification.
Broadway Street from New Road to McKenzie Road	1	Pavement in poor condition.
Downtown (General)	1	Add more pedestrian crossing warning signs.
Franklin Road	1	Increase posted speed limit.
East Street from Park Avenue to Main Street	1	Add AWSC at all intersections, or add "Cross Traffic Does Not Stop" plaques.



Location	# of Responses	Comments
Penny Trail (General)	1	Better connections between downtown and trail.
Alley west of Center Street	1	Weeds need trimmed. Creates sight triangle issue.
US 40 (west of downtown)	1	Needs 3 lanes each way until downtown.
US 40 (west of downtown)	1	Add turn arrows along US 40 at Meridian Road, Franklin Road, and Broadway.
SR 9 (General)	2	Install an emergency vehicle preemption system.
US 40 Road Diet	17	Can no longer pass. Penny Trail is right there. Bikes should use trail. Does not lower travel speeds. Creates long queues. Especially when I-70 detours to US 40.
General	2	No Complaints.
General	3	Construct more roundabouts.
General	3	Do not construct any more roundabouts.
General	1	Add more one-way streets. Especially in downtown area.
General	7	Construct truck route. Get trucks out of downtown.
General	5	Construct SR 9 bypass.
General	1	Do not close (or do work) on I-70 and US 40 at the same time.
General	1	No J-turns



Location	# of Responses	Comments
General	1	Coordinate with INDOT and Hancock County.



Public Input Exercise: Where are Improvements Needed

On October 5, 2019 Shrewsberry & Associates attended the Riley Festival in Greenfield, Indiana to solicit public input for the thoroughfare planning process. Shrewsberry had the public provide input by adding dollar stickers to various they felt should receive prioritized transportation funding. Participants were given three dollar stickers to place in one of four categories. Below is a table summarizing the responses.

Category	# of Dollar Stickers	Percent of Total
Intersection Improvements (Roundabouts, Traffic Signals, Turn Lanes, Signal Timings)	42	23%
Maintenance Projects (Repaving, Fill Potholes, Replace Signs, New Pavement Markings)	61	33%
Active Transportation Modes (Trails, Bike Lanes, Sidewalks, Transit, Carpool)	44	24%
Widening and New Roads (Added Travel Lanes, New Road Segments)	36	20%



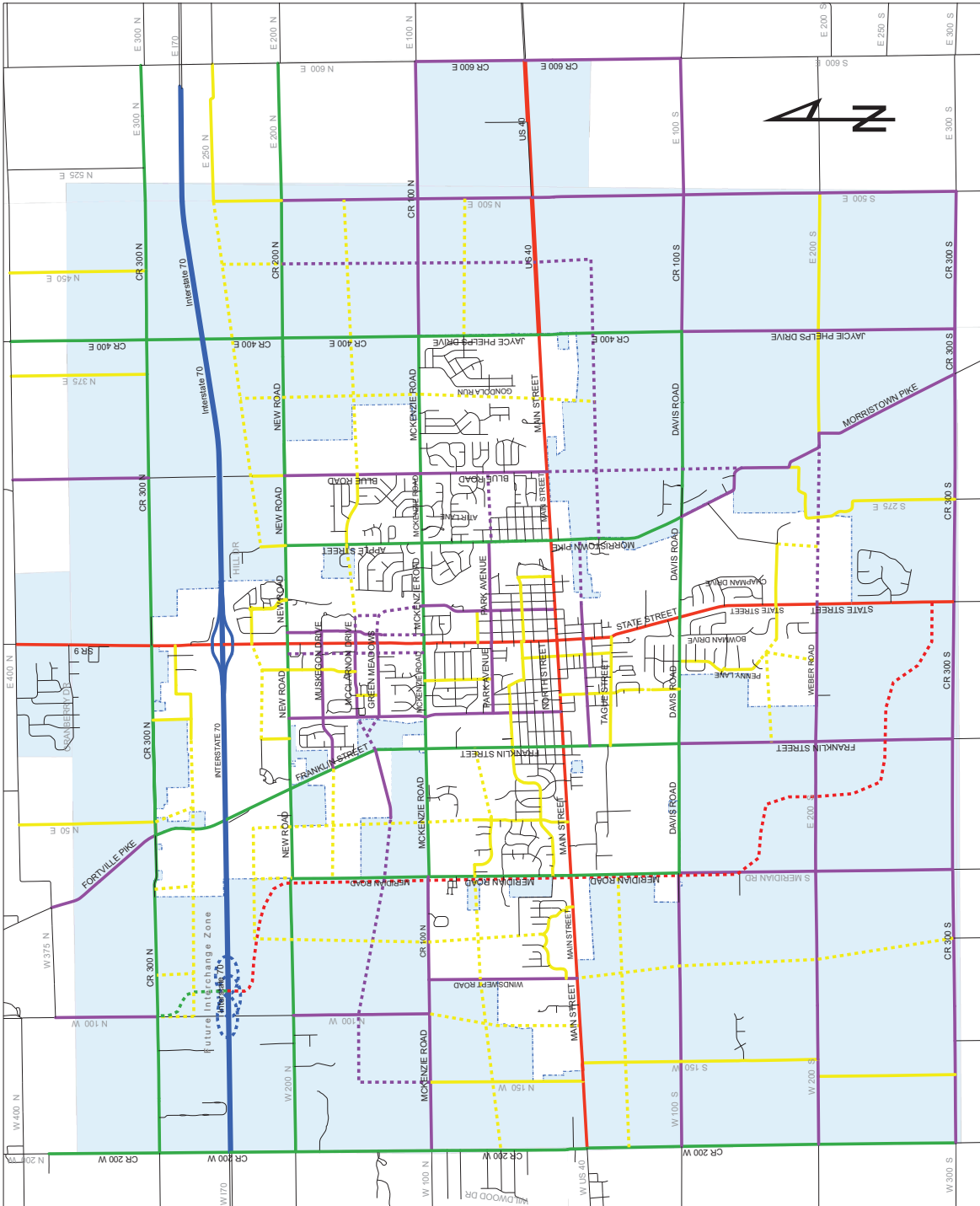


Thoroughfare Plan

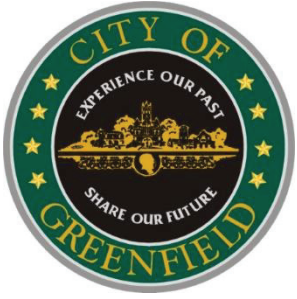
City of Greenfield

Legend

- Local Streets
- Interstate
- Future Interstate
- Primary Arterial
- Future Primary Arterial
- Secondary Arterial
- Future Secondary Arterial
- Major Collector
- Future Major Collector
- Minor Collector
- Future Minor Collector
- City Limits
- 30 Year Growth Area



DATE: 10/14/2019



Greenfield Thoroughfare Plan

Steering Committee #4
January 9, 2020



Meeting Minutes:

1. The meeting began at approximately 4:00 PM with the following people in attendance:
 - a. Jason Koch
City Engineer: City of Greenfield
 - b. Tyler Rankins
Street Commissioner: City of Greenfield
 - c. Joanie Fitzwater
Zoning Administrator: City of Greenfield
 - d. Steve Long
Hancock Health
 - e. Ron Pritzke
Pritzke & Davis
 - f. Gary A. McDaniel
City Council: City of Greenfield
 - g. Michael Fruth
Director of Utilities: City of Greenfield
 - h. Mike Terry
Greenfield BZA and Plan Commission
 - i. Dan Riley
City Council: City of Greenfield
 - j. Harold Olin
Greenfield Central Community School Corporation
 - k. Jill Palmer
Shrewsberry & Associates
 - l. Mark St. John
Shrewsberry & Associates
 - m. Dean Munn
Convergence Planning

2. Jill Palmer with Shrewsberry began the meeting by discussing the desired tone of the final report. To have steering committee members help with this she asked them the following three questions:
 - a. What about Greenfield has changed in the last 10 years? The steering committee members provided the following responses:
 - i. Greenfield has experienced slower growth in the last 10 years due to the recession. However, that growth has begun to resume.
 - ii. Updated building fronts along SR 9.
 - iii. Acceptance of alternative transportation improvements including roundabouts, different approaches to street design, and bike lanes.
 - iv. Traffic on SR 9, particularly US 40 to McKenzie Road, has remained bad.
 - v. There is more wait time at intersections around town.
 - vi. An increase in development near the Home Depot along SR 9.
 - vii. Roundabouts have helped to pull traffic off of SR 9. However, they have not done enough to resolve congestion issues.
 - b. What changes do you expect to happen in the next 10 years? ? The steering committee members provided the following responses:
 - i. Remove traffic from SR 9 with the completion of an integrated roadway network.
 - ii. More retail north of Interstate 70 along SR 9.

- iii. If alternate modes of transportation are provided, they will be used.
 - Transit, bike lanes, and roundabouts were all discussed as “alternate modes.”
 - iv. More electric vehicles.
 - v. Larger population in Hancock County and Greenfield.
 - c. How can the Thoroughfare Plan support opportunities and minimize threats? ? The steering committee members provided the following responses:
 - i. Complete the street network.
 - ii. Reduce traffic on SR 9.
 - iii. New interchange along Interstate 70 near CR 100 W.
 - iv. More development and connections along CR 300 N from Mt. Comfort Road to SR 9.
- 3. Mark St. John with Shrewsbury then began a discussion with the steering committee on complete streets.
 - a. The City of Greenfield’s Comprehensive Plan lists adopting a complete streets policy as an objective, and City staff felt that it fit appropriately within the thoroughfare plan.
 - b. Mark explained that:
 - i. A complete street is a street for everyone.
 - ii. A complete street is a street that is designed and operated to enable safe access for all users, of all ages and abilities, regardless of their mode of transportation.
 - iii. Complete streets are safe, comfortable, and convenient
 - c. Mark explained a complete streets policy provides high-level direction to city projects to ensure that the entire right-of-way is planned, designed, constructed, operated, and maintained to provide safe access for all users. Further, complete streets can benefit a community by:
 - i. Improving safety.
 - ii. Leading to better health.
 - iii. Growing stronger economies.
 - iv. Reducing costs to local government.
 - v. Providing transportation choices.
 - vi. Enabling smarter growth, and an integrated and connected transportation network.
 - d. The steering committee asked if a complete street means requiring a sidewalk to be added to every street? Mark explained that a complete streets policy means that City staff would need to consider how to accommodate all users.
 - i. Mark explained that a complete streets policy should include context sensitivity. That is, the policy should consider the surrounding land uses and how they connect to the roadway network.
 - A sidewalk may not be needed along all roadways in Greenfield. For example, a sidewalk along the interstate would not be appropriate.
 - ii. Mark asked if there were other areas in Greenfield that could have context sensitivity needs.

- The steering committee agreed that historic downtown Greenfield would be one such area.
 - Rural areas versus urban/suburban areas were discussed as having different context sensitivity needs.
 - e. Mark informed the steering committee that over 15 communities across Indiana already have a complete streets policy in place.
 - i. This includes the Indianapolis MPO, whose policy requires any recipient of federal funds through them to comply with their policy. This means that Greenfield has already followed a complete streets policy on projects with federal monies involved.
 - f. Mark St. John explained that Shrewsbury recommends adding a complete streets policy section to the thoroughfare plan. This means that when the thoroughfare plan is adopted by the Plan Commission and City Council, complete streets will become policy along with it. There was a general consensus among the steering committee members that this was the right step to take.
 - g. Shrewsbury told the steering committee that they could use input on the following items that would be included in the complete streets policy:
 - i. Who should this plan have jurisdiction over? After a discussion, the steering committee agreed that the policy should apply to all city projects as well as private development. Any exemptions from the complete streets policy would need to be approved in writing by City staff.
4. Dean Munn with Convergence Planning presented the results of his traffic modeling, after again summarizing to the steering committee how the traffic demand modeling process worked.
- a. Dean took the following projects selected by the steering committee in Steering Committee Meeting #3:
 - i. No Build.
 - ii. I-70 Interchange near CR 100 W.
 - iii. Construction of an Alternate Route that connects to the new interchange, and loosely follows Meridian Road.
 - It was stressed by the steering committee that this should not be called a bypass.
 - iv. 8 additional road widening, new construction, and roadway capacity improvement projects.
 - b. These projects were then modeled in one of the following scenarios:
 - i. No Build.
 - ii. New Interchange Only.
 - iii. New Interchange + Alternate Route.
 - iv. New Interchange + Alternate Route + 8 Additional Projects.
 - v. 8 Additional Projects.
 - c. Dean then showed the steering committee members the results of the model.

- i. These results were shown in table form using various metrics, and as Roadway Level of Service (LOS) shown visually on maps.
 - ii. The results, and all of Dean’s slides, have been attached to these meeting minutes.
- d. Dean’s summary of the results for each scenario are listed below:
 - i. No Build – As the city grows and traffic volumes increase congestion across the entire network will get worse if the city makes no improvements. This scenario was made as a baseline.
 - ii. New Interchange Only - A new interchange will help SR 9 some, but overall does not do much to improve congestion without the supporting roadway network to bring traffic to it.
 - iii. New Interchange + Alternate Route – This scenario helped improve traffic conditions along SR 9. People can now more easily access the new interchange via an alternate route, which reduces demand on SR 9.
 - iv. New Interchange + Alternate Route + 8 Additional Projects – Provided the best results. This scenario improves congestion along all of SR 9 with the exception of a section near Interstate 70, and at the intersection of McKenzie Road.
 - v. 8 Additional Projects – The model shows that if only these projects are done congestion along SR 9 will continue to worsen. These projects do provide improvements along other sections of the roadway network.
- e. A general discussion of the traffic demand model was had by the steering committee. The following comments were made.
 - i. Dean Munn stated that his models do not show any improvements along Interstate 70 as that falls completely under INDOT’s control. Dean stated it is likely INDOT will eventually add a travel lane in each direction which will improve the shown congestion along the interstate.
 - ii. Convergence Planning and Shrewsbury are working to finalize estimated construction costs for the various projects. Once construction costs are finalized, Dean will also be able to present his results as a benefit-cost ratio, the economic impacts these projects will have, and the impact these improvements will have on employment.
 - iii. The steering committee asked if INDOT’s proposed access control along SR 9 was included in the model. Dean stated that it was not, but that it would have minimal impact on the results of the model.
 - iv. Dean stated that the proposed frontage roadway network for developments along SR 9 was very helpful in reducing congestion.
 - v. Jill Palmer stated that in addition to improving congestion, a New Alternate Route will also improve safety.
 - vi. Jason Koch and Joanie Fitzwater stated that Hancock County is proposing a new jail in the southwest corner of the intersection of CR 100 N and Jaycie Phelps Drive and inquired how that would impact the model.
 - Dean stated that this could be updated in his model. He will also supply the City with a toolkit that will enable them to model the impact big developments (like a jail) have on the model.

- vii. Jill Palmer stated that the model shows result out to a 25-year horizon year while the thoroughfare plan looks out to a 10-year horizon year.
5. The last item presented by Shrewsberry was the list of proposed projects, and how they should be scored for the thoroughfare plan.
- a. Jill Palmer stated that Shrewsberry had compiled a list of 168 possible projects. These projects came from data driven engineering decisions, steering committee suggestions, city staff suggestions, and the public input process.
 - b. Jill explained that each project was placed into one of the following categories. These categories align with the Indianapolis MPO’s funding categories:
 - i. Safety.
 - ii. Congestion.
 - iii. Active Transportation.
 - c. Shrewsberry then assigned each of the 168 projects a score. Higher scores were given to projects that received wide public support, steering committee support, or were supported by the data.
 - d. As a part of the planning process, Shrewsberry asked the public how transportation funding should be prioritized. This question was posed to the steering committee, to the public at the Riley Festival, and to the public through an online survey. The results were presented to the steering committee as shown below.

Electronic Survey Priorities:

	Rank from 1 (most important) to 4 (least important)			
	1	2	3	4
Intersection Improvements	26%	38%	29%	7%
Maintenance Projects	49%	30%	18%	3%
Active Transportation Modes	5%	8%	20%	67%
Widening and New Roads	22%	25%	32%	21%

Steering Committee Priorities:

	Dollar Stickers
	1
Intersection Improvements	33%
Maintenance Projects	19%
Active Transportation Modes	33%
Widening and New Roads	14%

- e. Jill Palmer stated that these results show the public and steering committee prioritize different types of projects. To reconcile this Shrewsberry asked the steering committee to weigh each category.
- f. Shrewsberry asked the steering committee to provide several projects they feel are very important for the city to accomplish. These projects will be used as a “check” to ensure

that the weights assigned to each category are appropriate. The steering committee came up with the following projects:

- i. East McClarnon extension.
 - ii. SR 9 and McKenzie intersection improvement.
 - iii. CR 300 N and Franklin Road.
 - iv. Franklin Road and Davis Road.
 - v. Make Franklin Road a 3-lane section.
- g. The steering committee weighted each category and project type as follows (scores adjusted by Shrewsberry after the meeting to sum to 100%):

Data (65%)	Congestion	<u>8%</u>
	Safety	<u>33%</u>
	Bike/Ped	<u>16%</u>
	Travel Demand Model	<u>8%</u>
Steering Committee (25%)	Congestion	<u>6%</u>
	Safety	<u>13%</u>
	Bike/Ped	<u>6%</u>
Public (10%)	Riley Festival Map	<u>5%</u>
	E-survey congestion	<u>1%</u>
	E-survey safety	<u>3%</u>
	E-survey ped/bike	<u>1%</u>

- h. These weights were then entered into the project priority Excel worksheet by Shrewsberry. When entered these weights saw several of the “check” projects rise to the top.
- i. A general discussion was had about the results of the project scoring and score weighting process.
- j. Jill stated that Shrewsberry and Convergence Planning will continue to refine these project weights. Shrewsberry will provide the steering committee with a copy of the project priority worksheet which will allow members to play with the project weighting.

6. Shrewsberry reviewed the next steps in the planning process.

- a. This was the last steering committee meeting.
 - b. Shrewsberry will circulate a draft of the thoroughfare plan report to steering committee members.
 - i. This report will include a list of project priorities.
 - c. Shrewsberry asks that each steering committee member provide comments on the draft report, as well as any comments on the project scoring, and travel demand model within the next few weeks.
 - d. The finalized report will go to the Plan Commission and the City Council for approval. After approval by the City Council, the plan will officially become City policy.
7. The meeting concluded at approximately 6:00 PM.



**Greenfield Thoroughfare Plan Update
Steering Committee #4 – January 9, 2020**



Name	Organization	Email Address	In Attendance
Jason Koch	City Engineer; City of Greenfield	jkoch@greenfieldin.org	<i>JK</i>
Jenna Wertman	Associate Planner; City of Greenfield	jwertman@greenfieldin.org	
Kelly McClarnon	Board of Works and Public Safety; City of Greenfield	kmcclarnon@greenfieldin.org	
Kerry Grass	City Council; City of Greenfield	kgrass.council@comcast.net	
Ellen Kuker	Greenfield Parks and Recreation Superintendent	ekuker@superintendentin.org	
Tyler Rankins	Street Commissioner; City of Greenfield	trankins@greenfieldin.org	<i>TR</i>
Joanie Fitzwater	Zoning Administrator; City of Greenfield	jfitzwater@greenfieldin.org	<i>JF</i>
Steve Long	Hancock Health	slong3@hancockregional.org	<i>SL</i>
Ron Pritzke	Pritzke & Davis	rpritzke@pritzkeanddavis.com	<i>RP</i>
Gary A. McDaniel	City Council; City of Greenfield	gmdaniel@greenfieldin.org	<i>GM</i>
Michael Fruth	Director of Utilities; City of Greenfield	mfruth@greenfieldin.org	<i>MLF</i>
Mike Terry	Greenfield BZA and Plan Commission	eastwindrain@att.net	<i>MT</i>
Jill Palmer	Shrewsberry & Associates	jpalmmer@shrewsusa.com	<i>JP</i>
Mark St. John	Shrewsberry & Associates	mstjohn@shrewsusa.com	<i>MS</i>
Dean Munn	Convergence Planning	dmunnn@converge2plan.com	<i>DM</i>
<i>Dan Riley</i>	<i>City Council</i>	<i>r1keyplantj@yahoo.com</i>	<i>DR</i>
<i>Haroldolin</i>	<i>Greenfield-Central</i>	<i>halin@gcsc.k12.in.us</i>	<i>H78</i>

YOUR VISION. OUR FOCUS.

Travel Demand Modeling Scenario Analysis Results

Greenfield Thoroughfare Plan
January 9, 2020

Control Total Forecast

Hancock County MPO Forecast			
YEAR	2015	2045	Net Gain
POP	78,802	148,893	70,091
HH	29,302	55,365	26,063
EMPL	23,015	88,726	65,711

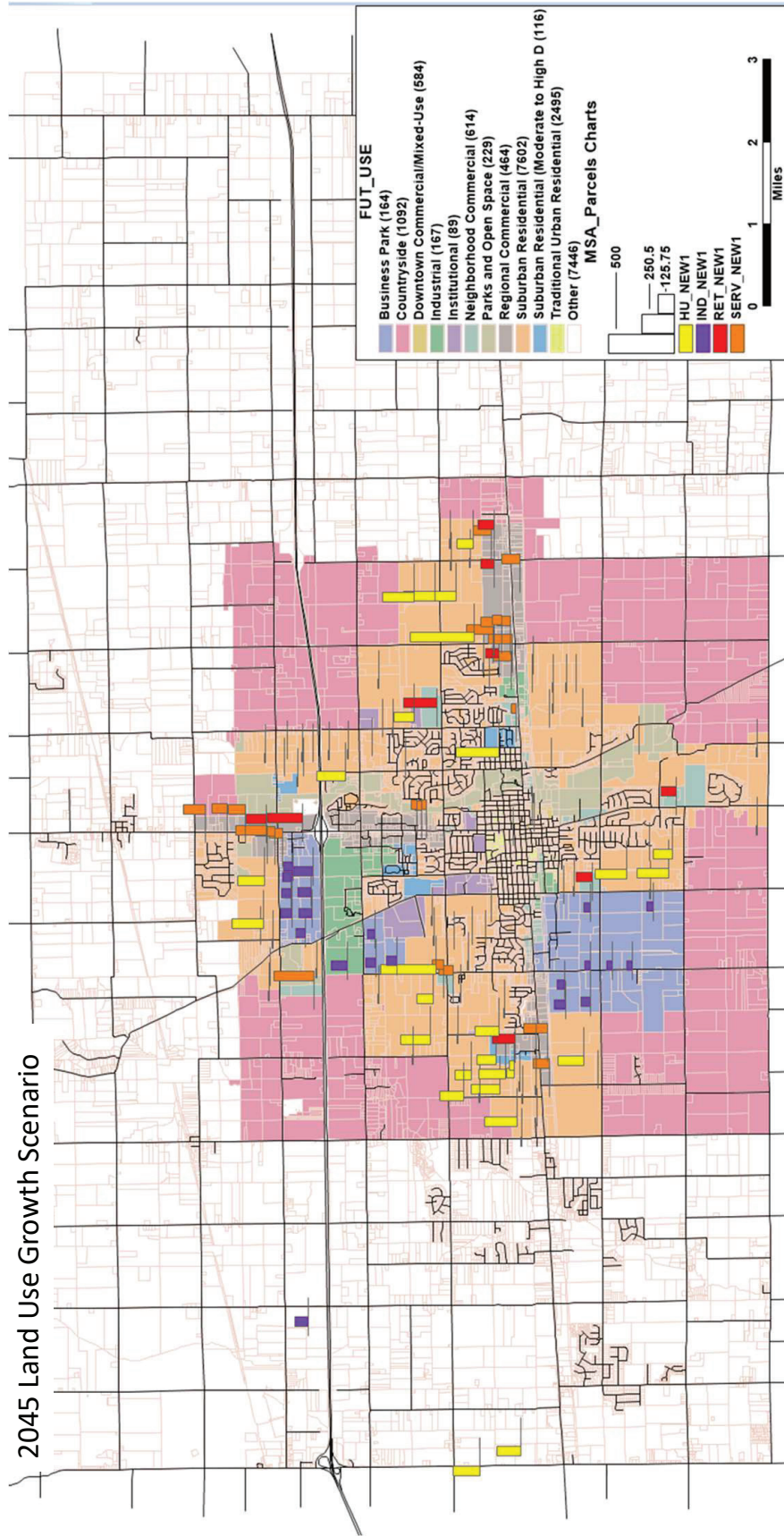
Rejected as unrealistic, MPO staff agreed to incorporate Greenfield TP work in official forecast

These assumptions were used as the input to the land use model

County W&P Forecast			
YEAR	2015	2045	Net Gain
POP	72,520	104,406	31,886
HH	28,579	40,266	11,687
EMPL	32,134	47,999	15,865

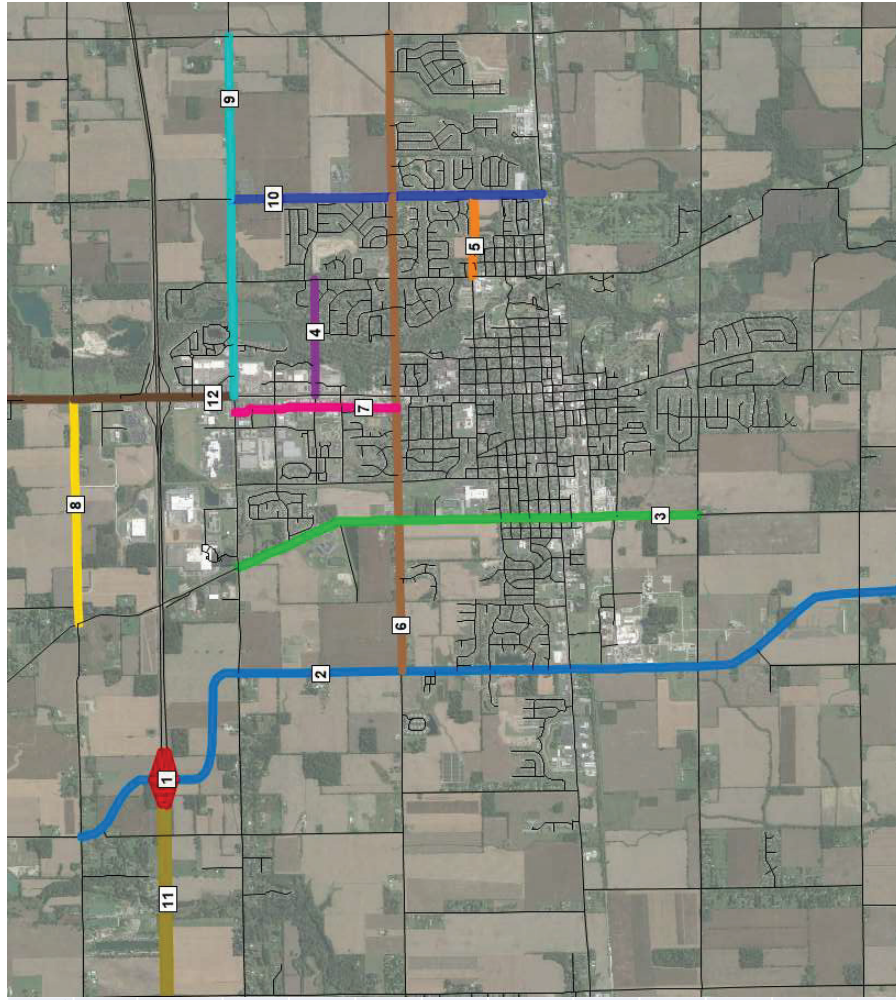
Greenfield Study Area Forecast			
YEAR	2015	2045	Net Gain
POP	36,439	52,461	16,022
HH	15,104	21,321	6,217
EMPL	15,252	23,531	8,279

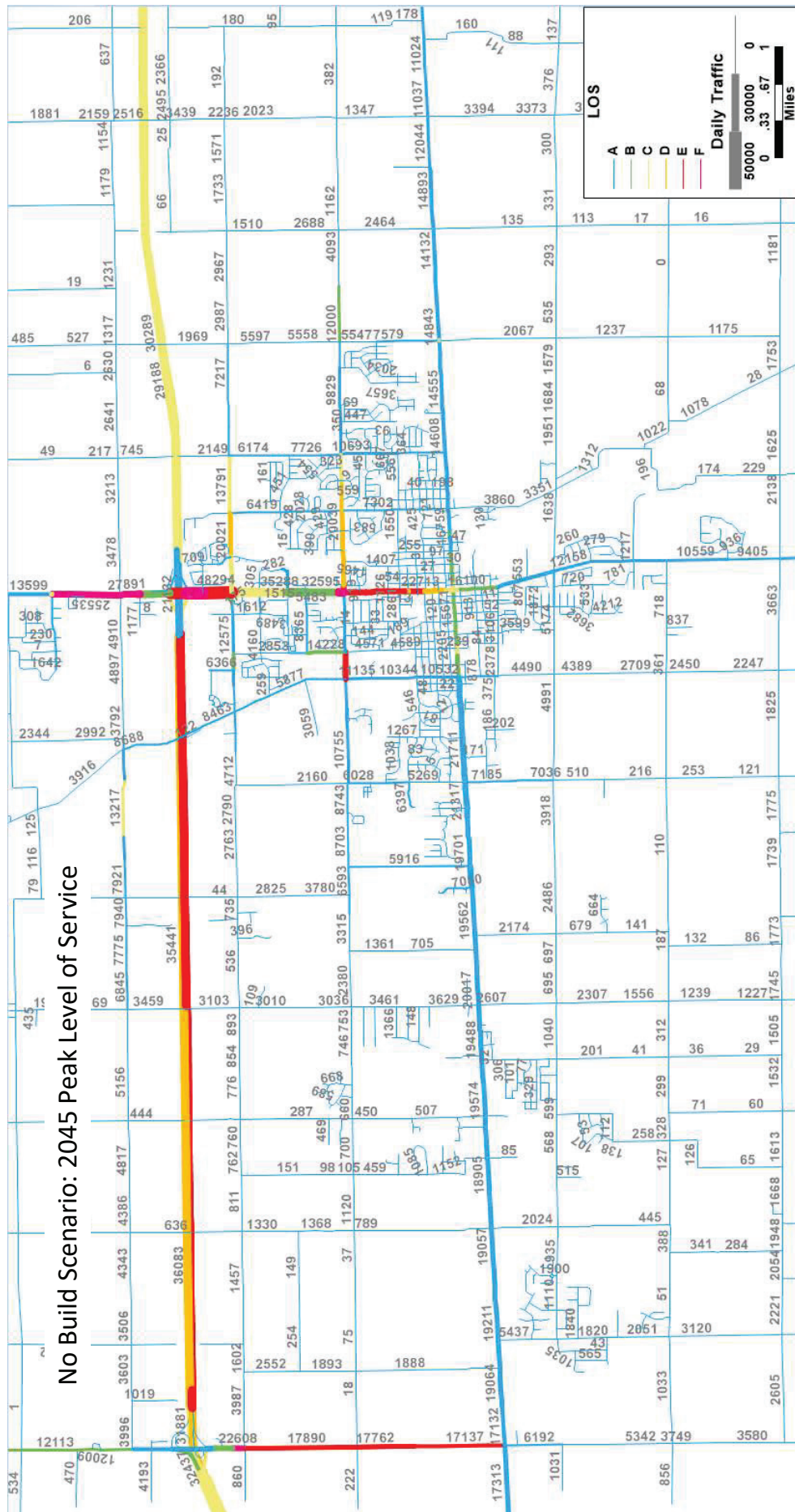
2045 Land Use Growth Scenario

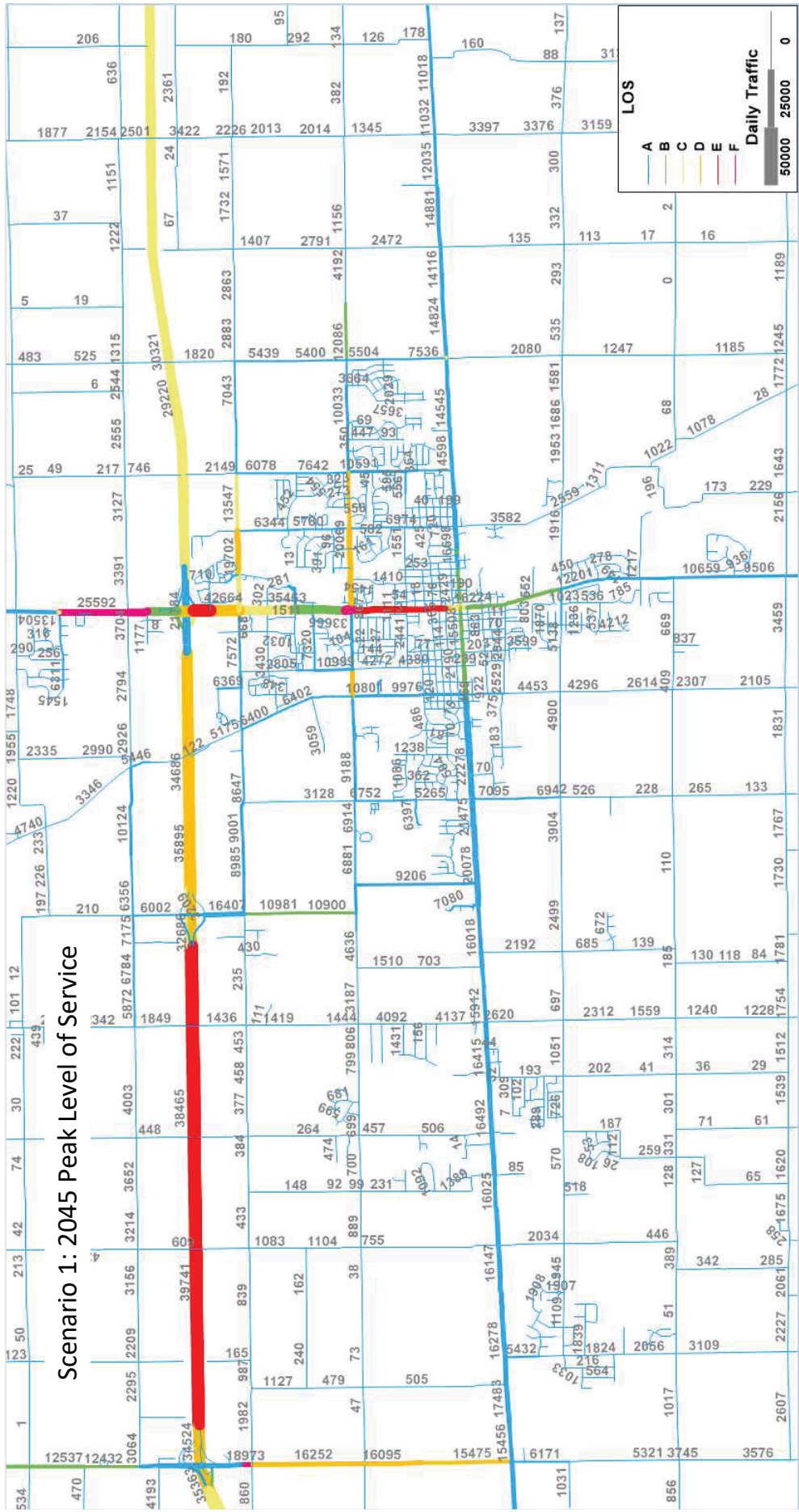


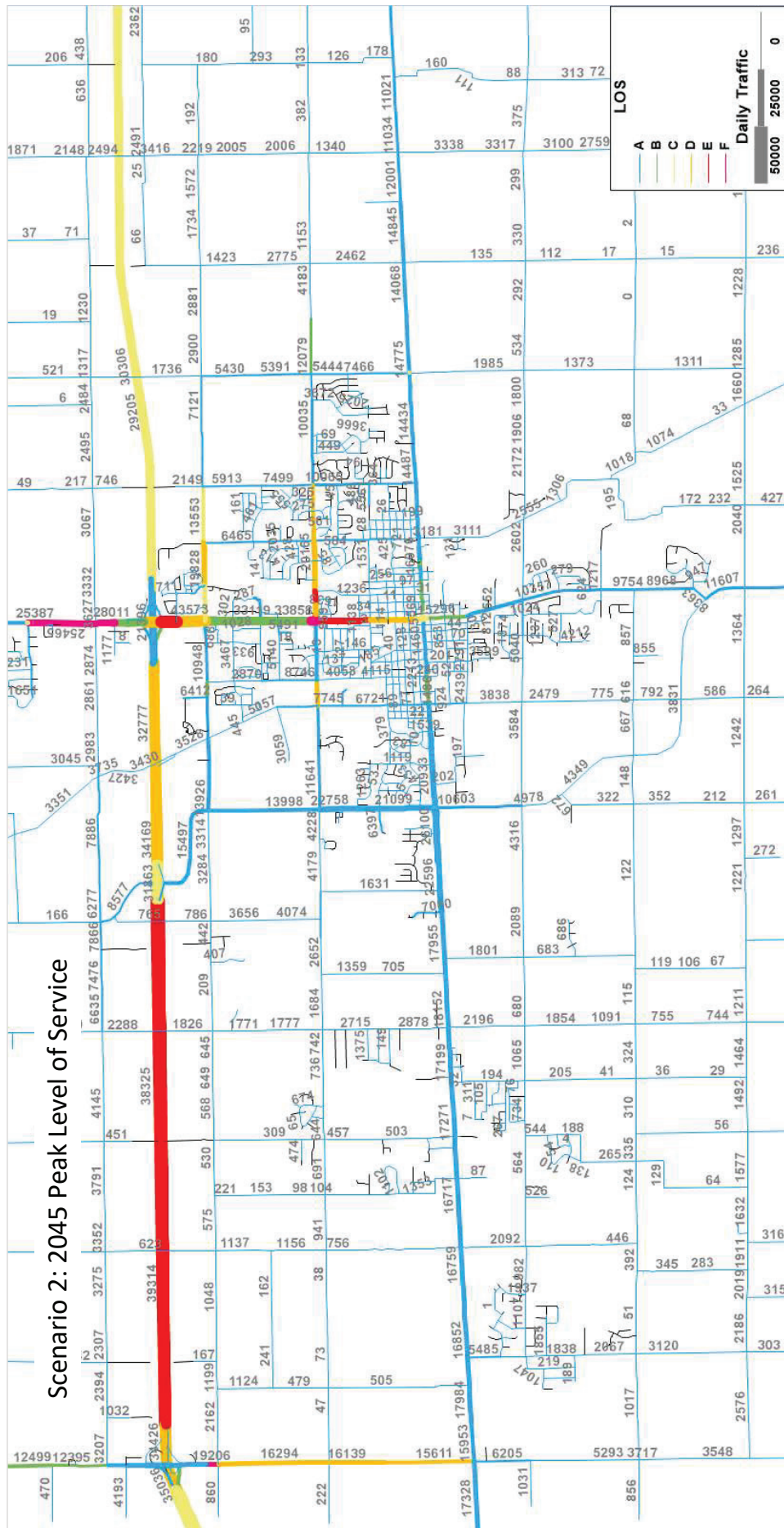
Capacity Projects Included in Modeling Scenarios

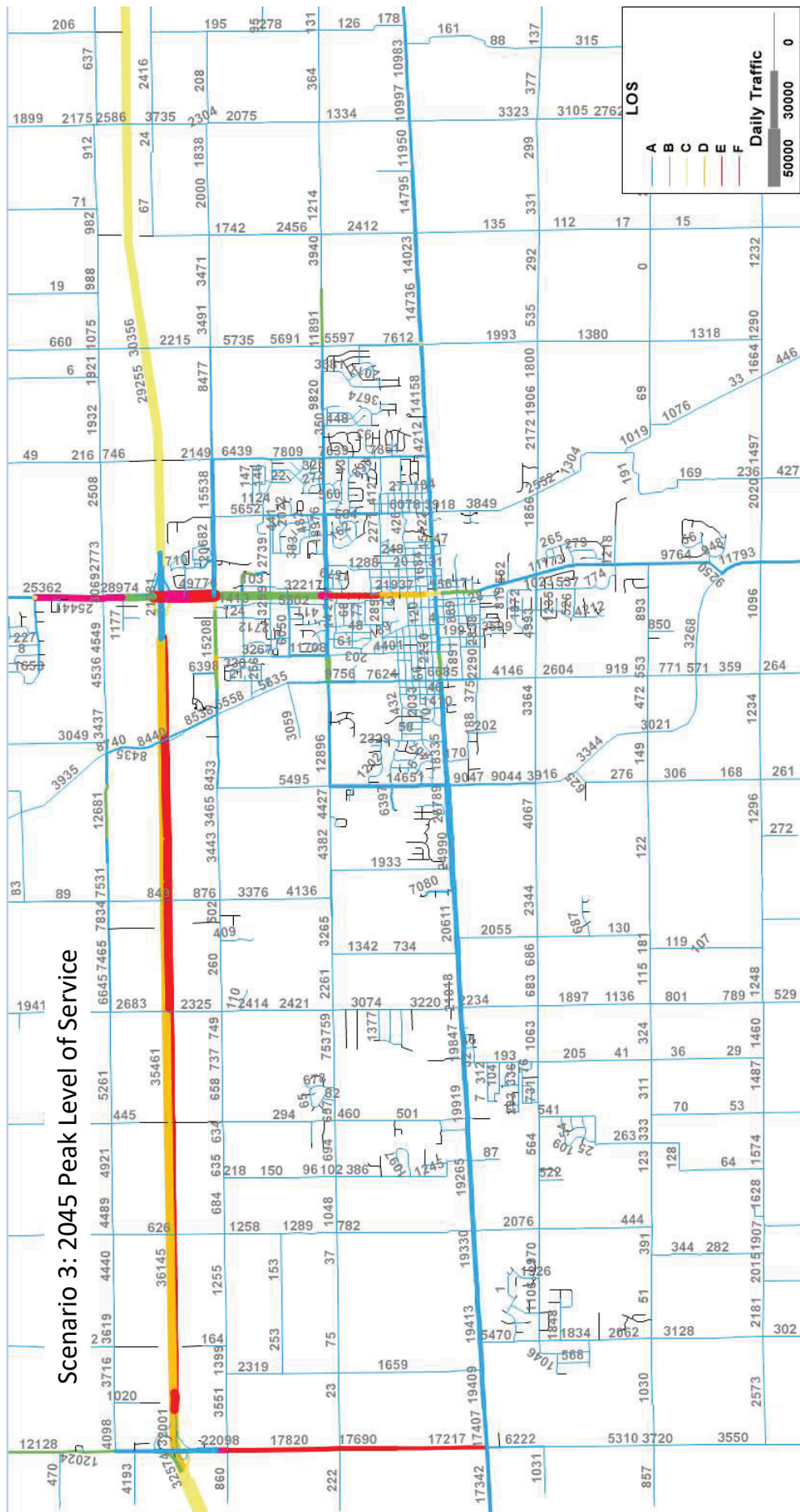
Project	Description	No Build	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Scen. 5
1	I-70 interchange in the vicinity of CR 100W-150W		X	X		X	X
2	Improved truck route from new interchange, across new terrain to Meridian Road, follow Meridian to south of Davis Street, then new terrain connecting to SR 9 somewhere near CR 300S			X		X	X
3	Franklin Street as 3-lane road from New Road to Davis Road				X	X	X
4	McClaron extension from the terminus east of SR 9 to Apple Street, as a minor collector.				X	X	X
5	Park Avenue extension from Apple Street to Blue Road				X	X	X
6	McKenzie Road as a 3-lane road from Meridian Road to Jaycie Phelps Drive				X	X	X
7	A new roadway, "Jason Road" or possibly "Iema Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.				X	X	X
8	Widen CR 300N from Fortville Pike to SR 9 = 3 lane or 5 lane?				X	X	X
9	Widen New Road from SR 9 to CR 400E to 3 lanes				X	X	X
10	Widen Blue Road to 3 lanes from US 40 to New Road				X	X	X
11	Widen I-70 to 6 lanes between Mt.Comfort Rd. and proposed new Interchange						X
12	Widen SR 9 to 6 lanes from New Rd to 300N, and to 4 lanes to 400N						X

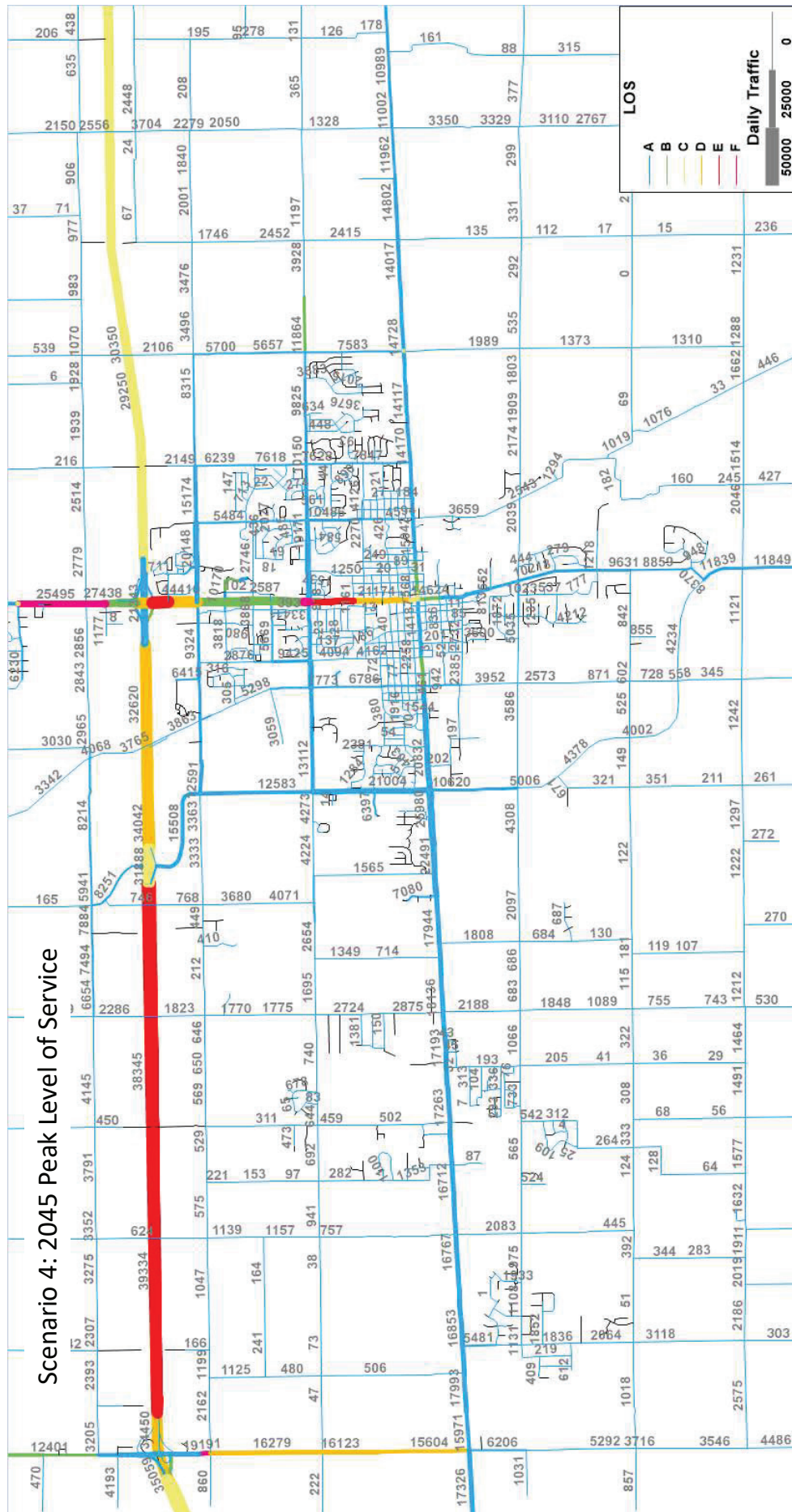


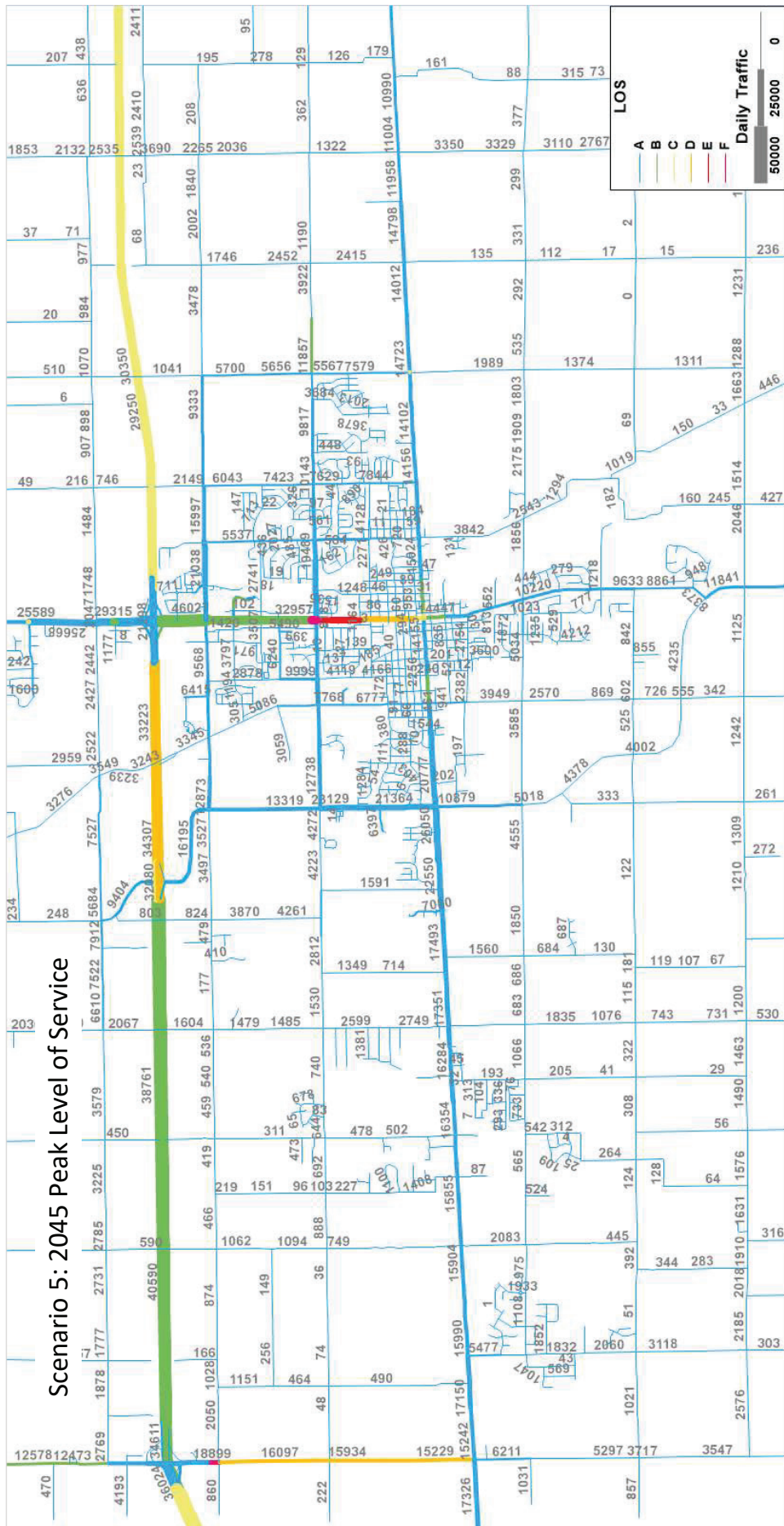












Land Use Scenario	2017 Base	2045					
		Scenario 1	Scenario 2	Scenario 3	Scenario 4		
Network	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
	216,739	317,229	317,229	317,229	317,229	317,229	317,229
Statistic							
Daily Vehicle Trips							
Daily VMT							
Interstate	910,503	1,233,627	1,265,831	1,256,162	1,235,581	1,256,582	1,267,657
Principal Arterial	175,201	260,127	242,301	245,428	259,580	244,284	240,858
Minor Arterial	160,478	255,169	262,069	321,829	327,073	348,988	352,249
Major Collector	343,713	510,564	488,519	463,907	457,959	437,094	432,864
Minor Collector	30,448	56,846	55,956	56,258	56,892	56,081	53,452
Local	110,735	174,901	177,736	156,879	163,466	158,863	158,290
Total	1,731,078	2,491,235	2,492,413	2,500,463	2,500,550	2,501,891	2,505,369
Excluding I-70	820,575	1,257,608	1,226,581	1,244,301	1,264,969	1,245,309	1,237,713

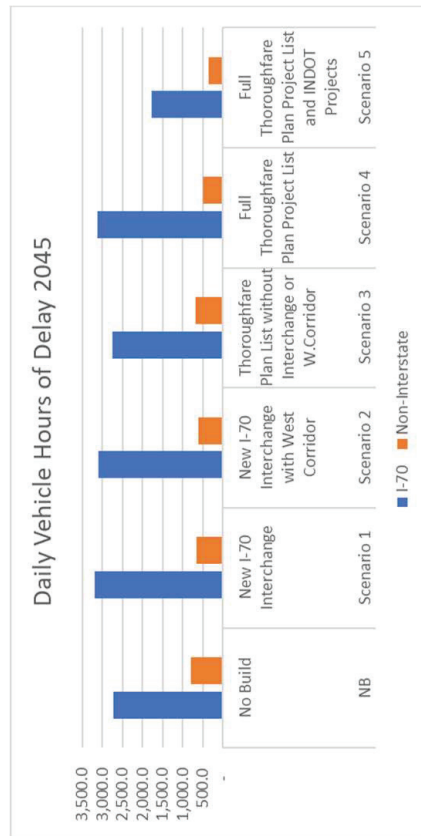
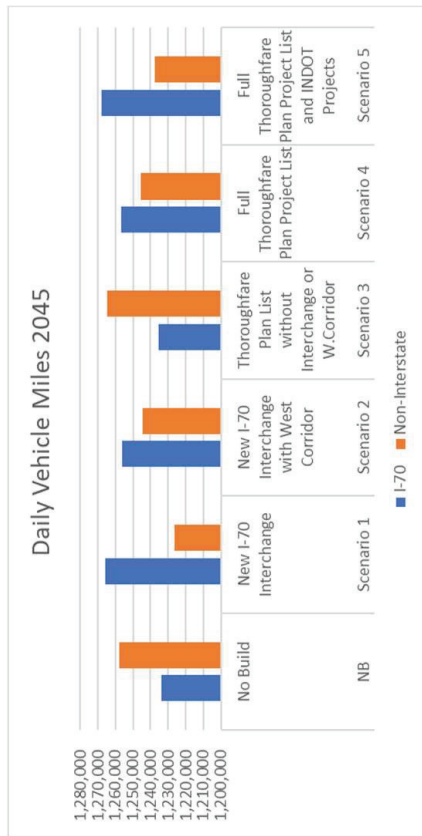
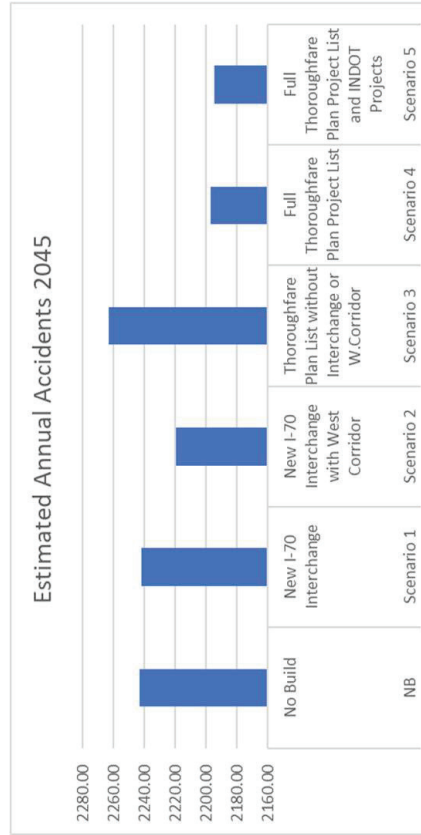
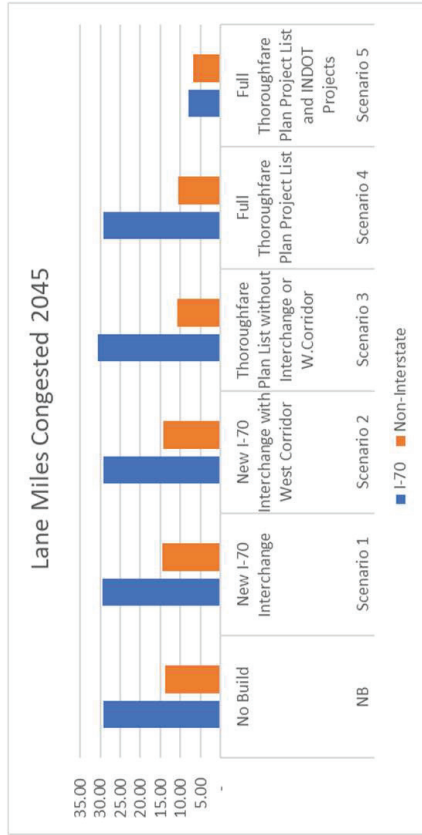
Land Use Scenario	2017 Base	2045					
		Scenario 1	Scenario 2	Scenario 3	Scenario 4		
Network	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
	216,739	317,229	317,229	317,229	317,229	317,229	317,229
Statistic							
Daily VMT							
Interstate	12,540	18,941	19,830	19,605	18,985	19,614	18,421
Principal Arterial	4,166	6,399	5,988	5,998	6,324	5,947	5,837
Minor Arterial	4,115	6,694	6,826	8,115	8,404	8,848	8,831
Major Collector	8,478	12,908	12,255	11,584	11,319	10,699	10,576
Minor Collector	763	1,428	1,405	1,412	1,428	1,407	1,341
Local	4,328	6,881	6,967	6,365	6,609	6,480	6,467
Total	34,391	53,252	53,270	53,079	53,069	52,996	51,474
Excluding I-70	21,851	34,311	33,440	33,474	34,084	33,382	33,053
Average Internal Trip Duration (min)	9.52	10.07	10.08	10.04	10.04	10.02	9.74

Land Use Scenario	2017 Base	2045					
		Scenario 1	Scenario 2	Scenario 3	Scenario 4		
Network	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
	216,739	317,229	317,229	317,229	317,229	317,229	317,229
Statistic							
Daily Veh. Delay Hours							
Interstate	585.1	2,735.7	3,185.4	3,108.7	2,754.1	3,112.6	1,772.2
Principal Arterial	39.8	258.3	217.2	194.1	241.0	180.5	138.5
Minor Arterial	13.9	248.6	220.4	223.8	178.1	155.0	60.4
Major Collector	47.1	289.7	193.5	192.9	240.7	153.7	137.6
Minor Collector	0.0	4.9	4.8	4.9	4.4	4.3	4.4
Local	0.6	4.6	18.9	4.2	8.1	8.0	8.0
Total	686.6	3,541.8	3,840.1	3,728.7	3,426.5	3,614.1	2,121.2
Average Delay per Vehicle (min)	0.19	0.67	0.73	0.71	0.65	0.68	0.40
Average Speed	50.3	46.8	46.8	47.1	47.1	47.2	48.7
Non I-70 Total	101.55	806.09	654.74	619.91	672.38	501.50	349.02
Non I-70 Average Speed	37.6	36.7	36.7	37.2	37.1	37.3	37.4

Project	Description	No. Scen.					Scen. 5
		1	2	3	4	5	
1	I-70 interchange in the vicinity of CR 100W-150W	X	X				X
2	Improved truck route from new interchange, across new terrain to Meridian Road, follow Meridian to south of Davis Street, then new terrain connecting to SR 9 somewhere near CR 300S		X				X
3	Franklin Street as 3-lane road from New Road to Davis Road			X			X
4	McClaron extension from the terminus east of SR 9 to Apple Street, as a minor collector.			X			X
5	Park Avenue extension from Apple Street to Blue Road			X			X
6	McKenzie Road as a 3-lane road from Meridian Road to Jaycie Phelps Drive			X			X
7	A new roadway, "Jason Road" or possibly "Jenna Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.			X			X
8	Widen CR 300N from Fortville Pike to SR 9 = 3 lane or 5 lane?			X			X
9	Widen New Road from SR 9 to CR 400E to 3 lanes			X			X
10	Widen Blue Road to 3 lanes from US 40 to New Road			X			X
11	Widen I-70 to 6 lanes between Mt. Comfort Rd. and proposed new interchange						X
12	Widen SR 9 to 6 lanes from New Rd to 300N, and to 4 lanes to 400N						X

Land Use Scenario	2017 Base	2045					2045 Scenario 5
		2045 NB	2045 Scenario 1	2045 Scenario 2	2045 Scenario 3	2045 Scenario 4	
Statistic Network	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
	Daily VMT at LOS						
	A	1,306,230	995,825	983,671	1,029,693	1,059,196	1,135,397
	B	412,214	113,453	117,182	108,028	128,673	105,322
	C	9,815	714,122	697,038	678,094	654,390	654,856
	D	1,652	299,642	304,029	265,926	301,130	234,611
	E	1,166	336,281	366,376	394,744	325,437	389,437
F	-	31,912	24,117	23,978	31,724	23,826	3,597
Deficient Lane Miles							
Interstate		29.28	29.48	29.21	30.52	29.21	8.05
Principal Arterial	0.09	4.14	4.20	4.14	4.14	4.14	1.93
Minor Arterial		4.32	4.32	4.32	1.86	1.58	
Major Collector	0.22	5.42	5.90	5.90	4.88	4.88	4.88
Minor Collector							
Total	0.31	43.17	43.90	43.58	41.41	39.81	14.86
Excluding I-70	0.31	13.89	14.43	14.37	10.89	10.60	6.81
Estimated Cost to Fix (Mill)	\$ 0.99	\$ 44.46	\$ 46.17	\$ 45.98	\$ 34.85	\$ 33.93	\$ 21.79
Percent of No Build		100.0%	103.8%	103.4%	78.4%	76.3%	49.0%
Accidents							
Fatal	2.90	3.46	3.43	3.39	3.47	3.36	3.36
Injury	256.60	300.16	299.47	296.47	302.89	293.51	293.21
Property Damage	1630.61	1939.70	1938.67	1919.29	1956.54	1900.09	1898.19
Total	1890.10	2243.32	2241.57	2219.15	2262.90	2196.96	2194.77
Percent of No Build		100.0%	99.9%	98.9%	100.9%	97.9%	97.8%

Project	Description	No Build	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Scen. 5
1	I-70 interchange in the vicinity of CR 100W-150W		X	X		X	X
2	Improved truck route from new interchange, across new terrain to Meridian Road, follow Meridian to south of Davis Street, then new terrain connecting to SR 9 somewhere near CR 300S			X		X	X
3	Franklin Street as 3-lane road from New Road to Davis Road				X	X	X
4	McClaron extension from the terminus east of SR 9 to Apple Street, as a minor collector.				X	X	X
5	Park Avenue extension from Apple Street to Blue Road				X	X	X
6	McKenzie Road as a 3-lane road from Meridian Road to Jaycie Phelps Drive				X	X	X
7	A new roadway, "Jason Road" or possibly "Jenna Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.				X	X	X
8	Widen CR 300N from Fortville Pike to SR 9 = 3 lane or 5 lane?				X	X	X
9	Widen New Road from SR 9 to CR 400E to 3 lanes				X	X	X
10	Widen Blue Road to 3 lanes from US 40 to New Road				X	X	X
11	Widen I-70 to 6 lanes between Mt. Comfort Rd. and proposed new Interchange						X
12	Widen SR 9 to 6 lanes from New Rd to 300N, and to 4 lanes to 400N						X



Public Input Exercise: Stickers

On July 30, 2019 City of Greenfield staff attended Hancock County Community Night Out at the Hancock County 4-H Fairgrounds. The public was asked to provide input by adding stickers to locations on a City of Greenfield map. The following four categories were each represented by a different sticker:

- Pink Dot – Safety Concerns
- Yellow Dot – Congested Areas
- Green Dot- Area of Bike/Pedestrian Need
- Red Star – Positive Area of Existing Network

Below is a table summarizing the responses received from the public.

Location	# of Pink Dots	# of Yellow Dots	# of Green Dots	# of Red Stars	Comments
New Road and Royal Drive			1		
Anderson Boulevard	1				
New Road and Martindale Drive	1				Cannot turn right.
State Street and Green Meadows Boulevard			1		Long light. Add turn right on red.
McKenzie Road and Windswept Road			1		
McKenzie Road between Franklin Street and Meridian Road			2		
Alley south of State Street and Park Avenue			1		
West end of Pennsy Trail			3		Extend Pennsy Trail.
Main Street and Switch Grass Drive	1				Add traffic signal.



Location	# of Pink Dots	# of Yellow Dots	# of Green Dots	# of Red Stars	Comments
North of Main Street between existing trail and Van Buren Street			1		Trail connection.
Franklin Street and North Street	1		1		
Broadway Street and 7 th Street		1			
Broadway Street and Walnut Street				1	
State Street and Main Street		1			
Tague Street and Center Street	1				



Public Input Exercise: Where are Improvements Needed

On October 5, 2019 Shrewsberry & Associates attended the Riley Festival in Greenfield, Indiana to solicit public input for the thoroughfare planning process. Shrewsberry had the public provide input by adding dollar stickers to various they felt should receive prioritized transportation funding. Participants were given three dollar stickers to place in one of four categories. Below is a table summarizing the responses.

Category	# of Dollar Stickers	Percent of Total
Intersection Improvements (Roundabouts, Traffic Signals, Turn Lanes, Signal Timings)	42	23%
Maintenance Projects (Repaving, Fill Potholes, Replace Signs, New Pavement Markings)	61	33%
Active Transportation Modes (Trails, Bike Lanes, Sidewalks, Transit, Carpool)	44	24%
Widening and New Roads (Added Travel Lanes, New Road Segments)	36	20%



Public Input Exercise: Where are Improvements Needed

On October 5, 2019 Shrewsberry & Associates attended the Riley Festival in Greenfield, Indiana to solicit public input for the thoroughfare planning process. Shrewsberry had the public provide input by adding pins and notes to a map of the City of Greenfield in locations where they felt improvements were needed. Below is a table summarizing the responses.

Location	# of Responses	Comments
SR 9 and CR 400 N	1	Dangerous intersection.
SR 9 and Cranberry Drive	1	No turn lane into subdivision sight distance issues.
SR 9 North of CR 300 N	1	Pedestrian facilities needed.
SR9 and CR 300 N	1	Needs intersection improvement.
CR 300 N and Fortville Pike	2	Unsafe intersection.
State Street and Martindale Drive	1	Difficult to get in/out of gas stations.
New Road at Fire Station 22	3	Add traffic signal for Fire Department.
New Road and Barrett Drive	1	Traffic signal for Walmart adds to congestion.
New Road between James Boulevard and Blue Road	1	Add sidewalks.
New Road and Blue Road	1	Add roundabout.
State Street between New Road and Muskegon Drive	1	Add sidewalk.
Apple Street between New Road and McKenzie Road	1	Add sidewalk.



Location	# of Responses	Comments
McClarnon Drive between State Street and Broadway Street	1	No speed limit is posted.
State Street and McClarnon Drive	3	Needs intersection improvement.
McClarnon Drive (General)	1	Connect roadway segments across City (Meridian Road to Apple Street).
Green Meadows Boulevard	1	No speed limit is posted.
McKenzie Road and Franklin Street	1	Congested during school dismissal times.
McKenzie Road and Broadway Street	1	Congested during school dismissal times.
State Street and McKenzie Road	6	Unsafe. Congested.
McKenzie Road and Blue Road	2	Add roundabout.
Jaycee Phelps Drive from McKenzie Road to Main Street	1	Widen and repair.
Windswept Road from McKenzie Road to Main Street	1	Widen road.
Main Street and Windswept Road	1	Trucks cause congestion at this intersection.
Meridian Road from Main Street to Davis Road	2	Resurface.
Culvert along Meridian Road (280 LFT north of Davis Road)	1	Roadway is narrow over culvert.
State Street from McKenzie Road to Main Street	1	Repave.
State Street and North Street	3	Traffic signal should not have been removed.



Location	# of Responses	Comments
Main Street and State Street	2	Congested.
Main Street and Howard Street	1	State Street shifts from 2 lanes to one. More signage is needed.
US 40 and CR 600 E	2	Add a traffic signal.
US 40 and CR 600 E	1	J-turns are a stupid idea.
Davis Road and Franklin Street	1	Change the TWSC to an AWSC.
State Street and Longfellow Lane	1	Road is too narrow. "Fake" turn lane.
Morristown Pike south of the Pennsy Trail	1	Add sidewalk to connect to trail.
Morristown Pike and Davis Road	1	Intersection improvement needed.
Weber Road between Franklin Street and State Street	1	High travel speeds.
SR 9 (General)	2	Complaint (not specified).
Interstate 70/State Street Interchange	1	Beautification.
Broadway Street from New Road to McKenzie Road	1	Pavement in poor condition.
Downtown (General)	1	Add more pedestrian crossing warning signs.
Franklin Road	1	Increase posted speed limit.
East Street from Park Avenue to Main Street	1	Add AWSC at all intersections, or add "Cross Traffic Does Not Stop" plaques.



Location	# of Responses	Comments
Penny Trail (General)	1	Better connections between downtown and trail.
Alley west of Center Street	1	Weeds need trimmed. Creates sight triangle issue.
US 40 (west of downtown)	1	Needs 3 lanes each way until downtown.
US 40 (west of downtown)	1	Add turn arrows along US 40 at Meridian Road, Franklin Road, and Broadway.
SR 9 (General)	2	Install an emergency vehicle preemption system. Can no longer pass.
US 40 Road Diet	17	Penny Trail is right there. Bikes should use trail. Does not lower travel speeds. Creates long queues. Especially when I-70 detours to US 40.
General	2	No Complaints.
General	3	Construct more roundabouts.
General	3	Do not construct any more roundabouts.
General	1	Add more one-way streets. Especially in downtown area.
General	7	Construct truck route. Get trucks out of downtown.
General	5	Construct SR 9 bypass.
General	1	Do not close (or do work) on I-70 and US 40 at the same time.
General	1	No J-turns



Location	# of Responses	Comments
General	1	Coordinate with INDOT and Hancock County.



Travel Demand Modeling Scenario Analysis Results

Greenfield Thoroughfare Plan
January 9, 2020

Control Total Forecast

Hancock County MPO Forecast			
YEAR	2015	2045	Net Gain
POP	78,802	148,893	70,091
HH	29,302	55,365	26,063
EMPL	23,015	88,726	65,711

Rejected as unrealistic, MPO staff agreed to incorporate Greenfield TP work in official forecast

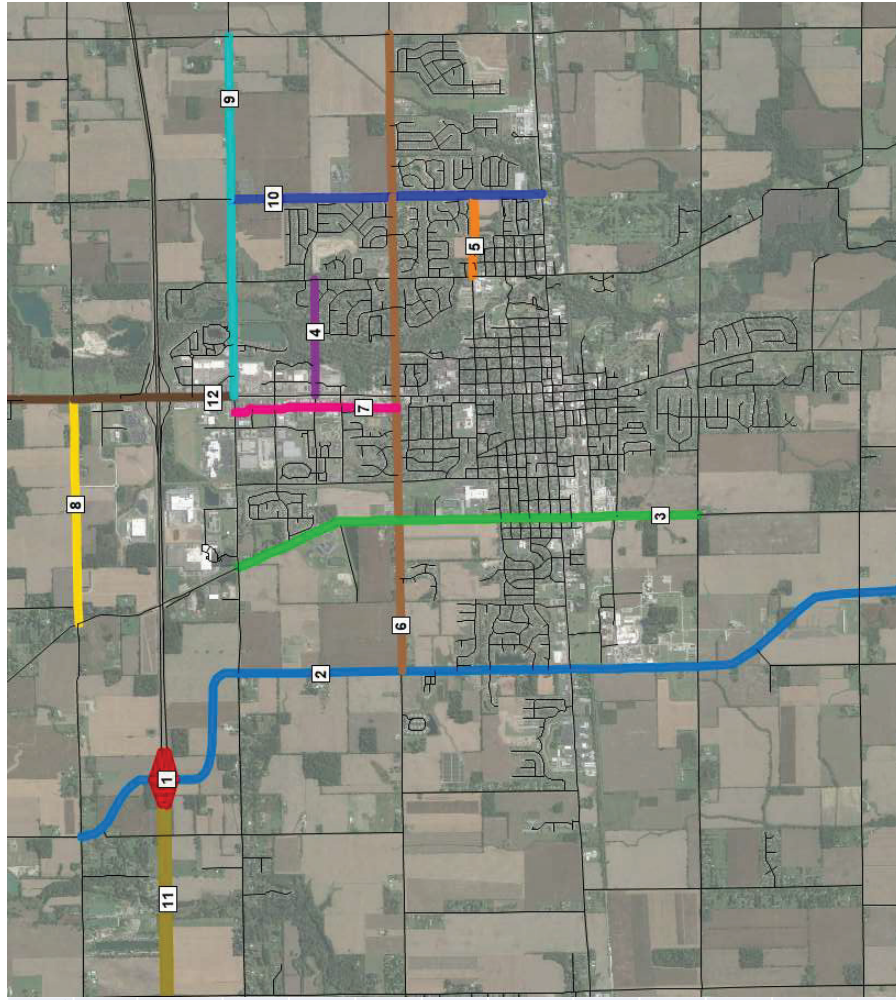
These assumptions were used as the input to the land use model

County W&P Forecast			
YEAR	2015	2045	Net Gain
POP	72,520	104,406	31,886
HH	28,579	40,266	11,687
EMPL	32,134	47,999	15,865

Greenfield Study Area Forecast			
YEAR	2015	2045	Net Gain
POP	36,439	52,461	16,022
HH	15,104	21,321	6,217
EMPL	15,252	23,531	8,279

Capacity Projects Included in Modeling Scenarios

Project	Description	No Build	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Scen. 5
1	I-70 interchange in the vicinity of CR 100W-150W		X	X		X	X
2	Improved truck route from new interchange, across new terrain to Meridian Road, follow Meridian to south of Davis Street, then new terrain connecting to SR 9 somewhere near CR 300S			X		X	X
3	Franklin Street as 3-lane road from New Road to Davis Road				X	X	X
4	McClaron extension from the terminus east of SR 9 to Apple Street, as a minor collector.				X	X	X
5	Park Avenue extension from Apple Street to Blue Road				X	X	X
6	McKenzie Road as a 3-lane road from Meridian Road to Jaycie Phelps Drive				X	X	X
7	A new roadway, "Jason Road" or possibly "Iema Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.				X	X	X
8	Widen CR 300N from Fortville Pike to SR 9 = 3 lane or 5 lane?				X	X	X
9	Widen New Road from SR 9 to CR 400E to 3 lanes				X	X	X
10	Widen Blue Road to 3 lanes from US 40 to New Road				X	X	X
11	Widen I-70 to 6 lanes between Mt.Comfort Rd. and proposed new Interchange						X
12	Widen SR 9 to 6 lanes from New Rd to 300N, and to 4 lanes to 400N						X

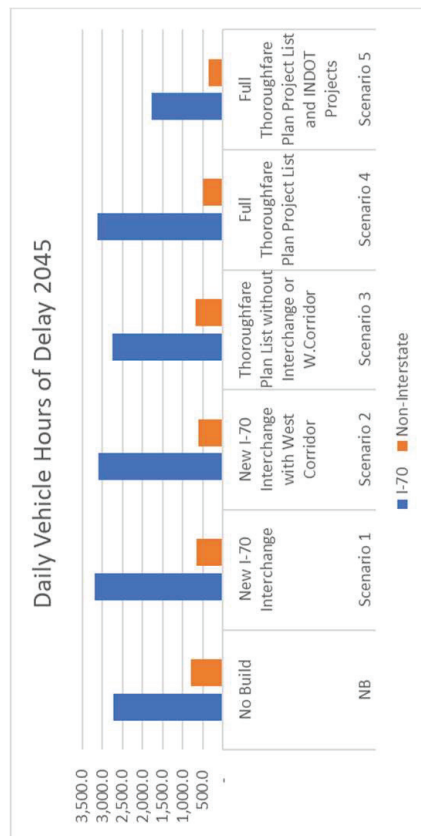
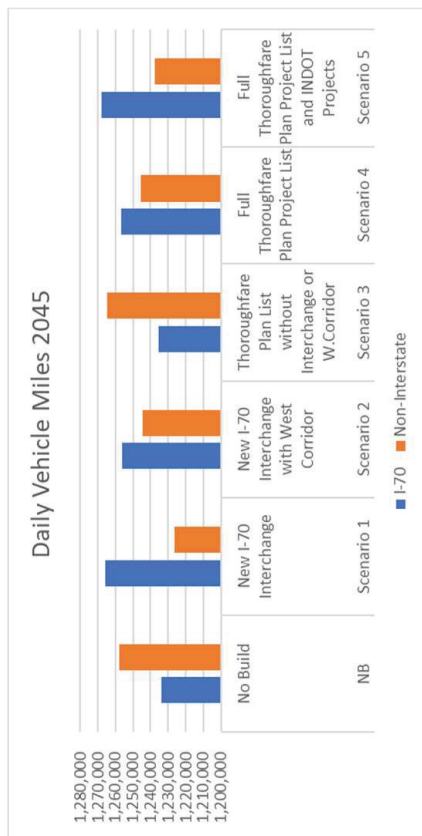
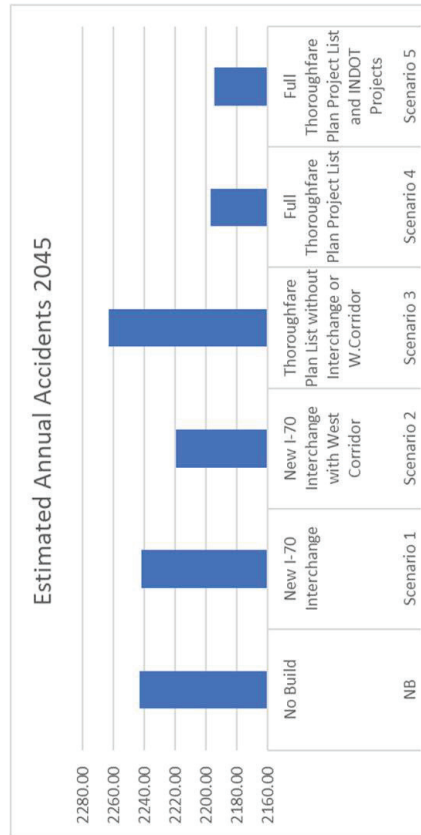
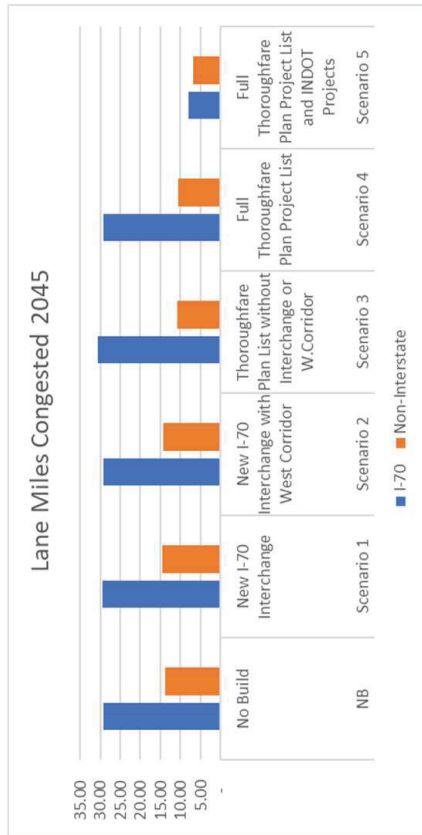


Land Use Scenario	2017 Base	2045					2045 Scenario 5
		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	
Network	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
	Existing	No Build	New I-70 Interchange	New I-70 Interchange with West Corridor	Thoroughfare Plan List without Interchange or W. Corridor	Full Thoroughfare Plan Project List	Full Thoroughfare Plan Project List and INDOT Projects
Statistic							
Daily Vehicle Trips	216,739	317,229	317,229	317,229	317,229	317,229	317,229
Daily VMT							
Interstate	910,503	1,233,627	1,265,831	1,256,162	1,235,581	1,256,582	1,267,657
Principal Arterial	175,201	260,127	242,301	245,428	259,580	244,284	240,858
Minor Arterial	160,478	255,169	262,069	321,829	327,073	348,988	352,249
Major Collector	343,713	510,564	488,519	463,907	457,959	437,094	432,864
Minor Collector	30,448	56,846	55,956	56,258	56,892	56,081	53,452
Local	110,735	174,901	177,736	156,879	163,466	158,863	158,290
Total	1,731,078	2,491,235	2,492,413	2,500,463	2,500,550	2,501,891	2,505,369
Excluding I-70	820,575	1,257,608	1,226,581	1,244,301	1,264,969	1,245,309	1,237,713
Daily VHF							
Interstate	12,540	18,941	19,830	19,605	18,985	19,614	18,421
Principal Arterial	4,166	6,399	5,988	5,998	6,324	5,947	5,837
Minor Arterial	4,115	6,694	6,826	8,115	8,404	8,848	8,831
Major Collector	8,478	12,908	12,255	11,584	11,319	10,699	10,576
Minor Collector	763	1,428	1,405	1,412	1,428	1,407	1,341
Local	4,328	6,881	6,967	6,365	6,609	6,480	6,467
Total	34,391	53,252	53,270	53,079	53,069	52,996	51,474
Excluding I-70	21,851	34,311	33,440	33,474	34,084	33,382	33,053
Average Internal Trip Duration (min)	9.52	10.07	10.08	10.04	10.04	10.02	9.74
Daily Veh. Delay Hours							
Interstate	585.1	2,735.7	3,185.4	3,108.7	2,754.1	3,112.6	1,772.2
Principal Arterial	39.8	258.3	217.2	194.1	241.0	180.5	138.5
Minor Arterial	13.9	248.6	220.4	223.8	178.1	155.0	60.4
Major Collector	47.1	289.7	193.5	192.9	240.7	153.7	137.6
Minor Collector	0.0	4.9	4.8	4.9	4.4	4.3	4.4
Local	0.6	4.6	18.9	4.2	8.1	8.0	8.0
Total	686.6	3,541.8	3,840.1	3,728.7	3,426.5	3,614.1	2,121.2
Average Delay per Vehicle (min)	0.19	0.67	0.73	0.71	0.65	0.68	0.40
Average Speed	50.3	46.8	46.8	47.1	47.1	47.2	48.7
Non I-70 Total	101.55	806.09	654.74	619.91	672.38	501.50	349.02
Non I-70 Average Speed	37.6	36.7	36.7	37.2	37.1	37.3	37.4

Project	Description	No. Scen. Build					Scen. 4	Scen. 5
		1	2	3	4	5		
1	I-70 interchange in the vicinity of CR 100W-150W	X	X				X	X
2	Improved truck route from new interchange, across new terrain to Meridian Road, follow Meridian to south of Davis Street, then new terrain connecting to SR 9 somewhere near CR 300S		X				X	X
3	Franklin Street as 3-lane road from New Road to Davis Road				X		X	X
4	McClaron extension from the terminus east of SR 9 to Apple Street, as a minor collector.				X		X	X
5	Park Avenue extension from Apple Street to Blue Road				X		X	X
6	McKenzie Road as a 3-lane road from Meridian Road to Jaycie Phelps Drive				X		X	X
7	A new roadway, "Jason Road" or possibly "Jenna Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.				X		X	X
8	Widen CR 300N from Fortville Pike to SR 9 = 3 lane or 5 lane?				X		X	X
9	Widen New Road from SR 9 to CR 400E to 3 lanes				X		X	X
10	Widen Blue Road to 3 lanes from US 40 to New Road				X		X	X
11	Widen I-70 to 6 lanes between Mt. Comfort Rd. and proposed new interchange							X
12	Widen SR 9 to 6 lanes from New Rd to 300N, and to 4 lanes to 400N							X

Land Use Scenario	2017 Base	2045					2045 Scenario 5
		2045 NB	2045 Scenario 1	2045 Scenario 2	2045 Scenario 3	2045 Scenario 4	
Statistic Network	Existing						
	Daily VMT at LOS						
	A	1,306,230	995,825	1,029,693	1,059,196	1,083,410	1,135,397
	B	412,214	113,453	108,028	128,673	105,322	519,148
	C	9,815	714,122	678,094	654,390	665,286	654,856
	D	1,652	299,642	265,926	301,130	234,611	183,083
	E	1,166	336,281	394,744	325,437	389,437	9,288
F	-	31,912	23,978	31,724	23,826	3,597	
Deficient Lane Miles							
Interstate		29.28	29.48	29.21	30.52	29.21	8.05
Principal Arterial	0.09	4.14	4.20	4.14	4.14	4.14	1.93
Minor Arterial		4.32	4.32	4.32	1.86	1.58	
Major Collector	0.22	5.42	5.90	5.90	4.88	4.88	4.88
Minor Collector							
Total	0.31	43.17	43.90	43.58	41.41	39.81	14.86
Excluding I-70	0.31	13.89	14.43	14.37	10.89	10.60	6.81
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Project	Description	No Build	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Scen. 5
1	I-70 interchange in the vicinity of CR 100W-150W		X	X		X	X
2	Improved truck route from new interchange, across new terrain to Meridian Road, follow Meridian to south of Davis Street, then new terrain connecting to SR 9 somewhere near CR 300S			X		X	X
3	Franklin Street as 3-lane road from New Road to Davis Road				X	X	X
4	McClaron extension from the terminus east of SR 9 to Apple Street, as a minor collector.				X	X	X
5	Park Avenue extension from Apple Street to Blue Road				X	X	X
6	McKenzie Road as a 3-lane road from Meridian Road to Jaycie Phelps Drive				X	X	X
7	A new roadway, "Jason Road" or possibly "Jenna Road" from New Road to McKenzie Road on the west side of SR 9 (a frontage road). This would be a major collector.				X	X	X
8	Widen CR 300N from Fortville Pike to SR 9 = 3 lane or 5 lane?				X	X	X
9	Widen New Road from SR 9 to CR 400E to 3 lanes				X	X	X
10	Widen Blue Road to 3 lanes from US 40 to New Road				X	X	X
11	Widen I-70 to 6 lanes between Mt. Comfort Rd. and proposed new interchange						X
12	Widen SR 9 to 6 lanes from New Rd to 300N, and to 4 lanes to 400N						X



Question 1: What location most needs a sidewalk, trail, bike lane, or crossing?

Question 1 Responses:

Blue road between mckinzie and new Mckinzie around the bridge by 9
Not sure
West side of SR 9 north of Mckenzie (sidewalk)
None. The Pennsy Trail does a phenomenal job for our city and I don't feel we need any additional trails.
None. More car lanes are needed on US40 now.
Why not better signage for the trail south of 40 instead of a bike lane on 40?????
There should be a safe way to walk to the library without multiple times to cross the street. My husband and I are walkers and live in Indigo Springs. Sidewalks stop and go and often require crossing in the middle of a block. It should be possible to at least walk all the way from Apple to the library without zigzagging. We love Greenfield, but the lack of sidewalks in established areas is ridiculous!
We have the Pensy trail so no need for bike lanes.
State Street going to Walmart. Many people are trying to cross the road to go to Walmart and are walking across State Street. It is NOT safe.
100 N/W McKenzie Rd
A bypass around this area is needed.
Pretty good on that. We need semis out of here
No opinion
NOT 40
More street lights would be nice like on North St.
Please no bike trails on 9. Put the bike trail beside the sidewalk off the road!
By Maxwell Intermediate School
None that i am aware
Too many bike lanes now!!
NO BIKE LANES, we have a trail for that and 40 and 9 are too busy for riders to be safe. It's just plain stupid since we have the trail. Need sidewalks US 40 west of Franklin. Also, any road in town that does not currently have any sidewalks on either side of the road. There is no sidewalk on the east side of the street near Weston School but at least there is one on the west side. Just please stop narrowing our busy streets w bike lanes that just are NOT needed. Build another trail somewhere N of 40 if you need to. Anything 40 or South is just plain ignorant.
Not sure
N/A
Sidewalks on 9 from the interstate down to kroger
State Road 9 south Davis road to Steele Ford Road (at minimum).
St Rd 9 needs some type of pedestrian crossing close to 70. 40 and 9 is also not walking/crossing friendly.
Davis road
Sidewalk from Prairie Meadows to town amenities, and NO BIKE LANES. NO ONE IN GREENFIELD BIKES EXCLUSIVELY.
We didn't need the bike lane on US40
N/A
For the love of God, no more bike lanes
State rd 9
Park St. from Apple going west needs a sidewalk.
Not. 40 or west new road No bike lanes needed
None come to mind
State road 9 on the Northside where most of the businesses are located.

Question 1 Responses:
Apple street and New road area
No opinion.
Blue Road, Main to McKenzie; Meridian Road, Justice to McKenzie
Not sure.
None!
on 9, it would be great to have a sidewalk that extends from davis to walmart. in order for this to happen i assume it would be on the E side of 9, but there is no safe place to cross, semi trucks blow through that light at davis and 9 all the time, would be dangerous to cross
No more bike lanes. It would be great if there was no parking on Main Street through town making it a 4 lane road. A noise ordinance through town is needed as well, like Morristown has.
Sidewalks US40 West of Franklin. Eliminate the dangerous bike paths that cause traffic congestion. There is already a bike path 1/4 mile away.
Between the high school and Junior High
No suggestions here
No bike lanes needed
Chapman up to Davis Road, Morristown Pike south of 40
Warnings at morristown pike and Pennsylvania trail
Idk
not sure
No more
South state and davis ed
We need a safe north-south route for cyclists and pedestrians.
Sidewalk on North 9
Sidewalks on the west side of Greenfield along US 40
Pedestrian bridge on Broadway for GC High School students.
Bike lane along SR 9 South of town. The new lanes on 40 near Covance are HORRIBLE, and confusing. The Penzy trail is close enough... bike lanes there not needed!
East side. Between Apple St & Date Sts need sidewalks.
Not sure
Us40 where they put a bike lane by a bike lane
no more bike lanes....total waste of money and space. not enough use to justify these.
Don't need any more bike lanes to not be used like 40
North State street all the way to Elanco.
Moreover, the sidewalks we presently have need to be maintained/redone before adding.
Sr nine. In front of Kroger
State road 9 and 200. By wal mart
Don't know
Pedestrians need a way to cross SR 9 on the north side as many go from the hotels to Walmart and restaurants on foot and have trouble getting across
US 40 from Berry Street to Blue Road sidewalks
Not Highway 40! The bike lanes are totally a waste since they run parallel with the Pennsy Trail. They have made this thoroughfare more congested and dangerous. It would make more sense to put a bike trail along a North South street, perhaps Apple Street.
Blue Rd from new Rd to McClarnon at. (On residential side across from the corn field).
All area without sidewalks. Trail bike lanes would not use
Sidewalks in residential areas.NO MORE bike lanes or trails

Online Public Survey

Question 1 Responses:
Would love to see the penny trail come further west and have connections into the neighborhoods. No more bike trails. They don't even use the one you added.
Apple Rd from new road South. And New Road from Apple to Walmart
9 and Davis
Sidewalks within the city where kids walk to school.
Can I say which one doesn't? Decreasing 40 to one lane was the stupidest idea ever
unknown
Sidewalks west main street
Anywhere there is a subdivision that needs connected to public areas (schools, churches, etc)
Extend McClarnon as a trail or bike lane to State Rd. 9. Kids then can ride their bikes to the store. Fro the east side with less risk of traffic. The original plan called for a road.
Don't know
Sidewalks needed North on SR 9 to New Road
New Rd.
Sidewalks from the Wellness Center through the Apartment complex west of State Road 9 as well as long State Road 9. Too many people are walking on the shoulder of the road.
McKenzie and Brandywine
Not sure
Meridian Road
Sidewalk from Riley Park tire service to Apple St. South side of US40
SR 9 and New Rd
South side of McKenzie from Oak Blvd to Circle K
Trail, big enough for walkers and bikes that go north and South.
Sidewalk along W. McKenzie on the north side
Apple st. From McClarnon to new road then new road to Martindale
All along SR9 between 70 and McDonald's
New road
SR 9 north of hospital -all the way to 70
Apple Street from New Road to McClarnon Drive
40 east of apple
New Road & SR 9 needs a crossing
Both sides of State south of Tague all the way to Davis needs complete sidewalks. Bike lane on State to 300.
not sure
200N and Fortville Pike
Windswept Rd.; 100N
?
A trail along Branywine creek from Henry B. Wilson Park thru Brandywine Park would be great
Not sure
Mckenzie out to 400E- Sidewalk
Since I live on the south side, I'd like to see more connection to downtown from the south side—down to weber.
None
McKensie road

Question 1 Responses:
Oh, God! No more bike lanes, please! I appreciate what you're trying to do, but this town isn't ready for the kind of chaos cyclists bring to a city's infrastructure. It's too damn "wild west" here for that...everyone will be in danger. Please don't. Instead, build a network of sidewalks that connect residential communities to each other and to shopping and eating places.
Leaving Keystone sub division west on McKenzie near Johnson's towing. Would be nice to see a trail attach to the Pennsy trail at some point.
N Noble...kids walking to school
Blue road
South state..From cemetery to Davis road sidewalks are horrible and dangerous. I see people on bikes a lot.
Sidewalk connector between Meadows at Springhurst and the Library along McKenzie
Sidewalk on west side of State Road 9
New road from Franklin to Apple.
No idea
Sidewalk needed on McKenzie from 9 west to Broadway
We need a sidewalk on N. Apple to New Rd.
Unsure
St Rd 9 further north
Sidewalks at 9 and crossings at the roundabout at McKenzie and Broadway
Greenfield.
Sidewalks on Morristown Pk.
I think all the side streets in town should have sidewalks. I used to live on 5th street, and there was no sidewalk.
E New Road from SR 9 to Apple and Apple until current sidewalk
Sidewalks west of Broadway
Any of the cross streets on SR9
Too many bike lanes now!!
Unknown
40 near sawmill subdivision to Leo's
North main
Apple st North 9
Wilson Street between 7th and Park should have a sidewalk as it is located very close to the schools and bus transportation is not provided in this area.
Extend the sidewalk along Meridian Road to U.S. 40. Create a crosswalk from the east side to the west side of Meridian Road.
They all do but McKenzie
N. State Rd. 9 along the business routes
A sidewalk along 9. I notice a lot of people walking
9 south past Jensen's to Davis rd
Pennsy trail continuation east of 400 east.
No opinion
FORTVILLE PIKE SIDE WALK CONTINUED TO BECKENHOLT PARK. (NEED BIKE AND/OR SIDEWALK.
From town to Beckenholt park
State road 9 and new road
Park Ave between State and Apple needs a sidewalk.
Not sure
A trail that links business and industrial area on northern end of town with the residential areas, businesses, parks and government buildings to the south.

Online Public Survey

Question 2: Where in Greenfield is the road or intersection too congested?

Question 2 Responses:

Same as above. Especially 9 and mckinzie and 9 and 40
On State between Teague and the hospital.
SR9 & 40, SR 9 and New Rd, Mckenzie Rd & SR 9
Mckenzie and sr9, left turn lane on State Road 9 gets congested so badly it does become a traffic Hazard, as the people turn left are stuck in the straight lane. I was also rear-ended while waiting to turn left onto new road from State Road 9.
All of US40 where car lanes were turned into bike lanes.
US 40 and Meridian and further west. Again, why the bike line, why go from 4 lanes to 2?
9 north of McKenzie
Same as #1 - most of 9 and 40. With the road diet, 40 moves half the traffic, leaving very few windows of opportunity to enter traffic (especially hazardous to make a left hand turn).
New & State
Intersection of SR 9 & New Rd Intersection of SR 9 & McKenzie Intersection of SR 9 & US 40
State St and McKenzie Rd
Downtown area where they intersect. And outwards atleast a quarter mile each direction.
All of 9!
All of State Rd 9
One lane both ways on 40 from the "NEW DIET"
State & Main
State Road 9 & McKenzie Road
Well now it's that section of 40 that got the road diet. Really frustrating.
All along Route 9, North of McDonalds down thru and past Route 40.
State road 9 and New Road, US40 west of Franklin.
US 40 & SR 9 SR 9 and Mackenzie SR 9 and Green Meadows SR 9 and McClannon US 40 and any side street west of Franklin
Hwy 9 and 40
Main and State Apple and Main Broadway and Main
West side of greenfield on US 40 (main st)
Downtown by the courthouse and all of 9 between 3 and 6 everyday. We need a bypass and have for the 20 years I've lived here. It's crazy. The longer you let it go the less land there will be to fix it.
40 and Meridian
State Road 9 and US 40
New Road and SR9
Mckenzie and st rd 9
McKenzie and 9, as well as 9 and New road
40 & 9
State street, us 40
Depending on time of day, any intersection involving SR9 can be an issue.
US 40/Main & State
Franklin St. and 7th st.
SR 9 and 40
200 n 200 w
McKenzie and SR 9
9 and new rd
New 40 configuring

Online Public Survey

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New & State
Intersection of SR 9 & New Rd Intersection of SR 9 & McKenzie Intersection of SR 9 & US 40
State St and McKenzie Rd
Downtown area where they intersect. And outwards atleast a quarter mile each direction.
All of 9!
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State road 9 and New Road, US40 west of Franklin.
US 40 & SR 9 SR 9 and Mackenzie SR 9 and Green Meadows SR 9 and McClannon US 40 and any side street west of Franklin
Hwy 9 and 40
Main and State Apple and Main Broadway and Main
West side of greenfield on US 40 (main st)
Downtown by the courthouse and all of 9 between 3 and 6 everyday. We need a bypass and have for the 20 years I've lived here. It's crazy. The longer you let it go the less land there will be to fix it.
40 and Meridian
State Road 9 and US 40
New Road and SR9
Mckenzie and st rd 9
McKenzie and 9, as well as 9 and New road
40 & 9
State street, us 40
Depending on time of day, any intersection involving SR9 can be an issue.
US 40/Main & State
Franklin St. and 7th st.
SR 9 and 40
200 n 200 w
McKenzie and SR 9
9 and new rd
New 40 configuring

Online Public Survey

Question 2 Responses:
40 and 9
40 on west end now that it is single lane
Downtown, particularly 9 and 40.
Same, and highway 9 north of 40
Refer to comment listed for question #1
McKenzie and Blue
9 & McKenzie
Obviously it's southbound St. Rd 9 where it becomes 1 lane at McKenzie. Also on eastbound Main St. at State Rd 9. Traffic now backs up past Pennsylvania St. eastbound on Main.
40 west because of the bike lane which was dumb
Many places along 9
SR 9 and Main Street Main Street and the street adjacent to Bradley United Methodist Church. If you are attempting to turn East onto Main Street, you can sit through several lights because traffic is so backed up.
[Left Blank]
SR9 and North St
St Rd 9 at North Street up ti 70
9 and 40
McKenzie and 9
All seem to flow smoothly. Sometimes 40 and Franklin east bound gets congested in the evening rush hour.
Weird lane arrangement east bound new road on west side of state road 9
State Road nine
State Rd 9 during rush hour.
Us 40 and 9...needs a turn signals
State and McKenzie
SR 9 and McKenzie
McKenzie and 9 SR 9 from McKenzie to US 40
SR 9 and McKenzie Rd
9 & McKenzie
All seem OK to me. Cogestion at SR 9 and US 40, mostly when semis are diverted from I 70.
[Left Blank]
Its too congested in the early morning esp around 7 am.
See previous box
Same as above.
9 and40
9 and mckenzie
McKenzie and state road 9
New road when factories release. They need to stagger the shifts letting out.
9 & 40
McKenzie & 9.
Same
State road 9 and 200. By Wal mart
SR9
St Rd 9 north of 40
State St and Main St. the left turn lights have helped, it is difficult for the semis to make turns

Online Public Survey

Question 2 Responses:
State road 9 and New Road
All along SR 9 all the way through town.
Same as above
9 and McKenzie
State Street from Main to I-70
40 & 9
US 40 and 9. Too much semi traffic is making it hard to get through the lights.
SR 9 and SR 234
St road 9 and McKenzie
New road during shift change at the factories.
State road Nine and McKenzie
State Road 9 and New Road - all directions.
St Rd 9 & US 40
[Left Blank]
[Left Blank]
State R's 9 between 40 and New Rd
SR 9 and US 40
State St. both directions from McKenzie to Main St. at all side street intersections
State Street downtown
State Road 9 and New Road. State Road 9 and McKenzie. State Road 9 and Main Street
State Street
McKenzie and 9. The light there doesn't stay green long enough on the easy/west to let very many cars through...maybe five or six cars.
Through downtown
West side of Gfield US 40. New bike lane fiasco
SR 9 and US 40
The stoplight on 9 (N/S bound) at Speedway/Jimmy Johns
9 and McKenzie
SR 9 and McKenzie
New road and 9
SR9 and New Rd. SR9 and 40
State Road 9 and US40
SR 9 and US 40
New Road and Barrett Drive
State State and New
9 and McKenzie by walgreens
State Road nine and McKenzie
SR 9, green meadows drive to Boyd ave..
State and Main. State and McKenzie State and Green Meadows
traffic merging down to one lane going south on 9 at Mckenzie
SR 9 and 200 N
Windswept Rd at US 40; New Rd at State St; State St from US 40 to I70. US 40 from Windswept Rd through town; Green Meadows at State St
New and 9 McKenzie and 9 40 and 9
From McClarnon South to 40
New and 9

Online Public Survey

Question 2 Responses:
Not sure
Mckenzie and State
All of state road 9 from new to just south of 40.
Everywhere
Near the library
A little congestion outside CVS. Also, the I70 off-ramp needs a sign that more clearly illustrates the function of the right turn/merge lane. 50% come to a dead stop while the other 50% know to merge and keep going. Makes for a hairy commute home sometimes.
[Left Blank]
9 and 40 9 from Makenzie Road to 40.
Mackenzie and blue
[Left Blank]
9 and Mckenzie
apple and new road
St Road 9 at Mckenzie
State road 9 & McKenzie
Boyd to New road.
North State Road 9
sr9 south from mckenzie past us40
State road nine
[Left Blank]
Intersection of 9 and McKenzie
McKenzie/State St. {S.R. 9}
Muskegon left turn lane onto N. SR 9-- we need 2 left turn lanes!
State Road 9 and McKenzie Road
300 N and 9, all along state road 9 from I-70 to downtown. Too many businesses with access to the state road, dangerous to pull out all along that stretch from I70 to Mew Road especially
St Rd 9 between 300 West and 40
9 and Mckenzie: turning L from 9 onto New Rd
Downtown is the most busy, lights cause problem when the "flashing" yellow arrow starts.
E. McKenzie and Blue Rd.
McKenzie and Blue
On SR 9 from McDonald's to the hospital, sometimes all the way to US 40.
SR 9 and New Rd
40 & 9
State and Main
New Road & SR 9
State Road 9 McKenzie to US40
State and McKenzie
New rd and 9
North main
9 and main st 9 and new road
St Road 9
S.R. 9 and U.S 40. On a recent Saturday S.R 9 was backed up from U.S. 40 to McKenzie. S.R. 9 is often impossible to cross where there is no light from U.S. 40 to Maxwell.
McKenzie and 9

Online Public Survey

Question 2 Responses:
McKenzie and 9. Also, people trying to get in and out of McDonalds is extremely dangerous.
State Road 9 and US 40/Main Street
State and Main - especially on State McKenzie and State - especially turning out of CVS onto McKenzie
SR 9 from US 40 to McKenzie
1. State Road 9 all the way through Greenfield 2. U.S. 40 through Greenfield
The intersection at 9 and 40 can be troublesome, but usually only when there's a large semi-truck trying to make a turn without enough room. Not sure if there's a better way large trucks can be routed.
State st from north of McKenzie st. To Green Meadows
state st.
Not sure
St rd 9 -new rd south to us 40. Us 40 from 150 east through downtown
40 & 9
SR9
St Rd 9
McKenzie and SR 9
State Road 9 and McKenzie
State and Main
Hwy 40 west of Franklin, Hwy 9 just north of Mackenzie
All down SR9 from McKenzie to Tague, depending on which direction you are going. Mckenzie from Franklin to SR9 in the afternoon/evening.
Intersection from us40 and 9 all the way back to mc donalds. ■
SR9 between Green Meadows Dr and Mckenzie Rd.
US 40 from the west side of town to downtown. Going both east and west. The new road diet only worsened the issue.
9 and 40
SR 9 and McKenzie
9 & 40 Franklin & 40
SR 9 by the hospital
40 sawmill addition. Took 4 lanes down to 2 lanes
9 and McKenzie
State road 9 and McKenzie
US40 west of Greenfield.
SR9 and North St.
Apple Street
State road 9 and Main st.
McKinsey & SR9
9 and mckenzie
I noticed when there is a back of traffic on S.R.9 downtown going south bound that there are trucks either turning to go east on U.S. 40 or go west on U.S.40. Why not post some where after they get off on I-70 heading east. Have to signs to by pass roads one saying U.S. 40 EAST BOUND BYPASS, the other saying U.S. 40 WEST BOUND BYPASS. Possible use New road to Broadway, or Meridian for west bound, New road to Apple street for East bound. The streets are just suggested ones, other may be considered.

Question 3: What location in Greenfield is a traffic safety hazard?

Question 3 Responses:

9 and New! 9 and mckinzie 40 and 9
The new bike lanes west of town on Hwy 40. The two lanes that were lost need to be restored. This is
New Rd & SR 9, US 40 from Legacycinema to 75 W
Blue Road and 40. It's very difficult to turn left. Sr9 and mckenzie for those turning left onto mckenzie. New road and sr9. A roundabout at McKenzie and blue road would be nice as well but I don't feel it's a traffic hazard.
US40 West
US 40 and Meridian....this is crazy putting a bike lane on a highway when the trail is across the street
Unprotected left turns across 9 north of McKenzie
Most of 9 and 40 (from start of road diet to 9.
State Street
Intersection of Fortville Pike/Franklin Rd & 300 N Intersection of Mt Comfort Rd & 500 N
State St
Having 2 major roads, State Roads 9 and 40, going through middle of downtown Greenfield.
St rd 9 all the way from I-70 to 40!
All of State Rd 9
ONE LANE DOWN 40, was the stupidest idea that has been done, I have yet to find one person that likes it, Bikes DON'T need to be on 40, we have pensive trail for that. The congestion is awful
State & Main.
State Road 9 & McKenzie Road
500 N/Junction & SR 9 intersection
Route 40 and Route 9. It is atrocious. Big semis trying to make small turns, and if you are in their way, good luck
State road 9, too many semis, US 40 with the bike lanes.
US 40 and SR 9
All if Hwy 9 from the cemetery to the interstate!
Hwy 40 thru town
Van Buren St and US 40
1 lane traffic on west 40 with the new bike lane is asinine and idiotic!!!!!!!
40 and Meridian
Southbound State Road 9, as it merges to one lane, at Mackenzie Road. Drivers cut in from the right, or pass on the right at high speeds (from what is actually a right turn lane).
New Road and SR9
Us 40 bike lanes
State Rd 9 and New Road
40 & 9
State street! The trucks need a bypass. Also US 40 with the stupid, unnecessary, unused, traffic-slowing BIKE LANES. What a stupid idea.
North SR9.
New Rd & St Rd 9
US 40
SR9 and 40, and the "crosswalk" at 9 and North.
State rd 9
[Left Blank]
9 and new rd

Question 3 Responses:
The new configuration of 40 Almost impossible to make left turns during rush hour No bike trail needed since there is one 5 yard from the highway.
Hwy 9
At Rd 9 south of McKenzie to 40
Left turns without turn lanes throughout the city.
West side of 40, since new bike lanes installed, and lanes decreased
State Street throughout Greenfield. Too much heavy truck traffic, resulting in congestion.
Blue and New Road
New Rd and Broadway. Traffic is heavy and fast in the afternoon. Hard to get out
The corridor of west Main St. which became one lane (with bike lane) created by the State's Road Diet plan. Dangerous to make a left turn onto Main from any street or business not having a traffic light. Also the roundabout at Franklin and New Rd. Whoever designed that should be fired. The turn onto westbound New Rd. from southbound Franklin or westbound New Rd. is much too sharp and dangerous. And why is that stupid utility pole right there? Ever heard of underground utilities? I see 18 wheelers that must navigate it with the trailer
New road and 9
SR9
Intersection of SR 9 and Main Street and SR 9 just south of 70 in front of Bob Evans and that area. High traffic, people walking across the street, turn lanes, traffic coming off of the interstate. There is a lot going on.
<i>[Left Blank]</i>
US 40 west of Franklin.
Any place where you turn left on 9
State road 9 from 40 to the hospital. Too congested.
St road 9
Blue and 9, 9 and 40
Entrance to legacy cinema
Downtown Greenfield
E. Muskegon Dr and SR 9 When going west on E. Muskegon (leaving Walmart, Buffalo Wild Wings, Hardees, etc) and turning south at the light.
State Rd 9 by the hospital
Sawmill and movie theater
SR 9 corridor from US 40 north
9 and New Rd. Fortville Pike and 300 N. Davis and Franklin
SR 9 and McKenzie Rd
Hwy 9 & Mckenzie rd
Not aware of any.
<i>[Left Blank]</i>
Coming from the N (going S) in E bound turn lane on I 70.
State road 9 and McKenzie - Entrances to Shell station, exit out of CVS going east on McKenzie
The intersection of state road 9 and Main Street.
9 and 40
intersection of state road 9 and north street
State road 9 at McKenzie st thru town.
State st and New Road. 843 w new rd entrance and HRH entrance.
Intersection of 9 and 40. Also intersection of 600 e and 40
The four way stop at Blue Rd & McKenzie.
Intersection of sr 9 and McKenzie

Online Public Survey

Question 3 Responses:
McKenzie and state road 9
Franklin Road and 300 North
St Rd 9 near the hospital
vehicles coming out of businesses on SR 9 between New Rd and the interstate
State road 9 and North Street
Between I-70 and Davis Road on State Road 9.
On state 9 between Mackenzie and 40
State road 9 US40 with new bike lanes and 1 lane areas
State and North street intersection.
Highway 40 with reduced lanes
US 40. Reducing it to 1 lane has created major traffic concerns. Also any county intersection with a stop sign. No
SR 9 and SR 234
St road 9 and McJenzie
Main Street after the restructuring.
State road Nine and McKenzie
300 N and Fortville Pike
N. Franklin St, drivers exceed the speed limit daily
North 9
Downtown
Don't know
State Road 9 and Main Street. State Road 9 and North Street State Road 9 and New Road
Statte St. & North St. Intersection
North State Street, north of McKenzie
State Road 9 and New Road. State Road 9 and McKenzie. State Road 9 and Main Street
North State
McKenzie and 9
Trying to pull out to go left on 40 now that it's only one lane from Franklin on out to the west.
St Rd9 & Makenzie
SR 9 and New Road
State road 9, in front of McDonald's Potholes in front of the hospital
9 and North Street
For me, Broadway and New Rosd
New road at n. Martaindale dr
1. The end of Broadway as it connects with New Rd. 2. Exiting 70E into Greenfield - non-locals always stop/yield when it is not a yield, then that lane is a turn lane all the way down to New Rd - making a right-hand turn at both
State Road 9
SR 9 and US 40
New Road and State Street
State St. and New
9 and Mckenzie
McDonalds
New Road & SR 9
N State & Green Meadows with McD having an entrance on State so close to the intersection and light. The county road intersections. Especially when the corn is up.
Side road to Kohls and the Hotels off of 9
US 40 AND SR 9

Online Public Survey

Question 3 Responses:
New Rd at State St; Windswept at US 40; Getting to bike lane from Windswept Rd: 100 N between 200 W and Franklin St; Bike lane on US 40;
Windswept and 40. Roundabouts between jr high and GCHS at arrival and dismissal times.
State Road 9 and New Road
9 and McKenzie
400 East and Route 40
100N and 400E - Cars going too fast Blue and McKenzie- People blow this stop sign all the time
The turn from Broadway west on new.
Traffic traffic
Apple street
No specific hazards, but the 30mph speed limit lasts for too many miles on either side of downtown. There's no reason to go that slow, except through the heart of town.
State rd 9 through town
9 and New Road. 9 and North Street
New road and 9
<i>[Left Blank]</i>
State road 9. Too much traffic and mostly from Semi's
state road 9
<i>[Left Blank]</i>
State road 9 between the interstate & US40
State and north street
North Street and State Street. Since they removed light it is nearly impossible to make a left hand turn off of sr9 & us40
US 40
<i>[Left Blank]</i>
Intersection of 9 and McKenzie
North Street/S.R. 9 (State St.)
<i>[Left Blank]</i>
State Road 9 and New Road
Not sure
St Rd 9 all through town
Just about anywhere on 9 from the south side to 70, esp when turning left
Just north of 40 on state street.
U.S. 40 and Blue Rd. McKenzie and Blue Rd. New Rd. and Blue Rd.
Intersection of Blue and New
The new lanes on US 40 where it's reduced to one lane and a bike lane.
SR 9 and New Road
McKenzie & Broadway roundabout at certain times during the day.
State and North Streets
State Road 9 & New Road, State Road 9 and Main Street
US 40 west side of town
State and New
40 Near Leo's where they just changed the road!
North main and blue road .
9 and north street
Roundabouts

Online Public Survey

Question 3 Responses:
The new configuration on U.S. 40 on the west side. People drive down the bike lane and drivers are still struggling to navigate the lane restrictions. I know this highway is controlled by the state., but it affects me citizens of Greenfield. While not a specific street, there is a general deterioration of streets and sidewalks.
McKenzie and 9
Too many to count! Let's start with St. Rd. 9/New Rd. Intersection; St. Rd. 9/McKenzie intersection; US 40 into Greenfield; St. Rd. 9/US 40 intersection.
SR 9 and north st Also SR 9 and McKenzie because of all the store entrances and exits. It's practically impossible to watch all directions
<i>[Left Blank]</i>
Broadway street and 200N
Both main highways. Also Davis/Franklin intersection.
New Road and State Road 9. Any intersection with the new flashing yellow lights - confusing.
North street and state street
STATE ROAD 9 MCKENZIE TO U.S.40
Downtown
State road 9 and New Road. No pedestrian crossing.
State and North St
Bike lanes on 40
9 and New Rd
New Road, just East and West of 9.
n/a
New road and nine
The new turn lane down the middle of US 40 is bad for head on collisions. I know there is no data for it right now, but they are coming.
State Street from about McKenzie to Davis Road
All of it.....
9 and New Road-hard to pull out of bank, reporter, etc because it's so busy 40 by Real Life Church where it goes down to 1 lane because of the bike lane. Too many people not paying attention
North street and 9
Intersection of SR9 and I40. The truck traffic and their need for wide turns presents a consistent hazard.
Broadway and New Road
<i>[Left Blank]</i>
Sr 9 and green meadows by McDonald's
Highway 9 from 70 to Green Meadows
Intersection of State Street and New Road
The area on 40 West (W Main Street) where they changed from four lanes to two lanes. Drivers have no choice but to pull out in front of other drivers when traffic is heavy, which is frequent.
Intersection of North St. and State St.
I-70 as it comes onto Route 9/State.St.
County road 600 east and US 40
Quite a few locations. May too much congestion on main roads, especially during morning, midday and evening
New Road betweenSR9 and Fortville Pike, sidewalks need to be added for pedestrians
Several since bike lanes were installed on 40 West. I work at Berkshire Reality and pulling out is now dangerous. The bike lanes were not an improvement.
9 & 40
State and Main

Online Public Survey

Question 3 Responses:
9 and New..... Muskegon and 9.....9 and 40
North St. and SR9 is an incredibly dangerous intersection. We own a local law firm and have had three personal injury cases in the past year from car wrecks at that intersection. Luckily, nobody has died, yet. I fear we may be approaching that threshold, however. Each case is worse than the last.
Neighborhoods onto US 40 Out of Cracker Barrel onto 9
New Rd and State St State St and Main St Grant St and N East St
US 40 West is dangerous since the bike lanes were put in. They are completely unnecessary. Also, how the state allows the town to close both main traffic routes through town for the Riley Festival is beyond my comprehension. Greenfield is no longer the quiet small community that it was when the festival started. With the amount of traffic through this town now, it's a complete safety hazard. One of these days it will mean the difference between life and death when emergency personnel can't get to the hospital in time.
The road diet on E. US 40, the intersection at US 40 and State Road 9, and the North Street and State Road 9
New and Broadway Turning out of CVS onto McKenzie
SR 9 by Circle K and Speedway north of New Rd
1. State Road 9 and McKenzie 2. State Road 9 and North St.
Anecdotally, I feel like most of the fatal accidents happen on the country roads. People driving too fast and ignoring/not seeing a stop sign. Not sure what can really be done to fix that.
State st from north of McKenzie st. To Green Meadows
state st.
Not sure
St rd 9 from 70 south to 40. Us 40 from st rd 9 west to 150
hwy 9 north and 40
SR 9 from I70 to McKenzie Meridian Rd and 200 W from 100 S to US52
All up and down 9 especially between the interstate and McKenzie.
SR 9 from Courthouse to McKenzie. It is a major safety issue at SR9 and CR 500S... there needs to be an overhead light there or blinking light or something so alert that there is an intersection there when it is pitch
None come to mind
[Left Blank]
Hwy 40 west of Franklin is almost impossible to get out onto safely. Hwy 9 just north of Mackenzie where it narrows down. 9 & North, hard to get out from North st
US 40 in front of Legacy 9
New one lane on is 40 going west out of town. Can not turn left out of many neighborhoods. One of the later choices is adding travel lanes and widening the road. And yet we took a step backwards and made 40 one lane??? If you ever drive 40 east and west towards indy you would see how that road would be a nightmare as
Crossing SR9 (or turning left) at the Martindale Dr intersection (Bob Evans, Speedway, Crown Liquors, Circle K, Green meadow and Franklin street. People cannot turn safely from green meadow onto Franklin due to a) traffic constantly speeding and b) Franklin used as a thoroughfare for many people accessing McKenzie at the
9 and 40
SR9 and New Rd and then SR9 and McKenzie
New US 40 section on west side. Trying to pull out in single lane of traffic that used have 2. Also, the light on 9 immediately south of hospital should be pressure plate triggered rather than time-based
State road 9
40 and sawmill addition. Need lights to get on now 2 lane highway.
Several. Areas on 40 and areas on 9. Personally I think 9 and McKenzie is just one of the hazards.
State road 9 and McKenzie

Online Public Survey

Question 3 Responses:
US40 west of downtown where it was reduced to one lane each way. That was the most ridiculous change the DOT could've made. Usually when cities are growing they add lanes.
US40 west of Franklin
SR 9 and 200
How about anywhere and everywhere there's not a sidewalk. Especially by school where children have to walk.
SR 9 near the hospital, the road needs resurfaced.
9 between 70 and new

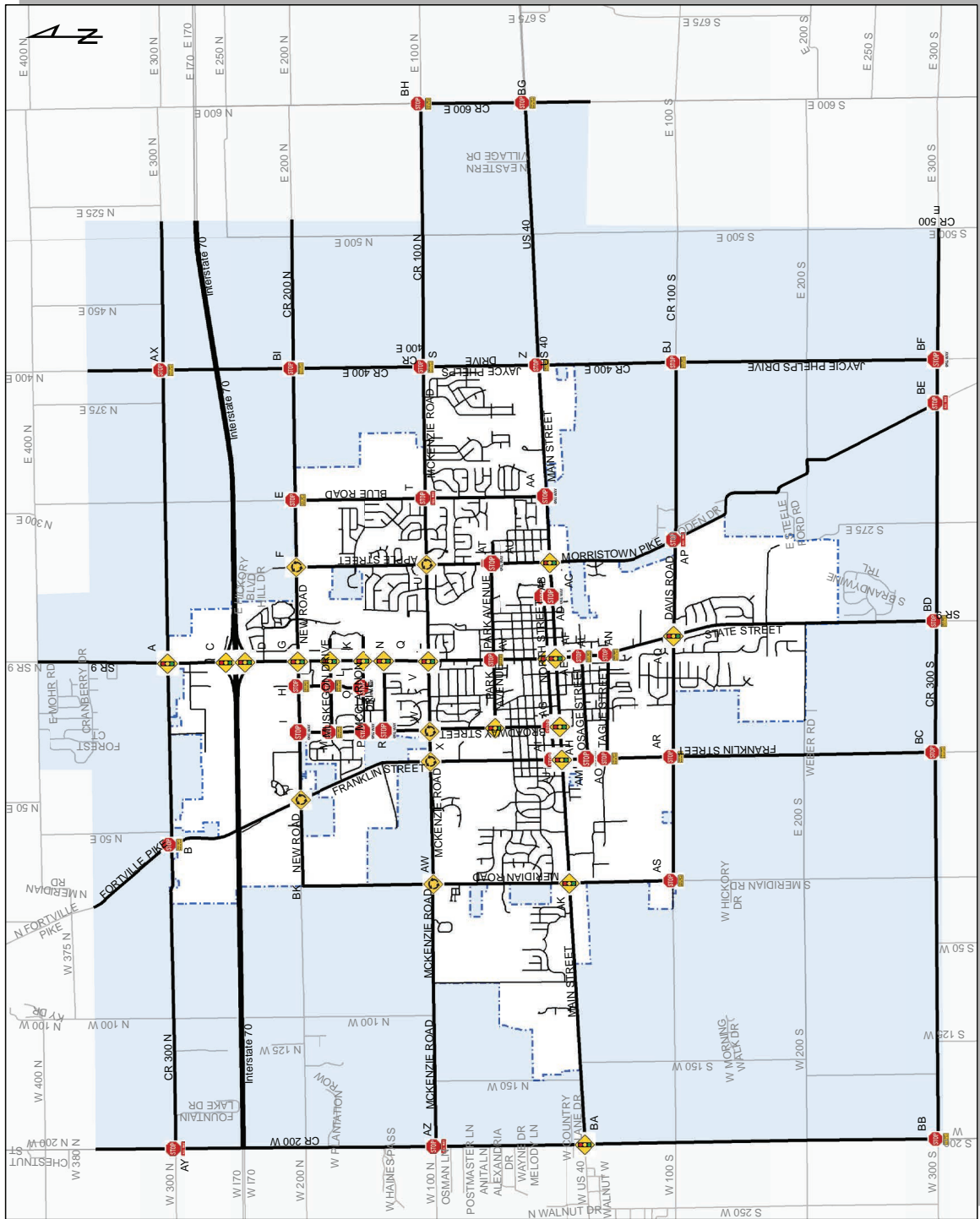
Project Rank	Location	Project Need/Description	Project Category	Jurisdiction	SC#1 Congestion	SC#1 Safety	SC#1 Bike/Ped	SC#3 Improvements	Data - Safety	With Factor	Data - Congestion	With Factor	Data - Trails Plan	With Factor	Data - TDM Impact	With Factor	Riley Map	With Factor	Public Survey - Safety	With Factor	Public Survey - Congestion	With Factor	Public Survey - ped/bike	With Factor	Total Weighted Score		
157	SR 9 from US 40 to McKenzie	Resurface	Maintenance	INDOT	0	0	0	0	0	0	0	0	0	0	0	0	1	1.54	1	0.31	0	0	0	0	0	3.854692	
158	Jaycie Phelps Drive from CR 300N to CR 400N	Trail	Active	HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.289193	
159	Broadway Street and Park Avenue	Intersection Congestion	Intersection	COG	1	1.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.945875	
160	Melody Lane and Muskegon Drive	Intersection Congestion	Intersection	COG	1	1.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.945875	
161	Windswept Road from US 40 to McKenzie	Widen	Widen/New	COG/HC	0	0	0	0	0	0	0	0	0	0	0	0	1.54	1.54	0	0	0	0	0	0	0	2.544345	
162	Alley west of Center Street and US 40	Trim weeds	Maintenance	COG	0	0	0	0	0	0	0	0	0	0	0	0	1	1.54	0	0	0	0	0	0	0	2.544345	
163	Morristown Pike and Davis Road	Intersection Improvement	Intersection	COG/HC	0	0	0	0	0	0	0	0	0	0	0	0	1.54	1.54	0	0	0	0	0	0	0	2.544345	
164	SR 9 and I70	Beautification	Other	INDOT	0	0	0	0	0	0	0	0	0	0	0	0	1	1.54	0	0	0	0	0	0	0	2.544345	
165	Weber Road from Franklin to SR 9	Traffic Calming	Safety	COG/HC	0	0	0	0	0	0	0	0	0	0	0	0	1	1.54	0	0	0	0	0	0	0	2.544345	
166	"Muskegon Trail" from Apple to Blue	Trail	Active	COG	0	0	0	0	0	0	0	0	0	0	0	0	1	1.54	0	0	0	0	0	0	0	2.544345	
167	CR 100N from Jaycie Phelps Drive to CR 500E	Trail	Active	COG/HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.956988	
Total points by category					60	117	26	117	122	156	122	856	116	208	644	415	302	208	84	130	209	64.9	167	32.4	413	32.4	2594.5
Percent by category					2%	5%	1%	5%	6%	33%	4%	8%	8%	8%	16%	12%	8%	8%	3%	5%	8%	3%	6%	1%	16%	1%	100%
Target percent					5%	10%	5%	6%	33%	6%	8%	8%	16%	12%	8%	8%	8%	5%	5%	8%	3%	6%	1%	16%	1%	100%	
Factor to target					1.95	0.96	0.96	0.47	7.02	1.79	0.64	0.64	0.66	1.54	0.19	0.31	0.08	0.08	0.08	0.08	0.08	0.19	0.19	0.08	0.08	0.08	100%



Existing Intersection Control

Legend

- Two Way Stop Control
- All Way Stop Control
- Signal
- Roundabout
- T Stop
- Study Roads
- City Roads
- County Roads
- City Limits
- 30 Year Growth Area
- Hancock County



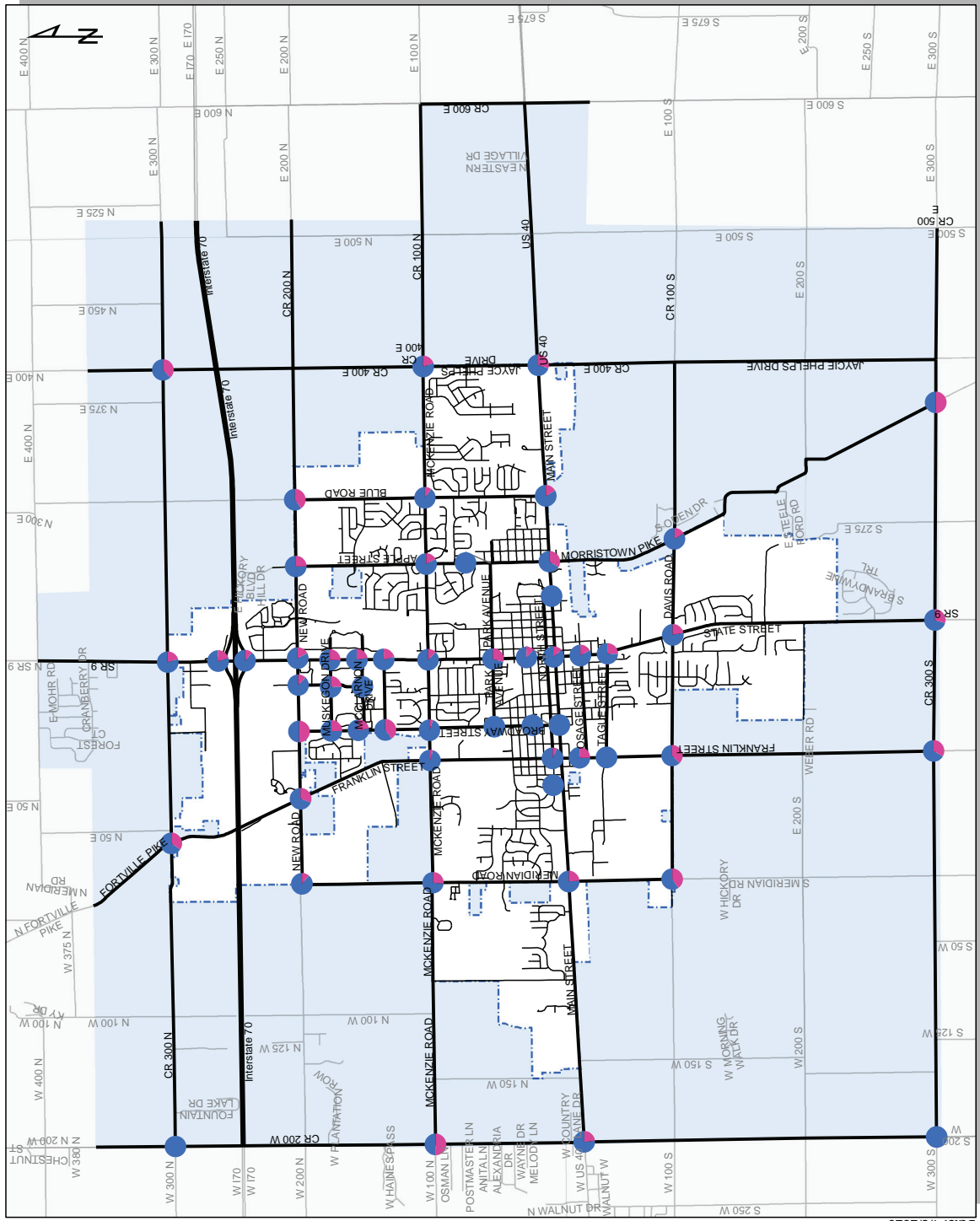
Date: 4/6/2020



Crash Severity

Legend

- PDO vs. Injury/Fatal
- Property Damage Only Crashes
- Combined Injury/Fatal Crashes
- Study Roads
- City Roads
- County Roads
- City Limits
- 30 Year Growth Area
- Hancock County



Date: 4/6/2020