

# Chapter 12

## Environmental Justice

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The roadway and transit projects identified and programmed in the Jackson MPO 2045 Long Range Transportation Plan must address the principles of Executive Order 12898 relating to Environmental Justice (EJ). The plan must identify and address disproportionately adverse human health or environmental effects on the transportation system programs and policies on minority and low-income populations. The basic principles addressed by the Environmental Justice analysis include:

- To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process, and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

### Methodology

The Environmental Justice Analysis is typically performed on improve and expand projects. To ensure the principles are being met, the methodology entails mapping the EJ zones where the low-income (poverty) and minority population concentrations exceed the population averages of these groups for the Jackson MPO, overlaying the improve and expand projects or Jackson Area Transportation Authority (JATA) bus routes, and visually analyzing the potential impacts.

The following methodology was followed to ensure a fair process:

1. Acquire the most current population data from the United States Census Bureau and adopt the United States Department of Human Services Poverty Standards as publicized by the department.
2. Compute the county average and establish a county baseline threshold for minority and impoverished populations.
3. Synthesize the Census data with the Location Quotient statistical method to calculate and compare the shared contribution of an area's local economy to another referenced economy; in this case, Census Block Group data to county-level data.
4. Develop sets of thematic maps showing the spatial location of minority and low-income populations at the MPO level.
5. Overlay maps of the improve and expand projects over the minority and low-income population maps and analyze for intersections on the basis that a project is included or is partially tangential to an EJ zone.
6. Overlay maps of the JATA bus routes and ADA corridor over the minority and low-

income population maps and analyze for intersections on the basis that the transit route is included or is partially tangential to an EJ zone.

### Location Quotient Statistical Method

Location quotient (LQ) is a sophisticated statistical technique used in calculating and comparing the shared distribution of a local economy, such as an individual county or region, relative to a referenced base economy such as the state. The LQ statistical method strives to show if a local economy has a greater share than expected of a given base economy; the extra contribution marks the additional contribution that such local economy is contributing.

The statistical notation for LQ is:

$$LQ_i = \frac{\frac{x_i}{n_i}}{\frac{x}{n}} \text{ or } \frac{x_i}{x} \times \frac{n}{n_i}$$

Where,

$LQ_i$  = Location Quotient for a local economy

$x_i$  = Total number of EJ identified population groups for a local economy

$n_i$  = Total population for a local economy

$x$  = Total number of EJ identified population groups for a reference economy

$n$  = Total population for a reference economy

The LQ method is used to determine whether or not a particular Block Group in Jackson County has a greater share of its racial and low-income groupings than expected. A Block Group having a LQ value greater than one ( $LQ > 1$ ) will be recognized as an EJ zone within the county. Block Groups with  $LQ > 1$  provide evidence that such a racial and low-income group(s) has a population greater than their expected EJ populations. The Block Groups would represent the selection set identified as EJ zones.

## **Environmental Justice Populations Definitions**

### **Definition of “Minority” for the Purposes of Environmental Justice**

According to the U.S. DOT Order 5610.2, the following groups are to be considered when conducting an Environmental Justice Analysis and are defined as follows:

- *Black or African American.* A person having origins in any of the black racial groups of Africa.
- *Hispanic or Latino/a.* A person of Mexican, Puerto Rican, Cuban, Central American, South American, or other Spanish culture or origin, regardless of race.
- *Asian & Pacific Islander.* A person having origins in any of the original people of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
- *American Indian & Alaskan Native.* A person having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition.

According to the 2016 American Community Survey Data, the countywide averages for the minority populations are as follows: African American 8.56%, Hispanic 3.33%, Asian and Pacific Islander 0.78%, and American Indian and Alaskan Natives 0.46%.

### **Americans with Disabilities Act (ADA) Corridor**

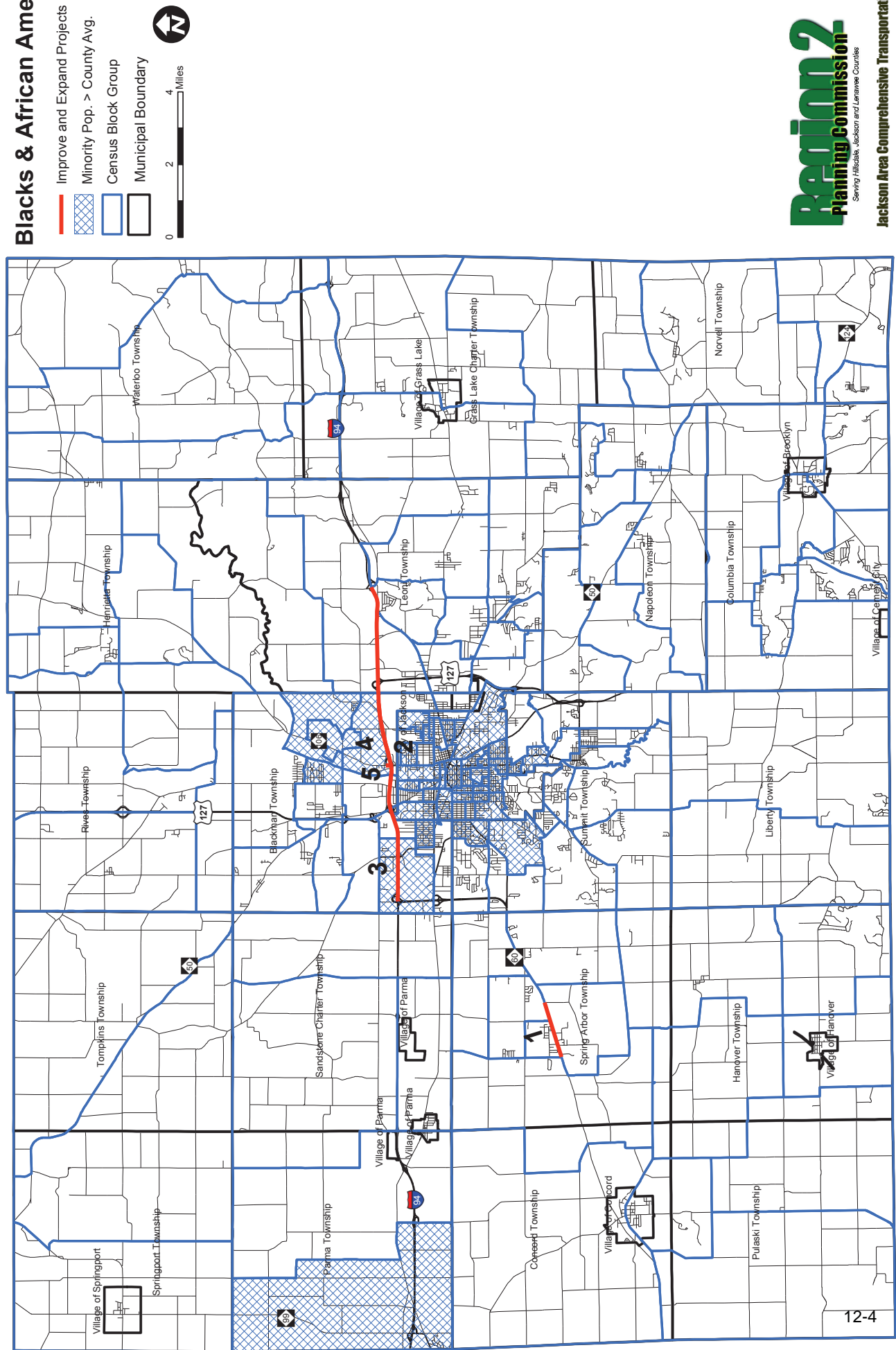
ADA requires public transit agencies that provide fixed-route service to provide paratransit service to people with disabilities who cannot use the fixed-route bus or rail service because of a disability. ADA paratransit service must be provided within 3/4 of a mile of a bus route or rail station, at the same hours and days, for no more than twice the regular fixed route fare.

### **Definition of “Low Income” or “Individuals Living Below Poverty Level” for Purposes of Environmental Justice**

The Office of Management & Budget defines low income as a person whose household income is at or below the U.S. Department of Health and Human Services poverty guidelines. The guidelines are used as eligibility criteria for the Community Services Block Grant Program as well as a number of other federal assistance programs. According to the 2016 American Community Survey data, 15.7% of Jackson County’s population falls below the national poverty threshold (Figure 15-1i, 15-1j).

Maps 12-1 – 12-5 on the next several pages show where these populations are located within the Jackson MPO overlapped with the five capacity improvement projects mentioned in Chapter 9.

Figure 12-1 Environmental Justice Population Maps - Blacks & African Americans



**Figure 12-2 Environmental Justice Population Map - Asian & Pacific Islanders**

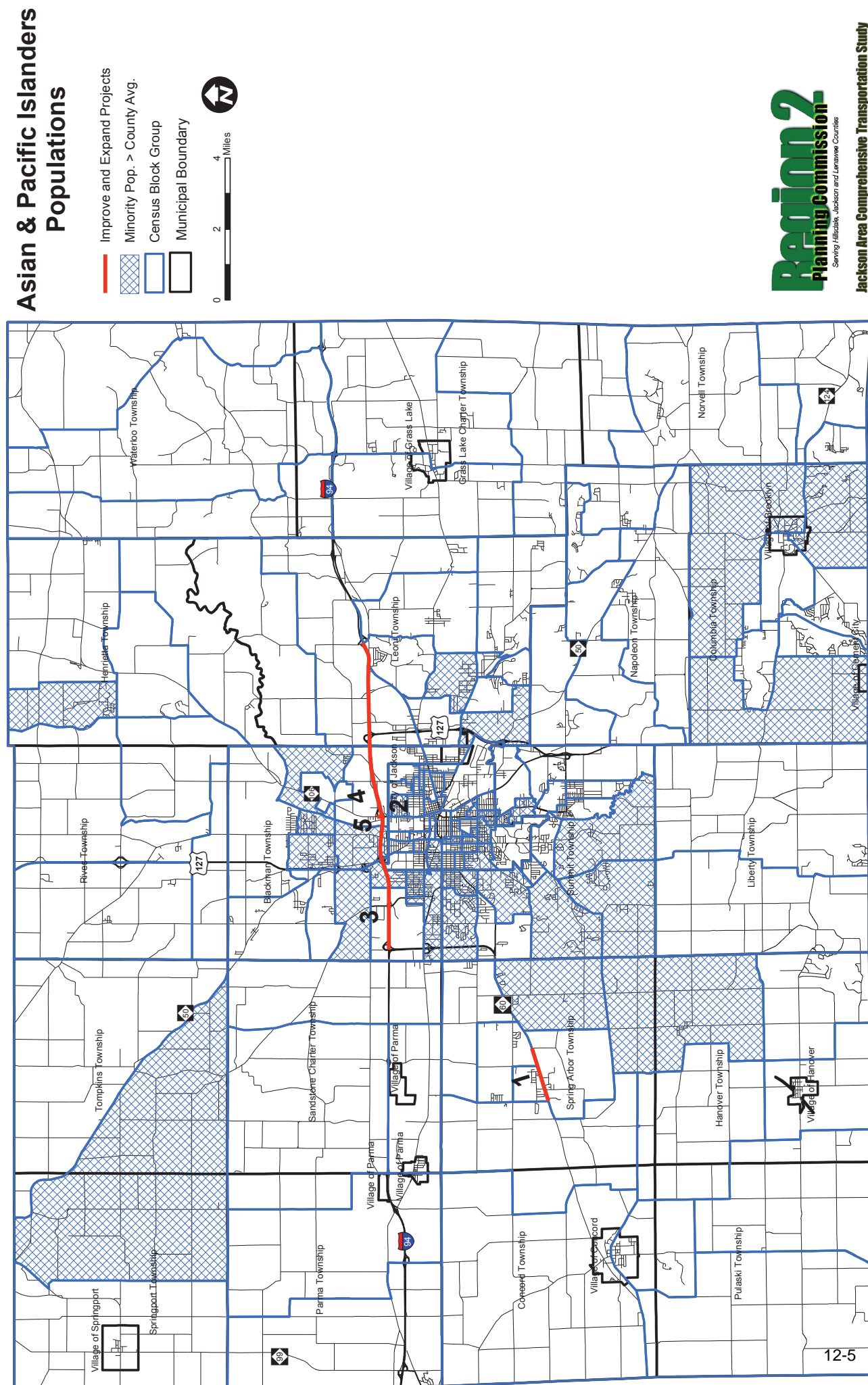




Figure 12-3 Environmental Justice Populations Maps - American Indian or Alaskan Native

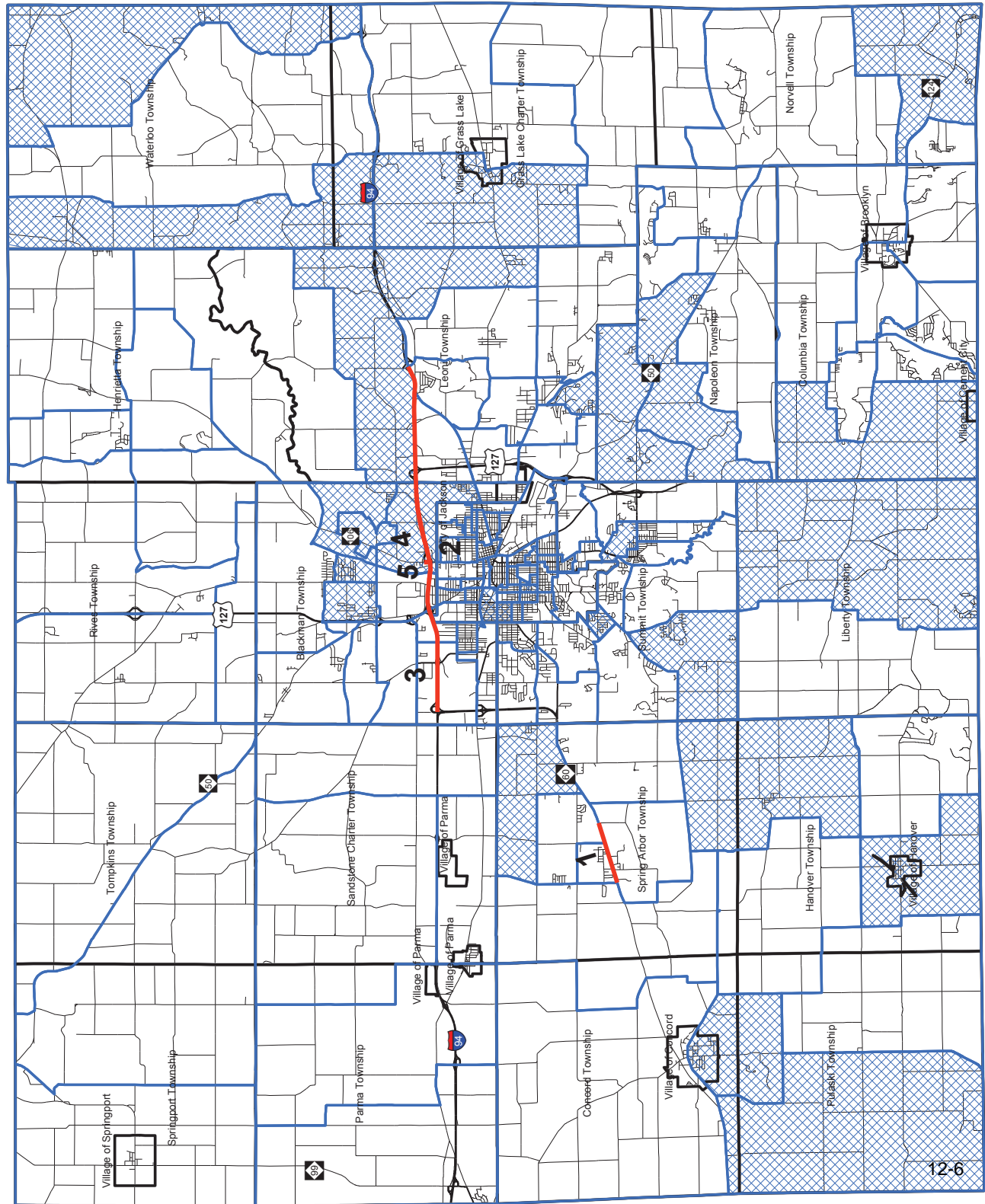
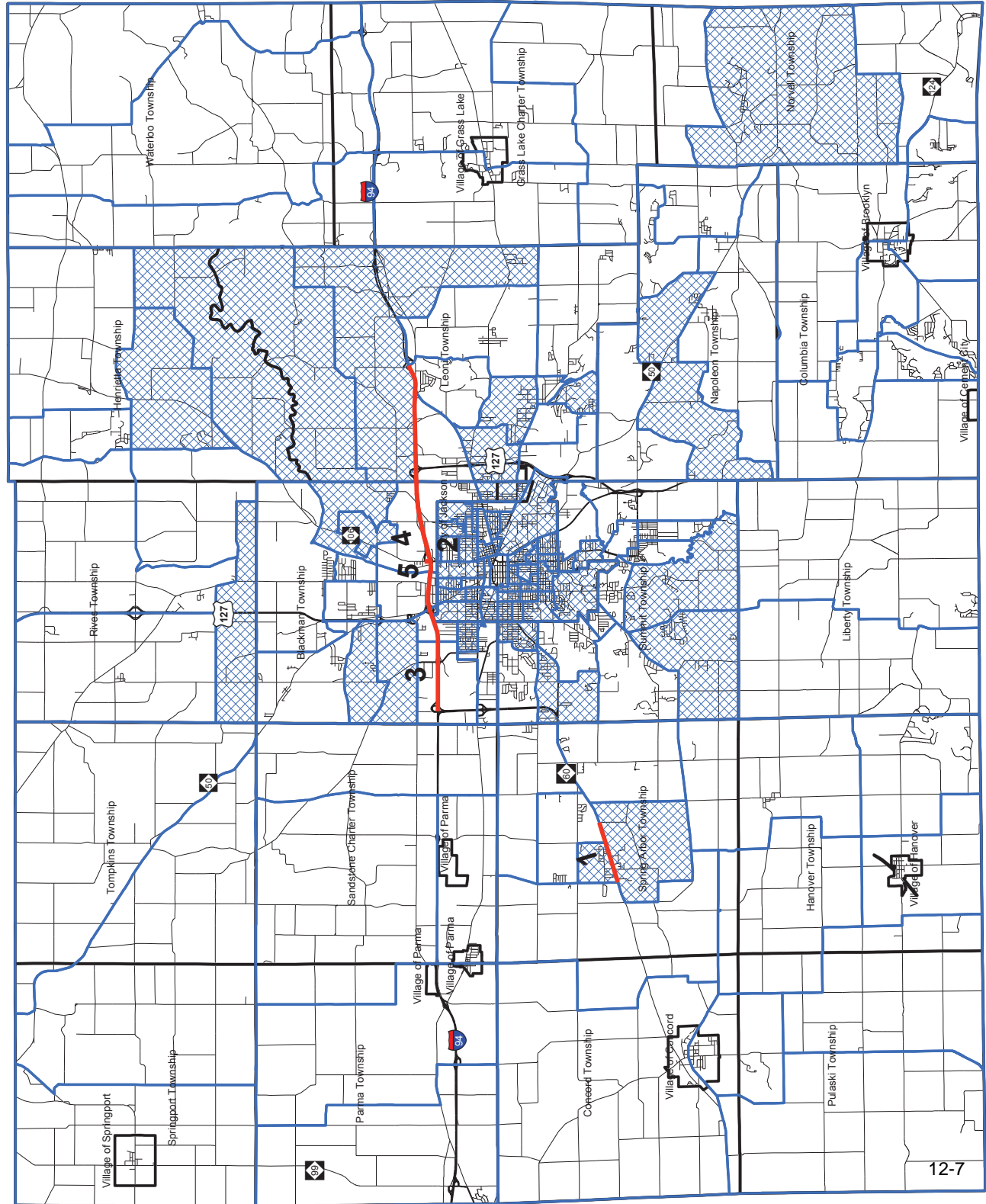
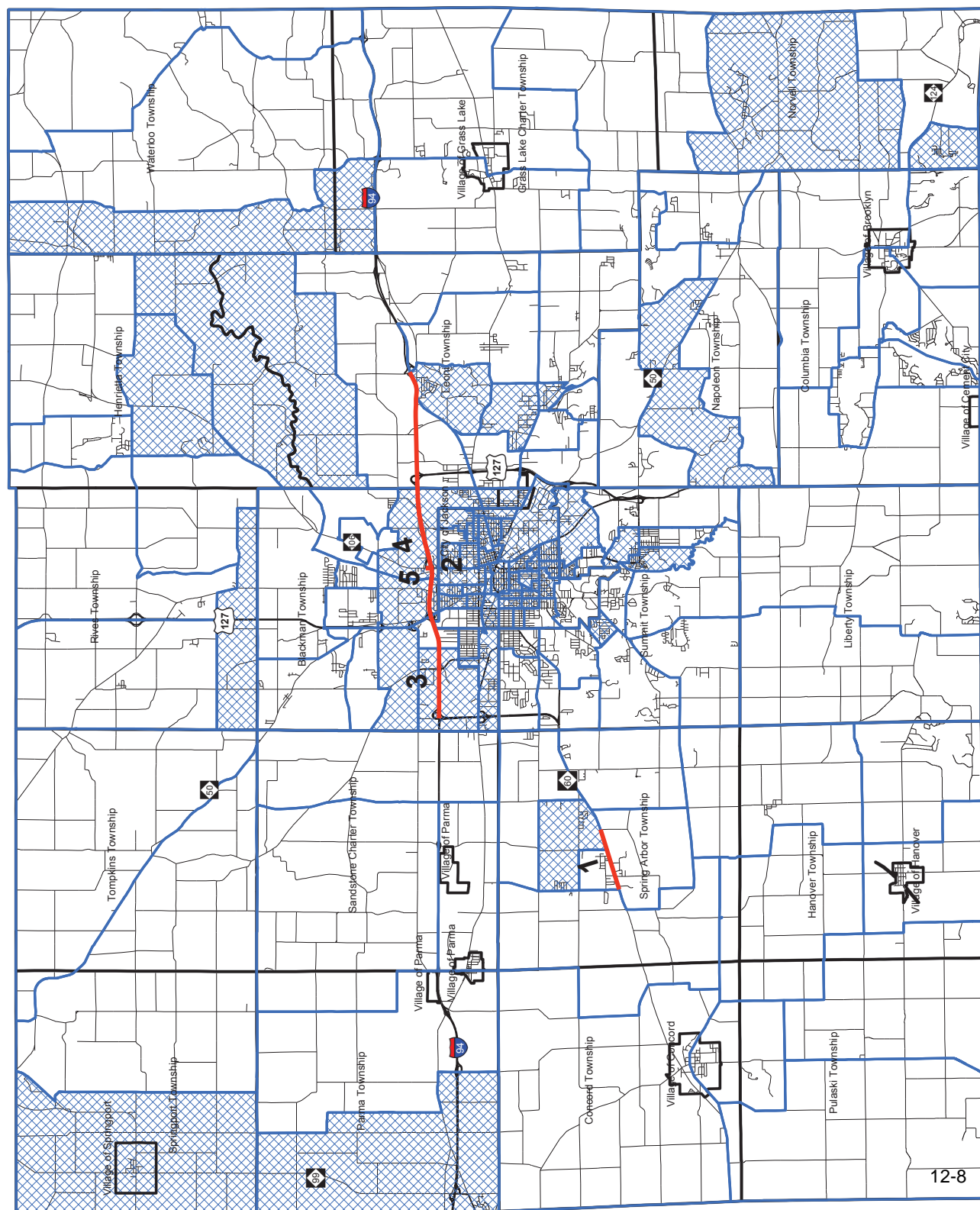


Figure 12-4 Environmental Justice Population Map - Hispanic or Latino/a



### Figure 12-5 Environmental Justice Population Map - Impoverished Individuals





## **Analyzing Potential Impact Centers**

The environmental justice analysis requires analyzing the potential impacts on three major areas of concern. These areas are explored below.

### **1) Disproportionately high adverse impact to low-income/minority areas**

Of the five state roadway capacity improvement projects highlighted in Chapter 9 in the plan, 100% of all five projects are located within or adjacent to areas “equal to or exceeding” the county’s overall poverty levels. Total funding invested in these projects is estimated at approximately \$120,638,000. The projects include:

- 1) Resurface and widening of M-60 from Chapel Road to Emerson Road
- 2) Reconstruction and realignment of the Cooper Street interchange at I-94
- 3) Reconstruction of I-94 from M-60 to Sargent Road
- 4) Reconstruction of I-94 interchange at Elm Avenue
- 5) Realignment and bridge structure replacement over JAIL Railroad and the Grand River to accommodate the future proposed widening of I-94 as recommended in the I-94 Freeway Modernization Study.

The environmental reevaluation process for the I-94 bridge over the JAIL Railroad and the Grand River, the I-94 at Cooper Street interchange and the reconstruction/realignment project began in 2012. The final design of the Cooper Street Interchange affects several homes and businesses, and as of May 2013, the property owners have been contacted. A public meeting was held at the Blackman Township Hall on April 18, 2013. Any environmental impacts resulting from these projects will be mitigated according to federal and state laws. During project implementation, appropriate detour routes will be maintained to minimize delay and disruption.

For each of the identified minority populations, five state roadway capacity improvement projects, four, or 80% are located in, or adjacent to, African American minority areas; two or 40% projects are in Hispanic minority areas; two or 40% of projects are located within or adjacent to Asian minority areas; and four or 80% of the total projects are located within or adjacent to Native American minority areas. Five projects, or 100% of the projects, are located within or adjacent to areas “equal to or exceeding” the county’s overall poverty levels.

The I-94 projects have been identified and documented in the environmental reevaluation process noted in the above paragraph. Any environmental impacts will be mitigated according to state and federal laws.

### **2) Minimizing/blocking access of low income/minority areas to transportation**

Minimizing access can be characterized as the permanent closing of streets or interchanges in order to accomplish the proposed capacity projects contained in the plan. The capacity improvement projects will not involve any permanent street or interchange closures. The proposed construction will improve the flow of traffic through the areas. Therefore, it is assumed that there will be limited or no blockage of access to

the transportation system or loss of mobility as a result of implementing proposed projects.

### **3) Neglect of the transportation system in low income/minority areas**

The Jackson MPO is approximately 720 square miles and includes 19 townships and the city of Jackson. The targeted low income (% below the national poverty level) areas mapped cover approximately 20% of the county and the composite minority areas mapped cover almost 60% of the county. As noted earlier, of the five state roadway improve and expand projects, all five projects are located within or adjacent to the low-income areas. In the identified minority areas, all five projects included in the plan are located within or adjacent to neighborhoods with a minority group exceeding the countywide averages. Therefore, it has been determined that there is no neglect of investment in the transportation system in the low-income and minority areas.

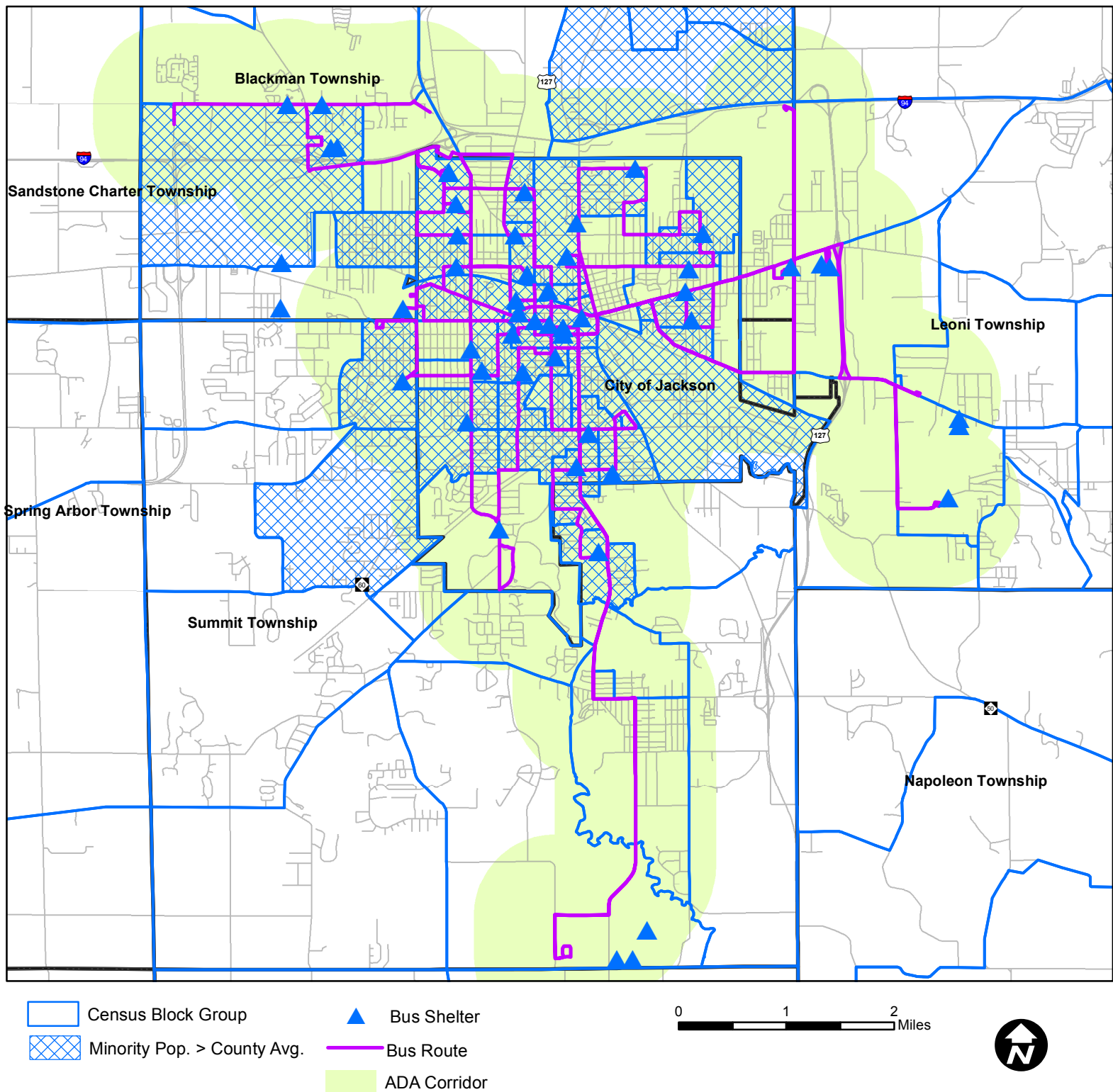
### **Public Transit Investment**

Public transit in Jackson County is provided by JATA. The agency's fixed-route service area includes the city of Jackson and portions of the urbanized area and the Reserve-A-Ride program provides demand response service to all residents of the city and county. Reduced fares are available for the elderly, disabled and student populations. None of the proposed projects included in the plan restrict the access of residents to the public transit system services. Therefore, it has been determined that there is no neglect, reduction or delay in the receipt of transportation benefits by those residing in low income or minority areas. Maps illustrating how JATA routes serve minority and low-income populations in the Jackson Urbanized Area are also provided for review on the next several pages.

### **Conclusion**

Following adopted environmental justice procedures, this analysis finds that the proposed projects do not result in violations of Executive Order 12898. The Jackson MPO will continue to update and maintain the public participation mailing list, and continue to improve communication, coordination, education, and involvement activities in order to reach the traditionally disadvantaged populations (including minority and low income) to ascertain and evaluate potential effects or impacts resulting from proposed projects.

Figure 12-6 JATA Routes & Environmental Justice Populations Map - Blacks & African Americans

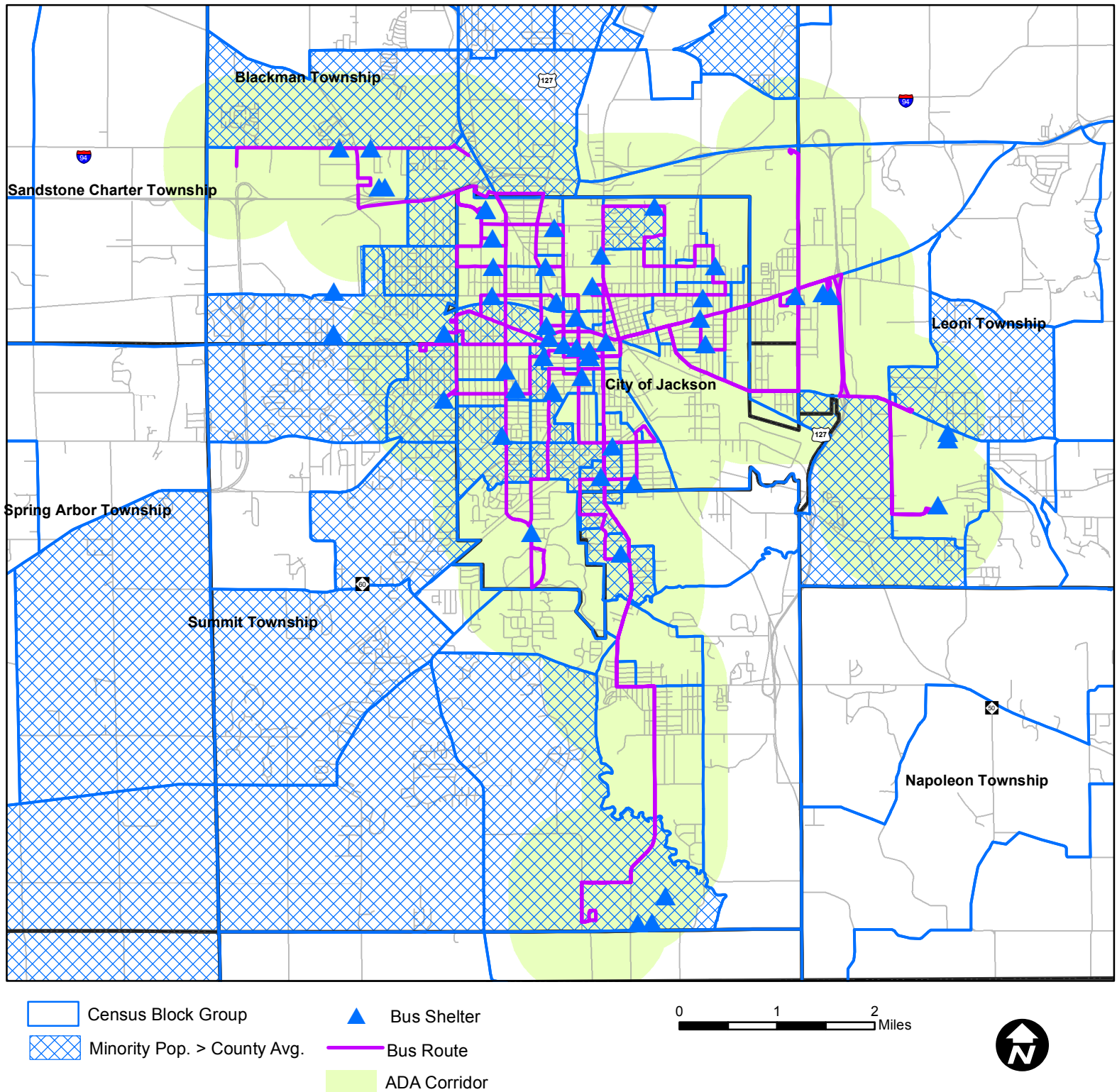


# Blacks & African Americans

Jackson Area Transportation Authority (JATA) Routes

**Region 2**  
Planning Commission  
Serving Hillsdale, Jackson and Lenawee Counties

Figure 12-7 JATA Routes & Environmental Justice Populations Map - Asian & Pacific Islanders



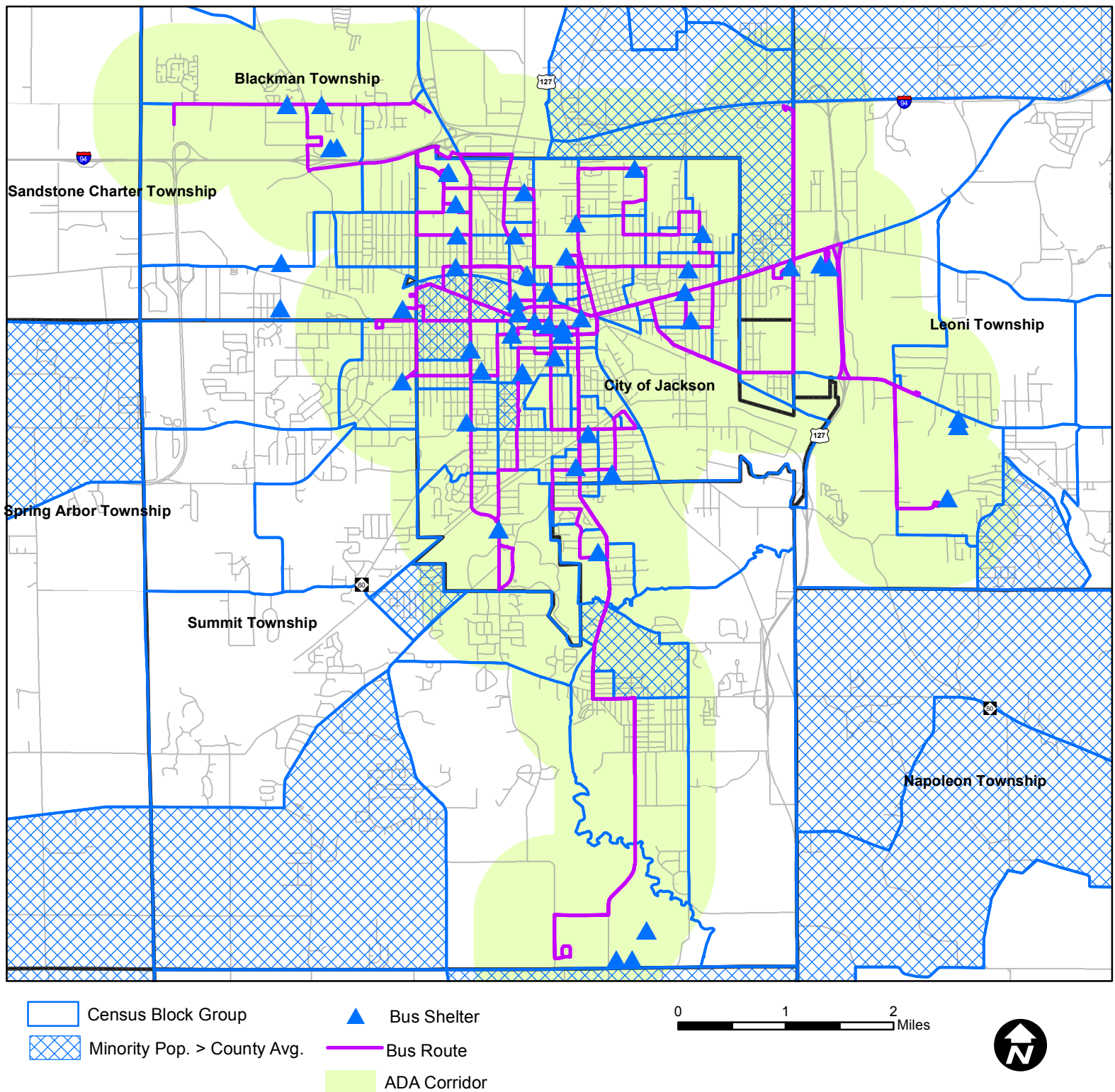
# Asian & Pacific Islanders

Jackson Area Transportation Authority (JATA) Routes

**Region 2**  
Planning Commission  
Serving Hillsdale, Jackson and Lenawee Counties



Figure 12-8 JATA Routes & Environmental Justice Populations Map - American Indian & Alaskan Native

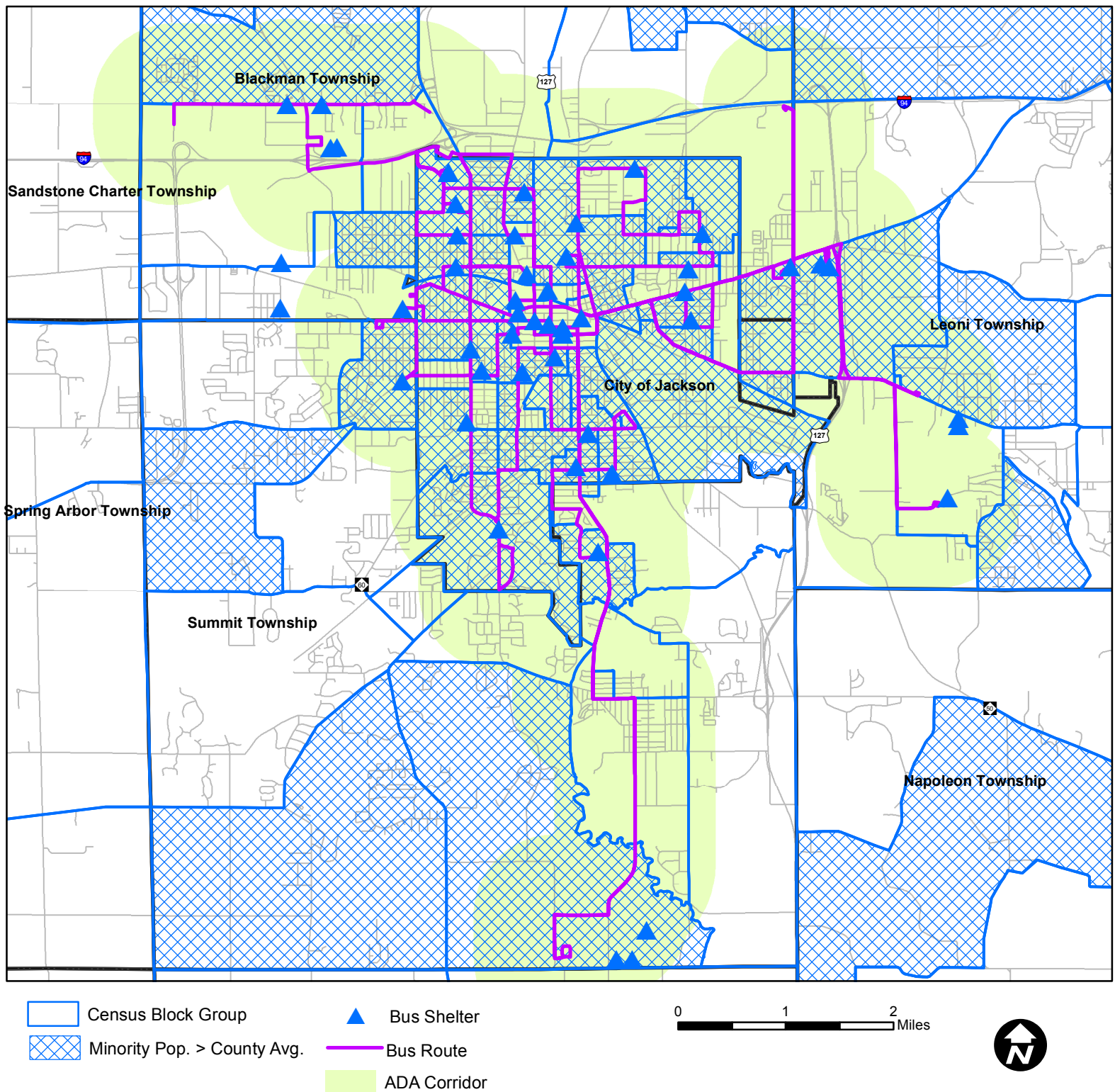


**American Indian & Alaskan Native**  
Jackson Area Transportation Authority (JATA) Routes

**Region 2**  
Planning Commission  
Serving Hillsdale, Jackson and Lenawee Counties

**Jackson Area Comprehensive Transportation Study**

Figure 12-9 JATA Routes & Environmental Justice Populations Map - Hispanic or Latino/a



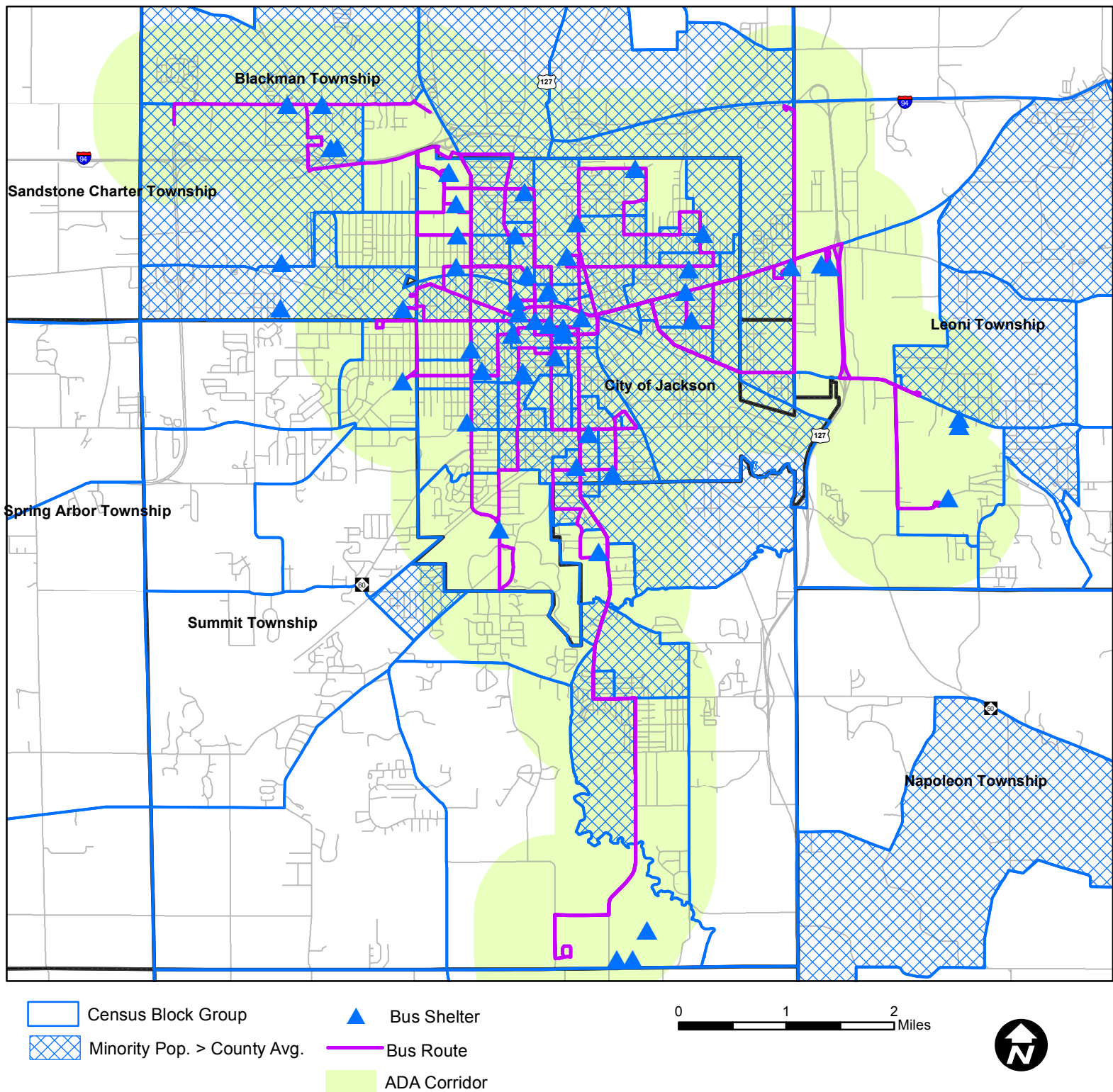
## Hispanic or Latino/a

Jackson Area Transportation Authority (JATA) Routes

**Region 2**  
Planning Commission  
Serving Hillsdale, Jackson and Lenawee Counties

**Jackson Area Comprehensive Transportation Study**

Figure 12-10 JATA Routes & Environmental Justice Populations Map - Impoverished Individuals



# Impoverished Individuals

Jackson Area Transportation Authority (JATA) Routes

**Region 2**  
Planning Commission  
Serving Hillsdale, Jackson and Lenawee Counties