



**2007  
Truck Route  
Inventory  
Report**

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**Michiana  
Area  
Council  
Of  
Governments**

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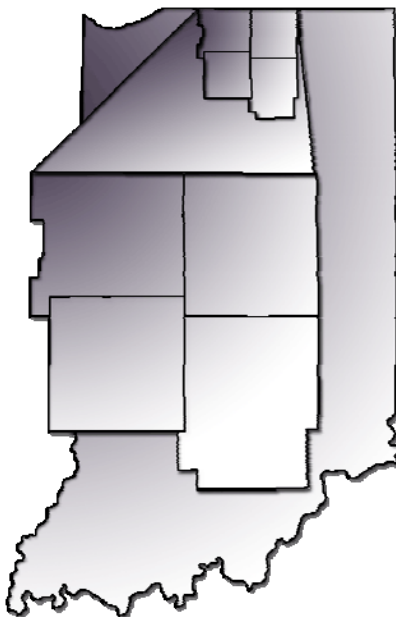


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**Elkhart County  
Kosciusko County  
Marshall County  
St. Joseph County**

# Michiana Area Council of Governments

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## Truck Route Inventory Report

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*December 12, 2007*

Michiana Area Council of Governments  
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## Why Inventory Truck Routes?



Knowing where semi and other large vehicles travel is an important part of planning for roadway improvements in the MACOG Region. Over 53% of the jobs in the Region are described as manufacturing. Having such a large manufacturing sector, means that trucks are needed to ship and receive goods, into and out of the Region. This inventory is a basic analysis of truck routes in the Region, how they relate across jurisdictional boundaries, and how they are maintained as urban areas continue to develop and expand. Later in the report, suggestions for areas of further analysis are listed by each jurisdiction to consider in drafting or updating a truck route/restriction ordinance.

## Methodology

This truck route inventory initially started as a project to map the existing truck routes for one of the member jurisdictions of the Michiana Area Council of Governments. To ensure that the process was as objective as possible, MACOG used the following data-based resources as a basis for recommendations: existing truck route ordinances, traffic counts, and 2035 Transportation Plan Land Use Model. To begin, MACOG contacted each of the local jurisdictions in the Region, including the Indiana Department of Transportation and asked for current truck route ordinances, or truck route regulations that would be able to be mapped in a geographic information system.

## Truck Route Law

### Federal

The law that governs the truck and bus size and weight limitations on the National Network of highways is authorized under the Surface Transportation Assistance Act (STAA) of 1982 (regulated under 28 CFR 658). The purpose of this law is to provide a “National Network of highways that can safely and efficiently accommodate the large vehicles authorized in the STAA. This network includes the Interstate System plus other qualifying Federal-aid Primary System Highways” (23 CFR 658.3).

In Indiana no additional routes have been federally designated; however, “under state law STAA-dimensioned vehicles may legally operate on all highways which prior to June 1, 1991 were designated as Federal-aid primary highways” (23 CFR 653 Appendix A). Therefore, in the MACOG region all Interstate, US and State Highways are designated truck routes under federal and state law.

### State

The State of Indiana’s size and weight limitations are defined in the Indiana Code under Title 9, Article 20, Chapter 5 (IC 9-20-5). Under this Chapter extra heavy duty roadways are defined and designated. There are several routes in the MACOG Region that have been defined as extra heavy duty highways under this law. These are discussed later in this report.

Indiana also provides truck restrictions on multi-lane highways to increase safety and reduce congestion caused by cars and trucks mixing in high traffic areas. There is currently one section of roadway, in the City of Warsaw (on US 30), where this is the case; and it is being proposed to be implemented in the City of Plymouth (on US 30) as well.



On the Indiana Toll Road (I-80/I-90) trucks are allowed to pull double and triple trailer loads as permitted under 135 IAC 2-7-1. On all Interstate highways, trucks are restricted to using the right lane only; this however is not shown on the maps provided in this report.

## Local



Local ordinances for truck routes vary from community to community. Some communities choose to define truck routes on certain streets (thus restricting through truck traffic on all other local roads). Other communities choose to define which road and what weight of trucks can travel on roadways (thus leaving the remaining roads unrestricted to through trucks).

Several bridges in the region also have weight restrictions placed on them. Many of the bridge weight restrictions are placed on structures as their condition declines over the years. Communities place restrictions on these bridge structures to allow them to continue to be used by smaller vehicles until repairs can be made.



Each of the truck route maps in this report are displayed in the Appendix by county and city. Larger versions of each of these maps will be available on the MACOG website at [www.macog.com](http://www.macog.com), these maps routes will also be posted to the MACOG Geographic Information System website at [www.macogis.com](http://www.macogis.com).

## Truck Classification Counts

The second step in the process to produce a truck route inventory was to look at the traffic counts collected by MACOG in the Region. Annually, MACOG conducts nearly 1,000 traffic counts. Many of these counts are classification counts, meaning that the vehicles traveling the roadway are classified into as many as 13 different categories. MACOG typically condenses these 13 classifications into just 2: cars, light trucks and motorcycles, and large trucks and buses. Some added perspective is that one semi is the same as two and one-half cars, so ten semis are like twenty-two and a half cars on the roadway. MACOG then shares these traffic counts with its member jurisdictions and INDOT and makes them available on its GIS website ([www.macogis.com](http://www.macogis.com)) for



Figure 1. Truck preparing to cross traffic count tubes (foreground) on State Road 4 in Goshen, IN.

use by engineering firms, developers, and the general public.

In preparing this report the truck percentages from the traffic classification count sites were overlaid on the identified truck routes. Since the MACOG truck percentages also include school and public transit buses, traffic count sites with fewer than 5% truck traffic were removed from the analysis. These counts may include bus routes and the trucks that are used here are likely to be used for local deliveries rather than through traffic. This left about 270 traffic counts sites to analyze throughout the Region. These sites are addressed in more detail by conducting a more in-depth analysis on roadways having more than 10% total truck traffic, excluding state and federal highways. This more in-depth analysis consisted of separating out the single-unit trucks (smaller local delivery vehicles), from 5 or more axle semi-trailer trucks. Those traffic Count sites having the higher number of semi-trailer trucks were identified as areas for further study. These areas have been plotted on the maps in the appendix. Some of the recommendations found in this report are based on the identification of high truck counts sites located off of designated truck routes. In many cases it was revealed the truck percentages reflected the existing truck route designations on the roadways. However, in a few instances locations were identified where there were large percentages of truck traffic on roads that had truck traffic restrictions.

## **Future Growth and Truck Traffic**

When MACOG developed the 2035 Regional Transportation Plan a regional land use and growth model was developed to show where growth might occur based on current growth patterns and local knowledge of future growth in the Region. For this truck route inventory, MACOG used future commercial, industrial and residential growth, and proposed expansions of water and sewer systems. This overlay method produced a map where MACOG recommended general geographic areas of communities for future truck route designations.

## **Truck Routes**

As noted previously, there are various ways in which to define truck routes. For example the Cities of South Bend, Mishawaka, Warsaw, and Elkhart have chosen to designate truck routes. These designated routes follow arterial and major collector functionally classified roadways. In most cases these truck routes follow former state highways that have been relinquished to the local jurisdictions or they are along major industrial and commercial corridors. In some cases the cities have also chosen to put weight limits on truck routes, as in the City of Elkhart. These truck routes are typically more minor collector streets that serve as connections to commercial and industrial areas as well as other major truck route corridors, but allow for local deliveries to be made to commercial and industrial businesses.

Elkhart and St. Joseph County, as well as the City of Goshen have taken the opposite approach as the other jurisdictions. Kosciusko and Marshall Counties currently do not have designated/restricted truck routes. These communities have restricted truck traffic on certain roadways and bridges, as it has been necessary over time. Many times these routes have been implemented to curtail trucks from driving through residential neighborhoods as short-cuts or to help increase safety and the life of the roadway pavement.

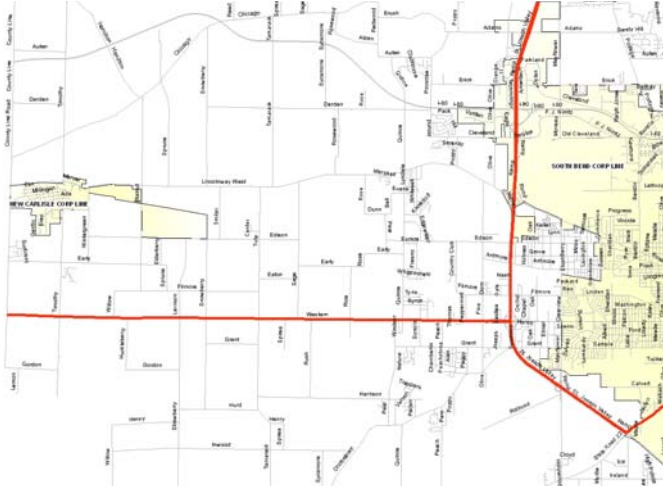


Figure 2. Heavy Duty Truck Route along SR 2, US 31 and SR 23 in western St. Joseph County.

The Indiana Department of Transportation currently has two special designations of truck routes in the region. The first of these special designations is the extra heavy duty truck route running along SR 2, US 31 and SR 23 in St. Joseph County. On this route, trucks carrying heavy loads of cargo can travel on more durable roadways, in order to help maintain the rest of the highway system in the area.

The other special designation that INDOT is currently using in the City of Warsaw is restricting through-truck traffic on US 30 to the right lane only. This helps to ease congestion and improve safety in a more than 7-mile stretch of US 30 that has many traffic signals and large amounts of car traffic.

In addition to examining the truck route designations in Indiana, truck route designations were also examined in Berrien, Cass and St. Joseph Counties of Michigan. Due to the heavy amount of truck traffic that travels between these two states daily, the five counties (Berrien, Cass, St. Joseph (MI), Elkhart, and St. Joseph (IN)) have worked together in the past and have matched up the roads that go across the state line to restrict truck traffic traveling between the states to more suitable roadways. St. Joseph County, Michigan does not have any truck route ordinance and allows trucks on all roads.

### Suggested Areas for Further Study by County

In this section, MACOG has identified geographic areas as potential deficiencies, abnormalities, and areas for further consideration in each county, where local jurisdictions may want to consider changes to their local ordinances. These recommendations are based solely on existing truck routes, traffic count truck percentages, and local knowledge of present and future land uses, analyzed using the methodology described previously. These are suggested areas for further analysis only and do not reflect a detailed analysis that may need to be conducted to implement a new or revised local truck route/restriction ordinance.

#### Elkhart County

In Elkhart County there are several places where development has occurred, but the truck route designations and restrictions have not necessarily kept up with the changes. In several instances the truck routes between jurisdictions have not remained consistent and should be reviewed periodically as industrial/commercial growth continues. Some of these instances that should be reviewed are:

- Areas in Goshen surrounded by College Avenue, New York Street, 9<sup>th</sup> Street, and 10<sup>th</sup> Street

- John Weaver Parkway in the City of Elkhart
- Industrial areas on the east side of the City of Elkhart, particularly Riverview and Conant Streets
- CR 15 on the east side of the City of Elkhart
- Various areas on the northeast side of the City of Elkhart
- Sections of Main Street in Downtown Elkhart
- CR 10 – from CR 13 to CR 17
- Johnson Street – from Beardsley Avenue to Elkhart Avenue
- CRs 36, 38 and 40 – from SR 15 to CR 31 (southeast Goshen area)
- CR 31 – from CR 40 to CR 36 (east side of Goshen)

Also in Elkhart County, new roadways have been constructed, like CR 17, that are designed to carry large amounts of truck traffic, yet according to the Elkhart County truck route ordinance this route is restricted to truck traffic (truck traffic was restricted prior to construction of the new roadway).

Elkhart County has done well in maintaining a common truck route policy with its neighbors in Cass County, Michigan. There is, however, one instance where Cass County has designated Sunset Boulevard as a “No Through Trucks” route and Elkhart County has not done the same for CR 23. This may not be an issue though, because all roads leading to this section of CR 23 are designated as “No Through Trucks” as well.

An analysis of truck volume percentages in Elkhart County taken from MACOG’s traffic counts reveals that most areas with a high volume of semi-truck traffic is already on designated truck routes. A map of these areas can be found in the Appendix.

At various locations throughout the City of Elkhart there are “Restrictive to Local Deliveries”, or as classified on the maps “No Through Trucks” routes that have more than 10% truck traffic. There are a couple of areas in Elkhart where the truck with trailer percentage is on one of these routes. Although it may be the case where these trucks are making local deliveries, the recommendation might be to further study these following areas, given the high volume of truck with trailer traffic:

- Jackson Street – from Main Street to 2<sup>nd</sup> Street
- Main Street – from Franklin Street to Prairie Street

MACOG used GIS data layers developed for the 2035 Transportation Plan Land Use Model to show where future growth is projected to occur in the Region. Some areas of future commercial and industrial



growth in Elkhart County, where movement of freight will be a concern are below: (a map of the future growth areas is included in the Appendix).

- Northeast side of the City of Elkhart, near and around the Elkhart East Commercial/Industrial Development.
- Southeast Elkhart County, near and around proposed developments north of the Town of Syracuse and the intersection of US 6 and SR 13.
- The area to the east and southeast of the City of Goshen continues to be a developing industrial and commercial area.

### **Kosciusko County**

Currently no truck routes are present in Kosciusko County, although some have been designated in Warsaw. As development continues to happen around Warsaw and other towns like Syracuse and Claypool, these communities may need to consider designating truck routes. Recent large economic development projects which are dependent on trucks for shipping and receiving goods will hasten the need to consider truck routes and restrictions. The Western Route project on the west side of Warsaw will provide needed intersection improvements for the flow of trucks to the growing industrial land-uses on the west side of Warsaw.

Other areas of growth in and around Kosciusko County include: along SR 15 on the north side of Warsaw and on the north side of Syracuse along SR 13 and near the intersection of US 6 and SR 13, these areas should be considered for future truck routes.

### **Marshall County**

As noted before, there are no truck routes or restrictions currently in Marshall County. However, truck traffic on US 30 is continuing to increase and is becoming a greater safety and congestion concern. MACOG staff has recently met with officials from Marshall County, Plymouth, and INDOT to determine possible actions that could be taken to lessen the impact of trucks in the City of Plymouth along US 30. Some ideas that are currently being considered to ease the truck traffic concerns along US 30 in Plymouth are to restrict trucks to the right lane from Pine Road to Plymouth-Goshen Trail, to lower the speed limit in this same section, and to install black-backing on traffic signals to increase their visibility.

Future industrial and commercial growth in Marshall County is projected to occur primarily on the west and north sides of Plymouth; Marshall County and the City of Plymouth will need to coordinate future growth and the development of any needed truck routes as growth occurs. The Town of Culver for several years has pursued development of a more direct connection to US 30, rather than the current SR 17. This future corridor will allow for easy truck access to industrial and commercial land uses in and around the Town of Culver.

## St. Joseph County

In St. Joseph County there are several places where growth and development have occurred over the years, but the truck route designations and restrictions have not necessarily kept up with the changes. In several instances, MACOG is suggesting to St. Joseph County, and the Cities of South Bend and Mishawaka to review how various truck routes adjoin one another across jurisdictional boundaries. Some of these instances that should be reviewed are:

- Ireland Road – from Bremen Highway to SR 23
- Ironwood Road – from US 20 to SR 933
- Edison Road – from Hickory Road to Grape Road
- Mayflower Road – from Cleveland Road to State Line Road
- Brick Road – from Olive Road to Cleveland Road
- Orange Road – from Brick Road to Michigan State Line
- Adams Road – from Mayflower Road to Portage Avenue
- Area located around Lincolnway West at the South Bend Regional Airport

One larger area of concern is located around the many industrial land uses and residential neighborhoods in eastern St. Joseph County. Looking at these areas on a map it seems that these truck routes may not necessarily correspond with one another and their surrounding land uses.

For the most part St. Joseph County has worked well with its neighbors in Berrien and Cass County, Michigan to provide a common truck route system throughout the region. However, there are a couple of instances where further consideration of truck restrictions might need to be reviewed. In Cass County, all major roads crossing into Indiana have a “No Through Truck” designation; however, in Indiana some of this does not always carry through, some examples of this are: Ironwood Road, Fir/Clover Road, Bittersweet Road, and Ash Road.

An analysis of truck volume percentages in St. Joseph County taken from MACOG’s traffic counts reveals some areas for reconsideration of truck route designations. These areas are outlined below: (maps of each of these areas are found in the Appendix).

- Ironwood Drive – from McKinley Avenue to Mishawaka Avenue
- Nimitz Parkway
- Streets around I/N-Tek & I/N-Kote facilities east of New Carlisle

When analyzing future growth areas in St. Joseph County four areas stand out and should be further studied as industrial and commercial growth continues to occur in these areas.

- Areas east and north east of the Town of New Carlisle
- The Ireland Road Corridor in St. Joseph County, South Bend and Mishawaka
- The Capital Avenue Corridor in Granger and on the east side of Mishawaka
- The redeveloping Studebaker/Oliver Corridors near Downtown South Bend
- Overall major through truck routes both east/west and north/south through the South Bend/Mishawaka urban area should be preserved

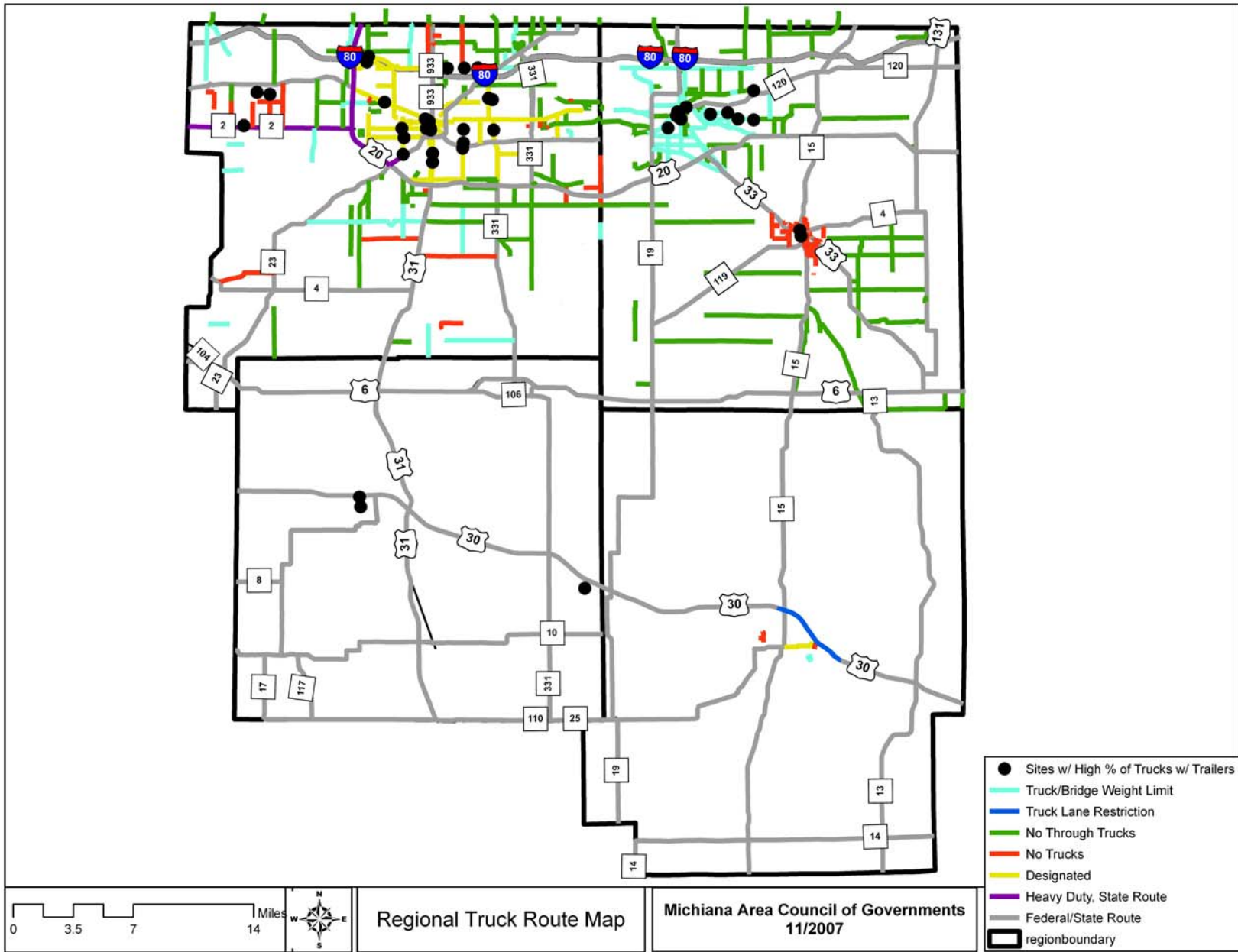
## **Conclusion**

Overall the State of Indiana and the local jurisdictions in the MACOG Region have policies currently in place to address commercial truck traffic, locally and regionally. As cities and towns continue to grow and traffic patterns change, local ordinances need to be reviewed to ensure that truck traffic is continuing to be well managed based on the needs of the community. One of the most important things to consider when reviewing a truck route/restriction ordinance is to cooperatively work with the neighboring jurisdictions to ensure that there is continuity throughout the Region.

The link between land use planning and transportation planning is very evident when it comes to the designation of truck routes in the Region. The coordination of land use planning and truck routes is a continual process that should be reviewed on a regular basis for each jurisdiction.

The next step in this truck route inventory is for the individual jurisdictions to take the recommendations within this report, and apply them where appropriate locally with consultation from adjoining communities when needed. The suggested areas for further study previously listed in this report are not an in depth engineering analysis and are only recommendations to improve the flow of freight through communities in the Region. Each jurisdiction should take these recommendations and use them as groundwork for further analysis and discussion.

Further analysis from MACOG may result in a follow-up study to this truck route inventory as to how freight movement, via various modes (truck, rail, air, etc.), impacts economic development in the Region.

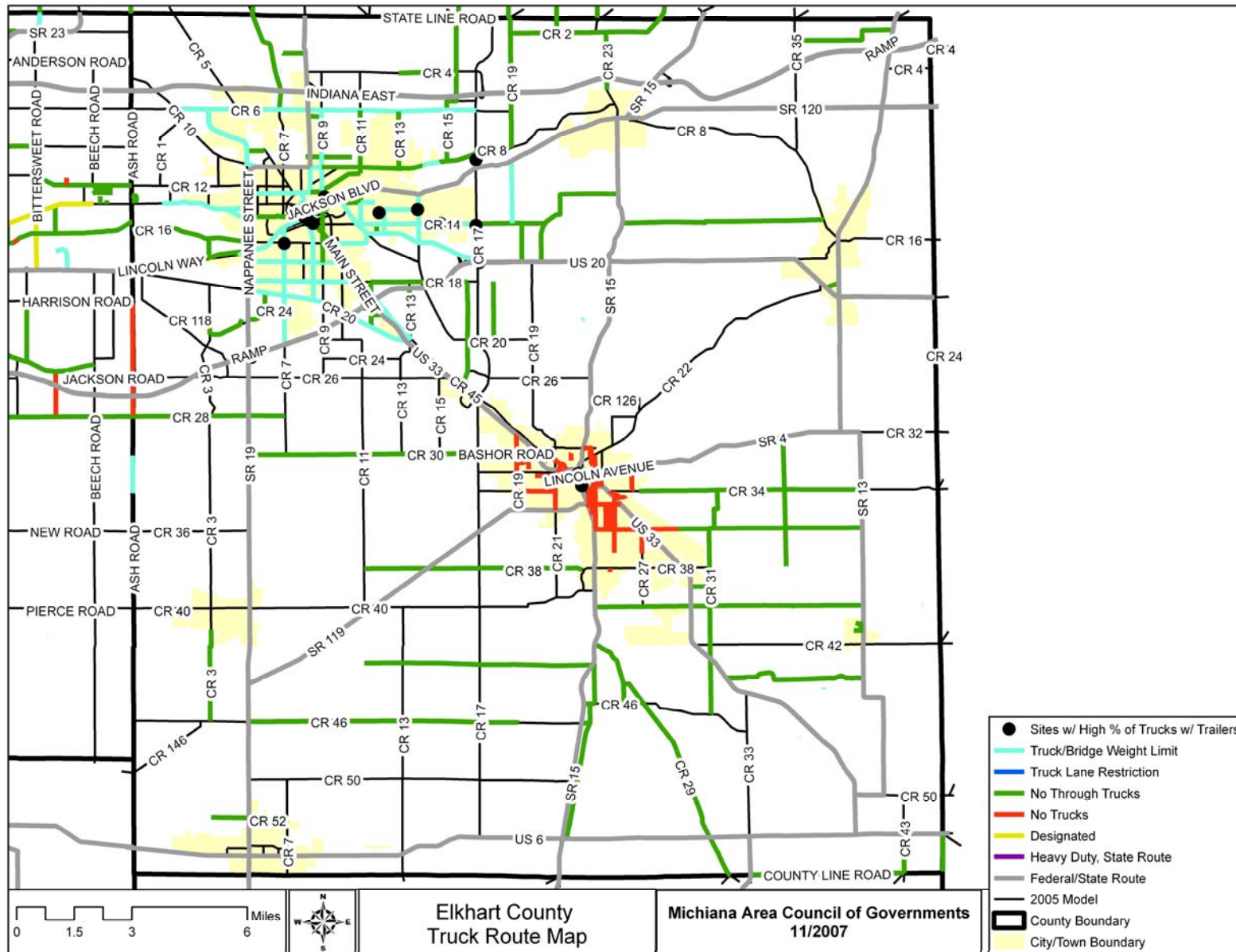


Regional Truck Route Map

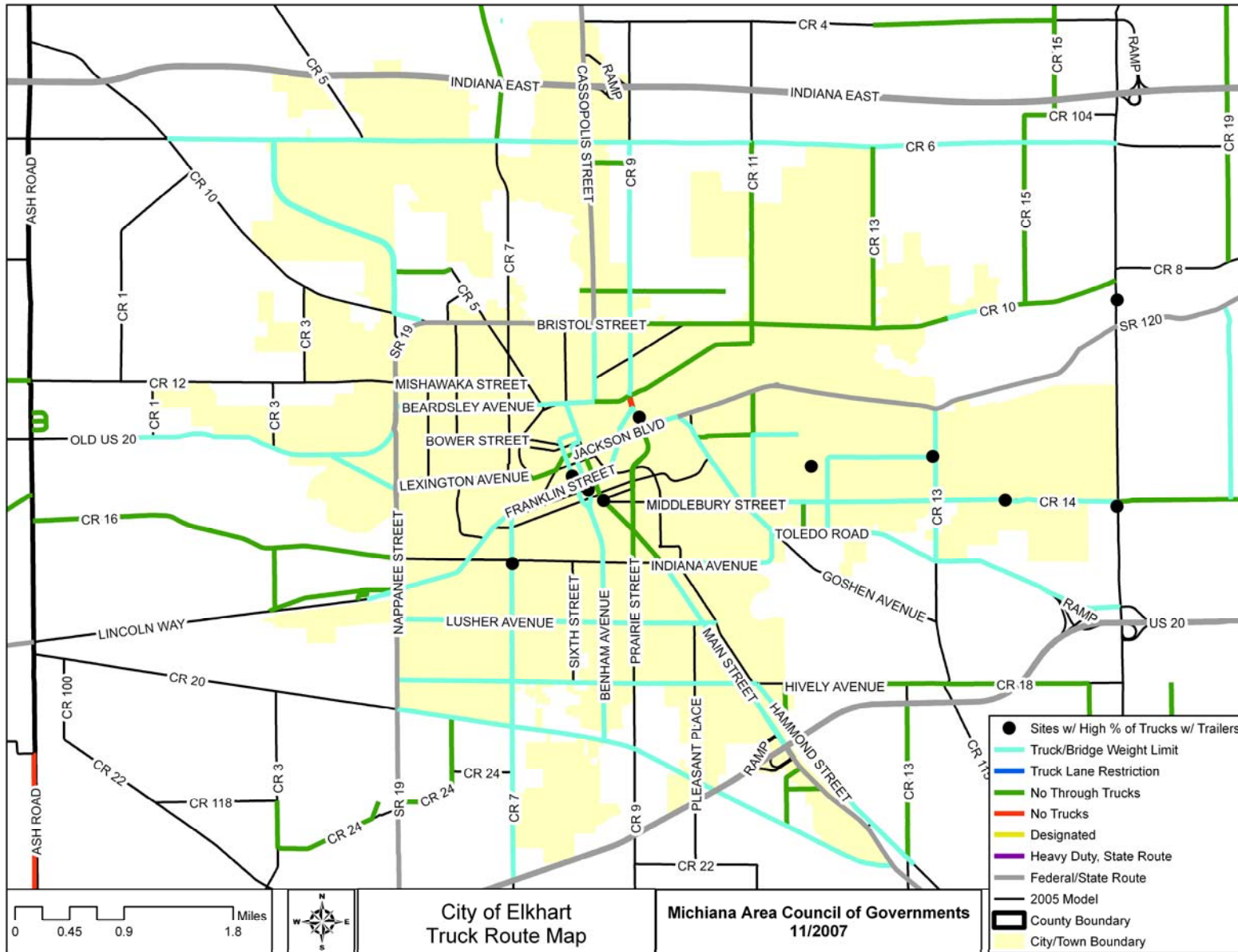
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MACOG Region Truck Route Map

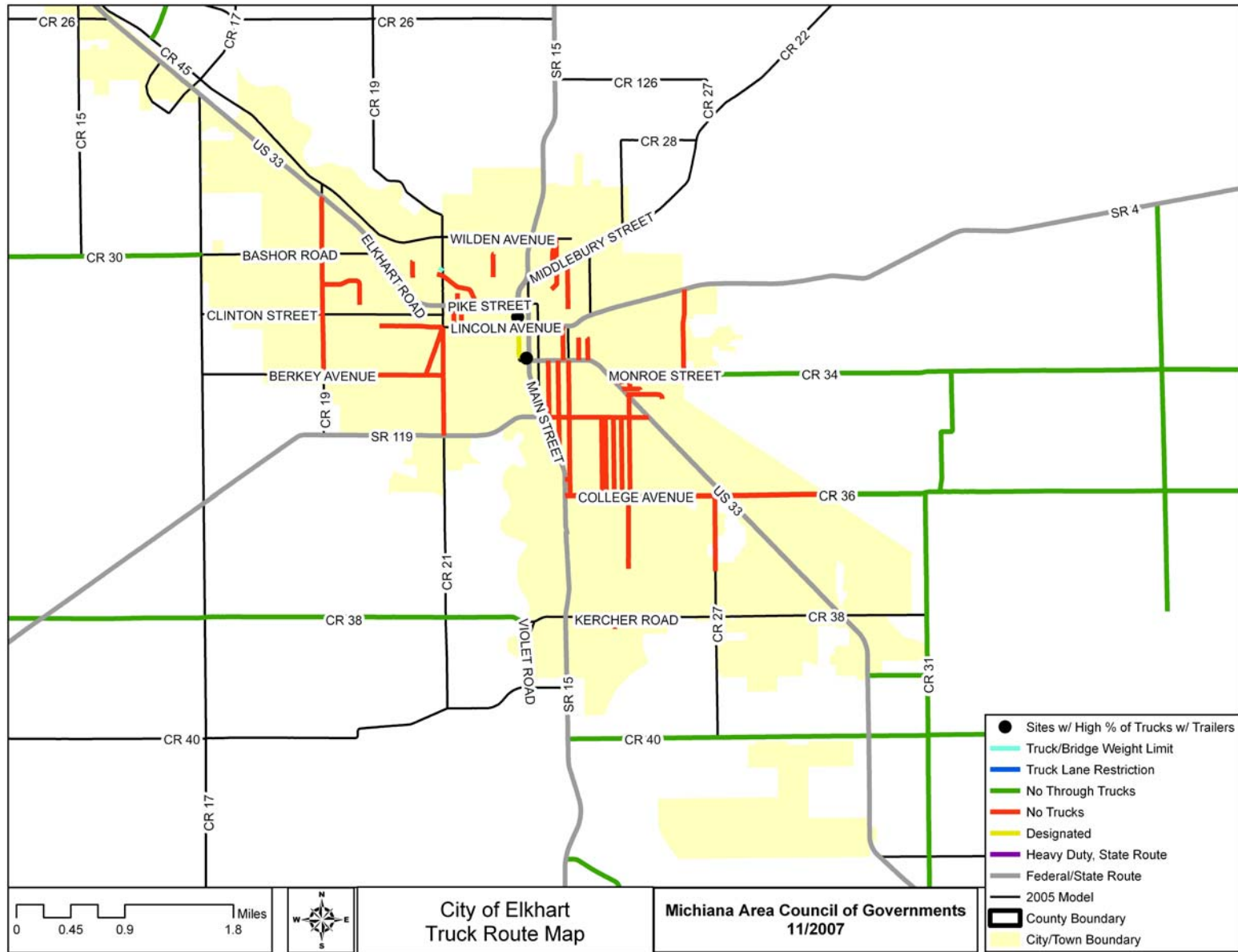
# Elkhart County Truck Route Map



# City of Elkhart Truck Route Map

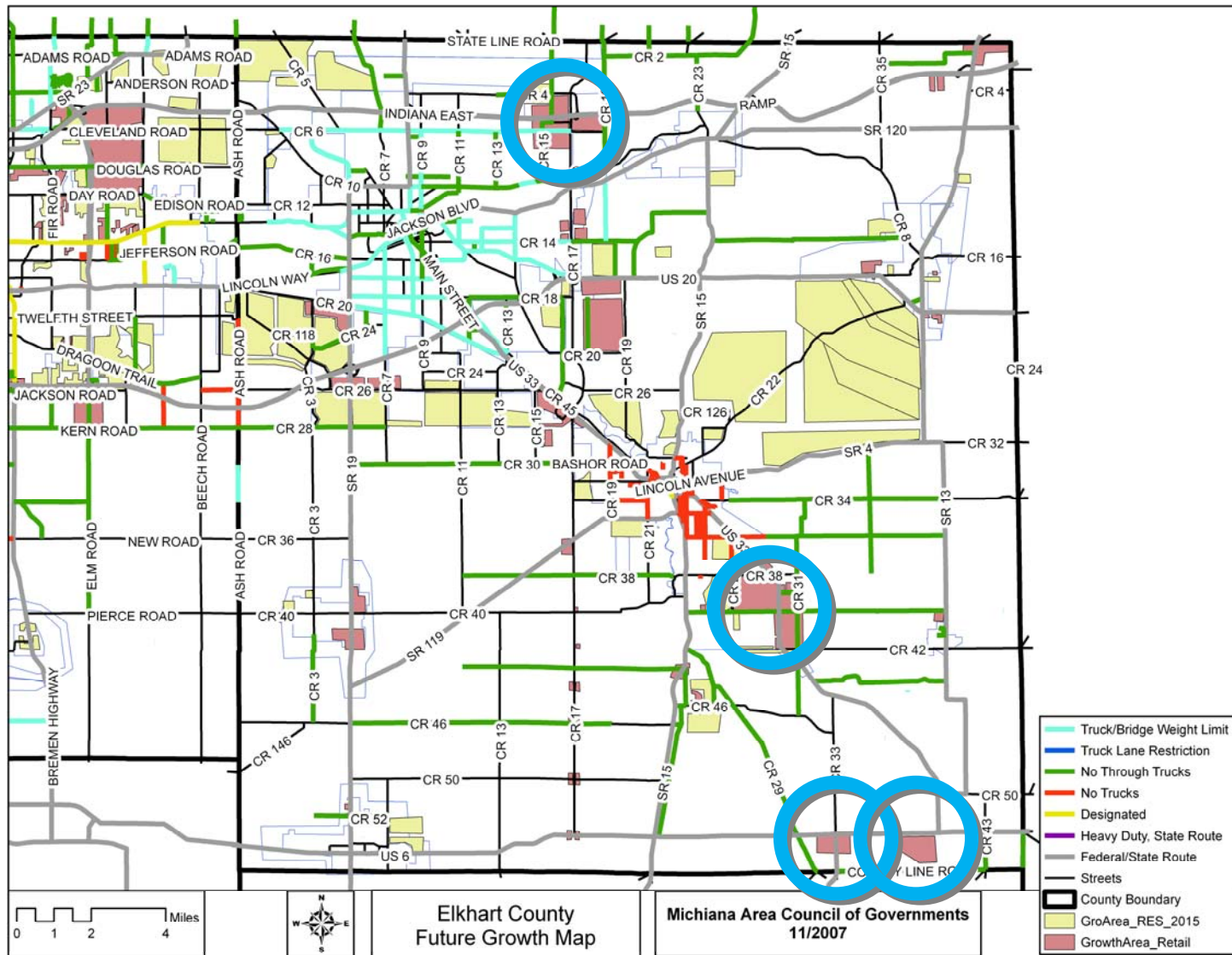


# City of Goshen Truck Route Map



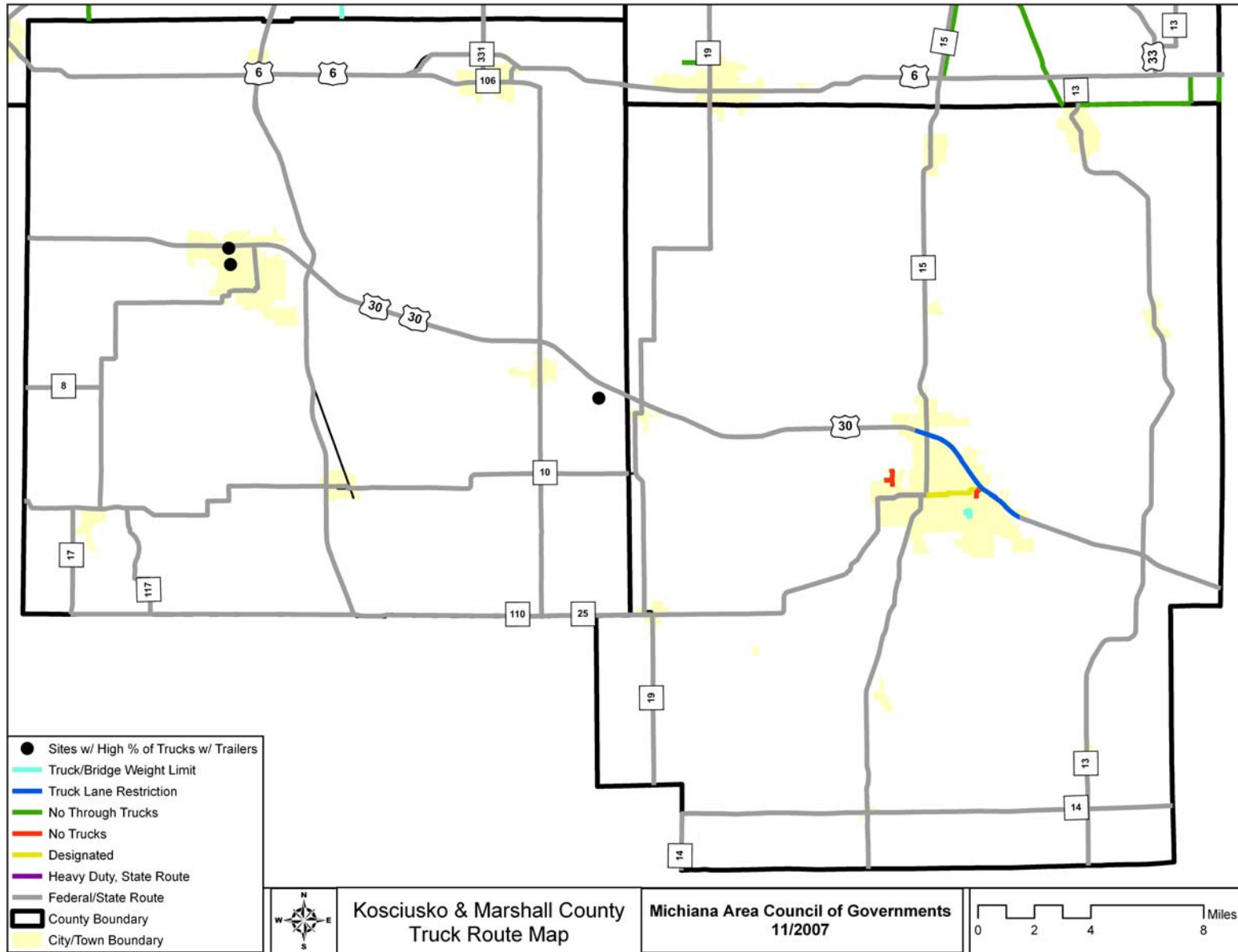
# Elkhart County Future Growth Areas Map

Areas identified for future truck route consideration are outlined in circles.



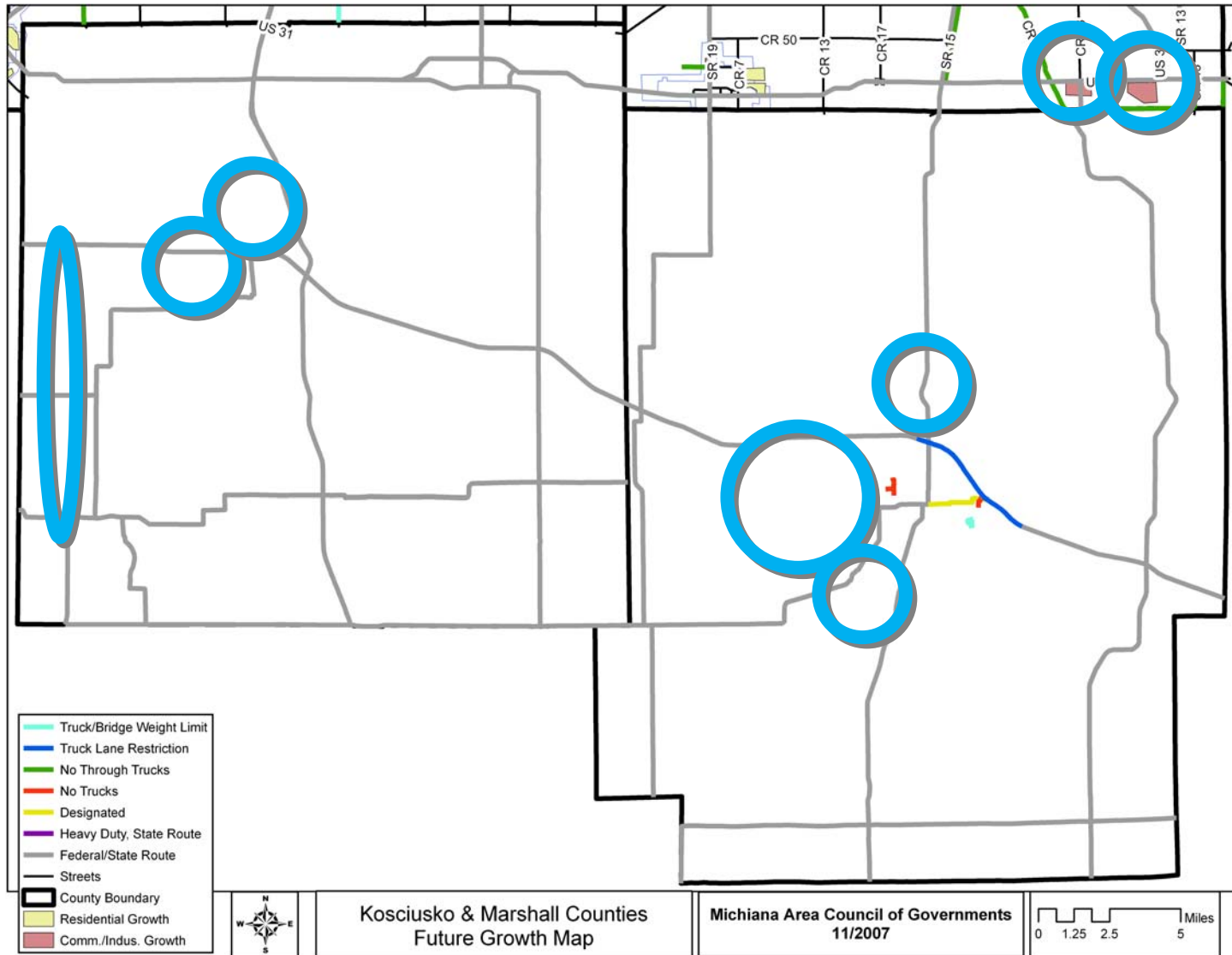


# Kosciusko and Marshall Counties Truck Route Maps

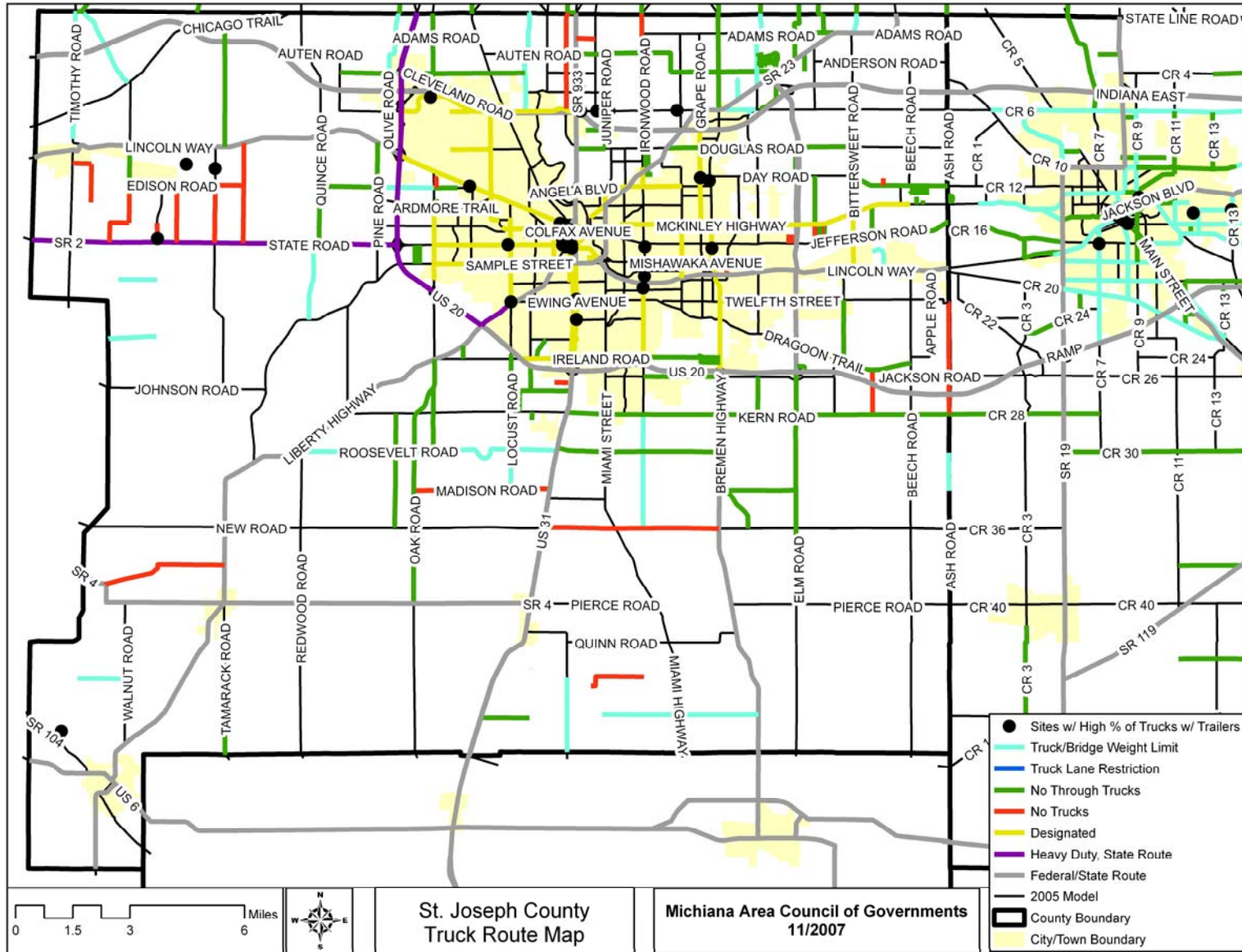


# Kosciusko and Marshall Counties Future Growth Areas Maps

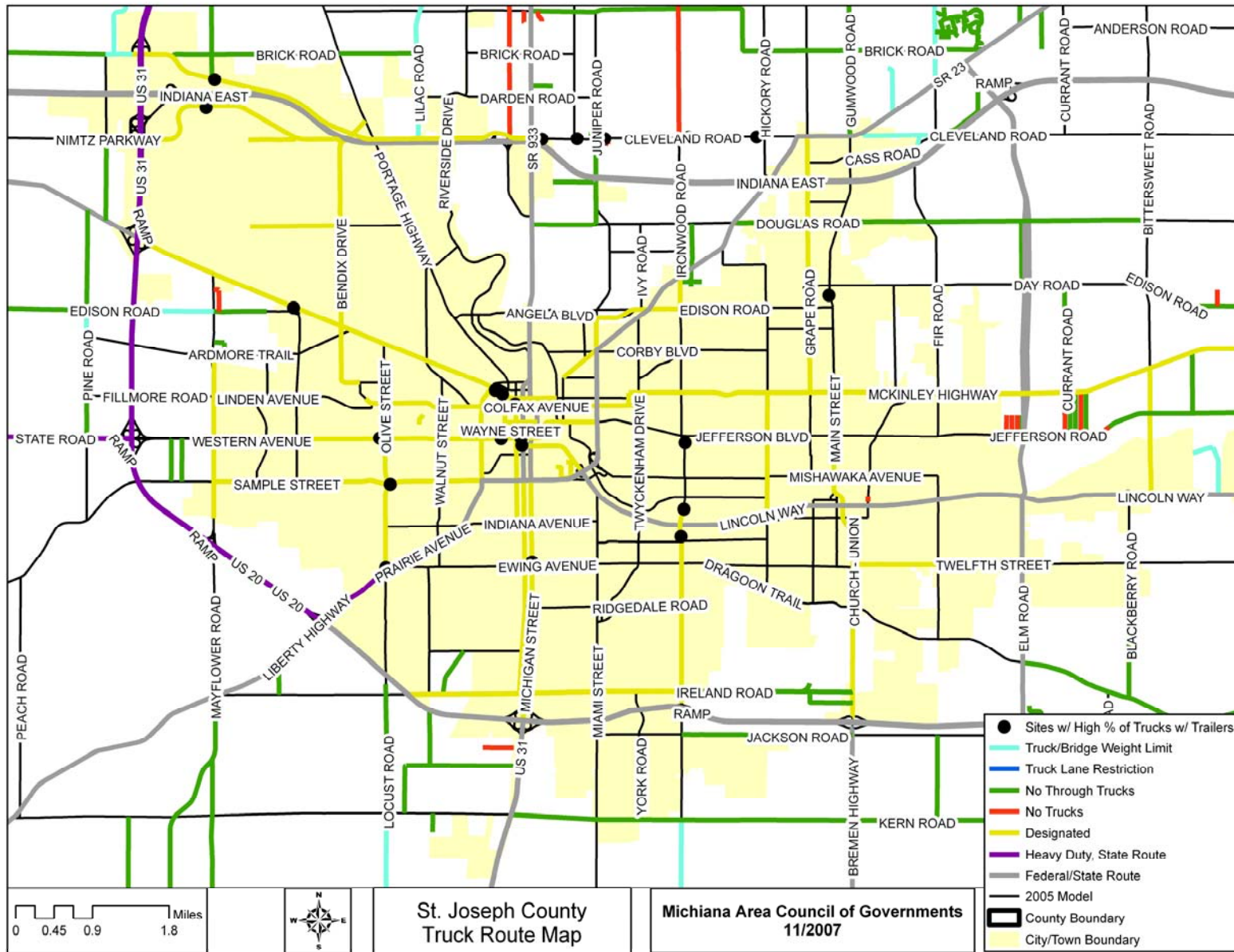
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# St. Joseph County Truck Route Maps

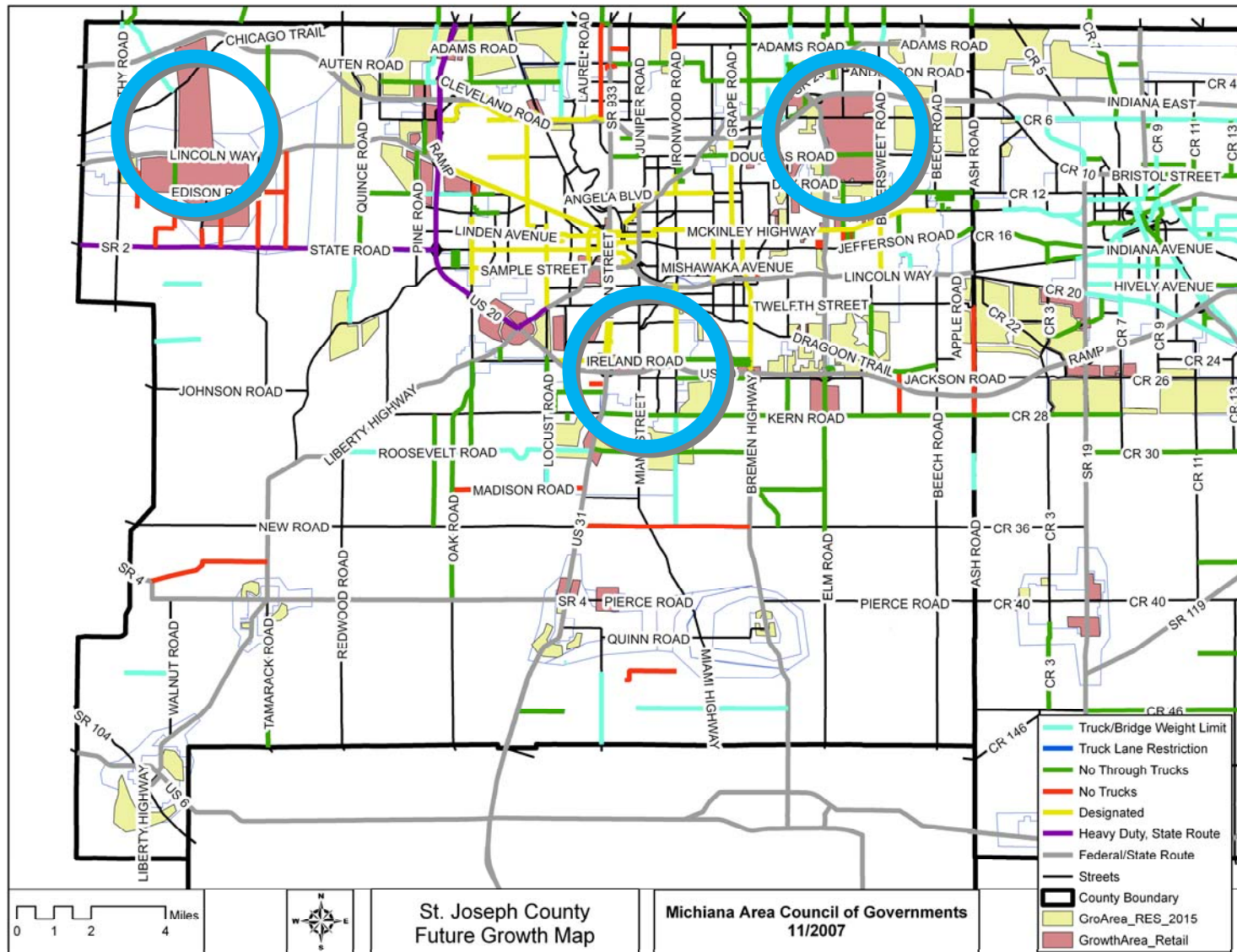


# City of South Bend and City of Mishawaka Truck Route Map



# St. Joseph County Future Growth Areas Map

Areas identified for future truck route consideration are outlined in circles.



St. Joseph County  
Future Growth Map

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- Truck/Bridge Weight Limit
- Truck Lane Restriction
- No Through Trucks
- No Trucks
- Designated
- Heavy Duty, State Route
- Federal/State Route
- Streets
- County Boundary
- GroArea\_RES\_2015
- GrowthArea\_Retail