



Transportation Outlook 2050

MAY 2025

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Cooperative transportation planning by the Village, City and County governments of Portage and Summit Counties and the Chippewa and Milton Township areas of Wayne County; in conjunction with the U.S. Department of Transportation and the Ohio Department of Transportation.

AKRON METROPOLITAN AREA TRANSPORTATION STUDY
1 CASCADE PLAZA, SUITE 1300 | AKRON, OH 44308

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Section 1 | Introduction

The Akron Metropolitan Area Transportation Study (AMATS) is excited to present this latest update to the Greater Akron area's metropolitan transportation plan. *Transportation Outlook 2050 (TO2050)* is the official plan detailing how Greater Akron's transportation network will be managed, operated, and improved.

About Metropolitan Planning Organizations

Metropolitan Planning Organizations (MPOs) are agencies created from the 1962 Federal Aid Highway Act to provide local elected officials input into the planning and implementation of federal transportation funds to metropolitan areas with populations of greater than 50,000. MPOs must plan for regional transportation planning expenditures and are responsible for the 3C (continuing, cooperative, and comprehensive) transportation planning process for their urbanized area. Just over 400 MPOs exist across the United States, and 17 exist within Ohio.

MPOs are responsible for prioritizing transportation improvements and allocating federal funds toward projects. Funds are allocated through the Transportation Improvement Program (TIP), but before that occurs, projects must be consistent with an MPO's Metropolitan Transportation Plan (MTP), also known as a Long-Range Transportation Plan.

AMATS' Role in Transportation

AMATS is the designated MPO for the Greater Akron area, covering all of Portage and Summit Counties and the northeastern portion of Wayne County (as shown on Map 1-1).

AMATS serves as a regional forum for discussion and cooperation between elected officials, the public, planners and engineers. The agency coordinates with these stakeholders to set transportation policies and implement various improvements and to ensure that federal transportation funds are used in an efficient, effective and equitable manner.

AMATS has three committees that oversee the work of the AMATS staff who are responsible for carrying out the technical work of the agency:

- The AMATS Policy Committee is responsible for directing the transportation planning process. The committee is responsible for policy and funding decisions and is comprised of elected representatives from municipalities, counties, two regional transit authorities, and the Ohio Department of Transportation (ODOT).
- The Technical Advisory Committee is composed of planners and engineers who are charged with assisting the Policy Committee in the planning process. The committee reviews Policy Committee materials and provides comments to the staff.
- The AMATS Citizens Involvement Committee (CIC) is the forum that gives the public voice regarding transportation issues and concerns. The CIC relays public comments regarding transportation issues to the Policy Committee for their consideration.

Together, the committees and staff comprising AMATS are responsible for developing the MTP, the TIP and various other reports and recommendations.

AMATS' role in transportation planning focuses on the following responsibilities:

- Monitor the conditions of the existing transportation network
- Identify existing capacity or safety problems through detailed planning studies to develop transportation improvements
- Forecast future population and employment growth for the region
- Develop alternative growth scenarios to evaluate the impacts that land use and transportation choices made today will have on the region's future.
- Help plan road and bridge repairs, bicycle and pedestrian facilities, and public transportation investments that will move goods and people safely and efficiently throughout the region.
- Estimate the impact that an expanding transportation system will have on air quality. Develop a financial plan that identifies the costs and revenues associated with the continued operation and maintenance, and future expansion of the region's transportation system.
- Work with the public and various stakeholders to determine the region's priorities for improving the transportation system with anticipated revenue

Creating a Metropolitan Transportation Plan (MTP)

Federal Law requires Metropolitan Planning Organizations (MPOs) to create an MTP—sometimes called a Long-Range Transportation Plan (LRTP)—that documents current and future transportation demand and identifies long term improvements and projects to meet those needs. Federal law allows significant latitude in how an MTP is crafted; however, there are several core requirements of an MTP:

- address no less than a 20-year planning horizon
- provide for the development of an integrated multimodal transportation system that considers various modes of transportation
- be reviewed and updated at least every four years (five years for some areas)
- be fiscally constrained, meaning that project revenues must fit within the precited funding to be received within the region
- consider federal planning factors
- provide an opportunity for public participation

TO2050—AMATS' MTP

TO2050 recommends that nearly \$9.4 billion be invested in area highway, public transit, and active transportation networks over the next 25 years with nearly \$6.9 billion for the region's highways and slightly less

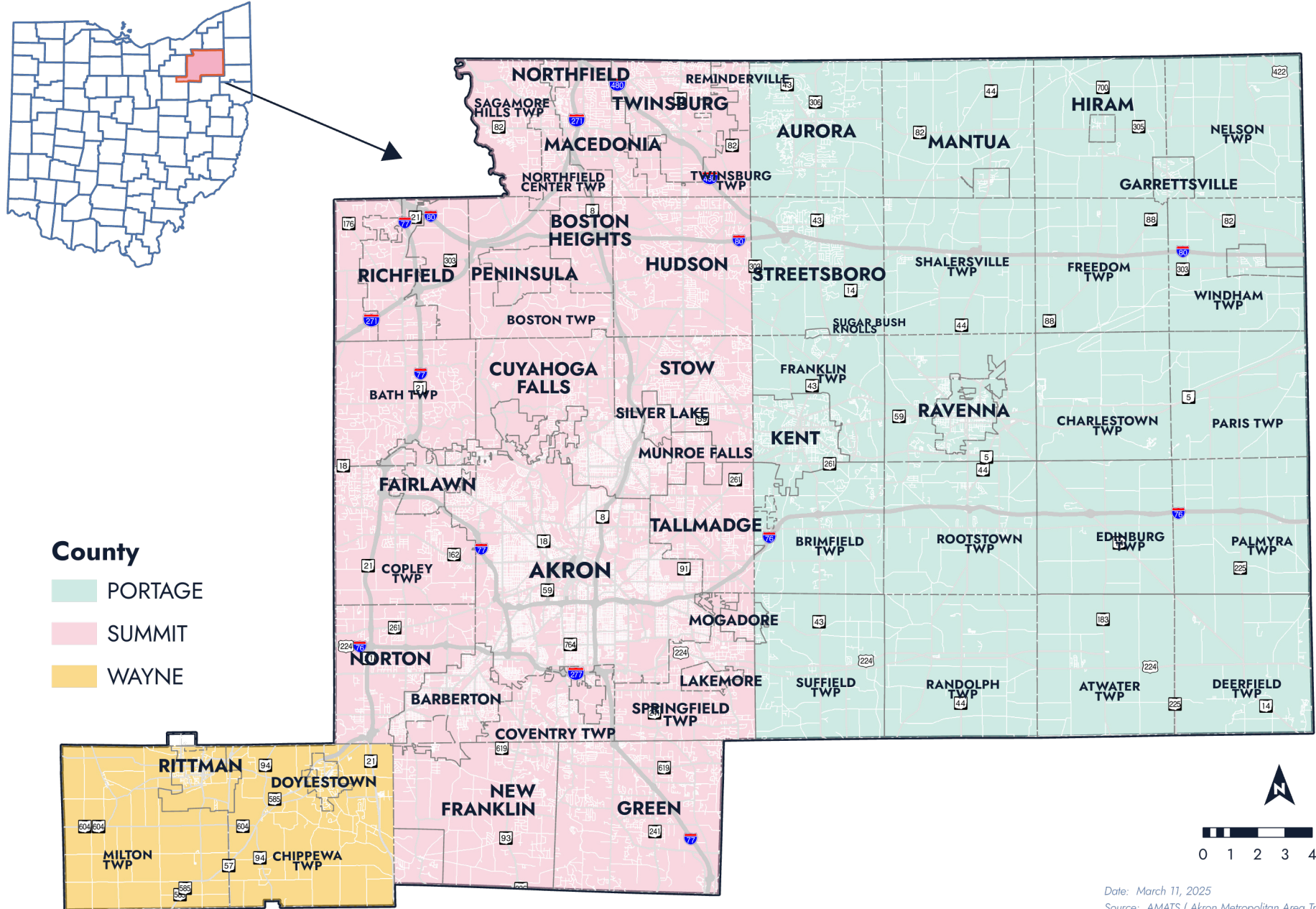
than \$2.5 billion for public transit systems. The plan urges another \$35 million in active transportation investments over the same period.

The plan presents 47 specific highway project recommendations that include various roundabouts, intersection improvements, and corridor rehabilitations. *TO2050* presents 24 active transportation project recommendations including trails and additional pedestrian-related facilities across the area. The plan's public transit recommendations urge that service be considered an integral land use planning component and that future investments preserve the existing transit network, assets, and supporting facilities.



TRANSPORTATION OUTLOOK 2050

Map 1-1 | AMATS Service Area



Section 2 | Planning Process

Transportation Outlook 2050 was developed through a robust planning process informed by federal guidance, state input and local outreach. As part of the planning process, AMATS develops a set of goals and objectives to lay a foundation for Transportation Outlook 2050. The goals were developed with consideration to the federal planning factors and reviewed by the AMATS Citizen Involvement Committee, Technical Advisory Committee and approved by the Policy Committee in March of 2025.

2050 Goals and Objectives

Maintain the existing transportation system

- Give priority to resurfacing, restoration, and rehabilitation, improvements in the development of regional transportation plans and programs
- Give priority to transit vehicle replacements, preventive maintenance, and facility rehabilitations in the development of regional transportation plans and programs

Maintain a safe, secure, efficient and integrated transportation system

- Minimize highway accidents and provide safe travel routes
- Minimize pedestrian, bicycle, train, and vehicle conflicts
- Improve the safety of transit facilities and operations
- Improve the security of the transportation system
- Minimize traffic congestion

Integrate all modes of the transportation system where appropriate

- Encourage service coordination among METRO, PARTA, and the neighboring transit operators
- Encourage system operating efficiencies through the development of projects that provide direct connections between modes
- Encourage the development of a balanced, integrated, multimodal transportation system that includes highways, transit, bikeways, pedestrian, rail, and air facilities

Federal Planning Factors

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
2. Increase the safety of the transportation system for motorized and non-motorized users
3. Increase the security of the transportation system for motorized and non-motorized users
4. Increase accessibility and mobility of people and freight
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
7. Promote efficient system management and operation
8. Emphasize the preservation of the existing transportation system
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
10. Enhance travel and tourism.

Increase mobility for all persons

- Encourage a public transit system that provides basic mobility for transit dependent persons and provides an alternative to automobile usage
- Encourage the development of a regional network of bicycle routes
- Encourage the placement of sidewalks and other pedestrian facilities where they are appropriate
- Implement complete streets principles

The transportation system should support the economic vitality of the region

- Develop a transportation system that will provide superior mobility for the movement of freight and goods
- Encourage the implementation of transportation improvements that will promote sound economic growth

Encourage proven regional land use strategies and development patterns

- Coordinate the development of transportation facilities and land use
- Minimize the adverse effects of transportation facilities on land use, in order to protect and preserve neighborhoods and communities
- Minimize the adverse effects of land use changes on the transportation system
- Transportation and land use infrastructure should consider adverse environmental impacts

These goals and objectives inform AMATS policy and project recommendations in Transportation Outlook 2050. They also inform AMATS planning work during the four-year planning period that culminates in Transportation Outlook 2050.

AMATS planning processes are summarized, by transportation issue, through a series of Needs Reports (sometimes called Input Documents). During the planning process, AMATS develops reports on roadway preservation, safety, transit, active transportation, freight and congestion. These reports aid in the identification of policies and programs that are recommended in Transportation Outlook 2050. For example, the Preservation Needs Report documents the region's preservation needs at \$6.86 billion through the life of the plan. These costs inform AMATS policy recommendation to "fix it first" in Transportation Outlook 2050. Section 4 of Transportation Outlook will explore in more detail the Needs Reports and their relationship to project recommendations.

Outreach Process

Overview

The ability for the public to engage in the transportation planning process is of paramount importance. AMATS has developed a robust public engagement approach with the intent to reach as many of the region's residents as possible. The staff uses both traditional and non-traditional methods to increase public participation in the planning process.

Since the previous Plan (TO2045) was completed in 2021, AMATS has continued to employ many of its proven public participation strategies but has built upon this foundation by launching new initiatives and improving the ways in which AMATS informs the public and obtains valuable public feedback. Together, these strategies and initiatives are used by the agency to encourage members of the public to become active and informed participants within Greater Akron's regional transportation planning process.

Ongoing Efforts to Collaborate and Inform

AMATS' Public Participation Processes

AMATS utilizes various strategies to engage and empower the public throughout the regional transportation planning process. These are outlined within AMATS' Public Participation Plan, also commonly referred to as its "3P." The 3P is updated during the planning cycle to ensure that the agency's methods are up-to-date, relevant, and innovative. The 3P was last updated in 2024. Recent iterations of the 3P recognize the changing demographic composition of the Greater Akron area and define how the agency will communicate with these populations.

The AMATS 3P was crafted based upon the following guiding principles:

- AMATS recognizes that every major public policy decision or implemented transportation project significantly affects someone.
- If the agency's decision-making process is open, objective and considers all viewpoints, then policies, programs and projects are usually much more willingly accepted and embraced by affected communities.
- By utilizing a variety of public outreach techniques in multiple formats to provide planning information, the agency will gain a wide audience and solicit input from a greater number of people.
- Coordination and collaboration among as many as transportation stakeholders as possible during the planning process produces the most effective and balanced transportation solutions.

To view the AMATS 3P, visit <https://www.amatsplanning.org/sites/default/files/docs/DRAFT-3P-Public-Participation-Plan-2022-Update.pdf>

Website and Social Media

In 2024, AMATS launched a new website, designed to be more intuitive and user-friendly. AMATS actively maintains the website to ensure that information is kept up to date. Features of the site include:

- News items, including the release of new reports and important processes are posted onto the website in places where they can be easily seen.
- An interactive Transportation Improvement Program (TIP) project listing, which provides details about AMATS-funded projects and includes map images of TIP project locations.
- Visitors can identify dates and times for upcoming Policy Committee, Technical Advisory Committee (TAC), and Citizens Involvement Committee (CIC) meetings. Visitors can also view the most recent committee meeting packet, listen to an MP3 meeting podcast, or review past meeting minutes.

- All reports and web maps developed by AMATS are easily accessible and can be refined by category (e.g. safety, pedestrian) or keyword.

AMATS also maintains an active presence on social media.

- **Facebook:** @AMATSPanning
- **X:** @AMATSPanning
- **YouTube:** @AMATSPanning

Preparation of Needs Reports/Input Documents

Prior to the development of TO2050, AMATS prepares various reports that help inform the Plan's development. At a minimum, each of these reports is presented to all three AMATS Committees, and approved by the AMATS Policy Committee. Many of these reports undergo additional steps including public surveys, additional presentations, press releases. Input Documents include:

- Planning Data Forecast
- Freight Plan
- Active Transportation Plan
- Transit Plan
- Highway Preservation Needs Report
- Congestion Management Processes Report
- Annual Crash Report
- SS4A Action Plan

Surveys

During the development of the *Safe Streets for All Action Plan* and the *Active Transportation Plan*, AMATS utilized ARC GIS's Survey123 platform to develop web-based surveys. A key feature of both surveys was the ability to provide location-specific comments. Both surveys yielded high response rates and provided valuable feedback that helped inform planning processes. Comments were brought to the consideration of relevant decisionmakers as well.

Connecting Communities Process

AMATS developed Connecting Communities - A Guide to Integrating Land Use and Transportation as a way to better understand the relationship between land use and transportation. The program encourages the pursuit of transportation projects which support vibrant, healthy and inclusive places by communities and project sponsors. The purpose of the Connecting Communities Planning Grant Program is to include connectivity principles during the development of transportation plans that will lead to projects eligible for AMATS funds. The program focuses on integrating the following principles:

Connecting Communities principles:

- Increase alternative transportation options to connect people and places.
- Promote Complete Street principles to create vibrant and safe places for all users.
- Leverage transportation projects to develop places which support alternative transportation and complete streets through land use and design.

Since its launch in 2010, the Connecting Communities Planning Grant Program initiative has funded 15 connectivity studies throughout the Greater Akron area. Various recommendations from these studies have been implemented, representing several million dollars of investment into the connectivity of places.

Community Events

AMATS staff looks forward to organizing and attending events within the community, as this provides an opportunity to interact with citizens in environments outside of a public meeting. Since 2021, AMATS has participated in several events, including but not limited to:

Bike-n-Brainstorm Events — AMATS developed the Bike-N-Brainstorm concept in 2012 to serve as a tool for public outreach by engaging cyclists in a chosen bike route for the purpose of improving biking conditions in a local community. In a Bike-N-Brainstorm, participants meet for a ride along a designated route in a community. At the end of the ride, cyclists share their thoughts on how to make a community more bike and pedestrian friendly.

Approximately 85 cyclists have participated in five Bike-N-Brainstorm events between 2021 and 2025. AMATS continues to partner with other communities in encouraging the development of bicycle infrastructure to make cycling a viable and safe active transportation option.

Bicycle Community Events — AMATS attended and/or provided handouts to various community events promoting bicycle safety around the region. Most of these events have been geared toward children and youth. These events are can be a good opportunity to directly be involved in cycling safety through activities and conversations. They also allow AMATS to hand out bicycle LED lights, bicycle bells, AMATS bike maps, water bottles, and various other AMATS branded giveaways.

Project Walking Tours — AMATS periodically attends community walking tours or ribbon cuttings upon the completion of major projects. In 2021, AMATS attended a walking tours of the Cleveland-Massillon Road corridor improvement project and Aurora’s citywide traffic signal improvement project. in 2024, AMATS attended the opening ceremony for the first phase of the Rubber City Heritage Trail.

Jane’s Walk — Jane’s Walk is a global walking initiative held annually on the first weekend in May. The initiative began in Toronto in 2007 to honor the legacy and ideas of urban planner and writer, Jane Jacobs. Every year, cities around the world participate in the Jane’s Walk festival of free walking tours that get people to explore their cities, tell stories about their neighborhood and connect with neighbors.

Because AMATS promotes connectivity principles in transportation planning, the agency relies on these events as a planning resource. AMATS most recently participated in several Jane’s Walk events in 2022 around the City of Akron.

Creating a Plan with Public Insight

In addition to the perpetual public and stakeholder engagement described above, TO2050's process necessitates its own series of specific outreach. This process is described below.

Meetings with Communities and Agencies

In the fall of 2024, AMATS began meeting with its members who represent communities, county engineering offices, park districts and transit agencies. The point of these meetings was to touch-base with AMATS members and to hear about their transportation issues, needs, goals, and projects they have in mind.

Each meeting was intentionally informal in order to allow for flexibility on areas of focus and the order in which the conversations flowed. However, a general set of questions was developed based upon TO2050's goals:

Goal 1: Maintain the existing transportation system

- Do you have any large or expensive maintenance concerns in your jurisdiction (bridges needing to be replaced, major road overhauls)?

Goal 2: Maintain a safe, secure, efficient and integrated transportation system

- Do you have specific safety concerns within your jurisdiction, either high-crash areas or places with potential safety concerns? Do you have any ideas of how to improve these locations?
- Do you have any areas of congestion? If so, where are they and do you have strategies in mind of how to deal with these areas?

Goal 3: Integrate all modes of the transportation system where appropriate

Goal 4: Increase mobility for all persons

- Do you have any transit-related concerns within your jurisdiction? Areas where service is inadequate, where better facilities (such as bus shelters) are needed, etc.
- Are there areas not accessible for pedestrians or bicyclists that should be?
- What are some of the highest priority areas you would like people to walk or bike?
- Are there any plans in the works to build new or improved trails or sidewalks?
- How important is it, compared to other pressing needs, to make your jurisdiction more friendly to non-automotive transportation?

Goal 5: Support the economic vitality of the region

- Are there any freight choke points within your jurisdiction?
- Are there any areas you foresee improved economic development (either commercial or industrial), and are there any plans in the works to improve transportation networks within these areas?

Goal 6: Encourage smart regional land use strategies and development patterns

- Are you seeing or do you foresee any adverse environmental impacts that relate to the transportation system, e.g. stormwater issues, sprawl, air quality concerns?

- What, if anything, is your jurisdiction doing to promote smarter land use strategies and improved development patterns?

General Questions:

- Do you have any specific projects in the works? How, when, and why do you intend to pursue them? What negative issues, if any, do you foresee as these projects are planned, e.g. public controversy, community character changing, etc.
- What plans (if any) do you have that AMATS should be familiar with?
- Do you have any questions about AMATS funding programs and funding policies?

Some meetings followed this framework rather closely while others had a much more organic, conversational flow. In all cases, the conversations that occurred allowed staff to understand what was most important to each community and agency.

Reporting on Progress

AMATS kept each of its committees, including the Citizens Involvement Committee, apprised of TO2050s progress at each scheduled meeting during the Plan's development. A Draft version of TO2050 was approved by the AMATS Technical Advisory and Policy Committees in March 2025, while the final Plan was approved in May.

Public Involvement Period

A 30-day public involvement (PI) period began on March 11, 2025. To help broadcast the draft plan's completion, AMATS staff developed newspaper advertisements, wrote press releases, posted content on its social media accounts, and created new web content on its website. AMATS communicated that public comments on the draft TO2050 plan could be provided in various ways:

By attending Meetings:

- March 20, 2025 Citizens Involvement Committee meeting
- Public Open House Meetings on April 2 (Akron) and April 3 (Kent)

Providing written or verbal comments:

- An online comment form, hosted on www.amatsplanning.org, was developed as an easy way to provide comments. The public could also call the AMATS office, email AMATS staff, or stop by the AMATS offices during regular business hours.

More information about the public comment period can be found in Appendix E.

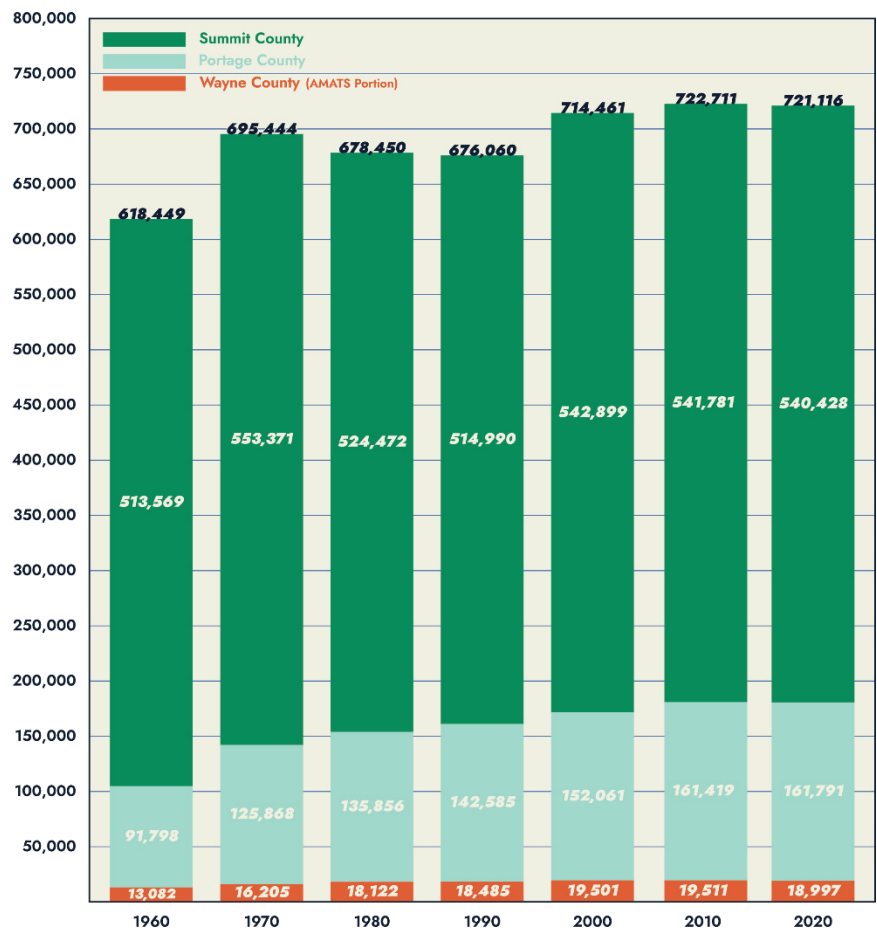
Section 3 | Existing Conditions and Future Directions

It's critical of any long-range transportation plan to analyze existing trends and conditions. This analysis is used to develop strategies and policies for the future that create a stronger transportation system.

The region, like any other metropolitan area, encompasses a diverse array of communities with varying density, land uses, and numerous other physical and human geographical traits. The region's population trend mirrors that of current Midwestern "rust belt" cities with an industrial history, showing a declining population in a large centralized downtown city. Surrounding cities either shrink or remain stable and most growth occurs within the suburban areas further from the city center.

Using Census data from 2020, the City of Akron is Ohio's fifth largest city, containing a population of 190,469. The city's population peaked in 1960 at 290,351, subsequently declining in population as deindustrialization and suburbanization negatively affected most midwestern population centers. Although Akron has lost about one-third of its population since its peak, surrounding Summit County has grown modestly during this same period: 513,569 to 540,428 (1960 to 2020). However, Summit County is down slightly from its peak population (1970) of 553,371.

Portage County grew much more rapidly during the last half of the twentieth century and, in fact, may have hit its population peak in 2020. For comparison, Portage County had a population of 91,798 in 1960 compared to a 2020 population of 161,791. Although it is still growing, the 2020 Census indicates that this growth appears to have leveled off; the county only grew 0.2% between 2010 and 2020.



Socioeconomic Variables

One of the most fundamental steps in the long-range transportation planning process is the collection, organization and analysis of existing planning-related data. Using this data, AMATS can determine where the region has been (from a social-economic standpoint), the current conditions, and perhaps most critical to any planning effort, in what direction the region is heading.

Although the most used data (ex. population or employment data) are gathered and analyzed on an ongoing basis, a greatly expanded effort is undertaken in preparation for each upcoming long-range transportation plan. The AMATS 2050 Planning Data Forecast was completed in 2024 as a necessary precursor to *Transportation Outlook 2050*.

The Planning Data Forecast analyzed socio economic variables in the base year of 2020 and the planning period year of 2050. The 2020 data generally came from either the most recent U.S. census or from American Community Survey (ACS). Using forecasting methodology, described in the Planning Data Forecast document, this 2020 data is projected out to the plan year of 2050. The AMATS 2050 Planning Data Forecast projects a number of variables, each of which has a direct impact on local traffic and is therefore required for input into the regional travel demand model.

Population (2 Scenarios)

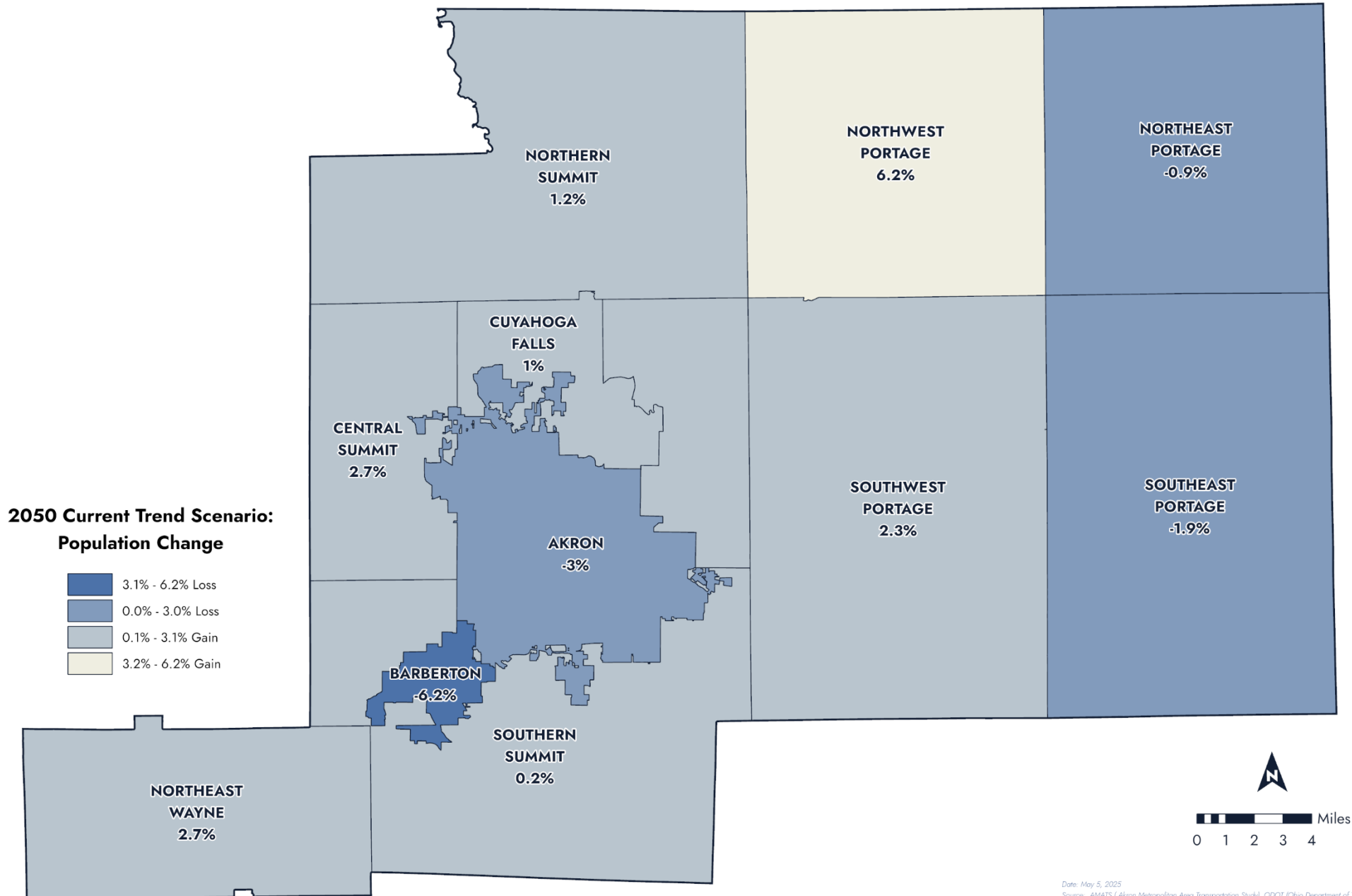
The AMATS Planning Data forecast developed two planning scenarios for population change in 2050. The Ohio Department of Development Scenario is based on aligning the 2050 population totals with the Ohio Department of Development's (ODOD) county-level population forecasts for Ohio. This scenario is based on the Ohio Department of Development methodology that looks at births, death, in migration and outmigration. The Current Trends Scenario is based on analyzing population trends over the last 20 years to extrapolate future population projections.

Table 3-1 Reflects the differences between the two scenarios for key variables from the Planning Data Forecast. While the ODOD's scenario does appear bleaker from a population perspective, the Current Trends scenario paints only a slightly better picture. Greater Akron is not expected to see much population growth, except in very localized areas. Some areas can also expect to see population decline.

The ramification of either of the two scenarios leads to similar policy outcomes. AMATS must continue to focus on preserving the region's existing system and use that system to improve citizen quality of life with investments that improve safety and pedestrian and bicycle infrastructure. It also emphasizes the fact that traffic is not expected to grow regionwide. Traffic is not expected to continually increase through the life of the plan. In fact, the region should anticipate some reductions in traffic.

Table 3-1 Population Forecast						
	ODOD Scenario			Current Trends Scenario		
	Base Year 2020	Base Year 2050	% Change	Base Year 2020	Base Year 2050	% Change
Population	720,087	612,750	-14.9%	720,087	722,064	0.3%
Households	304,094	274,482	-9.7%	304,094	322,855	6.2%
Population Under 18	146,339	124,664	-14.8%	146,339	146,584	0.2%
Vehicles	538,456	486,949	-9.6%	538,456	571,355	6.1%
Workers	356,805	303,822	-14.8%	356,805	357,941	0.3%

Map 3-1 | 2050 Population Change (Current Trends Scenario)



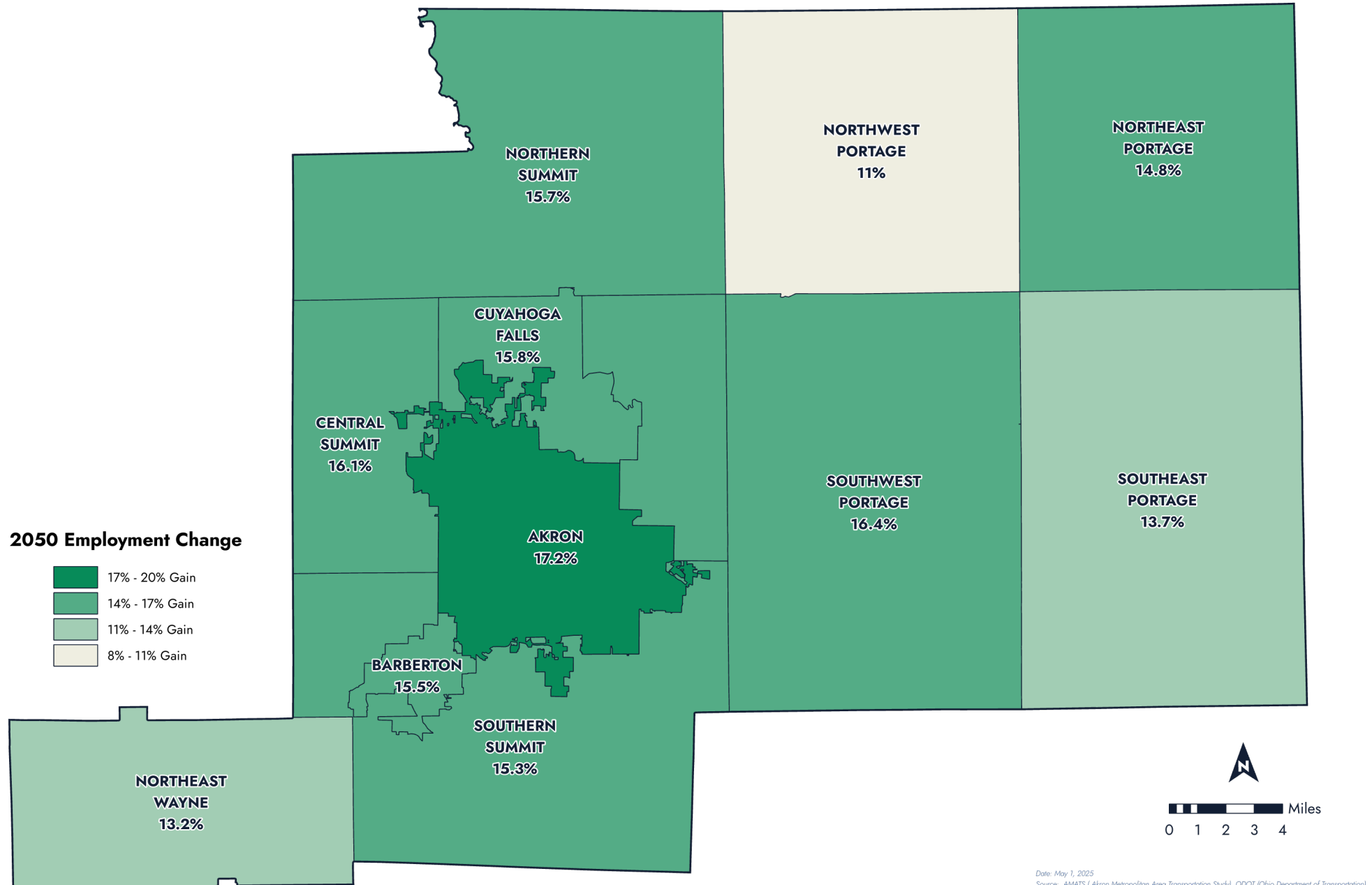
Date: May 5, 2025
Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

Employment

While population is anticipated to decline, greater Akron's employment is anticipated to increase. Employment industries expected to grow the most between now and 2050 are transportation and warehousing, health care, and arts, entertainment and recreation. Some declining industries identified included manufacturing, retail trade, and utilities. Overall, the region's employment is expected to grow by 16.4 percent. This growth in employment combined with the reduction in the region's population would mean that it is likely that employees are coming from outside greater Akron to satisfy the region's employment needs. It could also point to increase in the number of jobs that are filled with remote workers. Table 3-2 details employment growth in all employment trades.

Table 3-2 Employment Forecast				
Sector Code	Base Year 2020	Base Year 2050	% Change	Sector Description
NAICS 11	440	495	12.5%	Agriculture, Forestry, and Hunting
NAICS 21	373	487	30.6%	Mining
NAICS 22	1,582	1,241	-21.6%	Utilities
NAICS 23	13,191	14,885	12.8%	Construction
NAICS 31-33	39,470	39,103	-0.9%	Manufacturing – Aggregated
NAICS 42	15,468	15,792	2.1%	Wholesale Trade
NAICS 44-45	34,812	31,342	-10.0%	Retail Trade – Aggregated
NAICS 48-49	14,370	19,364	34.8%	Transportation and Warehousing – Aggregated
NAICS 51	5,221	5,260	0.7%	Information
NAICS 52	10,448	10,695	2.4%	Finance and Insurance
NAICS 53	3,327	3,505	5.4%	Real Estate and Rental and Leasing
NAICS 54	15,107	18,123	20.0%	Professional Scientific and Technical Services
NAICS 55	14,242	16,618	16.7%	Management of Companies and Enterprises
NAICS 56	15,966	18,287	14.5%	Administrative Support, Waste Management and Remediation
NAICS 61	27,086	31,911	17.8%	Education Services
NAICS 62	53,036	69,812	31.6%	Health Care and Social Assistance
NAICS 71	5,459	9,722	78.1%	Arts, Entertainment, and Recreation
NAICS 72	28,620	42,056	46.9%	Accommodation and Food Services
NAICS 81	9,592	11,050	15.2%	Other Services (except Public Administration)
NAICS 92	9,245	9,170	-0.8%	Public Administration
NAICS 99	12	12	0.0%	Other
Total Employment	317,067	368,930	16.4%	

Map 3-2 | 2050 Employment Change



Date: May 1, 2025
Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

Emerging Trends

As the region has recovered from the COVID-19 Pandemic that began in 2020 it is not difficult to identify some of the ways things have changed. Online retail continues to dominate the marketplace, remote work continues in many employment sectors, and downtowns are transitioning from being hubs of business to hubs of residential and retail activity.

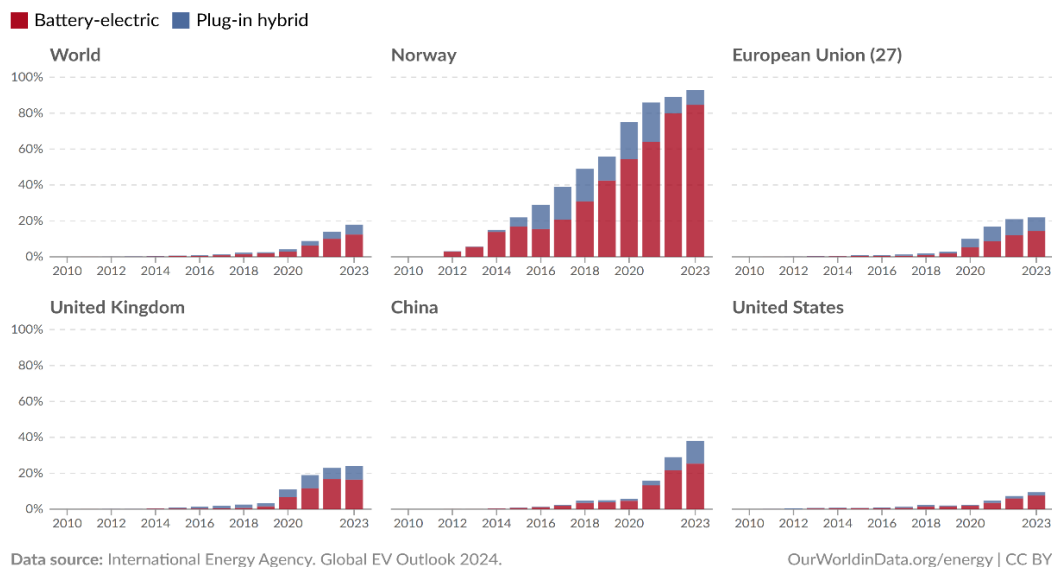
These trends impact the transportation system in several unique ways. Freight traffic, for example, is up throughout the state. The Ohio Department of Transportation's (ODOT) Statewide Freight Plan published in 2022, projects an increase in truck freight tonnage of 34 percent. As more trucks use the transportation system, it is likely that roadway preservation will be critical to ensure pavement conditions are maintained.

The region's job hubs are also impacted. Large distribution facilities tend to locate near highways, but outside the traditional city center. How can the region ensure employees are able to access employment centers? Because convenient and reliable local transit is critical to making sure the region's residents can get to good paying jobs, it is essential to locate employment centers in locations that are accessible.

As downtowns transition to centers of residential activity, the transportation needs also change. Residents that choose to live in a downtown want safe walkways and bikeways. They are choosing the convenience of being close to activities versus needing to rely on an automobile. Understanding this trend helps identify what types of projects are better suited to the future downtowns.

Another emerging trend is electric powered vehicles which include battery-electric and plug-in hybrid vehicles. These vehicles have become more popular in the United States within the past 5 years, although not as quickly as other nations that have been more proactive in developing the proper infrastructure needed to accommodate electric powered vehicles.

Share of Electric and Hybrid Cars Sold From 2013-2023



Electric powered vehicles pose some challenges to the region as the need for quick fast charging infrastructure is a barrier to help make electric powered vehicles more attractive to the daily user and to assist electric vehicles traveling through this region via the freeway. Some of the examples of different level of charging are explained below but are in no way an example of all types of charging technology found throughout the U.S. The difference between Level 1 and Direct Current Fast Charging (DCFC) capacity is significant.

- **Level 1** equipment provides charging through a common residential 120-volt (120V) AC outlet. Level 1 chargers can take 40-50+ hours to charge a Battery-Electric Vehicle (BEV) to 80 percent from empty and 5-6 hours for a Plug-In Hybrid Vehicle (PHEV).
- **Level 2** equipment offers higher-rate AC charging through 240V (in residential applications) or 208V (in commercial applications) electrical service, and is common for home, workplace, and public charging. Level 2 chargers can charge a BEV to 80 percent from empty in 4-10 hours and a PHEV in 1-2 hours.
- **Direct Current Fast Charging (DCFC)** Direct current fast charging (DCFC) equipment offers rapid charging along heavy-traffic corridors at installed stations. DCFC equipment can charge a BEV to 80 percent in just 20 minutes to 1 hour. Most PHEVs currently on the market do not work with fast chargers.

**Source D.O.T. website. -Rural EV Toolkit*

The need for widely available fast charging equipment is a major issue when understanding the need to integrate electric vehicles into U.S. metropolitan areas.

Technology Trends

Transportation technology is an area of growing interest and investment. Fully integrated innovative technologies including self-driving cars, connected vehicles, drones, and smart sensors have captivated government, business and citizen interest with optimism that these technologies can improve the transportation network. Many believe that technology being developed today could reduce traffic fatalities, crashes and congestion. It could also help with issues such as parking and transit last mile connections. Further, there are numerous commercial applications that will bolster the economy. The state of Ohio has been active in promoting transportation technology.

Some of these emerging technologies have been applied throughout the state of Ohio in larger urban areas such as Columbus, which received a \$40 million-dollar smart cities grant in 2016 to develop and test these technologies to improve the functionality of the city. Some of the [Smart Columbus](#) projects have included self-driving automated shuttles, connected vehicle environments where, devices called on-board units are installed on public and private vehicles to allow vehicles to "talk" to each other and receive in-car alerts like blind spot detection or rear-end collision warning. Projects that are also geared towards people who have first-mile-last mile challenges are "smart mobility hubs" where shared amenities such as bike racks, electric scooter and bike charging station, EV charging and park and ride transit options bring urban transportation options together in a single location that help people that rely on alternate modes of transportation have been implemented as a program or pilot program to test these scenarios and offer as a guidebook for implantation.

The State of Ohio has been promoting these trends for the past 10 years through [DriveOhio](#), which was an initiative of ODOT, “serving as the state’s hub for smart mobility technology on the ground and in the air.” DriveOhio has supported the study, funding and development of autonomous and connected vehicle technology and implementation and believe this advanced technology will help make the roads safer and more efficient to travel.

Some of the areas of new technology being studied are connected and automated vehicles. Connected and Automated Vehicles (CAVs) combine connected vehicle (CV) and automated vehicle (AV) technologies. CVs use wireless communication to share data with other vehicles and infrastructure, while AVs utilize sensors and Artificial Intelligence to make driving decisions autonomously without human intervention. Connected Vehicles (CVs): Focus on communication and data sharing, allowing vehicles to be aware of their surroundings and potential hazards. The number of connected vehicles is increasing within this region, which will allow for more vehicles to provide data for better regional planning. True fully autonomous vehicles have yet to be fully realized and implemented in this region.

Within the AMATS planning region, some of the technologies being explored and implemented are traffic signal preemption technologies. Traditionally pre-emption technology allows for emergency vehicles priority at main intersections, which has been implemented throughout the region but in most cases involves manual operation using radio signals from a fixed location. Newer signal pre-emption technologies are being explored locally that utilize connected vehicles like public transit buses and city operated vehicles to allow for safe passage through busy intersections. Another method being implemented by cities such as [Hudson](#) is “adaptive signal” technology. This technology utilizes Hudson’s high-speed fiber-optic cable broadband to adjust the timing of traffic lights in real-time to control the flow of traffic and reduce travel times. As this project develops AMATS and the region will have more data to examine how this specific pre-emptive signal project method impacts safety and congestion.

To better understand the current state of all of the region’s traffic signals AMATS has elected to pursue the development of a Regional Traffic Signal Inventory (RTSI) for the entire AMATS planning area that will be used to both inform policy decisions and address policy issues. AMATS is seeking to understand these traffic signal systems/networks and explore what options the region might already have regarding inter-jurisdictional coordination and/or what improvements could be made to help facilitate these efforts. While the timeline of widespread technological adoption is uncertain, the future direction of transportation is at a crossroads where policy and technical guidance play an especially critical role in shaping change. AMATS will continue to monitor the trends in innovation and carefully consider their role in transportation planning in the future.

Summary

In today’s age of technology and instant feedback, some trends arrive quickly but also retreat quickly. Other trends can be just as abrupt but permanent. While it is still impossible to predict the future, the Greater Akron area will be prepared for it by focusing on a transportation system that works for all users and preserves the strong system currently in place.

Section 4 | Regional Transportation System

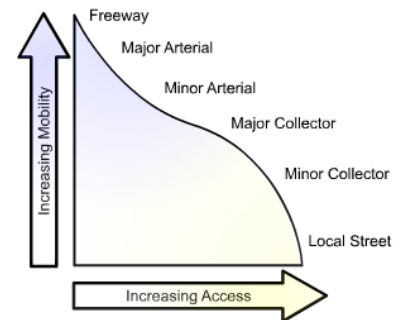
Like any metropolitan area, the Greater Akron area contains a comprehensive network of roadways, railroad lines, bicycle and walking trails, sidewalks, and airports. This section summarizes the existing regional transportation system by mode:

- Roadways
- Active Transportation
- Public Transit
- Rail
- Aviation

Roadways

Classification and Overview

Roadways within the Greater Akron area are organized into several roadway types. The classification system follows a framework used throughout the United States known as Federal Functional Classification. MPOs, Departments of Transportation, and the Federal Highway Administration collectively work to classify all roadways based on their function and importance. Roadways include low-volume local streets, collector roads, arterial roads, and limited-access freeways—Interstates, other expressways, and tolled-highways (Ohio Turnpike). Some classifications are also broken down into major and minor categories, and rural and urban categories.



A roadway's Federal Functional Classification is important because it dictates whether federal funding can be utilized toward its improvement. Local roadways and Rural Minor Collector roadways are ineligible for federal funding. Eligible funding classifications come with specific design criteria or may be more or less likely to receive AMATS or ODOT funding sources. Table 4-1 and Map 4-1 illustrate the AMATS Planning Area's FFC Network. More information about the Federal Functional Classification can be found at <https://www.fhwa.dot.gov/planning/processes/statewide/related/hwy-functional-classification-2023.pdf>

Map 4-1 | Federal Functional Classification of Roadways

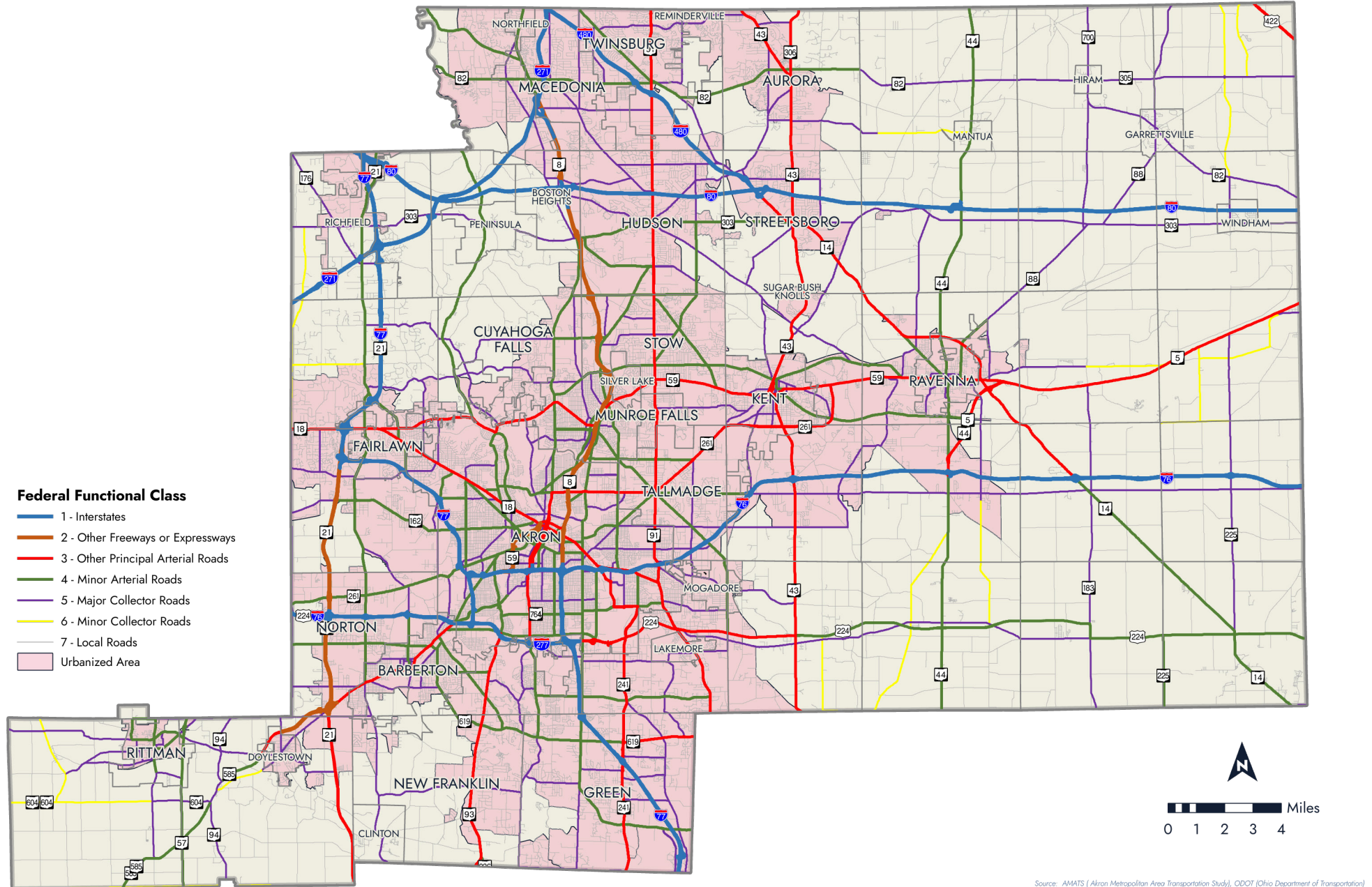


Table 4-1 Federal Functional Classification of AMATS Roadways			
Functional Class	Length (in Miles)	Number of Lane Miles	Lane Mile % of Overall System
Interstate	106	493	4.62%
Expressway	33	164	1.54%
Ohio Turnpike (I-80)	34	204	1.91%
Principal Arterial	194	585	5.48%
Minor Arterial	354	969	9.08%
Major Collector	547	1,165	10.92%
Urban Minor Collector	6	12	0.11%
Rural Minor Collector	71	142	1.33%
Local	3,452	6,935	65.00%
Totals:	4,797	10,669	100.00%

Safety and Security

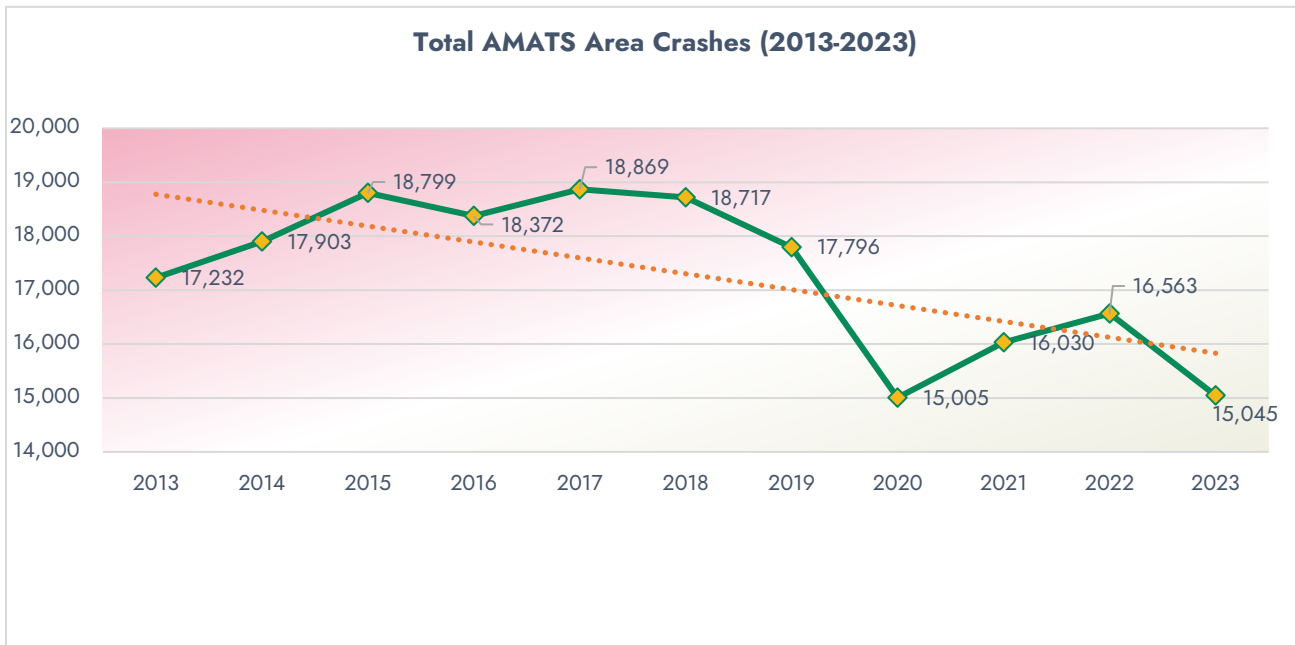
Safety

Improving the safety of the regional transportation network is among the most important goals of TO2050. A significant portion of AMATS' yearly workload is devoted to analyzing crash data and reporting on safety through two studies: the **Annual Crash Report (ACR)** and the **Safe Streets for All (SS4A) Action Plan**. These studies were used as evaluation criteria for selecting projects for funding and the recommendations of the SS4A Action Plan were incorporated into the development of transportation recommendations for TO2050.

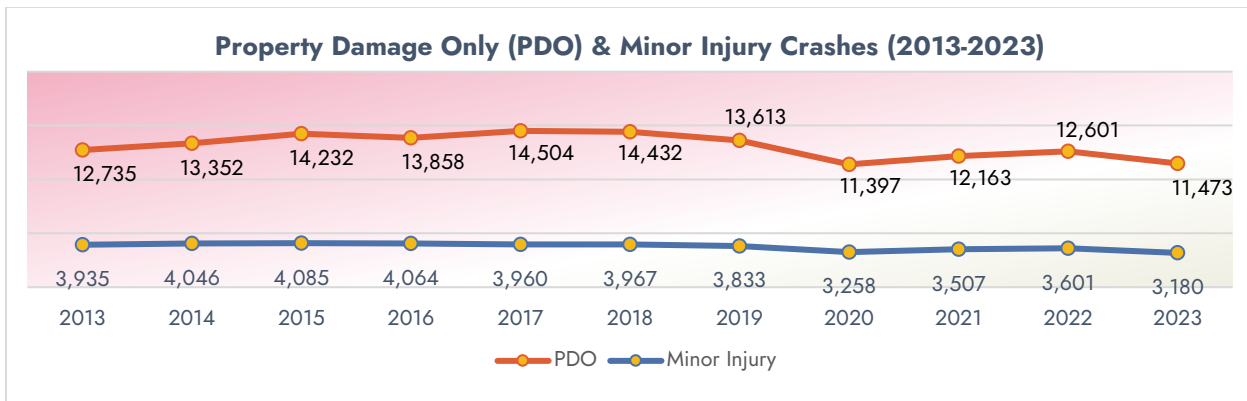
AMATS creates *Annual Crash Reports (ACRs)* that have long served as an important tool for the area's community leaders in assessing safety. The ACR helps decisionmakers understand where and why crashes occur and the annual ranking of its high-crash locations has direct impacts on funding availability. The agency's *Funding Policy Guidelines* have incentivized the improvement of numerous high-crash locations over the past two-plus decades.

AMATS' ACRs have evolved over time. The most dramatic change occurred around 2021, when the methodology of ranking crash locations was altered to provide more weight to the area's most serious crashes. This is in line with changes made at the state level to emphasize Fatal and Serious Injury (FSI) crashes. Specifically, at least 30% of a specific location's crashes must be fatal or injury related to be included on a High Crash Section or Intersection list.

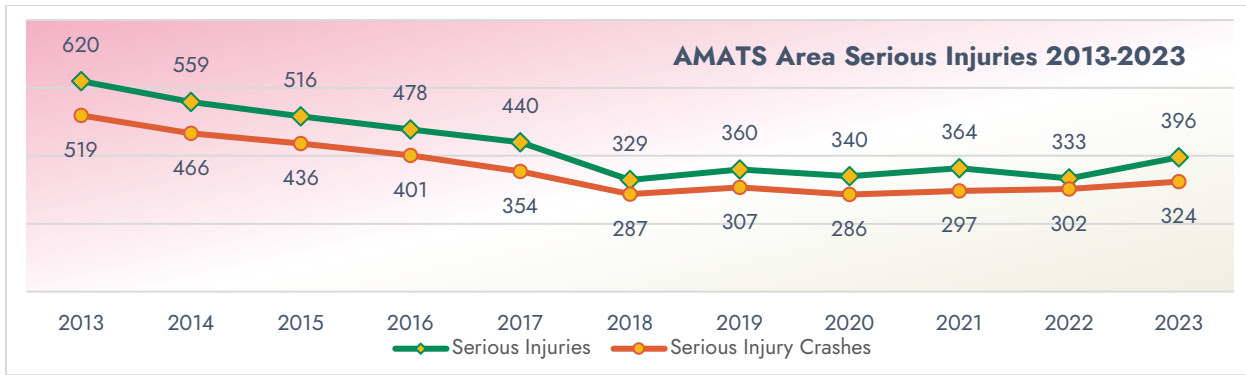
The 2021-2023 ACR reported, in most cases, a continuation of existing trends. The total number of crashes within the AMATS area has continued to trend downward over the past decade. 2023's number of reportable crashes within the AMATS planning area (15,045) is nearly as low as the 2020 level, which was an atypical time of lower travel and lower crashes due to the pandemic.



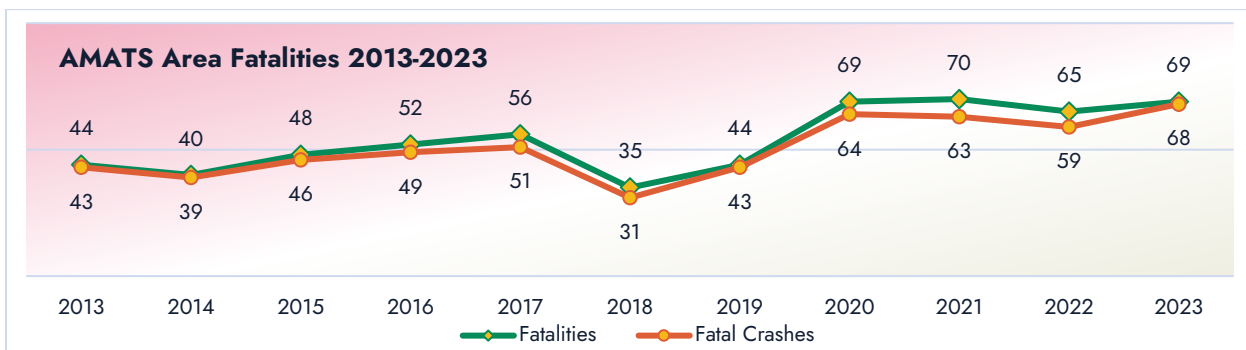
Less-severe crashes have also decreased over time. Areawide, PDO crashes in 2023 decreased by 1,128 (-9.0%) and Minor Injury crashes decreased by 421 (-11.7%) from the prior year (2022).



However, more serious crashes have continued to climb in recent years. Serious injury crashes, while significantly lower than a decade ago, rose significantly over the most recent year for which data was available (2023). Serious injury crashes increased by 22 (7.3%) from 2022 to 2023, and serious injuries increased more dramatically—63 (18.9%)—in the same timeframe.



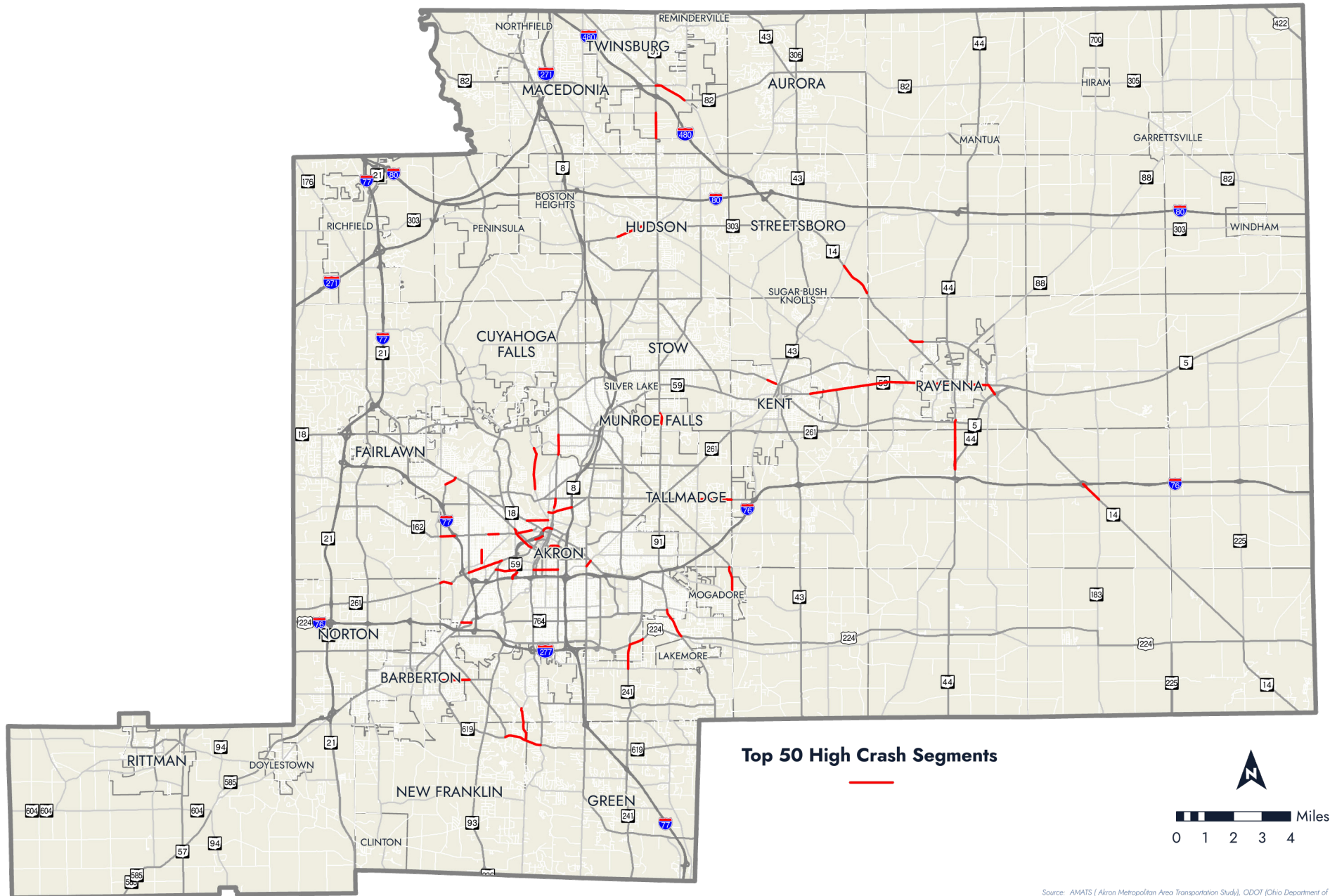
Fatalities increased significantly in 2020 and have remained high since. Although vehicles are becoming safer in both crash performance and prevention, distracted driving and other high-risk behaviors (such as alcohol and drug impairment) have increased both nationally and regionally. This has led to a much higher number of both fatalities and fatal crash events than what existed pre-pandemic.



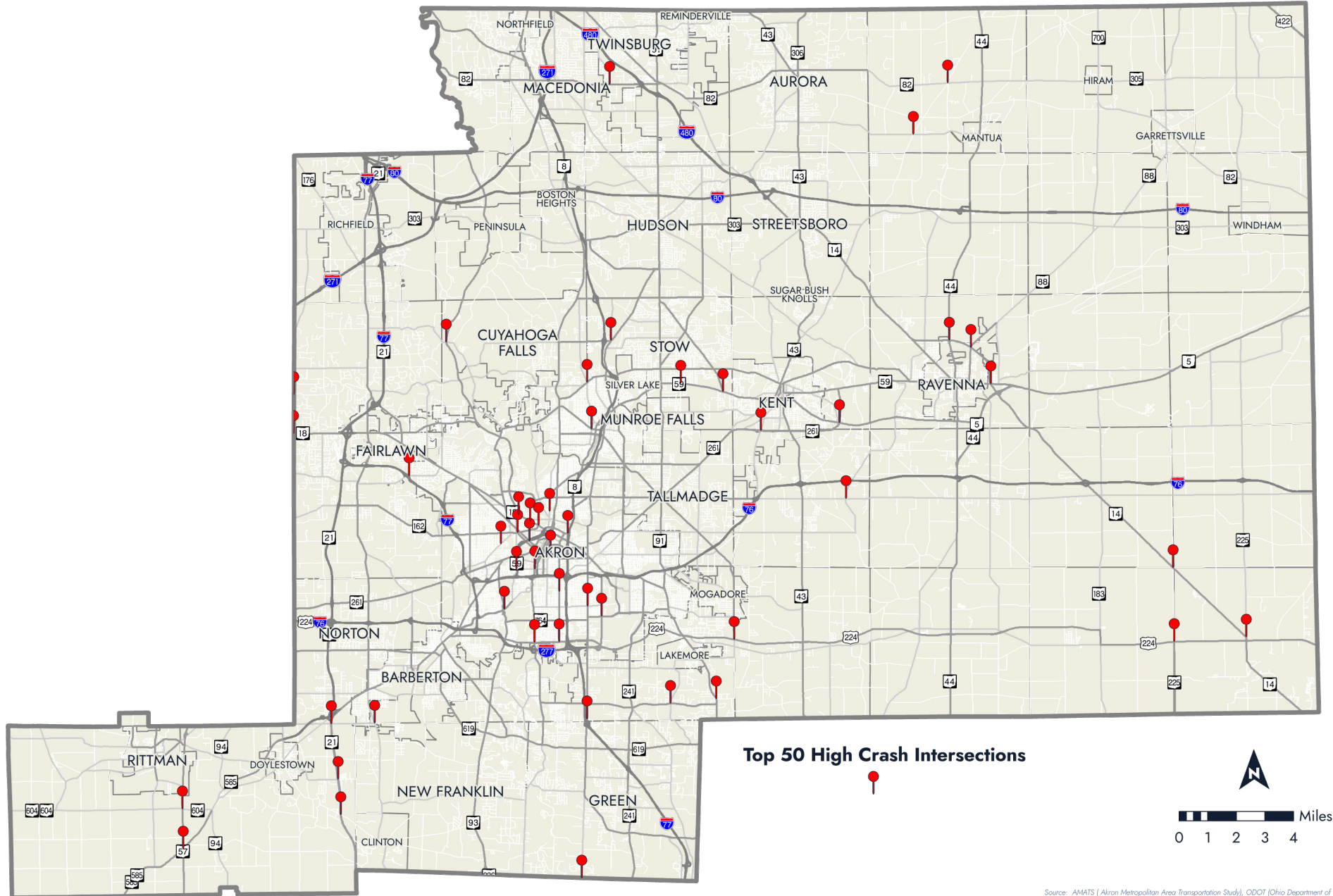
The 2021-2023 ACR can be found at:

<https://www.amatsplanning.org/sites/default/files/docs/reports/2021-2023%20Annual%20Crash%20Report%20FINAL.pdf>

Map 4-2 | Top 50 High Crash Segments (2021-2023)



Map 4-3 | Top 50 High Crash Intersections (2021-2023)



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

As FSI crashes increased at both a regional and national level, AMATS and its members became interested in focusing more on reducing these more severe crashes. Concurrently, a new federal program known as *Safe Streets for All*, arose out of the Infrastructure Investment and Jobs Act (IIJA), aimed specifically at reducing FSI crashes. AMATS completed its first *SS4A Action Plan* in May 2023.

The *SS4A Action Plan* led to several new strategies to improve regional safety. Perhaps most notably, the Action Plan created a High Injury Network (HIN) that considers the locations of the area's highest FSI-crash locations. Similar to the ACR, the SS4A's HIN considers sections and intersections.

The *SS4A Action Plan* differs from the ACR in several ways:

- focuses more heavily—almost exclusively—on the most-severe crashes (via the HIN).
- considers a five-year reportable period for crashes versus the three-year period in an ACR. The 2023 *SS4A Action Plan* considers crashes between 2017-2021, although the plan will be updated later in 2025 to consider 2019-2023 data.
- Contains a highly detailed safety analysis that showed and described data relating to how, where, when, and why crashes occurred throughout the region.
- Includes several prioritized lists of recommendations. These included project-based recommendations in short, medium, and long-term timeframes; strategy recommendations to improve behavior and reduce risks through a variety of initiatives; and transit-specific recommendations of various types

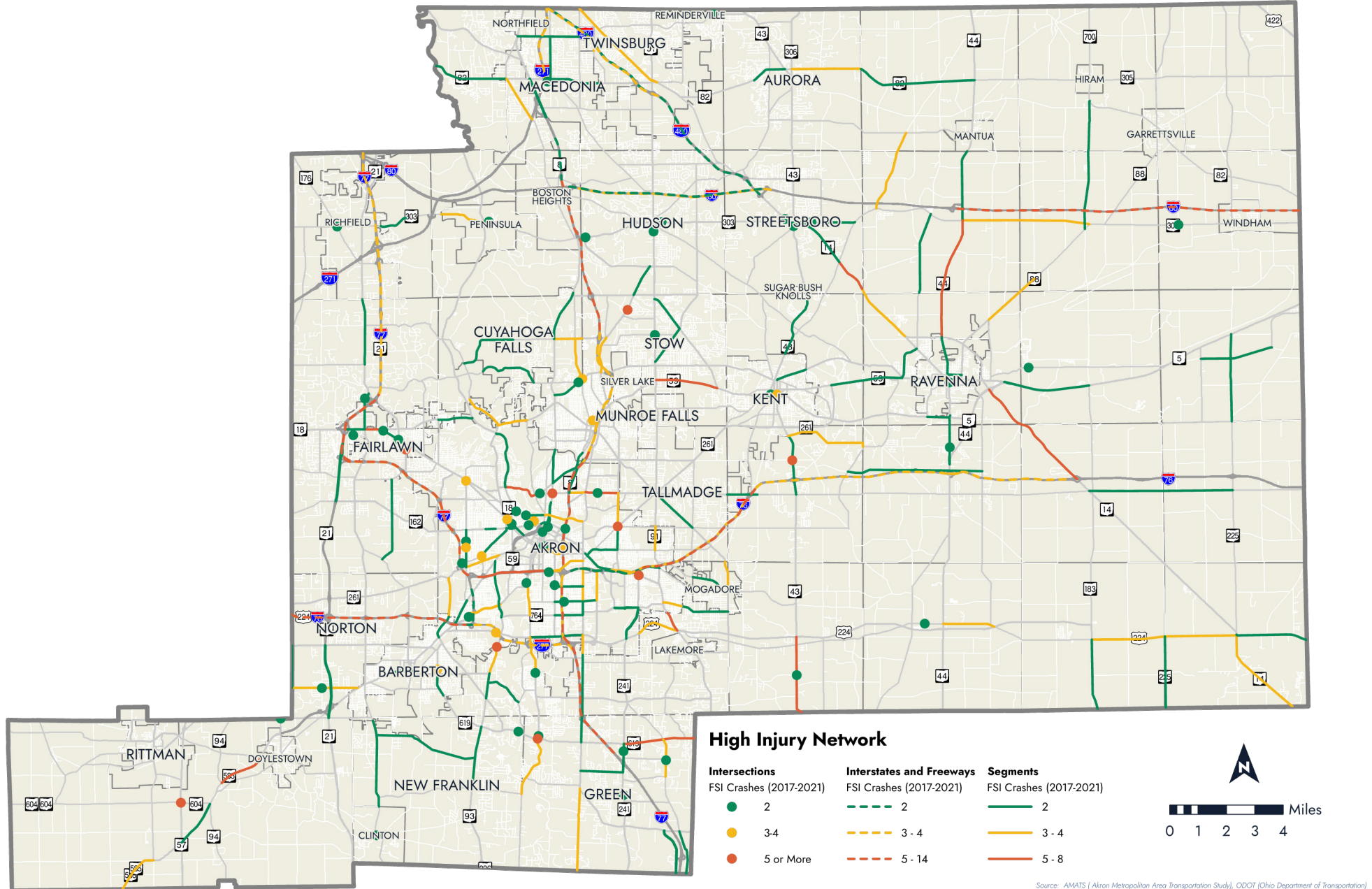
The current AMATS *SS4A Action Plan* can be found at:

<https://www.amatsplanning.org/sites/default/files/docs/SS4A-Action-Plan.pdf>

The SS4A HIN webapp can be viewed at:

<https://akrongis.maps.arcgis.com/apps/webappviewer/index.html?id=d3b866db810e470fb3de4b6a1ab81784>

Map 4-4 | Safe Streets for All High Injury Network



Security

Increasing the security of the transportation system for all users is a Federal Planning Factor, which AMATS must consider in its transportation planning process. AMATS coordinates with the Summit County Emergency Management Agency (EMA) and the Portage County EMA which are the two agencies responsible for emergency management, disaster preparedness and homeland security in the Greater Akron area. AMATS and the EMAs share mailings, meeting notices and information regarding critical infrastructure. Both METRO and PARTA are also required to address security in their planning efforts.

Condition and Preservation of the Existing System

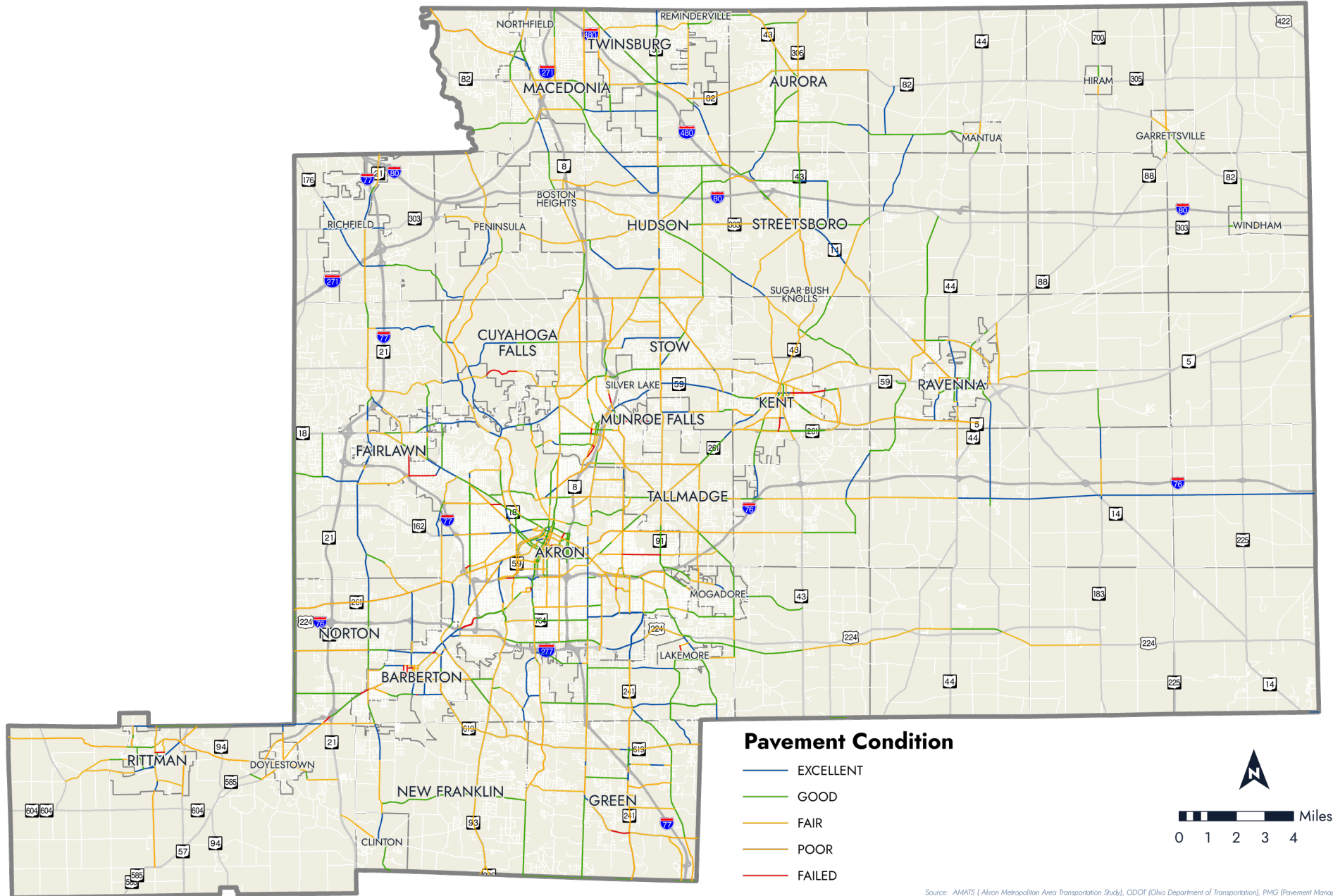
Another top priority for the region's transportation decisionmakers is to maintain and preserve the existing highway system. AMATS has consistently maintained this policy over the last decade as the cost of system maintenance has continued to rise and the availability of funding for local communities has continued to fall. AMATS continues to focus on a "fix-it-first" policy in its allocation of resources, which prioritizes funding for projects that preserve the existing system.

AMATS allocates a considerable amount of funding toward the resurfacing of roadways, reflecting the desire of area communities to keep roadways in a good state of repair. To track the condition of the area's pavements, AMATS collects pavement condition index (PCI) data on all federal-aid eligible roadways within the region. PCI considers the severity and extent of distress on a pavement surface at a given point in time. High resolution video is taken along area roadways and PCI is assigned for each segment. PCIs are ranked from 0 to 100, with 100 being freshly paved and 0 being complete failure of the pavement. Any location with a PCI of 80 or less is eligible for resurfacing if it hasn't been resurfaced with federal funds within the last 10 years. PCI has become the new pavement grading standard for AMATS and is used for funding selection and performance tracking. The AMATS Pavement Management Dashboard, which shows each road segment's PCI, can be found at <https://roadinsights.maps.arcgis.com/apps/dashboards/d1f87f5a3ee74df38c8a9e11c8788485>

Since the PCI data has been collected, the average areawide PCI has remained in the mid to upper 60s. AMATS' goal is to raise the areawide PCI to 70 by focusing on roadway preservation.

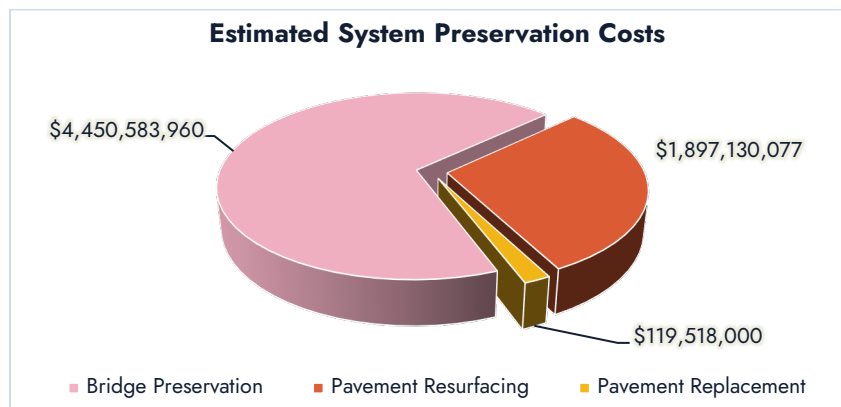
Table 4-2 PCI Systemwide Averages and Roadway Quality Percentages							
		Roadway Quality	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
2019-2020 Average	67	Excellent / Very Good	22%	20%	25%	26%	16%
2020-2021 Average	65	Good	29%	27%	28%	24%	28%
2021-2022 Average	68	Fair	34%	35%	34%	33%	37%
2022-2023 Average	66	Poor	13%	13%	11%	14%	17%
2023-2024 Average	67	Very Poor / Fail	3%	5%	2%	4%	2%

Map 4-5 | 2024 Pavement Condition Index



The resurfacing of pavement is an important and significant component of system preservation, but other components include pavement replacement (full-depth reconstruction) and the repair and replacement of bridges. AMATS completed its most recent *Highway Preservation Needs Report* in August 2024 to produce a high-level estimate of the federal funds that will be needed to preserve and maintain the region's existing highway system through 2050 (in 2024 dollars). All highway system preservation projects on the federal aid system will be considered consistent with TO2050 and will be eligible for federal funding as it becomes available.

The report estimated that the total cost of preserving the existing system over the next 26 years would cost \$6.86 billion, valued in 2024 dollars. This cost estimate is approximately 71% higher than the amount estimated in the last (2019) system preservation report. As shown in the graph below, resurfacing needs are estimated to cost \$1.90 billion; pavement replacement would cost \$0.12 billion; and bridge preservation would cost \$4.45 billion.



An important component of the 2024 *Highway Preservation Needs Report* involved reviewing and right-sizing assumptions on the cycles for pavement and bridge maintenance activities. Had this not occurred, the increase from 2019 would have been an even more staggering 81% increase. The inflation of construction and material costs have both increased significantly since 2019 while the highway system's size has remained very similar; road mileage length has only increased by 25 miles over the past five years. Therefore, the higher preservation cost is primarily due to increased construction costs for both pavement and bridge maintenance.

It is important to note that this analysis only includes the highways eligible for federal funds. Local roadways and rural minor collectors, which are ineligible for federal funds, account for almost exactly two-thirds (66.3%) of the region's total lane miles. This means that the burden of most roadway maintenance falls on the shoulders of local public agencies such as communities, many of which struggle to find necessary funding for their transportation infrastructure.

Ultimately, the \$6.86 billion system preservation cost estimate exceeds the *total* predicted revenues the Greater Akron region can expect to receive until 2050. TO2050 must be fiscally constrained, and AMATS recognizes that system preservation is just one goal of the transportation system. Therefore, AMATS cannot possibly estimate the fulfillment of 100% of the system preservation need. This is not new—some past regional transportation plans have estimated the funding of less than 100% of the preservation need—but the gap is widening. Once TO2050 accounts for the specific non-preservation-based highway projects, this leaves approximately 65% of this system preservation costs that can be fulfilled. Without a significant additional infusion of funding, the region will fall further behind in maintaining the transportation system. While this problem is widespread across the country and

not unique to the Greater Akron area, it is concerning nevertheless. AMATS recommends that communities consider reducing pavement areas or even decommissioning roadways where feasible and as funding becomes available. Further, AMATS promotes caution in expanding roadways and building additional travel lanes as additional system expansion will become difficult to maintain long-term.

Congestion

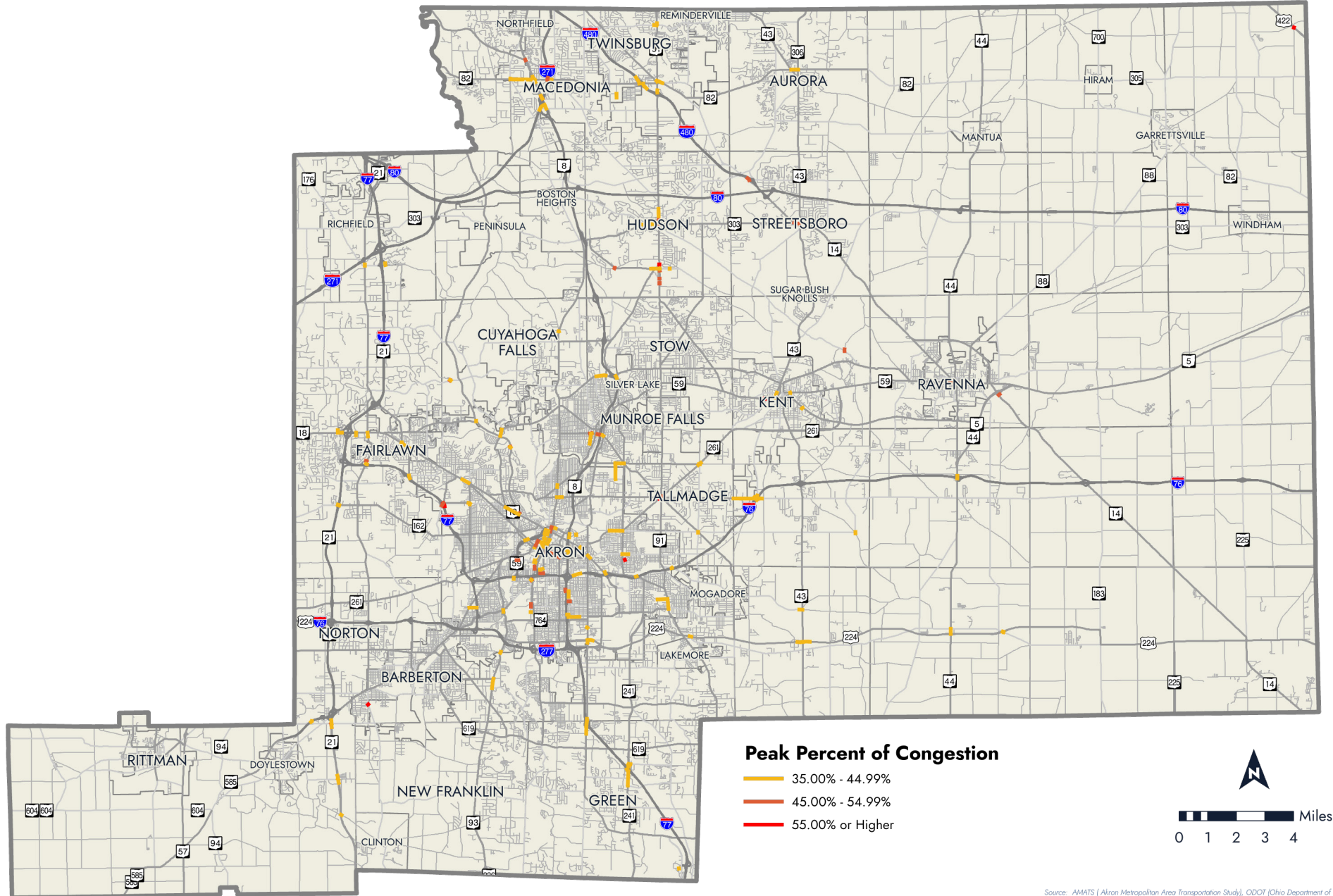
Vehicular congestion is, for most drivers, among the most frustrating aspects of driving. It is annoying for travelers to sit in traffic; and congestion also reduces travel time reliability for vehicles, buses and truck freight. It compromises the timely delivery of products and services, hinders the built environment, and can create barriers to pedestrians and cyclists. Congestion has myriad effects on the economy, the environment, and the population's well-being and quality-of-life.

Per federal regulations, large MPOs such as AMATS are required to create a Congestion Management Process (CMP) to understand a regional congestion picture and identify strategies to reduce congestion. Each CMP is required to:

- Identify methods to monitor and evaluate the performance of the multimodal transportation system
- Define congestion management objectives and performance measures
- Establish a coordinated program for data collection and system performance monitoring
- Identify and evaluate f anticipated performance and expected benefits of congestion strategies
- Create an implementation schedule, responsibilities and funding sources for each strategy
- Determine a process for periodic assessment of the effectiveness of implemented strategies

AMATS completed its most recent CMP in December 2024. The CMP first analyzed congestion along many higher classification roadways and all freeways. This network totals about 540 miles. Map 4-6 on the following page shows the CMP analysis network.

Map 4-6 | Peak Percent of Congestion



Methodology

To measure congestion, AMATS obtained traffic data through the collection of cell phone and other GPS device location data. The Ohio Department of Transportation (ODOT) contracts with two data providers—INRIX and Streetlight—and shares access to this data with Ohio’s MPOs like AMATS. For the AMATS CMP, Streetlight data was used to evaluate the major arterial and lower federal functionally classified roads while INRIX data was used to analyze the freeway system. 2022 data was utilized for the CMP, as it was the most recent full year of data available for both INRIX and Streetlight at the time of the CMP’s preparation.

The congestion analyses focused on three time periods in order to capture the most common times of congestion:

- Morning from 6:00 AM to 10:00 AM
- Mid-day from 10:00 AM to 4:00 PM
- Evening from 4:00 PM to 8:00 PM

Congestion Management Strategies

AMATS has established generalized strategies that best match the Code of Federal Regulations (CFR), FHWA guidance, and regional transportation planning context. A strategy or combination of strategies that are appropriate for deficient corridors and segments are selected based on the type of congestion and their effectiveness and feasibility.

Like the previous CMP, AMATS categorized congestion management strategies into five tiers ranked generally by the efficacy and efficiency of mitigating congestion. The strategies in the top tiers, when possible, should be given priority over the lower ones.

- Tier 1: Demand management
- Tier 2: Traffic and roadway operational improvements
- Tier 3: Public Transportation improvements
- Tier 4: ITS Strategies
- Tier 5: Capacity expansion

These strategies consider both the demand and supply of traffic. A strategy or combination of strategies that are appropriate for deficient corridors are selected based on the intensity of congestion and the other analyses completed in the CMP.

The congestion management strategies were evaluated based upon their effectiveness and feasibility. The effectiveness was determined by how well each strategy would reduce congestion in the AMATS area. To make this determination, the strategies were reviewed by examining regional characteristics, previous local success of the strategies and examples from other urban areas. Decisions on the effectiveness of each strategy were made based on the data collected and staff input. Feasibility was rated by the degree to which the strategy could be realistically implemented in the region. Table 4-3 below lists these strategies along with their corresponding effectiveness and feasibility.

Table 4-3 | Congestion Management Strategies

TIER	STRATEGY	BENEFITS	EFFECTIVENESS	FEASIBILITY
Tier 1: Demand Management	Telecommuting	Reduces traffic, especially during peak hours	Medium / High	Medium
	Flexible / Alternative Work Hours	Reduces traffic, especially during peak hours	Medium	Low / Medium
	Carpooling	Reduces traffic, especially during peak hours	Medium / High	Medium
	Employer Incentive Program	Reduces traffic, especially during peak hours	Medium / High	Low
	Alternative Modes of Transportation	Reduces traffic	Low / Medium	Low
Tier 2: Operational Improvements	Adding exclusive left turning lanes	Improves traffic flow / safety	Medium	Medium
	Access Management of roadway / driveways	Improves traffic flow / safety	Medium	Medium
	Variable speed limits	Improves traffic capacity / flow	Low / Medium	Low
	Variable message signs	Improves traffic flow and reduces additional congestion	Low / Medium	Medium
	Exclusive shoulder lanes for buses	Improves traffic flow / safety	Medium	Low
	Geometric improvements to road and intersections	Improves traffic flow / safety	Medium / High	High
	Channelization	Improves traffic flow / safety	Low / Medium	Medium
	Median barriers (moveable) to facilitate more capacity during peak period	Improves traffic capacity / flow	Medium / High	Low
	Traveler information	Improves traffic flow / safety	Low / Medium	High
	Complete Streets	Improves capacity for alternative modes of transportation	Low / Medium	Medium
Tier 3: Public Transit Improvements	Overpasses or underpasses at congested intersections or railroads	Improves traffic capacity / flow	High	Low / Medium
	Expanding transit services	Encourages transit use / reduces SOV vehicles.	Medium	Low
	Optimal control of headways by realigning transit service schedules and stop locations	Makes transit easier to use / reduces SOV vehicles.	Medium	Medium
	Providing real-time information on transit schedules and arrivals using various ITS strategies	Makes transit easier to use / reduces SOV vehicles.	Low	Medium
	Universal transit fare cards and incentives	Makes transit easier to use / reduces SOV vehicles.	Low / Medium	High
	Bus Rapid Transit	Makes transit easier to use / reduces SOV vehicles.	High	Medium
Tier 4: ITS Strategies	Prioritizing transit vehicles at traffic signals	Makes transit easier to use / reduces SOV vehicles.	Medium	Medium
	Traffic Signal Improvements	Improves traffic flow / safety	Medium / High	High
	Simulation models	Helps determine and fund projects with the most impact	Medium / High	Medium
	Cars Connected to Cars/Cars Connected to Infrastructure	Improves traffic flow / safety	Medium / High	Low
Tier 5: Capacity Expansion	Real-time traffic feedback	Improves traffic flow and reduces additional congestion	Medium / High	High
	Removing bottlenecks by constructing new lanes	Improves traffic flow / safety	Medium	Low
	Closing gaps in the existing network	Improves traffic flow / safety	Medium	Low
	Add travel lanes on major freeways and streets (including truck climbing lanes on grades)	Improves traffic flow / safety	Medium	Low

Congestion Management Recommendations

Freeways

The region's freeways are in the midst of a major overhaul, especially near Akron's downtown where many of the freeways converge. The Ohio Department of Transportation's Beltway project has included multiple ramp closures and detours over the last three years. The State Route 8 Bridge replacement project over the Cuyahoga Valley just north of Akron's downtown is also currently under construction. These large-scale construction projects that are ongoing make it difficult to recommend improvements for the region's congested segments because they include detours and closures that impact the surrounding freeway traffic. These concerns can be applied to every freeway segment AMATS identified in its 2022 scan. The 2024 CMP recommends continuing to monitor all 24 congested freeway segments while construction progresses.

Arterials

AMATS congestion analysis identified 84 congested segments on the arterial roadway network. None of the segments identified received a tier 5 recommendation for added capacity as none of the segments had congestion that would be appropriate for major widenings. As the roadway network continues to age, AMATS believes a prudent approach is to focus on travel demand, operational improvements, alternative modes of transportation and intelligent transportation strategies to reduce congestion.

Incident-Related Traffic Congestion

The CMP also considers incident-related traffic congestion, which is congestion that occurs due to a non-recurring incident such as a crash or a vehicle breakdown. While crashes can happen anywhere at any time, some locations are more prone to crashes than others. Locations with both frequent crashes and recurrent congestion will be significantly more congested. Effective transportation planning requires that incident-related congestion be analyzed.

Freeways

The analysis of freeway crashes in the AMATS area is done by the central office of the Ohio Department of Transportation (ODOT) in Columbus. ODOT's analysis of freeways is done using their own methodology which is derived from the Highway Safety Manual. The freeway system is divided into rural and urban classifications and is analyzed by examining segments that are one-tenth of a mile long.

To make data-driven decisions and determine operationally sensitive corridors throughout the state, ODOT has developed the Traffic Operations Assessment Systems Tool (TOAST). In TOAST, routes are segmented into the State Priority System with breaks at the urban area boundaries, interchange center points, and road functional class changes. The data categories that make up TOAST are listed below:

- Travel Time Performance – percent of time motorists can travel at or near (90%) of the reference speed (free-flow speed defined by data provider).
- Bottlenecks – A potential bottleneck is detected when speeds on a segment drop to 65% of reference speeds and cause at least a two-minute delay.
- Incident Clearance – The time from report of an incident until the entire scene is cleared.
- Secondary Crashes – percent of crashes that occurred as a result of a previous incident.

- Volume Per Lane – Calculated based on a weighted average for each segment.
- Freight Corridors – Weighted average of percent trucks (average daily truck volume ÷ average daily total volume).
- Safety Performance – A route’s potential for safety improvement by density based on its peer group.

Arterial Sections and Intersections

Areas of incident-related congestion are determined based on a composite score which considers both number of crashes and their severity to determine locations where incident-related congestion is most likely to occur. More information on how this composite score is determined can be found in the aforementioned [2021-2023 Annual Crash Report](#). Maps showing Top-50 High Crash Sections and Intersections can be found within that report and in the *Safety and Security* subsection above.

Other Considerations

The CMP also notes several other important considerations which are discussed in more detail elsewhere in TO2050. These include:

- Transit—route performance and most-used bus stop locations
- Freight—congested locations around job hubs and high volume at-grade rail crossings
- Performance Measures—related to travel time reliability and freight movement

The complete 2024 CMP can be found at:

<https://www.amatsplanning.org/sites/default/files/docs/reports/2024%20CMP.pdf>

Freight

The movement of freight is an important part of a fully functioning transportation system. The efficient movement of freight within and through a region is critically important to industry, retail commerce, agriculture, international trade, and terminal operators. Metropolitan areas with a higher density of development are especially affected by freight movement issues.

AMATS’ freight planning process includes three primary strategies:

- Developing and maintaining databases and analysis tools for decision-making
- Interacting with AMATS members and freight stakeholders to better understand the freight system, identify common issues, and build consensus
- Incorporating freight into the regional transportation planning process

The mechanism by which AMATS sets the stage for implementing these strategies is AMATS’ Regional *Freight Plan*. AMATS completed its most recent *Freight Plan* in September 2024, and its purpose is to identify the transportation systems that exist in the AMATS area used to move freight into, out of, and within the region. It addresses the factors and trends that affect traffic and the flow of freight, and outlines procedures used for planning and programming freight-related projects through the AMATS transportation planning process.

The plan analyzes the highway and rail freight networks (the rail freight network is discussed later in Section 4), considers the freight movement and efficiency of movement around various job hubs throughout the region, and makes recommendations related to freight.

Roadway Freight Network

Trucks move the majority of Ohio's and Greater Akron's freight. The region is well-served by a particularly comprehensive network of limited-access freeways compared to many other similar regions. The construction of key highways, most of which were built in the 1950s through the 1970s, contributed to a significant development of industrial and commercial economic generators within proximity of freeway interchanges. Freeways including Interstates 76, 77, 271, and 277; The Ohio Turnpike (I-80); other limited-access freeways such as SR 8 and SR 21; and various beltways—most of which are in Portage County—including portions of SR 5, SR 14/44, SR 59, US 224, and SR 261 comprise this network and allow easy access to other roadways within the freight network.

While the Greater Akron area's roadway freight network has allowed for a diversified economic base and other positive economic indicators, it also leads to a large number of trucks on the road. Trucks account for much of the wear and tear on roadways. A large, legally loaded truck weighing 80,000 pounds puts about the same wear and tear on a road as 9,000 to 10,000 cars. Furthermore, a large truck causes as much congestion as 2.5 to 3.5 cars on flat terrain and as much as 15 cars on uphill grades. This touches on both the importance of preserving roads and bridges and managing congestion, both of which were discussed earlier in this Section 4.

Job Hubs and Freight Profiles

In 2017, AMATS partnered with Fund for Our Economic Future (The Fund) to develop 14 Job Hubs in the AMATS area. More recently, and to adjust to changing economic conditions, two additional Job Hubs were added within the region, bringing the total to 16. These Job Hubs, shown on Map 4-7, are specific places of concentrated economic activity within the region and are defined and identified based upon the following criteria:

- **High concentration of traded-sector jobs:** We identified job hubs based on the number of traded-sector jobs in a particular area, with a focus on places with job density in the top 5 percent in the region. The research focused specifically on identifying clusters of employment in sectors of the economy like manufacturing or business consulting that can export (or trade) goods and services outside of Northeast Ohio.
- **Multiple traded-sector employers:** Job hubs represent "clusters" of business activity and other assets like roads, highways, transit, and utilities. Business clustering allows for efficient use of infrastructure and creates other spill-over benefits from the accumulation of human and physical capital.
- **Alignment with local development patterns:** Job hubs reflect local development patterns and the location of businesses, infrastructure, transportation assets, and land inventory in each place. This alignment with the built environment will hopefully facilitate local community planning discussions around potential land use policies, transportation investments or other strategies to enhance each job hub's market competitiveness.

- **Alignment with civic priorities and economic development opportunities:** Beyond encompassing many existing businesses and jobs, job hubs also contain high-quality sites with existing infrastructure or office inventory that, if occupied, could further add density to the job hub.



The 2024 *Freight Plan* developed Freight Profiles centered around each of the 16 Job Hubs. Each Freight Profile within the *Freight Plan* contains:

- a general description of the corridor
- additional relevant information such as location, accessible Interstate / Freeway routes, the number of jobs and pavement conditions in and around the corridor.
- tables identifying safety and traffic issues in and around the corridor
- Maps showing the inbound and outbound truck traffic for the corridor

Recommendations

The highest priority needs in the AMATS area regarding freight movement involve improvements to the highway and rail systems. The AMATS Highway Preservation Needs Report and the Congestion Management Process Report (CMP) address the needs of the AMATS area in terms of highway improvements that streamline the flow of freight in the region. After studying existing and future levels of congestion, the CMP makes recommendations which are then considered for inclusion in the financially constrained Transportation Outlook 2050.

Freight movement, by way of trucks, is heavily concentrated on freeways and major state routes. The number of trucks on these roads range from 50 to 20,705 trucks per day, with I-271 in Macedonia being the busiest freeway for trucks. Highway improvements such as the Central Interchange project will help improve the efficiency of freight movement on the area's roadways. Recommended grade separations will reduce delays and eliminate conflicts between trains and automobiles.

Since the approval of the current 2020 Freight Plan in September 2020, ODOT has completed improvements to the South Main/Broadway interchange with I-76/77 just south of downtown Akron. This \$113 million project included removing interchanges at Wolf Ledges Parkway and Grant Street, and reconstructing access points and re-aligning Main Street and Broadway.

In addition, there are several ongoing and upcoming projects that will aid in the improvement of the overall freight network. These projects include:

- The SR-8 Bridge Replacement (SR-8 High Level Bridge over the Little Cuyahoga River Valley in Akron), a \$193.4 million project under construction, expected to be complete in 2028 (PID 91710).
- The widening of I-77 in Northern Summit County from SR 21 north to the Cuyahoga County line, including the replacement of several bridges, a \$124.1 million project currently under construction, expected to be completed in mid-2027 (PIDs 111404 and 111405).
- The I-76/77/SR 8 Akron Beltway Improvements in the City of Akron, currently under construction. This \$245.8 million project includes pavement replacement, additional lanes, and the realignment of several ramps (PID 102329). Estimated completion is expected in mid-2025.
- The I-76 Kenmore Leg Major Rehabilitation is a \$85.8 million project expected to begin construction in spring 2027, finishing in 2029 (PID 100713). This project includes full-depth road base replacement, widening, bridge replacements and noise walls.

TO2050 Recommends the prioritization of both safety and operational improvements near heavy freight corridors. These would include the entirety of the freeway network and roads within and serving Job Hubs around the region.

The 2024 AMATS Freight Plan can be found at:

<https://www.amatsplanning.org/sites/default/files/docs/reports/2024%20Freight%20Plan.pdf>

Active Transportation

Active Transportation is an increasingly important mode of transportation for many people. Communities around the region report that many residents consider active transportation planning to be highly important, and they desire more opportunities to safely and conveniently move about without reverting to motorized transportation. Walking and bicycling are what comes to mind when thinking of active transportation, but micromobility and transit have active components that require consideration. Active transportation users are not only those who walk or bike to work, but include those who walk to a parking garage, use a bike to get to a bus stop or anyone walking a dog. Additionally, active transportation includes those using trails or sidewalks for recreation.

Active Transportation users are the most vulnerable roadway users in a system where automobiles can appear ubiquitous. Whether people choose active transportation (for exercise and fun) or rely on non-vehicular transportation daily to get where they need to be, active transportation users typically have to interact within a transportation network that includes motorized transportation moving at higher speeds. When walking or bicycling cannot be done safely or conveniently, many may be deterred from being active, which may have ramifications for our area's overall health and environment. Planning a connected system that considers all users of our roadways benefits everybody.

AMATS completed its most recent Active Transportation Plan (ATP) in May 2024. The ATP highlights what has been accomplished within the region and identifies additional recommendations for improving its active transportation network. Over the past decade, the AMATS Policy Committee has adjusted its funding policies to allow additional funding for bicycle and pedestrian projects. Because of these policy changes, the region has seen an increase in facilities for people who travel by foot, wheelchair, bicycle or scooter.

Bicycle Network

At the time of the ATP's writing, the AMATS planning area's bicycle network included 158 miles of shared use paths and 60 miles of bicycle lanes for a combined network 218 miles of bicycle infrastructure. This shows an increase of 46 miles of added infrastructure since the 2019 ATP.

Much of the shared-use path network is comprised of "bike and hike" trails that provide generally safe access because of limited interaction with the roadway network. Larger regional trail systems include:

- The Ohio and Erie Canal Towpath Trail—a 100+ mile primary trail; the AMATS region portion spans south to north in Summit County from Clinton to Sagamore Hills
- Summit Metro Parks Bike & Hike Trail—Multiple trails that span 34 miles throughout eastern and northern Summit County, a small portion of Portage County, and into Cuyahoga County.

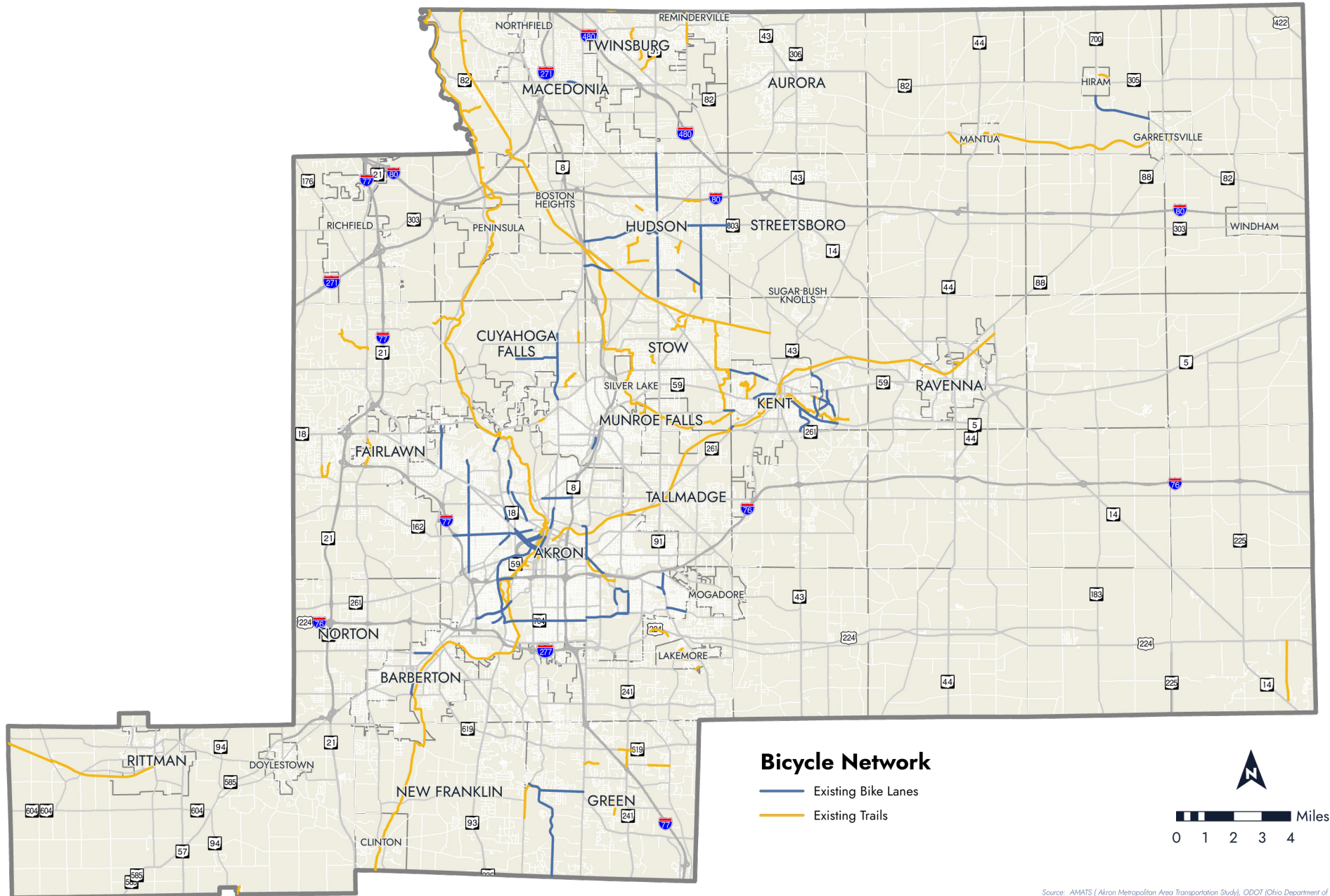
- Summit Metro Parks Freedom Trail—A trail from Tallmadge to downtown Akron; will eventually connect to The Towpath
- The PORTAGE Hike & Bike Trail—A trail from the end of The Freedom Trail (Tallmadge/Kent border) to Ravenna Township
- The Headwaters Trail—A trail from Mantua Township to Garrettsville; plans are in place to continue the trail to the west into Aurora and, eventually, Cuyahoga County
- The Heartland Trail—Begins in Wayne County (Orrville) and heads north into Marshallville; plans are in place to extend into Chippewa Township and eventually to connect to the Towpath in Clinton
- The County Line Trail—This trail runs from Creston (in Wayne County, just outside of Milton Township) into Rittman.

Smaller, community-specific connections are becoming more popular throughout the region. These trails, many of which have future expansions and connections into regional trails planned, include trails such as The Spartan Trail in Lakemore and Springfield, The Mud Brook Trail in Cuyahoga Falls, The Bath Nature Preserve Trail, Hudson's Nicholson and Turnpike Trails, and Twinsburg's Center Valley Park Trails.

Some cyclists, particularly longer-distance endurance cyclists, prefer to ride on roads, and poor pavement conditions are a barrier to on-road riding. Rough roads can be an annoyance in a vehicle but are potentially hazardous for cyclists. The pavement condition map shown previously (Map 4-5) highlights the current condition of area roadways.

In 2024, AMATS completed a comprehensive update of its [Bike Map](#), a resource that allows area bicyclists to see the bike network for the entire region. In addition to the shared-use path and bike lane networks, the map shows the locations of steep slopes, trailheads (parking and restroom locations), bicycle shops, hospitals, and other useful information. Print versions of the map are available in most area bicycle shops and in many other public locations. An [online version of the map](#) was completed in 2025 showing much of the same information but in a format that allows for easier viewing from a mobile device.

Map 4-8 | AMATS Existing Bicycle Network



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

Pedestrian Network

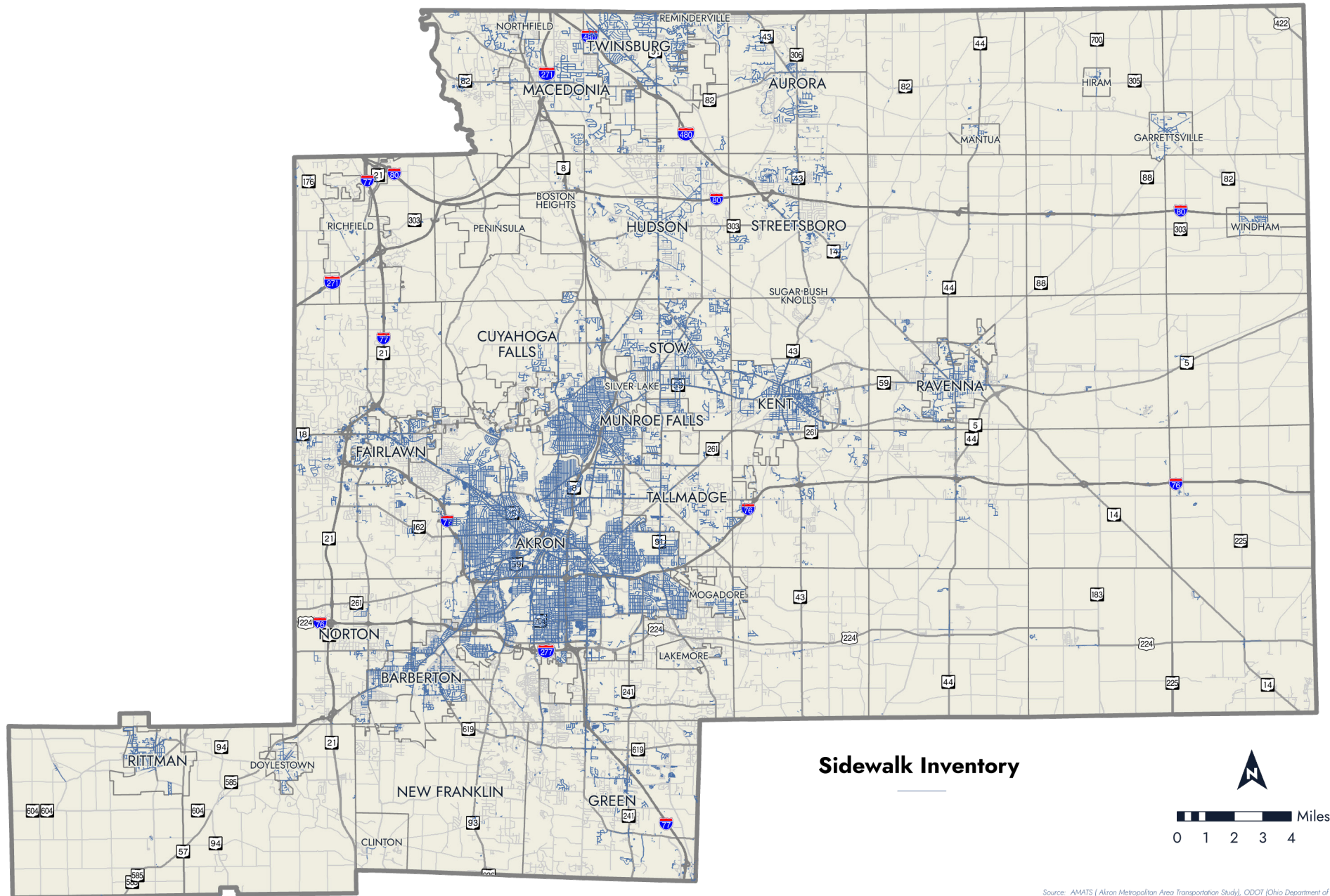
The AMATS region contains approximately 2,900 miles of sidewalks. A regional sidewalk inventory was taken by AMATS in 2015 and updated in 2017. This inventory, shown on Map 4-9, shows significant sidewalk coverage in most of the larger and denser communities, and considerably less sidewalk coverage in rural and low-density suburban areas. Each year, new sidewalks are constructed in areas where they did not previously exist, particularly in suburban communities that are seeking to retrofit post-WWII suburbs or newer suburbs into more walkable communities.

Although sidewalks are the primary facility for pedestrian travel, shared-use paths and trails (described in the previous subsection and shown on map 4-8) are heavily used by both pedestrians and cyclists. Although used primarily for recreation, bike/hike trails and shared use paths can be combined with sidewalks where connections exist to extend walking trips and allow pedestrians the option to walk to closer destinations.

The Greater Akron area is extremely fortunate to have numerous parks with more primitive hiking trails throughout the region. In addition to the large Cuyahoga Valley National Park within the region, the Summit Metro Parks and the Portage County Park District each contain myriad parks with hiking trails within. Many of the region's municipalities also contain locally managed parks with hiking trails. These trails, most of which are used purely for recreational purposes, allow another option for those desiring to walk for physical or mental health benefits.

Having places to walk—sidewalks and trails—is necessary for active transportation to occur, but these alone do not guarantee a safe and accessible system. Other important components of a well-rounded pedestrian network include crosswalks, mid-block crossings, signs, pedestrian countdown timers, Rapid-flashing beacons and HAWK signals, illumination, benches, and connections to shared-use paths. These elements are becoming increasingly popular in areas where pedestrians have a higher likelihood of coming into conflict with automobiles (i.e. higher traffic roadways) or where past incidents have occurred.

Map 4-9 | AMATS Sidewalk Inventory (2015-2017)



Micromobility

Micromobility is defined by the Federal Highway Administration as “any small, low-speed, human, or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles (e-bikes), electric scooters (e-scooters), and other small, lightweight, wheeled conveyances.” Micromobility can be an effective mode of transportation in dense downtown, urban core, college campuses and areas with high non-vehicular traffic.

Micromobility includes privately owned scooters and, more commonly, rentable scooters managed by private companies. Within the AMATS area, privately managed micromobility currently exists in two cities. *Spin*, a dockless e-scooter company, has provided micromobility options, primarily along key corridors of the city around downtown Akron and the University of Akron (UA) campus since 2020. *Spin* also formed a partnership with the city of Kent in early 2022 to provide e-scooters and e-bikes around downtown Kent and Kent State University (KSU) campus. Hundreds of these scooters have been seen in use throughout neighborhoods of Akron and Kent, particularly around college campuses and in downtown business districts.

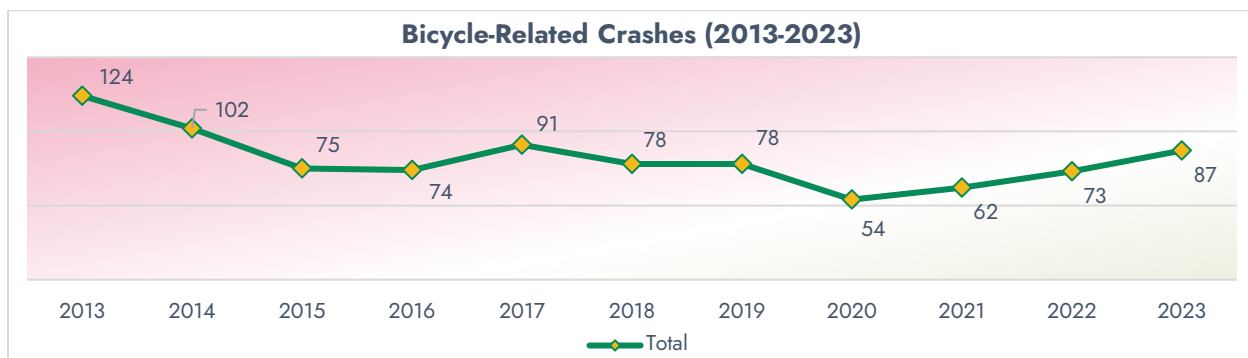


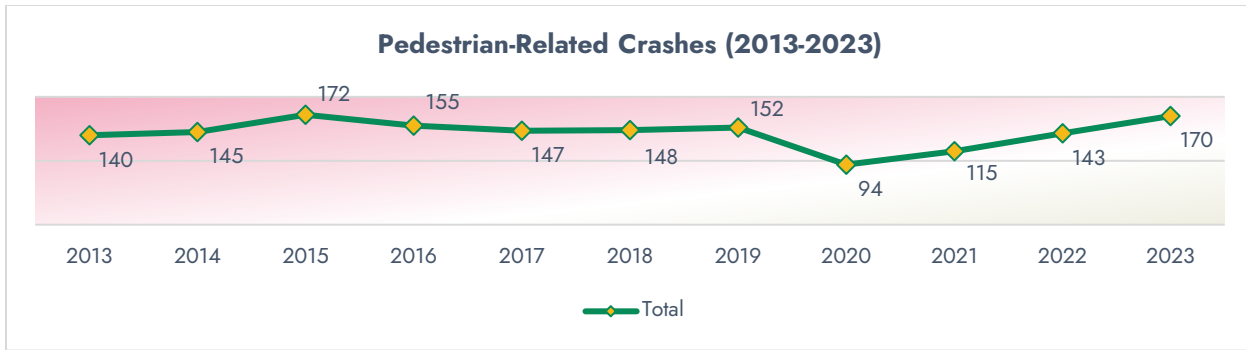
Safety

As bicycling and walking increase in popularity, there is growing concern about the safety of bicycle riders and pedestrians. Determining how and where these incidents occur can help plan for future bicycle lanes, sidewalks, lighting, and educational outreach. Bicycle and pedestrian-related crashes tend to happen more randomly and usually do not have the characteristic of being concentrated at specific locations to the same extent as vehicular crashes. A sound planning approach to counter this randomness is to pursue improvements along a corridor rather than a specific location.

Significant urgency to address bicycle and pedestrian safety exists because crashes involving these users result in a high percentage of injuries. Over the three-year period between 2021-2023, 91.9% of bicycle crashes and 96.5% of pedestrian crashes within the planning area resulted in some level of injury or a fatality.

AMATS analyzes bicycle and pedestrian safety within its two safety reports detailed earlier in this Section 4. According to the most recent (2021-2023) *AMATS Annual Crash Report*, bicycle and pedestrian crashes have increased each year since 2020. Bicycle crash incidents are still significantly lower than they were a decade ago but pedestrian crashes have grown to nearly match previous levels. The graphs below show the crash totals for bicycles and pedestrians from 2013 to 2023.





Both the *Annual Crash Report (ACR)* and the *Safe Streets for All Action Plan (SS4A)* report trends that vary relatively little year-to-year: Bicycle crashes typically spike in the summer when riders are most active, while pedestrian crashes almost always peak in October. For both pedestrians and cyclists, crashes are most likely to occur later in the afternoon; the spike for bicyclists being especially pronounced.

Maps 4-10 and 4-11 show the locations of bicycle and pedestrian crashes within the AMATS area between 2021 and 2023.

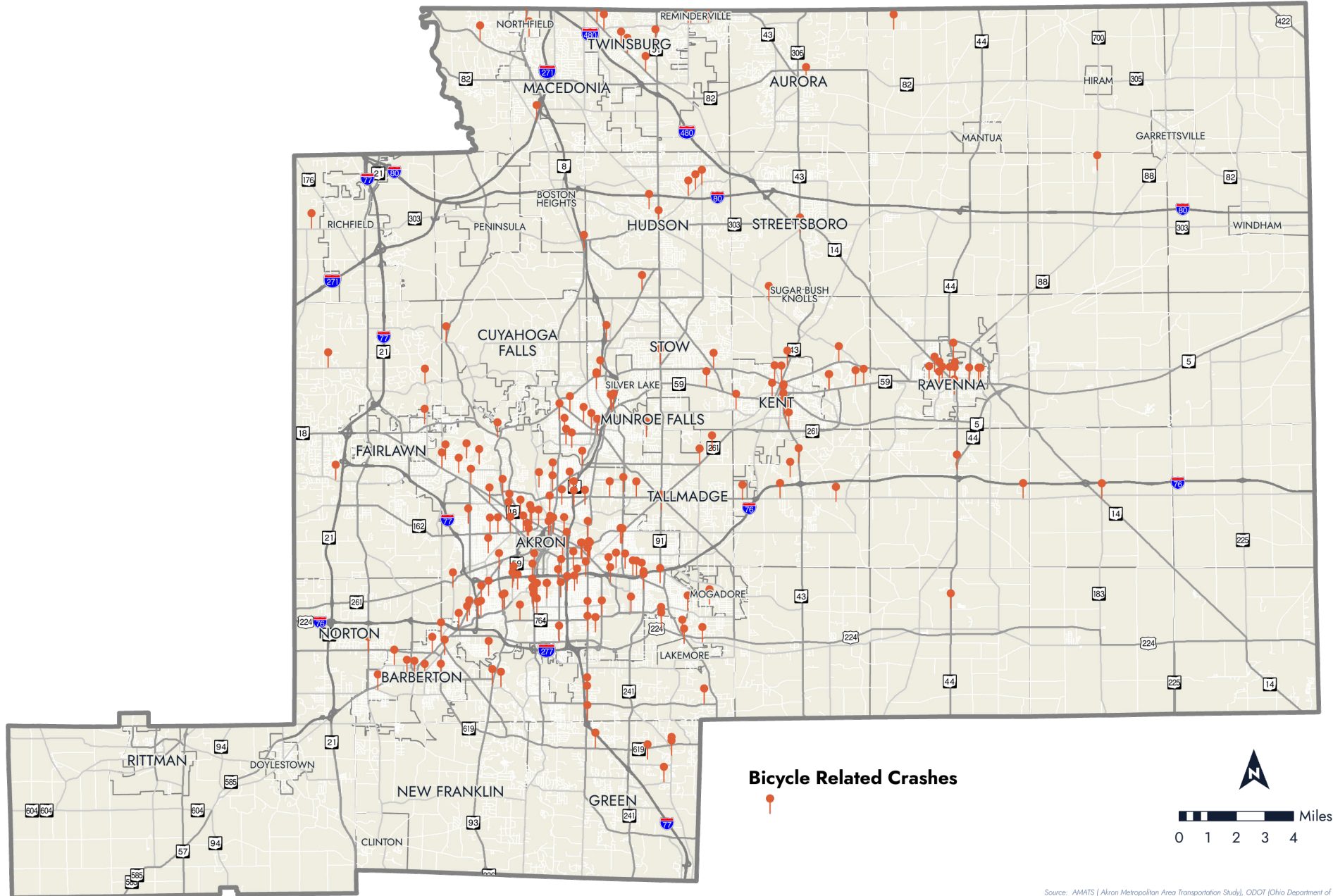
Goals and Strategies

The ATP provides numerous goals and strategies that support the vision of safe and comfortable places that matter. Goals are divided into two types:

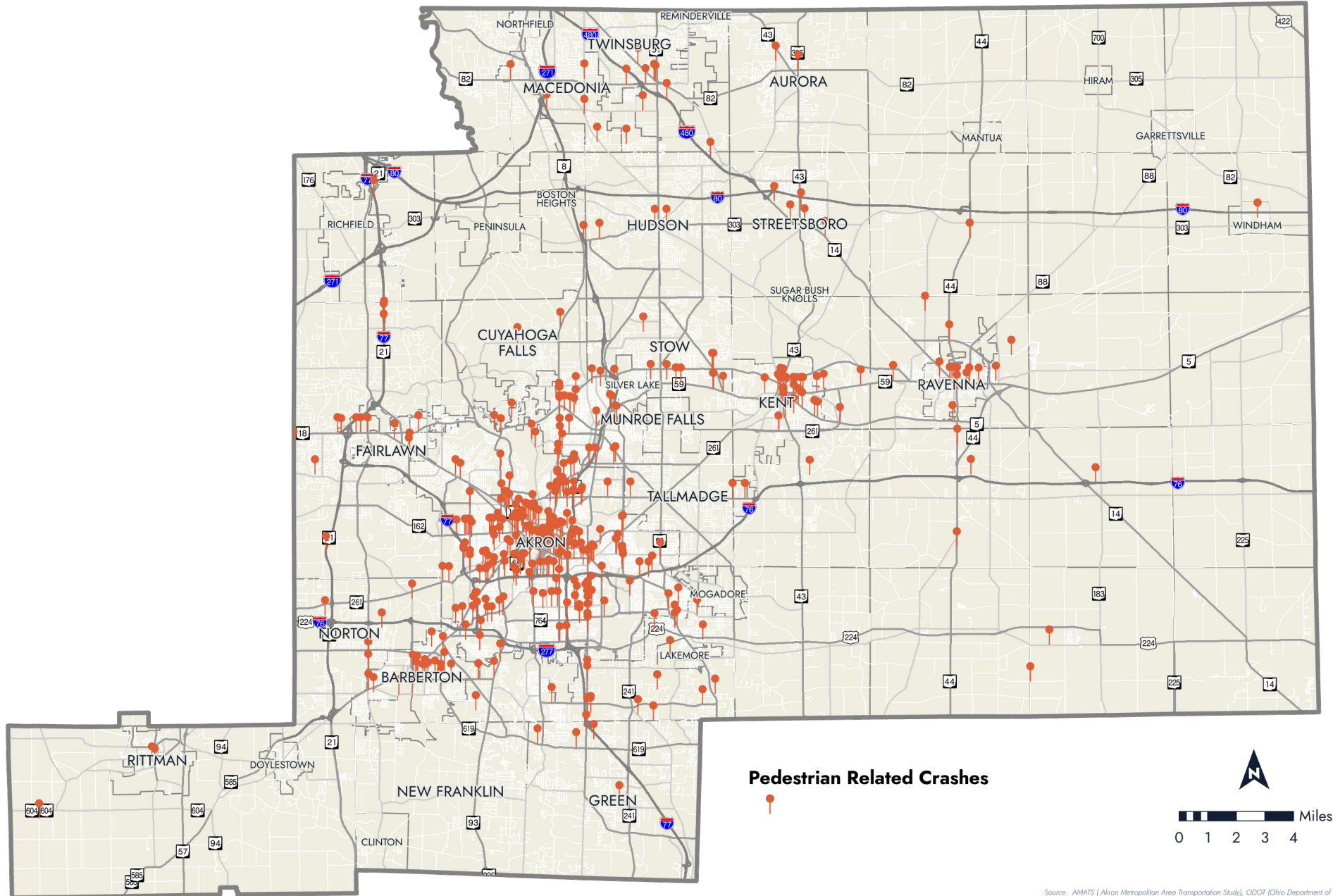
- *Infrastructure-related*—Six goals and 13 strategies focused on how to build a better active transportation network. All these goals and strategies are project focused. They include building additional shared-use paths, bike lanes, and sidewalks, focusing specifically on safety, maintaining pavement conditions in a good state of repair, and creating environments more conducive to active transportation.
- *Outreach and Engagement-related*—Four goals and nine strategies focused on planning and promotion of active transportation. These goals and strategies are activity focused and many of them can be done without a monetary cost. Spreading awareness, educating citizens, and promoting various initiatives related to active transportation modes; and encouraging transit ridership through active transportation options are key points.

A matrix outlining and describing each of these goals and strategies, who can implement them, and how they get implemented, can be found in [Chapter 10 \(pages 40-41\) of the ATP](#). The ATP can be reviewed in its entirety at: <https://www.amatsplanning.org/sites/default/files/docs/reports/2024%20Active%20Transportation%20Plan%20%28ATP%29.pdf>

Map 4-10 | AMATS Bicycle Related Crashes (2021-2023)



Map 4-11 | AMATS Pedestrian Related Crashes (2021-2023)



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

Public Transit

AMATS is responsible for ensuring comprehensive transportation planning for Summit and Portage counties and parts of Wayne County. This responsibility includes coordination with various agencies in Northeast Ohio, including two transit providers, METRO RTA in Summit County and the Portage Area Regional Transportation Authority (PARTA) in Portage County. The portions of Wayne County in the AMATS region are currently not served by a public transportation provider.

Existing System Coverage and Performance

Providing a strong and efficient transit system is essential for a dynamic region preparing for the future. METRO RTA and PARTA both provide traditional fixed-route service, operating a combined 39 routes. Both transit agencies also provide demand response services to seniors, individuals with disabilities and workforce trips with smaller buses and vans that operate as complementary service to fixed route service. METRO RTA operates primarily in Summit County with regional connections to Brimfield and an express route into downtown Cleveland. PARTA operates primarily in Portage County, with an express route that serves downtown Akron and Cleveland.

METRO RTA

Fixed Route Service

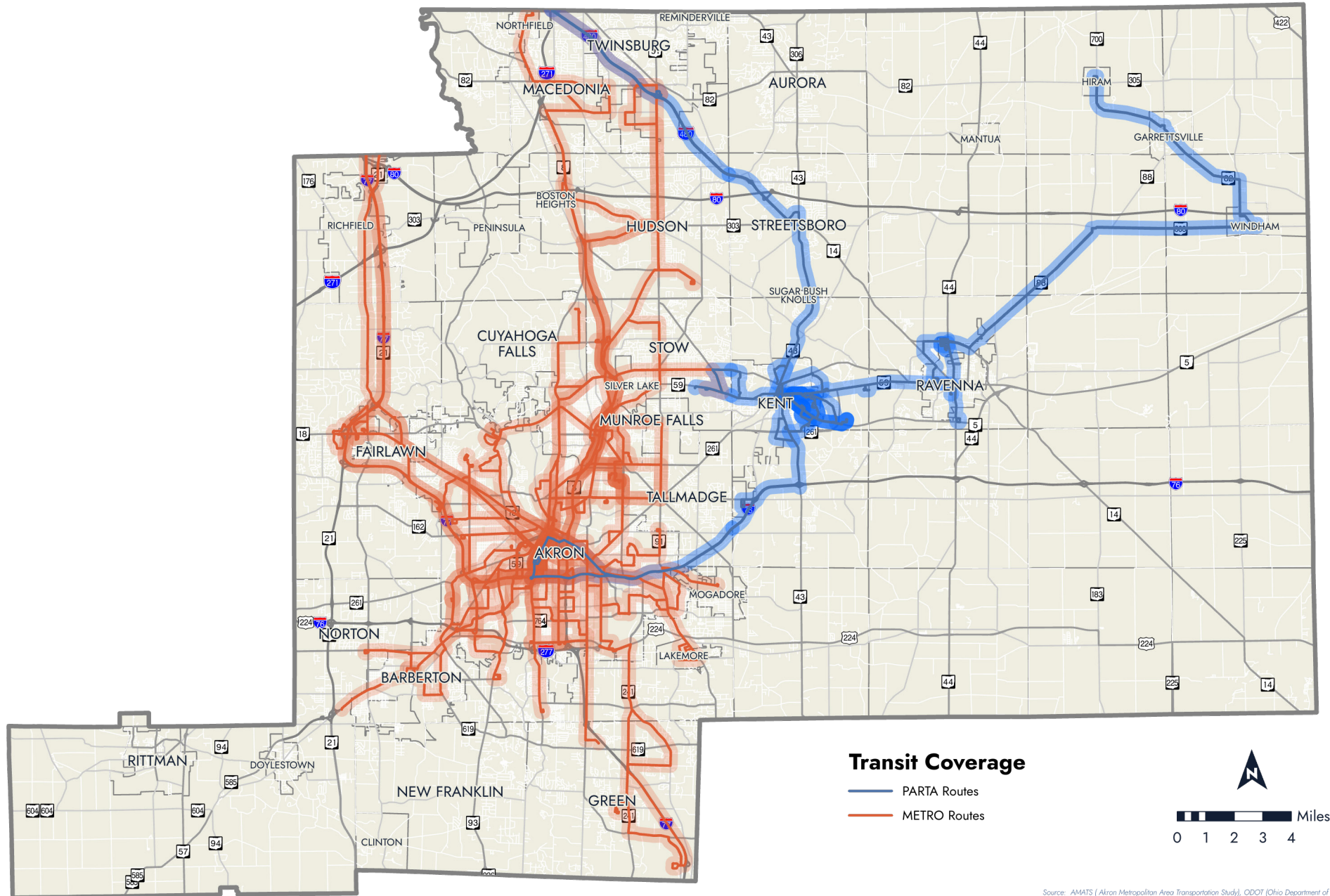
METRO RTA updated their fixed route system in 2023, mainly to account for new travel patterns and to increase efficiency. METRO RTA operates fixed route service from the Robert K. Pfaff Transit Center located just south of downtown Akron, which consists of 24 fixed routes with the following key features: 1) five high-frequency 15 minute corridors and eight 30 minute routes, 2) streamlined service with increased route directness and more consistent weekend service, and 3) additional regional connections to Brimfield and Cuyahoga County and an express route to downtown Cleveland.

Demand Response Service

METRO's demand response services operate multiple programs including METRO ADA and Select.

- **METRO ADA:** Complementary Americans with Act (ADA) service for eligible persons with disabilities. Service is available at the same times as METRO fixed route service, with the pick-up location and destination no further than 3/4 of a mile from a fixed route. **METRO Select:** involves a variety of services based on qualifying factors.
- **METRO SCAT Service** for seniors and people with disabilities who live outside the ADA zone and qualify for service. Trips also include coordination and provision of transportation services for Medicaid eligible residents Non-Emergency Transportation (NET) trips to Medicaid eligible medical facilities, as well as Title III trips for eligible Direction Home (Area on Aging and Disabilities) participants. **METRO Call-A-Bus** zones is a workforce development program for making suburban connections that are difficult for fixed route to adequately serve. Areas include Macedonia, Twinsburg, Townships of Sagamore Hills, Twinsburg, and Northfield Center and the Villages of Northfield and Reminderville, or riders within the City of Green.

Map 4-12 | Transit Coverage



Ridership

METRO's fixed route ridership exhibited a significant decrease beginning in 2020 coinciding with the COVID-19 pandemic and reached its lowest point in 2021 at 53% of pre-covid (2019) ridership performance. Overall ridership showed a steady recovery and as of 2023 was at 74% of pre-covid boardings which mirror similar trends of mid-size transit agencies nation-wide. METRO's ridership has recovered to previous levels and in some areas have exceeded 2019 level ridership.

PARTA

Fixed Route Service

PARTA's fixed route service operates two divisions, county and campus. County service offers 10 fixed routes with the highest frequency route operating every 30 minutes. County routes operate Monday through Saturday with express service to Akron and Cleveland operating Monday through Friday. PARTA also has a contract with Kent State University to operate campus service. Campus service consists of 5 fixed routes with frequencies ranging between 9 and 15 minutes, Monday through Friday, and reduced service on Saturday and Sunday. PARTA offers complementary ADA paratransit service for individuals with disabilities whose pick-up location and destinations are no more than $\frac{3}{4}$ of a mile from a fixed route.

Demand Response Service

PARTA's ADA demand response service is available at the same time as PARTA's fixed route service, with the pick-up location and destination no further than $\frac{3}{4}$ of a mile from a fixed route. PARTA's door-to-door, dial a ride service (DART) operates Monday through Friday, 5:00 a.m. – 11:00 p.m. and Saturday, 8:00 a.m. – 7:00 p.m. Demand response service covers all of Portage County; however, some townships are limited to certain days of the week. For those who qualify, PARTA provides Title III trips for Direction Home (Area Agency on Aging and Disabilities).

Ridership

PARTA's fixed route ridership dipped to their lowest point in 2021 which accounted for 32% of pre-covid ridership. Ridership showed an increase to 54% in 2022 and reached 80% of pre-covid levels by 2023 and reached a full recovery as of 2024. This loss and recovery of ridership mirrored the same trend of other local agencies and national trends.

Capital Assets and Facilities

METRO has an active fleet of 222 vehicles comprised of 131 Large Fixed Route CNG and Electric buses and 91 Demand Response CNG/Electric/Gas/Diesel fuel vehicles. METRO's fleet is varied and includes 60-foot articulated, 40-foot CNG, electric, and 40-foot hybrid buses. Smaller vehicles including less than 30-foot gasoline and electric buses and transit vans for demand response services. All METRO fixed route buses are equipped with bike racks and all revenue vehicles are handicap accessible. METRO has multiple facilities including their maintenance and operations buildings as well as a public compressed natural gas (CNG) station located at 416 Kenmore Blvd. METRO fuels all vehicles gasoline, CNG and electric vehicles at their 416 Kenmore Blvd. facility. All of METRO's fixed route buses start and end their trips at their downtown Akron facility, the Robert K. Pfaff Transit Center located at 631 South Broadway. This is the main transit center for all METRO Fixed Route Buses and Connections with PARTA, SARTA and Greyhound services. METRO has two smaller transit centers. The Romig road transit center, located in the Amazon fulfillment center, 2450 Romig Rd. Akron, OH. which currently serves routes #3 and #9. Independence Transit Center, located on Independence Ave, across

from the old Chapel Hill mall which serves Routes #10, #19, #20 and #22. METRO also maintains two park and ride facilities; James L. Fisher Park and Ride at 499 Ghent Road, Akron, which serves the #X61 Express to Cleveland and the METRO RTA & ODOT Park and Ride Lot located at RT.303 and Chittenden Road which serves the #31 and a place for car-pool Rt. 8 travel.

PARTA deploys an overall active fleet of 62 vehicles. Of the total fleet, 31 large-40-foot buses (16 CNG and 15 Diesel and 3 small buses/light transit vehicles-LTVs) are used for PARTA's fixed route service. Additionally, PARTA has 23 Light Transit Vehicles (LTVs) and 5 vans/small transit vehicles (STVs) that provide demand response service all of which are gasoline fueled vehicles. All PARTA's large, fixed route buses are equipped with bike racks and all revenue vehicles are handicap accessible. PARTA's administration, CNG fueling station, maintenance, storage and washing bay facilities are located at 2000 Summit Road in Kent. PARTA's Kent Central Gateway, a multi-modal transportation facility in the heart of downtown Kent, offers a central point of operations for transportation in Portage County, in addition to a secondary hub at University Hospitals in Ravenna.

Challenges facing public transit

Aging of America: More elderly individuals will be looking for affordable demand response public transportation service to help age in place and promote more active lifestyle for the aging demographic.

Increased Cost of Transit Service: For all transit authorities costs of goods and services are on the rise and the need to maintain a state of good repair has become more difficult.

Understanding and adjusting to the workforce needs of the area: In general, transit authorities need to understand current workforce trends in the area in order to best maximize service.

Specific investment in TOD/BRT and need for increased local funding to support operations: Transit-Oriented Development (TOD) refers to the planning and development of transit-oriented communities that integrate housing, businesses, and amenities around transit stations, promoting walkability and ensuring easy access to transit stations on foot through well-designed pedestrian pathways. Current examples: Kent Central Gateway project being located downtown Kent in an area of growing mixed-use development. As well as, the Reimagining the Gateway, E. Main Street project is a City of Kent, Kent State University, ODOT, AMATS, and PARTA collaboration to make the most heavily used PARTA transit block safer, walkable and more accessible for all users. Bus Rapid Transit (BRT) is an advanced, high-quality transit system that delivers safe, fast, and comfortable service. Improvements typically found within BRT routes include fewer stops, traffic signal priority, off-board fare collection, and elevated platforms which create a better trip experience compared to typical bus service. AMATS supports investment in a corridor for Bus Rapid Transit service on high METRO ridership routes.

Areas that are currently not served by transit: While METRO and PARTA strive for continuous improvement in meeting the needs of all riders, it is not currently economically or logistically feasible to offer fixed route line service throughout all neighborhoods within each of their counties. Local municipalities who are currently underserved or not served need to voice their concerns to their respective transit authorities about potential transit coverage. Finally, even in areas where fixed route coverage exists, there are additional gaps created when the sidewalk infrastructure does not fully and safely connect destinations and bus stops.

Goals and Strategies

The 2024 Transit Plan provides numerous goals and strategies that support the vision of safe and convenient transit operations. Goals are divided into three types:

- *Collaboration-related*—Two goals and five strategies focused on improving upon the already positive partnerships between transit operators, AMATS, community officials, private developers, and other organizations.
- *Funding-related*—Every goal (7) within the Transit Plan relates to funding directly or indirectly. These goals outline various strategies to invest in a modern fleet, seek funding opportunities, optimize service, and improve the built environment to make transit more accessible.
- *Service-related*—3 goals and five strategies are related to improving transit services. Many significant improvements to both METRO'S and PARTA'S service have recently occurred, but both operators are committed to continuing to improve services through ever changing needs and by utilizing beneficial technologies.

The AMATS 2024 Transit Plan can be viewed by visiting:

https://www.amatsplanning.org/sites/default/files/docs/reports/2024%20Transit%20Plan_0.pdf

Rail

Classification and Overview

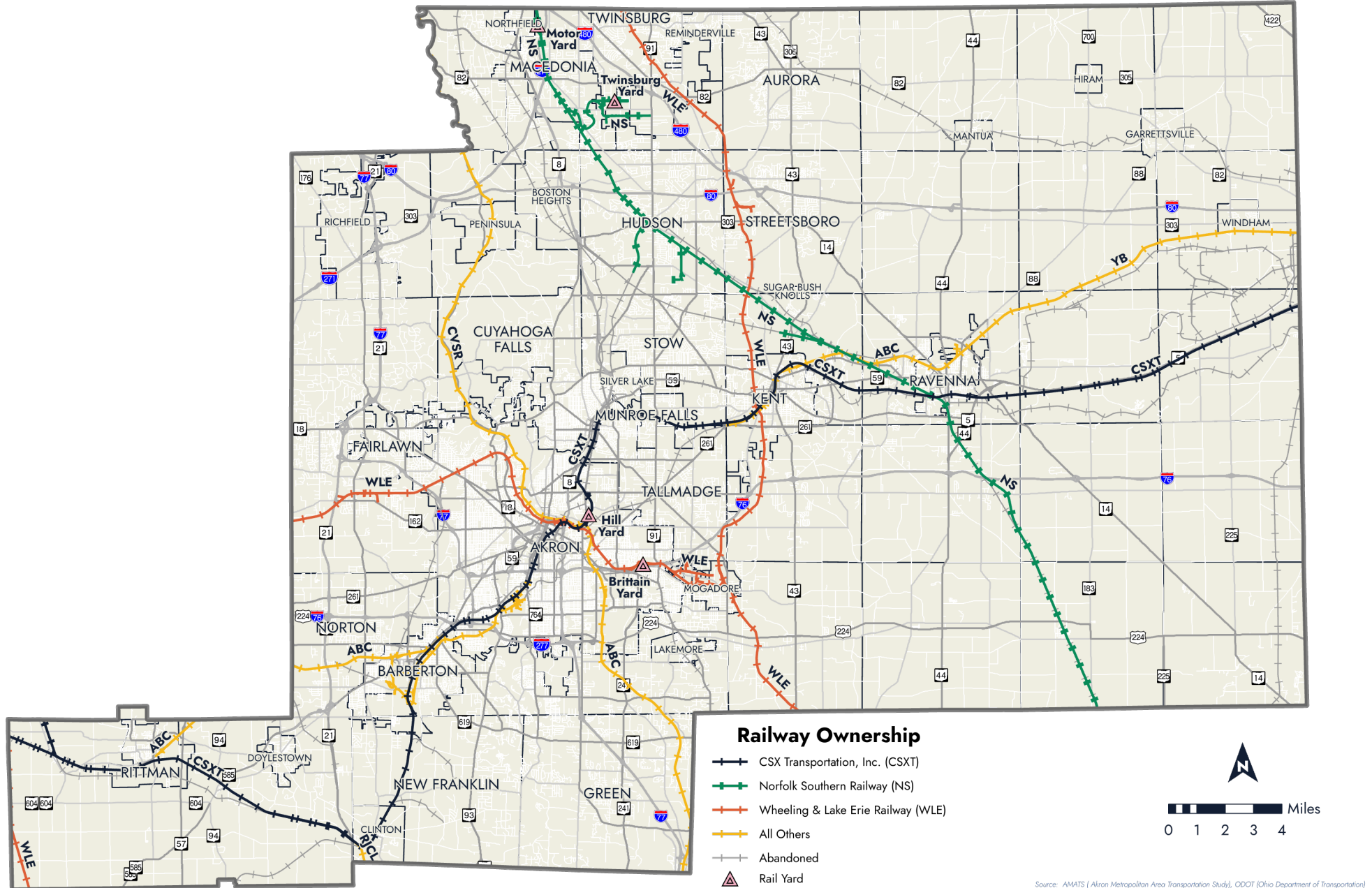
The level of importance of rail to the AMATS area transportation system is reflected by the concentration of rail lines within the area. The high mileage of rail lines reflects the close integration of rail with the area's economic activity. Although rail volumes and tonnage of freight moved are less than the Akron area's historical peak, the movement of goods by rail remains important to the economy.

Northeast Ohio contains heavily utilized rail routes between Chicago and the US East Coast ports. Northeast Ohio serves as a hub where freight moving east from Chicago can be redirected toward New York, Philadelphia, Baltimore, and Virginia. The rail lines which see heavy traffic are operated by Class 1 carriers Norfolk Southern (NS) and CSX Transportation. The region contains one Class 2 and one Class 3 railway, the Wheeling & Lake Erie Railway (WLE) and Akron Barberton Cluster (ABC), respectively.

The only passenger rail within the AMATS region is along the Cuyahoga Valley Scenic Railway (CVSR), which provides service from downtown Akron, through Peninsula, and into Cuyahoga County. The feasibility of extending the CVSR northward into downtown Cleveland is being discussed by various Cleveland area stakeholders. However, any future expansion would not affect the AMATS planning area other than the possibility of expanded/more frequent service.

Map 4-12 shows the region's rail network.

Map 4-13 | Railway Ownership



Rail Safety

There are numerous active rail lines that pass through the AMATS planning area, all of which enter heavily populated cities such as Akron, Ravenna, Barberton, and Kent. Whether it's potential conflicts between trains and vehicles, or the safety of the trains themselves (prevention of derailments and preparedness for when disaster strikes), safety is an important consideration for rail issues.

Highway Rail Grade Crossings

There are nearly 400 at-grade crossings within the AMATS region, although many of these exist along abandoned or out of service rail lines. At-grade crossings are protected either by train-activated, active warning devices (such as gates and flashing lights) or by passive warning devices (such as crossbucks, stop signs, and yield signs). Trains often require a mile or more to stop and are unable to deviate from their path. Consequently, safety at grade crossings is primarily a motorist's responsibility.

Ideally, highway-rail grade crossings would be separated if feasible. Grade separation projects eliminate safety and delay concerns by redirecting the vehicle, pedestrian and bicycle traffic above or below the railroad tracks. Construction of overpasses and underpasses is costly and sometimes infeasible due geographic configurations.

In the *2024 Freight Plan*, high-volume at-grade crossings in the AMATS area were evaluated. At-grade crossings are prioritized by scoring the number of trains per day and the daily traffic volume (ADT). Table 4-4 provides a ranking of high-volume at-grade rail crossings. The #6 ranked location—Hines Hill Road in Hudson—already has funding in place to eliminate the at-grade crossing by constructing an overpass over the NS rail line. Map 4-13 shows each rail crossing within the AMATS area, highlighting the high-volume crossings.

RANK	STREET	TRAINS PER DAY	VEHICLE ADT	SCORE
1	Stow Rd (Hudson)	45	10,257	462
2	N Main St (Munroe Falls)	27	15,580	421
3	Broad Blvd (Cuyahoga Falls)	32	12,872	412
3	Twinsburg Rd (Macedonia)	74	5,573	412
5	Bailey Rd (Cuyahoga Falls)	27	12,716	343
6	Hines Hill Rd (Hudson)	62	4,035	250
7	Summit St (Kent)	27	8,304	224
8	Fairview Ave (Barberton)	38	5,211	198
9	Snyder Ave (Barberton)	32	5,395	173
10	W Waterloo Rd (Barberton)	31	5,558	172
11	SR 183 (Atwater Twp)	45	3,800	171
12	N Arlington St (Akron)	27	5,838	158
13	Lynn Rd (Rootstown Twp)	62	2,328	144
14	E Highland Rd (Twinsburg Twp)	10	10,799	108
15	S Main St (Rittman)	27	3,851	104

This map illustrates the rail network in the Akron Metropolitan Area. It shows a dense network of rail lines (green lines) and numerous at-grade rail crossings (yellow diamond markers). High-volume crossings are highlighted with red circular markers. The map includes major highways (Interstates 76, 77, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880,

Rail Safety and Emergency Preparedness

The 2023 Norfolk Southern train derailment in East Palestine, Ohio was a wake-up call for communities across the country, but the event had significant meaning for the Greater Akron area given its proximity. In fact, the train that ultimately malfunctioned and derailed had passed through the region just a couple of hours before. The incident not only highlighted the need for safe trains, but also for emergency preparedness.

Within the AMATS planning area, emergency management agencies (EMAs) are coordinated at the county level. Countywide EMAs prepare Emergency Operations Plans (EOPs), which are collaboratively developed between county EMAs and the political subdivisions within each county. The EOPs detail plans and procedures for mitigating, preparing for, responding to, and recovering from disasters such as train derailments, hazardous material spills, and other accidents.

Rail and Congestion

Congestion on rail lines not only inhibits the movement of freight; it also poses a safety and traffic congestion problem when stopped or slowed trains block at-grade crossings in the area. Safety vehicles (police, fire, ambulance) are required to drive around blocked at-grade crossings to reach their destination. Moreover, longer train lengths—regardless of speed—can exacerbate roadway congestion issues occurring because of at-grade crossings. Rail congestion can also be caused when higher-traffic double-track rail lines consolidate to single-track runs.

Contrary to focusing on the congestion on railways, rail can help to alleviate highway-related congestion. Rail diverts freight and, in some cases, people from trucks and automobiles on roadways. During peak travel times and especially on high tuck freight corridors, transporting goods and people by rail has the potential to significantly reduce congestion.

Expanded Passenger Rail Opportunities

Intercity Rail

In 2022, as part of the Infrastructure Investment and Jobs Act (IIJA), funds were awarded to study intercity passenger rail corridors through the Federal Railroad Administration. Intercity rail is defined as rail that connects cities over longer distances than regional or commuter rail. Three Ohio corridors received funding through the Ohio Department of Transportation (ODOT) for study, including the Cleveland-Columbus-Dayton-Cincinnati (3C&D) Corridor, Cleveland-Toledo-Detroit Corridor, and Chicago, Fort Wayne, Columbus, and Pittsburgh. These corridors do not include any rail stops in the greater Akron region.

In June 2024, the Ohio Congressional Delegation wrote a letter to ODOT, requesting that the Akron-Canton area be included as part of any corridor study that the agency conducts. ODOT's response stated that adding the Akron-Canton region to the existing corridors was not feasible due to cost, projected travel time increases, additional mileage, and inadequate existing rail facilities to support intercity passenger rail and therefore could not be added to the corridors under consideration.

Discussions continued to determine appropriate next steps with regards to intercity passenger rail. The AMATS Policy Committee discussed the issue and asked AMATS staff to develop a resolution outlining AMATS support for the following:

- Intercity passenger rail coming to the greater Akron region, and an acknowledgement of this support in TO2050
- local efforts to develop a long-term strategy for intercity passenger rail in greater Akron that connects to an expanded rail network
- local efforts to secure future grant opportunities for the study of intercity passenger rail in greater Akron that connects to an expanded rail network

This resolution was approved in February 2025.

Many stakeholders within the region acknowledge the high cost and geographic difficulty of connecting the Akron region into a broader passenger rail network. Efficient passenger rail travel would most likely have to be located along either a new rail line right-of-way—currently a near impossibility—or, more likely, along an existing Class 1 railroad. These railroads are privately owned (CSX and NS) and prioritize their own freight traffic over separately coordinated passenger service, which itself is a serious challenge to convenient and reliable passenger rail service.

Other options include utilizing existing or abandoned Class 2 or Class 3 rail lines. A detailed feasibility study of doing this has not been performed for several decades, but aging rail infrastructure and the lower operational speed of trains on these railroads serve as challenges to this approach.

It is important to note that no funding has been assigned to the implementation of passenger rail on any alignments. ODOT has only committed to studying intercity passenger rail in three locations across Ohio. These studies will help to determine the feasibility and potential costs of bringing long-distance passenger rail between cities.

Aviation

Aviation and the state of Ohio have a longstanding and important relationship. Statewide, Ohio is served by seven commercial service airports and 97 general aviation airports. Aviation enables people and goods to move at regional, national, and even international levels. Modern and well-planned airports can enhance a region's economic competitiveness, provide jobs, and allow convenient transportation options for people and goods.

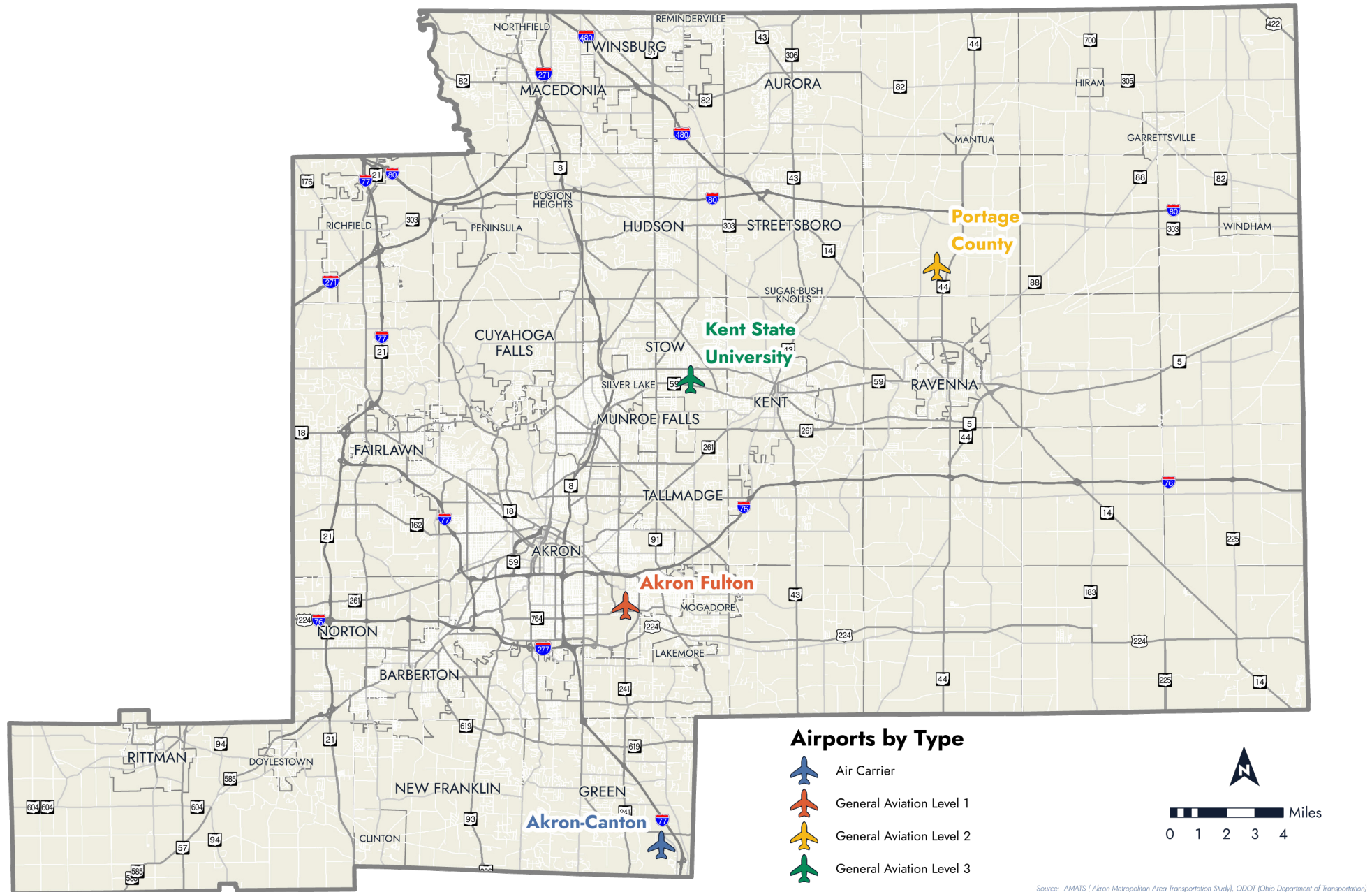
The Greater Akron area has one commercial airport. The Akron-Canton Airport (CAK) in the City of Green provides direct service to other markets, filling a niche as a more convenient reliever airport for larger airports, such as the Cleveland-Hopkins International Airport (CLE) in neighboring Cuyahoga County. CAK transported over 750,000 passengers in 2024 and 231,000 tons of cargo in 2022. Like many airports, CAK experienced substantial passenger service growth and subsequent decline over the past 20 years. CAK also underwent significant capital expansion during this same timeframe, including a new terminal expansion and renovation.

The region also contains three general aviation airports. Non-commercial, or general aviation, airports are classified into four categories by the Federal Aviation Administration. Classifications are based upon the size of the aircraft able to utilize each airport (Class 1 = largest; Class 4 = smallest), and each classification comes with its own requirements regarding configuration, snow and ice removal, lighting, training, inspections, personnel, and many other factors.

- The Akron Fulton Airport in Akron—Class 1
- The Portage County Airport in Shalersville Township—Class 2
- The Kent State University Airport in Stow—Class 3

Map 4-14 shows the location of the Greater Akron region's four airports. Numerous privately-owned landing strips exist throughout the region, usually in rural areas, to accommodate hobbyist pilots. All airports, including the private landing strips are shown on Map 4-5 in Appendix D.

Map 4-15 | AMATS Area Airports



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

Tying it All Together—Context Sensitive Solutions

All modes of transportation are important, and every place contains a set of unique considerations. Changing built environments to make all modes of transportation more appealing and accessible through sound land use practices and roadway design is at the core of AMATS' efforts. AMATS strongly urges area communities to consider the individual context of each place and how and to what degree various modes of transportation should be accommodated.

All users, regardless of age or ability, should be able to reach their destinations along or across public streets safely and comfortably. Certainly, not every street can offer access to every possible mode of transportation. However, the Greater Akron area should strive to have a network so that all modes serve all general areas, particularly those of strong attraction to non-motorized transportation, such as schools, parks, hospitals, key transit nodes and areas where dense residential uses are proximate to commercial/retail districts.

Complete Streets

Sometimes this concept of designing a transportation network to accommodate all users is referred to as *Complete Streets*. AMATS officially endorsed Complete Streets concepts and design through its Connecting Communities initiative that was launched in 2010. This initiative stresses the importance of integrating land use and transportation, and encourages communities to consider broadening their perspectives to include all potential modes of transportation in their transportation and development planning. It also aims to encourage transportation projects which support vibrant, healthy and inclusive places.

The Connecting Communities initiative was, and continues to be, implemented through the Connecting Communities Planning Grant program, to address specific transportation and land use challenges unique to an area. The program also includes the principles of Connecting Communities to develop transportation plans that will lead to projects eligible for AMATS funds. The Connecting Communities Planning Grant program focuses on integrating the following Connecting Communities principles:

- Increase alternative transportation options to connect people and places
- Promote Complete Street principles to create vibrant and safe places for all users
- Leverage transportation projects to develop places which support alternative transportation and complete streets through land use and design

Although no official Complete Streets policy exists for the region, AMATS has adopted and implemented Complete Streets principles throughout the Greater Akron area. AMATS Funding Policy Guidelines specify that any AMATS member applying for federal transportation funding shall consider the needs, safety and comfort of all current and anticipated users regardless of their preferred mode of transportation in the design of all proposed projects. In recent years, AMATS has provided significant funding for sidewalks, bicycle lanes, trails, transit improvements and related improvements.

Context Sensitive Design

Although AMATS strongly encourages communities to consider all modes of transportation as they plan projects, community leaders ultimately make decisions on what kind of community they want to be. In many communities,

previous planning processes such as comprehensive plans provide the vision for what the community will look like in the future. This planning is typically contingent upon outreach to its residents.

Context is important when determining the specific considerations of how a project is designed and built. Project decisions involve a series of tradeoffs. A few examples:

- Wider or additional lanes may ease congestion, but they typically increase vehicle speeds, potentially creating new safety issues and making the road less accessible for active transportation modes. What is most important to a community?
- The radius of corners at an intersection can be designed to accommodate larger trucks, but doing so increases the length of crosswalks for pedestrians. Quiet, residential streets may not need to design for the movement of large vehicles, but streets accessing an industrial park probably would consider the ease of freight movement.
- High quality transit amenities are desirable anywhere buses travel, but with limited resources, should deluxe shelters be prioritized in areas with the highest ridership?
- Bike lanes and sidewalks are an important and popular addition to many roadways, but does a lower-volume, rural roadway disconnected from shared-use paths warrant the extra cost of constructing these amenities?

Section 5 | System Performance: Transportation Performance Measures

Introduction

Current federal legislation and guidance feature an emphasis on performance measurement. This focus is consistent with AMATS goals and objectives, which promote the transparency of public data and decision-making and seeks to improve the accountability of public spending by better linking investments to outcomes.

Performance measures are central to implementing a Performance Based Planning Process (PBPP) that guides decision making. How performance is defined and measured can significantly affect the types of projects and strategies that are advanced by decision makers. Moreover, performance results inform agencies whether the types of projects and strategies they are implementing are in fact helping them achieve their goals. Performance measures aim to answer questions about whether the performance of the transportation system is getting better or worse over time. Performance measures also aim to demonstrate whether transportation investments are correlated or linked to stated goals and whether they produce desired outcomes.

Introducing a performance management approach to planning is intended to improve project and program delivery, inform investment decision making, focus staff efforts on priorities, and provide greater transparency and accountability to the public. Current federal guidelines apply performance measurements at the programmatic, rather than project level and link performance measures and targets to funding decisions by way of performance-based funding. The purpose of this approach is to move towards performance-based decision-making for project selection in the future.

The US DOT and ODOT continue to develop performance targets in consultation with MPOs like AMATS, and others. State investments must make progress toward these performance targets, and MPOs must incorporate these performance measures and targets into their Transportation Improvement Programs (TIPs) and long-range Regional Transportation Plans. Federal guidance imposes financial penalties on states that fail to make progress toward these performance goals.

There are seven areas for which the US DOT has established national performance goals. These areas are:

- Safety
- Infrastructure Conditions
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delays

To implement performance measure goals, US DOT has developed measures and minimum standards for states to follow. In the transportation planning process, the public and other stakeholders articulate a strategic direction that is based on a shared vision for the future.

- Goals and Objectives stem from the area's vision and goals, and they address key desired outcomes. Agencies like AMATS create objectives—which are specific, measurable statements—that shape planning priorities.
- Performance Measures support objectives and are the basis for comparing alternative improvement strategies, investment and policy strategies, and tracking results.

Driven by data on performance, along with public involvement and policy considerations, AMATS conducts analyses that inform investment and policy priorities.

- Identify Trends and Targets – Trends and targets let agencies compare alternative strategies. This step relies on baseline data from past trends, tools to forecast future performance, and information on possible strategies, available funding, and other constraints.
- Identify Strategies and Analyze Alternatives –Scenario analysis may also be used to compare alternative strategies and funding levels, or to explore funding levels required to achieve certain performance goals.
- Develop Investment Priorities – To reach investment targets, AMATS will create a TIP and a Regional Transportation Plan that consider priorities and tradeoffs.

Programming involves selecting specific projects to include in the TIP. In a performance-based planning approach, agencies make programming decisions based on whether those decisions support performance targets or contribute to desired trends.

Performance based planning is founded on evidence that the process leads agencies to their goals. The following evaluation activities happen throughout implementation and when needed throughout performance-based planning.

- Monitoring – Gathering information on actual conditions.
- Evaluation – Conducting analysis to understand whether implemented strategies have been effective.
- Reporting – Communicating information about system performance and whether policymakers, stakeholders, and the public think plans and programs are effective.

In a performance-based planning approach, each step in the process is clearly connected to the next so that goals translate into specific measures. Those measures then become the basis for selecting and analyzing strategies for the long-range plan. Ultimately, project selection decisions are influenced by expected performance returns. Keeping the next step in the process in mind is critical to each step along the way.

The Ohio Department of Transportation (ODOT) has provided a complete overview of performance measures, data and progress with its report, *The State of Ohio Transportation System Performance*:

www.transportation.ohio.gov/programs/statewide-planning-research/statewide-transportation-planning/01-transportation-system-performance-report

Tables 5-1 and 5-2 summarize highway and active transportation project funding by performance group category for Transportation Outlook 2050. These tables include only the designated/specific projects outlined in Section 6, and not smaller system-preservation projects, e.g. road resurfacing, yet to be determined.

Table 5-1 | Highway Project Performance Measures

Freeway and Roadway Recommendations	Recommendation	From	To	Current Cost	PM1	PM2	PM3
	I77/SR8 Corridor Improvements	Lovers Lane	Perkins St	(\$77,000,000)	✓	✓	✓
	I-76 "Kenmore Leg" Improvements to increase capacity and improve safety	I-76 @ I-277 Ramp	North of I-76 @ I-77 ramp	(\$86,000,000)	✓	✓	✓
	Roundabout (or other intersection improvements)	Glenwood Ave. @ N. Howard St.		(\$3,000,000)	✓	✓	✓
	Misc. Improvements, new street connections and placemaking along former/current freeway	Innerbelt Vicinity (Exact Locations TBD)		(\$20,000,000)	✓	✓	✓
	Rand and Dart Avenue Road reconfigure/function	Boulevard Street	W. Market Street	(\$12,000,000)	✓	✓	
	Phase 1 W. Exchange St. Complete Streets and Reconstruction	Jefferson Ave.	Portage Path	(\$4,700,000)	✓	✓	
	Phase 2 W. Exchange St. Complete Streets and Reconstruction	Clemmer Ave.	Jefferson Ave.	(\$5,000,000)	✓	✓	
	Phase 3 W. Exchange St. Complete Streets and Reconstruction	S. Hawkins Ave.	Clemmer Ave.	(\$5,000,000)	✓	✓	
	Merriman Rd. corridor Improvements including road diet/complete streets, poss. roundabout(s)	west of Weathervane Pl.	Portage Path	(\$18,000,000)	✓	✓	✓
	Left Turn Lane at Intersection	SR 43/Chillicothe Rd. @ Kingston Dr.		(\$2,500,000)			✓
	Intersection Improvements	SR 43/Chillicothe Rd. @ S. Mennonite Rd.		(\$2,500,000)	✓	✓	✓
	Intersection Improvements	Bissell Rd. @ Pioneer Trail		(\$2,500,000)	✓	✓	✓
	Intersection Improvements	Mennonite Rd. @ Page Road		(\$2,500,000)	✓	✓	✓
	Robinson Rd. Road Diet, Reconstruction, Safety Upgrades, Ped. Improvements	Wooster Rd. North	Van Buren Ave.	(\$6,600,000)	✓	✓	
	Peanut Roundabout	Wooster Rd. North @ Norton Ave. & nearby streets		(\$6,800,000)	✓	✓	✓
	Signal Improvements	Olde Eight Rd. @ SR 303/Streetsboro Rd.		(\$300,000)			✓
	State Rd. Improvements	Bridge Over Cuy. River	Portage Trail	(\$20,000,000)	✓	✓	✓
	S. Bailey Road Improvements including streetscaping, Complete Streets, enhancements at Northmoreland Rd.	200' south of Northmoreland Rd.	Myrtle Ave.	(\$4,000,000)	✓	✓	✓
	Intersection Improvements, Possible Roundabout	Riverview Rd. @ Ira Rd.		(\$2,500,000)	✓	✓	✓
	Steels Corners Widening and Shared-Use Path	State Rd.	Eastern Corp Limits	(\$9,000,000)	✓	✓	✓
	Steels Corners Bridge Replacement	Over Mud Brook		(\$20,000,000)		✓	
	W. Market St. Corridor Safety Improvements and Reconstruction	Springside Dr.	N. Revere Rd.	(\$24,000,000)	✓	✓	✓
	Massillon Road Improvements (TWLTL)	Greensburg Rd.	Wise Rd.	(\$4,000,000)		✓	✓
	Roundabout (or other intersection improvements)	SR 619/E. Turkeyfoot Lake Rd. @ S. Main St.		(\$2,500,000)	✓	✓	✓
	Roundabout (or other intersection improvements)	SR 619/E. Turkeyfoot Lake Rd. @ Mayfair Rd.		(\$2,000,000)	✓	✓	✓
	SR 303/W. Streetsboro Rd. Intersection Safety Improvements	Nicholson Dr.	Boston Mills Rd.	(\$1,000,000)	✓	✓	
	SR 91 TWLTL	Middleton Road	Northern Corp Limits	(\$4,000,000)	✓	✓	
	Hines Hill Road Improvements	Western Corp. Limits	Future NS Rail Overpass	(\$6,000,000)	✓	✓	
	SR 43 Traffic Calming and Ped Safety Improvements	Stinaff St.	Roosevelt H.S. Entrance	(\$1,000,000)	✓	✓	
	SR 43 (River St./Gougler St.) Safety Issues: restriping, add parking, sidewalks, road diet	SR 59/Haymaker Pkwy.	Fairchild Ave.	(\$2,900,000)	✓	✓	
	Intersection Improvements	Highland Rd. @ Valley View Rd.		(\$3,600,000)	✓	✓	✓
	Signal Improvements	Mogadore Rd. @ Gilchrist Rd.		(\$400,000)			✓
	W. Turkeyfoot Lake Rd. Improvements	State Street	Eastern Corp Limits	(\$3,000,000)	✓	✓	
	Roundabout	Olde Eight Rd. @ Brandywine Rd., SR 82/Aurora Rd.		(\$2,600,000)	✓	✓	✓
	Intersection and Streetscape Improvements	N Main St @ E Ohio Ave		(\$2,800,000)		✓	
	Intersection Improvements	Ohio St @ E Ohio Ave		(\$2,200,000)	✓	✓	
	SR 44 Corridor Improvements	Tallmadge Road/C.H. 18	I-76	(\$20,000,000)	✓	✓	✓
	Roundabout	Valley View Rd. @ Chafee Rd.		(\$2,400,000)	✓	✓	✓
	Graham Road Improvements: TWLTL, wide sidewalks, intersection improvements	SR 91/Darrow Rd.	Newcomer Rd.	(\$15,000,000)	✓	✓	
	Intersection Improvements	Fishcreek Rd. @ Stow Rd.		(\$1,500,000)	✓	✓	✓
	Fishcreek Rd. Turn Lane Improvements	Laurel Woods Blvd.	SR 91/Darrow Rd.	(\$1,000,000)	✓	✓	✓
	Norton/Seasons Rd. Wider Lanes and Roadway Improvements	SR 8	SR 91/Darrow Rd.	(\$8,000,000)		✓	
	Frost Road Corridor Improvements	150' East David Dr.	300' West of SR 43	(\$9,100,000)		✓	✓
	SR 303/Streetsboro Rd. Improvements	300' East of SR 14	Page Rd.	(\$8,000,000)		✓	✓
	East Avenue Corridor Improvements	Cambrian Dr.	N./S. Munroe Rd.	(\$7,400,000)	✓	✓	
	Roundabout	SR 261/Northeast Avenue @ Middlebury Rd.		(\$3,500,000)	✓	✓	✓
	SR. 91 TWLTL	Ravenna Rd.	Tinkers Creek Bridge	(\$3,000,000)		✓	✓

Table 5-2 | Active Transportation Project Performance Measures

	Recommendation	From	To	Current Cost	PM1	PM2	PM3
Bicycle and Pedestrian Recommendations	Akron-Peninsula Road Multi-Use Path	Portage Trail	1500' NW of Hampton Knoll Dr.	\$1,950,000	✓		
	Summit Lake Pedestrian Improvements	TBD		\$1,500,000	✓		
	Rubber City Heritage Trail	Towpath Trail	Johnson Street	\$12,700,000	✓		
	Veterans Trail / Akron Secondary	Freedom Trail and CVSR Northside Station	Graham Road	\$12,000,000	✓		
	Aurora Trail Connection	Sunny Lake	Future Headwaters Trail	\$1,500,000	✓		
	Aurora Trail Connection	Treat Rd. Quarry	Future Headwaters Trail	\$1,100,000	✓		
	Sourek Corridor Trail	Ghent Rd. Park & Ride	Towpath Trail	\$5,000,000	✓		
	Connector Trail - Old Akron-Peninsula Rd. ROW	Towpath Trail	Bike & Hike Trail	\$3,500,000	✓		
	Conrail Freedom Secondary Trail	Peck Rd	County Line	\$14,850,000	✓		
	Heartland Trail Extension, Connection to Towpath	Coal Bank Road	Towpath Trail	\$7,000,000	✓		
	Franklin Connector	Hudson Rd	Ravenna Rd	\$3,500,000	✓		
	Lake Rockwell Trail	Freedom Trail	Franklin Connector	\$5,000,000	✓		
	Willadale Trail	Koons Rd.	Massillon Rd.	\$1,000,000	✓		
	Veterans Trail/Akron Secondary	Springdale Rd	Veterans Park	\$6,900,000	✓		
	Franklin Avenue Sidewalks	Summit St.	Erie St.	\$300,000	✓		
	Sanitarium Rd. Sidewalks Phase 1	2nd	Spartan Trail	\$550,000	✓		
	Sanitarium Rd. Sidewalks Phase 2	Spartan Trail	Brittany	\$550,000	✓		
	Misc Lakemore Walkway Improvements (Lake, 5th)	Various Improvements on Lakemore CC Study		\$550,000	✓		
	Cleveland Massillon Rd	Greenwich Rd	Norton Branch Library	\$600,000	✓		
	Easton Rd	Greenwich Rd	Oser Rd	\$1,530,000	✓		
	3 Creeks - Silver Creek Trail	Silvercreek Rd.	Magic Mile	\$8,000,000	✓		
	County Line Trail (North Extension)	County Line Trail end	Medina County line	\$2,460,000	✓		
	Sagamore Connector Trail	Towpath Trail	Bike & Hike Trail	\$3,200,000	✓		
	Streetsboro Trail Connection	Tinkers Cr./Old Mill Rd	Clare Wilcox Park	\$6,000,000	✓		
	Pedestrian Tunnel	West Ave	Northwest Ave	\$2,000,000	✓		
	Park Loop Trail	Center Valley Bikeway	Center Valley Bikeway	\$1,380,000	✓		

Safety – PM1

23 CFR 490.207 requires states to establish five safety performance measures and set targets for those measures to demonstrate fatal and serious injury reductions on all public roads. The figure below shows the safety performance measures, baselines, and targets. These measures are evaluated on a 5-year rolling average. Safety performance measures are designated as category 1: PM1.

Federal legislation requires MPOs like AMATS to establish performance targets and set targets that demonstrate fatal and serious injury reductions on all public roads. The required performance measures for safety are:

- Number of fatalities
- Fatality rate
- Number of serious injuries
- Serious injury rate
- Number of non-motorized fatalities and serious injuries

In accordance with federal legislation, ODOT used a five-year average to calculate baseline safety statistics. These baseline figures are the benchmarks to which all future calculations will be compared. All future values will also be calculated using five years of data. This five-year rolling average is used to smooth out short-term year-to-year fluctuations. A full discussion of safety planning and the identification of safety needs for the AMATS area can be found in the current traffic crash technical memorandum. This memorandum also includes analyses of bicycle and pedestrian safety data. The memorandum is updated annually.

The baselines used to set the targets are (CY 2019-2023):

- 1,228.2 fatalities
- 7,790.5 serious injuries
- 1.12 fatality rate (per 100 million vehicle miles traveled (VMT))
- 6.77 serious injury rate (per 100 million VMT)
- 842.4 non-motorized fatalities and non-motorized serious injuries

- 1,180 fatalities
- 7,482 serious injuries
- 1.08 fatality rate
- 6.51 serious injury rate
- 809 non-motorized fatalities and non-motorized serious injuries

<https://app.powerbigov.us/view?r=eyJrljoiNDJiMjhlMDEtOTU2OC00YjBmLWlxNzgtY2Y3ZTMwZTE0MDI3IiwidCI6IjUwZjhmY2M0LTk0ZDqtNGYwNy04NGViLTM2ZWQ1N2M3YzhhMjI9>

The table below shows the current status of safety target performance statewide.

Performance Measure	2023 Performance	2023 Target	Target Met?	2025 Target
Fatalities	1,228	< 1,173	No	< 1,180
Fatality Rate	1.12	< 1.04	No	< 1.08
Serious Injuries	7,791	< 7,649	No	< 7,482
Serious Injury Rate	6.77	< 6.77	No	< 6.51
Non-Motorized Fatalities & Serious Injuries	842.4	< 824	No	< 809

1. All safety measures are rolling 5-year averages.
2. Rates are expressed as events per 100 million vehicle miles traveled (VMT).

3. Targets for 2023 and 2025 are a 2% annual reduction from the baseline performance (for 2021 and 2023, respectively).

The table below shows the projects and amount of money that is being invested to improve safety within the AMATS area during the TO2050 planning period (2025-2050). The number and costs shown are derived from projects listed in Section 6 and do not include the projects not yet identified.

Table 5-4 TO2050 Projects Improving Safety	
Number of Projects	Construction \$ (Millions)
63	\$288

Infrastructure Conditions – PM2

23 CFR 490.307 and 23 CFR 490.407 establish performance measures to evaluate the condition of Ohio's National Highway System (NHS) pavements and bridges. The table below shows these performance measures along with their baselines, 2-year targets, and 4-year targets. Infrastructure condition performance measures are designated as category 2: PM2. The table also shows that AMATS is assisting in meeting statewide infrastructure conditions targets.

Table 5-5 Infrastructure Condition Measures and Targets - PM2						
Performance Measure	Baseline (2021)	2-Year Performance (2023)	2-Year Target (2023)	4-Year Target (2025)	2-Year Target Met?	Trend
Interstate Pavement Condition						
% Good	72.9%	75.4%	> 55%	> 55%	Yes	↑
% Poor	0.1%	0.1%	< 1%	< 1%	Yes	↔
Non-Interstate NHS Pavement Condition						
% Good	46.4%	50.4%	> 40%	> 40%	Yes	↑
% Poor	1.9%	1.3%	< 2%	< 2%	Yes	↓
NHS Bridge Conditions						
% Good	60.9%	60.8%	> 55%	> 55%	Yes	↔
% Poor	2.0%	2.0%	< 3%	< 3%	Yes	↔

The tables below show the projects and amount of money that is being invested to maintain and improve pavement and bridge conditions in the AMATS area during the TO2050 planning period (2025-2050). The number and costs shown are derived from projects listed in Section 6 and do not include the projects not yet identified.

Table 5-6 TO2050 Projects Improving Pavements		
Road Type	Number of Projects	Construction \$ (Millions)
Interstate	2	\$163
Non-Interstate NHS	9	\$25.4
All Other Roadways	31	\$258.6
Total	44	\$447

Table 5-7 TO2050 Projects Improving NHS Bridges	
Number of Projects	Construction \$ (Millions)
2	\$163

The AMATS Policy Committee has previously approved support for ODOT's statewide goals for pavement and bridge conditions. (See AMATS Policy Resolution 2022-14, approved August 2022).

AMATS continues to support these targets and programs its projects with the goal of assisting ODOT in meeting these goals.

Travel Time Reliability, Congestion and Air Quality Measures – PM3

Travel Time Reliability

Level of Travel Time Reliability (LOTTR) is defined as the ratio of the longer travel times (80th percentile) to a “normal” travel time (50th percentile). The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable.

Truck Travel Time Reliability (TTTR) is the ratio generated by dividing the 95th percentile travel time by the normal time (50th percentile) for each Interstate segment. The TTTR Index is established by multiplying each segment’s largest reliability ratio of five reporting periods by its length then dividing the sum of all length-weighted segments by the total length of Interstate.

The data to assess travel time reliability and establish targets is sourced from FHWA’s National Performance Management Research Data Set (NPMRDS).

23 CFR 490.507 and 23 CFR 490.607 established performance measures for the Level of Travel Time Reliability on Ohio’s NHS system. The table below shows these performance measures along with their baselines, 2-year targets, and 4-year targets.

Table 5-8 System Reliability Measures and Targets - PM3					
Performance Measure	Baseline (2021)	2-Year Performance (2023)	2-Year Target (2023)	4-Year Target (2025)	2-Year Target Met?
Travel Time Reliability (TTR) - Interstates	98.8%	97.1%	> 85.0%	> 85.0%	Yes
Travel Time Reliability (TTR) - Non-Interstates	96.4%	95.9%	> 80.0%	> 80.0%	Yes
Truck Travel Time Reliability (TTTR) Index	1.19	1.22	< 1.50	< 1.50	Yes

The table below shows the total projects and amount of money that is being invested to improve travel time reliability on the NHS system in the AMATS area during the TO2050 period.

Table 5-9 TO2050 Projects Improving Travel Time Reliability		
Road Type	Number of Projects	Construction \$ (Millions)
Interstate	2	\$163
Non-Interstate NHS	12	\$15.9
All Other Roadways	17	\$172.7
Total	31	\$351.6

CMAQ Traffic Congestion Measures – PHED and Non-SOV Travel

23 CFR 490.707 established the national performance measures for assessing traffic congestion. These measures are applicable to all urbanized areas that include NHS mileage and have populations of over 200,000 (also known as Transportation Management Areas, or TMAs). In addition, these two measures are only applicable in regions that are designated as non-attainment or maintenance areas for ozone (O3), carbon monoxide (CO) or particulate matter (PM10 and PM2.5), based upon the National Ambient Air Quality Standards (NAAQS).

The two congestion performance measures are as follows:

1. Annual Hours of Peak Hour Excessive Delay (PHED)

Peak Hour Excessive Delay (PHED) is based on the calculation of all segments of the National Highway System. PHED is defined as the extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. For this measure, the speed threshold is 20 mph or 60% of the posted speed limit, or whichever is greater. The FHWA requires that the data collected must occur during weekdays (Monday through Friday), with a required morning peak timeframe of 6:00am-10:00am, and a variable evening peak timeframe. This metric measures the number of hours of excessive traffic delay (per capita) each year.

The PHED measure formerly only applied to metropolitan areas with one million or more in population. However, as of 2022, urbanized areas of 200,000 or greater are now subject to the PHED measure. For this metric, excess delay is defined as travel time at 20 mph or 60% of the posted speed limit, whichever is greater, measured in 15-minute intervals during key travel windows.

2. Percent of Non-Single Occupant Vehicle (Non-SOV) Travel

Mode share is a measure of the percentage by mode of all surface transportation occurring in the urbanized area. Modes of surface transportation include driving alone in a motorized vehicle (Single Occupancy Vehicle), car or van pooling, public transportation, commuter rail, walking, or bicycling, as well as travel that is avoided by telecommuting. Non-SOV travel, defined by the FHWA, applies to any travel occurring on modes other than driving alone in a motorized vehicle. An analysis of mode share includes a calculation of the percent of Non-SOV travel within the urbanized area. This metric, which is derived from the U.S. Census Bureau's American Community Survey (ACS) data, illustrates the percentage of an urbanized area's traffic in which multiple people are in a vehicle. Higher levels of Non-SOV travel can reduce an area's traffic congestion by removing additional vehicles from the roadways, and also lowering the amount of mobile emissions.

The table below shows the two-year, and four-year targets for peak hours of excessive delay (PHED) and non-single occupancy vehicle travel (Non-SOV) in the Ohio air quality urbanized areas. The data for this metric was derived from the American Community Survey Economic Characteristics table. The table shows the progress made toward achieving the PHED and Non-SOV targets. Note that the targets are being met over the last two years in the Northeast Ohio region.

Table 5-10 Congestion Reduction Measures and Targets					
Performance Measure	Baseline (2021)	2-Year Performance (2023)	2-Year Target (2023)	4-Year Target (2025)	2-Year Target Met?
Annual Peak Hours of Excessive Delay (PHED) per Capita					
Akron Region	5.6	4.8	< 5.0	< 5.0	Yes
Canton Region	1.6	1.9	< 3.0	< 3.0	Yes
Cincinnati Region	7.1	6.1	< 9.0	< 9.0	Yes
Cleveland Region	6.8	6.5	< 21.0	< 21.0	Yes
Columbus Region	5.1	5.9	< 10.0	< 10.0	Yes
Dayton Region	6.3	6.9	< 7.2	< 7.2	Yes
Toledo Region	6.1	7.1	< 7.0	< 7.0	No

Table 5-10 | Congestion Reduction Measures and Targets

Percent of Non-Single Occupancy Vehicle (Non-SOV) Travel					
Akron Region	17.3%	19.4%	> 16.0%	> 16.0%	Yes
Canton Region	16.3%	17.7%	> 15.0%	> 15.0%	Yes
Cincinnati Region	20.0%	22.2%	> 18.5%	> 18.5%	Yes
Cleveland Region	20.6%	22.7%	> 18.5%	> 19.0%	Yes
Columbus Region	20.8%	24.0%	> 18.5%	> 19.0%	Yes
Dayton Region	18.1%	19.6%	> 16.1%	> 16.1%	Yes
Toledo Region	16.1%	17.6%	> 15.0%	> 15.0%	Yes

Projects that reduce the total number of vehicles on Ohio's roadways and those which improve traffic flow/reduce vehicle idling also contribute to the reduction in these mobile source pollutants. The tables below show projects and investments in the AMATS area that will assist in increasing Non-Single Occupancy Vehicle (Non-SOV) travel and reduce Peak Hour Excessive Delay (PHED). AMATS continues to support the two-year and four-year statewide targets which have been set by ODOT (AMATS Resolution 2022-14).

Table 5-11 | Transportation Outlook 2050 Projects Improving Non-SOV Travel

Number of Projects	Construction \$
0*	NA

* - It is likely that some transit and active transportation improvements could reduce Non-SOV travel through modal shift, but these projects and costs are not calculated because this is unknown at this point.

Table 5-12 | Transportation Outlook 2050 Projects Improving Peak Hour Excessive Delay

Number of Projects	Construction \$
31	\$351.6

Air Quality Measures

23 CFR 490.807 established the Total CMAQ Emission Reduction Performance Measures. These performance measures affect Ohio's U.S. EPA designated air quality nonattainment and maintenance areas. Ohio was required to set targets for its nonattainment and maintenance areas for the pollutants of Volatile Organic Compounds (VOCs), Nitrous Oxide (NOx), and Particulate Matter at 2.5 Micrometers in Diameter (PM2.5). The table below shows these performance measures along with their baselines, 2-year targets, and 4-year targets.

Air quality emissions reduction analyses calculate the total reduction in three mobile source (i.e. vehicle-based) pollutants: Volatile Organic Compounds (VOC), Oxides of Nitrogen (NOx), and Particulate Matter having a diameter of less than 2.5 micrometers (PM2.5).

The table below shows the on-road baseline, two-year, and four-year quantitative emissions targets for Volatile Organic Compounds (VOC), Oxides of Nitrogen (NOx), and Particulate Matter having a diameter of less than 2.5 micrometers (PM2.5). The baseline data was derived from the CMAQ Public Access System and aggregated, by state and pollutant type for the years 2018-2021. The 2018-2022 baseline data listed below is for the AMATS area. The data for the two and four-year targets was estimated from CMAQ projects in the TIP for the years 2022-2025; however, AMATS chose to support the two-year and four-year statewide targets which have been set by ODOT. Data is expressed in kilograms of pollutant per day.

**Table 5-13 | Statewide – CMAQ Funded Projects – Emissions Reduction Benefit
2022 – 2023 Evaluation**

Environmental Sustainability Measures and Targets					
Performance Measure	Baseline (2018 – 2021)	2-Year Performance (2022 – 2023)	2-Year Target (2022 – 2023)	4-Year Target (2022 – 2025)	2-Year Target Met?
Total Emissions Reduction – VOC (kg/day)	320.195	144.106	> 60.000	> 60.000	Yes
Total Emissions Reduction – NOx (kg/day)	1018.130	222.595	> 250.000	> 250.000	No
Total Emissions Reduction – PM _{2.5} (kg/day)	246.405	18.78	> 30.000	> 18.200	No

Cleveland-Akron-Lorain Air Quality Non-Attainment Area

Summit County and Portage County are part of the U.S. Census-designated eight-county Cleveland-Akron-Lorain Combined Statistical Area (CSA). This area includes: Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit counties. Based on air quality readings, the United States Environmental Protection Agency (USEPA) designated this area as marginal non-attainment for the 2015 8-hour ozone standard, excluding Ashtabula County which is a maintenance area. The US EPA designated the entire eight-county area as a maintenance area for the 2008 8-hour ozone standard.

USEPA also designated seven counties and a township in this area (including Summit and Portage) as maintenance for PM_{2.5} (particulate matter) under the 2006 standard. These areas include Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties, and Ashtabula Township in Ashtabula County.

Three Metropolitan Planning Organizations (MPOs) serve seven of these counties. The Northeast Ohio Areawide Coordinating Agency (NOACA) serves Cuyahoga, Geauga, Lake, Lorain, and Medina counties. AMATS serves Summit and Portage counties. The Erie Regional Planning Commission (ERPC) serves the City of Vermilion in Lorain County. Ashtabula County is not part of a Metropolitan Planning Organization.

The USDOT requires air quality conformity determinations every time a new TIP or Regional Transportation Plan is completed. This conformity analysis reflects the aggregate regional mobile emissions generated by vehicles using the transportation system recommended in the TIP and Regional Transportation Plan. Conformity is demonstrated when the forecasted regional emissions are below the applicable State Implementation Plan (SIP) budgets that have been established by Ohio EPA.

AMATS, NOACA and ERPC manage the transportation planning process in this non-attainment area, and coordinate on air quality issues. Consequently, AMATS has coordinated with ODOT, NOACA and ERPC in developing the Cleveland urbanized area traffic congestion (PHED and Non-SOV) targets shown above.

Federal Requirements for CMAQ Project Funding

The Congestion Mitigation and Air Quality (CMAQ) program supports two important goals of the U.S. Department of Transportation: improving air quality and relieving congestion. Reducing congestion is a key objective of federal surface transportation policy. The costs of congestion can be an obstacle to economic activity. In addition, congestion can hamper quality of life through diminished air quality, lost personal time, and other negative factors. Accordingly, the CMAQ Program includes federal funds programmatically allocated to each state for funding applicable projects.

A CMAQ project must meet three basic criteria: it must be a transportation project, it must generate an emissions reduction, and it must be in or benefit a nonattainment or maintenance area. Additionally, as with all federal-aid projects, CMAQ projects must be included in the MPO's current transportation plan and Transportation Improvement Program (TIP), or the current Statewide Transportation Improvement Program (STIP) in areas without an MPO. In nonattainment and maintenance areas, the project also must meet the conformity provisions contained in section 176(c) of the Clean Air Act (CAA) and the transportation conformity regulations. Lastly, all CMAQ-funded projects need to complete National Environmental Policy Act (42 U.S.C. 4321 et seq.) (NEPA) requirements and satisfy the basic eligibility requirements under titles 23 and 49 of the United States Code.

AMATS and ODOT each receive CMAQ funding and allocate it annually to fund applicable projects. In 2012, ODOT created the Ohio Statewide Urban Congestion Mitigation and Air Quality CMAQ Program (OSUCC). The intent of the program is to more quickly advance eligible projects that improve air quality, reduce congestion, and eliminate delay/improve safety, in addition to utilizing statewide CMAQ funding in the year funds are allocated. OSUCC is administered as a subcommittee of the Ohio Association of Regional Councils (OARC) Executive Directors. OSUCC is charged with developing protocols for managing the program, along with project selection. The CMAQ Program provides approximately \$70 plus million annually, to Ohio's eight largest Metropolitan Planning Organizations (MPOs) with populations larger than 200,000.

OSUCC/AMATS opens the program for applications once every two years. The next project solicitation will most likely occur in spring of 2025. Projects are selected on various criteria, only one of which is estimated emissions reduction benefits. Projects are not required to have quantifiable emissions reduction benefits; a criteria-based assessment is sufficient. All projects awarded annually must be entered into the FHWA's CMAQ Public Access System (PAS). Data for the CMAQ Emissions Reduction performance measure for the region is taken from the quantified benefits included in the projects listed in the PAS that have been funded in the region. The Table above lists the quantified benefits included in the PAS for the AMATS area for recent years (2022 to 2025). Further information on the joint MPO/ODOT CMAQ project process can be found in the [AMATS Funding Policy Guidelines](#).

Transit Asset Management (TAM)

Transit asset management (TAM) is a business model that prioritizes funding based on the condition of transit assets to achieve and maintain a state of good repair (SGR) for public transit assets. FTA rules establish a framework for transit agencies to monitor and manage transit assets, improve safety, increase reliability and performance, and establish performance measures in order to help transit agencies keep their systems operating smoothly and efficiently. See the Federal Transit Administration link for more information: <https://www.transit.dot.gov/regulations-and-guidance/asset-management/getting-started>

The regulations define the term "state of good repair", require that public transportation providers develop and implement TAM plans, and establish state of good repair standards and methods to measure performance for three asset categories in the AMATS area: equipment, rolling stock, and facilities.

The FTA's performance measures applicable to the AMATS area are:

- **Equipment:** The percentage of non-revenue (support and maintenance) vehicles that have either met or exceeded their useful life.

- **Rolling Stock:** The percentage of revenue vehicles (primarily buses and paratransit vehicles) that have either met or exceeded their useful life.
- **Facilities:** The percentage of facilities within an asset class with a condition rated below 3 on FTA's 1 to 5 scale to describe condition.

The AMATS planning area is served by two transit service providers: METRO RTA in Summit County and PARTA in Portage County. METRO and PARTA have each developed their own TAM plan. The TAM targets for each agency are established in the applicable TAM plan.

TAM targets are based on the condition of existing transit assets and planning investments in equipment, rolling stock, infrastructure, and facilities. The targets reflect the most recent data available on the number, age, and condition of transit assets, and capital investment plans for improving these assets.

METRO RTA and PARTA have established TAM targets for each of the applicable asset categories in its TAM plan. The targets are presented in the tables below.

Equipment

Equipment includes service vehicles and equipment not attached to or a part of a facility that has a replacement value greater than \$50,000. The following three tables provide definitions and examples of target setting for transit assets.

Table 5-14 | Equipment TAM Targets

Asset Class (NTD)	Asset Class	Performance Target	Performance Measure
Non-Revenue Vehicle	Service Lift	100% less than 10 years old	30%
Equipment	Mobile Vehicle Lift	100% less than 10 years old	100%
Equipment	Generator	100% less than 10 years old	100%

Rolling Stock Vehicles

Table 5-15 | Rolling Stock Vehicles TAM Targets

Asset Class (NTD)	Asset Class	Performance Target	Performance Measure
Bus	Heavy Duty Bus (B30-HD, B35-HD, B40-HD, B45-HD, B60-HD); Medium Duty Bus (B30-MD, B35-MD); Light Duty Bus (B30-LD)	< 40% older than 14 years	38%
Van	Accessible Vans (AV); (BSV); Converted Vans (CV); Modified Mini Van (MMV); (MV-1); Mini Vans (SMV)	< 35% older than 8 years	34%
Automobile	Automobile (AO)	< 50% older than 8 years	43%
Cut-Away Bus	LTL/LTN, LTV, LTV-FS, LTV-HC, LTV-N, LTV-S	< 20% older than 10 years	18%

Facilities

Table 5-16 | Facilities TAM Targets

Asset Class	Performance Target	Performance Measure
Passenger Facilities	0% below a "3"	0%
Maintenance Facilities	< 22% below a "3"	16%
Administrative Facilities	< 38% below a "3"	16%

AMATS Area TAM Targets

AMATS agrees to support the respective METRO RTA and PARTA TAM targets, thus agreeing to plan and program projects in the TIP that – once implemented – are anticipated to make progress toward achieving each RTA’s targets.

METRO RTA TAM Targets:

Table 5-17 METRO RTA TAM Plan Targets							
Asset Category Performance Measure	Asset Class	2025 Target	2026 Target	2027 Target	2028 Target	2029 Target	2030 Target
REVENUE VEHICLES							
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	AB - Articulated Bus	0%	0%	0%	0%	0%	0%
	AO - Automobile						
	BR - Over-the-road Bus	0%	0%	0%	0%	0%	0%
	BU - Bus	0%	0%	0%	0%	0%	0%
	CU - Cutaway Bus	20%	0%	0%	0%	0%	0%
	DB - Double Decked Bus						
	FB - Ferryboat						
	MB - Mini-bus						
	MV - Mini-van	20%	0%	0%	0%	0%	0%
	RT - Rubber-tire Vintage Trolley						
	SB - School Bus						
	SV - Sport Utility Vehicle						
	TB - Trolleybus						
	VN - Van	0%	0%	0%	0%	0%	0%
EQUIPMENT							
Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	Non Revenue/Service Automobile	50%	50%	50%	50%	50%	50%
	Steel Wheel Vehicles						
	Trucks and other Rubber Tire Vehicles	50%	50%	50%	50%	50%	50%
FACILITIES							
Condition - % of facilities with a condition rating below Economic Requirements Model (TERM) Scale	Administration	0%	0%	0%	0%	0%	0%
	Maintenance	0%	0%	0%	0%	0%	0%
	Parking Structures	0%	0%	0%	0%	0%	0%
	Passenger Facilities	0%	0%	0%	0%	0%	0%
Achieving these targets depend largely on available funding from the Federal Transit Administration							

PARTA TAM Targets:

Table 5-18 | PARTA TAM Plan Targets

Asset Category Performance Measure	Asset Class	2025 Target	2026 Target	2027 Target	2028 Target	2029 Target	2030 Target
REVENUE VEHICLES							
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	AB - Articulated Bus						
	AO - Automobile						
	BR - Over-the-road Bus						
	BU - Bus	0%	0%	0%	0%	0%	0%
	CU - Cutaway Bus	0%	0%	0%	0%	0%	0%
	DB - Double Decked Bus						
	FB - Ferryboat						
	MB - Mini-bus						
	MV - Mini-van						
	RT - Rubber-tire Vintage Trolley						
	SB - School Bus						
	SV - Sport Utility Vehicle						
	TB - Trolleybus						
	VN - Van	0%	0%	0%	0%	0%	0%
EQUIPMENT							
Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	Non Revenue/Service Automobile	0%	0%	0%	0%	0%	0%
	Steel Wheel Vehicles						
	Trucks and other Rubber Tire Vehicles	10%	10%	0%	0%	0%	0%
	Equipment with Rubber Tires	25%	25%	25%	25%	25%	25%
FACILITIES							
Condition - % of facilities with a condition rating below Economic Requirements Model (TERM) Scale	Administration	0%	0%	0%	0%	0%	0%
	Maintenance	0%	0%	0%	0%	0%	0%
	Parking Structures	0%	0%	0%	0%	0%	0%
	Passenger Facilities	0%	0%	0%	0%	0%	0%
	Storage Facilities	0%	0%	0%	0%	0%	0%

Achieving these targets depend largely on available funding from the Federal Transit Administration

TAM Investments in TO2050

METRO RTA and PARTA intend to use available funding to improve the condition of the region's transit assets. The process considers factors such as maintaining capital in a state of good repair, air quality improvements, and congestion management on highly traveled roadways.

Transit Safety Performance

FTA's Public Transportation Agency Safety Plan (PTASP) regulations established transit safety performance management requirements for providers of public transportation systems that receive federal financial assistance for public transportation under 49 U.S.C. Chapter 53.

The PTASP must include performance targets for the performance measures established by FTA in the National Public Transportation Safety Plan. The transit safety performance measures are:

- Total Number of Fatalities

- Fatality Rate: Fatalities per 100,000 Vehicle Revenue Miles (VRM)
- Total Number of Injuries
- Injury Rate: Injuries per 1,000,000 Vehicle Revenue Miles (VRM)
- Safety Events
- Safety Events per 1,000,000 Vehicle Revenue Miles (VRM)
- System Reliability (VRM/failures)

The AMATS planning area is served by two transit service providers: Akron METRO RTA and PARTA. Each RTA is responsible for developing a PTASP and establishing safety performance targets for fixed route service as well as paratransit service.

Transit Agency Safety Targets

METRO RTA established the safety targets in the table below in December 2023:

Table 5-19 METRO RTA Safety Targets							
Mode of Transit Service	Fatalities (Total)	Fatalities (per 100,000 VRM)	Injuries (Total)	Injuries (per Million VRM)	Safety Events (Total)	Safety Events (per Million VRM)	System Reliability (VRM/Failures)
Fixed Route Bus	0	0	8	0.82	25	9.55	8,949
ADA / Paratransit	0	0	0	0	5	7.79	14,792

PARTA established the safety targets in the tables below in December 2022:

Table 5-20 PARTA Safety Targets							
Mode of Transit Service	Fatalities (Total)	Fatalities (per 100,000 VRM)	Injuries (Total)	Injuries (per Million VRM)	Safety Events (Total)	Safety Events (per Million VRM)	System Reliability (VRM/Failures)
Fixed Route Bus	0	0	0	1.31	40	7.34	9,372
ADA / Paratransit	0	0	0	0	20	5.12	2,731

AMATS Transit Safety Targets

AMATS agreed to support the METRO RTA and PARTA safety targets, thus agreeing to plan and program projects in the TIP that, once implemented, are anticipated to make progress toward achieving each RTA's targets.

Section 6 | Recommendations

The ultimate output of TO2050 is its recommendations. The recommendations that follow are produced based on this planning process and the various input document reports and studies conducted prior to TO2050.

The following pages outline recommendations related to highways, transit, and active transportation networks. Each subsection includes the following:

- Overview
- Funding
- General Recommendations
- Projects Specific Recommendations

The recommendations included in Transportation Outlook 2050 are financially constrained, meaning that they must fit within the total funding estimated to be allocated to the Greater Akron area between now and 2050. All projects also conform to federal air quality requirements.

Highway Recommendations

Overview

Highways are the most utilized component of the region's transportation system. The recommendations contained in Transportation Outlook 2050 aim to preserve the existing system and improve the safety of the system. The following section contains policy and highway infrastructure recommendations to improve and maintain the region's highway network.

Funding

AMATS receives federal transportation dollars to fund highway improvements. These funds can be used for a variety of projects including roadway intersection improvements (e.g. roundabouts or reconfigurations of an intersection, traffic signals), and roadway section/corridor improvements, (e.g. changes in grading, addition of turning or driving lanes, roadway reconfigurations/ road diets). Significant highway related funding is also put toward roadway maintenance (e.g. resurfacing or reconstruction of roadways, bridge rehabilitation and replacement).

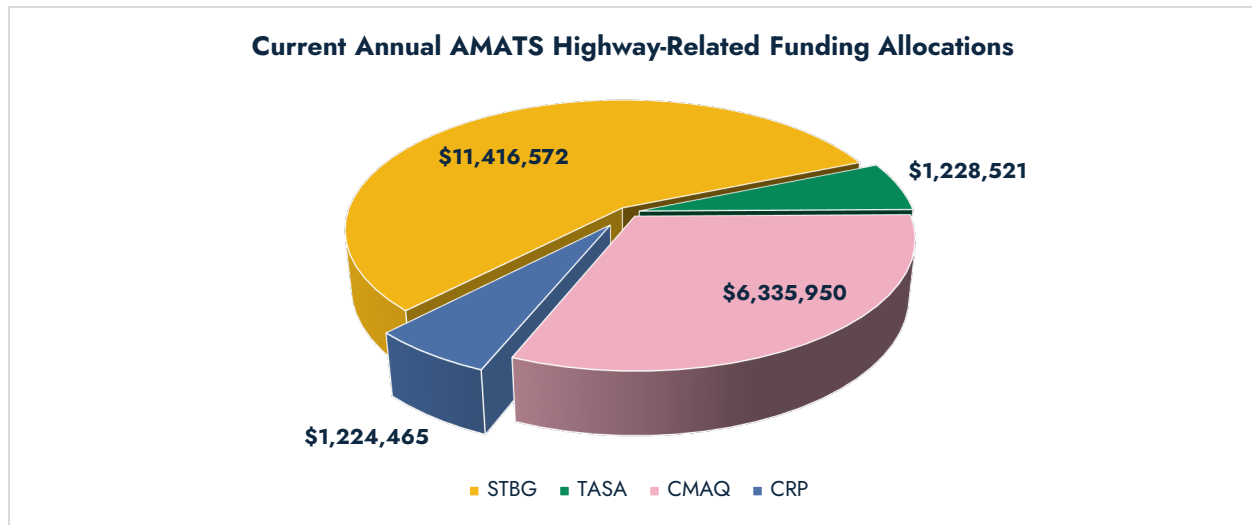
Improvements can be funded through several AMATS funding sources, each of which carry their own eligibility guidelines. All AMATS-funded projects may only be utilized on federally eligible roadways based upon the Federal Functional Classification of Highways (see map 4-1 on page 21). Local roadways and rural minor collectors are not eligible for funding.

Details of each source can be found below:

Table 6-1 | AMATS Highway Funding Programs

Funding Program	Description	Funding Available per Project
Carbon Reduction Program (CRP)	A newer funding source designed to fund projects that reduce carbon dioxide emissions from on-road highway sources. Roundabouts are the top-scoring project type, compared to other eligible activities.	\$2m maximum; 20% local match
Surface Transportation Block Grant (STBG)	Versatile funding source for a wide variety of transportation projects on federally classified collector and arterial roadways.	\$6m maximum; 10%* to 20% local match
	AMATS suballocates 50% of its STBG funding into a STBG-Resurfacing funding source. This funding is limited to full and partial depth pavement repair and sidewalk ramp projects on non-state routes	\$800,000 maximum; 10%* to 20% local match
Congestion Mitigation / Air Quality (CMAQ)	Flexible funding source for transportation projects and programs to help meet the requirements of the Clean Air Act. Eligible projects must improve air quality and relieve congestion.	No stated maximum, but the AMATS region historically receives about \$6m-\$7m per year; 20% local match
* - Local share can be reduced to 10% if sponsors elect to participate in AMATS' Project Delivery Incentive Program (PDIP), which is a program that incentivizes project sponsors to deliver their projects within a specified time window.		

AMATS currently receives around \$20 million annually for highway improvements, including Transportation Alternatives Set-Aside (TASA) funding, which is discussed within the Active Transportation subsection.



The funding received by AMATS is a substantial source of revenue for highway projects, though many projects within Greater Akron also utilize funding available through The Ohio Department of Transportation (ODOT). ODOT oversees many state-funded programs such as the popular Urban Paving Program as well as programs that utilize a combination of state and federal funding, such as the ODOT Safety funding programs. ODOT receives its revenue from federal and state gasoline taxes.

A singular project is often funded through a combination of AMATS-managed (federal) and ODOT-managed (federal and state) funding programs. Counties and municipalities also receive federal and state funding. Discretionary funding, either through competitive funding programs or earmarks, can be made available for highway projects when written into federal legislation.

Any highway project using federal funding must be consistent with Transportation Outlook 2050, regardless of whether AMATS provided the funding. Transportation Outlook 2050 is important because it gives the authority to local officials to determine collectively how federal funds are spent.

General Recommendations

Continue to Preserve Area Roads and Bridges

Preservation and maintenance of the existing roadway system may not be glamorous, but it is fundamental to a functional highway system. AMATS encourages project sponsors to focus on maintaining pavements and bridges through resurfacing, pavement replacement, and bridge maintenance activities. Interventions within a pavement cycle (e.g. chip-and-seal, crack sealant) or bridge life-cycle (e.g. bridge painting, bridge surface repair, and other interventions) typically lead to a lower life-cycle cost. In 2024, AMATS estimated that maintaining the existing system through 2050 would cost \$6.86 billion dollars, a number that exceeds the region's total expected funding within that same window. Despite the daunting dollar amount, AMATS recognizes that the longer large preservation projects are delayed, the more expensive they become.

Transportation Outlook 2050 recommends a regional preservation policy. Since 2008, AMATS has devoted dedicated funds toward a local resurfacing program (the STBG-Resurfacing program discussed previously). This program has been incredibly successful and popular throughout the region. AMATS currently allocates 50% of the total regional STBG funding toward the resurfacing program (about \$5.7 million annually) and anticipates that this program will continue.

Consider Operational and Safety Projects to be Consistent with Transportation Outlook 2050

AMATS maintains its policy that projects that improve safety conditions or contain operational improvements are consistent with Transportation Outlook 2050. In addition to the specific projects listed in Table 6-1 AMATS recognizes that it is necessary to provide flexibility within the planning process to allow for unforeseen changes, such as road sections and intersections that come onto the High Injury Network or High Crash lists. AMATS has set aside \$75 million over the life of the plan for unspecified safety and operation improvements.

Reduce Congestion by Promoting Carpooling and Encouraging Alternative Modes of Transportation

As detailed in AMATS Congestion Management Process, the AMATS region has relatively little recurring congestion. TO2050 recognizes that reducing congestion, although not as important as improving safety and maintaining the system, it is still an important issue that can have negative effects on the transportation system. AMATS supports the approach of implementing low-cost countermeasures to reduce congestion (e.g. traffic signal modernization, modest operational improvements) and recognizes that promoting alternative transportation modes can be a viable way to reduce congestion. Some of the ways AMATS will continue this advocacy are shown below:

- Promote Gohio Commute, a website that allows users to find carpooling partners and other modes of transportation.
- Continue recommendations and incentives for the inclusion of bicycle and pedestrian elements on any projects where such accommodations are feasible, promote Complete Streets, and advocate for these modes at various community events.
- Continue its strong partnerships with regional transit agencies—METRO and PARTA—and encourage their efforts to increase ridership and continue to provide convenient and positive ridership experiences.

Increase Areawide Focus on the Optimization of Traffic Signals

AMATS has invested heavily in coordinated signals throughout the Greater Akron area over the past two decades. In 2023, AMATS began work on undertaking a regional signal inventory to understand the issues and priorities across the nearly 1,000 signals within the planning region. This project, which is very near completion, will allow AMATS to make more informed decisions about the needs of various signalized intersections. One way this could be done is through the creation of a signal timing optimization program to provide grant funding for communities to invest in signal operation improvements—something AMATS staff recommend and plan to discuss with AMATS committees once the signal inventory is complete.

Connecting Communities Planning Grant Program

In 2010, AMATS published *Connecting Communities: A Guide to Integrating Land Use & Transportation*, to encourage the integration of land use and transportation planning, and to promote and target investment toward alternative modes of transportation. Since that time, AMATS created a program to provide funds for studies that supports the goals of Connecting Communities. As of 2025, Connecting Communities planning grants have been awarded to 15 recipients, and the improvements recommended within these studies have led to multiple infrastructure investments in the Greater Akron area. AMATS will continue administering the Connecting Communities Planning Grant Program and continue emphasizing the integration of land use and transportation planning.

Project Recommendations

\$6.87 Billion of Highway Transportation Infrastructure Investments

Transportation Outlook 2050 recommends nearly \$7 billion dollars of highway infrastructure investments through 2050 in year of expenditure dollars. This funding includes over \$5.7 billion for preservation of the existing system, \$163 million specifically for freeway recommendations, \$391.8 million for specific roadway projects, and \$75.2 million toward general safety and other operational improvements in the AMATS area. Two important notes:

- The \$6.87 billion total amount also includes \$35 million toward the Active Transportation improvements described in the Active Transportation Recommendations subsection).
- Some of these roadway investments include elements that would provide specific benefits to transit operations (e.g. Complete Streets improvements, corridors designed to allow for improved transit operations).

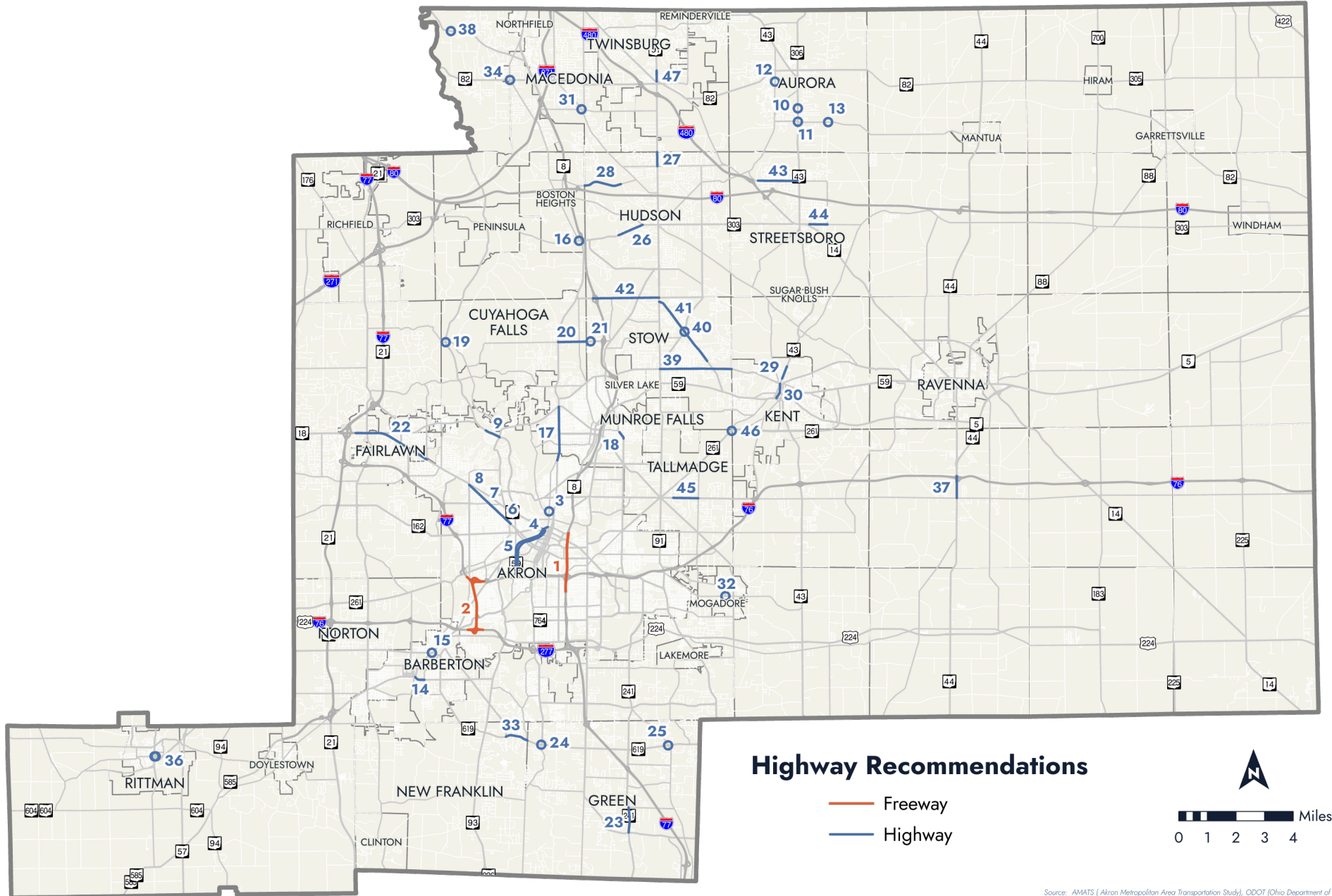
The following table shows Long-Term Highway projects recommended in Transportation Outlook 2050. All projects are financially constrained and conform to air quality requirements.

Table 6-2 | Highway Recommendations

Maintenance Recommendations					Current Cost	
	Pavement Resurfacing	(65 Percent of Need Identified in Preservation Needs Report)			\$ (1,233,134,550.05)	
	Pavement Replacement	(65 Percent of Need Identified in Preservation Needs Report)			\$ (77,686,700)	
	Bridge Preservation	(65 Percent of Need Identified in Preservation Needs Report)			\$ (2,892,879,574)	
AMATS Program 2026-2029						
	AMATS Programmed Projects				\$ (485,483,521)	
AMATS Ongoing Regionwide Improvements						
	Safety and Operational				\$ (75,208,000)	
	Bicycle and Pedestrian				\$ (35,003,645)	
Freeway Recommendations						
Map ID		Recommendation	From	To	Current Cost	
1		I77/SR8 Corridor Improvements	Lovers Lane	Perkins St	\$ (77,000,000)	
2		I-76 "Kenmore Leg" Improvements to increase capacity and improve safety	I-76 @ I-277 Ramp	North of I-76 @ I-77 ramp	\$ (86,000,000)	
Roadway Recommendations						
Map ID	Community	Recommendation	From	To	Current Cost	
3	Akron	Roundabout (or other intersection improvements)	Glenwood Ave. @ N. Howard St.		\$ (3,000,000)	
4	Akron	Reconnecting Communities Improvements, new street connections and placemaking along former/current freeway	Innerbelt Vicinity (Exact Locations TBD)			\$ (20,000,000)
5	Akron	Rand and Dart Avenue Road reconfigure/function	Boulevard Street	W. Market Street	\$ (12,000,000)	
6	Akron	Phase 1 W. Exchange St. Complete Streets and Reconstruction	Jefferson Ave.	Portage Path	\$ (4,700,000)	
7	Akron	Phase 2 W. Exchange St. Complete Streets and Reconstruction	Clemmer Ave.	Jefferson Ave.	\$ (5,000,000)	
8	Akron	Phase 3 W. Exchange St. Complete Streets and Reconstruction	S. Hawkins Ave.	Clemmer Ave.	\$ (5,000,000)	
9	Akron	Merriman Road Improvements: Corridor Improvements including road diet/complete streets, poss. roundabout(s)	0.25 miles west of Weathervane Pl.	Portage Path	\$ (18,000,000)	
10	Aurora	Left Turn Lane at Intersection	SR 43/Chillicothe Rd. @ Kingston Dr.		\$ (2,500,000)	
11	Aurora	Intersection Improvements	SR 43/Chillicothe Rd. @ S. Mennonite Rd.		\$ (2,500,000)	
12	Aurora	Intersection Improvements	Bissell Rd. @ Pioneer Trail		\$ (2,500,000)	
13	Aurora	Intersection Improvements	Mennonite Rd. @ Page Road		\$ (2,500,000)	
14	Barberton	Robinson Rd. Road Diet, Reconstruction, Safety Upgrades, Ped. Improvements	Wooster Rd. North	Van Buren Ave.	\$ (6,600,000)	
15	Barberton	Peanut Roundabout	Wooster Rd. North @ Norton Ave. and other nearby streets		\$ (6,800,000)	
16	Boston Heights	Signal Improvements	Olde Eight Rd. @ SR 303/Streetsboro Rd.		\$ (300,000)	
17	Cuyahoga Falls	State Rd. Improvements	High Level Bridge Over Cuyahoga River	Portage Trail	\$ (20,000,000)	
18	Cuyahoga Falls	S. Bailey Road Improvements including streetscaping, Complete Streets, enhancements at Northmoreland Rd.	200' south of Northmoreland Rd.	Myrtle Ave.	\$ (4,000,000)	
19	Cuyahoga Falls	Intersection Improvements, Possible Roundabout	Riverview Rd. @ Ira Rd.		\$ (2,500,000)	
20	Cuyahoga Falls	Steels Corners Widening and Shared-Use Path	State Rd.	Eastern Corp Limits	\$ (9,000,000)	
21	Cuyahoga Falls / Stow	Steels Corners Bridge Replacement	Over Mud Brook		\$ (20,000,000)	
22	Fairlawn	W. Market St. Corridor Safety Improvements and Reconstruction	Springside Dr.	N. Revere Rd.	\$ (24,000,000)	
23	Green	Massillon Road Improvements (TWLTL)	Greensburg Rd.	Wise Rd.	\$ (4,000,000)	
24	Green	Roundabout (or other intersection improvements)	SR 619/E. Turkeyfoot Lake Rd. @ S. Main St.		\$ (2,500,000)	
25	Green	Roundabout (or other intersection improvements)	SR 619/E. Turkeyfoot Lake Rd. @ Mayfair Rd.		\$ (2,000,000)	
26	Hudson	SR 303/W. Streetsboro Rd. Intersection Safety Improvements	Nicholson Dr.	Boston Mills Rd.	\$ (1,000,000)	
27	Hudson	SR 91 TWLTL	Middleton Road	Northern Corp Limits	\$ (4,000,000)	
28	Hudson	Hines Hill Road Improvements	Western Corp. Limits	Future NS Rail Overpass	\$ (6,000,000)	
29	Kent	SR 43 Traffic Calming and Ped Safety Improvements	Stinaff St.	Roosevelt High School Entrance	\$ (1,000,000)	
30	Kent	SR 43 (River St./Gougher St.) Safety Issues: restriping, add parking, sidewalks, road diet	SR 59/Haymaker Pkwy.	Fairchild Ave.	\$ (2,900,000)	
31	Macedonia	Intersection Improvements	Highland Rd. @ Valley View Rd.		\$ (3,600,000)	
32	Mogadore	Signal Improvements	Mogadore Rd. @ Gilchrist Rd.		\$ (400,000)	
33	New Franklin	W. Turkeyfoot Lake Rd. Improvements	State Street	Eastern Corp Limits	\$ (3,000,000)	
34	Northfield Center Twp.	Roundabout	Olde Eight Rd. @ Brandywine Rd. and SR 82/Aurora Rd.		\$ (2,600,000)	
35	Rittman	Intersection and Streetscape Improvements	N Main St @ E Ohio Ave		\$ (2,800,000)	
36	Rittman	Intersection Improvements	Ohio St @ E Ohio Ave		\$ (2,200,000)	
37	Rootstown Twp.	SR 44 Corridor Improvements	Tallmadge Road/C.H. 18	I-76	\$ (20,000,000)	
38	Sagamore Hills Twp.	Roundabout	Valley View Rd. @ Chafee Rd.		\$ (2,400,000)	
39	Stow	Graham Road Improvements: TWLTL, wide sidewalks, intersection improvements	SR 91/Darrow Rd.	Newcomer Rd.	(15,000,000)	
40	Stow	Intersection Improvements	Fishcreek Rd. @ Stow Rd.		\$ (1,500,000)	
41	Stow	Fishcreek Rd. Turn Lane Improvements	Laurel Woods Blvd.	SR 91/Darrow Rd.	\$ (1,000,000)	
42	Stow	Norton/Seasons Rd. Wider Lanes and Roadway Improvements	SR 8	SR 91/Darrow Rd.	\$ (8,000,000)	
43	Streetsboro	Frost Road Corridor Improvements	150' East of Phillip Pkwy./David Dr.	300' West of SR 43	\$ (9,100,000)	
44	Streetsboro	SR 303/Streetsboro Rd. Improvements	300' East of SR 14	Page Rd.	\$ (8,000,000)	
45	Tallmadge	East Avenue Corridor Improvements	Cambrian Dr.	N./S. Munroe Rd.	\$ (7,400,000)	
46	Tallmadge	Roundabout	SR 261/Northeast Avenue @ Middlebury Rd.		\$ (3,500,000)	
47	Twinsburg	SR. 91 TWLTL	Ravenna Rd.	Tinkers Creek Bridge	\$ (3,000,000)	

Note: TWLTL = Two-way Left Turn Lane; Peanut Roundabout = Elongated roundabout shaped like a peanut that incorporates multiple intersections

Map 6-1 | Highway Recommendations



Active Transportation Recommendations

Overview

Active Transportation facilities are an essential part of the overall transportation system throughout the Greater Akron area. Active transportation provides a low-cost and environmentally friendly means of transportation, and active transportation can provide physical and mental health benefits that increase peoples' quality of life. Bicycling and walking are efficient transportation modes for short trips and, where convenient intermodal systems exist, these nonmotorized trips can easily be linked with transit to significantly increase trip distance. Because of the benefits they provide, bicycle and pedestrian facilities should be given the same priority as is given to other transportation modes. Cycling and walking should not be an afterthought in roadway design.

AMATS has a long history of planning for active and multi-modal transportation systems. TO2050 will build on recent and past efforts including the 2024 Active Transportation Plan. AMATS envisions a Greater Akron area in which biking and walking are not only integral parts of daily life, but vital components of a first-class, multimodal transportation system. AMATS also understands that a high-quality active transportation network provides essential access for those who do not own cars. Rather than viewing these networks as generally separate entities as has been done in the past, AMATS urges area communities and project sponsors to identify and pursue opportunities to link these networks to transit networks for the benefit of all transportation users.

A variety of bicycle and pedestrian facilities exist throughout the Greater Akron area, and the active transportation network grows each year. This network includes separated trails (shared-use paths), sidewalks, bicycle lanes, and various elements that allow for a safer coexistence between active transportation users and vehicles (e.g. signs, higher-visibility crosswalks, pedestrian signals).

The recommendations contained in TO2050 are primarily focused on expanding active transportation networks through additional facilities and making safety improvements to the region's roadways that benefit bicycle and pedestrian networks.

Funding

AMATS' primary mechanism to federally fund bicycle and pedestrian improvements is through the Transportation Alternatives Set-Aside Program (TASA). AMATS currently receives about \$1.2 million in TASA annually. All TASA projects must relate to surface transportation and address a transportation need, use or benefit. Preliminary engineering, right-of-way and construction are eligible project costs. Planning is an eligible project phase only for Safe Routes to School (SRTS) District Travel Plans provided that the sponsor has first pursued and secured funding from the Ohio Department of Transportation SRTS Program.

The AMATS programs described in Table 6-1 — particularly STBG, but in some cases CRP and CMAQ—can also be utilized to build active transportation facilities. When non-TASA AMATS funding is used to construct active transportation improvements within the AMATS area, this is typically done as part of a larger corridor improvement program.

Details of the TASA program are included on table 6-3 below.

Table 6-3 | AMATS Active Transportation Funding Program

Funding Program	Description	Funding Available per Project
Transportation Alternatives Set-Aside (TASA)	This source provides funding for bicycle and pedestrian facilities. Funding for TASA projects is assigned to MPO areas by Congress and, in addition, ODOT sub allocates a portion of their statewide TASA funding to Ohio MPOs.	\$1m; 10%* to 20% local match
* - Local share can be reduced to 10% if sponsors elect to participate in AMATS' Project Delivery Incentive Program (PDIP), which is a program that incentivizes project sponsors to deliver their projects within a specified time window.		

Many bicycle and pedestrian improvements are most effectively implemented at the outset of roadway or transit project funding and construction. While all projects represent important steps for improving AMATS bicycle and pedestrian environment, limited financial resources require that most regional bicycle and pedestrian projects use a variety of federal, state and local sources. It is therefore suggested that many regional off-road trails rely on local initiative and commitment where member communities seek additional funding. Any bicycle or pedestrian project using federal funds must be consistent with TO2050, regardless of whether AMATS provides the funding. TO2050 gives local officials the authority to determine collectively how federal funds are allocated.

General Recommendations

Prioritize High Community Benefit Projects and Allow for Flexibility

TO2050 supports the infrastructure goals of the *AMATS 2024 Active Transportation Plan*: building or improving shared use paths, sidewalks, increasing bike lane mileage and improving on-road pavement quality for bicycles. TO2050 recommends that funding is focused on implementing these goals where they will provide the highest levels of community benefit. While it is important to develop a long-range plan, it is also necessary to provide flexibility in the planning process to allow for unseen developments. TO2050 ensures that transportation improvements are planned and coordinated on a regional basis. It is AMATS policy that projects coupled with safety improvements, such as bicycle and pedestrian amenities, must be consistent with TO2050 to be eligible for federal funding.

Convert Existing Roadways to Complete Streets Where Feasible and Logical

Complete Streets are designed with all users in mind: vehicular drivers and passengers, transit users, pedestrians, bicyclists, and micromobility users. AMATS strongly encourages communities to consider the needs of each of these users and to design roadways to accommodate these needs whenever practical. In most cases, particularly in high and medium density areas, people like to have options for getting around town. Bike lanes, bus lanes, bus shelters, sidewalks, crosswalks, refuge islands, curb bump-outs, and roundabouts are all components of a complete street that can improve safety for everyone. Making a street welcome to everyone can improve the vitality of an area and make it a place where people want to be.

Encourage Communities to Create Safe Routes to Schools Travel Plans and Apply for Funding

Safe pedestrian and bicycle access to schools is important yet often lacking. AMATS encourages communities and school districts to consider high-quality, safe active transportation infrastructure near schools. The Ohio Safe Routes to School (SRTS) Program supports projects and programs that improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. SRTS programs examine conditions around schools and conduct projects and activities that work to improve safety and accessibility in the vicinity of schools. The most successful SRTS programs incorporate the Five E's: Engineering, Education, Enforcement, Encouragement, and Evaluation.

The development of a School Travel Plan (STP) is a requirement of the SRTS Program to be eligible for infrastructure improvements. The STP outlines a community's plans for engaging students in active transportation. The STP involves key community stakeholders to identify barriers to active transportation and develop a set of solutions to address them. Several area school districts have an active STP and are therefore eligible to apply for SRTS funding; something many communities have done successfully. Although developing a STP takes time, effort, and money (either through consultants or staff time), AMATS communities with STPs have seen the value through the implementation of important projects. Prioritizing pedestrian safety and improvements near schools provides an opportunity to work closely with schools, communities, and local government to create a healthy lifestyle for children—and a safer and cleaner environment for everyone.

Consider Road Diets on Roadways That Can Support Fewer Driving Lanes

A road diet is a technique that can be used to slow the speed of traffic and improve safety. Road diets occur when the numbers of lanes or lane widths are reduced to promote a slower vehicle speed and accommodate other uses such as bike lanes, bus lanes, parking, pedestrian refuge islands, or more sidewalk space. In 2015, AMATS compiled the Road Diet Analysis, which identified dozens of candidates for road diets across the Greater Akron area, many of which have since taken place. The analysis is a useful planning resource that defines the road diet concept, identifies potential road diet locations, and serves as a guide to member communities to consider the design and application of road diets in certain locations. AMATS intends to update this plan and measure the effectiveness of implemented road diets.

Encourage Traffic Calming to Reduce Vehicle Speeds

AMATS continues to support the consideration of methods used to calm, or slow down, vehicular traffic on streets, thereby making streets safer for pedestrians/bicyclists. Traffic calming measures should especially be considered in areas that experience high volumes of pedestrian and bicycle traffic. Traffic calming methods typically make neighborhoods safer, more pleasant, and more livable. Traffic calming is a broad term and can be achieved through several methods—typically several are used in tandem to achieve the desired calming effect. Popular and proven traffic calming effects include but are not limited to:

- Higher visibility crosswalks, sometimes including contrasting textures (such as brick or stamped asphalt), raised pedestrian crossings, signage or signalization
- Curb bump-outs/extensions
- Street trees within the treelawn/devilstrip
- Dynamic feedback signage
- Narrowing driving lanes or even reducing travel lanes (road diets) where appropriate

Traffic calming can entail physical changes to the road itself or the spaces around the road. Traffic calming can be inexpensive (changing a street's paint markings or adding signage) or involve more significant changes to a roadway. Many elements of traffic calming have psychological effects on drivers; a successful approach provides cues to drivers that they should slow down. Over decades of use, these measures have been proven to reduce accidents, collisions, noise, vibration, pollution, and crime. Traffic calming is most often found in downtowns or

urban centers due to their high levels of pedestrian activity, though they may also be implemented in less dense neighborhoods.

Project Recommendations

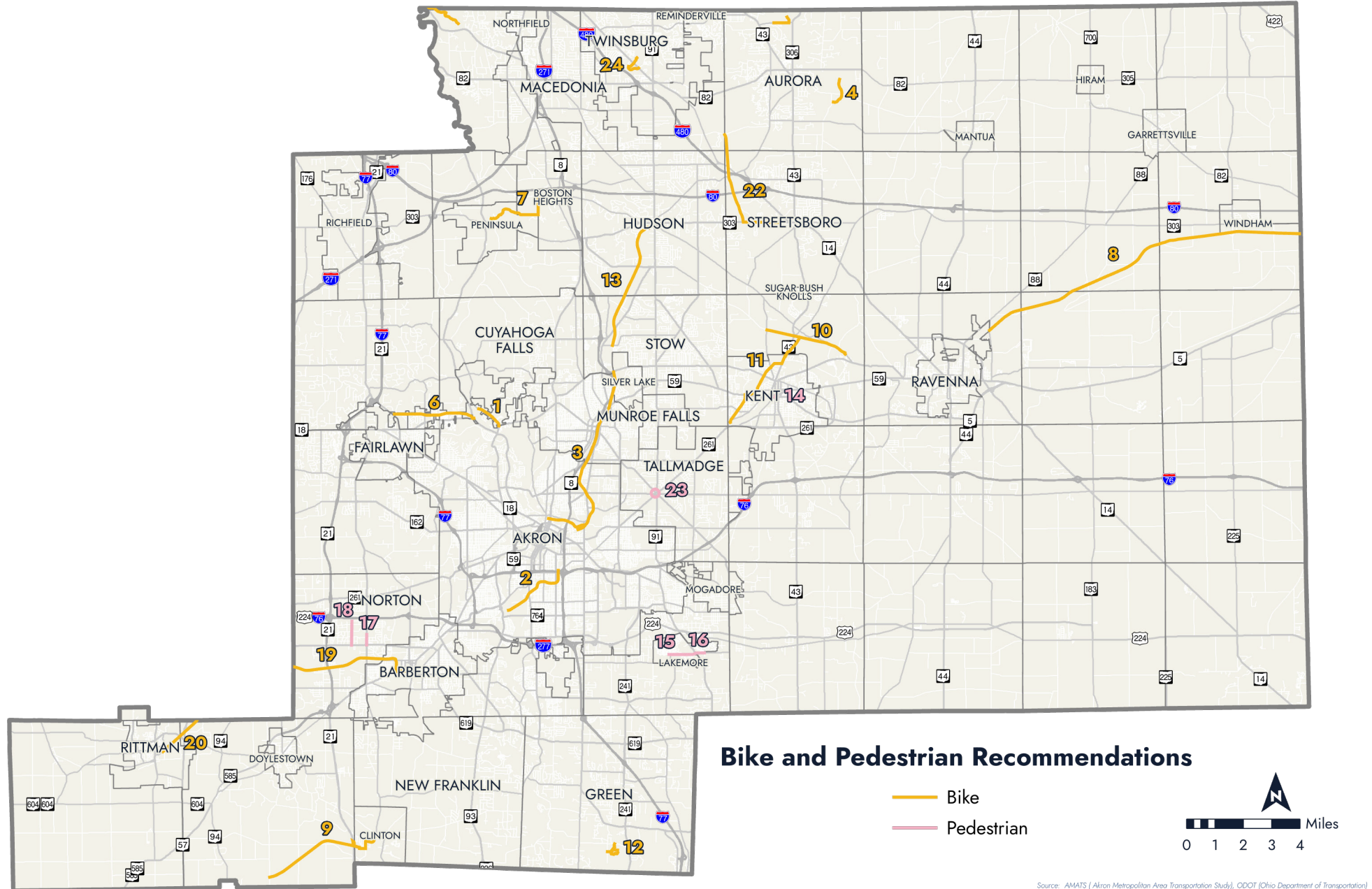
\$35 Million Toward Active Transportation Improvements

The Long-Term Bicycle and Pedestrian Recommendations tables and maps on the following pages contain various recommendations that allow for safe and convenient bicycle and pedestrian transportation within the region. Project costs are shown in current dollars for the entire project. *Appendix B* shows costs inflated to year of expenditure and federal share, totaling \$35 million in federal investment. All projects are financially constrained and conform to air quality requirements.

Table 6-4 | Bicycle and Pedestrian Recommendations

Bicycle and Pedestrian Recommendations						
Map ID	Community	Name	From	To	Distance	Cost (Current)
1	Akron	Akron-Peninsula Road Multi-Use Path	Portage Trail	1500' NW of Hampton Knoll Dr.	0.89	\$ 1,950,000
	Akron	Summit Lake Pedestrian Improvements	TBD		TBD	\$ 1,500,000
2	Akron	Rubber City Heritage Trail	Towpath Trail	Johnson Street	3.08	\$ 12,700,000
3	Akron / Cuyahoga Falls / Silver Lake / Stow	Veterans Trail / Akron Secondary	Freedom Trail and CVSR Northside Station	Graham Road	8.46	\$ 12,000,000
4	Aurora	Aurora Trail Connection	Sunny Lake	Future Headwaters Trail	1.02	\$ 1,500,000
5	Aurora	Aurora Trail Connection	Treat Rd.Quarry	Future Headwaters Trail	0.75	\$ 1,100,000
6	Bath Twp. / Akron / Cuyahoga Falls	Sourek Corridor Trail	Ghent Rd METRO RTA Park & Ride	Towpath Trail	3.32	\$ 5,000,000
7	Boston Heights/Peninsula	Connector Trail - Old Akron-Peninsula Rd. ROW	Towpath Trail	Bike & Hike Trail	2.48	\$ 3,500,000
8	Charleston Twp. / Freedom Twp. / Windham Twp. / Windham	Conrail Freedom Secondary Trail	Peck Rd	Portage/Trumbull County Line	11.88	\$ 14,850,000
9	Clinton	Heartland Trail Extension, Connection to Towpath	Coal Bank Road	Towpath Trail	5.11	\$ 7,000,000
10	Franklin Twp./Kent	Franklin Connector	Hudson Rd	Ravenna Rd	2.10	\$ 3,500,000
11	Franklin Twp./Kent	Lake Rockwell Trail	Freedom Trail	Franklin Connector	4.21	\$ 5,000,000
12	Green	Willadale Trail	Koons Rd.	Massillon Rd.	0.65	\$ 1,000,000
13	Hudson/Stow	Veterans Trail/Akron Secondary	Springdale Rd	Veterans Park	4.6	\$ 6,900,000
14	Kent	Franklin Avenue Sidewalks	Summit St.	Erie St.	0.2	\$ 300,000
15	Lakemore	Sanitarium Rd. Sidewalks Phase 1	2nd	Spartan Trail	0.61	\$ 550,000
16	Lakemore	Sanitarium Rd. Sidewalks Phase 2	Spartan Trail	Brittany	0.55	\$ 550,000
	Lakemore	Misc Lakemore Walkway Improvements (Lake, 5th)	All High Priority Improvements on Lakemore CC Study			\$ 550,000
17	Norton	Cleveland Massillon Rd	Greenwich Rd	Norton Branch Library	0.37	\$ 600,000
18	Norton	Easton Rd	Greenwich Rd	Oser Rd	0.85	\$ 1,530,000
19	Norton/Barberton	3 Creeks - Silver Creek Trail	Silvercreek Rd (Wadsworth)	Magic Mile	5.55	\$ 8,000,000
20	Rittman/Chippewa Twp	County Line Trail (North Extension)	County Line Trail terminus	Medina County line	1.64	\$ 2,460,000
21	Sagamore Hills Twp.	Sagamore Connector Trail	Towpath Trail	Bike & Hike Trail (near Valley View)	1.5	\$ 3,200,000
22	Streetsboro	Streetsboro Trail Connection	Tinkers Creek/Old Mill Rd	Clare Wilcox Park	4.58	\$ 6,000,000
23	Tallmadge	Pedestrian Tunnel	West Ave	Northwest Ave	0.1	\$ 2,000,000
24	Twinsburg	Park Loop Trail	Center Valley Bikeway	Center Valley Bikeway	0.92	\$ 1,380,000
						\$ 104,620,000

Map 6-2 | Active Transportation Recommendations



Transit Recommendations

Overview

The availability of a comprehensive, reliable transit network is key to helping those who lack (or are unable to use) automobile transportation get to work, have access to shopping and services, and complete other important daily tasks. A convenient transit network can also draw choice-riders: Those who have access to automobiles but choose to use transit for reasons of ease, affordability and convenience. The recommendations contained in Transportation Outlook 2050 will work to preserve the existing transit system, provide enhanced service in key high-volume corridors and allow for strategic expansion into new communities that contain high densities of jobs, retail and other attractions.

Funding

AMATS receives federal transportation dollars to fund transit projects and improvements. Most of this federal transit funding comes from programs specifically dedicated to transit, although transit may also receive a portion of the funds from certain programs designed for highway and transit funding.

Federal transit funds are typically used only for capital expenses, such as for the purchase of new buses, bus shelters and maintenance, garage or office facilities. Operating expenses, such as bus operator salaries and a portion of preventive maintenance, are typically paid for through local sources (fare box revenues, transit-dedicated sales tax, etc.). However, certain funding programs may be used to supplement operating expenses, on a limited basis. The primary federal funding sources used to fund transit include:

Table 6-5 AMATS Transit Funding Programs	
Funding Program	Description
Section 5307	This is the primary source of federal funding for capital and maintenance projects. These funds are typically used to purchase new buses, equipment, and for preventative maintenance and planning.
Section 5310	Also known as the Specialized Transportation Program, these funds may be used for capital or operating expenses tailored to better serving elderly persons and persons with disabilities.
Section 5339	This source is somewhat similar to 5307 in that can also fund capital projects. These funds are also used for new buses or for capital facilities.

There is no funding cap for any of these programs.

The Federal Transit Administration's (FTA) Urbanized Area Formula Program (Section 5307) and the FTA Bus and Bus Facilities Program (Section 5339) are the largest sources of federal transit funding. The 5307 and 5339 programs use a formula to allocate funding to urbanized areas. AMATS receives around \$11 million annually for the Akron Urbanized Area and the portion of the AMATS planning area that lies within the Cleveland Urbanized Area. These funds are split between METRO and PARTA, generally in proportion to their respective county's share of the total regional population.

Two federal sources from the Federal Highway Administration (FHWA)—Congestion Mitigation/Air Quality Program (CMAQ) and Carbon Reduction Program (CRP)— provide funds that may be used on projects demonstrating an improvement in air quality and congestion reduction. Although most of this funding is typically allocated towards regional highway projects, AMATS traditionally obtains a portion of CMAQ for local transit projects. Both CMAQ and CRP are described in Table 6-1 within the Highway Recommendations subsection.

Other sources of transit funding are periodically made available from the federal government or the Ohio Department of Transportation, often in the form of competitive grant programs. Any transit project using federal funding must be consistent with Transportation Outlook 2050, regardless of whether AMATS provided the funding.

General Recommendations

Invest in the Preservation of the Existing Transit Network, Assets, and Supporting Facilities

The majority of federal transit funding will be used to preserve the existing transit network, assets and supporting facilities in the AMATS region. Transit service is not useful unless it is predictable and dependable.

Transportation Outlook 2050 continues AMATS' longstanding policy of working with METRO and PARTA to ensure that they have the resources necessary to maintain their existing levels of service and to serve their existing customer base efficiently. To that end, AMATS will continue to support the preservation and maintenance of METRO and PARTA's bus fleets and other capital assets and facilities.

Ensure That Transit is an Integral Component of Land Use Planning Efforts

Sound land-use decisions and future development can improve the public transportation network, and quality transit services can allow development to occur more responsibly. This can be achieved in several ways:

- Bus rapid transit (BRT) provides dedicated service routes with higher speeds, improved wait times and more reliability. It can take the shape of dedicated bus lanes, additional stop infrastructure such as improved waiting environments, or signal prioritization. Bus rapid transit works particularly well in corridors containing dense employment, attractions and residential areas. In 2023, METRO studied several potential corridors for bus rapid transit and remains interested in building a BRT system. While feasibility of routes is still being fine-tuned, one likely area of focus would primarily run along South Arlington Road and connect into the RKP Transit Center in downtown Akron.
- Transit Oriented Development (TOD) is typically high-density development along a transit line that benefits from having consistent transit presence on the corridor. With the potential of bus rapid transit in the Greater Akron area, the transit agencies should also pursue joint development opportunities with private investors to create transit-oriented development near fixed-route service.
- Advocating for new development in the right places is important because it is important to locate jobs—especially when employees use transit—in areas where service exists or can be provided. Having transit agencies involved in regional employment conversations helps inform the planning process.

Optimize Transit Service

Various technologies, such as scheduling software for service or personnel, can assist transit agencies by making operations more efficient. PARTA recently invested in ITS improvements. Technology can allow for service improvements too. For example, microtransit, a demand response type service with integrated web applications that can provide flexibility for ridership where fixed-route transit service isn't warranted, can provide a nimbler service allowing riders to schedule services on the same day and pay a fixed cost to ride. Both METRO and PARTA will continue to focus on microtransit hubs over the life of Transportation Outlook 2050. Microtransit is expected to potentially replace some fixed-line service and costs associated with changes to the route structure would be absorbed into existing operation costs and be considered revenue/cost-neutral.

Both METRO and PARTA also periodically study current service to adjust to new travel patterns and needs of their riders. METRO did this in 2023 and PARTA is currently doing this.

Continue and Build Upon the Coordination and Collaboration Between Agencies

At the local level, most transit agencies are funded primarily through transit-dedicated sales taxes. Consequently, they face significant political pressure to confine service within their county borders. Philosophically, the primary role of a transit agency should be to transport their ridership to whatever destination is necessary. Northeast Ohio is a region of many counties and overlapping urban areas, and the demand to travel between them is significant. METRO, PARTA and SARTA (the Stark County/Canton public transit agency) currently provide service to limited cross-county destinations. Transportation Outlook 2050 recommends a more integrated, regional transit network – between Summit and Portage counties and beyond.

\$2.4 Billion of Public Transit Investment

Transportation Outlook 2050 recommends just under \$2.5 billion of investment in the region’s public transportation system through 2050. Of that investment, \$1.8 billion will be dedicated to general operating expenses of the existing system, \$211 million will be reinvested to preserve the existing bus fleet, and approximately \$109 million will be allocated toward expansion of the regional public transportation system, including capital (facilities) and operating costs. The following table shows the projects recommended in Transportation Outlook 2050. All projects are financially constrained and conform to air quality requirements.

Table 6-6 Transit Recommendations	
METRO	Cumulative Costs
Operating Expenses – Base Service	\$ (1,802,441,948)
Micro-Transit – Demand Response	
Capital Expenditures – Base Service	
Annual Bus Fleet Expenditures	\$ (204,680,000)
Bus Shelter and Stop Enhancements	\$ (5,500,000)
Operating Expenses – Additional Service	
BRT Service Priority Corridor	\$ (13,790,922)
Capital Expenses – Additional Service	
BRT Buses and Infrastructure	\$ (23,677,017)
Maintenance Facility	\$ (40,622,333)
Administration Facility – TOD	\$ (31,407,800)
PARTA	Cumulative Costs
Operating Expenses – Base Service	\$ (265,815,278)
Micro-Transit – Demand Response	
Capital Expenditures – Base Service	
Annual Bus Fleet Expenditures	\$ (77,821,702)
Bus Shelter and Stop Enhancements	\$ (156,394)
Capital Expenses – Additional Service	
Ravenna / Northern Hub	\$ (1,183,851)

Appendix A | Air Quality Analysis

Introduction

The purpose of this appendix is to document the manner in which transportation conformity is demonstrated for Transportation Outlook 2050.

Summit County and Portage County are part of the U.S. Census-designated eight-county Cleveland-Akron-Lorain Combined Statistical Area (CSA). This area includes the counties of Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit. Based on air quality readings, the United States Environmental Protection Agency (USEPA) designated this area as serious nonattainment for the 2015 8-hour ozone standard, excluding Ashtabula County. The USEPA designated the entire eight-county area as a maintenance area for the 2008 8-hour ozone standard. “Nonattainment” is a technical term in air quality that means an area has too much of one of the nation’s most widespread and dangerous air pollutants, such as ozone. It means that an area must clean up emissions to reach, or “attain” the official health-based limits for that pollutant.

USEPA also designated six counties as a maintenance area under the 2006 annual PM_{2.5} (particulate matter) standard. These areas include Cuyahoga, Lake, Lorain, Medina, Portage, and Summit Counties. In addition, the USEPA designated Cuyahoga and Lorain counties as a maintenance area under the 2012 annual PM_{2.5} standard.

Two Metropolitan Planning Organizations (MPOs) serve seven of these counties. The Northeast Ohio Areawide Coordinating Agency (NOACA) serves Cuyahoga, Geauga, Lake, Lorain, and Medina counties. The Akron Metropolitan Area Transportation Study (AMATS) serves Summit and Portage counties. The Erie Regional Planning Commission (ERPC) serves the City of Vermilion in Lorain County. Ashtabula County is not part of a Metropolitan Planning Organization.

New United States Department of Transportation (USDOT) conformity determinations are required every time a new Transportation Improvement Program (TIP) or Regional Transportation Plan is completed or updated. New emissions analyses are required to meet the conformity rule requirement of using the latest planning assumptions. AMATS has updated its travel demand model to conduct this analysis considering the latest planning assumptions.

This conformity analysis reflects the aggregate regional mobile emissions generated by vehicles using the transportation system recommended in the Regional Transportation Plan and TIP. Conformity is demonstrated when the forecasted regional emissions are below the applicable State Implementation Plan (SIP) budgets that have been established by Ohio EPA.

Before analysis began, an interagency consultation call (IAC) took place on November 13, 2024. The Minutes from the IAC are included on page A-8.

Methodology

In order for the Cleveland-Akron-Lorain area to complete the regional emissions analysis, the overall level of pollution (both ozone and PM_{2.5}) resulting from mobile sources must be forecasted.

The ozone-related portion of this air quality analysis must demonstrate that daily Volatile organic compounds (VOC) and nitrogen oxides (NO_x) emissions from mobile sources will not exceed those established in the budget contained in the SIP for ozone, which sets the allowable limits for each pollutant in the Cleveland-Akron-Lorain area. The budgets for the 2015 8-hour ozone standard are from the 2008 SIP and were set on January 6, 2017. The budgets for the 2008 8-hour ozone standard are based on the 1997 SIP and were set on March 19, 2013. The ozone analyses are shown in Tables A-1 and A-2.

Similarly, the PM_{2.5}-related portion of the air quality analysis has to demonstrate that annual direct PM_{2.5} and nitrogen oxides (NO_x) emissions from mobile sources will not exceed those found in the budget established by Ohio Environmental Protection Agency (OEPA). The budgets for the 2006 PM_{2.5} standard were set on July 26, 2013. The budgets for the 2012 PM_{2.5} standard are based on the 2012 SIP and were set on December 26, 2018. The PM_{2.5} analyses are shown in Tables A-3 and A-4.

The AMATS and ODOT are jointly responsible for travel demand modeling and air quality analysis for the Akron area. In December 2024, forecasted variables were approved as inputs to the model. The air quality analyses documented in this appendix involve the use of the travel demand and emissions models to analyze future regional mobile source emissions. Trip tables have been created using the latest planning assumptions and are based on the most recent forecasts of land use and socioeconomic data produced by AMATS.

NOACA and ODOT are jointly responsible for travel demand modeling and air quality analysis for its area. Emissions for Ashtabula County are generated using current ODOT traffic volume data and growth rates.

In order to determine mobile source impacts on regional ozone and PM_{2.5} levels, all non-exempt TO2050 (and TIP) projects follow the code of Federal Regulations (CFR) 40 CFR Part 93, as related to EPA's air programs. These projects have been coded into the travel demand model for ozone analysis years of 2027, 2030, 2040, and 2050; and for PM_{2.5} analysis years of 2022, 2027, 2030, 2040, and 2050. The projects coded in each network are listed in Exhibits A-1 through A-4. Once the AMATS travel demand model was run for each of the analysis years described above, the traffic assignment results were post-processed and input into EPA's Motor Vehicle Emission Simulator (MOVES4). The MOVES simulator is an emissions modeling system that estimates air pollution emissions for criteria air pollutants, greenhouse gases and air toxics. MOVES covers on road vehicles such as cars, trucks and buses, and nonroad equipment such as bulldozers and lawnmowers. MOVES does not cover aircraft, locomotives, and commercial marine vessels. The output from MOVES4 includes VOC and NO_x for ozone; and direct PM_{2.5} and NO_x for PM_{2.5}.

The AMATS area results have been combined with the NOACA and Ashtabula County results to complete the conformity analysis for the entire Cleveland-Akron-Lorain ozone and PM_{2.5} nonattainment area. The conformity analysis results for the entire region were available for public comment during the public involvement period from March 11 – April 11, 2025.

Results

The analysis for the ozone standards must show that VOC and NO_x emissions from mobile sources will not exceed those established in the budget contained in the SIP, which sets the allowable limits for each pollutant. Table A-1 shows the results of the MOVES4 analysis for the 2015 8-hour ozone standard for the Cleveland-Akron-Lorain serious non-attainment area.

The data in Table A-1 confirms ozone precursor emissions for the 2015 8-hour ozone standard in the Cleveland-Akron-Lorain serious nonattainment area does not exceed the budgets for either VOC or NO_x.

Table A-1 2015 8-Hour Ozone Test Cleveland-Akron-Lorain Mobile Source Ozone Precursor Emissions Forecasts					
Volatile Organic Compounds (VOC) (tons/day)					
	2027 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions	2050 Emissions
NOACA	12.42		10.18	6.7	5.68
AMATS	4.89		3.7	2.9	2.82
TOTALS	17.31	30.8	13.88	9.6	8.5
Nitrogen oxides (NO _x) (tons/day)					
	2027 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions	2050 Emissions
NOACA	14.55		11.12	4.57	3.76
AMATS	5.49		5.47	4.52	4.5
TOTALS	20.03	43.82	16.59	9.08	8.31

Attainment status: 2015 8-Hour Ozone standard — serious nonattainment area (Federal Register / Vol. 89, No. 242 / Tuesday, December 17, 2024)
 SIP Status: Federal Register /Vol. 82, No. 4 /Friday, January 6, 2017 — direct final rule adequacy finding for the Motor Vehicle Emission Simulator (MOVES) based 2008 ozone standard Motor Vehicle Emission Budget (MVEB). No submittals required under 2008 8-Hour ozone standard until approved budgets are received. The budgets found adequate for 2008 standard will satisfy the 2015 tests, per U.S. EPA.
 8-Hour Geography: Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Summit Counties, OH
 Conformity Tests: 2008 Standard 8-Hour budget tests
 Analysis Years: 2027 Attainment and 1st Analysis year; 2030 Interim and SIP Budget year; 2040 Interim year; 2050 Plan horizon year

Table A-2 shows the results of the MOVES4 analysis for the 2008 8-hour ozone standard for the Cleveland-Akron-Lorain maintenance area. This analysis must show that VOC and NO_x emissions from mobile sources will not exceed those established in the budget contained in the SIP, which sets the allowable limits for each pollutant. Table A-2 confirms ozone precursor emissions do not exceed the budgets for either VOC or NO_x.

Table A-2 2008 8-Hour Ozone Test Cleveland-Akron-Lorain Mobile Source Ozone Precursor Emissions Forecasts					
Volatile Organic Compounds (VOC) (tons/day)					
	2027 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions	2050 Emissions
NOACA	12.42		10.18	6.7	5.68
AMATS	4.89		3.7	2.9	2.82
Ashtabula County	0.64		0.48	0.4	0.39
TOTALS	17.96	30.8	14.36	10	8.89
Nitrogen oxides (NO _x) (tons/day)					
	2027 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions	2050 Emissions
NOACA	14.55		11.12	4.57	3.76
AMATS	5.49		5.47	4.51	4.55
Ashtabula County	0.67		0.66	0.56	0.59
TOTALS	20.7	43.82	17.26	9.65	8.9

Attainment status: 2008 8-Hour Ozone standard – maintenance area (Federal Register / Vol. 82, No. 4 /Friday, January 6, 2017)

1997 8-Hour Ozone Standard - maintenance area (Federal Register Notice Final Rule Tuesday, September 15, 2009)

SIP Status: Federal Register /Vol. 78, No. 53 /Tuesday, March 19, 2013 – direct final rule adequacy finding for the MOVES based 1997 Ozone standard MVEB. No submittals required under 2008 8-Hour Ozone standard until approved budgets are received. The budgets found adequate for the 1997 standard will satisfy both 1997 and 2008 tests, per U.S. EPA.

8-Hour Geography: Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Summit Counties, OH

Conformity Tests: 1997 Standard 8-Hour budget tests

Analysis Years: 2027 1st Analysis year; 2030 Interim and SIP Budget year; 2040 Interim year; 2050 Plan horizon year

Table A-3 shows the results of the MOVES4 analysis for the 2006 PM_{2.5} standard for the Cleveland-Akron-Lorain PM_{2.5} maintenance area. This analysis must show that direct PM_{2.5} and NO_x emissions from mobile sources will not exceed those found in the 2022 budget. Table A-3 confirms emissions do not exceed the budgets for both direct PM_{2.5} and NO_x.

Table A-3 2006 Annual PM _{2.5} Standard Test					
Northeast Ohio Mobile Source PM _{2.5} and Precursor Emissions Forecasts					
Direct PM _{2.5} Emissions (tons/year)					
	2022 Budget	2027 Emissions	2030 Emissions	2040 Emissions	2050 Emissions
NOACA		194.23	171.48	134.12	128.93
AMATS		99.97	93.26	80.34	81.76
TOTALS	880.89				
Nitrogen oxides (NO _x) Precursor tons/year					
	2022 Budget	2027 Emissions	2030 Emissions	2040 Emissions	2050 Emissions
NOACA		4,648.76	3,573.32	1,454.87	1,179.01
AMATS		2,115.47	1,641.55	778.87	693.94
TOTALS	17,263.65				

Attainment/ 2006 Annual PM_{2.5} Standard – maintenance area (Federal Register / Vol. 78, No. 144 / Friday, July 26, 2013)

SIP Status: Cleveland area to attainment for 1997 and 2006 PM_{2.5} Standards – FR notice included an adequacy finding for the MOVES based MVEBs

Geography: Cuyahoga, Lake, Lorain, Medina, Portage, and Summit Counties, OH

Conformity Tests: Budget tests

Analysis Years: 2022 Budget Year; 2027 1st Analysis year; 2030 Interim year; 2040 Interim year; 2050 Plan horizon year

Table A-4 shows the results of the MOVES4 analysis for the 2012 PM_{2.5} standard for the Cuyahoga and Lorain counties, Ohio maintenance area. This analysis must show that direct PM_{2.5} and NO_x emissions from mobile sources will not exceed those found in the 2030 budget. Table A-4 confirms emissions do not exceed the budgets for both direct PM_{2.5} and NO_x.

Table A-4 2012 Annual PM _{2.5} Standard Test					
Northeast Ohio Mobile Source PM _{2.5} and Precursor Emissions Forecasts					
	2027 Emissions	2030 Budget	2030 Emissions	2040 Emissions	2050 Emissions
tons/year					
Direct PM _{2.5}	151.47	270.57	133.69	104.42	99.94
NO _x	3,570.73	4,907.54	2,745.76	1,110.56	894.79

Attainment status: 2012 Annual PM_{2.5} Standard – maintenance area (80 FR 2205 / January 14, 2015)

SIP Status: Federal Register /Vol. 83, No. 246 /Wednesday, December 26, 2018 – approval of SIP and finding in support of the MOVES based 2012 standard PM_{2.5} MVEB

Geography: Cuyahoga and Lorain County, OH

Conformity Tests: 2012 SIP Maintenance Plan tests

Analysis Years: 2027 1st Analysis year; 2030 Budget year; 2040 Interim year; 2050 Plan horizon year

For additional details on these topics, visit the following USEPA websites:

<https://www.epa.gov/ground-level-ozone-pollution/general-ozone-information>

<https://www.epa.gov/ground-level-ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs>
(technical ozone information)

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics> (general particulate matter information)

<https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm> (technical particulate matter information)

Exhibit A-1 | AMATS 2027 Network

The 2027 Network includes the existing transportation system plus the following projects:

PID	PROJECT	LOCATION & TERMINI	TYPE OF WORK
106002	I-77	SPRINGFIELD TWP / AKRON Arlington Rd to I-277	Widen to 8 lanes and interchange modifications
98585	Tallmadge Rd	BRIMFIELD TWP At I-76 Interchange	Reconfigure Interchange
102329	SR 8/I-76/I-77	AKRON SR 8 from US 224 to Perkins St & Central Interchange	Add an additional lane in each direction on I-77/SR 8, reconfigure interchange at Central Interchange, Add two lane exit at Carroll NB exit
111405	I-77	BATH TWP / RICHFIELD / RICHFIELD TWP Everett Rd to Cuyahoga County Line	Widen to 6 lanes

Please note that the following locations were added to all networks due to maintenance of traffic stripping

100713	I-76	AKRON US 224 to I-77 (Kenmore Leg)	6 lanes w/ interchange modifications from MOT
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Exhibit A-2 | AMATS 2030 Network

The 2030 Network includes those projects in the 2027 network plus the following projects:

PID	PROJECT	LOCATION & TERMINI	TYPE OF WORK
112026	E Main St	KENT E. Main St/SR 59/Willow St to Horning Rd	Roundabouts, raised median, remove Terrace, Horning realignment, complete streets
111404	I-77	BATH TWP / RICHFIELD / RICHFIELD TWP Ghent Rd to Everett Rd	Widen to 6 lanes
91710	SR 8	AKRON Perkins St to Glenwood Ave	Reconstruct bridge, Improve Perkins St ramp operation
116917	Arlington Rd	GREEN Boettler Rd to September Dr	Widen to 4 lanes with intersection improvements

Exhibit A-3 | AMATS 2040 Network

The 2040 Network includes those projects in the 2030 network plus the following projects:

PID	PROJECT	LOCATION & TERMINI	TYPE OF WORK
114865	SR 8 SB Braid	AKRON Central Interchange to Perkins St	Ramp and service road improvements to increase safety and congestion
N/A	Steels Corners Rd	STOW State Rd to Bridgeway Pkwy	Widening to 4 lanes
N/A	SR 91 (Darrow Rd)	TWINSBURG Ravenna Rd to Tinkers Creek bridge	Widening to 4 lanes

Exhibit A-4 | AMATS 2050 Network

The 2050 Network includes those projects in the 2040 network plus the following projects:

PID	PROJECT	LOCATION & TERMINI	TYPE OF WORK
N/A	N/A	N/A	N/A

SFY2026-2029 Transportation Improvement Program (TIP)**Air Quality Conformity Interagency Consultation Conference Call Minutes****November 13, 2024, 3:00 p.m., Teams Virtual Meeting****SFY2026-2029 Transportation Improvement Program (TIP)****Air Quality Conformity Interagency Consultation Conference Call Minutes**

Present: Erie County Regional Planning Commission (ERPC)
Akron Metropolitan Areawide Transportation Study (AMATS)
Northeast Ohio Areawide Coordinating Agency (NOACA)
Ohio Department of Transportation, Statewide Planning (ODOT)
Ohio Environmental Protection Agency (Ohio EPA)

Logistics: November 13, 2024, 3:00 p.m., Teams Virtual Meeting

I. Purpose

A formal interagency consultation (IAC) process is required in each nonattainment and maintenance area to address technical and procedural issues related to air quality planning. The Cleveland, Akron, and Erie County, Ohio metropolitan planning organizations (MPOs) (NOACA, AMATS and ERPC) are updating their SFY2026-2029 TIPs. The TIPs are part of the MPOs' existing long-range transportation plans (LRTPs).

II. Discussion

- The IAC call began at 3:00 p.m.
- AQ status reviewed for Northeast Ohio review of PM_{2.5} and Ozone
- Parties discussed the current and future attainment status of Northeast Ohio, but it did not need to be reflected in the upcoming conformity analysis
- OEPA expected the bump up to serious nonattainment for ozone this week
- AMATS asked if this needed to be reflected with the conformity analysis for the TIP
- OEPA stated that the status will change from moderate nonattainment to serious nonattainment for ozone
- NOACA stated that the standard for fine particulate matter will not be reflected on the agenda
- OEPA didn't anticipate an official designation until 2026

- All parties agreed on the geographic scope of the analyses, which includes the five NOACA counties (Cuyahoga, Geauga, Lake, Lorain, and Medina), the two AMATS counties (Portage and Summit) and Ashtabula County
- ODOT recommended removing Geauga County and Ashtabula Township from the 2006 PM_{2.5}
- Parties discussed applicable TIP budgets
- No parties objected to keeping current TIP budgets
- NOACA stated that since the statuses had not changed, the same TIP budget might apply
- Parties discussed analysis years – CY 2024, 2030, 2040, 2045 (AMATS and ERPC), 2050
- Parties discussed whether to retain or remove the 2045 budget
- AMATS did not believe they need to keep analysis year 2045, but that it might be a question for the EPA. AMATS' next plan will be 2050, therefore, unless the budget year includes 2045, it is not needed as an analysis year
- NOACA stated that the future years usually matched with the LRTP
- AMATS stated for the LRTP year we have to have intermediate years no more than 10 years for the air quality calculations for the analysis, but for the budget years they are not sure how they are calculated
- ODOT cited 40 CFR 93.106 for reference
- NOACA will follow up with EPA to determine if 2045 is needed
- AMATS stated that in the last TIP, the budget year for ozone was 2030. For PM_{2.5} it was 2022
- All parties agreed to concur later regarding the budget years
- Parties agreed to use MOVES 4.0
- Parties confirmed the geographic division for the analysis
- NOACA will complete the conformity analysis for Cuyahoga, Geauga, Lake, Lorain, and Medina Counties
- ODOT and AMATS will work together to run the analysis for Portage and Summit Counties
- ODOT will also do the additional analysis for Ashtabula County
- Parties agreed on county representation for conformity analysis
- NOACA will use Lorain County as its model
- ODOT will use Summit County as its model for AMATS
- NOACA will work with ODOT to complete post processing

- NOACA will complete the conformity documentation after post processing
- NOACA stated that the first draft of TIP will be uploaded for USDOT review January 31. Draft STIP and TIP will include all components for review
- All parties agree on dates for conformity analyses that will be provided for consideration by their Technical Advisory and Policy Committees for approval. NOACA will distribute the conformity analyses
- AMATS by January 16, 2025 for their February 6 Technical Advisory Committee and February 13 Policy Committee
- EPRC by January 16, 2025 for their January 23 Policy Committee
- NOACA agreed to complete the conformity documentation and submit it for approval
- ODOT needs final Board resolutions
- The Public Involvement Period takes place March 11-April 11. NOACA explains that the draft TIP will be completed, but Board approval will not take place until March 14th, 2025
- ODOT agreed to speak to NOACA about their options moving forward outside this meeting
- ODOT agreed to assist NOACA with post processing
- ODOT asked for clarification regarding questions concerning TIP budgets
- OEPA will investigate appropriate TIP budgets
- ODOT stated that Columbus, Cincinnati, and Dayton will also inquire about TIP budgets
- OEPA did not anticipate Columbus and Dayton going into nonattainment for PM_{2.5}
- OEPA stated that Canton will be recommended not to be designated as nonattainment under the new standard. An exceptional events demonstration will be submitted for the wildfire smoke influence days of 2023
- NOACA clarified that this will be sent out to partners who were unable to attend the meeting
- NOACA and OEPA agrees to look into budget years
- The IAC call concluded at 3:41pm

Addendum

After the November 13th IAC call, AMATS and NOACA coordinated with the planning partners to get concurrence on the following outstanding issues:

The appropriate analysis and budget years for ozone and PM_{2.5}; and whether to include 2027 (serious area attainment year for ozone) in this year's TIP and remove 2024.

The planning partners concur that the budget and analysis years as input to the SFY 2026-2029 TIP are as follows:

Ozone	2027 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions	2050 Emissions
PM _{2.5}	2027 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions	2050 Emissions

The budget and analysis years apply to all the ozone and PM_{2.5} standards. These include the following:

OZONE 2015 8-hour ozone standard (serious nonattainment area)

2008 8-hour ozone standard (maintenance area)

PM_{2.5} 2006 Annual Standard (maintenance area)

2012 Annual Standard (maintenance area) - this only includes the areas of Cuyahoga and Lorain Counties, OH

Appendix B | AMATS Financial Plan

Transportation Outlook 2050 must provide a vision for the future while also considering the realistic environment for transportation projects costs versus anticipated revenues. The purpose of the Financial Plan is to ensure that TO2050 is in fiscal constraint. Fiscal constraint means that future projects in the plan do not exceed expected revenues.

The Financial Plan forecasts revenues and project costs. Project costs and revenues must be projected in year of expenditure dollars. This means that both costs and revenues needed to be assigned inflation rates.

Overall, AMATS projected \$9,338,826,848 of funds to be available. This analysis ensures Transportation Outlook 2050 is in fiscal constraint.

Highway Recommendation Methodology

To maintain fiscal constraint for future highway projects, AMATS first developed an estimate of highway revenues. The revenues are shown to the right:

The growth rates used to project federal and state funding were based on estimates provided by ODOT. These growth rates were applied to the historical average and compounded to determine the financial forecast projections for short, medium, and long term years of the Plan.

For local funds historical data from the BMV for license plate registration fees and permissive taxes was obtained for 2023 for Summit, Portage, and Wayne Counties. Historic fuel tax data distributed to the counties, municipalities, and townships was obtained for 2023 from the Ohio Department of Taxation. AMATS applied a 2.5 percent growth rate for 2024 and 2025. In 2026 through 2050 a 0% growth rate was applied to that historical average and all years were totaled to determine the 2050 financial forecast.

With revenues established, it was necessary to assign inflation costs to each project recommendation. The table below shows the rates of inflation used to forecast project costs. Highway projects were assigned inflation rates based on the Ohio Department of Transportation's (ODOT) July of 2024 Construction Cost Outlook and Forecast through 2030. AMATS assumed a flat 2.0% per year for the out years. All projects are shown in 2026 costs so the inflation rate is 0.0%.

With inflation rates established, the next step was to estimate what year projects would take place to get an accurate inflated cost. The table on the following page shows project cost in year of expenditure dollar and the time band for which the project is expected to occur.

Table B-1 Highway Revenues Through 2050	
Federal	\$2,786,033,200.25
State	\$1,985,294,868.53
Local	\$2,100,398,008.72
Final Highway:	\$6,871,726,077.50

Table B-2 Inflation rate per year	
2026	0.0%
2027	5.0%
2028	4.0%
2029	3.5%
2030	2.1%
2031-2050	2.0% per year



TRANSPORTATION OUTLOOK 2050

Preservation funds were estimated over the life of the plan and were assumed to be distributed equally over the life of the plan. The AMATS program is included in total and considered to be in year of expenditure dollars. Highway project costs are provided already inflated to year of expenditure dollar by ODOT which is why the expenditures are unchanged in the year of expenditure versus current cost. The plan also shows funds reserved for unspecified safety and operation projects, as well as \$35 million reserved for bicycle and pedestrian enhancements.

The table below demonstrates fiscal constraint for highway recommendations in Transportation Outlook 2050.

Table B-3 Highway Financial Constraint Analysis						
FY2026-2050						
Total Revenue				\$6,871,726,078		
Maintenance Recommendations				Year of Expenditure	Current Cost	Year of Expenditure Cost
	Pavement Resurfacing	(65 Percent of Need Identified in Preservation Needs Report)		Ongoing	\$ (1,233,134,550.05)	\$ (1,678,296,024)
	Pavement Replacement	(65 Percent of Need Identified in Preservation Needs Report)		Ongoing	\$ (77,686,700)	\$ (105,731,592)
	Bridge Preservation	(65 Percent of Need Identified in Preservation Needs Report)		Ongoing	\$ (2,892,879,574)	\$ (3,937,208,868)
AMATS Program 2026-2029						
	AMATS Programmed Projects			2026-2029	\$ (485,483,521)	\$ (485,483,521)
AMATS Ongoing Regionwide Improvements						
	Safety and Operational			Ongoing	\$ (75,208,000)	\$ (75,208,000)
	Bicycle and Pedestrian			Ongoing	\$ (35,003,645)	\$ (35,003,645)
Freeway Recommendations						
	Recommendation	From	To		Current Cost	Year of Expenditure Cost
	I77/SR8 Corridor Imprv.	Lovers Lane	Perkins St		\$ (77,000,000)	\$ (77,000,000)
	I-76 "Kenmore Leg" Imprv. to increase capacity and improve safety	I-76 @ I-277 Ramp	North of I-76 @ I-77 ramp		\$ (86,000,000)	\$ (86,000,000)
Roadway Recommendations						
Community	Recommendation	From	To		Current Cost	Yr of Expenditure Cost
Akron	Roundabout (or other intersection imprv.)	Glenwood Ave. @ N. Howard St.		2030-2035	\$ (3,000,000)	\$ (3,673,758)
Akron	Reconnecting Communities Imprv., new street connections and placemaking along frmr/current fwy	Innerbelt Vicinity (Exact Locations TBD)		2030-2035	\$ (20,000,000)	\$ (23,079,092)
Akron	Rand and Dart Avenue Road reconfig./function	Boulevard Street	W. Market Street	2036-2042	\$ (12,000,000)	\$ (15,594,484)
Akron	Phase 1 W. Exchange St. Complete Streets and Reconstruction	Jefferson Ave.	Portage Path	2030-2035	\$ (4,700,000)	\$ (5,532,058)
Akron	Phase 2 W. Exchange St. Complete Streets and Reconstruction	Clemmer Ave.	Jefferson Ave.	2036-2042	\$ (5,000,000)	\$ (7,033,321)
Akron	Phase 3 W. Exchange St. Complete Streets and Reconstruction	S. Hawkins Ave.	Clemmer Ave.	2036-2042	\$ (5,000,000)	\$ (6,760,209)
Akron	Merriman Road Imprv.: Corridor Imprv. Incl. road diet/complete streets, poss. roundabout(s)	0.25 miles west of Weathervane Pl.	Portage Path	2043-2050	\$ (18,000,000)	\$ (29,084,671)
Aurora	Left Turn Lane at Intersection	SR 43/Chillicothe Rd. @ Kingston Dr.		2030-2035	\$ (2,500,000)	\$ (2,942,584)
Aurora	Intersection Improvements	SR 43/Chillicothe Rd. @ S. Mennonite Rd.		2030-2035	\$ (2,500,000)	\$ (3,122,694)
Aurora	Intersection Improvements	Bissell Rd. @ Pioneer Trail		2043-2050	\$ (2,500,000)	\$ (4,120,328)
Aurora	Intersection Improvements	Mennonite Rd. @ Page Road		2036-2042	\$ (2,500,000)	\$ (3,586,994)
Barberton	Robinson Rd. Road Diet, Reconstruction, Safety Upgrades, Ped. Improvements	Wooster Rd. North	Van Buren Ave.	2043-2050	\$ (6,600,000)	\$ (10,877,667)
Barberton	Peanut Roundabout	Wooster Rd. North @ Norton Ave. and other nearby streets		2043-2050	\$ (6,800,000)	\$ (10,560,883)
Boston Heights	Signal Improvements	Olde Eight Rd. @ SR 303/Streetsboro Rd.		2036-2042	\$ (300,000)	\$ (397,659)
Cuyahoga Falls	State Rd. Improvements	High Level Bridge Over Cuyahoga River	Portage Trail	2030-2035	\$ (20,000,000)	\$ (25,481,183)
Cuyahoga Falls	S. Bailey Road Imprv. Incl. streetscaping, Complete Streets, enhancements at Northmoreland Rd.	200' south of Northmoreland Rd.	Myrtle Ave.	2036-2042	\$ (4,000,000)	\$ (5,739,190)
Cuyahoga Falls	Intersection Improvements, Possible Roundabout	Riverview Rd. @ Ira Rd.		2043-2050	\$ (2,500,000)	\$ (3,882,677)
Cuyahoga Falls	Steels Corners Widening and Shared-Use Path	State Rd.	Eastern Corp Limits	2036-2042	\$ (9,000,000)	\$ (11,695,863)
Cuyahoga Falls/Stow	Steels Corners Bridge Replacement	Over Mud Brook		2030-2035	\$ (20,000,000)	\$ (23,540,674)
Fairlawn	W. Market St. Corridor Safety Improvements and Reconstruction	Springside Dr.	N. Revere Rd.	2036-2042	\$ (24,000,000)	\$ (31,188,968)
Green	Massillon Road Improvements (TWLTL)	Greensburg Rd.	Wise Rd.	2036-2042	\$ (4,000,000)	\$ (5,302,125)
Green	Roundabout (or other intersection improvements)	SR 619/E. Turkeyfoot Lake Rd. @ S. Main St.		2030-2035	\$ (2,500,000)	\$ (3,061,465)
Green	Roundabout (or other intersection improvements)	SR 619/E. Turkeyfoot Lake Rd. @ Mayfair Rd.		2030-2035	\$ (2,000,000)	\$ (2,498,155)
Hudson	SR 303/W. Streetsboro Rd. Intersection Safety Improvements	Nicholson Dr.	Boston Mills Rd.	2036-2042	\$ (1,000,000)	\$ (1,406,664)



Table B-3 | Highway Financial Constraint Analysis
FY2026-2050

Roadway Recommendations (cont.)						
Community	Recommendation	From	To		Current Cost	Yr of Expenditure Cost
Hudson	SR 91 TWLTL	Middleton Road	Northern Corp Limits	2043-2050	\$ (4,000,000)	\$ (6,858,863)
Hudson	Hines Hill Road Improvements	Western Corp. Limits	Future NS Rail Overpass	2030-2035	\$ (6,000,000)	\$ (7,203,446)
Kent	SR 43 Traffic Calming and Ped Safety Improvements	Stinaff St.	Roosevelt High School Entrance	2030-2035	\$ (1,000,000)	\$ (1,153,955)
Kent	SR 43 (River St./Gougler St.) Safety Issues: restriping, add parking, sidewalks, road diet	SR 59/Haymaker Pkwy.	Fairchild Ave.	2030-2035	\$ (2,900,000)	\$ (3,481,666)
Macedonia	Intersection Improvements	Highland Rd. @ Valley View Rd.		2030-2035	\$ (3,600,000)	\$ (4,496,679)
Mogadore	Signal Improvements	Mogadore Rd. @ Gilchrist Rd.		2036-2042	\$ (400,000)	\$ (540,817)
New Franklin	W. Turkeyfoot Lake Rd. Improvements	State Street	Eastern Corp Limits	2043-2050	\$ (3,000,000)	\$ (5,144,148)
Northfield Center Twp.	Roundabout	Olde Eight Rd. @ Brandywine Rd. and SR 82/Aurora Rd.		2036-2042	\$ (2,600,000)	\$ (3,585,615)
Rittman	Intersection and Streetscape Improvements	N Main St @ E Ohio Ave		2030-2035	\$ (2,800,000)	\$ (3,361,608)
Rittman	Intersection Improvements	Ohio St @ E Ohio Ave		2036-2042	\$ (2,200,000)	\$ (2,858,989)
Rootstown Twp.	SR 44 Corridor Improvements	Tallmadge Road/C.H. 18	I-76	2043-2050	\$ (20,000,000)	\$ (32,962,627)
Sagamore Hills Twp.	Roundabout	Valley View Rd. @ Chafee Rd.		2036-2042	\$ (2,400,000)	\$ (3,181,275)
Stow	Graham Road Improvements: TWLTL, wide sidewalks, intersection improvements	SR 91/Darrow Rd.	Newcomer Rd.	2030-2035	(15,000,000)	\$ (17,309,319)
Stow	Intersection Improvements	Fishcreek Rd. @ Stow Rd.		2030-2035	\$ (1,500,000)	\$ (1,800,862)
Stow	Fishcreek Rd.Turn Lane Improvements	Laurel Woods Blvd.	SR 91/Darrow Rd.	2043-2050	\$ (1,000,000)	\$ (1,714,716)
Stow	Norton/Seasons Rd. Wider Lanes and Roadway Improvements	SR 8	SR 91/Darrow Rd.	2043-2050	\$ (8,000,000)	\$ (13,717,727)
Streetsboro	Frost Road Corridor Improvements	150' East of Phillip Pkwy./David Dr.	300' West of SR 43	2030-2035	\$ (9,100,000)	\$ (10,711,007)
Streetsboro	SR 303/Streetsboro Rd. Improvements	300' East of SR 14	Page Rd.	2036-2042	\$ (8,000,000)	\$ (10,396,323)
Tallmadge	East Avenue Corridor Improvements	Cambrian Dr.	N./S. Munroe Rd.	2036-2042	\$ (7,400,000)	\$ (10,005,109)
Tallmadge	Roundabout	SR 261/Northeast Avenue @ Middlebury Rd.		2043-2050	\$ (3,500,000)	\$ (6,001,506)
Twinsburg	SR. 91 TWLT	Ravenna Rd.	Tinkers Creek Bridge	2043-2050	\$ (3,000,000)	\$ (5,144,148)
					\$ (5,250,195,990)	\$ (6,871,725,420)
					BALANCE:	\$ 658

Bicycle and Pedestrian Recommendation Methodology

Bicycle and Pedestrian improvements are funded through the estimated highway revenues. AMATS reserved over \$35 million for potential bicycle and pedestrian improvements in the greater Akron area. Bicycle and pedestrian project costs are inflated based on the highway methodology. The table below demonstrates how funds reserved for bicycle and pedestrian projects will be spent and are inflated to year of expenditure. Bicycle and Pedestrian improvements are assumed to be covered mostly through additional local or state funds outside of funding projected by AMATS. These funding sources include Park District sources, Clean Ohio Funds, and local community park funds. According to the AMATS Funding Policy, only \$1,000,000 may be used on bicycle or pedestrian project per round of funding, therefore AMATS assumes that bicycle and pedestrian projects will either receive funds in multiple rounds or local or state funds will cover the remaining construction cost.



TRANSPORTATION OUTLOOK 2050

Table B-4 | Bicycle and Pedestrian Recommendations Financial Constraint Analysis

FY2026-2050

Bicycle and Pedestrian Recommendations								
Community	Name	From	To	Distance	Cost (Current)	Time Band	Cost (Year of Expenditure)	Federal Expenditure
Akron	Akron-Peninsula Road Multi-Use Path	Portage Trail	1500' NW of Hampton Knoll Dr.	0.89	\$ 1,950,000	2043-2050	\$ 3,150,839.36	\$ (1,000,000.00)
Akron	Summit Lake Pedestrian Improvements	TBD		TBD	\$ 1,500,000	2030-2035	\$ 1,911,088.72	\$ (1,000,000.00)
Akron	Rubber City Heritage Trail	Towpath Trail	Johnson Street	3.08	\$ 12,700,000	2036-2042	\$ 18,221,928.60	\$ (3,000,000.00)
Akron / Cuyahoga Falls / Silver Lake / Stow	Veterans Trail/Akron Secondary	Freedom Trail and CVSR Northside Station	Graham Road	8.46	\$12,000,000	2036-2042	\$17,913,160.17	\$ (1,500,000.00)
Aurora	Aurora Trail Connection	Sunny Lake	Future Headwaters Trail	1.02	\$ 1,500,000	2030-2035	\$ 1,949,310.49	\$ (1,000,000.00)
Aurora	Aurora Trail Connection	Treat Rd.Quarry	Future Headwaters Trail	0.75	\$ 1,100,000	2036-2042	\$ 1,578,277.28	\$ (1,000,000.00)
Bath Twp. / Akron / Cuyahoga Falls	Sourek Corridor Trail	Ghent Rd METRO RTA Park & Ride	Towpath Trail	3.32	\$ 5,000,000	2043-2050	\$ 8,079,075.27	\$ (1,000,000.00)
Boston Heights/Peninsula	Connector Trail - Old Akron-Peninsula Rd. ROW	Towpath Trail	Bike & Hike Trail	2.48	\$ 3,500,000	2030-2035	\$ 4,639,358.97	\$ (1,000,000.00)
Charleston Twp. / Freedom Twp. / Windham Twp. / Windham	Conrail Freedom Secondary Trail	Peck Rd	Portage/Trumbull County Line	11.88	\$ 14,850,000	2043-2050	\$ 23,994,853.56	\$ (3,000,000.00)
Clinton	Heartland Trail Extension, Connection to Towpath	Coal Bank Road	Towpath Trail	5.11	\$ 7,000,000	2043-2050	\$ 12,003,011.04	\$ (2,000,000.00)
Franklin Twp./Kent	Franklin Connector	Hudson Rd	Ravenna Rd	2.10	\$ 3,500,000	2036-2042	\$ 5,021,791.35	\$ (1,000,000.00)
Franklin Twp./Kent	Lake Rockwell Trail	Freedom Trail	Franklin Connector	4.21	\$ 5,000,000	2036-2042	\$ 7,613,093.07	\$ (1,500,000.00)
Green	Willadale Trail	Koons Rd.	Massillon Rd.	0.65	\$ 1,000,000	2030-2035	\$ 1,325,531.13	\$ (1,000,000.00)
Hudson/Stow	Veterans Trail/Akron Secondary	Springdale Rd	Veterans Park	4.6	\$ 6,900,000	2043-2050	\$ 12,068,170.24	\$ (2,000,000.00)
Kent	Franklin Avenue Sidewalks	Summit St.	Erie St.	0.2	\$ 300,000	2030-2035	\$ 374,723.278	\$ (374,723.28)
Lakemore	Sanitarium Rd. Sidewalks Phase 1	2nd	Spartan Trail	0.61	\$ 550,000	2030-2035	\$ 714,747.18	\$ (714,747.18)
Lakemore	Sanitarium Rd. Sidewalks Phase 2	Spartan Trail	Brittany	0.55	\$ 550,000	2036-2042	\$ 773,665.333	\$ (773,665.33)
Lakemore	Misc Lakemore Walkway Improvements (Lake, 5th)	All High Priority Improvements on Lakemore CC Study			\$ 550,000	2036-2042	\$ 821,019.84	\$ (821,019.84)
Norton	Cleveland Massillon Rd	Greenwich Rd	Norton Branch Library	0.37	\$ 600,000	2043-2050	\$ 969,489.03	\$ (969,489.03)
Norton	Easton Rd	Greenwich Rd	Oser Rd	0.85	\$ 1,530,000	2036-2042	\$ 2,195,240.22	\$ (1,000,000.00)
Norton/Barberton	3 Creeks - Silver Creek Trail	Silvercreek Rd (Wadsworth)	Magic Mile	5.55	\$ 8,000,000	2043-2050	\$ 12,926,520.44	\$ (3,000,000.00)
Rittman/Chippewa Twp	County Line Trail (North Extension)	County Line Trail terminus	Medina County line	1.64	\$ 2,460,000	2036-2042	\$ 3,600,193.96	\$ (1,000,000.00)
Sagamore Hills Twp.	Sagamore Connector Trail	Towpath Trail	Bike & Hike Trail (near Valley View)	1.5	\$ 3,200,000	2036-2042	\$ 4,591,352.09	\$ (1,350,000.00)
Streetsboro	Streetsboro Trail Connection	Tinkers Creek/Old Mill Rd	Clare Wilcox Park	4.58	\$ 6,000,000	2043-2050	\$ 10,494,061.08	\$ (2,000,000.00)
Tallmadge	Pedestrian Tunnel	West Ave	Northwest Ave	0.1	\$ 2,000,000	2030-2035	\$ 2,704,083.51	\$ (1,000,000.00)
Twinsburg	Park Loop Trail	Center Valley Bikeway	Center Valley Bikeway	0.92	\$ 1,380,000	2030-2035	\$ 1,758,201.62	\$ (1,000,000.00)
					\$ 104,620,000		\$ 161,392,787	\$ (35,003,644.66)

Transit Recommendation Methodology

Transit funding data for both Metro RTA and PARTA was collected over the last five years to estimate the amount of federal, state and local funding expected to be available. The growth rates used to forecast transit funding assumed 1.25 percent growth in 2026-2028 and then 0 percent through 2050.

Local funds were projected based on past transit financials reported in each agencies' CAFR. The 2023 estimated totals for METRO and PARTA were added together and were used as the baseline for future projections. The growth rates used to forecast local transit funding were assumed the same as the rates for federal funding growth.

Table B-5 | Transit Revenues Through 2050

Federal and State Revenue	\$411,269,494.94
Local Revenue	\$2,055,831,275.47



TRANSPORTATION OUTLOOK 2050

Transit costs were inflated based on ODOT's July of 2024 Construction Cost Outlook and Forecast through 2025. AMATS used ODOT's short term inflation rate for transit projects through 2030. A 2 percent inflation rate was estimated for years 2031-2050. The inflation rate applied to projects is as follows:

With inflation rates established, the next step was to estimate what year projects would take place to get an accurate inflated cost. The following table shows project cost in year of expenditure dollar and the time band for which the project is expected to occur. Operating expenses to maintain the system were projected annually and operation expenses for additional new services were added when service is projected to start.

Table B-6 Inflation rate per year	
2026	0.0%
2027	5.0%
2028	4.0%
2029	3.5%
2030	2.1%
2031-2050	2.0% per year

Table B-7 Transit Fiscal Constraint		
FY2026-2050		
Revenue		
Federal and State Revenue	\$ 411,269,495	
Local Revenue	\$ 2,055,831,275	
METRO	Cumulative Costs	
Operating Expenses – Base Service	\$ (1,802,441,948)	Ongoing
Micro-Transit – Demand Response		
Capital Expenditures – Base Service		
Annual Bus Fleet Expenditures	\$ (204,680,000)	Ongoing
Bus Shelter and Stop Enhancements	\$ (5,500,000)	Ongoing
Operating Expenses – Additional Service		
BRT Service Priority Corridor	\$ (13,790,922)	Ongoing
Capital Expenses – Additional Service		
BRT Buses and Infrastructure	\$ (23,677,017)	2030-2035
Maintenance Facility	\$ (40,622,333)	2030-2035
Administration Facility – TOD	\$ (31,407,800)	2036-2042
PARTA	Cumulative Costs	
Operating Expenses – Base Service	\$ (265,815,278)	Ongoing
Micro-Transit – Demand Response		
Capital Expenditures – Base Service		
Annual Bus Fleet Expenditures	\$ (77,821,702)	Ongoing
Bus Shelter and Stop Enhancements	\$ (156,394)	Ongoing
Capital Expenses – Additional Service		
Ravenna / Northern Hub	\$ (1,183,851)	2030-2035
BALANCE	\$ 3,525	

Appendix C | Demographics

Demographics

AMATS examines different demographics of our region when crafting various local plans.

- Elderly
- Minorities
- Low income
- Carless Households
- Individuals with Disabilities
- Birth Rates
- Marriage Rates

Recently examined demographic groups based on ACS-2019-2023 Data

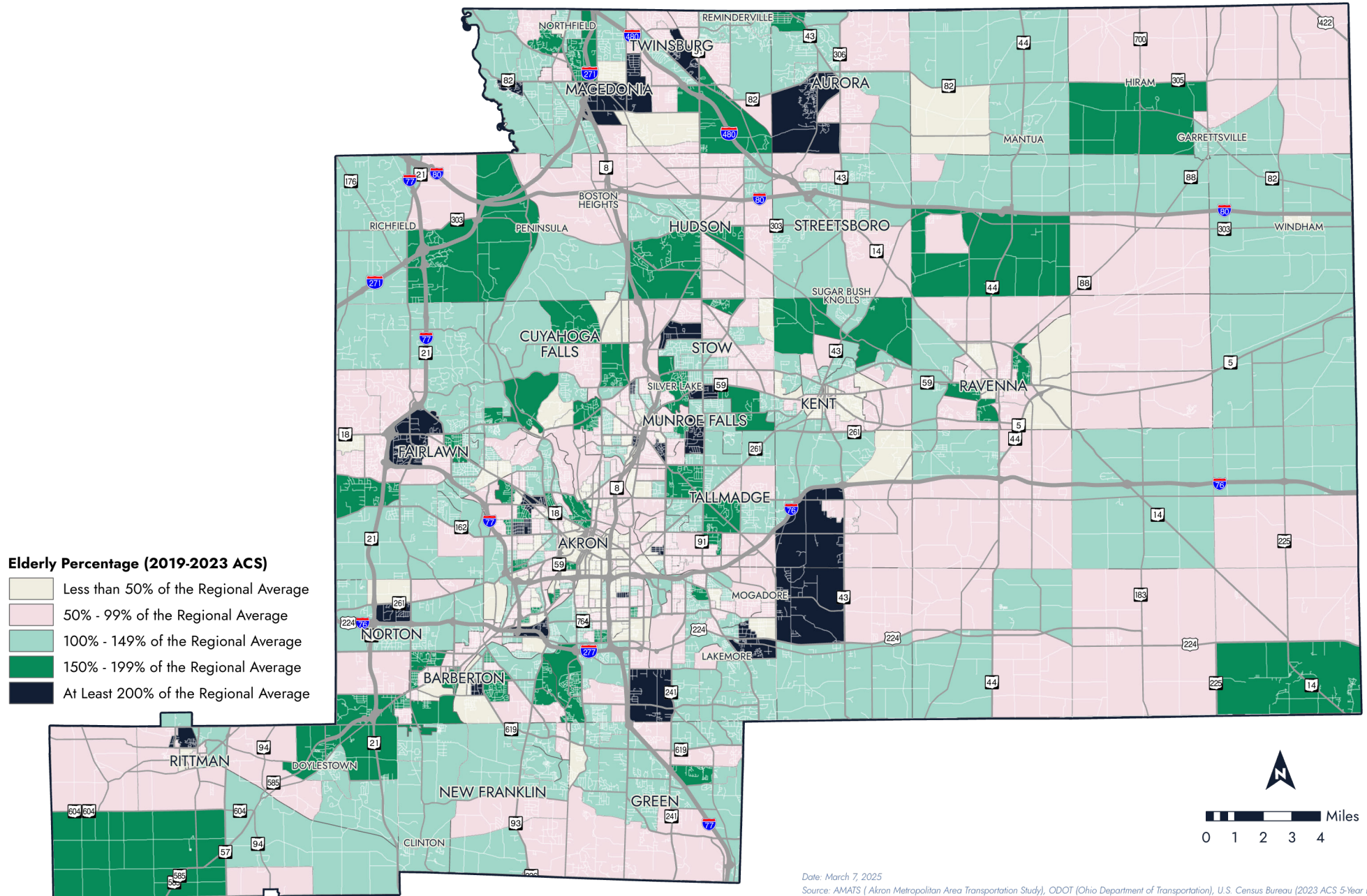
Elderly populations are defined as being aged 65 and older. Within the AMATS planning area, many of the areas of high elderly populations are outside of the high-density urban core—cities like Akron (South Akron, particularly Firestone Park and Ellet), Fairlawn, Barberton/Norton, Cuyahoga Falls, Aurora and Macedonia —though higher elderly populations can be found throughout the region, even within portions of those cities. High concentrations of the senior population can also be found in more affluent communities such as Silver Lake (27%), Peninsula (24%) and Richfield (24%). Larger percentages of elderly populations are in suburban condominiums or senior-specific apartment developments throughout the AMATS region. This population is expected to increase in the following years as the Baby Boomer generation reaches retirement age, many of which will need some sort of transportation assistance as driving personal vehicles becomes more difficult or impossible for many.

Table C-1 Elderly Population (Cities and Villages)			
Community	Total Population	Elderly Population	% Elderly
Silver Lake	2,514	681	27.1%
Lakemore	2,917	784	26.9%
Fairlawn	7,689	1,991	25.9%
Munroe Falls	5,019	1,252	24.9%
Peninsula	601	148	24.6%
Richfield	3,711	907	24.4%
Aurora	17,386	4,119	23.7%
Mogadore	3,737	877	23.5%
Tallmadge	18,394	4,278	23.3%
Garrettsville	2,806	650	23.2%
Clinton	1,111	252	22.7%
Macedonia	12,142	2,734	22.5%
Norton	11,576	2,588	22.4%
Doylestown	3,052	665	21.8%
New Franklin	13,830	2,926	21.2%
Twinsburg	19,346	3,973	20.5%
Sugar Bush Knolls	349	71	20.3%
Green	27,381	5,482	20.0%
Mantua	694	138	19.9%
Barberton	24,977	4,944	19.8%
Hudson	23,007	4,368	19.0%
Reminderville	5,370	1,003	18.7%
Boston Heights	1,436	267	18.6%
Stow	34,317	6,350	18.5%
Northfield	3,525	634	18.0%
Cuyahoga Falls	50,864	9,052	17.8%
Streetsboro	17,514	2,993	17.1%
Ravenna	11,286	1,928	17.1%
Akron	189,526	29,769	15.7%
Windham	1,807	217	12.0%
Kent	27,190	3,144	11.6%
Hiram	1,363	145	10.6%
Total	546,437	99,330	18.2%

Source: American Community Survey - 2023 5-Year Estimates.

*Table excludes townships to avoid duplication of data.

Map C-1 | Elderly Population



Date: March 7, 2025
 Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation), U.S. Census Bureau (2023 ACS 5-Year Estimates)

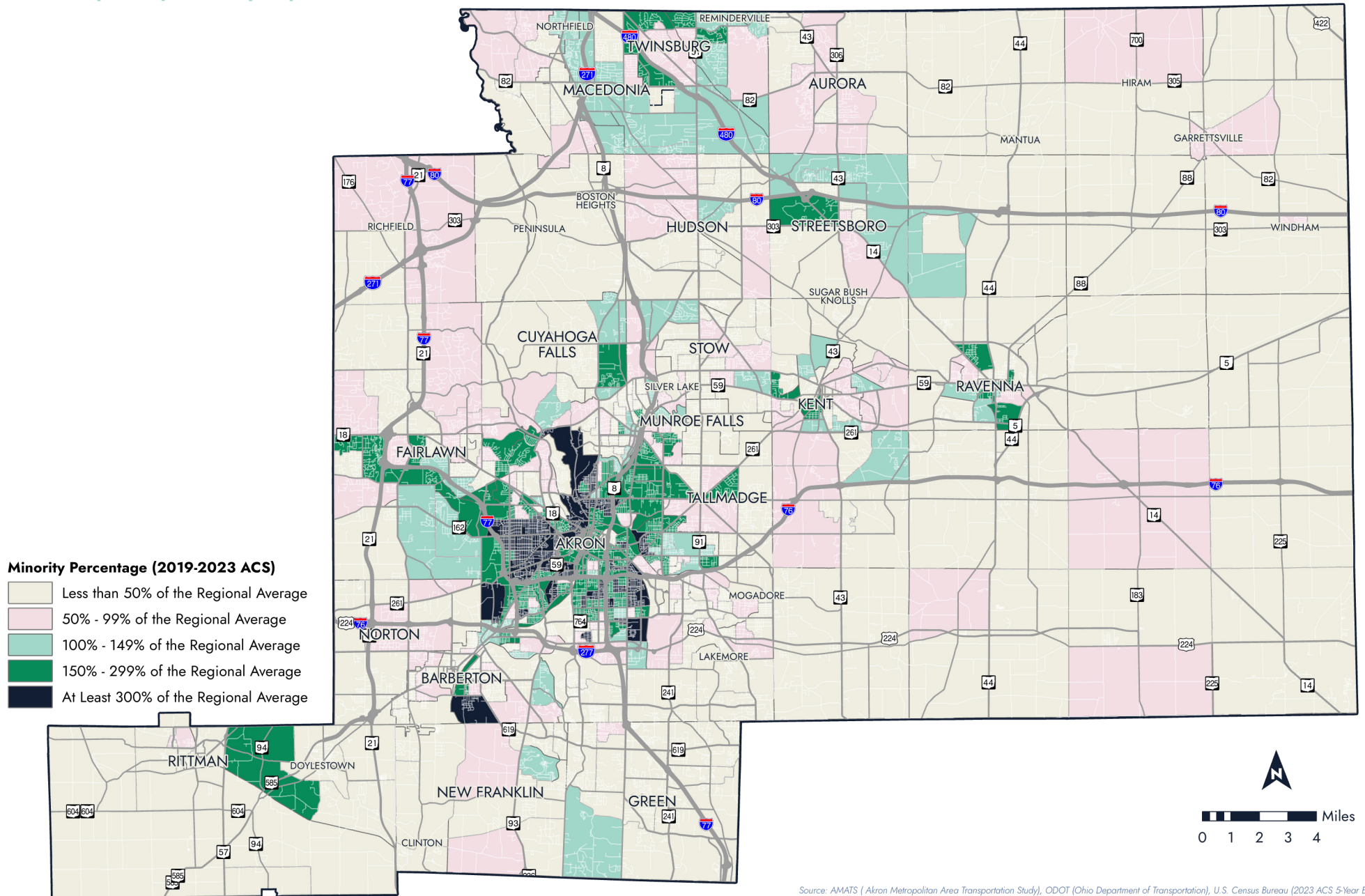
Minorities are defined as non-white populations. Within the Greater Akron area, black populations are by far the most common minority group, though several other minority populations exist throughout the area. The highest concentrations of minority populations are in the Akron (52%), particularly in West Akron and, to a slightly lesser extent, in the Middlebury, East Akron, and North Hill sections of the city. There is also a high minority population in the Twinsburg Heights section of Twinsburg (36%). Other notable concentrations of minority populations can be found in portions of the cities of Fairlawn (30%) Kent (25%), Streetsboro (26%), Ravenna (24%) Barberton (21%), Cuyahoga Falls (21%).

Table C-2 Minority Population (Cities and Villages)			
Community	Total Population	Minority Population	% Minority
Akron	189,526	99,203	52.3%
Twinsburg	19,346	6,921	35.8%
Northfield	3,525	1,147	32.5%
Fairlawn	7,689	2,364	30.7%
Reminderville	5,370	1,446	26.9%
Macedonia	12,142	3,245	26.7%
Streetsboro	17,514	4,541	25.9%
Kent	27,190	6,897	25.4%
Richfield	3,711	918	24.7%
Ravenna	11,286	2,746	24.3%
Barberton	24,977	5,442	21.8%
Cuyahoga Falls	50,864	10,921	21.5%
Hiram	1,363	289	21.2%
Garrettsville	2,806	584	20.8%
Windham	1,807	356	19.7%
Stow	34,317	6,186	18.0%
Tallmadge	18,394	3,166	17.2%
Silver Lake	2,514	421	16.7%
Peninsula	601	96	16.0%
Mantua	694	108	15.6%
Aurora	17,386	2,642	15.2%
Lakemore	2,917	433	14.8%
Hudson	23,007	3,331	14.5%
Mogadore	3,737	508	13.6%
Norton	11,576	1,439	12.4%
Munroe Falls	5,019	618	12.3%
New Franklin	13,830	1,556	11.3%
Green	27,381	2,775	10.1%
Doylestown	3,052	261	8.6%
Boston Heights	1,436	98	6.8%
Sugar Bush Knolls	349	22	6.3%
Clinton	1,111	43	3.9%
Total	546,437	170,723	31.2%

Source: American Community Survey - 2023 5-Year Estimates.

*Table excludes townships to avoid duplication of data.

Map C-2 | Minority Population

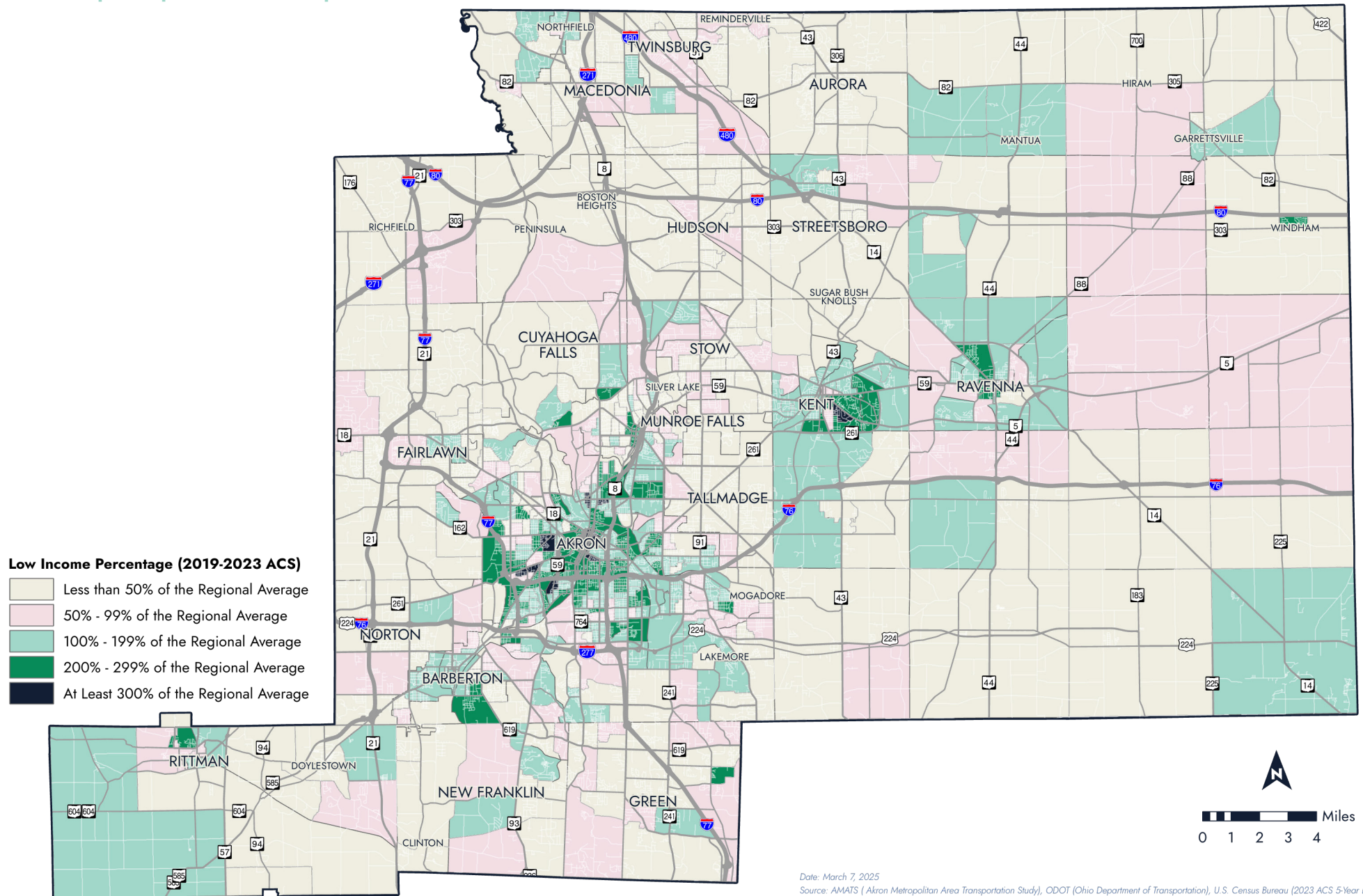


Low-Income is defined as the population receiving less annual income than the regional average. For this plan, individual income averages are presented below in the table and map. In the AMATS region, many of the lowest-income areas are within the City of Akron. Significant low-income populations are spread throughout the city, generally closer to its center. Additionally, some sections of the cities of Kent (30%), Ravenna (34%), Barberton (30%), and the Village of Windham (52%), have significant low-income populations. There are also block groups throughout the region with above-average low-income populations, particularly in rural areas.

Table C-3 Low-Income Population (Cities and Villages)			
Community	Total Population	L.I. Population	% L.I.
Windham	1,807	950	52.6%
Ravenna	11,286	3,882	34.4%
Akron	189,526	64,368	34.0%
Mantua	694	220	31.7%
Barberton	24,977	7,701	30.8%
Kent	27,190	8,193	30.1%
Northfield	3,525	830	23.5%
Cuyahoga Falls	50,864	9,124	17.9%
Garrettsville	2,806	486	17.3%
Peninsula	601	86	14.3%
Streetsboro	17,514	2,426	13.9%
Doylestown	3,052	398	13.0%
Norton	11,576	1,322	11.4%
Mogadore	3,737	410	11.0%
Reminderville	5,370	572	10.7%
Green	27,381	2,813	10.3%
New Franklin	13,830	1,391	10.1%
Stow	34,317	3,422	10.0%
Fairlawn	7,689	765	9.9%
Munroe Falls	5,019	480	9.6%
Lakemore	2,917	261	8.9%
Richfield	3,711	286	7.7%
Tallmadge	18,394	1,397	7.6%
Hiram	1,363	101	7.4%
Twinsburg	19,346	1,425	7.4%
Macedonia	12,142	814	6.7%
Clinton	1,111	72	6.5%
Hudson	23,007	1,276	5.5%
Boston Heights	1,436	78	5.4%
Silver Lake	2,514	93	3.7%
Aurora	17,386	604	3.5%
Sugar Bush Knolls	349	5	1.4%
Total	546,437	116,251	21.3%

Source: American Community Survey - 2023 5-Year Estimates.
 *Table excludes townships to avoid duplication of data.

Map C-3 | Low Income Population



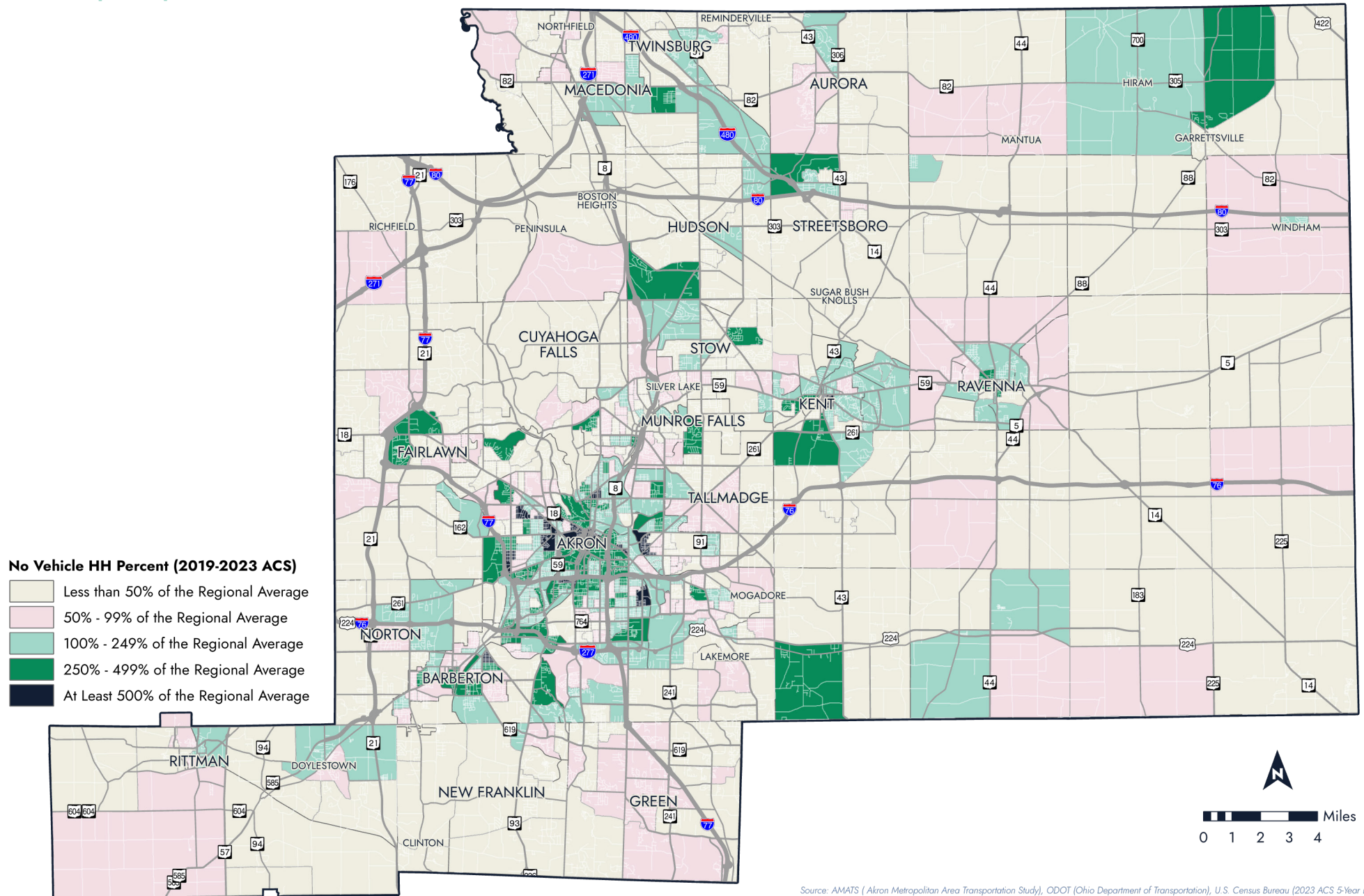
Carless Households data is collected at the household level rather than the individual level and represents the percentage of households within each block group without a car. It's important to note that the reasons for this vary, including age, disabilities, lack of affordability, and personal choice. Some individuals may choose alternative transportation options, but still have access to a personal vehicle, while for many others, they're an essential part of life. A strong concentration of the region's carless households can be found within the city of Akron (13%), Kent (15%) and Ravenna (13%). There is a correlation between many of the lower income block groups within the city and carless households. Most of these tend to be in more walkable communities, block groups where large senior housing facilities exist, major universities (Kent State University and University of Akron) or, as in Northeastern Portage County, where Amish populations exist.

Table C-4 Carless Households (Cities and Villages)			
Community	Total Household	Carless HH	% Carless
Kent	10,180	1,559	15.3%
Ravenna	5,048	689	13.6%
Akron	83,854	11,105	13.2%
Barberton	10,945	1,045	9.5%
Munroe Falls	2,147	193	9.0%
Doylestown	1,294	108	8.3%
Aurora	6,907	528	7.6%
Windham	641	47	7.3%
Mantua	321	23	7.2%
Twinsburg	7,903	388	4.9%
Norton	4,891	233	4.8%
Streetsboro	7,366	336	4.6%
Cuyahoga Falls	23,210	1,033	4.5%
Macedonia	4,637	202	4.4%
Stow	14,030	569	4.1%
Green	10,799	372	3.4%
Northfield	1,534	50	3.3%
Mogadore	1,655	49	3.0%
Richfield	1,604	46	2.9%
Garrettsville	1,212	34	2.8%
Hudson	7,969	218	2.7%
Tallmadge	7,470	195	2.6%
Lakemore	1,301	33	2.5%
Fairlawn	3,577	87	2.4%
New Franklin	5,662	130	2.3%
Silver Lake	966	20	2.1%
Boston Heights	571	7	1.2%
Sugar Bush Knolls	108	1	0.9%
Clinton	460	4	0.9%
Peninsula	258	2	0.8%
Reminderville	2,310	15	0.6%
Hiram	251	0	0.0%
Total	231,081	19,321	8.4%

Source: American Community Survey - 2023 5-Year Estimates.

*Table excludes townships to avoid duplication of data.

Map C-4 | Carless Households



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation), U.S. Census Bureau (2023 ACS 5-Year Estimates)

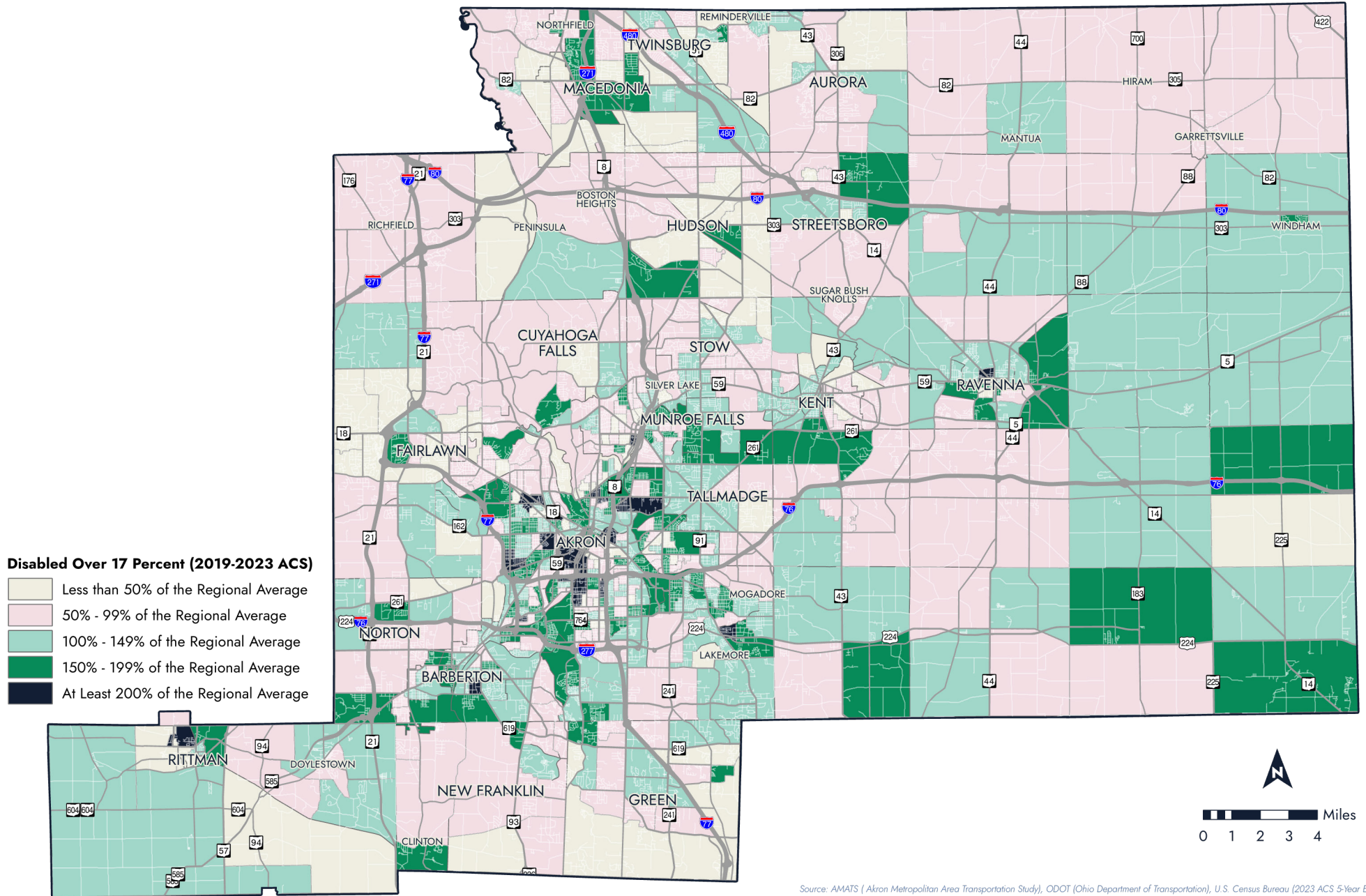
Individuals with Disabilities are adults over the age of 17, who have hearing, vision, cognitive, ambulatory, self-care, or independent living difficulties. The disabled population is more geographically scattered than the other groups analyzed. Some of the areas with the highest percentage of disabled population are within the cities of Akron and Barberton, although both have many areas of below-average disabled populations, often in adjoining BGs. Other areas of above-average disabled populations can be found throughout all portions of the planning area.

Table C-5 Adults with Disabilities (Cities and Villages)			
Community	Adult Population	W/ Disabilities	% Disabled
Windham	1,241	394	31.7%
Munroe Falls	3,998	968	24.2%
Clinton	936	192	20.5%
Barberton	18,906	3,740	19.8%
Akron	144,816	28,465	19.7%
Ravenna	8,877	1,702	19.2%
Mantua	561	106	18.9%
Mogadore	3,058	542	17.7%
Northfield	2,796	471	16.8%
Macedonia	9,681	1,577	16.3%
Tallmadge	14,752	2,336	15.8%
Doylestown	2,322	365	15.7%
Kent	18,002	2,794	15.5%
Cuyahoga Falls	41,135	6,323	15.4%
Norton	9,449	1,408	14.9%
Streetsboro	14,374	2,022	14.1%
Reminderville	4,133	579	14.0%
Hiram	508	70	13.8%
Stow	26,340	3,574	13.6%
Green	20,653	2,708	13.1%
Twinsburg	14,858	1,932	13.0%
Garrettsville	2,104	272	12.9%
Aurora	12,950	1,625	12.5%
Silver Lake	2,048	255	12.5%
Lakemore	2,356	286	12.1%
New Franklin	11,317	1,347	11.9%
Sugar Bush Knolls	238	24	10.1%
Hudson	16,359	1,638	10.0%
Fairlawn	5,967	552	9.3%
Boston Heights	1,176	103	8.8%
Richfield	3,019	255	8.4%
Peninsula	511	37	7.2%
Total	419,441	68,662	16.4%

Source: American Community Survey - 2023 5-Year Estimates.

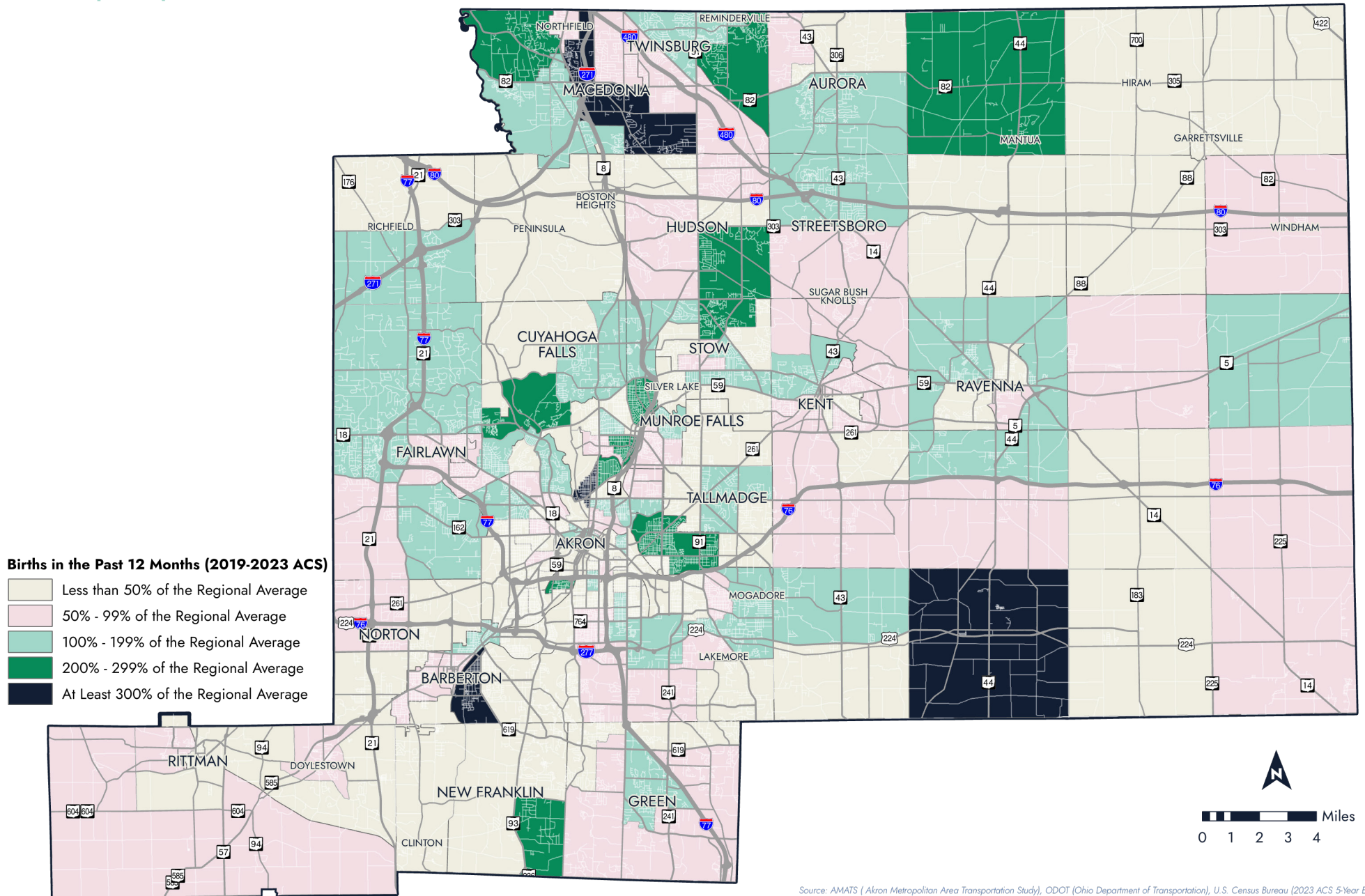
*Table excludes townships to avoid duplication of data.

Map C-5 | Disabled Population



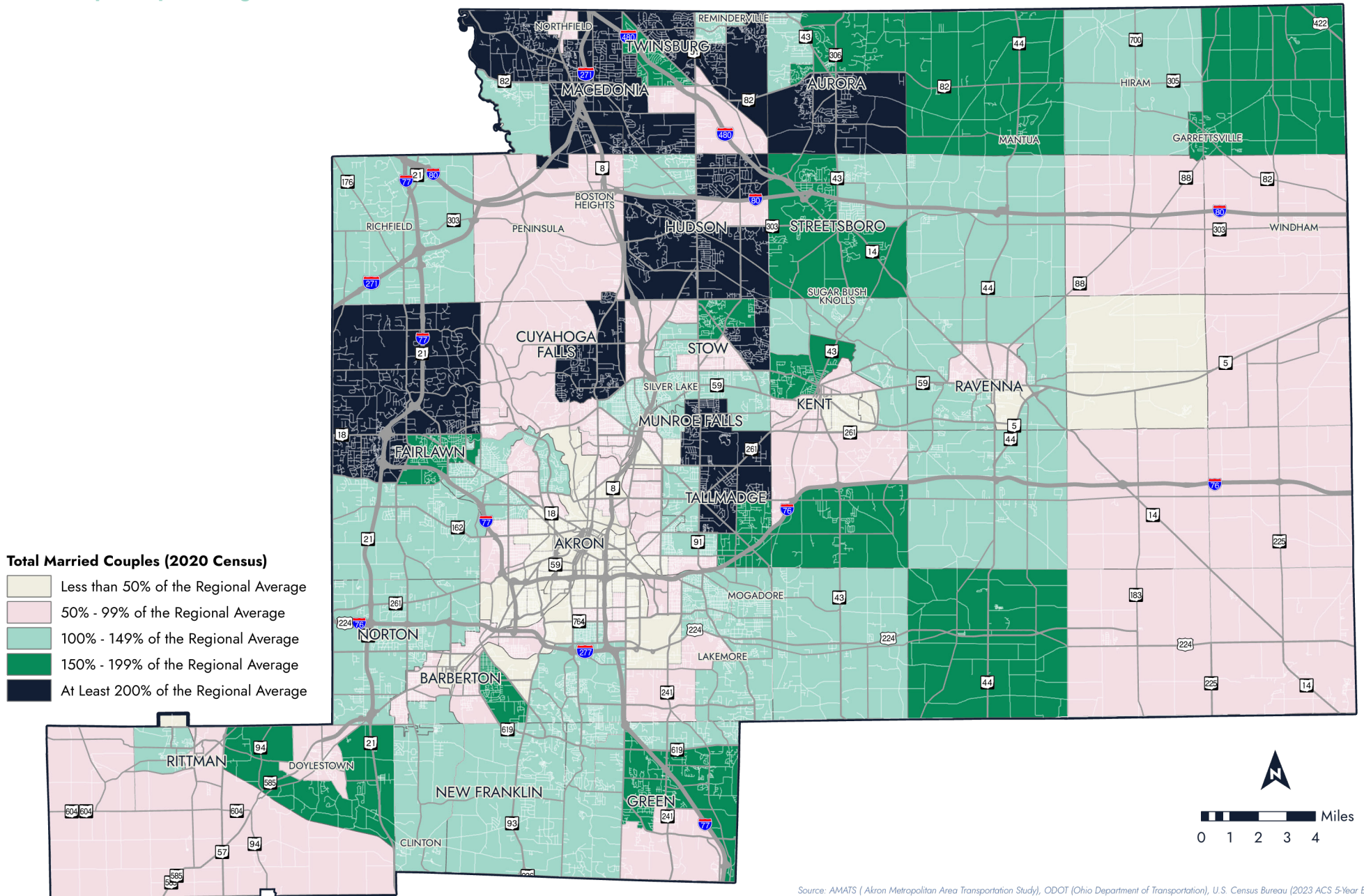
Birth Rates are the number of individuals born in a population in given amount of time. Variables used for birth rates can be used on the census tract level. However, getting data from all census tracts in the nation is too large of a data set to retrieve so therefore we average births from all 50 states would produce a number that is way too large to compare to the averages at the AMATS census tract level at this moment. Therefore, to get some type of estimate of what the national average would be for census tracts we divided all the states totals by the number of census tracts in the state. This does infer that all the census tracts produced the same number of children for the state, which is known to not be true, but the estimate would give a better guess at what the national average will be based on census tracts. However, there were no differences in the map from regional averages to the estimated national averages implying that the AMATS area regional average is a good representation of the national average. When looking at the regional maps for birth rates throughout the AMATS region we find higher rates in areas of larger population in Akron, Fairlawn, Barberton, Cuyahoga Falls, Stow, Hudson and Tallmadge. Higher concentrations of birth rates are exhibited toward the northern portions of Summit and Portage Counties where the population is larger. Rural areas north of Mantua and near Randolph exhibit a higher concentration of regional and national birth rates.

Map C-6 | Birth Rates



Local **Marriage Rates** are defined as the ratio of marriages to the population of a particular area or during a particular period. The data used is from the 2020 Census, which shows a higher concentration of marriages throughout affluent suburban areas of Fairlawn, Bath, Richfield, Hudson, Aurora, Twinsburg and concentrations in Stow, Munroe Falls, Kent and Tallmadge.

Map C-7 | Marriage Rates



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation), U.S. Census Bureau (2023 ACS 5-Year Estimates)

Appendix D | Environmental Mitigation

Environmental resources have immeasurable benefits that affect the social well-being and long-term viability of local and regional economies. Transportation improvements generally stimulate new development and therefore can have potential adverse impacts on the natural environment. Transportation planning provides the opportunity to slow negative and costly environmental impacts by making transportation improvements that minimize adverse environmental impacts.

The National Environmental Policy Act (NEPA) and the *Infrastructure Investment and Jobs Act (IIJA)* require that transportation planning agencies like AMATS consider potential impacts to the surrounding natural and social environment, whether for new construction projects or maintenance activities in the greater Akron area. Because the recommendations in Transportation Outlook 2050 are eligible for federal transportation funds, all proposed federally funded projects are subject to federal environmental laws and rules including NEPA, Endangered Species Act, Fish and Wildlife Coordination Act, and the Clean Water Act.

AMATS utilized an environmental consultation process to identify the environmental impacts of TO2050 plan update. The ODOT Office of Environmental Services (OES) takes a lead role in consulting with environmental resource agencies to obtain the data and discuss review of Metropolitan Planning Organization's transportation plans.

It is important to note that environmental studies are very conceptual at the transportation planning stage. To address environmental impacts on transportation projects, AMATS includes a discussion of the types of environmental resources along with maps in the region of the most common environmental features in accord with federal requirements at the policy and/or strategic levels, not at the project-specific level. To advance any project to construction, additional environmental assessment and mitigation practices will need to be completed. For projects that use state or federal funds, this will include a detailed environmental study in compliance and consultation with NEPA, other federal, state and tribal wildlife, land management, regulatory agencies, and ODOT requirements.

Through ODOT's consultation with the environmental resource agencies and AMATS' own data collection activities, the analysis includes a discussion of environmental mitigation strategies as well as an environmental resource agencies contact list.

Environmental resources that have been identified for discussion in this Plan include:

- Air Quality
- Water Resources and Wetlands
- Threatened and Endangered Species
- Section 4(f) Parkland
- Stormwater Management
- Social and Economic Impacts

- Cultural Resources
- Environmental Vulnerability Impacts

The following sections include a brief description of the environmental resources that are regional in scope in the planning stage of development and may require a more thorough and detailed assessment as any project moves closer to construction phase. AMATS analyzed TO2050 projects for potential environmental impacts using GIS overlay techniques. When available, OES databases were enhanced with local or internal data sources.

Air Quality

The effect of vehicle emissions on air quality is a major consideration in transportation planning for the region. Individual vehicle trips may seem insignificant, but their cumulative effect is a major determinant in the region's air quality.

Air quality conformity demonstrates that the transportation programs in the region conform to applicable air quality standards. Individual vehicle trips may seem insignificant, but their cumulative effect is a major determinant in the region's air quality.

The AMATS region is required to participate in air quality conformity to attain the National Ambient Air Quality Standards (NAAQS) for various criteria pollutants. Summit and Portage counties are part of the eight-county Cleveland-Akron-Lorain Combined Statistical Area (CSA). This area includes Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage and Summit counties.

The MPOs and ODOT must reestablish conformity for the ozone standards and fine particulate matter (PM_{2.5}) standards as a result of adopting new TIP and LRP amendments. The conformity analysis demonstrates that emissions from vehicles traveling on the planned transportation system are less than the area's emissions budget (or other emissions target in the absence of an approved budget). AMATS updates its travel demand model periodically to conduct this analysis considering the latest planning assumptions.

As the United States Environmental Protection Agency (USEPA) continues to tighten the current ozone and fine particulate matter (PM_{2.5}) standards, the region may be required to implement more control measures on ozone and PM_{2.5}. While more controls may be necessary, much of the area's pollution originates outside the area and is carried by wind patterns into the region. AMATS provides the work necessary to support the Clean Air Act Amendments of 1990 and to satisfy any changes resulting from the newly proposed air quality standards.

The complete air quality conformity document and the associated results of the transportation conformity analyses for TO2050 are discussed in detail in **Appendix A**.

Water Resources and Wetlands

Lakes, rivers and streams are an integral part of the ecosystem and regional watersheds. They provide a relation between land and water resources, help to curb flooding by slowing down and absorbing excess rainwater, and provide a habitat for numerous plants and animals.

Wetlands are low-lying areas where the water table stands near, at, or above the land surface for at least part of the year. This results in specialized wet soil types and water dependent plants. Wetlands can provide ecosystem

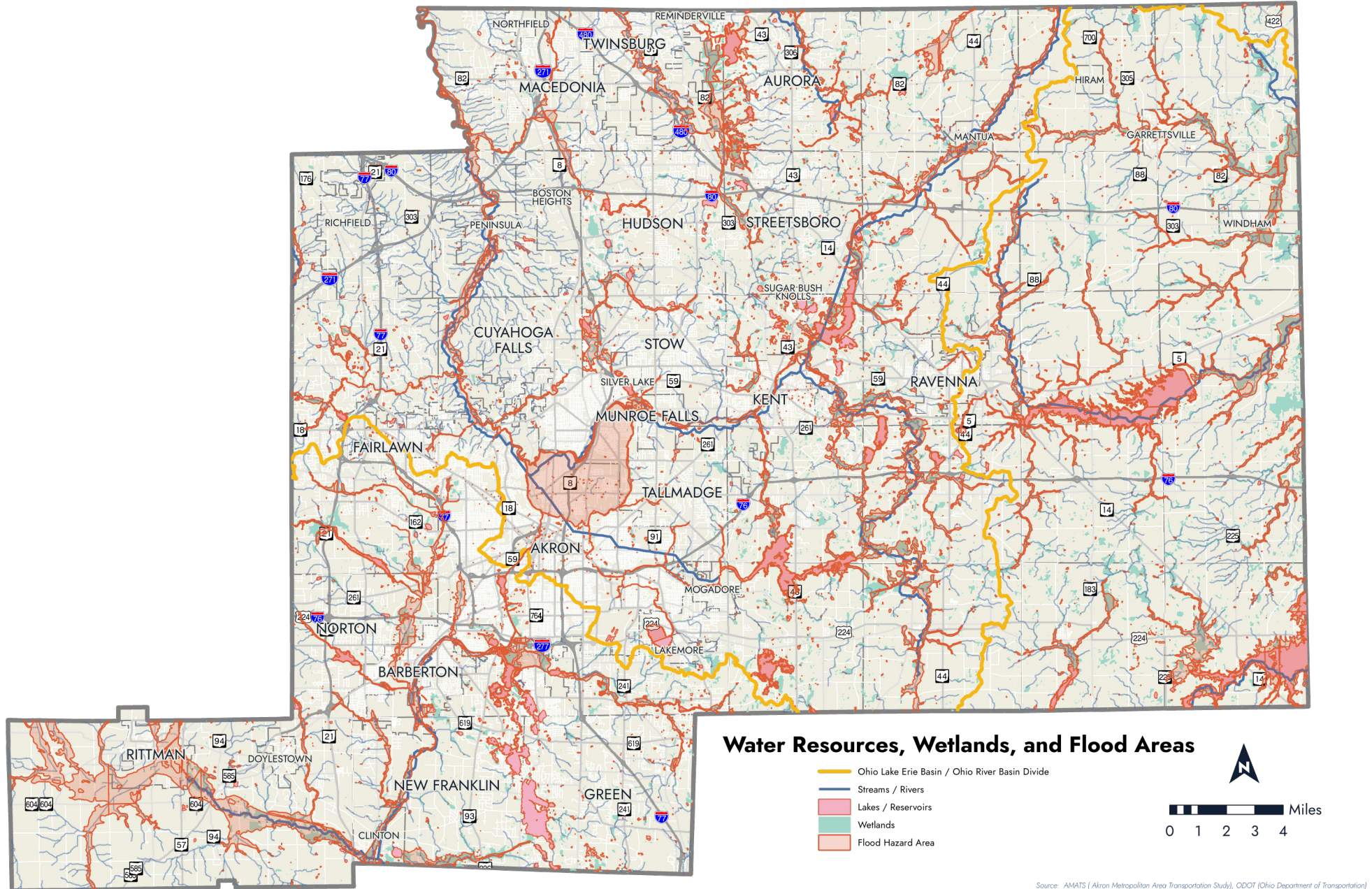
services including essential wildlife habitats for many plants and animals, and water filtration and storage to lessen and prevent storms and flood damage.

The Greater Akron area includes numerous streams and rivers, lakes, reservoirs, and wetlands. The two major rivers in the region are the Cuyahoga and the Tuscarawas. The Upper Cuyahoga River is a designated State Scenic River that runs through the AMATS area and extends from State Route 14 in Portage County to the north end at the Troy-Burton Township line in Geauga County. **Map D-1** includes the Greater Akron area's water resources and wetlands.

The OES along with project consultants coordinate all stream and wetland mitigation projects. This usually begins with a determination of mitigation needs in an Ecological Survey Report (ESR). A final mitigation plan would then be developed for submission to agencies prior to permit authorization.

Wetland mitigation measures may include mitigation banking, stream and wetland creation, restoration, or preservation.

Map D-1 | Water Resources and Wetlands



Threatened and Endangered Species

A great diversity of wildlife and plant communities exists throughout the state of Ohio as well as the Greater Akron area. Many species receiving federal or state protection are tied closely to their habitats. Land use changes have been the most common cause for the decline in species range and diversity. Contamination and degradation of natural waters has also contributed to loss of habitat. Loss of wetlands and forests has contributed largely to the federal and/or state listing of over 500 threatened and endangered plants and animals within Ohio, including a variety of mammals, birds, reptiles and amphibians, mollusks, butterflies, fish, and vascular plants.

The U.S. Fish & Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR) work together to protect endangered and threatened species in Ohio. The USFWS is the only agency in the federal government whose primary responsibility is the conservation and management of fish, wildlife, plants, and their habitats. The USFWS carries out this duty by adding species to the federal lists of endangered and threatened species based on their biological status and threats, as well as developing protective measures for listed species.

Ohio law allows the ODNR Division of Wildlife to adopt rules restricting the taking or possessing of native wildlife threatened with statewide removal, and to periodically update a list of endangered species as required by Ohio Revised Code 1531.25. The rules and regulations associated with these laws dictate that ODOT will build and operate their roadway projects with no, or minimal impacts to protected species and their habitat including potentially unoccupied habitat.

The ODNR uses **six categories: endangered, threatened, species of concern, special interest, extirpated, and extinct**, to further define the status of selected wildlife. This Plan addresses the first two categories of which a specific survey and environmental study is often undertaken during later stages of project development. ODOT coordinates with numerous regulatory agencies to determine if a threatened or endangered species is suspected of existing within a project area.

The Threatened and Endangered categories are defined as:

Threatened (T) – A species or subspecies whose survival in Ohio is not in immediate jeopardy, but to which a threat exists. Continued or increased stress will result in it becoming endangered.

Endangered (E) – A native species or subspecies threatened with extirpation from the state. The danger may result from one or more causes, such as habitat loss, pollution, predation, interspecific competition, or disease.

The Greater Akron area's ecosystem supports a variety of threatened and endangered wildlife and plant species. Portage County includes 114 different threatened and endangered species of wildlife and plants. Summit County includes 94 various threatened and endangered species of wildlife and plants; and the ODNR identifies 18 threatened and endangered species of wildlife and plants county-wide throughout Wayne County.

A complete list of threatened and endangered species for the state of Ohio and by county for the region can be viewed at the U.S. Fish and Wildlife Service and the ODNR Division of Wildlife at:

fws.gov/program/endangered-species/species and ohiodnr.gov/discover-and-learn/safety-conservation/about-ODNR/wildlife/state-listed-species.

A sample list of some of the threatened and endangered species in the Greater Akron area is noted below.

Wildlife Species

- Indiana Bat — E



Portage County

- Northern Harrier — E



Portage County

- Spotted Turtle — T



Portage County

- King Rail — E



Summit County

- Harlequin Darner (Dragonfly) — T



Summit County

- Barn Owl — T



Wayne County


- Riffle Snake Tail (Dragonfly) — E




Wayne County

Plant Species

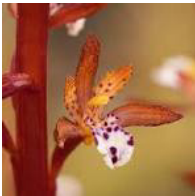
- Dragon's Mouth – E



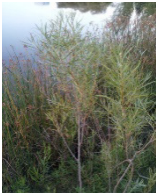
Portage County
- Swamp Birch – T



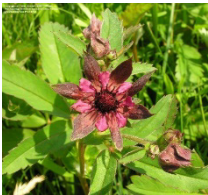
Portage County
- Spotted Coral-Root (Orchid) – E




Summit County
- Slender Willow – T



Summit County
- Marsh Five-finger – T



Wayne County
- Mud Sedge – E



Wayne County

Section 4(f) Parkland

Section 4(f) of the United States Department of Transportation (USDOT) Act protects publicly owned parks, recreation areas, wildlife and waterfowl refuges, and public or privately owned historic sites from adverse impacts resulting from the construction of federally funded transportation projects. Section 4(f) specifies that federally funded transportation projects requiring the use of land from a public park, recreation area, wildlife and waterfowl refuge, or land of historic significance can only occur if there is no feasible and prudent alternative.

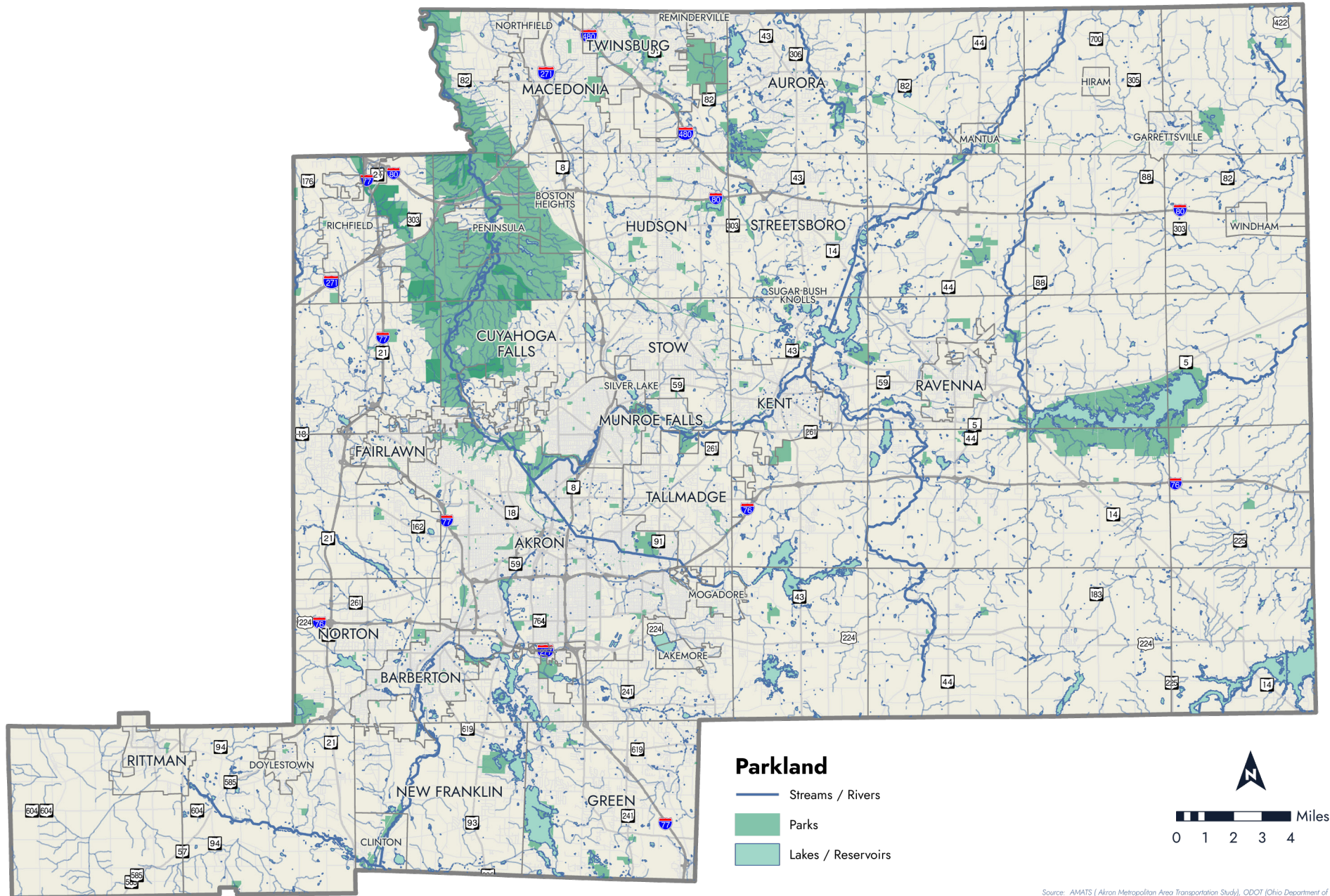
The use of Section 4(f) property can occur in the following circumstances:

1. When land is permanently incorporated into a transportation facility
2. When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose
3. When there is a constructive use where a project's proximity impacts are so severe that the protected features of a property are substantially impaired.

The Greater Akron area is home to a number of Section 4(f) resources including the Cuyahoga Valley National Park and Portage Lakes State Park in Summit County, several state and local parks, wildlife and waterfowl preserves, and several nature preserves. The state parks in Portage County include Nelson Ledges, Tinkers Creek, and West Branch. **Map D-2** identifies the many parks, lakes, and other water bodies in the Greater Akron area.

These parkland sites are important to our communities and heritage. However, at times, transportation projects impact Section 4(f) resources and require specific measures to minimize harm or mitigate the impacts. Any potential impact on Section 4(f) land requires all possible planning to minimize harm. For this reason, it is important to consult with the Office of Environmental Services (OES) at ODOT in the early stages of planning and project development in order that complete avoidance or minimal impacts of the protected resource are given full and fair consideration.

Map D-2 | Parkland



Source: AMATS (Akron Metropolitan Area Transportation Study), ODOT (Ohio Department of Transportation)

Stormwater Management

Hydrological features that include rivers, streams, wetlands, and flood-prone areas are important for both environmental and project development/construction reasons. Rivers, streams, and wetlands are often home to sensitive plant and animal species. Project construction in, over, or near these resources can be costly and have schedule implications related to permitting requirements.

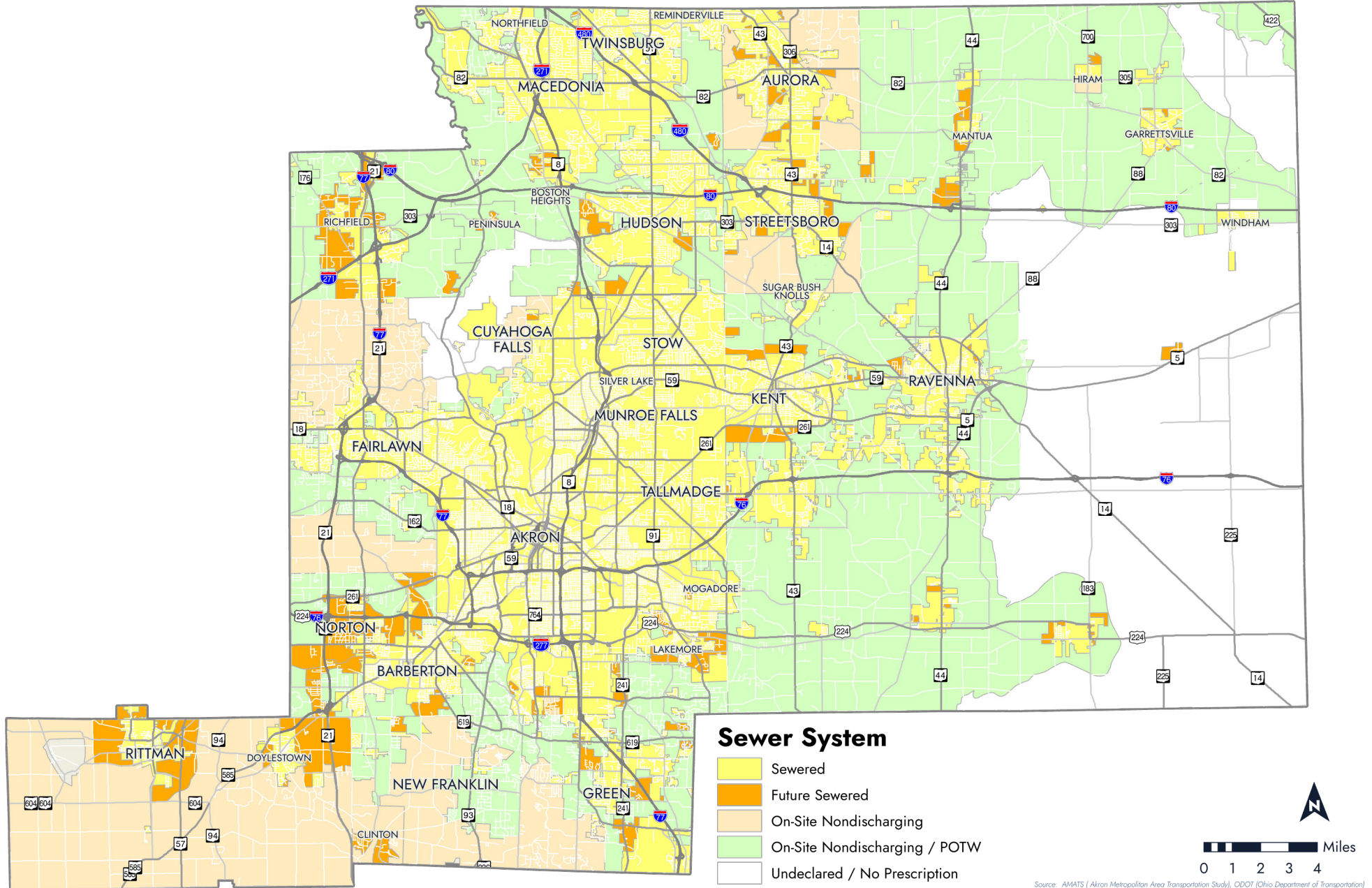
Stormwater is the runoff water that occurs when precipitation from rain or snowmelt flows over the ground that can pick up debris, litter, sand, bacteria, chemicals (like fertilizers) from lawns, and oil and gas from cars, and other pollutants. Stormwater pollution is the number one source of water pollution in the USA. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater runoff from naturally soaking into the ground. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and for providing drinking water.

The impact of storm water on transportation projects may need to be assessed in future stages of project development. Storm water management should be incorporated into the construction phase of a project to prevent the direct runoff of water containing sediment into waterways and reduce sediment entering the storm drainage system. **Map D-3** includes the AMATS area sewer system that is grouped into five categories:

- **Sewered** – this includes areas that are currently served with sanitary sewers that have been constructed and are currently in operation. There may be undeveloped tracts of land and vacant lots in these areas that are subject to improvement and will be required to connect and/or provide sanitary service.
- **Future Sewered** – these are areas that are programmed for sewers within the next 20 years. All new commercial, industrial, institutional, and residential developments in these areas shall be required to connect to the existing sanitary sewer system for the removal of sanitary wastewater from each new facility within the new development. The developer shall be required to extend new sanitary sewers from the proposed development to an existing publicly owned wastewater treatment facility.
- **On-Site Nondischarging** – these are areas where wastewater is handled and treated on the property where it's generated, rather than being sent to a municipal sewer system. This includes systems like septic tanks and other on-site treatment technologies. "Non-discharging" means that the treated wastewater is not discharged to the environment (e.g., a river or stream) or a larger sewer system. Instead, it's reused or disposed of on the property.
- **On-Site Nondischarging/POTW** – these areas contain a non-discharging sewage disposal system as described above or that will be served by a Publicly Owned Treatment Works (POTW) which includes the collection and treatment of stormwater runoff. The POTW serves as the publicly owned and operated sewage treatment plant that collects, treats, and disposes of wastewater.
- **Undeclared/No Prescription** – these are areas where wastewater or connections to the system are not properly reported or accounted for by the homeowner or property owner. There are no pretreatment programs in place which control the discharge of pollutants from various sources.

There are a number of mitigation techniques that can be used to curb stormwater runoff including grass swales, filter strips, permeable pavement, detention basins, and retention ponds. Mitigation activities are further discussed in the last section of this Appendix.

Map D-3 | Wastewater Prescription Areas



City of Akron Sewer Project

The City of Akron developed an initiative in late 2014 to address combined sewer overflows (CSOs), named *Akron Waterways Renewed! (AWR)*. AWR is a 20-year program that will reduce pollution by 2.4 billion gallons per year and help protect Akron's abundant supply of fresh water. This sewer project is the largest single investment in city infrastructure in Akron's 200-year history. The management of the CSOs, coupled with the updates to the existing sewer infrastructure in Akron, will help the City meet current EPA mandates, as dictated by the Federal Consent Decree, which was issued to the City in 2009.

The Cascade Village Storage Basin, completed in the summer of 2016, was the first project in the new construction initiative that addressed the City's Combined Sewer Overflows (CSOs). The 1.5-million-gallon tank stores overflow from sanitary and storm sewers. The overflow is then released to Akron's wastewater treatment facility.

Cascade Village Storage Basin (CSO Rack 15)

Basin Volume: 1.4 Million Gallons

Project Cost: \$ 11.4 million

Designer: AECOM

Contractor: Kenmore Const.

CM: Black & Veatch

In-Service: October 31, 2015

CD Achieve Full Operation: October 31, 2015

Combined Sewer Overflow Removed (typical year)

11.8 MILLION GALLONS





The City of Akron submitted an Integrated Plan to the EPA in August of 2015. The Integrated Plan is intended to optimize and prioritize the projects that need to be completed to meet the City's Clean Water Act obligations, provide an earlier water quality benefit than provided for in the current Federal Consent Decree, and reduce the need for future rate increases. In the meantime, the city continues to meet milestones mandated in the Federal Consent Decree.

There have been a number of projects completed since the AWR inception. The City of Akron has completed 24 of 26 projects under the Federal Consent Decree as of March 2025. The 25th project is the Northside Interceptor Tunnel that is currently under construction.

On January 23, 2025, the Northside Interceptor Tunnel team in Akron pulled off a massive feat - rotating the 450-ton Tunnel Boring Machine, named "*Elaine*," about 30 degrees to align with the next phase of tunneling. After the boring machine was turned, Elaine was carefully pushed into the starter tunnel, where final assembly is underway.

➤➤➤ A bird's-eye view highlights the Howard Street Baffle Drop Shaft's location near the Main Street Bridge. The excavation has reached 70 feet deep, steadily progressing toward its final depth of 181 feet. Once finished, this drop shaft will capture combined sewer flows from a large drainage area and direct them into the Northside Interceptor Tunnel.



As conditions of Akron's waterways continue to improve, the return of wildlife has been evident as not seen in the area for many years. The most noticeable example of this is the resurgence of the Great Blue Heron along the Cuyahoga River. To learn more about ongoing projects and the AWRs program, visit akronwaterwaysrenewed.com.

Green Infrastructure

Green infrastructure involves a variety of water management practices, such as vegetated rooftops, roadside plantings, absorbent gardens, and other measures that capture, filter, and reduce stormwater runoff. Building green infrastructure cuts down on the amount of flooding and reduces the polluted runoff that reaches sewers, streams, rivers, lakes, and oceans. Green infrastructure captures the rain where it falls. It mimics natural hydrological processes and uses natural elements such as soil and plants to turn rainfall into a resource instead of a waste. It also increases the quality and quantity of local water supplies and provides a myriad of other environmental, and economic, and health benefits. Green infrastructure elements can be incorporated into the design of roadways through various practices like using permeable pavement, bioswales, rain gardens, and street trees to manage stormwater runoff. These elements help capture, retain, and treat stormwater by reducing pollution in waterways and enhancing the overall environmental and aesthetic value of roadways.

AMATS encourages the use of green infrastructure to reduce potential negative impacts of storm water runoff through integrating the various elements mentioned here. Additionally, involving stakeholders, including residents, businesses, and local government in the design and planning process - can help ensure that green infrastructure projects are successful.



Social and Economic Impacts

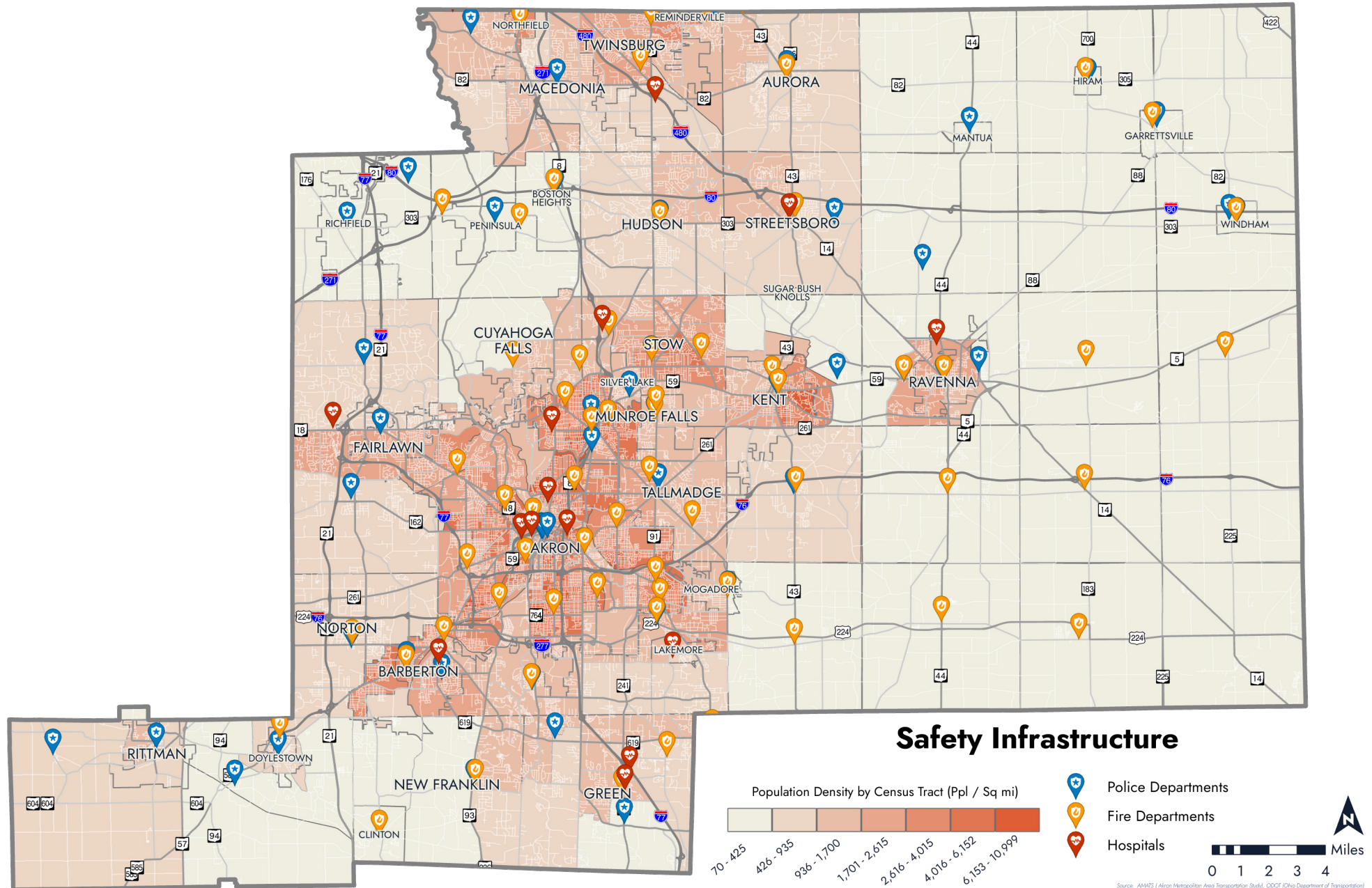
When developing transportation plans, social impacts like accessibility to jobs, education, healthcare, and community connections are considered as they may change the physical layout, demographics, and sense of place in local communities. Economic impacts like job creation, business development, property values, and overall economic productivity, are all influenced by the ease and efficiency of movement within a region and determine how well a transportation system enables people to access opportunities and contribute to the economy.

Project sponsors should work with local planning agencies and conduct public outreach to determine the impacts a proposed project may have on communities and identify methods to avoid, minimize, and mitigate impacts. Specific impacts may include physical and psychological barriers, changes in land use patterns, substantial displacement of businesses and individuals, disruption of business activities, circulation patterns and access to services, changes in population densities, effects on neighborhood cohesiveness, and influence on regional construction costs.

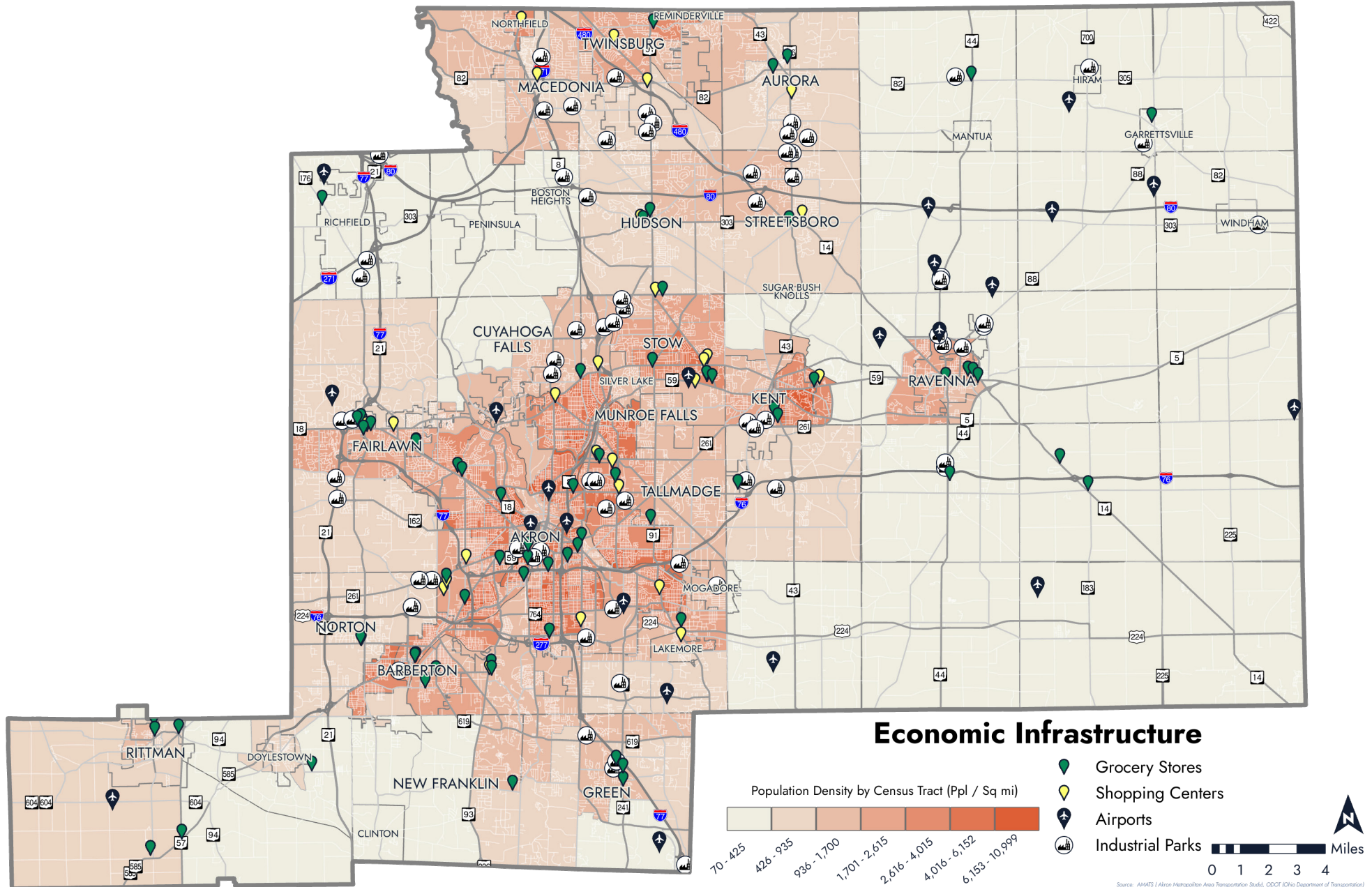
These types of community impacts should be addressed in detail through environmental assessments at later stages of planning development.

Community impacts to consider include hospitals, places of worship, nursing homes, public housing, schools, libraries, airports, industrial areas and shopping centers. These services can be viewed on the **Safety Infrastructure, Economic Infrastructure, and Social Infrastructure maps D-4, D-5, and D-6** on the following pages.

Map D-4 | Safety Infrastructure



Map D-5 | Economic Infrastructure



Cultural Resources

Cultural resources review is another requirement along the project development path for all federal and state funded projects in the AMATS area. Procedures for evaluating cultural resources for transportation projects include the Section 106 process as part of the National Historic Preservation Act and Section 4(f) of the Department of Transportation Act. The requirements under Section 106 involve following procedural guidelines to determine the number and significance of historic properties that might be affected. The requirements under Section 4(f) include the avoidance of certain protected resources, where possible, and the minimization of impacts to protected resources, where avoidance is not possible.

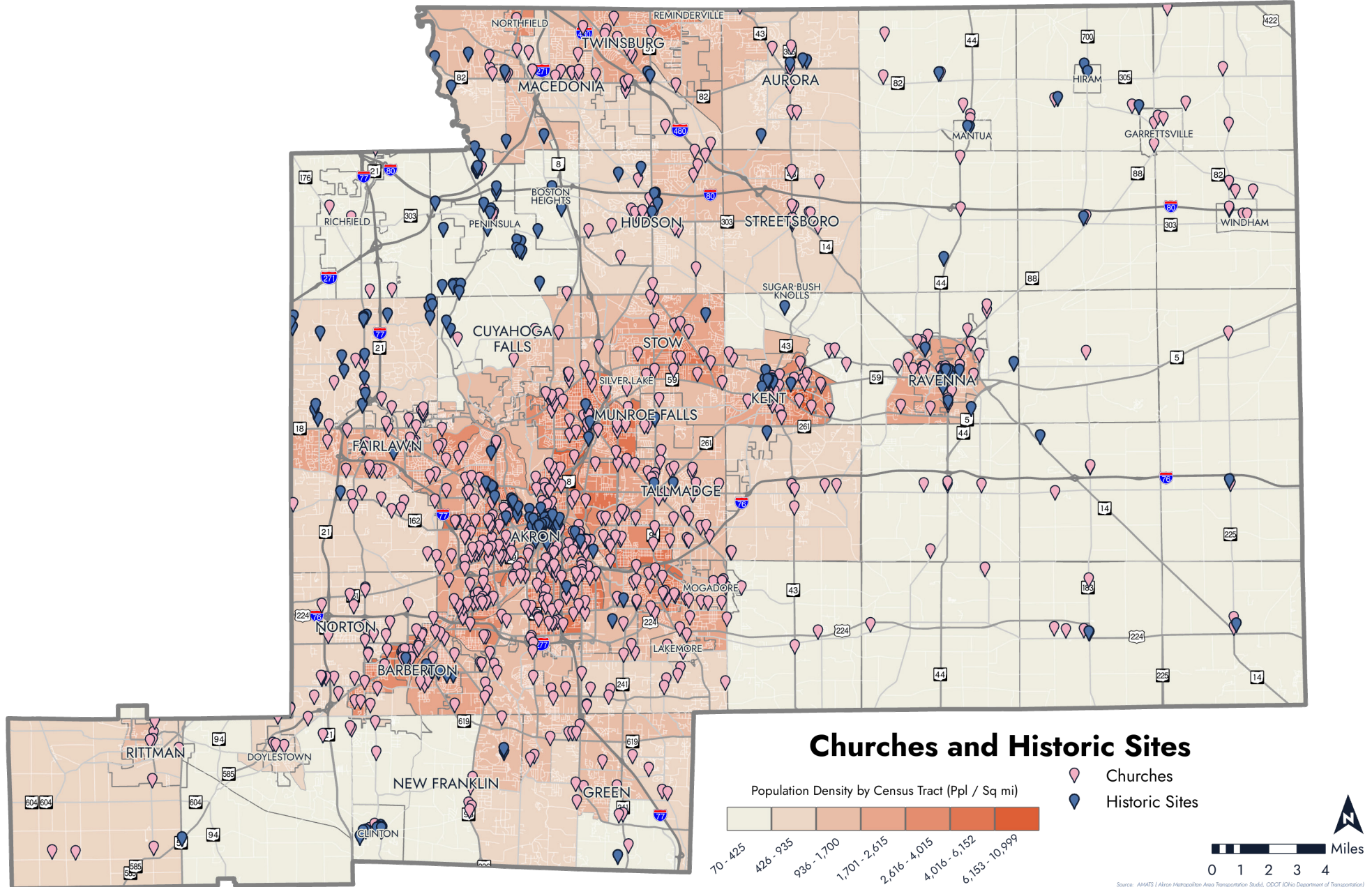
Cultural resources evaluations are planned and designed to comply with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act, the Ohio Revised Code, and 36 CFR Part 800 - the implementing regulations for Section 106 of the National Historic Preservation Act.

The level of documentation required for processing cultural resources depends upon the type and magnitude of the project, as reflected in the Project Development Process (PDP) path for a project. The PDP defines the steps when cultural resource concurrence documents must be prepared to ensure the timely completion of the NEPA documentation and initiation of project construction.

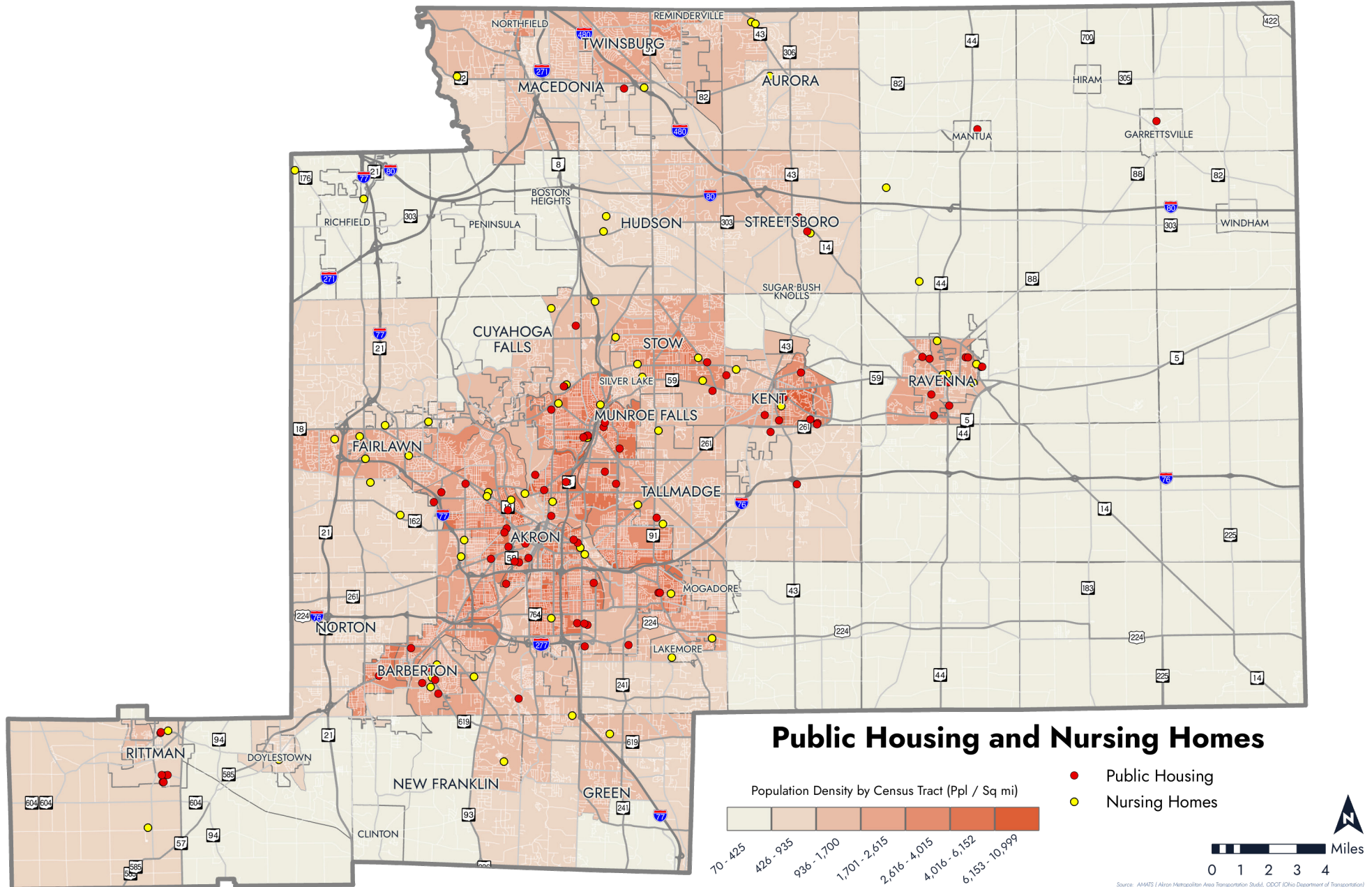
When initiating a Section 106 review, consultation should be made with various entities, including the Federal Highway Administration (FHWA), the State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP), City Historic Preservation Offices, local public officials, local organizations, and the public.

The types of resources to review include National Register historic sites, cultural and archaeological sites, and cemeteries. Historic sites are spread throughout the region with the greatest concentration in the urban areas of Akron, Barberton, Cuyahoga Falls, Hudson, Kent, Village of Peninsula, Ravenna, and Twinsburg. There are 182 properties and districts listed on the National Register of Historic Places (NRHP) in Summit County, including three National Historic Landmarks. The City of Akron is the location of 60 of these properties and districts, including 2 on the National Historic Landmarks. Portage County includes 50 places on the NRHP including one place of National significance and seven places of Statewide significance. The portions of Wayne County in the AMATS area include Chippewa and Milton Townships, which includes one property listed on the NRHP. The region's churches and historic sites are shown on **Map D-6, Cultural Infrastructure**.

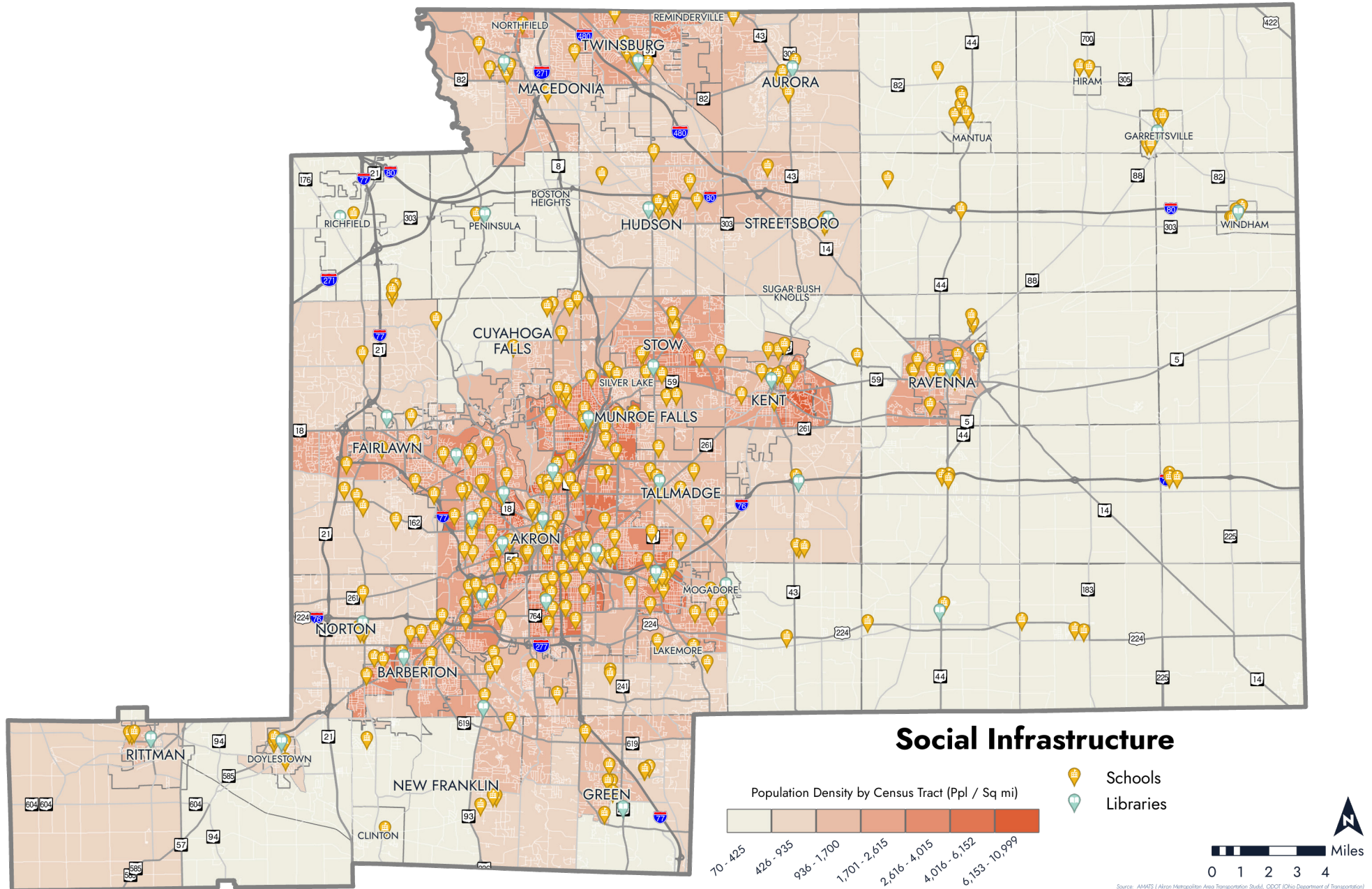
Map D-6 | Cultural Infrastructure



Map D-7 | Public Housing and Nursing Homes



Map D-8 | Social Infrastructure



Environmental Vulnerability Impacts

The impact of climate and weather conditions on the environment cannot be overlooked when planning for transportation projects in the Greater Akron area. AMATS developed a *Climate Resiliency Assessment* in August 2022, as a means to integrate climate adaptation considerations into the transportation decision making process. The report identifies critical roadway infrastructure that is threatened by extreme weather and outlines recommendations for integrating climate resiliency into the transportation planning process.

Extreme weather issues such as increased precipitation and temperatures may change the road network that can have devastating effects on the region's roads and bridges. Critical infrastructure damage can lead to economic disruptions, delayed emergency response times, and costly emergency repairs. Because the primary extreme weather threat in the region is precipitation that results in flooding, the majority focus on transportation infrastructure is mostly in areas adjacent to the region's floodplains. Research and best practices from around the country illustrate that storm water management upgrades such as green infrastructure and other improvements can lower the risk of costly damage from flooding.

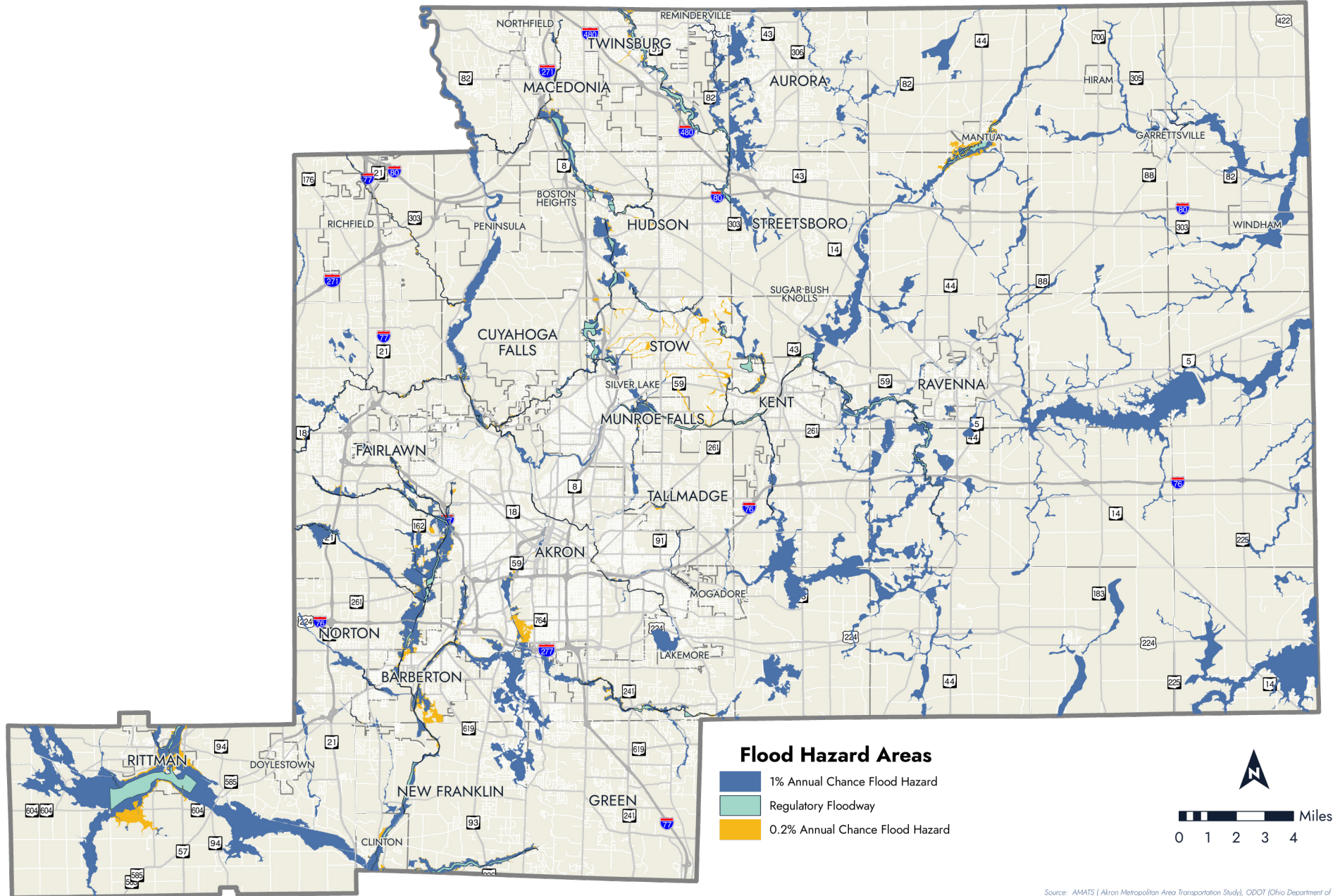
Increased suburban sprawl would also be a cause for concern regarding increases in flooding damage. New developments that fail to implement effective storm water management practices will increase the likelihood of flash floods and costly damage to area infrastructure. Development increases flooding when more impervious surfaces (e.g., pavements, buildings) are built.

Stormwater runoff causes flooding with both peak flow and total volume of stormwater runoff and can also affect water quality by increasing the temperature of receiving water, as well as sediment, pathogens, and nutrient loads. Urban flooding can occur due to overbank flooding or when stormwater overwhelms drainage systems and ends up in basements, backyards, and streets.

In order to address design flaws before any infrastructure is replaced, local governments may want to consider **updating design guidelines** to better manage stormwater flows. Some areas may even need **stabilization projects** to prevent further damage to the hardest hit areas. Further, **installing green infrastructure** is one of the best ways to combat problems with runoff, erosion, and flooding. The **Flood Hazard Area map (Map D-9)** below identifies flood zone areas in the AMATS area.

AMATS recommends multiple strategies to incorporate resiliency planning into the transportation planning process. The strategies include prioritizing projects that are at high risk from extreme weather events and supporting roadway design changes to ensure transportation infrastructure is capable of withstanding extreme weather events.

Map D-9 | Flood Hazard Areas



Environmental Mitigation

Environmental mitigation guidelines and activities are required for projects that use federal funds and that may have adverse impacts on certain natural resources or environmental functions. Impacts are to be avoided, minimized or, as a last resort, reduced, eliminated or compensated for by replacing or providing substitute resources. AMATS is responsible for developing a discussion of environmental mitigation as part of its regional transportation planning process and the regulations of 23 CFR 450. Furthermore, the I/JA requires that the Regional Transportation Plan identifies types of potential environmental mitigation activities and potential areas to carry out these activities.

Mitigation measures are intended to help public officials make decisions about the environmental consequences with their transportation projects and related planning and to take actions that protect, restore and enhance the environment. The section below discusses general mitigation strategies for transportation plans during the Project Development Process (PDP).

Early review and analysis of project alternatives by regulatory and resource agencies combined with effective inter-office coordination are required to develop successful transportation projects. The ODOT Office of Environmental Services (OES) in cooperation with ODOT Districts, the ODOT Office of Real Estate, the ODOT Aerial Imagery Archive, and project consultants coordinate to develop mitigation projects.

A detailed assessment of individual projects in future stages of development may emphasize the importance of certain mitigation efforts, where needed. Potential environmental impacts and mitigation activities are considered for projects recommended in TO2050 through consultation with state agencies. It is the policy of AMATS to require that all federally funded projects comply with applicable environmental rules as a condition to receiving funding.

Mitigation activities should involve the five measures below:

- **Avoid** the impact altogether by not taking a certain action or parts of an action.
- **Minimize** impacts by limiting the degree or magnitude of the action and its implementation.
- **Rectify** the impact by repairing, rehabilitating, or restoring the affected environment.
- **Reduce or eliminate** the impact over time by preservation and maintenance operations during the life of the action.
- **Compensate** for the impact by replacing or providing substitute resources or environments.

Additional information about guidance in preparing compliance documentation and mitigation measures to ensure the environment is protected during transportation projects, is available at ODOT's OES website:

www.transportation.ohio.gov/wps/portal/gov/odot/programs/environmental-services

Regional Mitigation and Consultation Resources

Various mitigation resources and local environmental conservation organizations are provided in the following section. These agencies were notified of the availability of the Draft **Transportation Outlook 2050** and are encouraged to review The Plan recommendations.

Environmental Resource Agencies Contact List

Akron Combined Sewer Overflow (CSO) Program	Phone: (330) 375-2949 Web: www.akronwaterwaysrenewed.com
Akron Engineering Bureau	Address: 166 S. High St. Akron, OH 44308 Web: www.akronohio.gov/cms/engineering/main Email: akronengineering@akronohio.gov
Akron Environmental Division	Address: 166 S. High St., Rm. 701 Akron, OH 44308 Web: www.akronohio.gov/cms/engineering/environmental
Akron Regional Air Quality Management District	Address: 1867 W. Market St. Akron, OH 44313 Web: www.araqmd.org Email: ARAQMD@schd.org
Cuyahoga Valley National Park	Address: 15610 Vaughn Rd. Brecksville, OH 44141 Web: www.nps.gov/cuva
Federal Highway Administration	Address: 200 N. High St., Rm. 328 Columbus, OH 43215-2408 Web: www.fhwa.dot.gov
Ohio Department of Natural Resources (ODNR)	Address: 2045 Morse Rd., Building G Columbus, OH 43229 Web: www.wildlife.ohiodnr.gov Divisions: Wildlife, Ohio State Parks, Natural Areas and Preserves, Water Resources, Oil and Gas Resources, and Geological Survey
Ohio Department of Transportation (ODOT) Office of Environmental Services	Address: 1980 W. Broad St. Columbus, OH 43223 Web: www.transportation.ohio.gov/wps/portal/gov/odot/programs/environmental-services
Ohio Environmental Protection Agency (OEPA) Central District Office	Address: Lazarus Government Center 50 W. Town St., Suite 700 Columbus, OH 43215 Web: www.epa.state.oh.us Divisions: Drinking and Ground Waters, Environmental Response and Revitalization
Ohio & Erie Canalway Coalition	Address: 47 W. Exchange St. Akron, OH 44308 Phone: (330) 374-5657 Web: www.ohioeriecanal.org Email: info@ohioeriecanal.org
Ohio Historic Preservation Office Ohio History Center	Address: 800 E. 17th Ave. Columbus, OH 43211 Web: www.ohiohistory.org/preserve/state-historic-preservation-office



TRANSPORTATION OUTLOOK 2050

Portage County Health Department Environmental Services

Address: 705 Oakwood St., 2nd Floor
Ravenna, OH 44266

Web: www.portagecounty-oh.gov/portage-county-health-district

Portage County Soil & Water Conservation District

Address: 6970 SR 88
Ravenna, OH 44266

Web: www.portageswcd.org

Portage County Water Resources

Address: 8116 Infirmary Rd.
Ravenna, OH 44266

Web: www.portagecounty-oh.gov/water-resources

Portage Park District

Address: 705 Oakwood St., Suite G-4
Ravenna, OH 44266

Web: www.portageparkdistrict.org

Summit County Department of Sanitary Sewer Services

Address: 1180 S. Main St., Suite 201
Akron, OH 44301

Web: www.co.summitoh.net/departments/Sanitary-Sewer-Services.html

Summit County Engineer Storm Water Management

Address: 538 E. South St.
Akron, OH 44311

Web: www.summitengineer.net/home/Summit-County-Engineer.html

Summit County Public Health Division of Environmental Health

Address: 1867 W. Market St.
Akron, OH 44313

Web: www.scph.org

Summit Soil & Water Conservation District

Address: 1180 S. Main St., Suite 241
Akron, OH 44301

Web: www.summitswcd.org

Summit Metro Parks

Address: 975 Treaty Line Rd.
Akron, OH 44313

Web: www.summitmetroparks.org

U.S. Department of Agriculture Natural Resources Conservation Service

Local Service Center

Address: 6970 SR 88
Ravenna, OH 44266

Web: www.nrcs.usda.gov/wps/portal/nrcs/oh/home

U.S. Environmental Protection Agency Region 5

Cleveland Office

Address: 25063 Center Ridge Rd.
Westlake, OH 44145

Web: www.epa.gov/aboutepa/epa-region-5

U.S. Fish & Wildlife Service Ohio Ecological Services Field Office

Address: 4625 Morse Rd., Suite 104
Columbus, OH 43230

Web: www.fws.gov/midwest/Ohio

Wayne County Soil & Water Conservation District

Address: County Administration Bldg.
428 W. Liberty St.
Wooster, OH 44691

Web: www.wayneswcd.org
www.wayneohio.org/agencies-departments



Press Releases



Akron Metropolitan Area Transportation Study

1 Cascade Plaza / Suite 1300 / Akron, Ohio 44308-1423 / 330.375.2436

amats@akronohio.gov

www.amatsplanning.org

Contact:

Matt Stewart

Planning Administrator

330-375-2436

mstewart@akronohio.gov

NEWS RELEASE

FOR IMMEDIATE RELEASE: March 3, 2025

AMATS presents two views of the future

If you're interested in what the future holds for transportation in the Greater Akron area, then highlight **March 11** through **April 11** on your calendar. That's when the Akron Metropolitan Area Transportation Study (AMATS) will present the area's four-year Draft *Transportation Improvement Program* (TIP) and long-range Draft *Transportation Outlook 2050* for public review and comment.

The TIP is the four-year program of highway, public transit, and active transportation projects within the Greater Akron area scheduled to receive federal funds from Fiscal Year 2026 through Fiscal Year 2029. *Transportation Outlook 2050* (TO2050) is the area's long-range plan that identifies regional transportation needs and presents recommendations for projects to meet identified needs over the next 25 years. The TIP and TO2050 are key elements of the regional transportation planning process within Portage and Summit counties and northeastern Wayne County.



TRANSPORTATION OUTLOOK 2050

The Draft TIP and Draft *TO2050* will be available for public comment from **March 11** through **April 11** at amatsplanning.org, the AMATS X and Facebook pages - @AMATSPanning, and the AMATS office in downtown Akron. The **March 20** virtual meeting of the **AMATS Citizens Involvement Committee** will present these draft items at **6:30 p.m.** To participate in this meeting, please visit amatsplanning.org/cic-meeting-registration or call **330-375-2436** for more information.

Public meetings regarding the Draft *TO2050* are also scheduled at the following dates, times and locations:

Wednesday, April 2, 2025: 5:30-6:30 p.m.

Akron-Summit County Public Library, Main Library, Meeting Room 1

60 S High St, Akron, OH 44326

Thursday, April 3, 2025: 5:30-6:30 p.m.

Kent Free Library, 2nd Floor Meeting Room

312 W Main St, Kent, OH 44240

For more information about the TIP, *TO2050* and the regional transportation planning process, please click [here](#).

AMATS is the regional transportation planning agency serving the Greater Akron area of Portage and Summit counties and northeastern Wayne County. Please feel free to visit our agency's web site at amatsplanning.org

#



Akron Metropolitan Area Transportation Study

1 Cascade Plaza / Suite 1300 / Akron, Ohio 44308-1423 / 330.375.2436

amats@akronohio.gov

www.amatsplanning.org

Contact:

Matt Stewart

Planning Administrator

330-375-2436

mstewart@akronohio.gov

NEWS RELEASE

FOR IMMEDIATE RELEASE: March 11, 2025

AMATS is accepting comments regarding Transportation Outlook 2050

The Draft *Transportation Outlook 2050 (TO2050)* prepared by the Akron Metropolitan Area Transportation Study (AMATS) on behalf of the Greater Akron area is now available for public review and comment by clicking [here](#). Readers can comment on *TO2050* by clicking [here](#).

TO2050 is the area's long-range plan that identifies regional transportation needs and presents recommendations for projects to meet identified needs over the next 25 years. *TO2050* is a key element of the regional transportation planning process within Portage and Summit counties and northeastern Wayne County.

The Draft *TO2050* will be available for public comments through **April 11** at amatsplanning.org, the AMATS X and Facebook pages - [@AMATSPPlanning](#), and the AMATS office in downtown Akron. The **March 20**



TRANSPORTATION OUTLOOK 2050

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For more information about the *TO2050* and the regional transportation planning process, please click [here](#).

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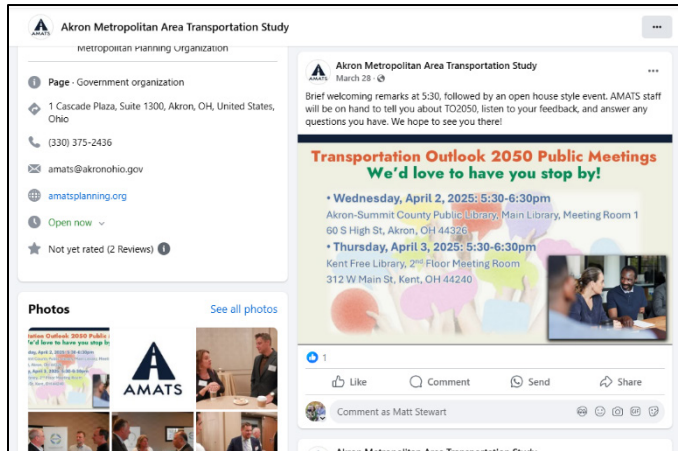
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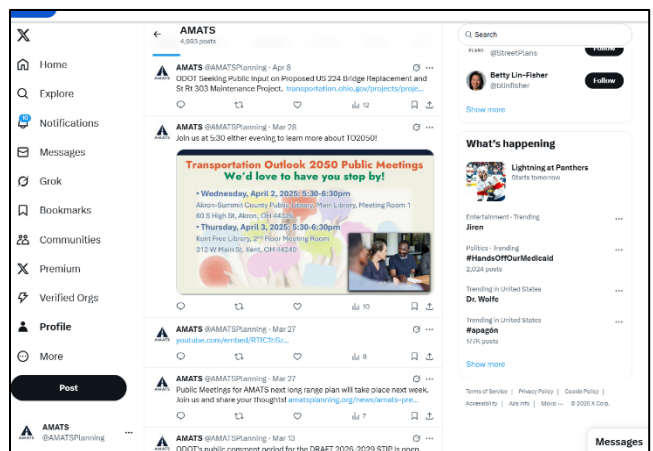
TRANSPORTATION OUTLOOK 2050

Digital Promotion

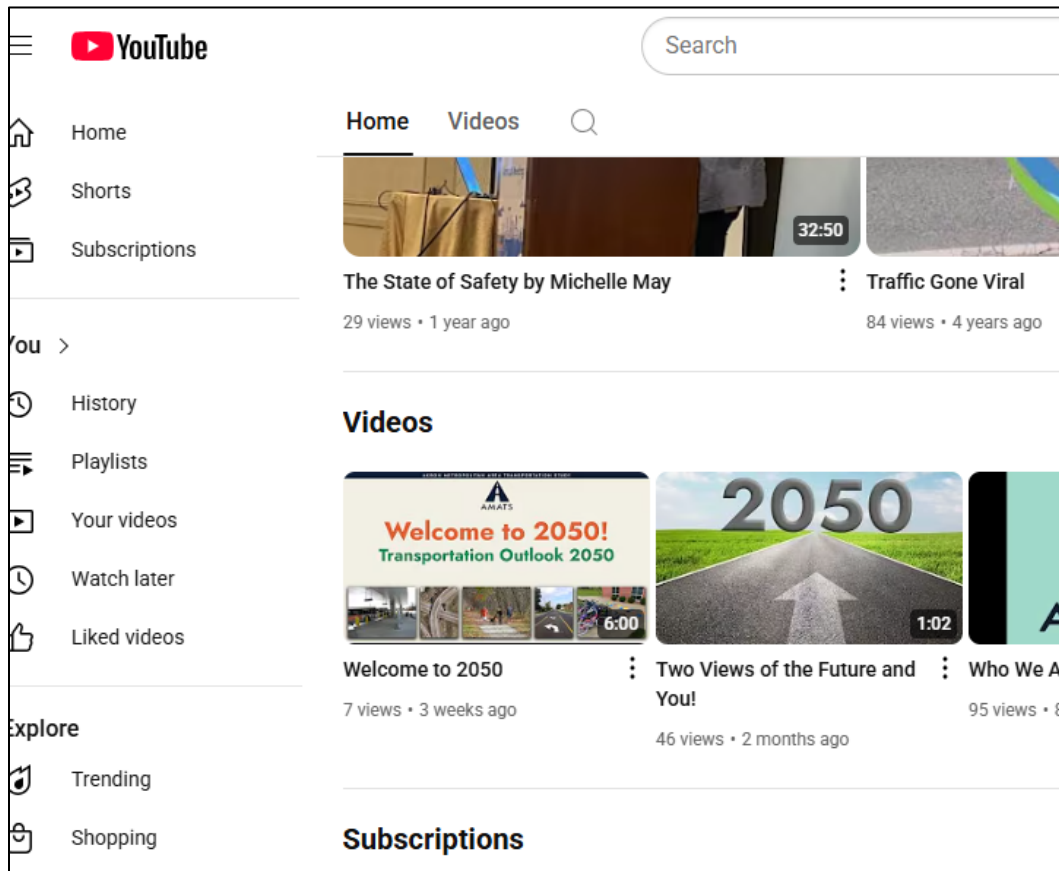
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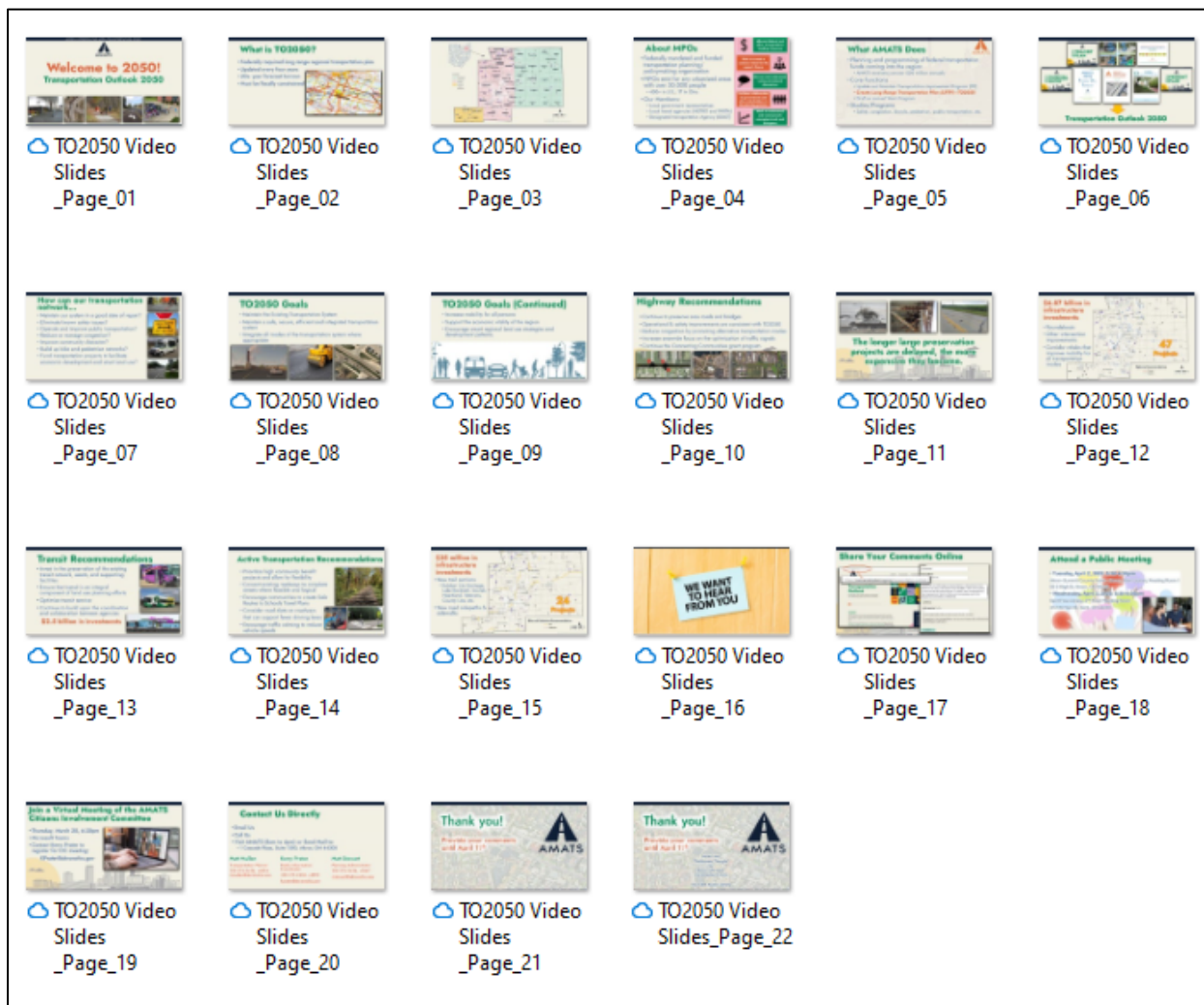
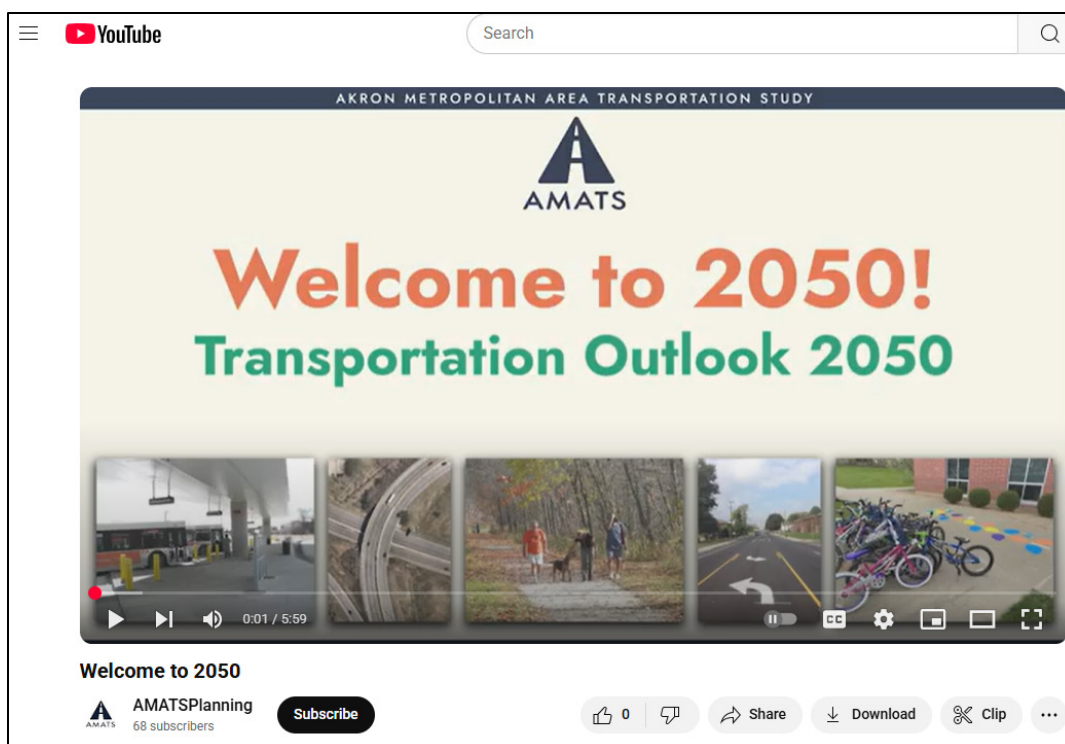


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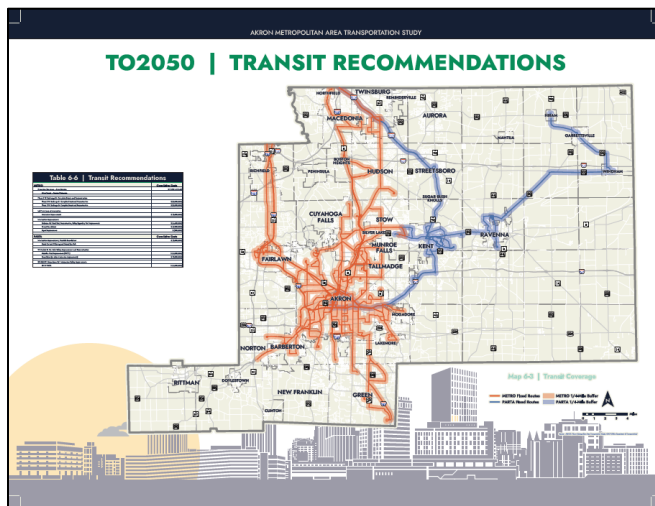
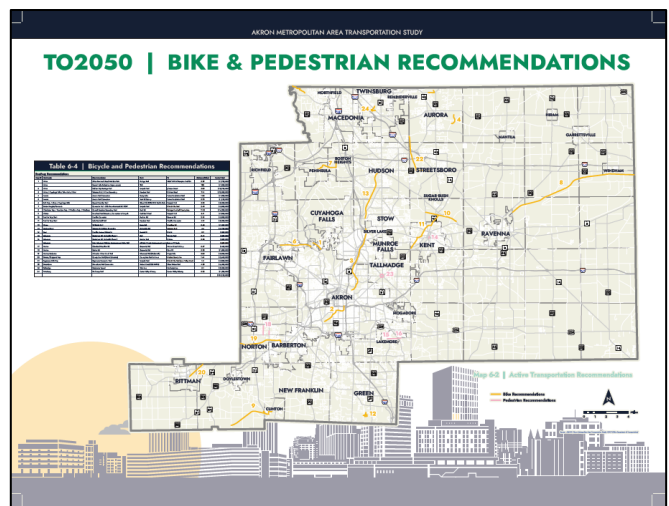
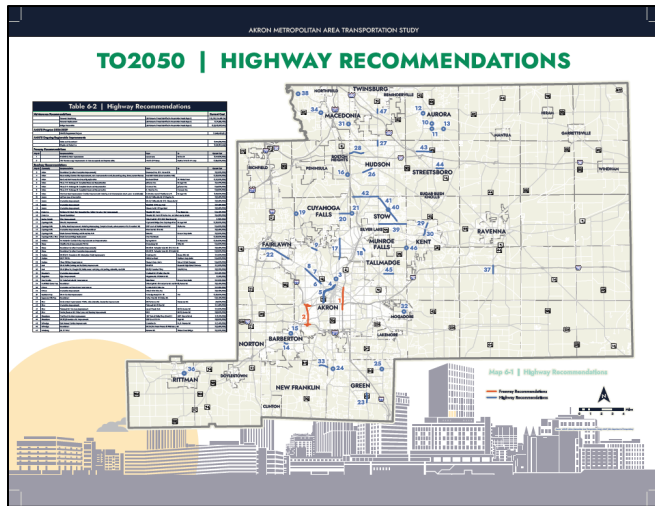
YouTube





Public Meeting Materials

Station 1—Project Recommendations



Station 2—Project Maps

TO2050 Goals and Objectives

How can our transportation network...


- Maintain our system in a good state of repair?
- Eliminate known safety issues?
- Optimize and improve public transportation?
- Reduce or manage congestion?
- Integrate community character?
- Build up bike and pedestrian network?
- Fund transportation projects to facilitate economic development and smart land use?



1

Goal # 1: Maintain the Existing Transportation System

- Give priority to reviewing, revisiting, and rehabilitation, improvements, in the development of regional transportation plans and programs
- Give priority to transit vehicle replacement, preventive maintenance, and facility rehabilitation, in the development of regional transportation plans and programs



2

Goal # 2: Maintain a safe, secure, efficient and integrated transportation system

- Minimize highway accidents and provide safe travel routes
- Minimize pedestrian, bicycle, train, and vehicle conflicts
- Improve the safety of transit facilities and operations
- Increase the security of the transportation system
- Minimize traffic congestion



3

Goal # 3: Integrate all modes of the transportation system where appropriate

- Encourage service coordination among METRO, FARE, and the neighboring transit operators
- Encourage system operating efficiencies through the development of people that provide direct connections between modes
- Encourage the development of a balanced, integrated, multimodal transportation system that includes highways, transit, bicycles, pedestrian, rail, and air facilities



4

Goal # 4: Increase mobility for all persons

- Encourage a public transit system that provides basic mobility for work-dependent persons and provides an alternative to automobile usage
- Encourage the development of a regional network of bicycle routes
- Encourage the placement of sidewalks and other pedestrian facilities where they are appropriate
- Implement complete streets principles



5

Goal # 5: Support the economic vitality of the region

- Develop a transportation system that will provide superior mobility for the movement of freight and goods
- Encourage the implementation of transportation improvements that will promote sound economic growth



6

Goal # 6: Encourage smart regional land use strategies and development patterns

- Coordinate the development of transportation facilities and facilities
- Minimize the adverse effects of transportation facilities on local use, in order to protect and preserve neighborhoods and communities
- Minimize the adverse effects of land use changes on the transportation system
- Transportation and land use information should consider adverse environmental impacts



7

We appreciate you stopping by!

Please consider filling out a comment form.

If you think of anything else...

Share Your Comments Online

Contact Us Directly



8

Public Comments

Note: The comments below are those officially received by AMATS during the Public Comment period between March 11 and April 11, 2025. Full comments are retained on file within AMATS offices.

Received 3/20:

I profess that I'm a republican. Pre COVID I was CIC quasi activist for decades. Of all government agencies interactions, AMATS was most responsive to citizen comments/concerns.

You, as the agency gave us the impression that this was our money's being responsibly returned to us as priorities dictate. In reading Signal's story I was 'disgusted' that we should aquestist [sic] to outsider's priorities, many now being challenged in law. The methodology behind past justification of priorities of expenditures have a long consensus history. We should not deviate. I respectfully challenge those outside forces to bully what we find most meritorious. If they penalize us by withholding our funds, our principles remain intact and they may be unceremoniously removed. I understand that overall planning may temporarily slow down but we should eventually recover when pendulum swings. We are the heartland of America and I would not think retribution would put back to mid nineteenth century transportation.

Received 3/28:

Dear AMATS Staff,

Thank you for your hard work compiling a mountain of data and trying to bring it to the public cohesively and clearly. Transportation planning is fraught with challenges, the least of which is the fickle nature of the people who live in our region. I am one of those fickle folks and offer the following summary of my thoughts on the matter:

What's the point,
Of trying to know,
What makes some folks,
Go to and fro'?
They drive too fast,
Find walking slow,
But we've built the world,
For vehicles, you know!
We go too far,
In too little time,
That we miss the world,
And its speech sublime,
It is all about speed,
And rewarding the rich,
And pushing poor folks,
To the "unimproved" ditch.

If you can't drive a car,
And the grocery stores moved,
An occasional bus,
Ain't no disabled folk's groove.
We try to keep thinking,
That we can tweak our big system,
But the power's not there
To make the shakers and movers listen.
We've put our freight on the trucks,
Built wider roads, taller bridges,
But we've not considered the cost,
Of our fully stocked fridges.
(and all of these bridges can't span the divides
All of this road building has created- our socio-economics aside.)
Now the bill has come due,
We've raised the earth's temperature,
"But don't make us make changes."
Especially if it takes the legislature.
We are moving too slowly,
On the things that matter,
We are stuck on the former,
And we will pay for it later.

A FEW OBSERVATIONS

1. An appendix with some highlights from Outlook 2025 might be insightful.
2. There is no mention of the parking and zoning policies that incentivize private automobiles and drive development to auto-dependent, spread-out areas on the periphery of our urban areas.
3. The emphasis on maintenance is excellent, but not much thought about decommissioning the over-built areas we will not be able to maintain in the long run.
4. This general report does not seem to put much emphasis on our CLIMATE EMERGENCY. Just more of the same with a few better places to walk and ride bikes for middle-class folks. A 25-year plan must consider mitigation and avoidance of climate impacts.
5. Safe Streets for All is a huge step forward- thank you.
6. The accident, injury, and fatality data is staggering. Most of this has to do with speed. The underlying assumption is that for those highways eligible for state and federal funding, we want to maintain speeds when most drivers exceed the speed limits. Speed kills, and we seem to have baked in acceptance of 40,000 highway fatalities per year in our country. Not acceptable. (section 4)

7. No mention of “Modal Filters,” which can be used to discourage some modes of transport through walkable downtown neighborhoods. Neighborhoods are destroyed by traffic and can only be rebuilt, made more desirable, by reducing the traffic flow and speeds. (the traffic calming section is excellent)
8. The graphic on Page 28 of section 4 estimates that system preservation costs are gut-wrenching. When I see all the money being spent on bridges to “improve” the central interchange, it is simply unsustainable financially and ecologically.
9. I commend efforts to involve citizens in the planning process. Our city engineers in Kent have done an excellent job of this. I would like to suggest that a unit for high school civics classes be developed about transportation and community planning.
10. A reference to your land-use work would help. Sadly, more development continues to pave acres of land to accommodate cars for peak loads that rarely occur, only serving to induce traffic and lead to less active lifestyles.
11. The Congestion Mitigation Table on page 32 is excellent. The sad news is that expanding transit services is not likely to happen because we are spending all of our money on bridges, and none of our legislators walk or take a bus to work. (see below)
12. The most effective congestion management technique, telecommuting, has come under attack by reactionary politicians. This should be a priority of our transportation planning.
13. Too much money has been spent on safety improvements so trucks and cars can move rapidly through and between urban areas. Hundreds of millions are being spent on the central interchange, the route 8 corridor, etc, so much that this outlook assumes that transportation improvements should maintain high speeds instead of uniformly lowering them. (it is apparently un-American or even “socialistic” to think saving lives and the planet has merit.)
14. Freight needs to be on rail... Less on trucks. Truck Freight does not pay its share for the damage it does. (But their lobby is bigger than mine.)
15. Along this line, job hubs are not near where most people live. Ut-oH. Who pays? The poor people who spend inordinate amounts of their paychecks and time on simple transportation. (section 4 page 35)
16. Active Transportation is politically more neutral than sustainable transportation....I get it. Sustainable is a ONE WORLD GOVERNMENT threat..... LOL.
17. Having worked to create the Portage in Kent/Ravenna, this asset is priceless. We appreciate the support all of these multi-user paths have gotten and the difference they have made to our community’s well-being.
18. By the way, there is no such thing as “alternate” transportation. There is only transportation that is less important to lazy Americans and politically less important to the automobile industrial political complex.
19. Page 41- Great things are being done on the pedestrian network in many of our communities. I am even seeing people start to stop for pedestrians on North Water Street in Kent now that that street has had the attention of Safe Streets trained engineers. (imagine what we could do if we built one less lane of bridge, or perhaps didn’t replace every bridge for the convenience of people that want to live as far out of town as possible.)
20. Sidewalks are still the sideshow and most of our communities are clueless on getting residence to keep them walkable in the winter. It is demoralizing and Inequitable, and reduces inclusion.
21. Distracted driving makes riding bikes on many roads life-threatening.
22. E-Scooters and E-Bikes can be a menace. Uggh. I get their appeal though, and if they reduce cars, can be helpful.
23. Transit....Never enough, and it never will be. Excellent observation that the incomplete and unmaintained...all year sidewalk network also discourages use. Long headways make even the best transit in Portage County ineffective for anyone who isn’t transit-dependent. Time is Life, and if you have enough money, your life is apparently worth more.
24. Rail....Trains are nice....but so much freight isn’t shipped on them from a local basis that we have a river of truck on our interstates... What is the long-term thinking about the ecological and safety differences between rail and trucking? Unfortunately both of these industries have lobbyists that seem to own our legislatures.
25. Context Sensitive Design.... Is a good way to think about streets. I think making the distinction between a street, where many different types of users are accommodated in the design as opposed to limited access highways. Unfortunately, many people think that state routes are not streets and that anyone on or near them is a nuisance. Efforts to reduce traffic speeds by design are good; I have been a proponent of traffic calming for decades, but with the rise of distracted driving and the prevalence of speeding, I do not see us gaining ground on a fair and sustainable road network.
26. I am sobered by the targets for improving the safety of our road network. (page 62) Speed kills but we are not seriously reducing the speeds of our roadways.
27. Travel Time Reliability and Congestion Mitigation as benchmarks both encourage more Vehicle Miles Traveled. People make decisions about where to live based on the magical 30-minute average commute, which impacts land use patterns. Creating a sustainable region and reducing death by transport will require us to stop encouraging single occupancy vehicle utilization.

28. Active Transportation Section is encouraging. (page 80-84) These types of projects need to receive a much greater portion of the regional transportation spending.
29. Why are we widening roads (Exhibit A-1)? We are in a climate crisis. We need to reduce consumption of oil, steel, rubber, and every other material.
30. Map C-4 Carless Households. Observation. It is the poor people or retired people who are carless. We need to focus our energies on making every community be as car-less as possible.
31. Water quality....Cities around the country are dealing with the impact of road salt on not only the biome but also the drinking water supplies. We need to be thinking about mitigating this threat in our planning.

In conclusion, I understand the complexity of the planning process and am always impressed with the amount of work that goes into these comprehensive outlooks. While I see positive steps in the right direction, I do not think that the Climate Emergency we are in allows for business as usual. I understand the political implications of being more forthright about this matter, but we fail to respect the future by fiddling while Rome burns.

Received 3/31:

Thanks to you and the AMATS team for the great work on the Transportation Outlook 2050 document. It was well written.

I reviewed the document, focusing in particular on the sections on Active Transportation. Please see my comments below:

1. Editorial - page 7 - "Jane's Walk — Jane's Walk is a global walking initiative held annually on the first weekend in May. The initiative began in Toronto in 2007 to honor the legacy and ideas of urban planner Transportation Outlook 2045 and writer, Jane Jacobs. Every year, cities around the world participate in the Jane's Walk festival of free walking tours that get people to explore their cities, tell stories about their neighborhood and connect with neighbors." (Remove extra text "Transportation Outlook 2045")
2. Editorial - page 9 - "Reporting on Progress - AMATS kept each of its committees—including the Citizens Advisory Committee—apprised of TO2050s progress at each scheduled meeting during the Plan's development." Comment: Should "Advisory" be changed to "Involvement"?
3. Question - page 81 - Safe Routes to School - There is a reference to the five E's: Engineering, Education, Enforcement, Encouragement, and Evaluation. In 2023, the League of American Bicyclists updated the five E evaluation categories for the Bicycle Friendly America program, replacing "Enforcement" with "Equity and Accessibility". Do you know if the Safe Routes to School categories were also updated at that time? I realize the organizations may be using a different set of 5 E's now, but I wanted to point out this change in case it is relevant.

I plan to stop by the public meeting in Akron on Wednesday, so I hope to see you there.

Thank you.

Received 4/3:

Hello Matt, Matt, and Curtis,

It was great to meet you all at the TO 2025 public meeting yesterday. I would like to formally submit a comment that the Veterans Trail project (MAP ID 3 in Bicycle and Pedestrian Recommendations) currently lists the Freedom Trail as the southern terminus. It would be great to extend the Veterans Trail to Northside Station for a connection between the Veterans Trail and the Freedom Trail to the Towpath Trail. Would it be possible to include this extension in the Transportation Outlook 2025 plan?

Thank you very much.

Follow-up comment #1 related to initial request and AMATS replies (Received 4/4):

Hello Matt,

Thank you for following up on the Veterans Trail extension and to Amelia for updating the map. The route map you sent appears to be the route that I was proposing. On Summit County Parcel Viewer, METRO RTA owns parcels 6859808 and 6761684, which seem to align with the pink line on the graphic. This will be a convenient connection between three major regional trails just outside of Downtown Akron.

Do you have access to the Akron Secondary Line Trail Plan from 2005? This section is listed on pages 1-3 of Appendix C - Concept Plan in that document. Things may have changed since 2005, but that could be another good resource to cross-reference.

Thank you again for considering this connection. I appreciate your help. Have a great weekend!

Follow-up comment #2 related to initial request and AMATS replies (Received 4/4):

On the east end of that connection, the track from North Side goes about 30 ft beneath the CSX / Akron Secondary Line elevated railway. The 2005 study routed the trail up to North Ave, and connected to the Veterans Trail on Eastwood Ave. Please see attached. I think that route was chosen both for its connection to Arlington Street and a more favorable grade for the trail.

Follow-up comment #3 related to initial request and AMATS replies (Received 4/4):

First, congrats to Austen for getting AMATS to recognize this connection in their plans. That is a HUGE accomplishment! TASCforce has been advocating for the connection to Northside station forever and getting a fair amount of pushback from SMP, Metro RTA, CVSR, and City of Akron. By AMATS including it in their plan, it now has some credibility. That's great! And, not only does this connect the Veterans Trail and Freedom Trail to the Northside Station - and thus the Tow Path Trail - it also connects both of these trails to the RCHT by virtue of existing bike lanes on North Arlington Avenue.

The trick is, how does the ASL connect to Northside Station? It took us a long time to figure out, it doesn't. The southern end of the ASL was actually connected to the CSX tracks that are still active just east of N Arlington. (See first link below.) But, as Mike has pointed out, the 2005 proposed routing the trail down to Home Ave, across N Arlington, and then through the parcel owned by City of Akron to connect to the Sandyville Line leading to NS station. Bill and I had a meeting in 2021 where the City of Akron agreed to "flag" that parcel as a potential trail before it could be sold. I hope that flag is still in place. The purpose of that meeting with COA was to discuss bike lanes on North Arlington Ave. (See second link below.)

But in another meeting with Environmental Design Group in 2024, we learned of a 2011 study they did that considered other options for connecting the Veterans Trail to the Freedom Trail and the NS station. (See third link below.) My personal preference is shown on slide 3.

Admittedly, this all gets a little complicated. But the exciting thing here is that there is an opportunity to connect the Veterans Trail to the Freedom Trail, the Northside Station, downtown Akron, the TowPath Trail, and the Rubber City Heritage Trail. It also provides the opportunity to open views of and access to the Little Cuyahoga River and create a trail loop around downtown Akron. I get goose bumps just thinking about it!

It would be great if we could arrange a meeting with AMATS, City of Akron, Cuyahoga Valley Scenic Railway, Summit MetroParks, and Metro RTA to discuss this tremendous opportunity.

Appendix F | Resolution of Approval

Attachment 6B

AKRON METROPOLITAN AREA TRANSPORTATION STUDY

M E M O R A N D U M

TO: Policy Committee
Technical Advisory Committee
Citizens Involvement Committee

FROM: AMATS Staff

RE: Resolution 2025-06 - Adopting Transportation Outlook 2050 – The AMATS Regional Transportation Plan

DATE: May 1, 2025

Transportation Outlook 2050 is the area's Regional Transportation Plan and identifies transportation policy and project recommendations, including long-term highway, transit, bike and pedestrian recommendations. In order for transportation projects in the greater Akron area to receive federal funds they must be consistent with *Transportation Outlook 2050*.

Attached to this memorandum are the list of recommended highway, transit, bicycle and pedestrian improvements. *Transportation Outlook 2050* recommends nearly \$9.4 billion in highway, transit, bicycle and pedestrian infrastructure investments through the year 2050. The Plan has been developed in keeping with the AMATS Public Participation Plan, and federal requirements pertaining to financial constraint and air quality conformity.

AMATS has developed a number of goals and objectives for carrying out the regional transportation planning process. These goals and objectives have been reviewed by the AMATS Policy Committee, Technical Advisory Committee and Citizen Involvement Committee. These goals and objectives were used to guide the development of *Transportation Outlook 2050* and its project recommendations.

These goals are to:

- Maintain the existing transportation system
- Maintain a safe, secure, efficient and integrated transportation system
- Integrate all modes of the transportation system where appropriate
- Increase mobility for all persons
- Support the economic vitality of the region
- Encourage smart regional land use strategies and development patterns

Transportation Outlook 2050 must be fiscally constrained. AMATS must forecast revenues available for projects and forecast project costs to demonstrate that the recommended projects can be implemented over the life of the plan. Most of AMATS projected revenues will be used

for maintaining the existing system. *Appendix B – AMATS Financial Plan* demonstrates financial constraint.

Transportation Outlook 2050 must also demonstrate air quality conformity. The Air Quality Conformity Analysis forecasts the mobile emissions generated by vehicles of project recommendations. The analysis is required to forecast emissions relating to ozone and PM_{2.5} pollutants. The results of the analysis demonstrate that the emissions of ozone and PM_{2.5} do not exceed the level of emissions established by the Ohio EPA in the State Implementation Plan (SIP). Further detail can be found in *Appendix A – Air Quality Conformity Analysis*.

The public was given the opportunity to review and comment on the draft of *Transportation Outlook 2050* during the public comment period from March 11 to April 11. AMATS promoted the public comment period using traditional methods as well as social media.

In addition, public meetings were held on April 2 and April 3, and the CIC discussed the draft Plan on March 20. A press release, written notices, video, newspaper advertisements and social media were utilized to notify the public of the *Transportation Outlook 2050* public involvement period and meetings. *Appendix E – Public Involvement* documents the public involvement process.

Staff Recommendation

The complete document with all finalized content for *Transportation Outlook 2050* will be posted on the AMATS website at <https://www.amatsplanning.org/transportation-outlook>. In early-mid May, the final TO2050 document will undergo a more extensive design process with additional photos added in.

Attached to this memorandum is Resolution Number 2025-06, adopting *Transportation Outlook 2050*, the area's Regional Transportation Plan. The Staff is requesting approval of this resolution.

RESOLUTION NUMBER 2025-06

OF THE METROPOLITAN TRANSPORTATION POLICY COMMITTEE OF THE AKRON METROPOLITAN AREA TRANSPORTATION STUDY

ADOPTING TRANSPORTATION OUTLOOK 2050 – THE AMATS REGIONAL TRANSPORTATION PLAN

WHEREAS, the Akron Metropolitan Area Transportation Study (AMATS) is designated as the Metropolitan Planning Organization (MPO) by the Governor, acting through the Ohio Department of Transportation and in cooperation with locally elected officials for Summit and Portage Counties and the Chippewa and Milton Township areas of Wayne County; and

WHEREAS, the Congress of the United States, through law (23 USC § 134 and 49 USC § 5303)) has required that an MPO must develop a long-range transportation plan (LRTP); and

WHEREAS, this Committee has reviewed the Transportation Outlook 2050 document and found that the recommendations contained therein function together to form an integrated metropolitan transportation system, take into account the planning considerations of the Infrastructure Investment and Jobs Act (IIJA) (Pub. L. No. 117-58), and are consistent with regional transportation goals and objectives; and

WHEREAS, a financial plan has been prepared and included in the document which demonstrates that Transportation Outlook 2050 can be implemented in a fiscally sound manner, in accordance with the financial resources from public and private sources that can be reasonably expected to be made available between now and 2050; and

WHEREAS, Transportation Outlook 2050 assesses capital investment and other measures necessary to ensure the preservation of the existing metropolitan transportation system, and has been found to make the most efficient use of existing transportation facilities to relieve vehicular congestion and maximize the mobility of people and goods; and

WHEREAS, the Clean Air Act Amendments of 1990 require that AMATS make a determination, in cooperation with NOACA, ERPC and ODOT, that Transportation Outlook 2050 is in conformity with respect to Ohio's State Implementation Plan for attainment of the 2008 and 2015 8-hour ozone standards and the 2006 and 2012 fine particulate matter standards; and

WHEREAS, a quantitative air quality analysis of Transportation Outlook 2050 has been completed in accordance with the requirements specified by the IIJA and the Clean Air Act Amendments of 1990; and

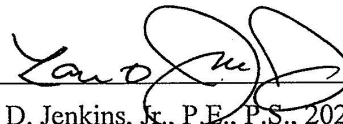
RESOLUTION NUMBER 2025-06 (Continued)

WHEREAS, AMATS carried out public involvement activities consistent with AMATS Public Participation Plan, and various public agencies, local officials, private providers of transportation, members of the public, and area media outlets were notified that Transportation Outlook 2050 was available for review and posted on the AMATS web site; and that the public involvement meeting was held to provide the general public with the opportunity to comment on the draft Transportation Outlook 2050; and

WHEREAS, AMATS maintains a regional Intelligent Transportation Systems (ITS) architecture; a regionally developed framework that ensures institutional agreement, technical integration, and functional interoperability among the ITS projects that are planned, programmed, and implemented in Summit County, Portage County, and the Chippewa and Milton Township areas of Wayne County.

NOW THEREFORE BE IT RESOLVED:

1. That this Committee adopts Transportation Outlook 2050 as the long-range transportation plan for the AMATS area and affirms its consistency with the State Implementation Plan.
2. That this Committee recommends that its members incorporate these improvements into their respective transportation plans and pursue the funding necessary for project implementation.
3. That this Committee approves the Transportation Outlook 2050 document.
4. That this Committee considers that the process used to develop the regional transportation plan has adequately provided for participation by local officials and members of the general public.
5. That this Committee affirms that the recommendations included in Transportation Outlook 2050 are able to be implemented within the constraints established by the financial forecast contained in the Plan document.
6. That this Committee authorizes the Staff to provide copies of this Resolution to the appropriate agencies as evidence of action by the Metropolitan Planning Organization.



Larry D. Jenkins, Jr., P.E., P.S., 2025 Chairman
Metropolitan Transportation Policy Committee

5/15/2025

Date