

# TRANSPORTATION OUTLOOK 2035

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## Regional Transportation Plan



Akron Metropolitan Area Transportation Study  
May 2013



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# AMATS POLICY COMMITTEE

Akron	<b>Mayor Don Plusquellic</b>	Portage County Engineer	<b>Mr. Michael Marozzi</b>
Aurora	<b>Mayor James Fisher</b>	Ravenna	<b>Mayor Joseph Bica</b>
Barberton	<b>Mayor William Judge, Jr.</b>	Reminderville	<b>Mayor Sam Alonso</b>
Boston Heights	<b>Mayor Bill Goncy</b>	Richfield	<b>Mayor Bobbie Beshara</b>
Brady Lake	<b>Mayor Hal Lehman</b>	Silver Lake	<b>Mayor Bernie Hovey</b>
Clinton	<b>Mayor Al Knack</b>	Stow	<b>Mayor Sara Drew</b>
Cuyahoga Falls	<b>Mayor Don Robart</b>	Streetsboro	<b>Mayor Glenn Broska</b>
Doylestown	<b>Mayor Terry Lindeman</b>	Sugar Bush Knolls	<b>Mayor James Beal</b>
Fairlawn	<b>Mayor William Roth</b>	Summit County Engineer	<b>Mr. Alan Brubaker</b>
Garrettsville	<b>Mayor Rick Patrick</b>	Summit County Executive	<b>Mr. Russell Pry</b>
Green	<b>Mayor Dick Norton</b>	Summit County Commissioners	<b>Ms. Connie Krauss</b>
Hiram	<b>Mayor Lou Bertrand</b>	Summit County Commissioners	<b>Mr. Dennis Tubbs</b>
Hudson	<b>Mayor William Currin</b>	Tallmadge	<b>Mayor David Kline</b>
Kent	<b>Mr. David Ruller</b>	Twinsburg	<b>Mayor Katherine Procop</b>
Lakemore	<b>Mayor Rick Justice</b>	Wayne County Commissioners	<b>Mr. Robert MacGregor</b>
Macedonia	<b>Mayor Don Kuchta</b>	Windham	<b>Mayor Robert Donham II</b>
Mantua	<b>Mayor Linda Clark</b>		
METRO Regional Transit Authority	<b>Ms. Sandra M. Foster</b>		
Mogadore	<b>Mayor Michael Rick</b>		
Munroe Falls	<b>Mayor Frank Larson</b>		
New Franklin	<b>Mayor Al Bolla</b>		
Northfield	<b>Mayor Jesse Nehez</b>		
Norton	<b>Mayor Mike Zita</b>		
ODOT	<b>Mr. Anthony Urankar</b>		
PARTA	<b>Mr. Rick Bissler</b>		
Peninsula	<b>Mayor Douglas Mayer</b>		
Portage County Commissioners	<b>Ms. Maureen Frederick</b>		
Portage County Commissioners	<b>Ms. Tommie Jo Marsilio</b>		
Portage County Commissioners	<b>Ms. Kathleen Chandler</b>		

# AMATS STAFF

Director	<b>Jason Segedy</b>
Planning Administrator	<b>Curtis Baker</b>
Planning Coordinator	<b>Krista Beniston, AICP</b>
Engineering Coordinator	<b>Victor Botosan, P.E.</b>
Transit Planner	<b>Nate Brugler</b>
GIS Coordinator	<b>Seth Bush</b>
Account Clerk	<b>Martha Chandler</b>
Administrative Assistant	<b>Liz Denholm</b>
Transportation Planner	<b>Jeff Gardner</b>
GIS Planner	<b>Kim Graham</b>
Transportation Planner	<b>Phyllis Jividen</b>
Transportation Engineer	<b>Eugene Paczelt</b>
Transportation Engineer	<b>Amy Prater, P.E.</b>
Public Information Coordinator	<b>Kerry Prater</b>
Transportation Engineer	<b>David Pulay, P.E.</b>
Planning Aide	<b>Wali Rahim</b>
Mobility Planner	<b>Heather Davis Reidl</b>

# EXECUTIVE SUMMARY

The Akron Metropolitan Area Transportation Study (AMATS) is responsible for planning an efficient transportation system in the Akron metropolitan area. As part of the transportation planning process, AMATS prepares and maintains a long-term Regional Transportation Plan. *Transportation Outlook 2035 (TO2035)*, an update to *Transportation Outlook 2030*, is AMATS' Regional Transportation Plan which examines the current and future needs of the transportation system to develop policy and project recommendations. In order for transportation projects to receive federal funds they must be consistent with *TO2035*.

*TO2035* includes long-term highway, transit, bike and pedestrian project recommendations that are expected to be completed by 2035. The Plan also provides information on key issues in the region, such as population and demographics, transportation funding and alternative modes of transportation.

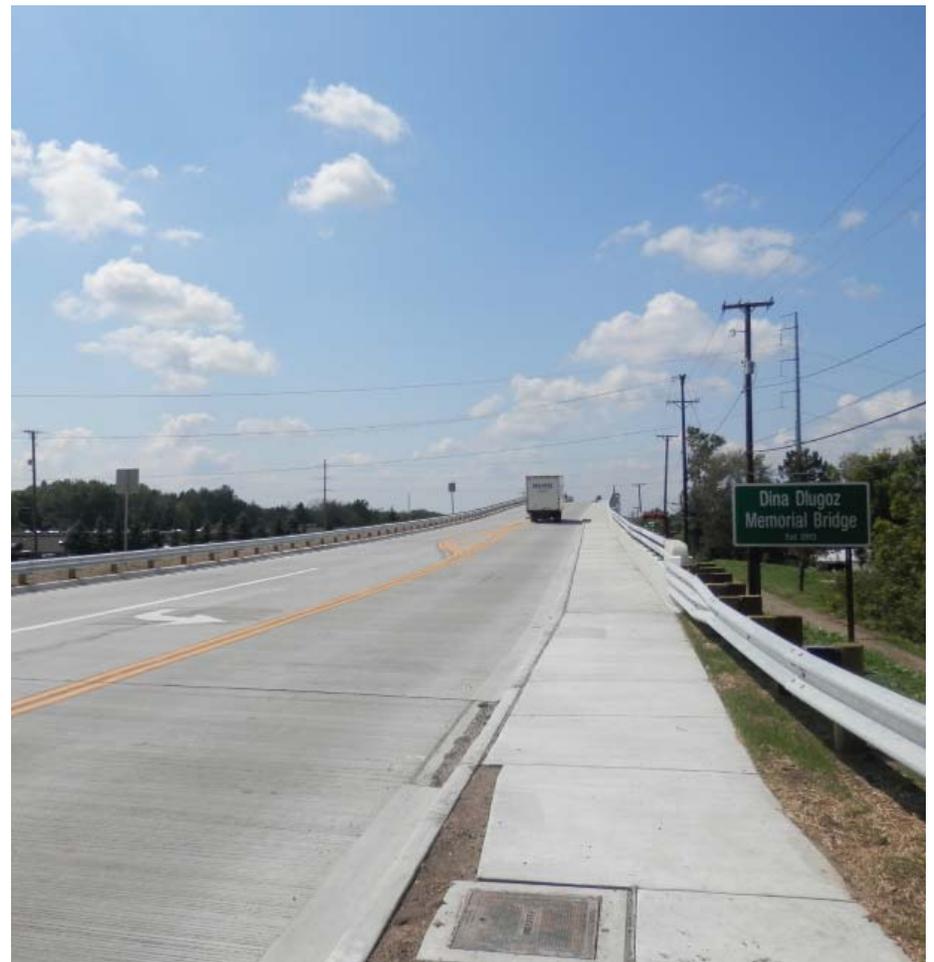
*TO2035* must be fiscally constrained. AMATS must forecast revenues available for projects and also forecast project costs in year-of-expenditure dollars. Due to increasing project costs and lower revenue estimates, fewer funds are available for projects in *TO2035*. Most of AMATS' projected revenues will be used for maintaining the existing system.

*TO2035* recommends over \$4.3 billion of highway infrastructure investments through 2035. This funding includes over \$2.5 billion for preservation of the existing system. Over \$300 million is recommended for Akron's Central Interchange and Main/Broadway Interchange and includes \$118 million for specific projects throughout greater Akron.

*TO2035* recommends over \$1.7 billion of investment in the region's public transportation system through 2035. Of that investment, \$1.4 billion will be dedicated to general operating expenses of the existing system, \$240 million will be reinvested to preserve the existing system and approximately \$76 million will be allocated toward expansion of the regional public transportation system.

*TO2035* recommends \$30 million of bicycle and pedestrian improvements through 2035. This funding includes on-road bicycle improvements, pedestrian improvements and multi-purpose trails.

The following sections contain an analysis of the current trends and conditions which affect the greater Akron area's transportation system, followed by recommendations to maintain and enhance it.



# INTRODUCTION

Over the past four years, governments at the local, state and federal level have been learning to do more with less. On the issue of transportation planning and infrastructure, it is no different. Funding for transportation has gone down, while the cost for maintaining the transportation network has gone up. Inflation has slowly eroded the purchasing power of transportation funds. People are driving less and driving more fuel-efficient vehicles, therefore transportation revenues (the gasoline tax) have dropped.

Our region's population and economy are growing slowly. As fuel prices have fluctuated so has transit ridership. Express bus services from Akron to Cleveland have continued to grow in use. Demand for bicycle and pedestrian facilities has gotten stronger as more people look to alternatives to driving. Crash rates in the region have gone down, but there are still many high crash locations that require improvements.

Doing more with less means making difficult choices. *Transportation Outlook 2035 (TO2035)* provides a framework for how the greater Akron area will continue to thrive over the next 20 years.

AMATS estimates that roughly \$6.1 billion will be available for our region's transportation network between now and 2035. *TO2035* contains the following strategic priorities:

1. Preserve and maintain existing roadways
2. Promote alternatives to driving (public transit, walking, biking)
3. Identify and cultivate new sources of revenue
4. Invest in highway safety
5. Encourage sustainable development that focuses on integrating transportation and land use
6. Strategically address existing traffic congestion while not adding unnecessary capacity

Over the last four years, AMATS has worked with its member communities to develop multiple programs to support their needs. The AMATS resurfacing program has been maintained to ensure communities can use federal funds for their preservation needs. The Connecting Communities Planning Grant Program

was established to help communities plan with land use and transportation in mind.

Over the next 20 years AMATS will continue its commitment to being a service agency that supports all of its member communities and their citizens, ensuring that our transportation network will continue to be a strong asset for our region.



Robert A. Walker. Kent, OH. 2013.

# WHAT IS AMATS?

The Akron Metropolitan Area Transportation Study (AMATS) is the regional transportation planning agency for the greater Akron area. Specifically, AMATS covers Summit and Portage counties and Chippewa Township in Wayne County. The agency is tasked with regional planning and appropriating approximately \$20 million annually to area transportation projects. Projects include road and bridge repairs, bicycle and pedestrian facilities and public transportation investments.

AMATS is one of 17 Metropolitan Planning Organizations (MPOs) in Ohio. MPOs were established in the 1962 Federal Aid Highway Act, which required urban areas greater than 50,000 residents to create a continuing, cooperative and comprehensive planning process in order to receive federal funds for transportation improvements.

The purpose of AMATS is to make sure that federal funds spent in the greater Akron area are used strategically with the region's best interests in mind. AMATS promotes all forms of transportation including the automobile, bicycle and pedestrian travel. AMATS offers numerous opportunities for area citizens to provide public input, and is committed to ensuring input received is considered in all transportation planning decisions.

AMATS serves as a regional forum for discussion and cooperation between elected officials, the public, planners and engineers to work together to set transportation policies and implement transportation improvements. AMATS works to ensure that transportation improvements meet the needs and challenges of the region and that federal transportation funds are used in an efficient, effective and equitable manner.

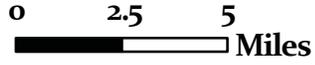
The AMATS Policy Committee is responsible for directing the transportation planning process, policy and funding decisions. It is comprised of elected representatives from municipalities, counties, regional transit authorities and the Ohio Department of Transportation (ODOT).

The AMATS staff serves all the committees and is responsible for carrying out the



technical work of the agency. They are responsible for developing the Regional Transportation Plan, Transportation Improvement Program and various other reports and recommendations for the consideration of the Policy Committee. The staff is made up of individuals primarily from engineering and planning disciplines.

# AMATS COVERAGE AREA





# REGIONAL TRENDS

It is important to understand regional demographic and traffic trends to plan for the future. Over the past four years, AMATS has developed a number of reports to identify these trends and forecast them into the future. The following section focuses on a number of issues related to transportation planning including population, employment, funding, transit and safety.

The past decade has brought much uncertainty to the region. The housing collapse, Great Recession and slow economic recovery have had a significant impact on the greater Akron area. Over the past ten years, the region's population grew slowly at only 1.2 percent compared to the nation's growth of 9.7 percent. The economy fluctuated with unemployment as high as 11 percent and as low as 7 percent. Development in the region also has slowed over the past four years and only recently has it been seen to increase slightly.

Understanding these trends helps AMATS develop its recommendations for *Transportation Outlook 2035 (TO2035)*. Due to the uncertainty described in the coming section, it makes sense for the region to focus its resources on preserving its existing transportation system. This includes the roadway and transit network. It also makes sense for AMATS to focus on the safety of the current system and use targeted investments to fix the worst high-crash locations in the region, while foregoing projects that focus on anticipated future congestion.

The trends in this section are based on the latest planning data available and provide a framework for the recommendations included in *TO2035*.

# POPULATION

When it comes to population growth, the AMATS region exemplifies the “slow-and-steady” model. Although the individual growth rates of the communities that comprise the region vary widely, the region as a whole grew 1.2% between 2000 and 2010. Growth varied significantly by county over the past decade. Portage County led the AMATS region in growth, enjoying a strong 6.2% change in population between 2000 and 2010. Over that same period, highly urbanized Summit County actually saw a small population loss of -0.2%. Chippewa Township in Wayne County matched the overall regional growth rate, seeing a modest increase of 1.2% over the period.

Population			
	2000	2010	% Change
AMATS	702,038	710,357	1.2%
Summit County	542,899	541,781	-0.2%
Portage County	152,061	161,419	6.2%
Chippewa Twp	7,078	7,157	1.2%

There appear to be two predominant factors which determine the rate of population growth experienced by each AMATS community – community type and the location of the community within the AMATS region. For purposes of analysis, AMATS assigned each of its member communities to one of four community types, based on each community’s prevailing land use and development pattern:

- **Akron** – the relatively populous, densely developed heart of the AMATS region, essentially serving as the benchmark by which all other community types are measured.
- **Other Urban Areas** – communities of approximately the same age as Akron, and although smaller in size, were nevertheless economic and industrial powerhouses in their prime, and remain significant population and employment centers today. Included are: Barberton, Cuyahoga Falls, Kent and Ravenna.
- **Suburban** – this category is comprised of communities of moderate residential density. Despite their lower development densities, these communities contain some of the highest concentrations of commercial areas and employment opportunities. They are generally located just beyond the borders of larger, more urbanized communities. Examples include Aurora, Copley Township, Hudson and Mogadore.
- **Exurban/Rural** – these include communities of low density development, often located on the periphery of the AMATS region. The majority of land within these communities is dedicated to agricultural or other open land uses (i.e. the CVNP), yet some contain small town

centers, containing employment, commercial and recreational opportunities. Examples would include Boston Township, Chippewa Township, Hiram Village and Rootstown Township.

The second factor that strongly determines a community’s population growth is its location within the AMATS region. The most rapidly growing communities are typically found in the northern or southernmost portions of the AMATS region. Communities such as Macedonia, Twinsburg and Streetsboro are strategically located between Akron and Cleveland, greatly adding to their appeal as job and residential centers. Likewise, communities at the extreme southern portion of the region (the City of Green, for example) are situated midway between Akron and Canton, and benefit accordingly.

## Historic Trends

Although Akron remains the economic and governmental center of the AMATS region, the trend of population leaving dense urban areas for suburban ones continues, as it has for the past sixty years. The following graphs illustrate how the proportion of the region’s population has shifted from the major urban center of Akron to suburban locations.

As can be seen in the first set of charts, more than half of the AMATS region’s

populace called the city of Akron home during the 1950s, the region’s industrial heyday. In contrast, only a small percentage lived in suburban areas. Over time, the greatest proportion of the regional population shifted to the suburbs, with many families leaving the dense, urbanized city of Akron for “greener pastures.” Interestingly, while there has been a dramatic regional population shift between Akron and its suburbs, the region’s other urban centers and exurban/rural communities have remained relatively stable in terms of their proportional populations.

Despite these shifting proportions, with a 2010 population of nearly 200,000, Akron is undoubtedly the region’s population, employment, medical and cultural center. Cities such as Barberton, Cuyahoga Falls and Kent have, likewise, retained their relatively large populations, and remain important employment and educational hubs. Some suburban communities in the AMATS region have experienced high rates of growth. However, when these growth rates are compared to those of suburban communities in other areas of the nation, the growth in our region remains fairly modest.

## Population Forecast

Where Will We Be In 2035?

Understanding the population trends of our region’s past is paramount

to determining the anticipated population in the distant future. In 2012, AMATS performed a detailed population forecast. This forecast used previous census population counts for each community in the region, and using linear regression modeling, projected those populations out to the year 2035.

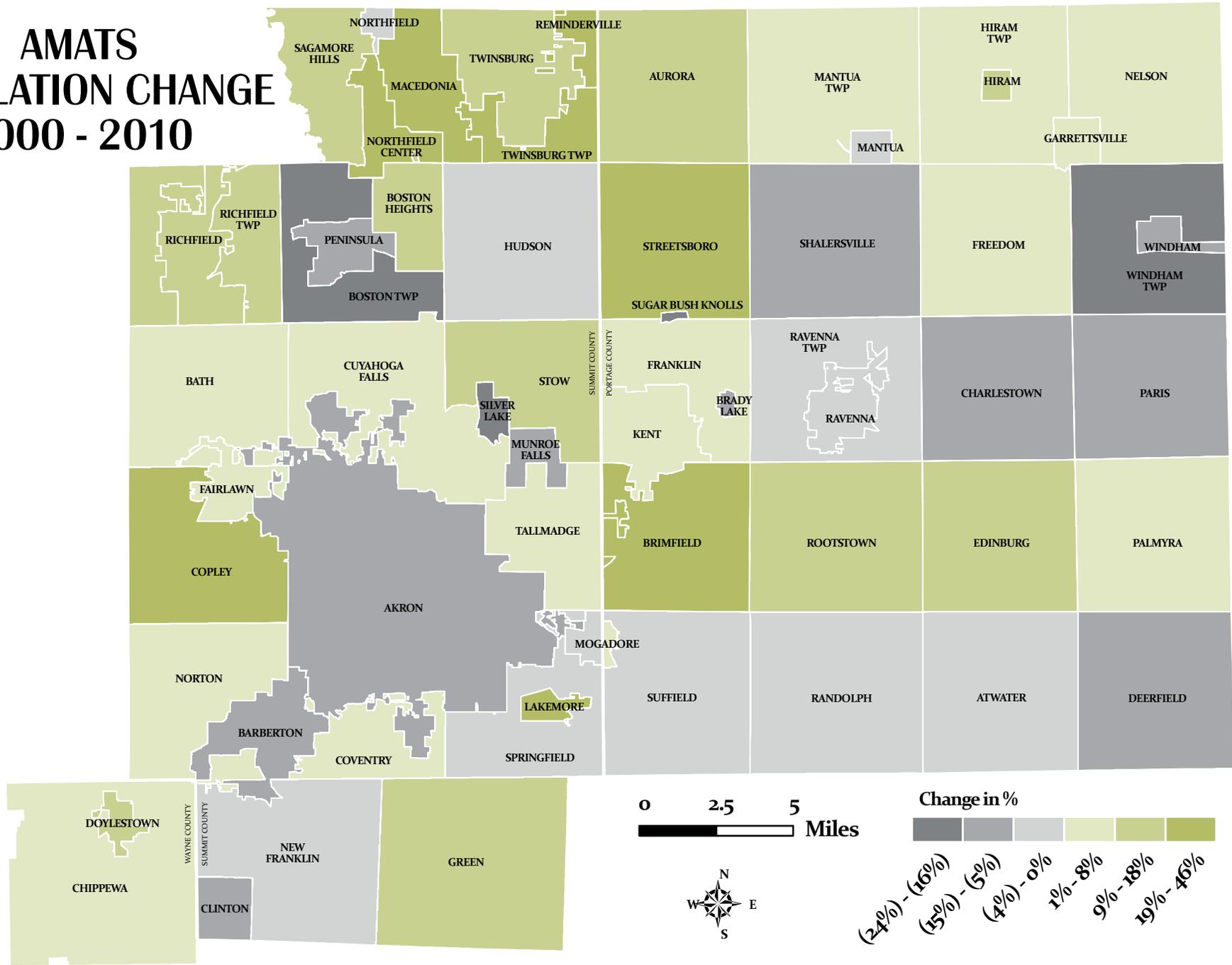
Overall, the region is expected to maintain its slow-and-steady growth over the next 25 years, with the analysis resulting in a 2.8% growth rate over the period. As in the past, Portage County's growth rate is expected to be higher than the region as a whole, growing 6.7% over the period. Summit County should expect a slower, but nevertheless positive, growth rate of 1.4%.

One result of slow regional growth is that traffic volumes are likely to experience slow growth as well. This allows AMATS to proceed with its "fix-it-first" policy, since new road construction should be minimal through the year 2035.

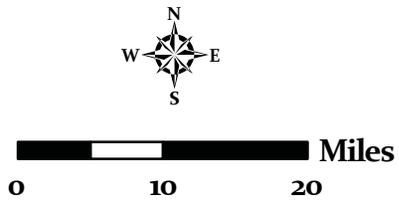
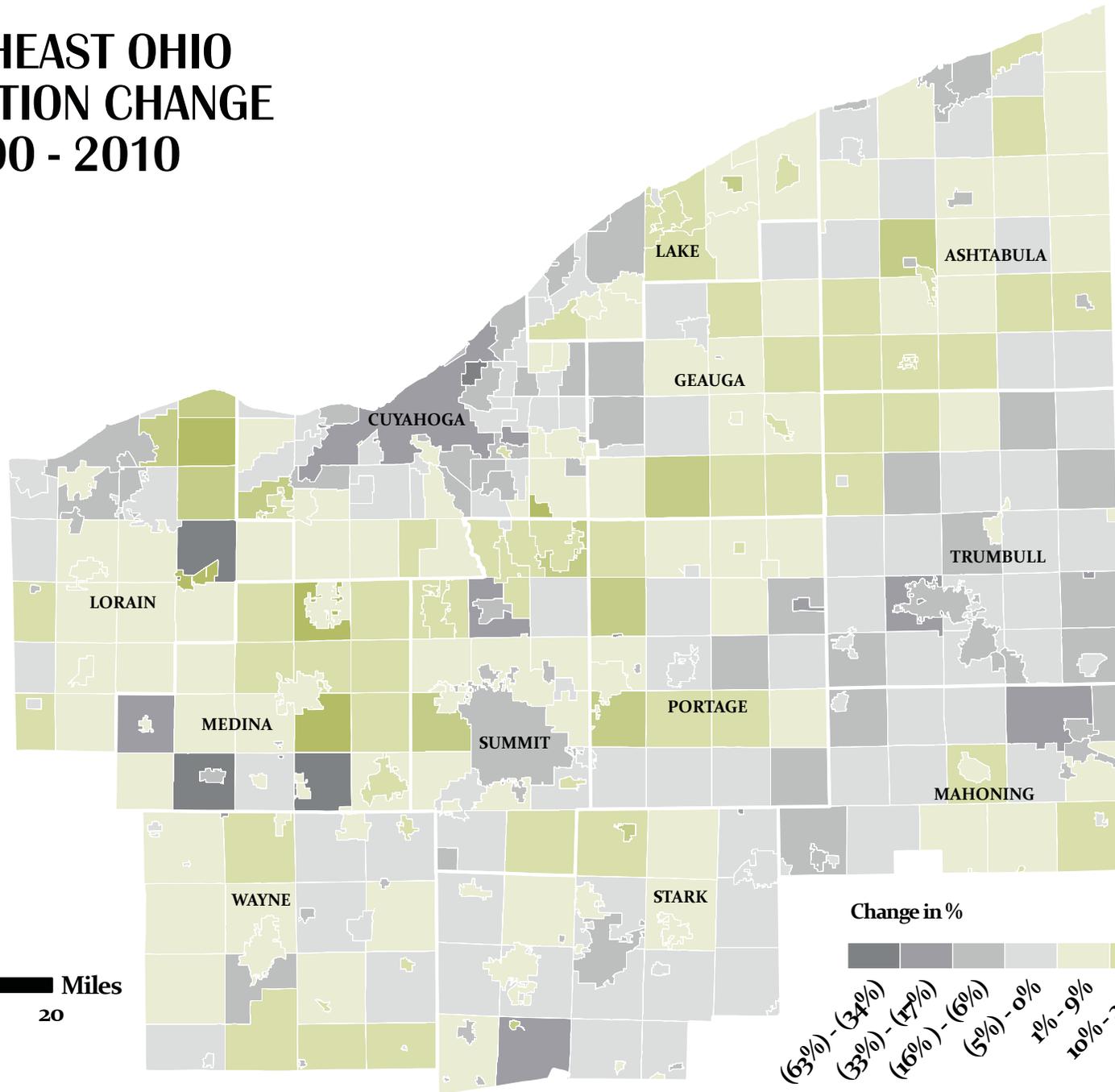
## Proportional Populations



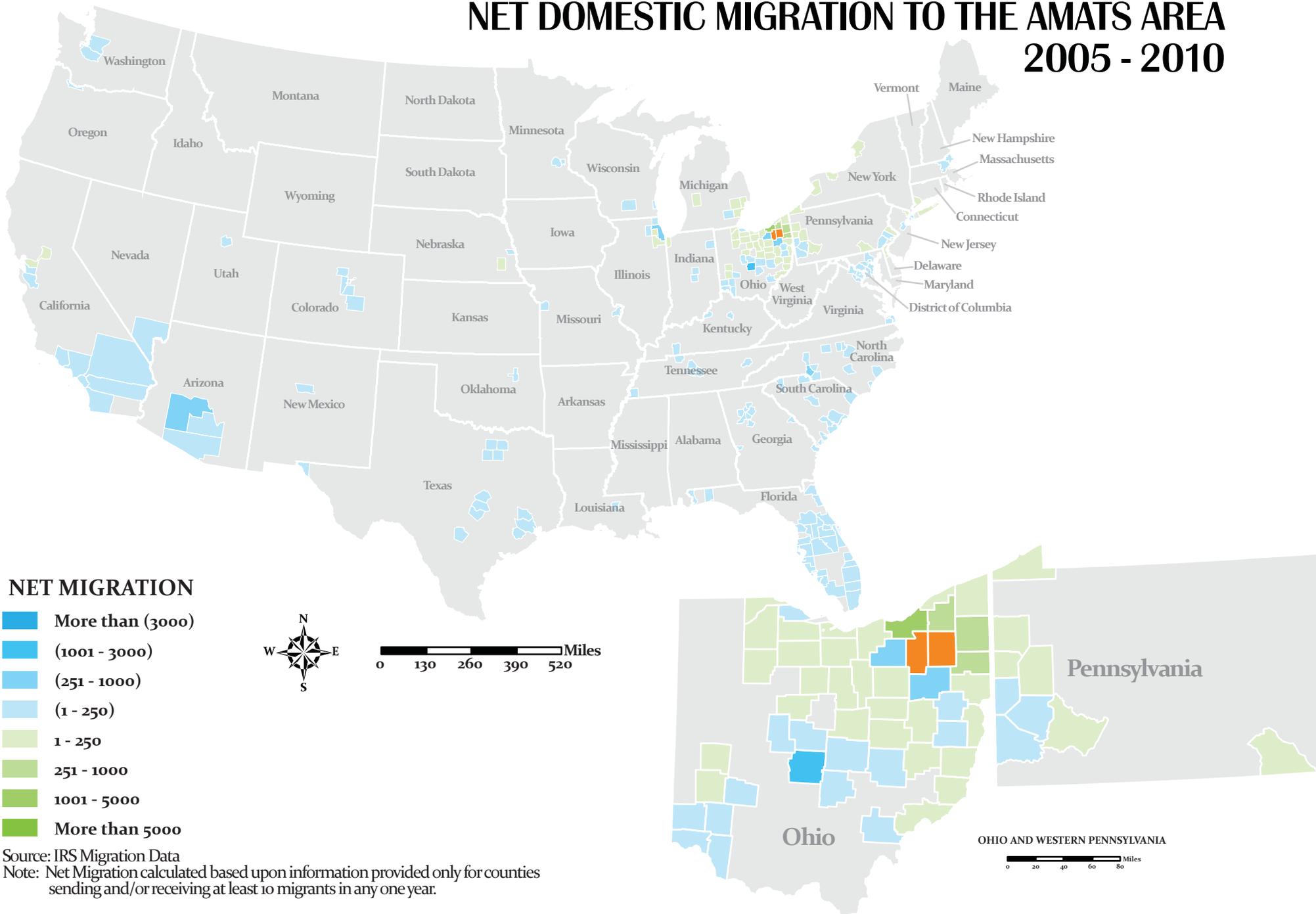
# AMATS POPULATION CHANGE 2000 - 2010



# NORTHEAST OHIO POPULATION CHANGE 2000 - 2010



# NET DOMESTIC MIGRATION TO THE AMATS AREA 2005 - 2010



## Demographics

For planning purposes, not only is it useful to understand how the region's population is changing at the community level, it is also important to understand certain characteristics about that population. Understanding the average incomes, ages, educational levels and other demographic indicators help with regional decision making. For instance, an understanding of these factors could help in determining the appropriate blend of transportation options which would best serve our region.

The following table illustrates some key data for our region, and allows for benchmarking to other metropolitan areas within our peer group.

In each of the previous three decades, the median age has steadily increased in the AMATS region. Summit County has a consistently older population than Portage County, but both counties' median age has increased at essentially the same rate over the past three census cycles. An aging population is not a trend that is unique to the AMATS region. Increased overall life expectancies and the aging of the "Baby Boomers" have necessitated planning for the needs of an aging population at the state and national levels.

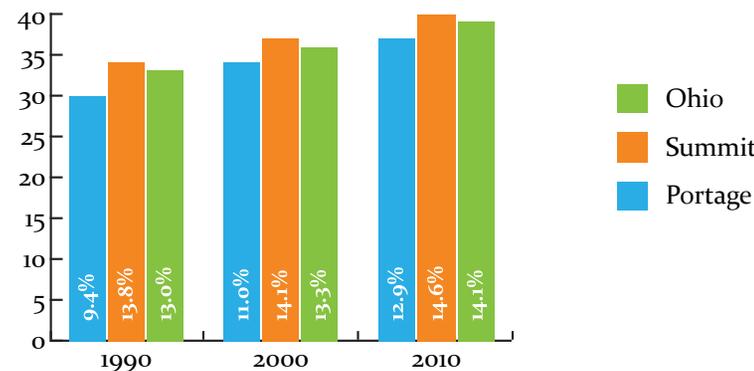
Although Summit County's senior population has experienced slow-and-

steady growth, the same demographic has grown fairly rapidly in Portage County - increasing approximately 2% each successive decade. There are a number of implications that a growing senior population could have on the transportation and land use development patterns experienced in the AMATS region, some of which include:

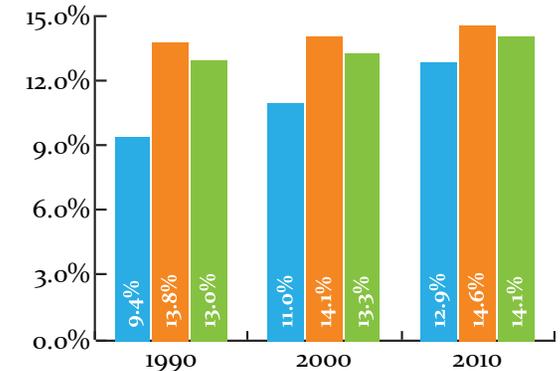
- Increased demand for transit services (according to the Ohio Public Transit Association, the average person will outlive their ability to drive a vehicle by 8 to 10 years)
- A shift towards more walkable, higher-density residential communities
- An increased focus on accessibility
  - ADA compliance, sidewalk connectivity, safer intersections, etc.
- An increase in land uses dedicated to services required by an aging population (senior housing and communities, medical facilities, social services, etc.)

Metropolitan Statistical Area	2010 MSA Population	Median Household Income	% of Pop Age < 18	% of Pop Age 65+	Minority %
United States	308,745,538	\$ 50,046	24.0%	13.0%	27.6%
Ohio	11,536,504	\$ 45,090	23.7%	14.1%	17.3%
Akron, OH MSA	703,200	\$ 46,521	22.4%	14.2%	16.7%
Canton-Massillon, OH MSA	404,422	\$ 42,365	22.9%	16.3%	10.6%
Cleveland-Elyria-Mentor, OH MSA	2,077,240	\$ 46,231	23.2%	15.2%	25.9%
Dayton, OH MSA	841,502	\$ 43,832	23.0%	14.9%	20.0%
Toledo, OH MSA	651,429	\$ 41,583	23.5%	13.4%	19.6%
Youngstown-Warren-Boardman, OH-PA MSA	565,773	\$ 39,240	21.8%	17.8%	14.3%
<b>Out of State Peers</b>					
Ann Arbor, MI MSA	344,791	\$ 55,880	20.9%	10.1%	24.9%
Grand Rapids-Wyoming, MI MSA	774,160	\$ 47,040	25.9%	11.7%	16.9%
Madison, WI MSA	568,593	\$ 57,594	22.0%	10.9%	13.6%
Rochester, NY MSA	1,054,445	\$ 50,211	22.6%	14.1%	18.3%

### Median Age by County

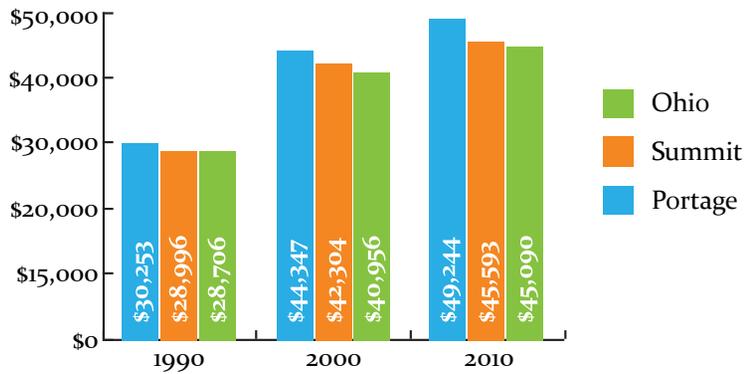


### % of Population Age 65+



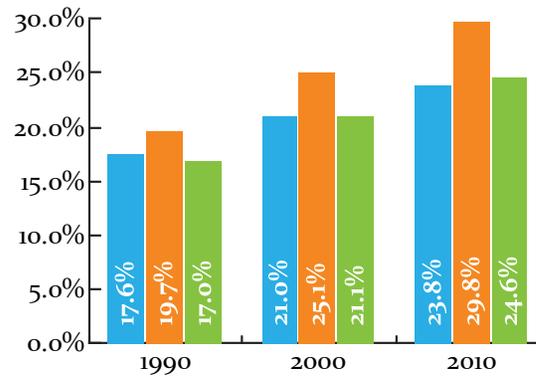
Source: U.S. Census Bureau

## Median Household Income



Source: U.S. Census Bureau

## % of Population with Bachelors Degree or Higher



The AMATS region's median household income has risen steadily over the last three census periods, and is the highest of all of our in-state peer metropolitan areas. Both counties' incomes exceed the state median for all periods. Portage County's household income has consistently exceeded that of neighboring Summit County, although the differences are relatively negligible. A reality that gets obscured when looking at averages is that Summit County, being the region's most populous, has higher proportions of both high and low-income households than Portage County. Overall, incomes in both counties have been growing at approximately the same pace over the past three decades.

A reciprocal relationship exists between educational attainment and average

income: the presence of an educated populace can attract coveted, well-paying employers, and the presence of well-paying employers can attract a highly educated workforce. The overall educational attainment level of the populace and workforce of a region can significantly influence many planning factors within a region. Some of these factors include:

- The types of companies and employment opportunities drawn to the region
- The average incomes of the region
- The blend of public services and infrastructure required by the region
- The residential mix of the community (i.e. overall density, rent vs. ownership, etc.)

The AMATS region has seen a steady increase in its college educated workforce over the past three decades. While Portage and Summit Counties have both increased, Summit has seen more rapid growth, with nearly a third of its residents holding a Bachelor's degree or higher. Summit County's degreed populace is significantly higher than the State of Ohio's. Continued growth could lead to significant opportunities and a promising future for the AMATS region.

# EMPLOYMENT

Few things determine the overall growth and prosperity of a region more than its employment opportunities and overall job outlook. The strength of the local job market largely determines the population drawn to (and retained by) the region, the volume of traffic generated (automobile, freight, transit, etc.) and the overall fiscal health of the region. A solid understanding of the employment situation is key to any long-range planning effort.

The on-going, global economic downturn serves as somewhat of a gray cloud in terms of the economic and employment forecasts conducted by anyone at this time. Great uncertainty has led to market fluctuations, employment instability and sustained high unemployment rates. That being said, there are signs that the AMATS region is weathering the current economic climate better than others. In late 2011, The Fiscal Times named Akron as the second-best city in America in which to find a job. The local unemployment rate has consistently dropped from its high point in early 2010. Although the current picture is still gloomy, over the long term there are signs for optimism.

## Unemployment

Between 2000 and 2010, the Akron Metropolitan Statistical Area's (MSA)

unemployment rate has fallen within a wide 4% to 10% range. Since its high point in early 2010, the rate has consistently dropped, currently hovering at about 6%. Although a decreasing unemployment rate does not explain the entire economic picture (for example, labor force participation may have also decreased), it strongly indicates that conditions are improving.

At the county level, both Summit and Portage Counties maintain unemployment rates lower than the state as a whole. In several time periods, Portage County's rate has dipped slightly lower than that of Summit County. Perhaps the most positive news is that prior to the recent "Great Recession," unemployment in the AMATS region was higher than the national average. However, beginning in 2011, both Summit and Portage

Counties have rates significantly lower than the national average – a trend which could prove beneficial for the AMATS region if sustained going forward.

## AMATS Region Total Employment

The AMATS region's total employment is projected to maintain a slow-and-steady course through the year 2035. As of 2010, the region was home to 299,868 jobs. AMATS forecasts a total of 344,301 jobs throughout the region in 2035, representing a 14.8% increase over the 25 year period.

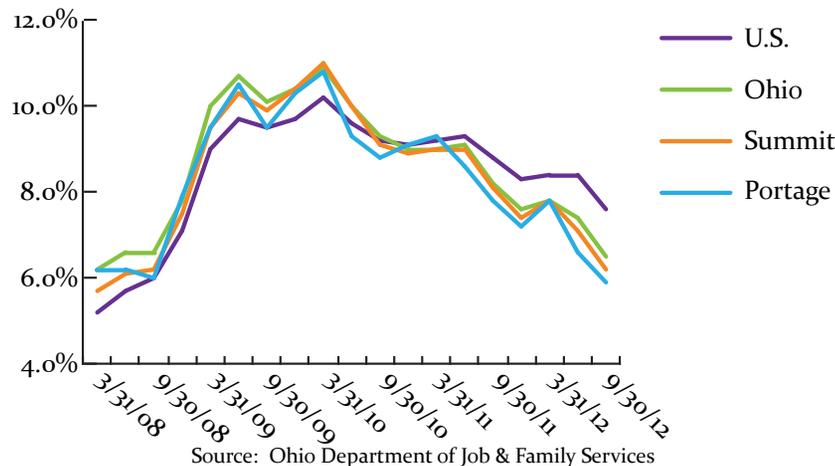
As could be expected, of the 21 industries tracked over the forecast period, some should expect strong growth, while others may see a decline.

## Jobs by Community Type

For purposes of analysis, AMATS assigned each of its member communities to one of four community types, based on each community's prevailing land use and development pattern (please see the Population section for complete details). One-third of the region's jobs lie within the city of Akron. Although a higher percentage of the region's employment is located in suburban communities, no single suburban community contains more than a fraction of Akron's total employment. The four communities comprising the "other urban areas" community type – Barberton, Cuyahoga Falls, Kent and Ravenna – house one-sixth of the region's employment. Altogether, five communities (Akron and the four "other urban areas") contain approximately one-half of the region's employment.

An internal AMATS analysis projects that all four community types will see double-digit increases in overall employment for the period between 2010 and 2035. Akron is expected to experience a 17.6% increase in employment during the period, with "other urban areas" and suburban communities only slightly behind. Job growth in exurban and rural communities is expected to be quite strong, given the small proportion of the region's jobs currently located in these communities.

**Unemployment Rate by AMATS County**



## AMATS Regional Employment Change: 2010-2035

2010 Total Jobs	Projected 2035 Jobs	Employment Change: 2010-2035	% Employment Change: 2010-2035	Average Annual % Change
299,868	344,301	44,433	14.8%	0.6%

## Key Industries

The majority of employment in our region largely falls within a few key industries:

### Health Care and Social Assistance –

As home to some of the nation’s best healthcare providers, strong growth in this industry is anticipated in the AMATS region, which is strategically located in the heart of Northeast Ohio – and its population of approximately 4 million. Not only is Northeast Ohio’s population large – it is aging, and the world-class, centrally located medical facilities of the Akron region are certain to be in high demand through 2035. Some factors contributing to strong growth in this industry include:

- Headquarters of Summa Health System, Akron General Health System and Children’s Hospital – all of which are rapidly growing
- The rapidly expanding NEOMED campus in Rootstown – the nation’s only medical school partnering with four major collegiate institutions, is a local source of trained employees in this industry
- The creation of the Austen BioInnovation Institute in Akron – a

collaboration between the region’s major hospitals/health systems, the University of Akron, NEOMED and the Knight Foundation – will serve as a catalyst for these, and related, jobs

### Education Services –

The AMATS region is home to two major state universities, a number of private colleges and trade schools and dozens of highly-rated public and private K-12 school districts. Many of these educational institutions have demonstrated a commitment to reinvestment through the passage of levies, the construction of state-of-the-art facilities and, in the case of local universities, rapid physical expansion and renovation of their campuses. These commitments may attract industry professionals to the AMATS region, and should certainly aid in the retention of the existing workforce.

### Manufacturing –

Manufacturing has taken a steep nosedive in the AMATS region over the past decade, a drop that was only magnified by the nationwide “Great Recession.” However, employment does appear to be leveling off, and some area manufacturers actually began to increase their workforces. The

AMATS region has always maintained a strong manufacturing base, and the state and local communities are taking a number of steps (global recruiting, tax incentives, workforce training, etc.) to ensure that manufacturing remains a significant segment of the local economy going forward. Some factors expected to contribute to growth in this industry through 2035 include:

- Many manufacturers are operating with “skeleton” workforces – further contraction is not possible, and any uptick in business should lead to additional hiring
- Some areas can expect growth

in demand for products, such as medical equipment and polymer based materials – industries that the AMATS region is focused on and has great experience in

- Many incentives and strategies targeting manufacturing are being used by member communities, and in some cases, they have been successful in attracting or retaining employment
- Potential for a boom in green and clean technologies; new firms could be attracted to the region’s experienced manufacturing base and workforce

## 2035 Employment Projections by Industry

NAICS Code	Industry Description	QCEW Jobs 2010	Growth Rate Used	2035 Jobs Projection
11	Agriculture, Forestry and Hunting	257	-8.0%	236
21	Mining	333	-10.3%	299
22	Utilities	1,821	25.2%	2,280
23	Construction	9,957	15.8%	11,530
31-33	Manufacturing - Aggregated	37,736	19.7%	45,170
42	Wholesale Trade	15,635	6.7%	16,683
44-45	Retail Trade - Aggregated	33,300	7.5%	35,798
48-49	Transportation & Warehousing - Aggregated	9,780	23.8%	12,108
51	Information	4,848	11.5%	5,406
52	Finance and Insurance	9,107	11.0%	10,109
53	Real Estate and Rental and Leasing	3,054	13.6%	3,469
54	Professional, Scientific and Technical Services	14,073	67.5%	23,572
55	Management of Companies and Enterprises	16,314	-2.8%	15,857
56	Administration and Support and Waste Management and Remediation Services	16,588	7.5%	17,832
61	Education Services	29,808	0.8%	30,046
62	Health Care and Social Assistance	49,344	48.3%	73,177
71	Arts, Entertainment, Recreation	4,117	14.2%	4,702
72	Accommodation and Food Services	24,508	2.1%	25,023
81	Other Services	9,397	9.8%	921
92	Public Administration	9,790	1.6%	9,947
99	Other	101	34.9%	136
<b>TOTAL REGIONAL EMPLOYMENT:</b>		<b>299,868</b>	<b>14.8%</b>	<b>344,301</b>

**Retail Trade –**

As of 2010, the retail industry contained the third highest number of jobs in the AMATS region – a trend that looks to continue through 2035. Over the past several decades, the national economy has transitioned from a manufacturing-based economy to a service-based one, and the AMATS region is no exception. Large retail projects - such as the Portage Crossing development in Cuyahoga Falls, Downtown Kent redevelopment and other areas – should ensure continued growth in this industry.

**Professional, Scientific and Technical Services –**

Although tires are no longer manufactured in Akron, they are still designed and engineered here. The AMATS region is home to many major technical services offices, research

institutions and engineering and design firms. Of all the industries tracked in the AMATS 2035 employment forecast, this one is expected to have the highest growth potential due to:

- Goodyear World Headquarters and Bridgestone Americas Technical Center – both of which are undergoing major expansions
- The University of Akron’s nationally ranked Colleges of Polymer Science and Engineering generate a highly skilled workforce in these, and related, disciplines. Kent State’s highly regarded schools of architecture, design and Liquid Crystal Institute further contribute to this well-educated, highly skilled workforce
- The Austen BioInnovation Institute in Akron will bring many of the region’s specialties together

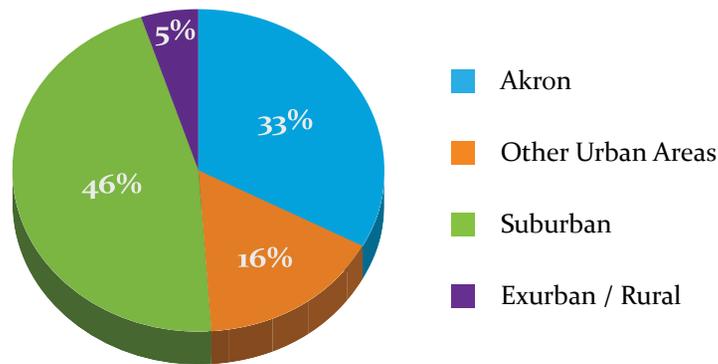
to create an attractive environment for the creation of bio-technology firms requiring this type of skilled labor force

**Transportation Implications**

Because employment growth is expected to outpace residential growth in the AMATS region through 2035, many employers will be required to look beyond the regional borders to meet adequate staffing levels. To remain economically competitive, it is vital that the transportation needs of those commuting to work from outside of the region are facilitated. AMATS will continue to monitor regional commuting patterns and will take the resulting information into consideration when establishing regional transportation priorities.

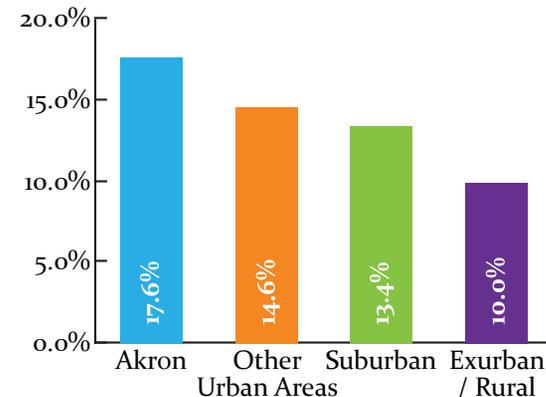
It is also important to understand the relationship between the prevailing land use patterns of the aforementioned key industries and the local transportation infrastructure. For example, several new hospital and medical facilities have been recently built in the AMATS region, nearly all of which have been constructed in suburban greenfield locations. While these locations are often attractive due to their excellent freeway access, we must ensure that they are also accessible by other modes of transportation, and that they are compatible with other surrounding land uses.

**Regional Employment Share by Community Type**



Source: 2010 U.S. Census, AMATS

**% Employment Growth by Community Type: 2010-2035**



Source: 2010 U.S. Census, AMATS

# FUNDING

Providing a comprehensive, well-maintained transportation network is one of the most important functions of government. Essentially all economic activity – trade and commerce, employment, educational, leisure, and so on - is facilitated, in some manner, by the existing transportation infrastructure network. The construction and maintenance of this necessary infrastructure requires massive and perpetual investment from federal, state and local governments. Currently, a complex dilemma exists in the field of transportation planning: How do we meet increasing demand for transportation infrastructure in an era of declining revenues and increasing construction costs?

## Primary Concern: Declining Revenues / Increasing Costs

Historically, the primary funding source for the nation's major roadways and bridges came from fuel taxes. These taxes, levied as a fixed amount per gallon of fuel sold, are collected at the federal and state levels. The fuel tax receipts were deposited into a trust fund dedicated solely to transportation-related expenses, and then allocated among the states, counties and local communities for the construction and maintenance of transportation

infrastructure.

For many decades the system worked well, but over time the ability of this transportation-dedicated funding to meet demand was increasingly diminished. A number of factors contributed to this problem:

- *Decreasing vehicle miles traveled (VMT)* – less fuel used = fewer taxes collected
- *Increased fuel efficiency* – new fuel efficiency standards lead to fewer fill-ups, resulting in fewer taxes collected
- *Inflation* – a double-edged sword: erodes the purchasing power of fixed-rate fuel taxes, while dramatically increasing construction, material and labor costs
- *Fixed Rate Funding Source* – the

federal gas tax is a fixed 18.4 cents/gallon, and has remained unchanged since 1993. Ohio levies a fixed 28 cents/gallon tax – unchanged since 2006. As inflation inevitably rises, the purchasing power of these fixed funding sources diminishes accordingly

- *Political Unpopularity* – In today's sluggish economy and highly-charged political climate, tax increases are considered a “third-rail” political issue – few dare to even mention them, let alone act upon them

Regardless of one's opinion on the matter, the fact remains that the traditional funding source for our highways and other transportation infrastructure is effectively insolvent. The United States population has grown by 54 million since 1993, the last

time the federal gas tax was increased. Needless to say, a tremendous amount of infrastructure must be built and maintained to support this growth. According to the Congressional Budget Office, the federal Highway Trust Fund will be bankrupt by 2014. However, had it not received periodic infusions of general revenue funds, it would have been insolvent long ago. While the recently passed federal transportation bill (MAP-21) calls for slightly increased transportation expenditures, transportation-dedicated revenue is decreasing – creating a significant funding gap.

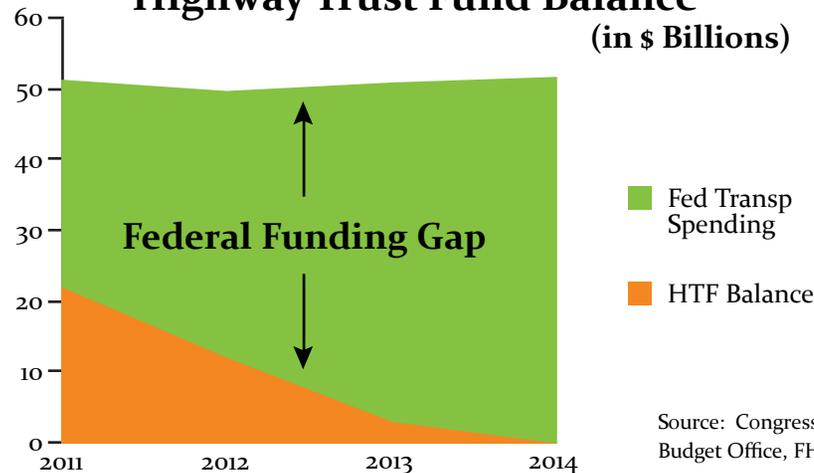
Finding innovative ways to bridge this transportation funding gap is one of the most vital tasks facing federal, state and local governments today. AMATS, as the agency responsible for allocating federal transportation funding throughout the greater Akron region, places this particular issue among its highest priorities.

## Transportation Budget Priorities

Funding for transportation is provided by three primary tiers of government, each with different revenue sources, needs and budget priorities.

1) **Federal Transportation Funding** MAP-21, the recently passed federal transportation funding bill, authorizes approximately \$50 billion in annual funding through 2014. Historically, the

### Federal Transportation Spending vs. Highway Trust Fund Balance



federal government has funded the nation's transportation infrastructure through the Highway Trust Fund. In recent years, project costs have far exceeded funds collected, and the Highway Trust Fund had to be supplemented with revenue from the general fund. Fuel tax revenues are projected to continue their decline, and unless new funding sources are identified and implemented, the Highway Trust Fund will be bankrupt by 2014.

Although transportation infrastructure is essential in the facilitation of national commerce, only 2% of the total federal budget is apportioned to transportation projects annually.

Federal funds are distributed in two primary forms: formulaically and through competitive grants. The bulk of funding received by the AMATS region is formulaic in nature. These allocation formulas often emphasize total population and population

growth – with populous and rapidly growing metropolitan areas receiving funding priority. This does not bode well for the slow-growth AMATS region, which has seen reductions in funding corresponding to its low growth rate. Nevertheless, many transportation needs exist, forcing the state and local communities to make up the difference.

### 2) State Transportation Funding

The State of Ohio derives transportation-dedicated funding from a variety of sources. Of these total funds, slightly more than half (approximately \$2 to 3 billion annually) goes to the Ohio Department of Transportation (ODOT), nearly half goes back to local communities and counties to use at their discretion, and the small remaining portion is allocated to other agencies.

Ohio, having one of the largest existing transportation networks in the nation, must dedicate the majority of its transportation funding

to maintaining the existing network. Only a small portion (approximately \$100 million annually) is available for the construction of new transportation expansion projects.

In summary, Ohio contains one of the most robust transportation networks in the nation. However, due to its overall age, operational wear-and-tear and the state's relatively harsh winter and summer climates, the majority of ODOT's annual budget must be spent to maintain this existing system – leaving very little remaining for new construction or the expansion of the system. Nevertheless, important construction and expansion projects remain. Because of the gap between traditional funding revenues and high construction costs, the state must incorporate new and/or innovative funding mechanisms to complete these important projects.

### 3) Local Transportation Funding

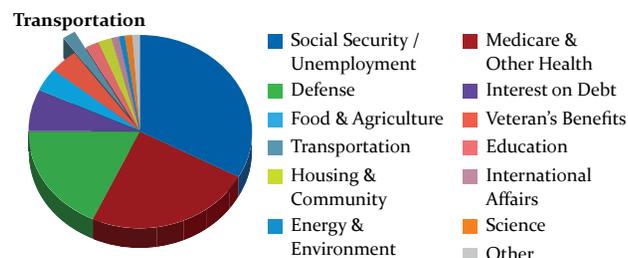
Most local communities struggle to secure the funding necessary to

maintain the streets within their boundaries. Although they may receive federal or state assistance for the major thoroughfares that traverse their communities, each has a significant number of local streets that must be maintained through their general revenue budgets. Due to a sluggish economy and stagnant property values, there is limited funding in the local coffers to meet a variety of public needs - transportation is only one of many competing priorities.

## Transportation Needs Transportation Implications

The fact that transportation funding is scarce is complicated by the fact that needs around the State of Ohio are significant. In recent years, many of the most pressing, small-scale problems have been addressed, reducing congestion and increasing safety. Unfortunately, the majority of the state's remaining needs are large projects with enormous price tags.

## Proposed 2013 Federal Spending



Source: nationalpriorities.org

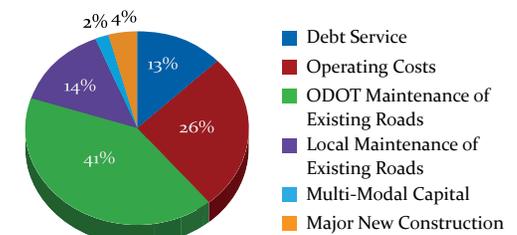
## Ohio General Revenue Budget Breakdown FY 2013



Source: Ohio Office of Budget and Management

## ODOT Expenditure Breakdown

(Based on 2012 Budget - all percentages are approximate)



Source: ODOT 2012-2013 Budget Testimony

The Transportation Review Advisory Council (TRAC) assists ODOT in developing a construction timeline for the state's most important and costly transportation projects. Over the 17 year timeline proposed in the most recent TRAC program schedule, ODOT's \$100 million annual new construction budget pales in comparison to the nearly \$8 billion in unfunded tier II and III projects.

The chart to the right lists some of the most important transportation needs across the state – each of which is competing for limited new construction funding.

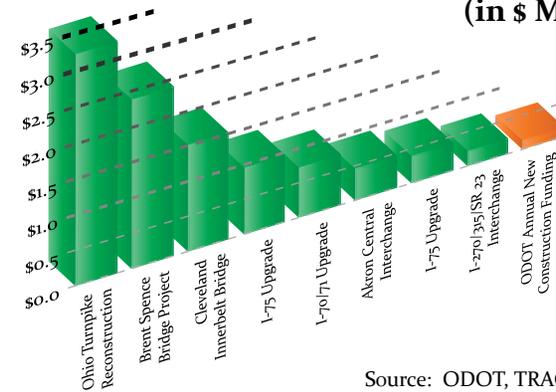
The most costly project on the previous chart is the total reconstruction of the

Ohio Turnpike, a major expense that is independent of the state's TRAC program. The \$3.3 billion cost of reconstructing this 241 mile toll road will be partially paid for through bonds issued against future Turnpike revenues (a measure recently passed by the Ohio legislature). However, any amount spent on the Turnpike reconstruction reduces the funding available for other major needs throughout the state.

### Regional Transportation Needs

Although congestion levels have generally been on the decline in the AMATS region, one primary area of concern still exists: Akron's Central Interchange. This confluence of I-76, I-77 and State Route 8, as well as interchanges in its proximity

## Major Statewide Transportation Needs (in \$ Millions)



Source: ODOT, TRAC

(particularly the Main St./Broadway St. Interchange) is responsible for the bulk of congestion in the AMATS region. However, with a cost estimate of over \$400 million, funding this project will be the region's single greatest transportation challenge.

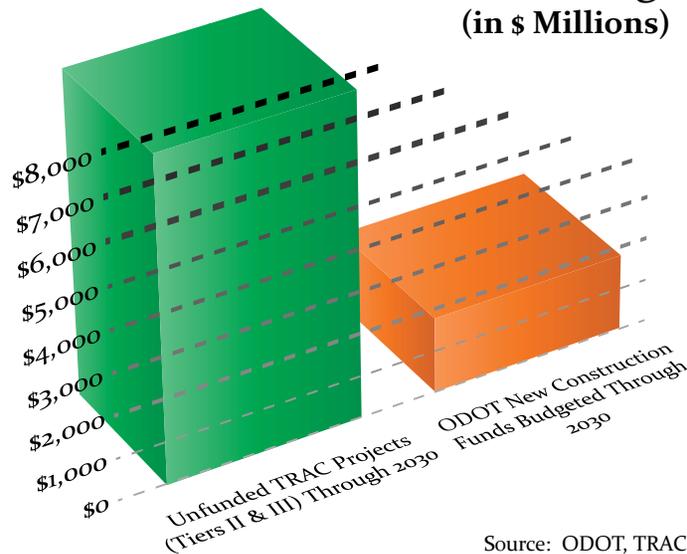
A number of smaller, yet significant, needs exist in the AMATS region, particularly in communities with higher population and job growth rates. However, meeting the transportation needs of the few growing communities in the region must be balanced against maintaining the existing infrastructure. Approximately 40% of the major roadways in the AMATS region have pavement conditions rated less than "good." AMATS estimates that it will cost approximately \$2.5 billion to maintain the region's existing roads and bridges through the year 2035. Maintaining the existing roadways is AMATS' top priority, leaving very little funding for new expansion projects.

### AMATS Funding Priorities

Given the current environment of decreasing transportation funds and increasing project costs, it is highly important that AMATS establish a set of funding priorities to maximize the effectiveness of all available resources.

**Fix-It-First:** AMATS' foremost policy is to focus on keeping the existing transportation network in a state of good repair before committing to new highway capacity or expansion projects. The majority of AMATS attributable transportation funding will be spent on roadway maintenance and improving the safety and efficiency of the region's existing infrastructure. As mentioned, congestion in the AMATS region has been on the decline, and slow population growth indicates that it will remain so into the future. Roadway capacity/expansion projects come at an enormous cost, and in most cases, would reduce congestion

## Unfunded Major Projects vs. ODOT New Construction Budget (in \$ Millions)



Source: ODOT, TRAC

by only a small, incremental amount. These projects are likely to be deemed unwarranted except in the most extreme instances.

**Improve Safety:** AMATS is committed to funding projects demonstrating marked improvements in the safety of all users, despite their chosen mode of transportation – automobile, transit, bicycle or walking. AMATS will strategically invest funding in identified high-crash locations.

**Regional Collaboration:** AMATS will continue its role as a facilitator of transportation planning and funding dialogue, not only within the greater Akron region, but throughout Northeast Ohio. Through strategic partnerships, efficiencies and cost savings may be realized. A primary example is the recent approval of a regional pavement condition rating (PCR) collection system. Gathering PCR data is a task completed by most communities within the region. Previously, different communities completed the process independently and used different contractors, making data comparisons difficult. The new regional PCR data collection agreement allows all AMATS members to join a cost-sharing pool, where PCR data will be collected by a single contractor, according to each community’s needs. This allows not only for an apples-to-apples comparison among member communities, but an estimated 30-

50% cost savings will be realized through economies of scale. This recent agreement represents only one example of how AMATS envisions regional collaboration paying off in the form of greater efficiency and cost savings.

**Promote and Support Alternatives to Driving:** AMATS will continue to devote significant funding to improve transit in the region. An improved transit network helps those who do not have access to personal transportation, and will serve as a viable option for those who choose to ride transit for reasons of cost or convenience.

Emphasis will also be placed on creating a safe, convenient and inviting environment for bicyclists and pedestrians. This will be largely achieved through the promotion of “Complete Streets” throughout the region. These non-vehicular alternatives can help reduce congestion, have demonstrated health benefits and are quite affordable.

**Address Revenue Shortfalls:** In 2010, the AMATS Policy Committee passed a resolution advocating an increase

in the federal gas tax of at least \$0.10/gallon, and indexing it to inflation to keep pace with increasing project costs. The fixed nature of existing gas taxes has been one of the key reasons the federal Highway Trust Fund is effectively insolvent, since revenues cannot keep pace with rising project costs. The chart below illustrates.

Although AMATS believes an inflation-indexed gas tax increase to be the most effective and least intrusive/disruptive means to solve the transportation funding gap, there are other potential solutions.

The State of Ohio and ODOT have been focused on innovative ways to increase transportation revenue for the state. Although several actions have been taken, the key measure was recently adopted in the recently passed 2013 Ohio transportation bill - ODOT was authorized to issue bonds (estimated to generate approximately \$1.5 billion in proceeds) against future Ohio Turnpike revenues to fund unspecified major projects throughout the state. A key provision requires that 90% of the bond proceeds are to be spent in Northern Ohio communities. AMATS

will advocate for the use of a portion of these funds to assist the region in funding projects which otherwise may not have been possible.

**Promote Compact, Mixed-Use Land Development:** With the exception of a handful of urban communities, low-density, automobile-oriented, suburban-style developments represent the prevailing land use pattern throughout much of the AMATS region. People are often forced to drive their automobiles for even the most basic, nearby tasks, simply because there is no other realistic transportation option. AMATS will continue to adhere to the principles established by its Connecting Communities initiative, and give funding consideration to projects which better connect our neighborhoods – increasing the opportunity to work, shop and engage in recreational activities without relying on a personal automobile. These development patterns can improve the livability and aesthetic appeal of our communities, as well as reduce the number of vehicles on area roadways. Non-motorized modes of transportation, such as walking or bicycling, could be used for everyday activities, necessitating automobile use only for longer-distance trips. As this development style is more readily adopted, we may expect Vehicle Miles Traveled (VMTs) on area roadways to decrease accordingly, reducing congestion in the process.

Inflation and its Effect on Project Costs		
Cost of a \$1,000,000 Project in 2010 Would Have Been:		
Years Ago	Cost	% Increase
5	\$876,161	14%
10	\$769,932	30%
20	\$567,092	76%
30	\$317,721	215%

# FIX-IT-FIRST

## AMATS’ “Fix-it-First” Policy

In areas where congestion is problematic, widening a roadway may seem like an effective quick-fix to the problem. While constructing the new roadway may be a one-time cost, the costs to maintain that road will continue indefinitely. This situation is only magnified in an era of decreasing federal funding for roadways, coupled with dramatic increases in construction costs. For the last five years, AMATS has adopted a “fix-it-first” policy, in which funding priority will be given to projects which help maintain the region’s existing transportation infrastructure. Although expansion projects are still possible, only the most regionally significant areas of concern would likely warrant funding.

## Existing Infrastructure

The AMATS region is home to an extensive existing transportation network. There are over 1,250 bridges and over 4,000 miles of roadways in this network which require periodic inspection, maintenance and, increasingly, full reconstruction to provide smooth, safe and efficient transportation in, around and through the region.

Potential Funding Gap Solutions		
Increase Revenues	Cost Reductions	Innovative Financing
Increase Fuel Taxes - Index to Inflation Rate	Staff Reductions	Advertising / Sponsorship Revenue
Vehicle Miles Traveled Tax	Consolidation of Services	Leveraging Assets - Example: Ohio Turnpike Bonding
Toll Additional Roads / Bridges	Materials Cost Reduction	Public-Private Partnerships
Transportation-Dedicated Sales Tax - To Supplement or Replace Fuel Taxes (OH, VA Considering)	Utilities Savings	Privatize Development Opportunities
	Reduce Scale of Major Projects	

AMATS Region Existing Highway System		
Federal Functional Classification	Length (in miles)	Number of Lane Miles
Interstate / Expressway	137	635
Ohio Turnpike	35	142
Urban Arterials	451	1,293
Rural Arterials	93	194
Urban Collectors	360	789
Major Rural Collectors	161	325
Minor Rural Collectors*	59	124
Locals*	2,859	5,060
<b>Totals:</b>	<b>4,155</b>	<b>8,562</b>
* Not eligible to receive federal funds		

## Costs: Always on the Rise

Each year, the purchasing power of available transportation funding is eroded by rapidly increasing labor, material, fuel and other construction-related costs. Every four years, AMATS produces its Highway Preservation Needs report<sup>1</sup>, which uses the best available cost estimates to project the total cost of maintaining the existing regional transportation infrastructure over a long-term planning period. An apples-to-apples comparison of the two most recent reports illustrates the enormity of the issue: in only four

years, forecasted maintenance costs have increased by \$307 million dollars!

The combination of maintenance costs outpacing the inflation rate and long-term uncertainty in regards to federal funding has led to a new reality: we must try our best to live within our means. In the world of transportation planning, this translates to taking excellent care of the infrastructure we have, and being extremely judicious before embarking on any expansion of our transportation network.

<sup>1</sup> available at [www.amatsplanning.org](http://www.amatsplanning.org)

# TRANSIT

The AMATS region is home to two major public transportation providers:

- **METRO RTA** – based in Akron, METRO provides fixed-route and demand-response transit service all throughout Summit County.
- **Portage Area Regional Transportation Authority (PARTA)** – based in Kent, PARTA provides fixed-route and demand-response transit service all throughout Portage County. A large share of its service is dedicated to serving the transit needs of the Kent State University campus and surrounding community.

## Transit Ridership

Those who use public transportation generally fall into one of two different groups of riders:

**Transit Dependent** – These riders generally form the primary base of transit ridership. For any number of reasons, this population does not have access to personal transportation, or is unable to use it. In the AMATS region, transit dependency is largely income-based, with low-income individuals/families more likely to use public transportation. For this reason, providing a convenient, reliable transit system is a matter of social equity – it provides access to employment

Transit Statistics at a Glance:		
	METRO RTA	PARTA
Fiscal Year 2012 Budget	\$47.7 Million	\$9.3 Million
2012 Fixed Route Passengers	5,230,118	1,412,486
2012 Demand-Response Passengers	247,476	115,127
Total Annual Passengers (2012)	5,477,594	1,527,613
Number of Fixed Routes	33	13
Total Revenue Miles	4,779,546	1,546,389
Primary Transit Center / Hub	Robert K. Pfaff Transit Center 631 S Broadway St, Akron	Kent Central Gateway 201 E Erie St, Kent

opportunities, healthcare and social service facilities and other important destinations. Some secondary demographic groups demonstrating a positive correlation to transit dependency include:

- Those with disabilities
- Minorities and other residents of dense, urban environments
- Older persons
- Students

**Choice Riders** – This population has access to personal automobile transportation, but chooses to use public transportation for a variety of reasons, including (but not limited to):

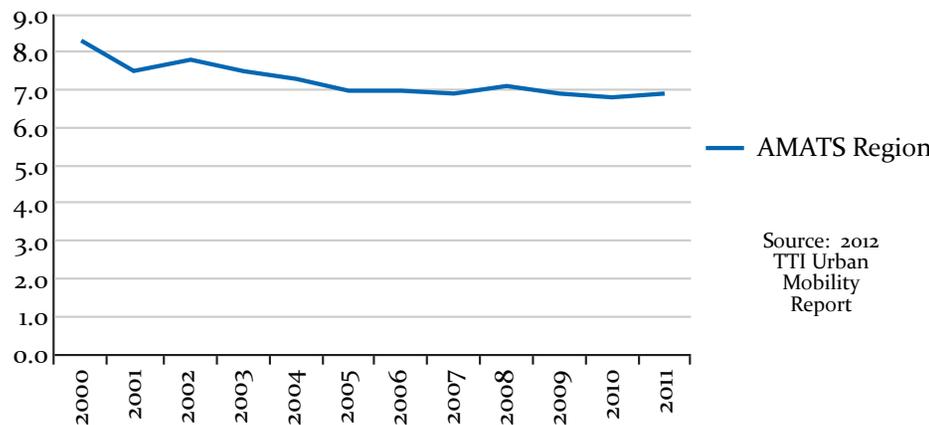
- It is inexpensive compared to automobile transportation
- It is more convenient in areas of high congestion or limited/expensive parking
- Time spent traveling can be used productively

- Less stressful – only the driver needs to worry about traffic
- Safer – particularly in snowy or other inclement weather conditions

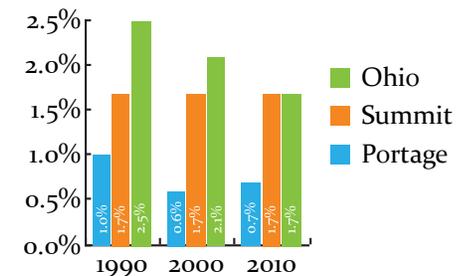
To develop an optimal public transportation system, a balance must be struck between expanding the service area and amenities to attract choice riders, while maintaining the core service and frequencies required by those who currently depend on transit.

Local transit agencies provide a vital service to those who rely on them to get to their places of employment on a daily basis. Although the percentages appear relatively small, in a region with a population of more than 700,000, these small percentages translate to a significant number of daily work trips.

**Regional Transit Ridership**  
(annual unlinked passenger trips - in millions)



**% of Population Taking Transit to Work**  
U.S. Census Bureau



Summit County's share of transit commuters has remained a remarkably consistent 1.7% for each of the past three census periods. Summit County's stability is in stark contrast to the rate of transit ridership at the state level, which has steadily dropped over the three decades. Portage County's share has shown more variability over the same period. It should be noted that work-related transit trips represent only a small portion, approximately 15%, of all transit trips.

## Key Transit Issues

### Coordination of Services

One of AMATS' top priorities is to facilitate coordination between public and private/non-profit providers of transportation services. In addition to the region's two public transit providers, Summit and Portage Counties are home to numerous health and social services agencies, both public and not-for-profit, which generate clients with various transportation needs. Many of these agencies also operate vans, buses and other transportation assets. Every agency has a different coverage area and diverse client needs. For several years, AMATS has funded the development of a system which, once complete, will allow all participating agencies to communicate with each other, and match client needs with available assets. PARTA has spearheaded the effort through its continuing development of NEORide<sup>1</sup>. Ideally, the

end result will be a user-friendly call center and/or online database where those with special transportation needs could post their transportation needs, and participating agencies will offer all available solutions. This would lead to the most effective use of all transportation assets in the region, and would be beneficial to both the clients and transportation providers.

Regional transit coordination will be greatly enhanced by the fact that both AMATS area transit agencies will soon offer central hubs for their transit services. Essentially every METRO bus route connects to the Robert K. Pfaff Transit Center, located just south of Downtown Akron. Built in 2009, this \$17 million multi-modal center provides a comfortable waiting environment for METRO customers, who in addition to catching nearly any METRO route may also connect to Greyhound buses, taxis, bicycle facilities and in the future, potentially passenger rail.

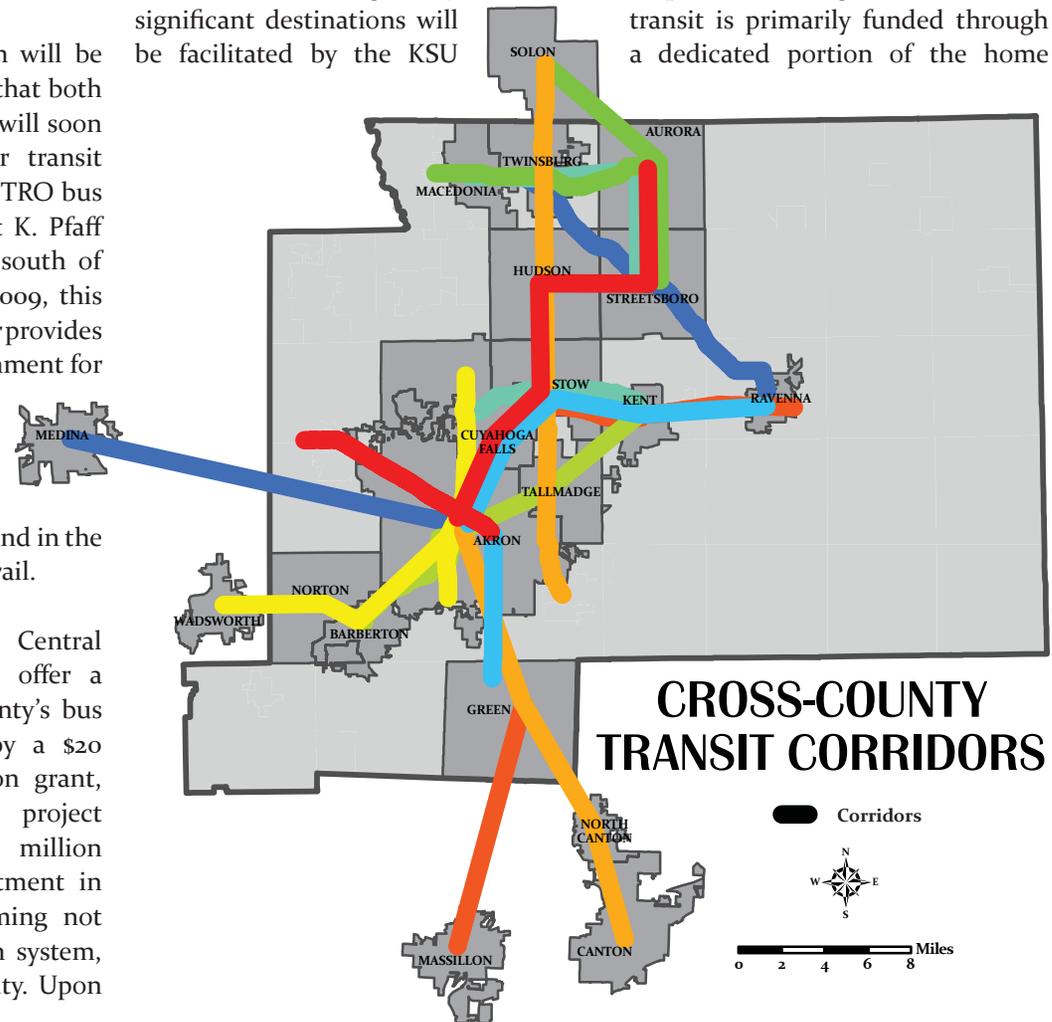
PARTA's soon-to-open Kent Central Gateway (KCG) will finally offer a central hub for Portage County's bus service. Primarily funded by a \$20 million federal transportation grant, this nationally recognized project spurred an additional \$100 million of public and private investment in Downtown Kent - transforming not only the city's transportation system, but the entire heart of the city. Upon

completion, the KCG will serve as the hub for PARTA's bus operations, provide desperately needed downtown parking and will offer facilities for bicyclists and pedestrians. In addition, the KCG will help bridge the long-standing gap between Downtown Kent and the Kent State University (KSU) campus. Movement between these two regionally significant destinations will be facilitated by the KSU

Esplanade extension - a multi-use trail that winds all throughout the growing campus and will terminate at the foot of the Kent Central Gateway.

### Cross-County Service

Northeast Ohio is an interconnected area and home to multiple metropolitan areas and public transportation agencies. Public transit is primarily funded through a dedicated portion of the home



1 [www.neoride.org](http://www.neoride.org)



Robert A. Walker. Kent, OH. 2013.

county’s sales tax. For this reason, transit agencies have been reluctant to cross the county line - viewing all external trips as the “leakage” of that particular county’s transportation funds. AMATS advocates a new way of thinking: transit agencies working together to meet the extra-territorial desires of their ridership in a manner which is mutually beneficial to all involved. Three potential policy recommendations could assist in addressing the reluctance of transit providers to cross the county border:

1. *Revenue Sharing* – RTAs contractually agree upon an equitable means of sharing revenue generated from all cross-county transit activity
2. *In-Kind Sharing* – two or more RTAs agree to provide reciprocal cross-county transit service – typically of equal value
3. *Consolidation of Service/Agencies*

– combining multiple routes, services or agencies into one

There are examples of cross-county service in our region, and each has proven to be increasingly popular:

- METRO – Northcoast Express trips to Cleveland
- PARTA – Akron Express, Cleveland Express

- SARTA (Stark County) – Akron/ Canton Airport Express, Canton/ Akron Express

Cross-county transit service generally falls into one of two categories: longer-distance express service, and shorter-distance local service. Although longer-distance services, such as express routes to Downtown Cleveland, operate fairly well in the AMATS region, shorter-distance trips, such as service between Summit and Portage County communities, show plenty of opportunity for improvement.

Although transit riders enjoy frequent transfers between METRO and PARTA services on the Stow/Kent border, other connections between northern communities, such as Twinsburg, Aurora and Streetsboro could work to broaden the appeal of transit in the AMATS region. Connections between

Summit and Portage Counties and popular Stark County destinations, such as Downtown Canton, Massillon and the Belden Village commercial area, would also enhance region-wide access to employment, educational, retail and recreational opportunities. After analyzing daily work commute data from the U.S. Census Bureau, AMATS proposes nine cross-county transit routes that show strong potential for solid ridership.

### Transit “Gaps”

Although METRO and PARTA serve their core areas well (Akron, Barberton, Cuyahoga Falls, Kent, Ravenna, etc.), the region’s population has been shifting outward from these central locations. The fastest growing communities lie in the extreme north and south portions of the AMATS region, yet service to these areas is infrequent or non-existent.

AMATS Transit System Gaps		
Community	Warrants for Increased Transit Service	Possible Route(s)
Aurora	Low Income Population, Minority Population, General Unserved Population, Job Concentration, Government Centers, Population Growth	SR 82 (Garfield Rd) SR 43 (N. Aurora Rd / Chillicothe Rd) SR 306 (Chillicothe Rd)
Copley Township	Elderly Population, Low Income Population, Minority Population, General Unserved Population, Job Concentration, Schools, Government Centers, Population Growth	SR 162 (Copley Rd) S Cleveland-Massillon Rd
Green	Elderly Population, Low Income Population, Job Concentration, Airport Service, Population Growth	S Arlington Rd SR 241 (Massillon Rd) SR 619 (E Turkeyfoot Lake Rd) Lauby Rd (CAK Airport)
Mantua	Elderly Population, Low Income Population, Minority Population, Schools, Government Centers	SR 44 (Painesville Ravenna Rd) High St / Mennonite Rd
Streetsboro	Elderly Population, Low Income Population, Minority Population, General Unserved Population, Job Concentration, Government Centers, Population Growth	SR 14 (Cleveland East Liverpool Rd) SR 303 (Streetsboro Rd) SR 43 (Cleveland Canton Rd)
Twinsburg	Low Income Population, Minority Population, General Unserved Population, Job Concentration, Park and Ride, Population Growth	SR 82 (Aurora Rd) SR 91 (Darrow Rd) Ravenna Rd

# PEDESTRIAN

The importance of maintaining a safe, efficient pedestrian network in the AMATS region is important for one very important reason: everyone is a pedestrian at some point during each and every trip they take. Pedestrians are the most vulnerable of any transportation mode, and a share of the region's pedestrian activity is generated by the most vulnerable among us: children, older individuals and those with disabilities. Low-income individuals who do not have reliable access to personal automobiles are also likely to rely on walking to achieve many of their daily needs. For these reasons, AMATS is committed to partnering with local communities to provide a comprehensive, safe and attractive pedestrian environment.

AMATS Region Pedestrian Fast Facts:	
Regional Sidewalk Miles:	2,510
Regional Sidewalk Gaps (in Miles):	47.95
# of Pedestrian & Vehicle Crashes (2009-2011):	490

## Community Context

The AMATS region is comprised of a diverse set of communities – from dense, urban centers to sparsely populated, agricultural townships and everything in between. These different environments require very different solutions to providing an

optimal pedestrian network. For example, in central Akron it may be practical to provide a wide sidewalk, high-visibility crosswalks and ornate pedestrian-scaled lighting fixtures. In a more undeveloped community, simply providing an extra wide shoulder on a township road may adequately suffice for local pedestrian needs.

For a detailed discussion on context-based pedestrian solutions, please refer to the AMATS Regional Pedestrian Plan<sup>1</sup>.

In 2012, AMATS completed its first year of pedestrian counts shown in the following table. At each location, pedestrians were counted during the morning (7:00-9:00am) and afternoon (4:00-6:00pm) peak periods, based on guidelines established by the National Bicycle & Pedestrian Documentation Project<sup>2</sup>. Count times at Kent State University and the University of Akron varied to accommodate student schedules.

2012 Pedestrian Counts					
Community	Road Location	May 2012	July 2012	September 2012	Average
Akron	E Market St & N Arlington St	212	138	103	151
Akron	W Market St & S Highland Ave	376	335	453	388
Kent - KSU	SR 59, S Water St & E Main St			306	306
Kent - KSU	N Mantua St & Lincoln St			185	185
Kent - KSU	E Summit St & the Esplanade			1055	1055
Kent - KSU	Franklin Ave & S Water St			289	289
Akron - UA	E Exchange St & Spicer St			96	96

## Key Funding Priority: Invest in “Up-and-Coming” Walkable Communities

AMATS will use any available pedestrian infrastructure funding to address “gaps” in neighborhoods and communities showing demonstrated demand or a strong potential for use of pedestrian facilities. Unfortunately, areas currently lacking pedestrian infrastructure and designed in an unfriendly, automobile-centric manner create a self-fulfilling prophecy: these areas chose not to focus on pedestrian activity and, consequently, these hostile environments will not experience any significant pedestrian activity.

AMATS will focus its limited funding in areas containing high concentrations of pedestrian attractions (i.e. commercial and retail areas, schools and universities, places of worship, parks, etc.) and land use patterns capable of supporting future pedestrian activity, yet lacking sufficient sidewalks and other pedestrian infrastructure. Investment in these areas will

transform them into well-connected, truly walkable communities.

Another good indicator for potential pedestrian activity is the presence of fixed-route transit and frequent bus stops/shelters. The presence of transit stops generally means that the immediate area's population, job density and/or commercial attractions are sufficient to generate at least some level of pedestrian activity. There are a number of areas within the AMATS region where bus stops and mixed land uses are present, but sidewalks and other pedestrian infrastructure are not. Investment in these areas could transform them into true walkable communities, with resulting economic benefits outweighing the actual infrastructure costs.

<sup>1</sup> available at [www.amatsplanning.org](http://www.amatsplanning.org)  
<sup>2</sup> [www.bikepeddocumentation.org](http://www.bikepeddocumentation.org)

## The Hierarchy of Pedestrian Infrastructure

The options available to providing a safe, effective pedestrian network can be described as a three-tiered system:

### 1. Basic Sidewalks & Crosswalks

– The “bread-and-butter” infrastructure required for a safe and efficient pedestrian environment in most developed communities. Communities should build a connected, comprehensive network of sidewalks to connect the places where people are “coming from” to the places they are “going to.” Sidewalks should be of sufficient width, level enough to not pose a tripping hazard or obstacle to those using bicycles or mobility devices, and should be free of other obstacles. Crosswalks should be marked with well-visible paint, thus establishing a comfortable pedestrian domain. Finally, all crosswalks should be ADA accessible.

### 2. Enhanced Safety & Amenities

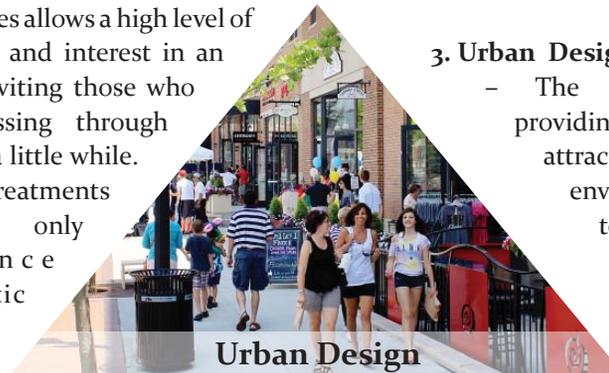
– Once the foundational infrastructure is complete, communities with significant pedestrian activity may want to build upon that foundation. Providing enhanced pedestrian amenities allows a high level of comfort and interest in an area, inviting those who are passing through to stay a little while. These treatments not only enhance aesthetic appeal and

safety, but they can increase property values, enhance local business and improve the overall quality of life. Examples of these solutions include textured crosswalk pavements, street furniture and public art.

### 3. Urban Design

– The pinnacle of providing a safe, attractive pedestrian environment is to incorporate good urban design into the

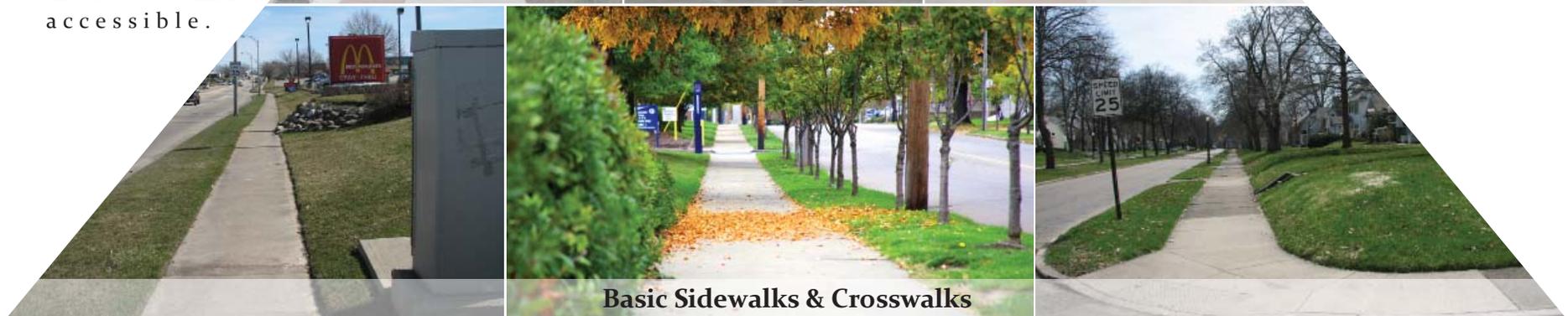
fabric of a particular street or neighborhood. Pedestrian friendly design ensures that the built environment is properly scaled and interesting to anyone traveling by foot. Features such as short blocks, narrow storefronts, interesting facades and architectural features, and sidewalk dining and activities are common elements in well designed neighborhoods. Mixed use buildings – buildings with retail at the street level and housing or offices on the upper floors, for example – are another key element of any great urban neighborhood or street. Good urban design can transform a neighborhood from a place that pedestrians simply pass through to one where they are drawn to and encouraged to shop, dine, work and live. Urban Design picture by College Town Kent, LLC. Kent, OH. 2013.



Urban Design



Enhanced Safety & Amenities



Basic Sidewalks & Crosswalks

# BICYCLE

Bicycling is an important component of the transportation system as both a recreational amenity and a viable transportation choice. It is a very low-cost, sustainable alternative to driving and improves access and mobility for many people. The bikeability of a community can have direct economic, health, social and environmental impacts. Making the greater Akron area a more bicycle friendly region will connect people and places, promote a healthy lifestyle and stimulate positive economic impacts.

There are currently over 100 miles of off-road multi-purpose trails and 24 miles of bike lanes in the AMATS area. Since 2000, AMATS has funded nearly \$12 million for the construction of off-road bike trails, including \$6.6 million for the Ohio & Erie Canal Towpath Trail and \$2 million for the Portage Hike & Bike Trail. On-road bike improvements have occasionally been funded by AMATS, but typically only as part of a roadway project.

While off-road bike trails can be used for transportation, they are primarily used for recreation. In 2012, AMATS completed a Bike Plan which recommends additional off-road trails, but also on-road corridors for improvements such as bike lanes. The Bike Plan represents a significant shift

in the region's bicycle planning and investments. For the first time, AMATS has prioritized and recommended on-road stand alone bike projects. This is a critical step in encouraging bicycling as a transportation choice and creating a comprehensive bicycle network.

## Existing Conditions

There are currently many existing trails and a small number of bike lanes in the region. In 2000, there were 80 miles of bikeways in the region. With the recent completion of the Ohio & Erie Canal Towpath Trail through Summit County, the area has over 100 miles of off-road trails completed. Currently,

## 2012 Bicycle Counts

Community	Road Location	May 2012	July 2012	September 2012	Average
Akron	E Market St & N Arlington St	42	19	12	24.33
Akron	W Market St & S Highland Ave	32	27	30	29.67
Kent - KSU	SR 59, S Water St & E Main St			20	20
Kent - KSU	N Mantua St & Lincoln St			19	19
Kent - KSU	E Summit St & the Esplanade			62	62
Kent - KSU	Franklin Ave & S Water St			9	9
Akron - UA	E Exchange St & Spicer St			20	20

there are 24 miles of bike lanes in the region. Mountain biking has also been gaining popularity in the region. There are 12 miles of mountain biking trails in West Branch State Park in Portage County. Several other cities comparable to Akron in population, university presence and weather were

also examined for comparison.

To help cyclists plan rides in the region, based on their individual comfort level and ability, AMATS created a Bike User Map. The Bike User Map rates major area roadways and classifies them as suitable for a beginner, intermediate,





## Bicycle Infrastructure Comparison



	Akron, OH	Ann Arbor, MI	Dayton, OH	Grand Rapids, MI	Madison, WI	Rochester, NY
<b>Population</b>	199,110	113,934	141,527	188,040	233,209	210,565
<b>Bike Lane Miles</b>	10	71	2	33	112	45
<b>Bike Path Miles</b>	16	57	34	8	46	22
<b>University Enrollment</b>	30,000	41,000	7,500	10,000	42,000	4,500

advanced or expert rider. The Bike User Map is a tool to encourage cyclists of all abilities to ride on roadways that best suit their individual skill levels.

While data on bicycling is important for targeting improvements and promoting biking, it is not easily obtained. In 2012, AMATS completed its first year of bicycle counts to gather data on the number of bicyclists in the region and help target bicycle facilities in areas of highest use. At each location, bicyclists were counted during the morning (7:00-9:00am) and afternoon (4:00-6:00pm) peak periods, based on guidelines established by the National Bicycle & Pedestrian Documentation Project<sup>1</sup>. Count times at Kent State University and The

<sup>1</sup> [www.bikepeddocumentation.org](http://www.bikepeddocumentation.org)

University of Akron varied to accommodate student schedules. AMATS also collects bike crash data. This data is collected from police reports and only applies to bike crashes with vehicles.

Year	Crashes
2006	111
2007	114
2008	117
2009	106
2010	116
2011	112
<b>Total</b>	<b>676</b>

AMATS is helping to advocate for bicycling in the region by developing and maintaining a website<sup>2</sup> devoted to

<sup>2</sup> [www.Switching-Gears.org](http://www.Switching-Gears.org)

improving and supporting bicycling in the region. The website provides community and event forums, interactive maps, information on area trails and information on regional bicycle planning and projects. Switching Gears provides a regional public forum for cyclists, creates a place for AMATS to receive feedback, and creates a centralized place for bicycling information, such as routes and local rides.



# LAND USE

Land use trends and investments since the 1950s have embraced a suburban land use model. As low-density residential subdivisions and commercial strip malls changed the landscape, they also altered how people live, commute to work and socialize. Traditional mixed-use, walkable neighborhoods gave way to auto-oriented segregated land uses.

While transportation investments were not the only enabler, they played a key role. Transportation investments focused on building a roadway network that moves people and goods as efficiently as possible, providing the necessary accessibility for people and business to move further out from traditional urban cores. This land use and transportation system makes owning a car virtually a necessity for every trip, creates an environment that discourages transit, bicycle and pedestrian use and strains infrastructure and community budgets.

The City of Akron continued to grow in population until about 1950, when migration to the suburbs went into full effect, and there has been no looking back. The other urban areas and exurban/rural communities have held fairly steady in recent decades.

According to Vibrant NEO, since

1970 northeast Ohio's population has decreased by seven percent, while the developed footprint expanded by over 20 percent. The majority of this growth was low-density residential development in suburban and exurban communities. What this means is that while we are seeing growth and development in some communities, it is primarily from other communities in northeast Ohio. The population is essentially redistributing within northeast Ohio. These land use and development patterns increase the amount of infrastructure needed and that must be maintained.

Today, land use and transportation planning and investments are still playing catch up to one another as a new development or big-box store requires infrastructure improvements, and infrastructure improvements allow for new development or big-box stores. These patterns strain the region's infrastructure, environment and discourage transit, bicycle and pedestrian use. To ensure the vitality of the region, it is necessary to better integrate land use and transportation and plan for future growth.

## Background

In 2010, AMATS completed *Connecting Communities – A Guide to Integrating Land Use and Transportation* to explore strategies to increase transportation choices and accessibility, and to help communities make collaborative,

informed decisions to coordinate development, reduce environmental impacts and improve connectivity. *Connecting Communities* examines how transportation planning and funding can be better coordinated with land use decisions to encourage investments which support vibrant, livable communities.

*Connecting Communities* included a wide variety of analyses, including transit, bike, pedestrian, parking, zoning, land use and environmental factors. These provided an inventory of existing infrastructure and services to identify gaps and develop recommendations. It was also important to understand land use patterns and trends as they affect the transportation system and vice versa.

To examine land use, AMATS completed regional land use and zoning inventories to examine future growth. Land use is what currently exists, while zoning is what is allowed. Zoning is a powerful regulatory land use planning tool used by local governments which controls where development can go and at what intensity. The majority of the region's current zoning encourages sprawl by zoning large amounts of land for low-density development and separating most uses. Approximately 80 percent of the region is zoned residential; of which 61 percent has a minimum lot size of half an acre. Only 3.5 percent is zoned for open space and

one percent is zoned mixed-use. The zoning inventory is on page 35.

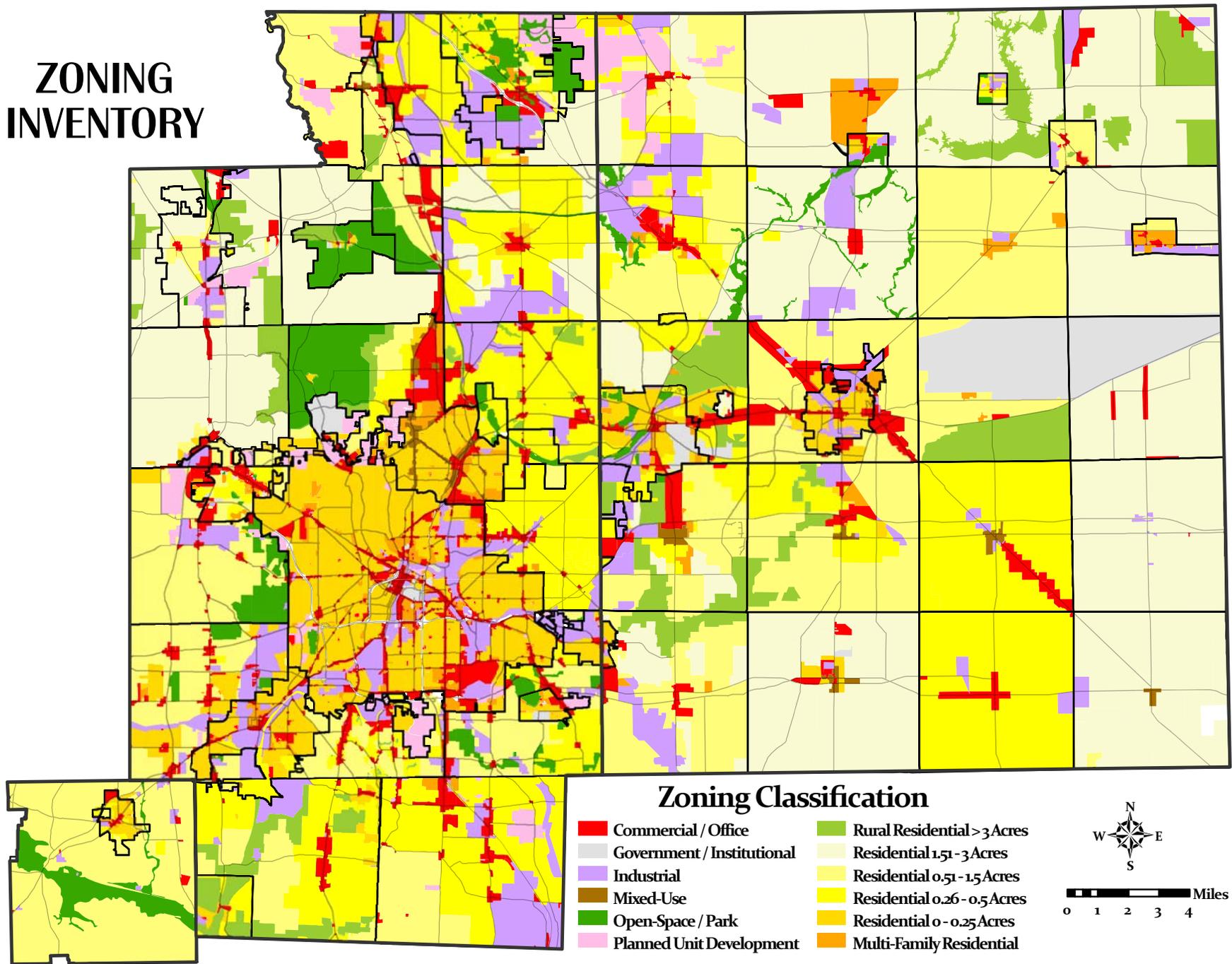
AMATS also developed Planning Areas to show the general urban form of the region; urban form is the physical layout and design of an area. It is important to understand the urban form because different areas are more conducive to different types of infrastructure and development. With limited funding it is important for AMATS and local governments to target their resources to maximize investments.

As shown on page 36, downtown Akron is the core of the region. It is surrounded by dense, walkable neighborhoods that gradually transition to more suburban and rural areas. There are also other regional hubs. Suburban centers, shown in dark purple, are major business and retail areas, while town centers, shown in light purple, are smaller community centers.

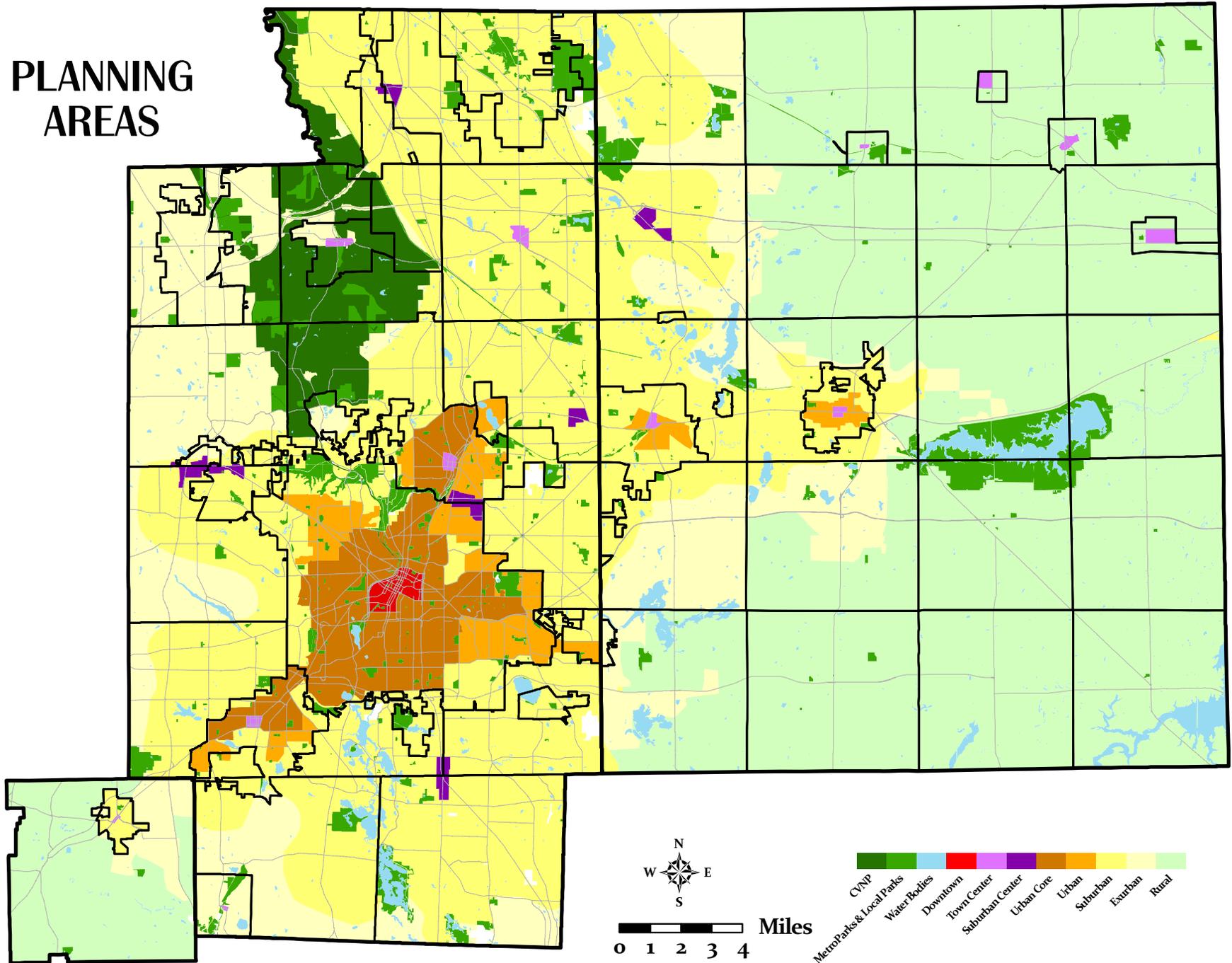
Parking is another land use issue that greatly impacts transportation patterns. Large parking lots often accompany strip mall development, malls and big-box stores. These are typically set far back from the road with parking in front and are designed with one purpose – to provide access to cars. This type of development is very difficult to serve with transit and is dangerous for pedestrians and cyclists.

*Connecting Communities* was the first

# ZONING INVENTORY



# PLANNING AREAS



step for AMATS in looking at ways that the region can better integrate land use and transportation. The recommendations of *Connecting Communities* are:

1. Improve pedestrian planning and facilities through targeted investments
2. Improve bicycle planning and facilities through targeted investments
3. Enhance public transportation systems to meet the needs of current users and be attractive to new users
4. Incorporate complete streets principles into land use and transportation decisions
5. Implement land use policies that improve community cohesion and reduce urban sprawl
6. Integrate environmental planning into land use and transportation planning
7. Improve inter-agency coordination on regional planning
8. Create a planning grant program to implement *Connecting Communities*

## Complete Streets

In the field of transportation planning, “complete streets” refers to streets that afford access to users of all ages, abilities and preferred mode of transportation. Complete streets do not favor any mode of transportation over another. Rather, they are designed to complement multiple modes and

diverse users.

Certainly, not every street can offer access to every possible mode of transportation. Buses generally don’t run down quiet, narrow residential streets, nor are sidewalks typically necessary in distant, rural townships. When planning for complete streets, context must be taken into consideration. For instance, in a regional complete streets policy, pedestrians should be accommodated in all general areas of the region. However, the specific pedestrian accommodations required in an urban core will look vastly different in a suburban or rural community.

In one sense, complete streets have existed in some form or another since the dawn of the transportation age. In the modern sense, however, complete streets are viewed as more of a philosophy or movement – whereas they happened organically in the past, today’s efforts are intentional and deliberately planned. Still largely in their infancy, complete streets are increasingly being enforced through local legislation referred to as a community’s “Complete Streets Policy.” At first, only a few “progressive” municipalities created complete streets policies. In just a matter of years, hundreds of complete streets policies have been established at nearly all levels of government – city, county, the metropolitan planning organization



Kent, OH. 2013.

(MPO) and, in a few cases, even at the state level. Attempts have been made to establish a national complete streets policy. So far, the efforts have failed, but it looks increasingly possible in the future, since many local policies pass with bi-partisan support.

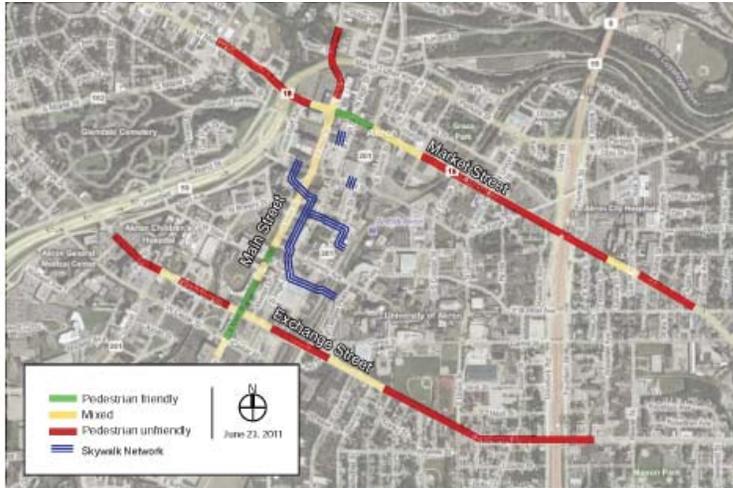
Complete streets policies do not conform to a one-size-fits-all structure – they vary widely between communities and the different levels of government. Some policies are very laissez-faire, while others are highly prescriptive. At the state, MPO, and county levels, policies are typically very high-level in nature, given the diverse nature of the communities that exist within their jurisdictions. Policies at these levels often (but not

exclusively) relate to high-level project planning and funding requirements. At the municipal level, policies tend to be much more specific – even going beyond the realm of transportation and extending to building design, site plan layout and so on.

AMATS is currently working with its member communities to incentivize complete streets through the AMATS funding policy, which will be updated in 2013. AMATS encourages its member communities to create and implement their own policies, in order to create safe, attractive streets for the benefit of all potential users.



# Akron Streetscape Evaluation



BFJ Planning. Downtown Akron Connectivity Study. 2011.

created to provide communities with funding to develop transportation plans to implement *Connecting Communities*.

The purpose of these plans is to focus on the concept of livability. Plans should enhance neighborhoods by improving transportation connections

and promoting alternative modes of transportation like walking, biking and transit. Grant funding is used to hire a consultant to study a specific area of a community. The funds are not used for preliminary engineering, but instead will be used to develop a plan containing analysis, priorities, and recommendations.

The program makes \$100,000 available for up to two planning grants. No local funding match is required for this grant.

Eligible activities include those that promote economic development as well as encourage alternatives to single occupant vehicles, such as:

- Development of transportation/land use plans for corridors or neighborhoods, such as streetscape and access management plans
- Bicycle, pedestrian and transit-oriented development plans

AMATS has completed two rounds of funding for the *Connecting Communities Planning Grant* program, and has begun a third. The first two rounds resulted in four grants being awarded. The first recipients of planning grant funds were the Village of Richfield, with its *Crossroad of Commerce and Community Plan*, and the City of Akron and METRO RTA with their *Downtown Connectivity Study*. In fall of 2011, the second round of funding awarded the City of Ravenna and the Village of Boston Heights for their *Safe Alternatives: Less Traffic (SALT)* study and *Comprehensive Land Use and Transportation Plan*, respectively. The City of Ravenna and Village of Boston Heights studies are scheduled to be complete in 2013.

## Northeast Ohio Sustainable Communities Consortium (NEOSCC)

In June 2009, the U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) formed the Partnership for Sustainable Communities to improve access to affordable housing, increase transportation choices and lower transportation costs while protecting the environment. In November 2010, Northeast Ohio was awarded a \$4.25 million grant to develop a regional sustainability plan. The NEOSCC was created to manage the three-year planning process for a 12-county planning area comprised of Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Mahoning, Medina, Portage, Summit, Stark, Trumbull and Wayne counties.

The mission of the NEOSCC is to create conditions for a more vibrant, resilient and sustainable northeast Ohio through creating a shared vision for the future. The primary outcome, *Vibrant NEO 2040: A Framework for Our Future*, will be a regional visioning and decision making framework which will inspire and guide actions and decisions on a regional level. AMATS is a part of NEOSCC because we think that planning, investing and coordinating on a regional level will make northeast Ohio stronger and more competitive.

# FREIGHT

The movement of freight is an important part of a fully functioning transportation system and an important component of the national, regional and local economies. The efficient movement of freight within and through a region is critically important to industry, retail commerce, agriculture, international trade and terminal operators. Freight movement can be by truck, rail, air, water or pipeline; but usually freight movement is accomplished by a combination of modes. Metropolitan areas with their air cargo airports, freight yards, trucking terminals and shipping facilities are especially affected by freight movement issues.

Examples of transportation projects that are freight-related or critical to goods movement include bridge replacements, road widening, port and rail access improvements, terminal facility enhancements, grade separations for highway and rail and providing connections to cargo terminals and new commercial infrastructure.

Freight plays a significant role within the AMATS area. As consumer demands increase, the transportation system throughout the region and nation will experience an increase in freight movements (by truck, rail,

air and waterway). According to the Federal Highway Administration (FHWA), the total amount of freight tonnage that moves through the nation's transportation network is expected to nearly double by 2035.

## AMATS Freight Profile

### Trucking

The economy of the AMATS area depends on its roadways. Business and industry depend on an effective freight transportation system to reach state, regional, national and global markets. Trucks move most of Ohio's freight. Truck traffic originates and terminates primarily in metropolitan areas. As a result, increases in freight-truck traffic have the greatest impact in the metropolitan areas in terms of greater roadway congestion, deteriorating pavement conditions and increased emissions.

In 2010, 272,770 people in Ohio - or one out of every 15 workers - were employed in trucking-related occupations at private and for-hire motor carriers. The average annual wage paid to trucking industry workers was \$43,189. The total annual payroll for the trucking industry in Ohio was \$11.8 billion.

### Rail

Northeast Ohio lies along the heavily utilized rail route between Chicago and the U.S. East Coast ports. Northeast Ohio serves as a hub where a large

block of rail cars moving east from Chicago can be redirected toward New York, Philadelphia, Baltimore and Norfolk, VA.

To serve its local and Ohio markets, northeast Ohio has three intermodal terminals. These terminals transfer domestic and international containers between rail and truck. Containers arrive at these terminals from coastal ports for local and Ohio delivery, and also are shipped out to these ports for export. There are no intermodal terminals in the AMATS area. Northeast Ohio is fortunate to have connections with both Norfolk-Southern (NS) and CSX, as well as a regional railroad of its own, the Wheeling and Lake Erie Railway (WLE). A map of the railroad lines and rail yards in the AMATS area follows. METRO RTA owns three rail lines, totaling 51 miles in length. These rail lines were purchased in order to preserve them for future use. Possible uses include passenger service, freight service or recreational trail usage.

### Airports

The Akron-Canton Regional Airport (CAK) is a commercial Class C airport located in the city of Green, in southern Summit County, occupying approximately 2,700 acres. The airport is jointly operated by Summit County and Stark County. The Akron-Canton Regional Airport is primarily a passenger airport. It had over 830,000 enplanements in 2011. It does not have

a significant role in the movement of freight.

Akron Fulton International Airport (AKC) is a general aviation airport located on the east side of Akron. It is owned by the City of Akron. It does not provide regular passenger service to the public. General aviation covers a large range of activities, both commercial and non-commercial, including private flying, flight training and business charters. It has no significant freight-moving capacity.

### Freight Needs

The highest priority needs in the AMATS area regarding freight movement involve improvements to the highway system. Highway improvements such as the Central Interchange project will help improve the efficiency of freight movement on the area's roadways. Other recommended rail improvements, such as grade separations, will reduce delays and eliminate conflicts between trains and automobiles.

### Highway Needs

- Address congestion at the highest rated locations in the AMATS area as discussed in the *Congestion Management Process Report*, emphasizing the areas with high truck traffic
- Improve and modernize the Central Interchange (I-76/I-77/SR 8)



- Improve the ramp from I-76 WB to I-77 SB (a safety issue associated with crashes)
- Improve the ramp from I-76 EB to I-277 NB at the south end of the Kenmore Leg (safety issue related to crashes) to meet modern standards and geometrics
- Add a truck lane to I-77 NB in the Bath Township/Richfield area due to a steep grade slowing down trucks (congestion issue)
- Improve the I-77/SR 21/SR 18 Interchange
- Continue to work with ODOT to address areas with safety concerns
- Improve intersection geometrics near trucking terminals and high

truck traffic areas

#### Rail Needs

- Provide support or engage in public-private partnerships to alleviate congestion on rail lines identified in the Ohio Statewide Rail Plan and the Ohio Freight Rail Choke Point Study
- Improve the CSX Lambert to Warwick section near Clinton. This section of single track handles large amounts of two-way traffic. When trains are backed up, at-grade crossings are blocked to vehicular traffic. This situation also poses a danger to public safety in the area, as emergency vehicles

cannot pass.

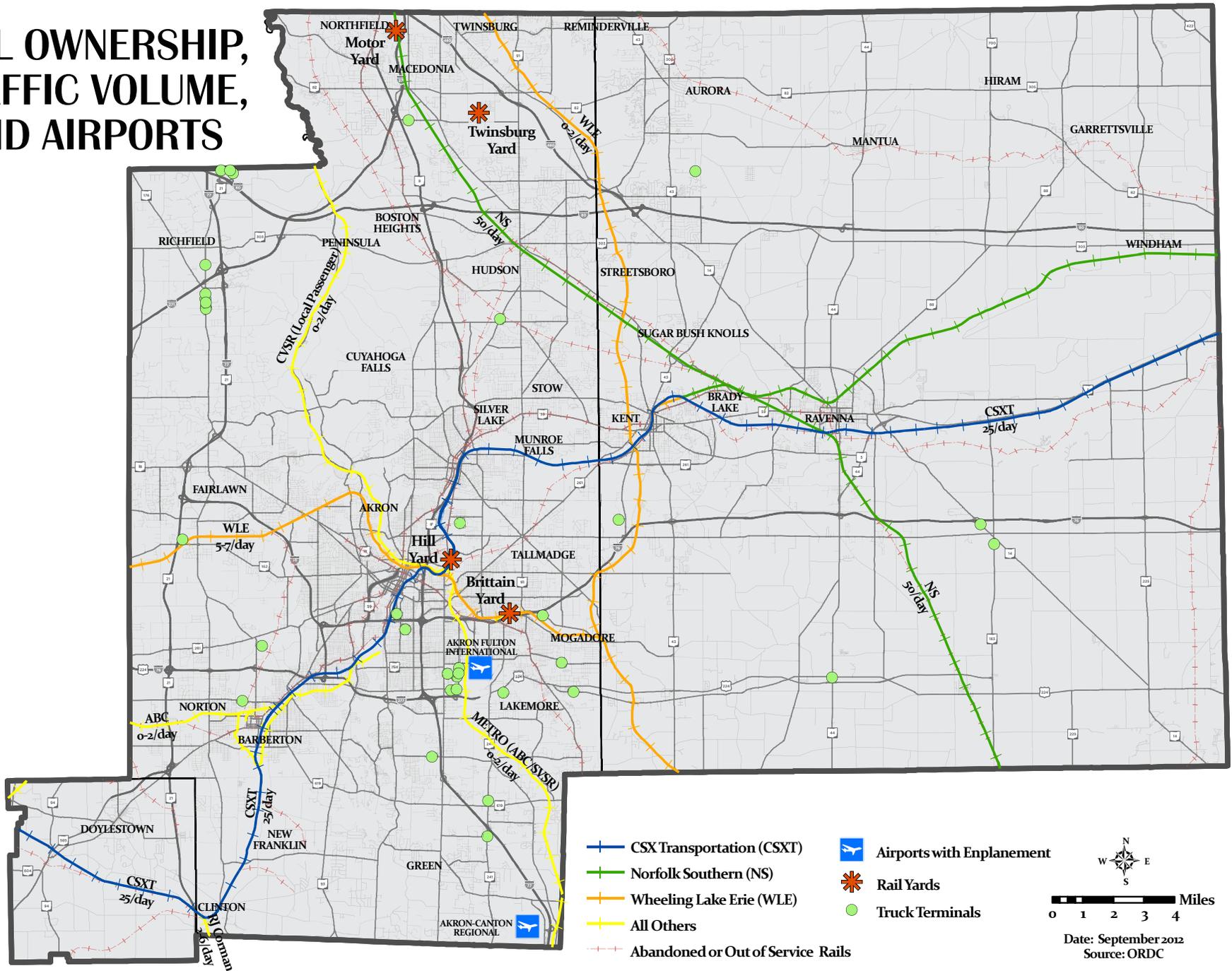
- Improve the NS Cleveland to Pennsylvania Line that passes through Macedonia, Hudson and Ravenna on its way to Alliance. The segment in Macedonia remains congested along a length of the rail line. A number of solutions have been proposed at this point
- Improve rail lines owned by METRO RTA and make them available to local industry
- Preserve out-of-service rail lines for future rail use or conversion to bike and pedestrian trails
- Consider public/private partnerships with the rail companies in order to improve freight service in the area

#### Railroad-Highway Grade Separation Needs

Railroad-highway intersections are a source of congestion and safety concerns. The strategies for alleviating congestion and improving safety were discussed earlier in the report. When feasible, separating the railroad and highway provides the greatest benefit. Without regard to cost or geography, the highest priority grade separation locations in the AMATS area are:

- The Stow Road crossing of the Norfolk-Southern Line in Hudson
- The North Main Street (SR91) crossing of the CSX Line in Munroe Falls

# RAIL OWNERSHIP, TRAFFIC VOLUME, AND AIRPORTS



# SAFETY

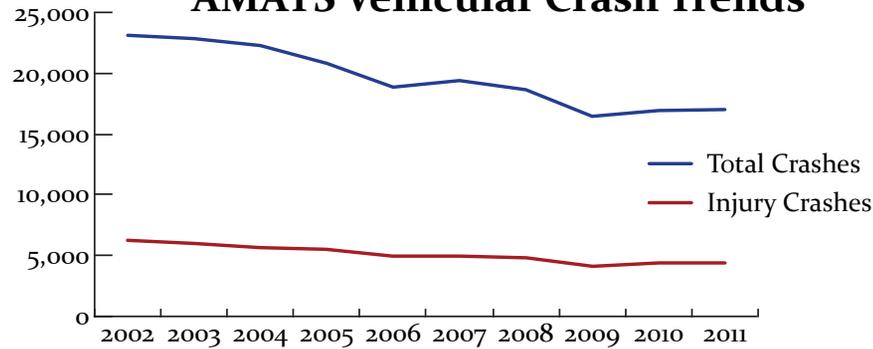
Although properly maintaining the existing transportation system is AMATS' top funding priority, improving the safety of that system is similar in importance. When considering potential projects to receive funding, each project's contribution to the safety of motorists, bicyclists and pedestrians is a key consideration in the selection process. AMATS tracks the various types of crashes in our region on a continual basis, and publishes a comprehensive report every two years. Areas identified as high-crash locations receive priority funding consideration. The most recent report, as well as archived versions, may be found on the AMATS website.

## Vehicular Crashes

The number of total vehicular crashes, as well as crashes resulting in injuries, has decreased steadily over the past decade. There are a number of factors contributing to these reductions, but projects with an emphasis on increasing

Key Crash Areas: 2009-2011		
Location	Pedestrian	# Crashes
Central Akron	Akron	1,481
SR 59 / Main St Corridor	Kent to Ravenna	848
I-277 / Waterloo Rd Corridor	Akron, Coventry Twp and Springfield Twp	472
Howe Ave / Chapel Hill Corridor	Akron, Cuyahoga Falls and Tallmadge	459
State Rd / Portage Trail Vicinity	Cuyahoga Falls and Tallmadge	433
Tallmadge Circle	Tallmadge	316

## AMATS Vehicular Crash Trends



safety have played a significant role.

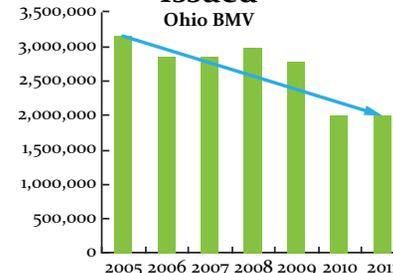
Although crashes are distributed all throughout the AMATS region, certain areas contain significant clusters of vehicular crashes.

According to the Ohio Bureau of Motor Vehicles' website, there are approximately 8 million licensed drivers in Ohio in any given year. Although the number of existing licenses remains fairly stable on an annual basis, the number of newly issued licenses has decreased rapidly over recent years. Of particular note, the number of newly issued driver's licenses dropped 28% between 2010 and 2011. If this trend continues into the future, it could have great implications on vehicle miles traveled in the state, and could make road expansion projects difficult to justify.

## Bicycle and Pedestrian Crashes

When researching vehicular accidents, it is possible to identify clusters, determine the causes from detailed crash reports and, as long as sufficient funding is available, implement engineering improvements to greatly increase safety and/or reduce conflicts. In contrast, bicycle and pedestrian crashes are randomly distributed all throughout the region and, therefore, planning and engineering solutions are not always as evident. Some trends do exist to point those responsible for ensuring bicycle and pedestrian safety in the right direction:

## Annual New Driver's Licenses Issued



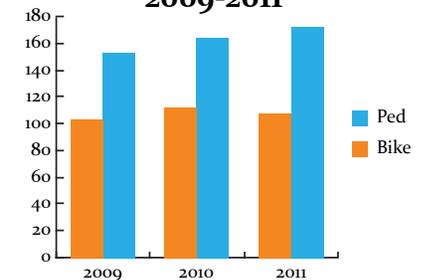
- Nearly 36% of pedestrian crashes occur in dark conditions
- 78% of bicycle crashes and 85% of pedestrian crashes result in injury
- 21% of bicycle crashes are children age 12 and under
- 12% of pedestrian crashes are age 12 and under

There are a number of solutions available to increase the safety of pedestrians and bicyclists using area roadways. Community context is important when considering which solution(s) may be the most appropriate for a particular area.

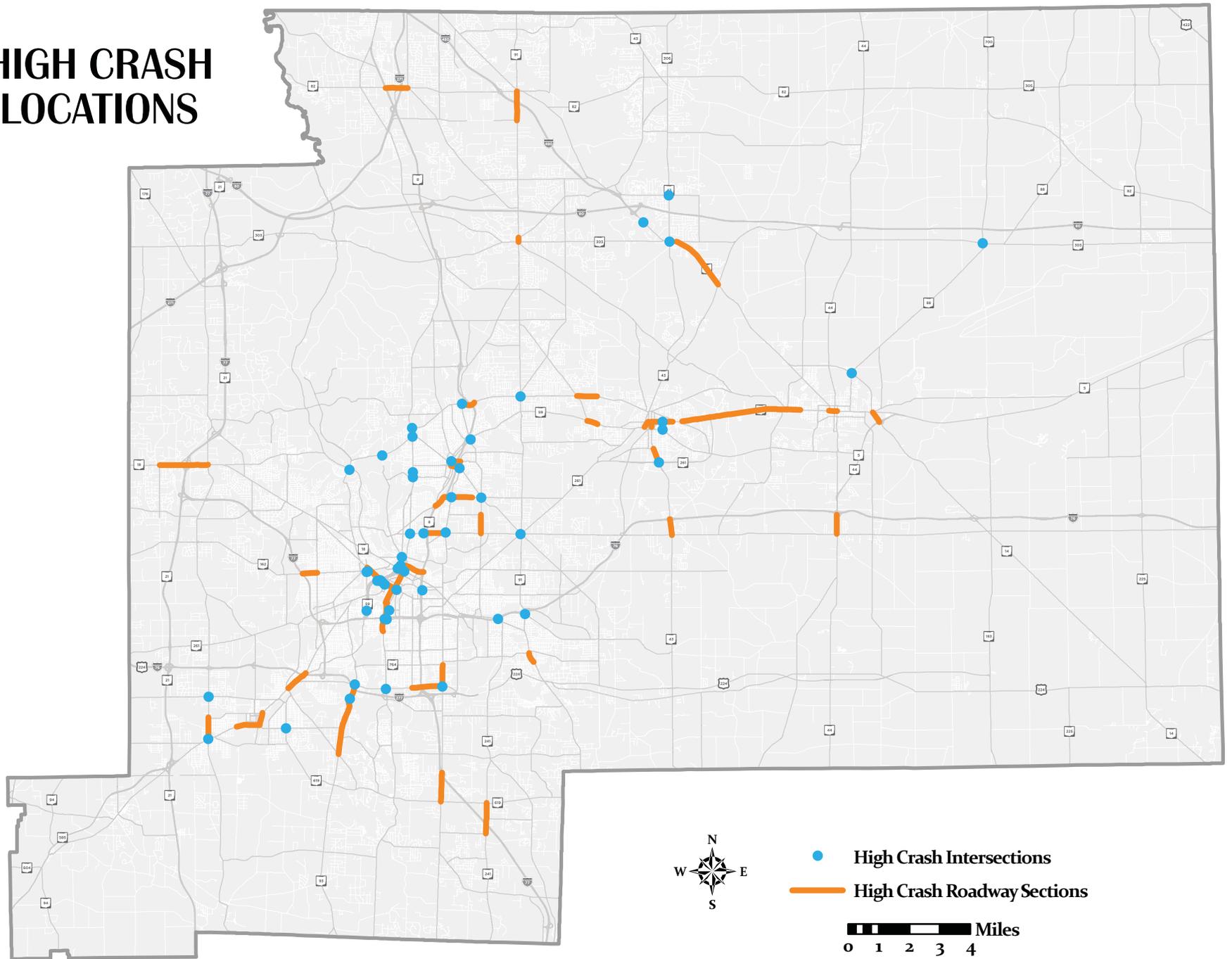
## Common Bike & Pedestrian Safety Solutions

Bicycle	Pedestrian
Safety Education	Safety Education
Marked Bike Lanes	Signage
"Share the Road" Signage / Sharrow	Well-Maintained Sidewalk Network
Improved Lighting	High Visibility Crosswalks
Protected Bikeways and Paths	Pedestrian Islands
Bike Boxes	Bump-Outs / Bulb-Outs
Bike Signals	Bus Shelters

## Non-Vehicular Crashes 2009-2011



# HIGH CRASH LOCATIONS



# CONGESTION

Traffic congestion, whether on freeways, arterial streets or intersections, is a top source of frustration among drivers. Likewise, it is one of the highest priorities among local elected officials and those in the transportation industry. Since 2004, congestion in the AMATS region has been on the decline, although in recent years, the rate of decline has leveled off. The decrease could be attributed to a number of factors:

- Very slow regional population growth
- Record high fuel prices
- Sustained unemployment
- A generally weak economy

These decreasing traffic volumes have contributed to an overall decrease in regional traffic congestion. As economic conditions improve, AMATS anticipates traffic volumes (typically expressed in vehicle miles traveled – or VMTs) to increase at a slow rate – consistent with the general long-term population projection for the region.

## Regional Congestion

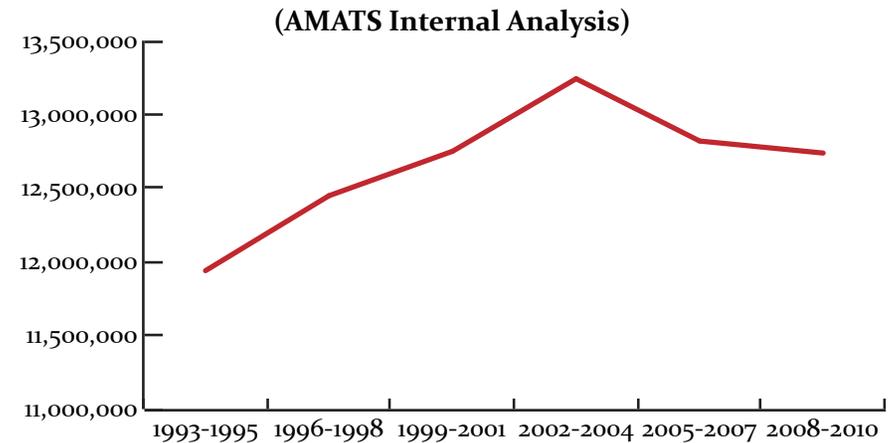
Regional congestion is closely (but not directly) correlated to regional traffic volumes. Congestion is a function of traffic volume versus roadway capacity. For example, high volumes of traffic on area roadways will not produce

congestion as long as the roadway network provides the proper capacity to accommodate the traffic. However, crippling congestion has not been an issue in the AMATS region for some time. Decreasing traffic volumes, combined with a number of AMATS funded projects increasing capacity and improving traffic flow, have led to substantial decreases in congestion in our region. According to data provided by the Texas Transportation Institute, the Akron metropolitan area’s congestion situation is not only improving outright – it’s decreasing at a greater rate than many of its peers.

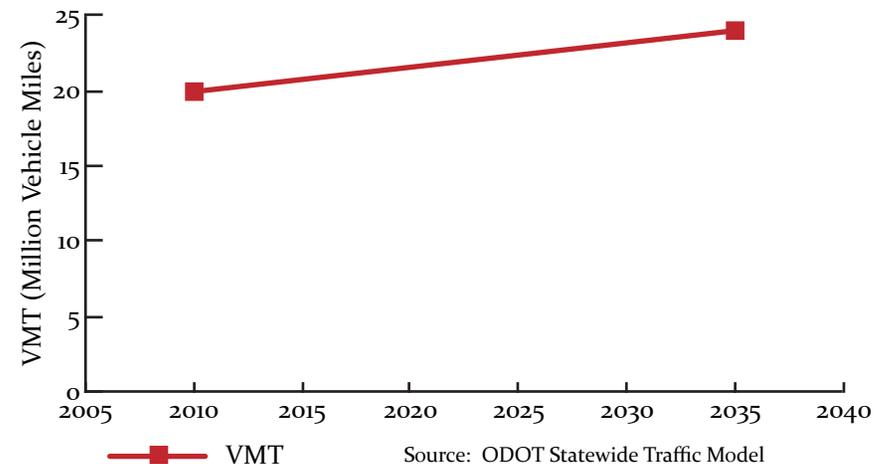
## Regional Level of Service: Quantifying Congestion

One method of quantifying systemwide congestion within the AMATS region is to categorize our arterial streets and freeways by their level of service (LOS). LOS assigns a “grade” to a road segment based on a ratio of the traffic volume carried by that segment and the overall capacity it was designed for. An LOS of “A” means that traffic flows freely on a segment, whereas an “F” indicates total gridlock. LOS varies on every street throughout the day, so the rating generally applies to the segment’s peak hour of volume – usually (but not always) during the morning or evening weekday rush.

## AMATS Area Average Vehicle Miles Traveled



## AMATS Region Projected Daily Vehicle Miles Traveled



The tables below illustrate the proportion of each LOS rating within the AMATS region:

### 2006, 2010 and 2035 Level of Service Comparison

Arterials			
Percentage of Arterial Miles			
LOS	2006	2010	2035
F	1%	0%	1%
E	1%	1%	4%
D	10%	6%	13%
C or Better	88%	93%	82%
Freeways			
Percentage of Freeway Miles			
LOS	2006	2010	2035
F	0%	3%	11%
E	6%	4%	17%
D	27%	33%	35%
C or Better	67%	60%	37%

The previous tables show that the level of congestion on arterials dropped slightly from 2006 to 2010, but is expected to rise to slightly higher levels by 2035. AMATS has invested millions of dollars into capacity and operational improvement projects throughout our region, to which we can attribute significant congestion reduction between 2006 and 2010, particularly on arterial streets. Over time, the slow growth of our region should keep arterial congestion levels steady through 2035.

Unlike the arterial streets within the AMATS region, freeways are expected to see increased congestion through 2035. Much of this congestion is attributable

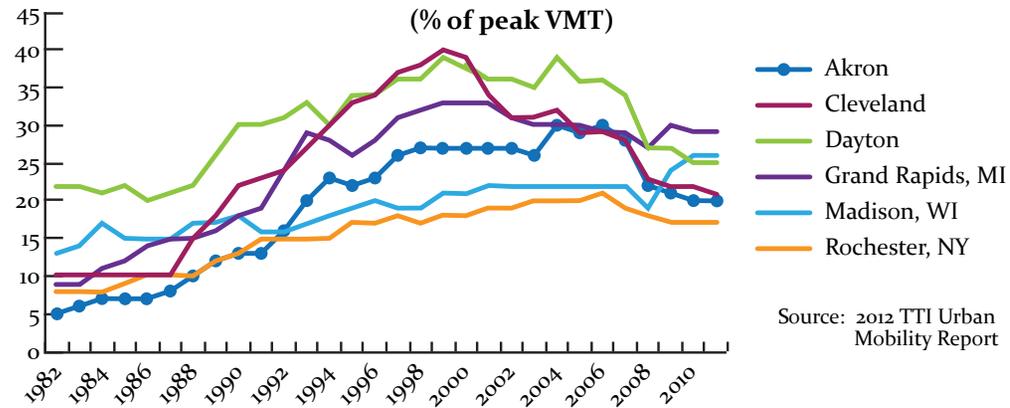
to Akron's Central Interchange (the convergence of I-76, I-77 and State Route 8), where rush-hour traffic jams tend to have a detrimental effect on the rest of the region's freeways. Addressing this principal bottleneck would alleviate freeway congestion throughout the AMATS region.

AMATS will focus on the worst existing congestion problems. Street segments or intersections with a current LOS of "E" or "F" would warrant immediate attention, but those rated "D" may not make economic sense to address. Our limited resources also prohibit the speculative funding of projects with projected low levels of service – there are simply too many immediate needs which need addressed.

### Incident-Related Traffic Congestion

A reciprocal relationship exists between

## Metropolitan Area Congestion



Source: 2012 TTI Urban Mobility Report

roadway congestion and vehicular crashes. Congested streets lead to stop-and-go traffic and frustrated drivers - a recipe for fender benders, sideswipes and other traffic accidents. These traffic accidents block lanes, scatter debris and distract other drivers, perpetuating roadway congestion. AMATS analyzes arterials, freeways and intersections exhibiting high recurrent congestion and traffic incident levels. Please refer to the *AMATS Congestion Management Process* report<sup>1</sup> for the complete details and analysis.

### Congestion Solutions: Addressing Supply vs. Demand

There are two approaches to addressing regional congestion: supply-side solutions and demand-side solutions. Supply-side solutions have historically

been the approach used by planners and engineers to address congestion – if a road is congested, widen it or construct an additional road to disperse traffic volumes and relieve congestion pressures. A largely built-out regional transportation network, decreasing transportation funding and a decrease in overall regional vehicle travel combine to make supply-side strategies unattractive except in the most extreme instances.

Demand-side strategies represent a more modern, cost-effective approach to reducing congestion. Essentially, these strategies lead to the more efficient use of the existing transportation system. Examples include traffic signal improvements, controlling access points, encouraging the use of transit or carpooling and staggering work-shift ending times (so not everyone is using the streets

<sup>1</sup> available at [www.amatsplanning.org](http://www.amatsplanning.org)



at the same time). For a thorough listing of demand and supply-side congestion management strategies and recommendations, please refer to the *AMATS Congestion Management Process* report.

## AMATS Congestion Management Policy

As demonstrated, traffic congestion in the AMATS region is on the decline. The State of Ohio ranks 46th in the nation in population growth - implying that VMT reductions will continue into the foreseeable future. Nationally, VMTs have been declining for nearly two years. As the nation's 7th most populous state, Ohio is home to a large

and aging legacy infrastructure which must be adequately maintained. Given this situation, AMATS has adopted a "fix-it-first" policy, in which the agency's highest funding priority is to ensure the proper maintenance of the region's existing roads, bridges and other transportation infrastructure. New highway capacity would be limited to only the most extreme circumstances.

The 20th Century paradigm of building new roads and lanes to follow a shifting and growing population is neither a realistic nor cost effective option for our region. The combination of a stagnant population, decreasing

VMTs, aging infrastructure and limited transportation funding demand that our available funds be targeted on the most problematic, existing areas of concern. Although projections may indicate that a road will reach an undesirable LOS rating in the distant future, our limited resources prohibit us from funding pre-emptive capacity - there are simply too many present-day problems to justify speculative expenditures. New capacity may be added sparingly, but any proposal will be scrutinized on a cost-benefit basis. One metric used to measure the potential benefit of a proposed expansion project would be average travel time savings - is a project which reduces average travel time by one or two minutes worth the enormous cost?

## Summary

In summary, one of the "benefits" of living in a slow-growth region is that vehicle miles traveled and, in turn, congestion are on the decline. This allows the region to focus its limited funding resources on target improvement areas. Street segments, bridges and intersections suffering from overlapping congestion, maintenance and safety concerns will receive funding priority. Other projects will be scrutinized on a case-by-case basis. This "fix-it-first" policy allows the region to maximize the effectiveness of its transportation funding resources, ensuring optimal travel conditions through 2035.

# ENVIRONMENT

Transportation improvements can have adverse impacts on the natural environment since they generally stimulate new development. The region's long-term viability is tied to the quality of its environmental resources. The National Environmental Policy Act (NEPA) requires transportation planning agencies like AMATS to integrate environmental considerations into the transportation planning process. Environmental resources that should be reviewed to avoid adverse impacts include air quality, climate change, stormwater management, and social, economic and environmental concerns ranging from community cohesion to threatened and endangered species.

AMATS has provided a view of trends and practices to see where the region stands with regards to environmental issues and to consider potential environmental impacts for all recommended projects in *TO2035*. The projects should be analyzed more closely as they move into further stages of development.

## 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.

Summit and Portage counties are part of the eight-county Cleveland-Akron-Elyria Combined Statistical Area (CSA). The AMATS region is required to participate in air quality conformity to attain the National Ambient Air Quality Standards (NAAQS) for various criteria pollutants. These include carbon monoxide, ozone, oxides of nitrogen, lead, sulfur dioxide and particulate matter. The conformity analysis demonstrates that the transportation programs in the region conform to applicable air quality standards. The complete conformity document and the associated results of the transportation conformity analyses for *TO2035* are discussed in detail in Appendix C.

The United States Environmental Protection Agency (USEPA) continues to tighten the current ozone and fine particulate matter (PM<sub>2.5</sub>) standards. As these trends continue, the region may be required to implement more control measures on ozone and PM<sub>2.5</sub>. Nonattainment and maintenance areas for annual PM<sub>2.5</sub> in Ohio can be viewed on their website.<sup>1</sup>

## Greenhouse Gases

Over the last several years, the federal government enacted several standards and regulations regarding CO<sub>2</sub>.

Transportation planning can address multiple pollutants simultaneously. While *TO2035* does not directly quantify greenhouse gas emissions, many recommendations included help reduce CO<sub>2</sub>. Transit recommendations including better service, new, cleaner buses, and park and ride lots will aid in reducing CO<sub>2</sub> emissions.

AMATS also continues to operate the OhioRideshare program, which promotes carpooling to reduce the number of vehicles on the road. In addition, AMATS supports land use management principles that reduce sprawl and encourage infill development as an effective way of reducing carbon emissions. These principles can reduce vehicle miles traveled, conserve energy and, in turn, reduce carbon emissions.

AMATS recognizes the growing public concern regarding the issues of carbon dioxide (CO<sub>2</sub>) emissions and climate change. Climate change refers to the changes in temperatures and weather patterns resulting from systems such as the greenhouse effect. The transportation system's relation to climate change is two-fold; one, as a contributor of greenhouse gases (GHG), or carbon dioxide (CO<sub>2</sub>) emissions and, two, the potential impact that severe flooding can have on transportation infrastructure such as increased stormwater runoff.

Currently, AMATS is not required

to model CO<sub>2</sub> emissions from transportation sources, and no prevalent methodology exists to model it. Over the next several years it is likely that the federal government will enact stricter standards and regulations regarding CO<sub>2</sub>. AMATS is working closely with the ODOT, Akron Regional Air Quality Management District (ARAQMD), the Ohio EPA and the USEPA to prepare for possible changes in air quality standards and their resulting impacts on the regional transportation planning process.

## Stormwater Runoff/ Green Infrastructure

Green infrastructure is an approach to water management that protects, restores, or mimics the natural water cycle by encouraging infiltration and reducing peak flows to streets and storm sewers. *TO2035* encourages the use of green infrastructure to reduce potential negative impacts of stormwater runoff. It is effective, economical, enhances community health and safety, and improves community quality of life. Green infrastructure systems have been used successfully to address a variety of critical water management goals, including the protection of clean drinking water, providing water for irrigation, conserving ecosystem functions, and protecting people and property from flooding.

The long-term success of green infrastructure depends on its

<sup>1</sup> available at <http://www.epa.ohio.gov/>

integration with land use, site design and architectural decisions. New development has a “cause and effect” value. The cause is increased land use changes and the effect is increased flooding due to impervious surfaces, such as parking lots, that speed stormwater runoff. Land use development of big-box stores and retail in suburban areas which require large parking lots play a significant role in increasing stormwater runoff.

Best management practices (BMPs) should be incorporated on the local level that include rain gardens, permeable pavements, green roofs, infiltration planters, trees and rainwater harvesting systems. At a regional scale, the preservation and restoration of natural landscapes such as forests, floodplains and wetlands are critical components of green infrastructure. A number of BMPs are identified below and in Appendix G.

## Environmental Mitigation

Environmental mitigation is a sequential process that is required for projects that use federal funds and 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. The discussion is required based on the transportation planning regulations (23 CFR 450) to consider potential mitigation strategies to restore and maintain the environmental functions affected by the regional transportation plan.

Potential environmental impacts and mitigation activities are considered for projects recommended in *TO2035* through consultation with state

agencies. The information resulting from these discussions is the basis for considering the cumulative impacts of the recommended projects during the planning process. This helps to identify activities that have the greatest potential to protect, restore and enhance the environmental factors affected by *TO2035*.

The complete Environmental Mitigation Analysis is included in Appendix G.

## Examples of BMPs in reducing stormwater runoff



Permeable Pavers



Planter



Tree Box



Rain Garden

# PUBLIC INVOLVEMENT

The transportation planning process can be complex and difficult to understand and, often times, citizens don't know when or how to get involved. Most projects are the result of years of planning, engineering and design, yet the first visible sign of a project may be orange barrels in the road. AMATS strives to help the public become involved in the transportation projects throughout the planning process, not just the final phase when public input may be too late.

The agency provides opportunities for the public to address public officials and participate in discussions and decisions on the transportation system and other issues facing the region. Over the past four years, AMATS has increased opportunities for public involvement in the planning process and ways that AMATS has reached out to be a more transparent, cooperative and helpful agency.

In addition to the Citizens Involvement Committee and other committee meetings, AMATS has worked hard to engage the public outside of the office and traditional meeting formats. This includes a new AMATS website, utilization of social media and focused workshops to gain in-depth insight on various issues and to reach new audiences.

New technology has given AMATS new ways to reach out to the public. AMATS uses web posting and social media sites such as Facebook, Twitter and YouTube to provide citizens with up-to-the-minute information. The agency also has expanded its practice of posting announcements, meeting information and news on community-oriented sites such as the Summit County Community Calendar, Patch, Zvents and other appropriate venues.

## Web Development

AMATS revealed a brand new website in August 2010 and is constantly working on improvements. One of the main goals of the new site has been to make it easier to inform the public about events and provide a way for the public to become more engaged and involved in the planning process. New features include an interactive Transportation Improvement Program (TIP) and podcasts of committee meetings.

In 2012, AMATS launched Switching-Gears.org to provide information on area trails and bicycling opportunities and promote cycling as a viable transportation choice. The website also allows users to sign in and create a profile to discuss and advocate for bicycling issues. Switching-Gears also has a calendar announcing organized bike rides and events in our region.



## Social Media

AMATS actively posts to and uses Twitter, Facebook, YouTube, Patch and the Civic Commons to engage the public through a variety of ways. Social media has been a great tool to help AMATS provide additional ways to receive input in the transportation planning process and for AMATS to provide information. Daily tweets on Twitter and posts to Facebook include agency information and articles on transportation, planning, the environment, community development and other issues affecting the community. YouTube has been a tool which AMATS uses to post videos from highlighting area projects to bicycling safety tips. Patch and the Civic Commons are also useful in helping AMATS disseminate information, receive input and discuss area issues.



- AMATS PLANNING
- ABOUT US
- FUNDED PROJECTS (STP)
- TRANSPORTATION OUTLOOK 2035
- TRANSPORTATION PLANNING
- PROGRAMS
- GET INVOLVED
- REPORTS
- MAPS & DATA
- TRAFFIC COUNT DATA
- AMATS ANNUAL MEETING
- ACCESS OHIO 2040
- TRANSLATOR

Welcome!



Welcome to the Akron Metropolitan Area Transportation Study (AMATS) website. Our agency website is an excellent source of information regarding transportation policies and improvements in the Greater Akron, Ohio area.

For the past 50 years, AMATS has focused on planning an efficient transportation system for the future. AMATS receives funding from three federal programs and uses these funds to help communities pay for road maintenance, safety improvements, congestion relief and bike and pedestrian infrastructure.

To take the Montrose survey, [click here](#).  
 Check out our latest report, the [State of the Region's Infrastructure](#).  
 Click [here](#) for the 2014 AMATS meeting calendar.



Please note: Meeting times and locations have changed for 2014. Please review your meeting packets or check the [calendar](#) for more information.

What's New?

**Agency Seeks State Route 8 Re-Designation**  
 Feb 5, 2014  
 AMATS - acting in concert with several mayors and the Summit County Executive and Engineer - is pursuing re-designation of state Route 8 as interstate 380....  
[Read More](#)

**AMATS Kicks Off 2014 With 39 New Projects**  
 Jan 31, 2014  
 In its first meeting of 2014, the AMATS Policy Committee approved 39 projects totaling nearly \$29 million in new project funding....  
[Read More](#)

Calendar

**2014 AMATS Meeting Calendar**  
**President's Day - AMATS Office Closed**  
 Monday, February 17, 2014  
**AMATS Technical Advisory Committee Meeting**  
 Thursday, March 13, 2014  
 Quaker Square Inn at the University of Akron, Ballroom C, 235 S. Broadway, Akron OH 44325  
[More Events](#)

Committee Meetings

**TAC, CIC and Policy Committee Meeting Packet (January 2014)**  
**TAC, CIC and Policy Committee Meeting Packet (December 2013)**



RT @NOACA\_mpa: Planners, use this Recommended Training Guide to find current training opportunities for transportation planning. <http://t.co/1K2RQX6xVx> ... February 16, 2014 19:13:43

AMATS to fund Route 303 culvert project in Strickland. <http://t.co/1K2RQX6xVx> February 06 2014 14:34:39

House Transportation Chairman opposes the gas tax increase. <http://t.co/1PNZ7654TU> February 05 2014 20:29:36

amatsplanning.org

← Easy access to all AMATS meeting materials and information

← Links to OhioRideshare and Switching-Gears.org

← Links to twitter, Facebook & YouTube

← Twitter feed

News, videos & pictures





# RECOMMENDATIONS

Over the past four years, AMATS has completed a number of reports and studies analyzing greater Akron's transportation system. This analysis has led to a number of recommendations to improve and strengthen the area's transportation network. Recommendations included in *Transportation Outlook 2035 (TO2035)* include infrastructure improvements as well as policies intended to ensure our system remains an asset to the region from now until 2035.

*TO2035* includes highway, transit, bicycle and pedestrian infrastructure and policy recommendations. The recommendations included in *TO2035* are financially constrained and conform to federal air quality requirements.

# HIGHWAY RECOMMENDATIONS

Highways are the most critical element of the region's transportation system. The recommendations contained in *TO2035* aim to preserve the existing system as well as improve the safety and efficiency 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 many types of projects including resurfacing, turn lanes and traffic signals, and major widening projects.

The agency's funding comes from two major sources, the Surface Transportation Program (STP) and the Congestion Mitigation/Air Quality Program (CMAQ). The STP program is the most versatile type of funding and can be used on any type of project. CMAQ funding can only be used on projects which improve air quality and relieve congestion.

Federal funds may only be invested on roadways that are contained in the Federal Functional Classification of Highways (p. 55). Local roadways (like streets in a residential subdivision) are not eligible for funding.

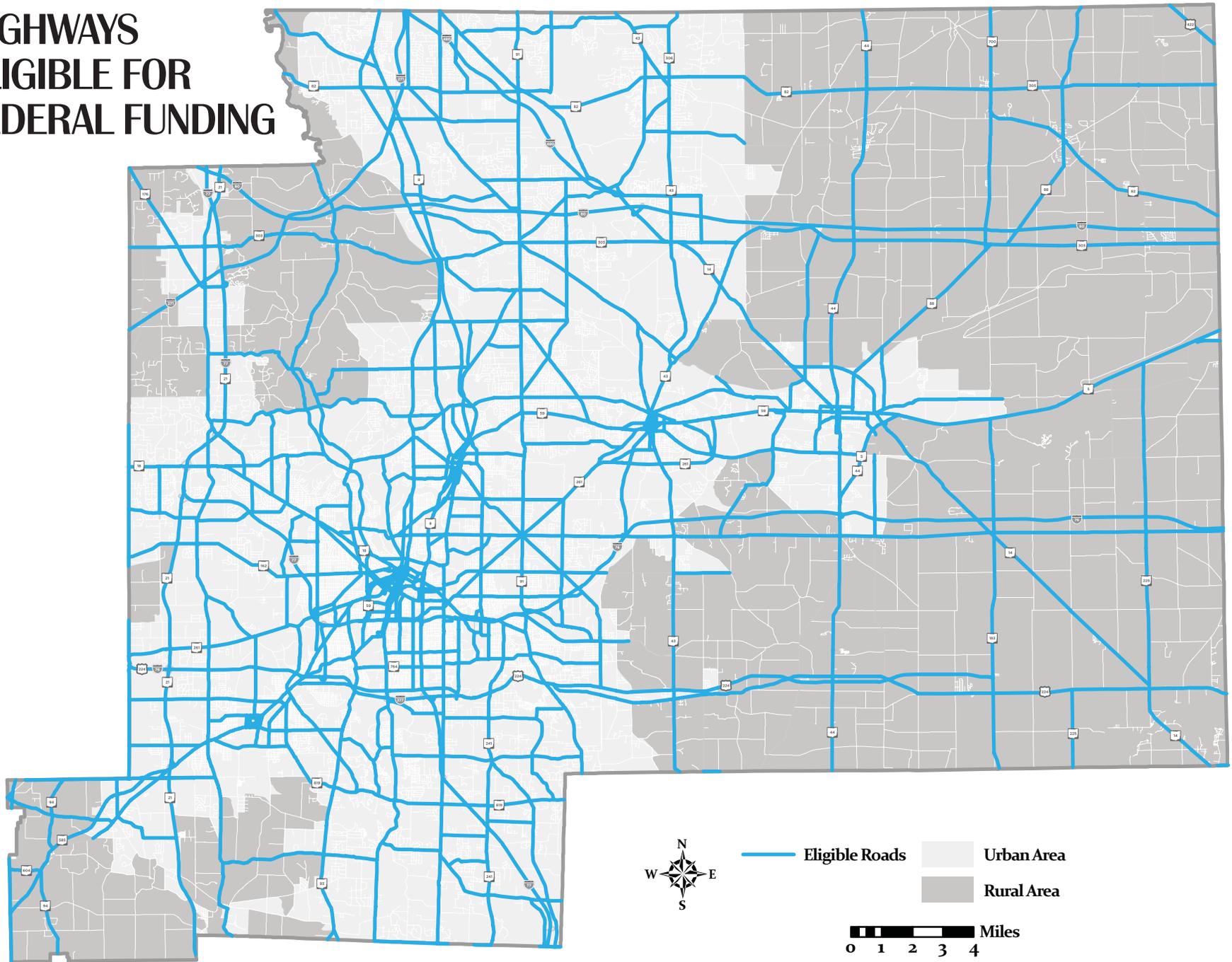


AMATS receives around \$15 million annually for highway improvements. While this funding is a substantial source of revenue for highway projects, it is not the only funding available. ODOT receives funds from federal and state gasoline taxes. Counties and municipalities also receive federal and state funding. Discretionary funding, also known as 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*, regardless of

whether AMATS provided the funding. *Transportation Outlook* is important because it gives the authority to local officials to collectively determine how federal funds are spent.

# HIGHWAYS ELIGIBLE FOR FEDERAL FUNDING



## RECOMMENDATIONS

### Fix-It-First

The importance of maintaining and preserving the existing highway system cannot be understated. Over the past 60 years the United States has developed an incredible roadway network that has allowed the efficient movement of people and goods. In the last few years it has become apparent that the system we have built is beginning to deteriorate.

In 2012, AMATS estimated that to maintain the existing system through 2035 would cost \$2.5 billion. These cost estimates have increased by over \$300 million since AMATS last completed the study in 2009. Most of the cost increase is due to the continued inflation in construction costs. The longer large preservation projects are put off, the more expensive they become.

TO2035 recommends a regional Fix-It-First policy. Since 2008, AMATS has devoted 20 percent of its funds for a local resurfacing program. This program has been incredibly successful and popular throughout the region. AMATS will continue this program and recommends providing additional AMATS Surface Transportation Funds for the program.

### Regional Pavement Condition Rating Program

Because preservation is such an important element of TO2035, it requires that data be collected to identify the region's greatest preservation needs. AMATS recommends that the region formally adopts a pavement condition rating program to uniformly rate the pavement conditions in the region. This program will drastically help AMATS identify projects as well as evaluate the health of the entire regional system.

### Operational and Safety Projects are Consistent with Transportation Outlook 2035

While it is important to develop a plan for the next 20 years, it is also necessary to provide flexibility to the planning process to allow for unseen developments. To that end, AMATS maintains its policy that projects that improve safety conditions or contain operational improvements are consistent with TO2035. This includes railroad grade separation projects. AMATS has set aside \$30 million over the next 22 years for unspecified safety and operation improvements.

### Reduce Congestion by Promoting Carpooling and Other Alternative Modes of Transportation

While congestion is not the main focus of TO2035, it is still an important issue that can negatively impact the transportation system. In order to

help curb congestion, AMATS will continue to promote *Ohio Rideshare*<sup>1</sup> and *Switching-Gears*<sup>2</sup>. *Ohio Rideshare* is a website that allows users to find carpool partners to share rides with to and from work. *Switching-Gears* is a bicycle advocacy website that promotes bicycle commuting in the region.

### Complete Streets Policy

TO2035 recommends creating a complete streets policy as part of the AMATS Funding Policy Guidelines. The complete streets policy should ensure that communities are considering pedestrians, bicyclists and transit riders when they develop a highway infrastructure project.

### Update to the Connecting Communities Initiative

In 2010, AMATS completed the *Connecting Communities Initiative – A Guide to Integrating Land Use and Transportation*. While the slow economy has hampered housing and commercial development, it is important that such developments consider the impacts they can cause the transportation system and vice versa. TO2035 recommends updating the *Connecting Communities* report to evaluate how the region has changed in the last three years and how AMATS can continue to promote land use and transportation integration.

### \$4.3 Billion of Highway Transportation Infrastructure Investments

TO2035 recommends over \$4.3 billion of highway infrastructure investments through 2035. This funding includes over \$2.5 billion for preservation of the existing system. Over \$300 million is recommended for Akron's Central Interchange and Main/Broadway interchange and includes \$18 million for specific projects throughout greater Akron.

The table on page 58 shows projects recommended in TO2035. All projects are financially constrained and conform to air quality requirements.

<sup>1</sup> [www.OhioRideshare.com](http://www.OhioRideshare.com)  
<sup>2</sup> [www.Switching-Gears.org](http://www.Switching-Gears.org)



Beaver Construction, Kent, OH, 2013.



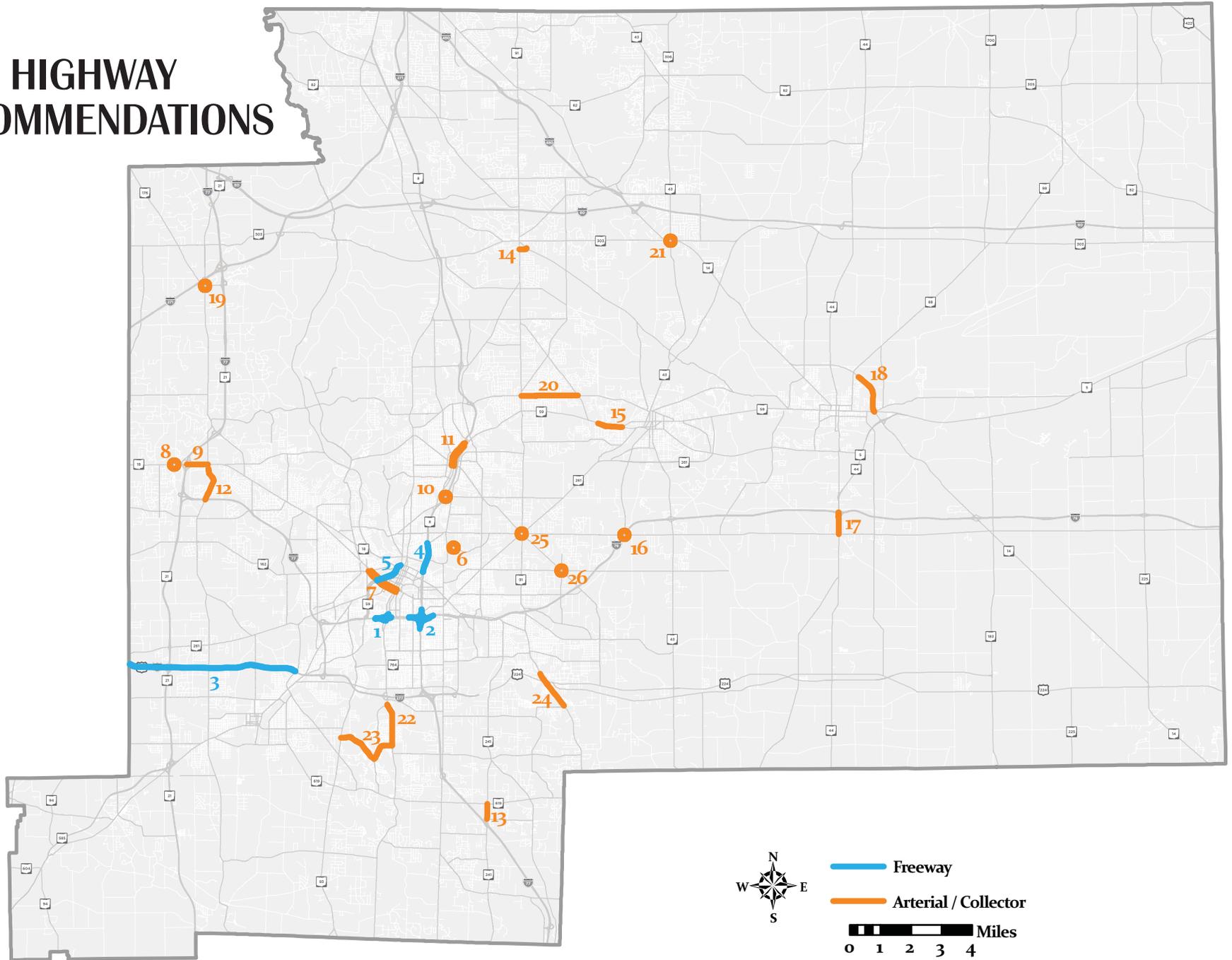
# HIGHWAY RECOMMENDATIONS

Freeway Recommendations						
ID	Location	Recommendation	Limits	Description	Purpose and Need	Current Cost
1	Akron	I-76/77	Main / Broadway Interchange	Reconfigure	(ODOT Trac)	\$ 97,000,000
2	Akron	I-76/77	RT 8 (Central Interchange)	Reconfigure	(ODOT Trac)	\$ 196,800,000
3	Multiple Communities	I-76	Medina County Line to State St	Widening	Capacity	\$ 100,000,000
4	Akron	SR 8	Perkins St to E Glenwood Ave	Bridge Replacement	Preservation	Preservation
5	Akron	SR 59 (Innerbelt)	W Cedar St to N Howard St	Study	Improve Traffic Flow	\$ 250,000
						<b>\$ 394,050,000</b>

Arterial and Intersection Recommendations						
ID	Location	Recommendation	Limits	Description	Purpose and Need	Current Cost
6	Akron	Evans Ave	Akron Secondary / CSX	Bridge Grade Separation	Improve Safety	\$ 8,000,000
7	Akron	Cedar St / Exchange St	S Maple St to S Broadway St	Reconfigure to two-way traffic	Improve Traffic Flow	\$ 5,000,000
8	Copley	SR 18	Heritage Woods Dr to Montrose West Ave	Relocate Montrose West Ave to Heritage Woods Dr	Alleviate Congestion / Improve Safety	\$ 9,000,000
9	Copley / Fairlawn / Bath	SR 18	Heritage Woods Dr to S Smith Rd	Montrose Traffic Study	Improve Traffic Flow	\$ 250,000
10	Cuyahoga Falls	SR 8	Howe Ave Interchange	Reconfigure Howe Ave Interchange	Improve Traffic Flow	\$ 30,000,000
11	Cuyahoga Falls	Front St / Second St	Broad Blvd to SR 8	Traffic Study - Reconfigure to two-way traffic	Improve Traffic Flow	\$ 250,000
12	Fairlawn	Cleveland-Massillon Rd	I-77 to Brookwall Dr	Widen	Alleviate Congestion	\$ 5,200,000
13	Green	Massillon Rd	Raber Rd to SR 619	Widen to five lanes	Alleviate Congestion	\$ 5,000,000
14	Hudson	Oviatt St Connector	S Main St to Ravenna St	New Road	Alleviate Congestion / Improve Traffic Flow	\$ 8,500,000
15	Kent	SR 59	Kent W Corp Line to W Main St	Reconstruct, Turn Lanes, Signal Coordination	Alleviate Congestion	\$ 4,500,000
16	Portage County	Tallmadge Rd	I-76 Interchange	Interchange	Improve Safety / Improve Traffic Flow	\$ 4,300,000
17	Portage County	SR 44	Tallmade Rd (CR 18) to I-76	Traffic Study	Improve Safety	\$ 250,000
18	Ravenna	SR 14/44	SR 59 (E Main St) to N Freedom St (SR 88)	Traffic Study	Improve Safety	\$ 250,000
19	Richfield	SR 176 (Wheatley Rd)	Brecksville Rd Interchange	Operational Improvements	Alleviate Congestion	\$ 1,000,000
20	Stow	Graham Rd	SR 91 (Darrow Rd) to Fishcreek Rd	Additional Capacity, Operational Improvements	Alleviate Congestion	\$ 6,400,000
21	Streetsboro	SR 14/303	SR 43 Interchange	Streetsboro Town Center Study	Alleviate Congestion / Improve Safety	\$ 250,000
22	Summit County	S Main St	Portage Lakes Dr to N Turkeyfoot Rd	Reconstruction	Preservation	\$ 10,200,000
23	Summit County	Portage Lakes Dr	Manchester Rd to S Main St	Roadway and Erosion Study	Improve Traffic Flow	\$ 100,000
24	Summit County	Canton Rd	Sanitarium Rd to Farmdale Rd	Operational Improvements, Loons, Reconstruct	Preservation	\$ 10,000,000
25	Tallmadge	SR 91	Tallmadge Circle	Bypass	Improve Safety	\$ 8,000,000
26	Tallmadge	Southeast Ave	Eastwood Ave / S Munroe Rd Interchange	Roundabout	Improve Safety	\$ 2,000,000
	Regionwide	Bike and Pedestrian		Unspecified Improvements	Bike and Pedestrian Improvements	\$ 30,000,000
	Regionwide	Safety and Operational		Unspecified Improvements	Improve Safety / Improve Traffic Flow	\$ 20,000,000
	Regionwide	Transit		Unspecified Improvements	Transit Improvements	\$ 16,400,000
						<b>\$ 184,850,000</b>

Highway Recommendations	
<b>Total Current Cost</b>	<b>\$ 578,900,000</b>

# HIGHWAY RECOMMENDATIONS



# TRANSIT RECOMMENDATIONS

The availability of a comprehensive, reliable transit network is key to helping those who lack, or are unable to use, automobile transportation to 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 affordability and convenience. The recommendations contained in *TO2035* 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 typically focused on highways.

Federal transit funds are typically used for capital expenses, such as for the purchase of new buses, bus shelters, preventive maintenance and garage or office facilities. Operating expenses,

such as bus operator salaries and fuel, are typically paid for through local sources (county-wide transit-dedicated sales taxes, fare box revenues, etc.). However, certain funding programs may be used to supplement operating expenses on a limited basis.

The Federal Transit Administration's (FTA) Urbanized Area Formula Program (Sec. 5307) is the largest source of federal transit funding. The FTA uses a formula to allocate funding to urbanized areas throughout the country. AMATS receives approximately \$6.6 million annually for the Akron Urbanized Area, and an additional \$600-700,000 portion for areas lying within the Cleveland Urbanized Area. These funds are split between METRO RTA and PARTA, generally in proportion to their respective county's share of the total regional population.

The Congestion Mitigation/Air Quality Program (CMAQ) provides funds that may be used on projects demonstrating an improvement in air quality and congestion reduction. Although the majority of this funding is typically programmed with regional highway projects, AMATS traditionally dedicates a portion to local transit projects.

Other federal transit funding programs



include the Specialized Transportation Program (Sec. 5310), which allocates funding to public transit agencies and non-profit providers of transportation to aid in the transportation of older or disabled individuals, and the Transportation Alternatives Program (TAP), which may be used by transit agencies to improve non-driver access to public transportation.

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. The FTA's State of Good Repair program is one such example, and has been used by METRO and PARTA to purchase several new buses in recent years.

Any transit project using federal funding must be consistent with *TO2035*, regardless of whether AMATS provides the funding.

## RECOMMENDATIONS

### Fix-It-First

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 isn't useful unless it is predictable and dependable. *TO2035* continues AMATS' longstanding policy of working with METRO and PARTA to ensure that they have the resources necessary to maintain existing levels of service and continue to serve their existing customer base.

### Service Enhancement

To achieve the most efficient use of the existing public transportation system, additional ridership needs to be drawn in. Enhancing the existing service, particularly in corridors containing dense employment, attractions and residential areas, is one way of attracting new ridership. Decreasing the waiting time between buses, expanding the hours and days of service, and providing safe, attractive and comfortable waiting environments are all potential strategies to attract additional transit users. *TO2035* recommends that AMATS work with METRO and PARTA to explore and implement these and other strategies, whenever practical.

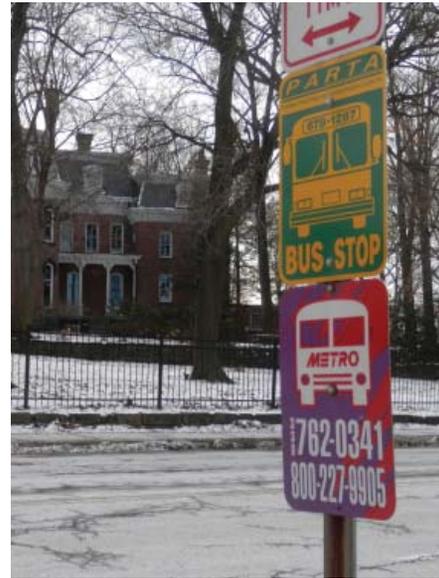
### Cross-County Service

Since most transit agencies are funded primarily through county-wide

transit-dedicated sales taxes, they face significant political pressure to confine service within the county borders. Philosophically, the primary role of a transit agency should be to get their ridership to wherever it is that they need to go. 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. *TO2035* recommends a more integrated, regional transit network – between Summit and Portage Counties and beyond.

### Coordination

AMATS is dedicated to ensuring that all the region's transportation assets are working together, achieving maximum operational and financial efficiency. Coordination between multiple transit agencies, social service agencies and other providers of transportation is key to realizing this goal. Increasing the efficiency of the region's demand-response transportation services for the elderly and those with disabilities is of utmost importance. AMATS has helped fund NEO Ride – an effort (led by PARTA) to build a software platform in which all participating agencies may coordinate the use of their individual assets to move passengers wherever they need to go, and in the most efficient, cost-effective way possible. *TO2035* recommends that AMATS



should continue to support this important endeavor.

### Rail Portfolio Preservation

METRO RTA currently holds a portfolio of rail corridors which connect Akron to other key cities, both within the AMATS region and beyond. Although passenger rail does not seem feasible in the foreseeable future, there has been documented interest in the implementation of freight operations within METRO's right-of-way. Whatever the end result may be – freight rail, passenger rail or as multi-use pedestrian and bicycle trails – AMATS feels that it is important to maintain a public right-of-way in these key regional corridors. *TO2035* recommends nearly \$3 million in rail improvements to preserve these vital regional assets.

## \$1.7 Billion of Public Transit Investment

*TO2035* recommends over \$1.7 billion of investment in the region's public transportation system through 2035. Of that investment, \$1.4 billion will be dedicated to general operating expenses of the existing system, \$240 million will be reinvested to preserve the existing system and approximately \$76 million will be allocated toward expansion of the regional public transportation system.

The table on the following page shows the projects recommended in *TO2035*. All projects are financially constrained and conform to air quality requirements.

# TRANSIT RECOMMENDATIONS

<b>METRO</b>	
<b>Annual Operating Expenses - Base Service</b>	<b>\$ (38,443,000)</b>
<b>Capital Costs - Base Service</b>	<b>\$ (10,500,000)</b>
Chapel Hill Turnaround	
Maintenance Facility	
Intermodal Facility Rehab	
Ghent Park and Ride Lot Rehab	
Fuel Facility	
Annual Bus Fleet Expenditures	
Bus Shelter and Stop Enhancements	
<b>Annual Operating Expenses - Additional Service</b>	<b>\$ (3,372,000)</b>
West Market St - Arlington	
Copley Rd	
Kenmore	
Howard - State St	
Twinsburg - Macedonia	
Northern Summit	
Southern Summit	
<b>Capital Expenses - Additional Service</b>	<b>\$ (9,800,000)</b>
West Market St - Arlington	
Copley Rd	
Kenmore	
Howard - State St	
Twinsburg - Macedonia	
Northern Summit	
Southern Summit	
Park and Ride Facilities	
Sandyville Rail Line Bridge Replacements	
Akron Secondary Rail Line Barlow and Seasons Rd Upgrade	
<b>Total Current Cost</b>	<b>\$ (62,115,000)</b>

<b>PARTA</b>	
<b>Annual Operating Expenses - Base Service</b>	<b>\$ (8,000,000)</b>
<b>Capital Expenditures - Base Service</b>	<b>\$ (1,550,000)</b>
Annual Bus Fleet Expenditures	
Bus Shelter and Stop Enhancements	
<b>Annual Operating Expenses - Additional Service</b>	<b>\$ (280,000)</b>
Additional Saturday and Sunday Service on existing routes	
Ravenna to Streetsboro Service	
<b>Capital Expenses - Additional Service</b>	<b>\$ (2,500,000)</b>
Kent Central Gateway Rehab	
Ravenna to Streetsboro Service	
Streetsboro Park and Ride Lot	
<b>Total Current Cost</b>	<b>\$ (12,330,000)</b>
<b>Coordinated Public Transportation Programs</b>	
Cross-County Service Feasibility Study	\$ (250,000)
Stow-Kent Transfer Facility	\$ (1,000,000)
<b>Coordinated Public Transportation Human Services Programs</b>	
Annual 5310 Program / Mobility Management Program	\$ (250,000)
<b>Total Current Cost</b>	<b>\$ (1,500,000)</b>
<b>Transit Recommendations</b>	
<b>Total Current Cost</b>	<b>\$ (75,945,000)</b>

# BICYCLE & PEDESTRIAN RECOMMENDATIONS

Bicycle and pedestrian facilities are an important part of the transportation system as both a transportation choice and a recreational amenity. They are a sustainable alternative to driving and improve access and mobility for many people. More than just a pleasant amenity, the bikeability and walkability of a community have direct economic, health, social and environmental impacts. Making the greater Akron area a more bicycle and pedestrian friendly region will connect people and places, promote a healthy lifestyle and stimulate positive economic impacts.

Interest in bicycling and walking as an alternative to driving has continued to grow. In 2012, AMATS completed a Bike Plan and a Pedestrian Plan. These plans represent a significant shift in the region's and AMATS' priorities and investments. Bike planning in the region has historically focused on recreational trails, such as the Ohio & Erie Canal Towpath Trail, while pedestrian planning and improvements have typically been an afterthought. Creating and promoting complementary on-road bike facilities, such as bike lanes, is now also a regional priority as well as enhancing the region's pedestrian environment and facilities.

The recommendations contained in

*TO2035* will expand the on-road and off-road (trails) bike system and the pedestrian system through additional facilities as well as make safety improvements. The following section contains policy and infrastructure recommendations to improve the region's bike and pedestrian network.

## Funding

AMATS receives federal funding for bicycle and pedestrian improvements through the Transportation Alternatives (TA) program, formerly

known as the Transportation Enhancements (TE) program. This funding provides approximately \$1 million each year that can be used for bike and pedestrian improvements.

Due to the cost of bike and pedestrian infrastructure, AMATS funding usually cannot pay for an entire trail, bike lane or sidewalk. Most regional bike and pedestrian infrastructure have been paid for using a variety of federal, state and local sources. While AMATS continues to provide funds for bike

and pedestrian projects, the most successful projects leverage additional funds. Member communities are expected to seek additional funding.

Any bicycle or pedestrian project using federal funds must be consistent with *Transportation Outlook 2035*, regardless of whether AMATS provided the funding. *TO2035* is important because it gives local officials the authority to collectively determine how federal funds are allocated.



Robert A. Walker. Kent, OH. 2013.

## RECOMMENDATIONS

### Bicycle and Pedestrian Projects are Consistent with Transportation Outlook 2035

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. To that end, it is AMATS' policy that projects that increase bicycle and pedestrian use as an alternate mode of transportation and that improve safety conditions are consistent with *TO2035*.

### Promote Bicycling as a Viable Transportation Choice

Bicycling is an important part of a sustainable and comprehensive transportation system. Traditionally, AMATS has focused bicycle improvements on off-road trails. While trails are a popular amenity, planning for and investing in on-road infrastructure is critical to making bicycling an alternative to driving. AMATS has been encouraging on-road biking through several initiatives. AMATS created a *Bike User Map* to help cyclists plan rides in the region, based on their individual comfort level and ability. The *Bike User Map* rates major area roadways and encourages cyclists of all abilities to ride on roadways that best suit their individual skill levels. AMATS also launched Switching-Gears.org, devoted to improving and supporting bicycling in the region. The website will provide a regional

public forum for cyclists, to receive feedback on AMATS initiatives and to create a centralized place for bicycling information, such as routes and local rides.

### Encourage Pedestrian Friendly Design

Whereas sidewalks and crosswalks form the physical pathways to facilitate pedestrian activity, pedestrian friendly design is the general term used to describe the aesthetic treatments available to create an environment or "place" that pedestrians desire to go to. There are no cut-and-dry formulas for the implementation of good pedestrian design - community context is very important. Pedestrian friendly design could include a streetscape that provides a mix of things to do, has street furniture or public art and has buildings up to the street with parking in the back.

### Create Pedestrian Improvement Overlay Zones

AMATS should develop multiple pedestrian improvement overlay zones, which will designate areas of particular concern in regards to potential for pedestrian and automobile conflicts. These are most likely to include major retail/commercial areas located in suburban or exurban areas, which exhibit high potential for pedestrian attraction, yet see very little of this activity due to a dangerous environment. Areas located within



“pedestrian friendly design is the general term used to describe the aesthetic treatments available to create an environment or “place” that pedestrians desire to go to”



pedestrian improvement zones should incorporate pedestrian friendly design in new developments, and retrofit existing developments with pedestrian improvements.

### Encourage Completion of Sidewalk/Crosswalk Gaps

As part of its pedestrian planning process, AMATS analyzed the regional pedestrian infrastructure network, particularly along existing and proposed transit lines. Transit lines serve as an excellent proxy to determine where sidewalks and crosswalks are needed, because they run along federally classified roads (the only ones eligible for AMATS funding), through areas of high population and employment density, and are corridors which contain high levels of pedestrian activity. Recommendations are not limited to sidewalks along transit lines, however. All communities in the AMATS region were analyzed, and any significant gaps were included.

### Bicycle and Pedestrian Count Program

Lack of documentation on usage and demand is one of the challenges facing bicycle and pedestrian investments. It is important to have accurate and consistent data to analyze the need and target locations for future facilities and measure the benefits of investments. In 2012, AMATS completed its first year of bicycle and pedestrian counts for the region using the National

Bike and Pedestrian Documentation Project (NBPD) method. AMATS partnered with the City of Akron and Kent State University to complete three counts in approximately ten locations. AMATS will continue to grow the program and partner with more communities and organizations to improve documentation on the use and demand of bicycle and pedestrian facilities in the region.

### Bike-N-Brainstorm

AMATS has begun Bike-N-Brainstorm events where we partner with communities to engage cyclists on a particular corridor to make it more bicycle friendly. Participants ride in a group along an on-road route, stopping at various points to discuss how to ride on the road safely and potential improvements for different areas. After the ride, a brainstorming session is held to discuss improvements to make the corridor safer for bicyclists and encourage biking. AMATS, partnering with the City of Akron, hosted two successful Bike-N-Brainstorm events in 2012 and will continue the program into 2013, partnering with additional organizations.

### Benchmarking

Benchmarking is used to measure performance to compare one's self or agency with others to identify strengths and weaknesses, and to learn how to improve. It can also be used to identify and adopt best practices

and track progress. AMATS began benchmarking the area's existing bike network to that of other cities of similar size, demographics and weather conditions, including Madison, WI, Ann Arbor, MI, Grand Rapids, MI, Dayton, OH and Rochester, NY. Miles of bike lanes, miles of trails and innovative infrastructure were used as indicators for comparison. By far, Madison has been the most successful in developing bike infrastructure, with Ann Arbor a close second and Akron significantly lagging. Looking to these cities for best practices will help the AMATS area further develop the existing bicycle network.

### \$30 Million of Bicycle and Pedestrian Investments

TO2035 recommends \$30 million of bicycle and pedestrian improvements through 2035. This funding includes on-road bicycle improvements, such as bike lanes, and pedestrian improvements, as well as bicycle trails.

The table on the following page shows the bicycle and pedestrian projects recommended in TO2035. All projects are financially constrained and conform to air quality requirements.



## Bike-N-Brainstorm

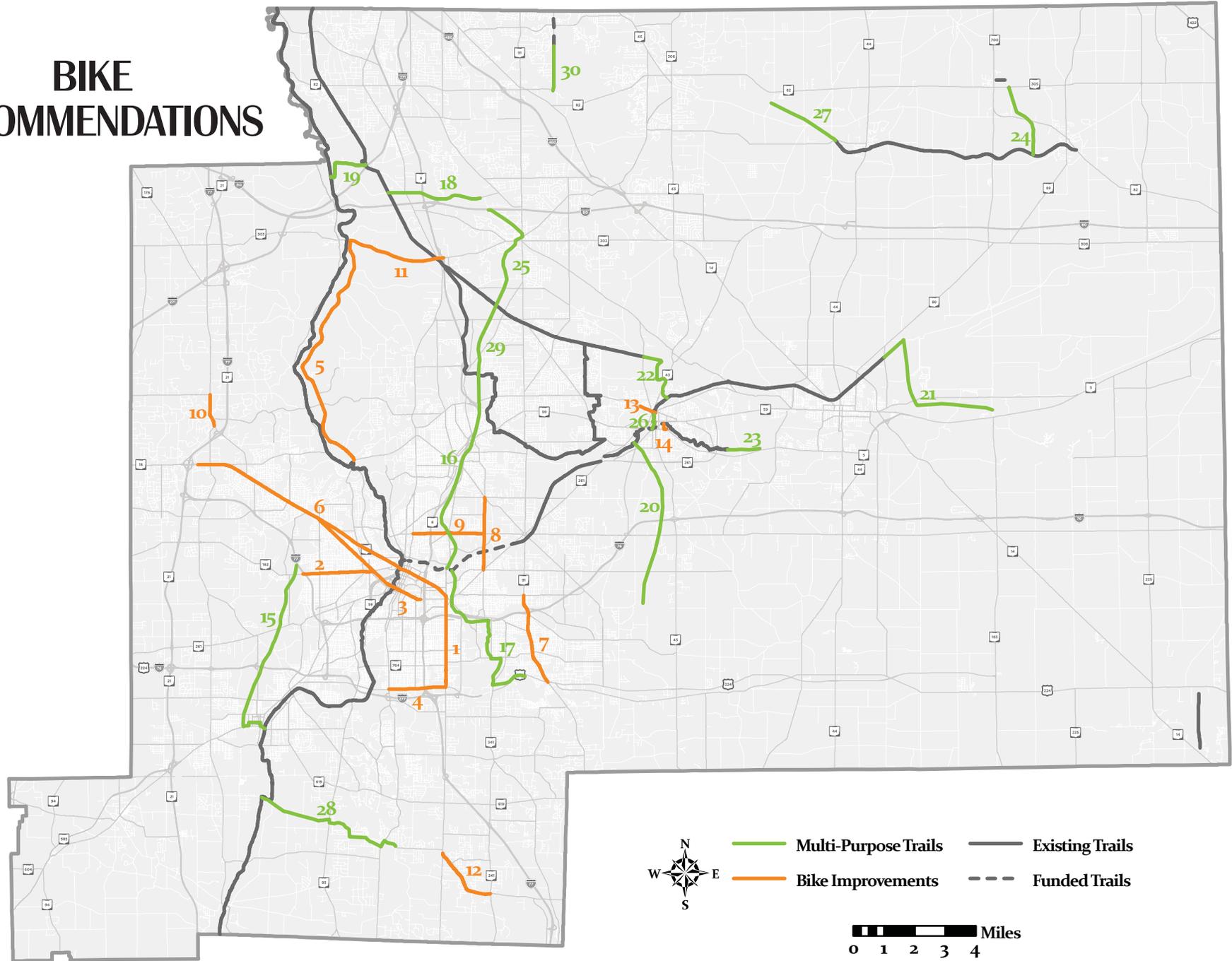


## BICYCLE RECOMMENDATIONS

On-Road Bike Recommendations					
Map #	Community	Road	Limits	Miles	Type
1	Akron	S Arlington St	E Waterloo Rd to E Market St	2.90	Bike Improvements
2	Akron	Copley Rd	I-77 to W Exchange St	2.20	Bike Improvements
3	Akron	Exchange St	S Hawkins Ave to Spicer St	4.20	Bike Improvements
4	Akron	Waterloo Rd	S Main St to S Arlington St	1.80	Bike Improvements
5	Akron / Boston Township / Cuyahoga Falls / Peninsula	Akron Peninsula Rd	N Portage Path to SR 303	8.50	Bike Improvements
6	Akron / Fairlawn	W Market St	Springside Dr to N Arlington St	9.30	Bike Improvements
7	Akron / Springfield Township	Canton Rd	E Waterloo Rd to Newton St	3.00	Bike Improvements
8	Akron / Tallmadge	Brittain Rd	Eastwood Ave to Howe Ave	2.40	Bike Improvements
9	Akron / Tallmadge	Tallmadge Rd	N Main St to Brittain Rd	2.30	Bike Improvements
10	Bath	Cleveland-Massillon Rd	Ghent Rd to W Bath Rd	1.10	Bike Improvements
11	Boston Heights / Peninsula	SR 303	Akron Peninsula Rd to Chittenden Rd	3.20	Bike Improvements
12	Green	Greensburg Rd	S Arlington Rd to Massillon Rd	2.20	Bike Improvements
13	Kent	Fairchild Ave	Majors Lane to Water St	0.50	Bike Improvements
14	Kent	Summit St / Willow St	S Willow St to S Lincoln St / E Summit St to E Erie St	0.30	Bike Improvements
	Various Bike Improvements	Regionwide			
<b>Total Current Cost</b>				<b>\$</b>	<b>(701,200)</b>

Multipurpose Trail Recommendations					
Map #	Community	Trail	Limits	Miles	Type
15	Akron / Barberton / Copley Township / Norton	Pigeon Creek	Towpath Trail to Copley Rd	6.59	Off-Road Multipurpose Trail
16	Akron / Cuyahoga Falls / Silver Lake	Veterans	Freedom Trail to Graham Rd	5.77	Off-Road Multipurpose Trail
17	Akron / Springfield Township	Springfield / Adam's Run	Freedom Trail to Springfield Lake / Kubler St	6.41	Off-Road Multipurpose Trail
18	Boston Heights / Hudson	Veterans (Heights-to-Hudson)	Bike and Hike Trail to W Prospect St	3.09	Off-Road Multipurpose Trail
19	Boston Township / Sagamore Hills Township	Stanford	Towpath Trail to Bike and Hike Trail	1.59	Off-Road Multipurpose Trail
20	Brimfield Township / Kent	Mogadore Lake	Mogadore Lake to Portage Hike and Bike Trail	5.60	Off-Road Multipurpose Trail
21	Charlestown Township / Ravenna Township	Portage Hike and Bike	Portage Hike and Bike Trail to Rock Spring Rd	5.52	Off-Road Multipurpose Trail
22	Franklin Township / Kent	Portage Hike and Bike	Portage Hike and Bike Trail (Crain Ave) to Bike and Hike Trail (Hudson Rd)	2.26	Off-Road Multipurpose Trail
23	Franklin Township / Kent / Ravenna Township	Portage Hike and Bike	Esplanade / Dix Stadium to Lakewood Rd	1.05	Off-Road Multipurpose Trail
24	Hiram / Hiram Township	Hiram Extension	SR 305 to Headwaters Trail	2.49	Off-Road Multipurpose Trail
25	Hudson	Veterans	Seasons Rd to W Prospect St	4.59	Off-Road Multipurpose Trail
26	Kent	Portage Hike and Bike	Portage Hike and Bike Trail (Tannery Park) to Portage Hike and Bike Trail (Crain Ave)	0.60	Off-Road Multipurpose Trail
27	Mantua Township	Headwaters	Chamberlain Rd to Mennonite Rd	2.43	Off-Road Multipurpose Trail
28	New Franklin	Southern	Towpath Trail to Nimisila Reservoir	7.47	Off-Road Multipurpose Trail
29	Stow	Veterans	Springdale Rd to Seasons Rd	1.84	Off-Road Multipurpose Trail
30	Twinsburg	Liberty	Cannon Rd to Post Rd	1.47	Off-Road Multipurpose Trail
<b>Total Current Cost</b>				<b>\$</b>	<b>(55,295,216)</b>

# BIKE RECOMMENDATIONS



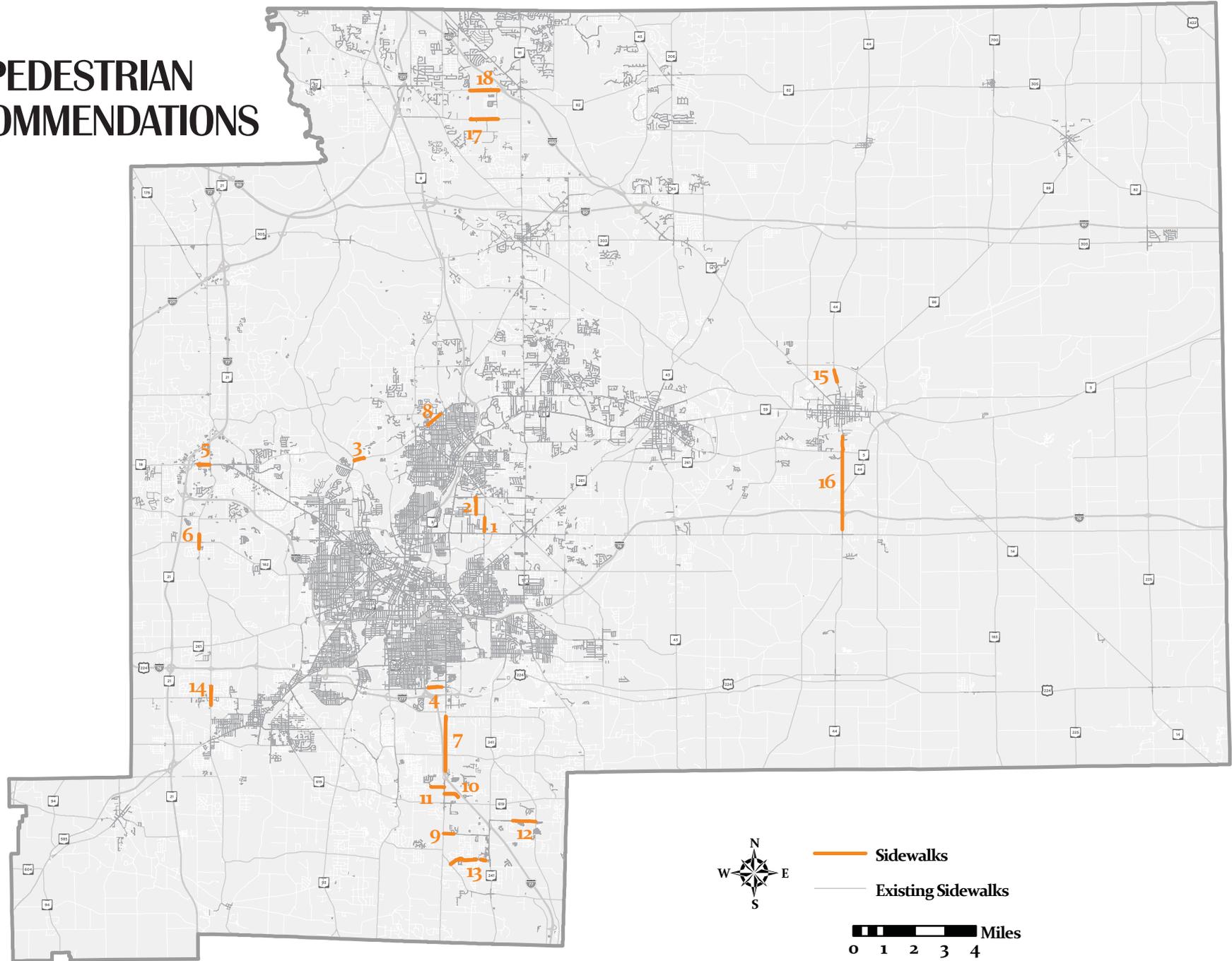
## PEDESTRIAN RECOMMENDATIONS

Pedestrian Recommendations					
Map #	Community	Road	Limits	Miles	Type
1	Akron	Brittain Rd	Tallmadge Ave to Yorkshire Dr	0.45	New Sidewalk (E Side)
2	Akron	Buchholzer Blvd	Independence Ave to Howe Ave	0.40	New Sidewalk (E Side)
3	Akron	Portage Trail	N Portage Path to Treetop Trail	0.67	New Sidewalk (N & S Side)
4	Akron	Waterloo Rd	I-77 to S Arlington St	0.83	New Sidewalk (N & S Side)
5	Bath Township / Copley Township	SR 18 / Medina Rd	Springside Dr to Cleveland-Massillon Rd	0.78	New Sidewalk (N & S Side)
6	Copley Township	Cleveland-Massillon Rd	Hammond Blvd to Commerce Dr	0.90	New Sidewalk (W Side)
7	Coventry Township / Springfield Township	S Arlington Rd	I-77 to Krumroy Rd	3.63	New Sidewalk (E & W Side)
8	Cuyahoga Falls	Graham Rd	Prange Dr to E Bath Rd	0.56	New Sidewalk (N Side)
9	Green	Boettler Rd	S Arlington Rd to Kenway Blvd	0.30	New Sidewalk
10	Green	Interstate Parkway	S Arlington Rd to terminus	0.95	New Sidewalk (N & S Side)
11	Green	Moore Rd	S Main St to S Arlington Rd	1.50	New Sidewalk (1 Side)
12	Green	Raber Rd	Massillon Rd to Kreighbaum Rd	2.30	New Sidewalk (N & S Side)
13	Green	Steese Rd	Greensburg Rd to Town Crossing Blvd	1.20	New Sidewalk (N & S Side)
14	Norton	Cleveland-Massillon Rd	Weber Dr to Shellhart Dr	1.80	New Sidewalk (E & W Side)
15	Ravenna	Chestnut St	Ravenna High School to SR 14	0.21	New Sidewalk (W Side)
16	Ravenna Township / Rootstown Township	SR 44 / S Prospect St	Rootstown Elementary School to Ravenna S Corp Line	2.98	New Sidewalk
17	Twinsburg	Highland Rd	Chamberlin Rd to Hadden Rd	1.71	New Sidewalk (N & S Side)
18	Twinsburg	SR 82	Chamberlin Rd to Wilcox Dr	1.91	New Sidewalk (N & S Side)
	Various Sidewalk Gaps	Regionwide			
<b>Total Current Cost</b>				<b>\$</b>	<b>(17,473,592)</b>

### Bicycle and Pedestrian Recommendations

<b>Total Current Cost</b>	<b>\$</b>	<b>(73,470,008)</b>
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# PEDESTRIAN RECOMMENDATIONS





# CONCLUSION

Doing more with less and adapting to changes in the economy, fuel prices and driving habits are just some of the issues facing the region. *Transportation Outlook 2035 (TO2035)* addresses these and other key transportation issues and sets the regional priorities for the Akron metropolitan area.

*TO2035* will be used as a guide for investment for future federal transportation funds in the Akron metropolitan area. Any project using federal funds must be consistent with it.

The recommendations in *TO2035* focus on maintaining existing roads and bridges, preserving the transit systems of METRO and PARTA, and expanding the bicycle and pedestrian network. Between now and 2035 over \$4.3 billion in transportation improvements are recommended.

Implementing these recommended projects and policies is the next step in the transportation planning process. While *TO2035* provides the framework, it is up to communities to apply to AMATS for funding for recommended projects.

*TO2035* ensures that federal dollars spent in the region will be part of a comprehensive regional transportation plan.



# APPENDICES

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# APPENDIX A - FEDERAL PLANNING PROCESS

MAP-21, the Moving Ahead for Progress in the 21st Century Act, was signed into law by President Obama on July 6, 2012. Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005. MAP-21 replaces SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users.

In MAP-21, the metropolitan and statewide transportation planning processes are continued and enhanced to incorporate performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection. Public involvement remains a hallmark of the planning process.

The long-range plan must describe the performance measures and targets used in assessing system performance and progress in achieving the performance targets.

The U.S. Secretary of Transportation is required to establish criteria for the evaluation of the new performance-based planning processes. The process will consider whether states developed appropriate performance targets and made progress toward achieving the targets. Five years after enactment of MAP-21, the Secretary is to provide to the Congress reports evaluating the overall effectiveness of performance-based planning and the effectiveness of the process in each state and for each MPO.

As of the writing of *Transportation Outlook 2035 (TO2035)*, new regulations have not yet been completed by the Department of Transportation and performance measures have not been determined by the State of Ohio. Therefore, AMATS has developed its Plan under the SAFETEA-LU guidance in anticipation of new MAP 21 guidance. This appendix summarizes how AMATS has met all of the planning regulations in 23 CFR 450.300.

## Federal Planning Factors

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency

AMATS completes a number of reports which analyze the transportation system including studies of safety, congestion, freight, and transit. These reports identify areas for project improvements which support the competitiveness, productivity and efficiency of the region. Improvements identified include relieving bottlenecks and congestion and improving the safety of the transportation network.

2. Increase the safety of the transportation system for motorized and non-motorized users

AMATS compiles crash data on an ongoing basis and completes a *Traffic Crash Report* on an annual basis. The report has allowed the region to obtain funding from multiple sources for safety improvements. AMATS considers all locations identified on the traffic crash report consistent with *TO2035* and eligible for transportation improvements.

3. Increase the security of the transportation system for motorized and non-motorized users

AMATS has coordinated with the Summit County Emergency Management Agency (EMA) and the Portage County Emergency Management Agency (EMA), which are the two agencies responsible for emergency management, disaster preparedness and homeland security in most of the AMATS area. AMATS receives EMA mailings and sends mailings to the EMAs for comment.

Both transit agencies in the region, METRO and PARTA, are required to address security in their planning efforts.

4. Increase accessibility and mobility of people and freight

Accessibility and mobility are examined through planning efforts concerning

transit, bicycle and pedestrian facilities, and highways. In 2010, AMATS completed its Connecting Communities Initiative which looked at better ways to coordinate land use and transportation, which has a substantial impact on accessibility and mobility.

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

A number of AMATS' planning efforts focus on protecting the environment, promoting conservation, and coordinating with local communities. AMATS maintains the OhioRideshare program, an online carpooling service that promotes the environment and conservation by encouraging commuters to carpool. AMATS also participates in ozone and PM<sub>2.5</sub> Action Days, which notify the public of days forecasted to contain high amounts of pollution. *TO2035* also contains a number of highway and transit recommendations that have a positive impact on air quality.

AMATS coordinates with local communities by reviewing their comprehensive plans, zoning codes, and public works commitments. The staff continually meets with its members to ensure consistency with state and local planning efforts.

6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight

AMATS conducts a number of planning efforts to enhance the integration and connectivity of the transportation system in the region. The Connecting Communities Initiative looked at connectivity for all modes in great detail and AMATS funds a planning grant program that focuses on connectivity issues. Recommendations of the *Congestion Management Process* encourage communities to consider smart growth principles, which support multi-modal development. AMATS has supported efforts of transit agencies to serve employment centers and expand frequency.

7. Promote efficient system management and operation

AMATS promotes efficient system management and operation by supporting and promoting intelligent transportation systems that add information and

communications technology to transportation infrastructure. The region is in the process of installing a freeway management system for freeways within the region. AMATS also supports signal coordination projects and considers them consistent with *TO2035*.

The area's transit agencies have also taken advantage of intelligent transportation systems to improve the efficiency and effectiveness of their service.

8. Emphasize the preservation of the existing transportation system

Preservation is the highest priority of *TO2035*. AMATS completed the *Highway Preservation Needs Report*, which identified the costs of preserving the system during the life of the Regional Transportation Plan. The AMATS Resurfacing Program was also established to provide funding for resurfacing projects in the region and this plan recommends increasing funding for system preservation.

The *2012 Transit Plan* highlighted the importance of preserving the current transit system. *TO2035* recommends ensuring the preservation of the current system before expanding the transit system.

## Interested Parties, Participation and Consultation

AMATS believes public participation in the transportation planning process is of paramount importance. It allows the general public to have access and participate, as well as give an opportunity to those who are traditionally underserved (such as minority or low income populations) to have a voice in the planning process, thus resulting in a more informed and legitimate decision making process.

AMATS relies heavily on its website to disseminate information to the public. The website contains a wealth of information regarding the AMATS mission, purpose, organizational structure, and recent news. The Regional Transportation Plan, TIP, transportation studies, traffic counts, upcoming meeting notices including agendas, draft technical memos, and resolutions are also posted on the site. When completed, draft copies of the Regional Transportation Plan and TIP are available for viewing and public comments can be sent via email to the staff.

AMATS is also heavily involved in social media. AMATS staff maintains a Twitter feed, Facebook page and a website devoted to on road cycling. Social media has allowed AMATS to disseminate information to a greater number of interested parties.

The Citizen's Involvement Committee is also an important way for interested citizens to be involved with AMATS. This committee reviews the Policy Committee packets and comments on items. Newspaper advertisements announce each CIC meeting.

In September 2012, AMATS completed its *Public Participation Plan*, which was developed in consultation with interested parties and the public. The Public Participation Plan was subjected to a 45-day public comment period before being approved.

Public involvement for *TO2035* is being carried out based on the *Public Participation Plan*.

## Congestion Management Process

In order to reduce traffic congestion in the Akron metropolitan area, AMATS maintains a process for managing traffic congestion, culminating in the publication of the *Congestion Management Process*, which was completed in July 2012.

The *Congestion Management Process* accomplishes the following objectives:

- Evaluates the overall performance of the transportation system by using performance measures to identify areas of existing and future traffic congestion.
- Identifies congestion management alternatives designed to alleviate identified traffic congestion. These alternatives included transportation demand management, public transportation improvements, intelligent transportation systems, traffic operational improvements and additional highway capacity.
- Evaluates congestion management alternatives based on their cost-effectiveness and political feasibility.
- Recommends transportation improvements for managing traffic congestion.

The recommendations that come out of this process are classified as regional transportation needs and are considered for inclusion in *TO2035*. Reducing traffic congestion is a priority of the AMATS regional transportation planning process, but congestion management projects still must compete for funding with other projects designed to improve safety, enhance accessibility and preserve the existing transportation system.

## Development of the Regional Transportation Plan

Federal regulations outline how the Regional Transportation Plan should be developed. *TO2035* has been developed based on that guidance. The Regional Transportation Plan must have at least a 20-year horizon and include both short and long-range strategies or recommendations that address current and future transportation demand in a multi-modal fashion.

Because AMATS is part of a non-attainment area for ozone and  $PM_{2.5}$ , the Regional Transportation Plan must be updated every four years. The Regional Transportation Plan must be developed in coordination with the process for developing transportation control measures in the State Implementation Plan.

AMATS must also use the latest available estimates and assumptions for population, land use, travel, employment, congestion and economic activity. *TO2035* complies with these requirements.

The Regional Transportation Plan must include a certain level of analysis. The following describes what the Regional Transportation Plan must include and demonstrates how *TO2035* complies:

1. The projected transportation demand of persons and goods in the metropolitan planning area over the period of the Regional Transportation Plan

AMATS completed a *Planning Data Forecast* which projected socioeconomic variables out to 2035. These variables were then used in the AMATS Travel Demand Model which forecasted travel. The results from the model were used in the *Congestion Management Process* to model traffic demand and are summarized in *TO2035*.

2. Existing and proposed transportation facilities that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the life of the Regional Transportation Plan

*TO2035* includes discussions of important regional facilities both existing and proposed. It sets priorities for investment and includes project recommendations for regionally significant road, transit, and bicycle and pedestrian improvements.

3. Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize safety and mobility of people and goods

*TO2035* recommends a number of operational and management improvements to relieve congestion, improve safety, and increase mobility.

4. Consideration of the results of the Congestion Management Process

The results of the *Congestion Management Process* are considered in both the highway and transit recommendations. Highway and transit projects recommended in the *Congestion Management Process* are included as recommendations of *TO2035*.

5. Assessment of capital investment and other strategies to preserve the existing and projected future transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs

AMATS completed the *Highway Preservation Needs Report* and the *2012 Transit Plan* which discuss the amount of investment required to preserve the existing highway and public transportation systems. The findings of the report are contained in *TO2035*. *TO2035* recommends investment to preserve the existing and future infrastructure needs of the region.

6. Design concept and design scope description of all existing and proposed transportation facilities in sufficient detail, regardless of funding source, in nonattainment areas for air quality conformity determinations under the EPA's transportation conformity rule

Each project recommendation in *TO2035* includes a cost, purpose and need, description and limits. Appendix C includes the Air Quality Conformity Analysis.

7. A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities. The discussion may focus on mitigation policies, programs and strategies

A discussion of environmental mitigation activities is included in Appendix G. The Financial Plan demonstrates how *TO2035* can be implemented.

#### 8. Pedestrian walkway and bicycle transportation facilities

*TO2035* contains a discussion of bicycle and pedestrian facilities and includes project recommendations.

#### 9. Transportation and transit enhancement activities

*TO2035* contains a discussion of both transit and transportation enhancements.

10. A financial plan that demonstrates how the adopted transportation plan can be implemented

A Financial Plan is included in Appendix D of *TO2035*. The Financial Plan demonstrates how *TO2035* can be implemented.

Federal Guidance requires that MPOs consult, as appropriate, agencies responsible for land use management, natural resources, environmental protection, conservation and historic preservation concerning the development of the Regional Transportation Plan. AMATS appoints non-voting members to its Technical Advisory Committee from these disciplines to provide consultation. A draft of *TO2035* was also sent to a number of agencies for review and comment.



# APPENDIX B - AMATS PLANNING PROCESS

The purpose of this appendix is to be an aid for both the public and AMATS members that describes how the AMATS regional transportation planning process works. Many elements of the planning process can be complicated and confusing. This appendix simplifies the process by outlining the key products and timetables of those products.

## Work Products

AMATS is responsible for three major work products: the Regional Transportation Plan, the Transportation Improvement Program and the Transportation Planning Work Program.

### Regional Transportation Plan

The Regional Transportation Plan provides the long-term vision for transportation projects and policy in the region. It is updated every four years and extends at least 20 years into the future. The Plan is important because, in order to receive federal funds, transportation projects must be consistent with it.

*Transportation Outlook 2035 (TO2035)* the Regional Transportation Plan and is the update to the *Transportation Outlook 2030* completed in 2009. The process to update it will begin in 2014 with the next Plan scheduled to be completed in 2017.

### Transportation Improvement Program

The Transportation Improvement Program (TIP) is a short-term (4-year) listing of transportation projects. It is usually updated every two years and must be consistent with the Regional Transportation Plan. The TIP includes all federally funded projects, regardless of whether AMATS funds were used.

The TIP is usually updated the same year as the Regional Transportation Plan and two years after that.

### Work Program

The Work Program documents the annual planning expenses of AMATS. AMATS receives roughly \$1.5 million in planning funds and the work program shows how those funds will be expended. Planning funds come from federal, state and local sources with 80 percent coming from federal, ten percent coming from state and

ten percent coming from local.

The Work Program is completed every year for the following fiscal year and must be submitted to and approved by ODOT. The Work Program is usually approved by the Policy Committee in May of each year.

## Plan Update Process

The AMATS planning process revolves around completing the major work products discussed above. The process is cyclical, beginning and ending every four years with the completion of the Regional Transportation Plan. Once the Plan is approved, the process to update it begins almost immediately.

In order to update the Regional Transportation Plan, a series of steps is followed to reevaluate agency priorities, the existing transportation system and expected needs. The following bullets outline the update process:

- Mission Statement and Goals and Objectives
  - At the beginning of the planning process the staff reviews the AMATS mission statement, goals and objectives to ensure consistency with the goals of the region.
- Data Collection and Forecasting
  - AMATS collects data like traffic counts and demographic data which can then be used to model future traffic in the Akron metropolitan area.
- Planning and Evaluation
  - Once data are forecasted, the staff develops a series of reports to analyze the transportation system. These needs reports evaluate current and future needs of highways, transit, and bicycle and pedestrian facilities. The Congestion Management Process is included in this step. The needs identified during this step are the foundation of the Plan's recommendations.
- Federal Inputs
  - The Plan itself must include a number of federal requirements which are outlined in Appendix A. AMATS must conform to air quality requirements for the pollutants PM<sub>2.5</sub> and ozone. These requirements are completed during the development of the Plan.

- Public Involvement
  - Public involvement happens in two ways during the planning process. The AMATS Public Participation Plan requires at least two public meetings specifically to discuss the Plan itself. These meetings usually take place after a draft of the Plan document has been completed. AMATS also holds regularly scheduled public involvement meetings through its Citizens Involvement Committee during the planning process in which the Plan is discussed.
- Plan Approval
  - Once the Plan has been through public involvement, it is ready for approval by the AMATS Policy Committee. Once the document is approved, it is recognized as the region's Regional Transportation Plan and the process to update it starts over.

## Plan Implementation Process

Once the Plan is adopted, AMATS and area communities use the Plan as a framework for implementing policy and project recommendations. A project recommended in the Plan may receive AMATS funding if the community applies to AMATS. AMATS accepts project applications every two years, which are scored and selected as part of the Transportation Improvement Program (TIP) process.

AMATS also works on implementing policy recommendations in The Plan through collaboration with area communities and other agencies.

# APPENDIX C - AIR QUALITY ANALYSIS

The purpose of this appendix is to document the manner in which mobile emissions have been forecasted for *Transportation Outlook 2035*.

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 2008 8-hour ozone standard.

USEPA also designated several of the counties in this area (including Summit and Portage) as nonattainment for PM<sub>2.5</sub> (particulate matter) under the 1997 annual standard and under the 2006 daily standard in separate designation actions. This area includes Cuyahoga, Lake, Lorain, Medina, Portage and Summit Counties, and a portion of Ashtabula County.

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 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. 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 taking into account 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.

## Methodology

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

The ozone-related portion of this air quality analysis has to demonstrate that daily volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) 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.

Similarly, the PM<sub>2.5</sub>-related portion of this air quality analysis has to demonstrate that annual direct PM<sub>2.5</sub> and nitrogen oxides (NO<sub>x</sub>) emissions from mobile sources will not exceed those found in the budget established by the Ohio Environmental Protection Agency (OEPA).

NOACA is 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.

The ODOT Modeling and Forecasting Section and AMATS are jointly responsible for travel demand modeling and air quality analysis for the Akron area. In 2010, forecasted variables were approved as inputs to the model. In February 2013, AMATS updated its travel demand model. The air quality analyses documented in this memorandum 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.

In order to determine mobile source impacts on regional ozone and PM<sub>2.5</sub> levels, all non-exempt (in keeping with 40 CFR 93) TIP projects have been coded into the regional transportation plan travel demand model networks for the analysis years of 2015, 2020, 2030 and 2035 for ozone and PM<sub>2.5</sub>. USEPA approved motor vehicle emission budgets in January 2010 using 2009 emissions under the annual

standard. Until budgets are submitted and approved for the daily standard, these budgets will be used for both the annual and daily standards based on interagency consultation. Demonstration of interagency consultation through email streams are included in this appendix on page 87. In addition, an interagency phone call took place on November 5, 2012.

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 MOBILE 6.2, in order to estimate the resulting levels (precursor pollutants and direct emissions) of ozone and PM<sub>2.5</sub>. These ozone and PM<sub>2.5</sub> results will be the official air quality results.

The traffic assignment results were post-processed through the newer MOVES software. The analysis years for MOVES are 2015, 2020, 2030, and 2035 for ozone and 2015, 2022, 2030, and 2035 for PM<sub>2.5</sub>. These air quality results are provided as a reference for future comparisons.

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<sub>2.5</sub> non-attainment area. The conformity analysis results for the entire region were available for public comment at the April 9, 2013 *Transportation Outlook* public meeting.

## Results

Table 1 shows the results of the MOBILE6.2 analysis for the entire Cleveland-Akron-Lorain ozone non-attainment area. This analysis must show that VOC and NO<sub>x</sub> emissions from mobile sources will not exceed those established in the budget contained in the SIP, which sets the allowable limits for each pollutant. As seen in the table, ozone precursor emissions do not exceed the budget year of 2012 for either VOC or NO<sub>x</sub>.

Table 2 shows the results of the MOBILE6.2 analysis for the Cleveland-Akron-Lorain PM<sub>2.5</sub> non-attainment area. This analysis must show that direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions from mobile sources will not exceed those found in the 2009 budget. Table 2 confirms emissions do not exceed the budget for both direct PM<sub>2.5</sub> and NO<sub>x</sub>.

Table 3 shows the results of the MOVES analysis for the entire Cleveland-Akron-Lorain ozone non-attainment area. This analysis must show that VOC and NO<sub>x</sub> emissions from mobile sources will not exceed those established in the budget contained in the SIP, which sets the allowable limits for each pollutant. As seen in the table, ozone precursor emissions do not exceed the budget year of 2012 for either VOC or NO<sub>x</sub>.

Table 4 shows the results of the MOVES analysis for the Cleveland-Akron-Lorain PM<sub>2.5</sub> non-attainment area. This analysis must show that direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions from mobile sources will not exceed those found in the 2009 budget. Table 4 confirms emissions do not exceed the budget for both direct PM<sub>2.5</sub> and NO<sub>x</sub>.

**TABLE 1**  
**Cleveland-Akron-Lorain**  
**Mobile Source Ozone Precursor Emissions Forecasts**  
**(from MOBILE 6.2)**

<i>Volatile Organic Compounds (VOC) (tons/day)</i>						
	2012 Budget	2015 Emissions	2020 Budget	2020 Emissions	2030 Emissions	2035 Emissions
NOACA		18.46		15.16	14.23	14.47
AMATS		9.12		7.37	7.06	7.10
Ashtabula County		2.06		1.69	1.63	1.60
<b>TOTAL</b>	<b>46.64</b>	<b>29.64</b>	<b>31.48</b>	<b>24.22</b>	<b>22.92</b>	<b>23.17</b>
<i>Nitrogen Oxides (NO<sub>x</sub>) (tons/day)</i>						
	2012 Budget	2015 Emissions	2020 Budget	2020 Emissions	2030 Emissions	2035 Emissions
NOACA		34.23		20.55	13.33	12.79
AMATS		16.98		10.06	6.81	6.51
Ashtabula County		2.94		2.01	1.55	1.58
<b>TOTAL</b>	<b>95.89</b>	<b>54.15</b>	<b>42.75</b>	<b>32.62</b>	<b>21.69</b>	<b>20.88</b>

**TABLE 3**  
**Cleveland-Akron-Lorain**  
**Mobile Source Ozone Precursor Emissions Forecasts**  
**(from MOVES)**

<i>Volatile Organic Compounds (VOC) (tons/day)</i>						
	2012 Budget	2015 Emissions	2020 Budget	2020 Emissions	2030 Emissions	2035 Emissions
NOACA		33.53		23.32	17.72	17.19
AMATS		14.32		9.39	8.09	8.55
Ashtabula County		1.97		1.38	1.06	1.02
<b>TOTAL</b>	<b>81.54</b>	<b>49.82</b>	<b>43.17</b>	<b>34.10</b>	<b>26.87</b>	<b>26.76</b>
<i>Nitrogen Oxides (NO<sub>x</sub>) (tons/day)</i>						
	2012 Budget	2015 Emissions	2020 Budget	2020 Emissions	2030 Emissions	2035 Emissions
NOACA		61.81		37.33	25.03	23.35
AMATS		25.11		15.23	11.74	10.66
Ashtabula County		3.78		2.28	1.56	1.43
<b>TOTAL</b>	<b>189.27</b>	<b>90.71</b>	<b>108.36</b>	<b>54.85</b>	<b>38.34</b>	<b>35.45</b>

**TABLE 2**  
**Northeast Ohio**  
**Mobile Source PM<sub>2.5</sub> and Precursor Emissions Forecasts**  
**(from MOBILE 6.2)**

<i>Direct PM<sub>2.5</sub> Emissions (Annual Tons)</i>					
	2009 Budget	2015 Emissions	2020 Emissions	2030 Emissions	2035 Emissions
NOACA		353.28	275.20	258.23	257.74
AMATS		156.22	131.76	132.13	126.25
Ashtabula County		1.68	1.43	1.39	1.37
<b>TOTAL</b>	<b>815.11</b>	<b>511.18</b>	<b>408.39</b>	<b>391.75</b>	<b>385.36</b>
<i>Nitrogen Oxides (NO<sub>x</sub>) Precursor (Annual Tons)</i>					
	2009 Budget	2015 Emissions	2020 Emissions	2030 Emissions	2035 Emissions
NOACA		12,466.90	7,346.35	4,533.13	4,337.93
AMATS		5,981.55	3,445.60	2,246.90	2,151.24
Ashtabula County		72.18	48.24	36.26	35.76
<b>TOTAL</b>	<b>43,553.48</b>	<b>18,520.63</b>	<b>10,840.19</b>	<b>6,816.29</b>	<b>6,524.93</b>

**TABLE 4**  
**Northeast Ohio**  
**Mobile Source PM<sub>2.5</sub> and Precursor Emissions Forecasts**  
**(from MOVES)**

<i>Volatile Organic Compounds (VOC) (tons/day)</i>						
	2009 Budget	2015 Emissions	2022 Draft Budget	2022 Emissions	2030 Emissions	2035 Emissions
NOACA		831.80		546.59	481.22	473.41
AMATS		339.24		212.43	205.54	202.32
Ashtabula County		4.42		2.81	2.77	2.77
<b>TOTAL</b>	<b>1,371.35</b>	<b>1,175.46</b>	<b>880.89</b>	<b>761.83</b>	<b>689.53</b>	<b>678.50</b>
<i>Nitrogen Oxides (NO<sub>x</sub>) (tons/day)</i>						
	2009 Budget	2015 Emissions	2022 Draft Budget	2022 Emissions	2030 Emissions	2035 Emissions
NOACA		21,986.25		11,832.57	9,385.68	9,056.82
AMATS		8,434.82		4,073.80	2,419.59	2,161.35
Ashtabula County		107.68		54.49	37.61	35.30
<b>TOTAL</b>	<b>35,094.70</b>	<b>30,528.75</b>	<b>17,263.65</b>	<b>15,960.86</b>	<b>11,842.88</b>	<b>11,253.47</b>

### EXHIBIT C-1 2015 NETWORK

The 2015 network includes all existing facilities plus the following projects:

PROJECT	LOCATION & TERMINI	TYPE OF WORK
Buchtel Ave	AKRON - Dart Ave to Locust St	Vacated roadway
Eagle St	AKRON - Innovation Way to Seiberling Way	Construct new road
Englewood St	AKRON - Innovation Way to Massillon Rd	Reconstruct and extend to Massillon Rd
Locust St	AKRON - Exchange St to Dart Ave	Vacated roadway
Johnston St	AKRON - Brown St to Spicer St	Relocate road
Seiberling Way	AKRON - Seiberling Way to Massillon Rd	Construct new road

### EXHIBIT C-2 2020 NETWORK

The 2020 network includes those projects in the 2015 network plus the following projects:

PROJECT	LOCATION & TERMINI	TYPE OF WORK
Cleveland-Massillon Rd	NORTON - Weber Rd to I-76	Median turn lanes
I-76	NORTON / BARBERTON - Medina County Line to Wooster Rd	Widen to 6 lanes
I-76 / I-77	AKRON - Main / Broadway & Grant / Wolf Ledges Interchanges	Reconfigure interchanges
I-76 / I-77	AKRON - Central Interchange	Reconfigure interchanges
SR 18	COPLEY TOWNSHIP - Montrose West Ave	Relocate Montrose West Ave to Heritage Woods Dr
SR 91	TWINSBURG - North of Glenwood Blvd to Cuyahoga County Line	Widen to 4 lanes and roundabout
SR 241	GREEN - Raber Rd to SR 619	Widen to 5 lanes
Seiberling Way	AKRON - Englewood St to Eagle St	Construct new road
Summit St	KENT - Lincoln St to Loop Rd	Turn lanes, signal coordination, access management, and realign Lincoln / Summit intersection, and realign E Campus Center Dr to Loop Rd

Note: All of these projects are assumed 2020 for MOBILE 6.2 runs and MOVES ozone runs; however for PM<sub>2.5</sub> they would move to 2022 for MOVES runs

### EXHIBIT C-3 2022 NETWORK

The 2022 network includes those projects in the 2020 network plus the following projects:

PROJECT	LOCATION & TERMINI	TYPE OF WORK
SR 8	AKRON - Perkins St to Glenwood Ave	Replace SR 8 bridge and widen

Note: All of these projects are assumed 2022 for PM<sub>2.5</sub> MOVES runs; however they would move to 2030 for MOBILE 6.2 runs and MOVES ozone runs

### EXHIBIT C-4 2030 NETWORK

The 2030 network includes those projects in the 2022 network plus the following projects:

PROJECT	LOCATION & TERMINI	TYPE OF WORK
Cleveland-Massillon Rd	COPLEY / FAIRLAWN - I-77 to Brookwall Dr	Widen to 4 lanes and turn lanes
Cedar / Exchange St	AKRON - Maple St to Broadway St	Reconfigure - two way traffic
Evans Ave	AKRON - CSX Rail Line	RR grade separation
Graham Rd	STOW - SR 91 to Fishcreek Rd	Widen to 4 lanes and turn lanes

### EXHIBIT C-5 2035 NETWORK

The 2035 network includes those projects in the 2030 network plus the following projects:

PROJECT	LOCATION & TERMINI	TYPE OF WORK
I-76	BRIMFIELD TOWNSHIP - Tallmadge Rd Interchange	Reconfigure interchange
Oviatt Rd Connector	HUDSON - SR 91 to Ravenna Rd	New roadway
SR 8	CUYAHOGA FALLS - Howe Rd Interchange	Reconfigure interchange (including RR bridges)
Tallmadge Circle	TALLMADGE - Tallmadge Circle	Bypass

Actions

To: Walton, Sara; [Maietta.Anthony@epamail.epa.gov](mailto:Maietta.Anthony@epamail.epa.gov)  
Cc: Moore, Dave; [Andy.Johns@dot.gov](mailto:Andy.Johns@dot.gov); Burkett, Frank; Price, Neosha  
Air Conformity  
Thursday, February 28, 2013 1:08 PM

You forwarded this message on 2/28/2013 1:10 PM.

Sara,

I presume that MORPC and/or LCATS will be adopting a T-Plan amendment concurrent with the new TIP. Is this accurate? Also, please confirm that the MORPC/LCATS analysis will use Mobile (and not MOVES) for generating emissions.

Other than those clarifying questions, FHWA concurs with the strategy.

Leigh

Leigh A. Oesterling, Planning & Environmental Team Leader  
Federal Highway Administration – Ohio Division  
200 N. High Street, Room 328  
Columbus, OH 43215  
(614) 280-6837  
[leigh.oesterling@dot.gov](mailto:leigh.oesterling@dot.gov)

Maietta, Anthony [[maietta.anthony@epa.gov](mailto:maietta.anthony@epa.gov)]

Actions

To: Walton, Sara; Oesterling, Leigh  
Cc: Moore, Dave

Thursday, February 28, 2013 1:59 PM

You replied on 2/28/2013 2:42 PM.

Thanks!

So that means the MOBILE runs have already been done well before the March 2

deadline.

In that case, I agree with the FY14-17 TIPs strategy for Ohio.

-Tony

Anthony Maietta  
Environmental Protection Specialist  
EPA Region 5  
(312) 353-8777  
[maietta.anthony@epa.gov](mailto:maietta.anthony@epa.gov)  
[www.epa.gov/midwestcleandiesel](http://www.epa.gov/midwestcleandiesel)

Walton, Sara

Actions

To: Oesterling, Leigh ([leigh.oesterling@dot.gov](mailto:leigh.oesterling@dot.gov)); [Maietta.Anthony@epamail.epa.gov](mailto:Maietta.Anthony@epamail.epa.gov)  
Cc: Moore, Dave [[Dave.Moore1@dot.state.oh.us](mailto:Dave.Moore1@dot.state.oh.us)]  
Attachments: [14-17 TIP conformity strat~1.pdf \(37 KB\)\[Open as Web Page\]](#)  
Sent Items  
Thursday, February 28, 2013 12:41 PM

This message was sent with High importance.

Tony/Leigh,

Please confirm that you agree with the air quality conformity strategy for the MPO FY14-17 TIPs. The attached document highlights the strategy for all Ohio MPOs. This email stream will be included in each MPO TIP to document inter-agency consultation for the FY14-17 TIP.

Best,

Sara



# APPENDIX D - FINANCIAL PLAN

It is crucial that *Transportation Outlook 2035 (TO2035)* provide a vision for the future while also maintaining a realistic perspective on the costs of transportation projects and anticipated revenues. The purpose of the Financial Plan is to ensure that *TO2035* is in fiscal constraint. Fiscal constraint means that future projects do not exceed expected revenues.

In December of 2012, the AMATS Policy Committee approved the Financial Resources Forecast which estimated future transportation revenues through 2035. The Financial Plan uses the Financial Resources Forecast as a starting point for revenues. Both 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 over \$4,380,574,003 of funds to be available and over \$4,380,492,930 funds needed to fund *TO2035*. This analysis ensures *TO2035* is in fiscal constraint.

## Highway Recommendation Methodology

In order to maintain fiscal constraint for future highway projects, AMATS first developed an estimate of highway revenues. The revenues are shown below:

Highway Revenues Through 2035	
Federal	\$ 2,008,878,205
State	\$ 740,981,759
Local	\$ 1,366,313,365
Ohio Turnpike	\$ 264,400,674
<b>Total Revenue</b>	<b>\$ 4,380,574,003</b>

The inflation rates used to project federal and state funding were based on the “moderate growth” assumption from the *ODOT Business Plan 2010-2011*. The moderate growth scenario specified a 3% yearly increase for federal funds and a variable rate from 0.5% to 1% to 0% for state funds. 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 *TO2035*.

For local funds, historical data from the BMV for license plate registration fees and

permissive taxes was obtained for 2007 to 2011. Historic fuel tax data distributed to the counties, municipalities, and townships was obtained for 2006 to 2011, given that the first full year of the current \$0.28 per gallon tax rate was 2006. The growth rates used to forecast local funding were assumed to be a conservative 1% per year.

With revenues established, it was necessary to assign project and inflation costs to each project recommendation. To develop costs, AMATS worked with a number of partners. For most projects listed in *TO2035*, AMATS worked with project sponsors to determine cost. Costs for projects were based on planning estimates either completed for the community by consultants or developed by AMATS staff based on past history of similar projects. Once project costs were established, the cost of the project was reduced by 20 percent to take into account the project’s preservation component, which was already considered in the preservation costs of the Plan.

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 2012 *Construction Cost Outlook and Forecast through 2017*. AMATS assumed a flat 2.5% per year for the out years.

Inflation Rate per Year	
2013	0.0%
2014	4.8%
2015	5.7%
2016	6.5%
2017	4.6%
2018-2035	2.5% per year

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 dollars and the time band for which the project is expected to occur.

Preservation funds were estimated over the life of *TO2035* 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. Because the

SR 8 bridge project is a preservation project, its costs were assumed to be part of the overall preservation funds. The Interstate 76 widening project, because it is reconstructing two lanes and adding one additional lane, is considered two-thirds preservation so only one-third of the cost is considered in the financial plan. The plan also shows funds reserved for unspecified safety and operation projects, as well as \$28 million reserved for bicycle and pedestrian enhancements. The table to the right demonstrates fiscal constraint for highway recommendations in TO2035.

<b>Financial Constraint Analysis</b>				
<b>Total Revenue</b>				<b>\$ 4,380,574,003.00</b>
<b>Maintenance Recommendations</b>				
	Pavement Resurfacing		Ongoing	\$ (1,396,360,071.54)
	Pavement Replacement		Ongoing	\$ (198,072,624.68)
	Bridge Preservation		Ongoing	\$ (2,101,679,677.76)
<b>AMATS Program 2014-2017</b>				
	AMATS Program (In TIP)		2014-2017	\$ (123,842,123.00)
<b>Freeway Recommendations</b>				
<b>Location</b>	<b>Recommendation</b>	<b>Limits</b>		<b>Yr of Expenditure 80%</b>
Akron	I-76/77	Main / Broadway Interchange	2018-2023	\$ (98,152,902.99)
Akron	I-76/77	SR 8 (Central Interchange)	2018-2023	\$ (199,139,085.66)
Multiple Communities	I-76	Medina County Line to State St	2014-2017	\$ (38,931,381.72)
Akron	SR 8	Perkins St to E Glenwood Ave	2018-2023	
Akron	SR 59 (Innerbelt)	W Cedar St to N Howard St	2018-2023	\$ (316,214.00)
<b>Freeway Recommendations</b>				
<b>Location</b>	<b>Recommendation</b>	<b>Limits</b>		<b>Yr of Expenditure 80%</b>
Akron	Evans Ave	Akron Secondary / CSX	2024-2029	\$ (9,387,816.54)
Akron	Cedar St / Exchange St	S Maple St to S Broadway St	2018-2023	\$ (5,584,661.83)
Copley	SR 18	Heritage Woods Dr to Montrose West Ave	2014-2017	\$ (8,884,849.15)
Copley / Fairlawn / Bath	SR 18	Heritage Woods Dr to S Smith Rd	2018-2023	\$ (332,222.60)
Cuyahoga Falls	SR 8	Howe Ave Interchange	2030-2035	\$ (40,826,208.96)
Cuyahoga Falls	Front St / Second St	Broad Blvd to SR 8	2018-2023	\$ (252,971.40)
Fairlawn	Cleveland-Massillon Rd	I-77 to Brookwall Dr	2024-2029	\$ (6,410,998.59)
Green	Massillon Rd	Raber Rd to SR 619	2018-2023	\$ (5,185,913.69)
Hudson	Oviatt St Connector	S Main St to Ravenna St	2030-2035	\$ (12,456,852.48)
Kent	SR 59	Kent W Corp Line to W Main St	2024-2029	\$ (5,828,846.01)
Portage County	Tallmadge Rd	I-76 Interchange	2030-2035	\$ (5,851,756.62)
Portage County	SR 44	Tallmadge Rd (CR 18) to I-76	2024-2029	\$ (357,767.40)
Ravenna	SR 14/44	SR 59 (E Main St) to N Freedom St (SR 88)	2024-2029	\$ (375,879.37)
Richfield	SR 176 (Wheatley Rd)	Brecksville Rd Interchange	2030-2035	\$ (1,539,703.60)
Stow	Graham Rd	SR 91 (Darrow Rd) to Fishcreek Rd	2024-2029	\$ (8,087,721.30)
Streetsboro	SR 14/303	SR 43 Interchange	2030-2035	\$ (435,904.84)
Summit County	S Main St	Portage Lakes Dr to N Turkeyfoot Rd	2018-2023	\$ (10,579,263.93)
Summit County	Portage Lakes Dr	Manchester Rd to S Main St	2024-2029	\$ (165,960.20)
Summit County	Canton Rd	Sanitarium Rd to Farmdale Rd	2024-2029	\$ (11,734,770.68)
Tallmadge	SR 91	Tallmadge Circle	2030-2035	\$ (11,438,142.88)
Tallmadge	Southeast Ave	Eastwood Ave / S Munroe Rd Interchange	2024-2029	\$ (2,405,627.99)
Regionwide	Bike and Pedestrian		Ongoing	\$ (29,500,000.00)
Regionwide	Safety and Operational		Ongoing	\$ (30,000,000.00)
Regionwide	Transit		Ongoing	\$ (16,375,000.00)
<b>BALANCE</b>				<b>\$ 81,072.60</b>
* 20% of project cost is assumed to be preservation that would have taken place regardless of project. Those costs are absorbed as part of preservation costs.				

## Transit Recommendation Methodology

Transit revenues were projected in the Financial Resources Forecast. Transit funding data for both METRO RTA and PARTA was collected over the last ten years to estimate the amount of federal funding expected to be available. The growth rates used to forecast federal transit funding were assumed to be 1% in the short term and then 2% until 2035. The METRO and PARTA averages were combined and the growth rate was applied to that historical average and compounded to determine the total cumulative 2035 forecast of available funds.

Local funds were projected based on past transit budgets in the Financial Resources Forecast. However, 2012 fare data and sales tax collections were available for 2012 in early 2013. AMATS updated the METRO RTA and PARTA local funds to be in line with 2012 revenues and those new numbers are included in the Financial Plan. An additional \$3.8 million was added to local revenue based on estimates of revenue projected from the Kent Central Gateway. The new federal highway legislation MAP-21 provided new 5310 funds to be under the region's control. These funds were added as was over \$16 million in highway funds expected to be put toward transit. The revenue totals are shown to the right.

Revenue	
Federal Funds	\$ 359,087,342
New 5310 Funds	\$ 5,750,000
Local and State Revenue	\$ 1,358,577,490
AMATS Revenue	\$ 16,400,000

Transit costs were inflated based on the Master Plan METRO RTA completed in 2012. Inflation rates were based on estimated operational and capital costs. The inflation rate applied to projects is as follows:

Inflation Rate per Year	
2013	0%
2014-2015	3.50%
2016-2020	2.50%
2021-2025	2.25%
2026-2035	2.20%

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 service were added when service is projected to start. With all the recommendations included and placed in the year of expenditure, the following table demonstrates fiscal constraint.

## Transit Fiscal Constraint

### Revenue

Federal Funds	\$	359,087,342
New 5310 Funds	\$	5,750,000
Local and State Revenue	\$	1,358,577,490
AMATS Revenue	\$	16,375,000

### METRO

<b>Operating Expenses - Base Service</b>	\$	(1,178,567,972)	Annual
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### Capital Costs - Base Service

Chapel Hill Turnaround	\$	(138,442)	2024-2029
Maintenance Facility	\$	(274,501)	2014-2017
Intermodal Facility Rehab	\$	(4,184,258)	2018-2023, 2030-2035
Ghent Park and Ride Lot Rehab	\$	(203,193)	2024-2029
Fuel Facility	\$	(1,414,876)	2024-2029
Annual Bus Fleet Expenditures	\$	(183,945,265)	Annual
Bus Shelter and Stop Enhancements	\$	(1,500,000)	Annual

### Operating Expenses - Additional Service

West Market Street - Arlington	\$	(12,663,929)	2018-2035
Copley Rd	\$	(10,270,289)	2022-2035
Kenmore	\$	(7,649,175)	2026-2035
Howard - State Street	\$	(8,326,483)	2025-2035
Twinsburg - Macedonia	\$	(4,787,618)	2030-2035
Northern Summit	\$	(4,174,803)	2030-2036
Southern Summit	\$	(4,174,803)	2030-2037

### Capital Expenses - Additional Service

West Market Street - Arlington	\$	(1,153,592)	2018-2023
Copley Rd	\$	(1,267,146)	2018-2023
Kenmore	\$	(1,384,419)	2024-2029
Howard - State Street	\$	(1,354,617)	2024-2029
Twinsburg - Macedonia	\$	(1,510,327)	2024-2029
Northern Summit	\$	(1,916,558)	2030-2035
Southern Summit	\$	(1,916,558)	2030-2035
Park and Ride Facilities	\$	(2,000,000)	2030-2035

Sandyville Rail Line Bridge Replacements	\$	(1,317,607)	2014-2017
Akron Secondary Rail Line Barlow and Seasons Road Upgrade	\$	(1,615,029)	2018-2023

### PARTA

<b>Operating Expenses - Base Service</b>	\$	(245,260,354)	Annual
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### Capital Expenditures - Base Service

Annual Bus Fleet Expenditures	\$	(39,854,807)	Annual
Bus Shelter and Stop Enhancements	\$	(250,000)	Annual

### Operating Expenses - Additional Service

Additional Saturday and Sunday Service on existing routes	\$	(3,039,343)	2018-2035
Ravenna to Streetsboro Service	\$	(2,876,444)	2026-2035

### Capital Expenses - Additional Service

Kent Central Gateway Rehab	\$	(1,446,003)	2024-2029
Ravenna to Streetsboro Service	\$	(1,384,419)	2024-2029
Streetsboro Park and Ride Lot	\$	(771,777)	2030-2035

### METRO and PARTA

Cross-County Service Feasibility Study	\$	(288,398)	2018-2023
Stow-Kent Transfer Facility	\$	(1,153,592)	2018-2023

### Coordinated Public Transportation Human Services Programs

5310 Program / Mobility Management Program	\$	(5,750,000)	Annual
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<b>BALANCE</b>	\$	<b>3,235</b>
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## Bicycle and Pedestrian Recommendation Methodology

Bicycle and Pedestrian improvements are funded through the estimated highway revenues. AMATS reserved over \$28 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 & Pedestrian Recommendations	
AMATS Revenue	\$ 29,500,000
Pedestrian	\$ (13,260,077)
On-Road Bicycle	\$ (839,084)
Multipurpose Trails	\$ (13,300,000)
	\$ 2,100,838.72

On-Road Bike Recommendations				Price per mile \$ (8,000)				
Map#	Community	Road	Limits	Miles	Type	Cost (current)	Cost (YOE)	AMATS Funding
1	Akron	S Arlington St	E Waterloo Rd to E Market St	2.90	Bike Improvements	\$ (23,200)	\$ (23,200)	\$ (23,200)
2	Akron	Copley Rd	I-77 to W Exchange St	2.20	Bike Improvements	\$ (17,600)	\$ (20,763)	\$ (20,763)
3	Akron	Exchange St	S Hawkins Ave to Spicer St	4.20	Bike Improvements	\$ (33,600)	\$ (44,651)	\$ (44,651)
4	Akron	Waterloo Rd	S Main St to S Arlington St	1.80	Bike Improvements	\$ (14,400)	\$ (20,607)	\$ (20,607)
5	Akron / Boston Township / Cuyahoga Falls / Peninsula	Akron Peninsula Rd	N Portage Path to SR 303	8.50	Bike Improvements	\$ (68,000)	\$ (86,010)	\$ (86,010)
6	Akron / Fairlawn	W Market St	Springside Dr to N Arlington St	9.30	Bike Improvements	\$ (74,400)	\$ (103,875)	\$ (103,875)
7	Akron / Springfield Township	Canton Rd	E Waterloo Rd to Newton St	3.00	Bike Improvements	\$ (24,000)	\$ (39,830)	\$ (39,830)
8	Akron / Tallmadge	Brittain Rd	Eastwood Ave to Howe Ave	2.40	Bike Improvements	\$ (19,200)	\$ (35,172)	\$ (35,172)
9	Akron / Tallmadge	Tallmadge Rd	N Main St to Brittain Rd	2.30	Bike Improvements	\$ (18,400)	\$ (29,065)	\$ (29,065)
10	Bath	Cleveland-Massillon Rd	Ghent Rd to W Bath Rd	1.10	Bike Improvements	\$ (8,800)	\$ (15,344)	\$ (15,344)
11	Boston Heights / Peninsula	SR 303	Akron Peninsula Rd to Chittenden Rd	3.20	Bike Improvements	\$ (25,600)	\$ (38,490)	\$ (38,490)
12	Green	Greensburg Rd	S Arlington Rd to Massillon Rd	2.20	Bike Improvements	\$ (17,600)	\$ (21,719)	\$ (21,719)
13	Kent	Fairchild Ave	Majors Lane to Water St	0.50	Bike Improvements	\$ (4,000)	\$ (7,699)	\$ (7,699)
14	Kent	Summit St / Willow St	S Willow St to S Lincoln St / E Summit St to E Erie St	0.30	Bike Improvements	\$ (2,400)	\$ (2,659)	\$ (2,659)
	Various Bike Lane Improvements	Regionwide				\$ (350,000)		\$ (350,000)
				43.9		\$ (701,200)	\$ (489,084)	\$ (839,084)

<b>Multipurpose Trail Recommendations</b>				<b>Price per mile \$ (1,003,200)</b>				
<b>Map#</b>	<b>Community</b>	<b>Road</b>	<b>Limits</b>	<b>Miles</b>	<b>Type</b>	<b>Cost (current)</b>	<b>Cost (YOE)</b>	<b>AMATS Funding</b>
15	Akron / Barberton / Copley Township / Norton	Pigeon Creek Trail	Towpath Trail to Copley Rd	6.59	Off-Road Multipurpose Trail	\$ (6,611,088)	\$ (8,571,133)	\$ (1,400,000)
16	Akron / Cuyahoga Falls / Silver Lake	Veterans Trail	Graham Rd (just south of) to Springdale Rd	5.77	Off-Road Multipurpose Trail	\$ (5,788,464)	\$ (10,603,830)	\$ (700,000)
17	Akron / Springfield Township	Springfield Trail / Adam's Run	Freedom Trail to Springfield Lake / Kubler St	6.41	Off-Road Multipurpose Trail	\$ (6,430,512)	\$ (7,935,296)	\$ (1,400,000)
18	Boston Heights / Hudson	Veterans (Heights-to-Hudson)	Bike & Hike Trail to W Prospect St	3.09	Off-Road Multipurpose Trail	\$ (3,099,888)	\$ (4,436,155)	\$ (700,000)
19	Boston Township / Sagamore Hills Township	Stanford Trail	Towpath Trail to Bike and Hike Trail	1.59	Off-Road Multipurpose Trail	\$ (1,595,088)	\$ (2,781,226)	\$ (700,000)
20	Brimfield Township / Kent	Mogadore Lake Trail	Mogadore Lake to Portage Hike and Bike Trail	5.60	Off-Road Multipurpose Trail	\$ (5,617,920)	\$ (7,465,600)	\$ (1,400,000)
21	Charlestown Township / Ravenna Township	Portage Hike and Bike Trail	Portage Hike and Bike Trail to Rock Spring Road	5.52	Off-Road Multipurpose Trail	\$ (5,537,664)	\$ (5,803,472)	\$ (1,400,000)
22	Franklin Township / Kent	Portage Hike and Bike Trail	Portage Hike and Bike Trail (Crain Ave) to Bike & Hike Trail (Hudson Rd)	2.26	Off-Road Multipurpose Trail	\$ (2,267,232)	\$ (3,325,681)	\$ (700,000)
23	Franklin Township / Kent / Ravenna Township	Portage Hike and Bike Trail	Esplanade / Dix Stadium to Lakewood Rd	1.05	Off-Road Multipurpose Trail	\$ (1,053,360)	\$ (1,977,881)	\$ (700,000)
24	Hiram / Hiram Township	Hiram Extension	SR 305 to Headwaters Trail	2.49	Off-Road Multipurpose Trail	\$ (2,497,968)	\$ (3,487,577)	\$ (700,000)
25	Hudson	Veterans Trail	Seasons Rd to W Prospect St	4.59	Off-Road Multipurpose Trail	\$ (4,604,688)	\$ (5,824,272)	\$ (1,400,000)
26	Kent	Portage Hike and Bike Trail	Portage Hike and Bike Trail (Tannery Park) to Portage Hike and Bike Trail (Crain Ave)	0.60	Off-Road Multipurpose Trail	\$ (601,920)	\$ (819,883)	\$ (700,000)
27	Mantua Township	Headwaters Trail	Chamberlain Rd to Mennonite Rd	2.43	Off-Road Multipurpose Trail	\$ (2,437,776)	\$ (3,756,870)	\$ (700,000)
28	New Franklin	Southern Trail	Towpath Trail to Nimisila Reservoir	7.47	Off-Road Multipurpose Trail	\$ (7,493,904)	\$ (8,840,850)	\$ (1,400,000)
29	Stow	Veterans Trail	Springdale Rd to Seasons Rd	1.84	Off-Road Multipurpose Trail	\$ (1,845,888)	\$ (2,775,325)	\$ (700,000)
30	Twinsburg	Liberty Trail	Canon Rd to Post Rd	1.47	Off-Road Multipurpose Trail	\$ (1,474,704)	\$ (2,387,728)	\$ (700,000)
				<b>58.77</b>		<b>\$ (58,958,064)</b>	<b>\$ (61,617,064)</b>	<b>\$ (13,300,000)</b>

<b>Pedestrian Recommendations</b>					<b>Price per mile \$ (686,400)</b>			
<b>Map#</b>	<b>Community</b>	<b>Road</b>	<b>Limits</b>	<b>Miles</b>	<b>Type</b>	<b>Cost (current)</b>	<b>Cost (YOE)</b>	<b>AMATS Funding</b>
1	Akron	Brittain Rd	Tallmadge Ave to Yorkshire Dr	0.45	New Sidewalk (E Side)	\$ (312,000)	\$ (530,741)	\$ (530,741)
2	Akron	Buchholzer Blvd	Independence Ave to Howe Ave	0.40	New Sidewalk (E Side)	\$ (274,560)	\$ (515,538)	\$ (515,538)
3	Akron	Portage Trail	N Portage Path to Treetop Trail	0.67	New Sidewalk (N & S Side)	\$ (457,600)	\$ (740,911)	\$ (700,000)
4	Akron	Waterloo Rd	I-77 to S Arlington St	0.83	New Sidewalk (N & S Side)	\$ (567,060)	\$ (811,502)	\$ (700,000)
5	Bath / Copley	SR 18 / Medina Rd	Springside Dr to Cleveland-Massillon Rd	0.78	New Sidewalk (N & S Side)	\$ (533,000)	\$ (781,829)	\$ (700,000)
6	Copley	Cleveland-Massillon Rd	Hammond Blvd to Commerce Dr	0.90	New Sidewalk (W Side)	\$ (617,500)	\$ (951,633)	\$ (700,000)
7	Coventry / Springfield	S Arlington Rd	I-77 to Krumroy Rd	3.63	New Sidewalk (E & W Side)	\$ (2,492,100)	\$ (3,075,268)	\$ (1,400,000)
8	Cuyahoga Falls	Graham Rd	Prange Dr to E Bath Rd	0.56	New Sidewalk (N Side)	\$ (383,500)	\$ (636,457)	\$ (636,457)
9	Green	Boettler Rd	S Arlington Rd to Kenway Blvd	0.30	New Sidewalk	\$ (205,920)	\$ (1,840,111)	\$ (700,000)
10	Green	Interstate Parkway	S Arlington Rd to terminus	0.95	New Sidewalk (N & S Side)	\$ (653,900)	\$ (912,953)	\$ (700,000)
11	Green	Moore Rd	S Main St to S Arlington St	1.50	New Sidewalk (1 Side)	\$ (1,029,600)	\$ (1,029,600)	\$ (700,000)
12	Green	Raber Rd	Massillon Rd to Kreighbaum Rd	2.30	New Sidewalk (N & S Side)	\$ (1,578,720)	\$ (2,046,776)	\$ (700,000)
13	Green	Steese Rd	Greensburg Rd to Town Crossing Blvd	1.20	New Sidewalk (N & S Side)	\$ (823,680)	\$ (1,121,945)	\$ (700,000)
14	Norton	Cleveland-Massillon Rd	Weber Dr to Shellhart Dr	1.80	New Sidewalk (E & W Side)	\$ (1,235,000)	\$ (1,368,054)	\$ (700,000)
15	Ravenna	Chestnut St	Ravenna High School to SR 14	0.21	New Sidewalk (W Side)	\$ (144,300)	\$ (264,342)	\$ (264,342)
16	Ravenna Township / Rootstown Township	SR 44 / S Prospect St	Rootstown Elementary School to Ravenna S Corp Line	2.98	New Sidewalk	\$ (2,045,472)	\$ (2,587,230)	\$ (700,000)
17	Twinsburg	Highland Rd	Chamberlin Rd to Hadden Rd	1.71	New Sidewalk (N & S Side)	\$ (1,175,200)	\$ (1,766,934)	\$ (700,000)
18	Twinsburg	SR 82	Chamberlin Rd to Wilcox Dr	1.91	New Sidewalk (N & S Side)	\$ (1,307,800)	\$ (1,542,862)	\$ (700,000)
	Various Sidewalk Gaps	Regionwide				\$ (813,000)	\$ (1,080,388)	\$ (813,000)
				<b>23.07</b>		<b>\$ (16,649,912)</b>	<b>\$ (23,605,074)</b>	<b>\$ (13,260,077)</b>



# APPENDIX E - ENVIRONMENTAL JUSTICE

Developing, improving and maintaining the regional transportation system is not only about moving the most vehicles as efficiently as possible. Transportation planning must also consider issues such as poverty, equal opportunity and equal access to ensure that the costs and benefits of transportation infrastructure and services are fairly distributed.

Historically, this has not always been the case. During the development of the nation's interstate highway system in the 1950s and 60s, low-income and predominantly minority neighborhoods often carried the greatest burden of these massive redevelopment projects. The physical placement of these projects mowed paths through established, older neighborhoods, creating physical barriers and isolating them from employment, shopping and recreational opportunities. Often, these neighborhoods suffered not only from the physical placement of projects, but from the negative externalities they produced: noise pollution, harmful fumes and air pollution, as well as accidents and spills. In some cases, these consequences were unintentional. However, these areas were sometimes specifically targeted for transportation development, due to their low property values and lack of political clout. Eventually, neighborhood and environmental activists demanded equal access to these facilities, as well as the equitable distribution of positive and negative effects of transportation projects, and thus, the concept of environmental justice emerged.

The United States Environmental Protection Agency (EPA) Office of Environmental Justice defines environmental justice as:

*The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies.*

This means that federally funded programs must apply additional scrutiny and attempt to identify and address any disproportionately high and adverse human health and environmental effects on low-income and minority groups, resulting

from the implementation of their plans and projects. A meaningful effort to involve these groups in the decision making process must also be made.

Disproportionately high and adverse effects are those that will be predominately borne by minority or low-income groups; or those which will be suffered by minority and low-income groups in a manner that is appreciably more severe or greater in magnitude than those which will be suffered by non-minority and non-low-income groups, according to Presidential Executive Order #12898.

As a federally funded agency, AMATS staff conducted an environmental justice analysis for *Transportation Outlook 2035 (TO2035)*. During the planning process, low-income and minority populations were considered and involved in the decision making process through public involvement activities and analyses of potential negative impacts and accessibility of transportation projects.

Community groups representing minority and low-income populations are included on the AMATS mailing list. These groups are made aware of opportunities to participate in the planning process by advertising public meetings in area newspapers: 1) The Akron Beacon Journal; 2) The Kent-Ravenna Record Courier; and 3) The Reporter (a publication that serves the African-American community). Public meetings are advertised on the AMATS website<sup>1</sup>, where draft planning documents are also made available. AMATS has recently enhanced its presence on social media platforms such as Facebook<sup>2</sup> and Twitter<sup>3</sup>, where public meetings are advertised and comments may be submitted.

1 [www.amatsplanning.org](http://www.amatsplanning.org)  
2 [www.facebook.com/AMATSPlanning](https://www.facebook.com/AMATSPlanning)  
3 [@AMATSPlanning](https://www.twitter.com/AMATSPlanning)

## Methodology

In addition to involving low-income and minority populations in the planning process, environmental justice also means assessing the impact of transportation plans, programs and policies on low-income and minority populations. In order to accomplish this, the following questions must be considered:

- What are low-income and minority populations?
- How should these populations be identified?
- Which environmental impacts should be considered?
- What are the potential impacts of recommended projects on low-income and minority populations?
- What is the overall level of accessibility in low-income and minority neighborhoods?

### Definitions

According to the final United States Department of Transportation (USDOT) *Order 5610.2 on Environmental Justice*, contained in the *Federal Register* (April 15, 1997):

*Low-Income* is defined as a person whose median household income is at or below the Department of Health and Human Services poverty guidelines. For purposes of this analysis, the AMATS staff has expanded the definition of low-income population to include all individuals at 150% or below the poverty level.

*Minority* is defined as a person who is: 1) Black (a person having origins in any of the black racial groups of Africa); 2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); 3) Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands); or 4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition).

### Identifying Concentrations of Low-Income and Minority Population

To ensure fair accessibility to and investment in low-income and minority populations, AMATS uses the following methodology to identify regionally significant concentrations of each population in the Akron metropolitan area:

- Concentrations of low-income population were identified by comparing the percentage of the population at or below 150% of the poverty level in each census tract to the percentage of the population in the entire AMATS area. The data used in this analysis were obtained from the 2010 Census. Census tracts with a percentage of population considered low-income that was twice the regional rate of 13.7% were considered to be regionally significant concentrations of low-income population. These census tracts are shown on Map E-1.
- Concentrations of minority population were identified by comparing the percentage of minorities living in each census tract to the percentage of such persons living in the entire AMATS region. The data used in this analysis were obtained from the 2010 Census. Tracts with a percentage of minorities that were twice the regional rate of 16.4% were considered to be regionally significant concentrations of minority population. These census tracts are shown on Map E-2.

### Environmental Impacts

According to the U.S. Department of Transportation, adverse impacts are defined as significant individual or cumulative negative human health or environmental effects, resulting from the implementation of federal, state or local transportation policies, plans or projects.

By reviewing environmental justice guidance developed by the Ohio Department of Transportation (ODOT), the following ten variables have been identified as a means of qualitatively evaluating the potential adverse impacts of projects recommended in *TO2035* that are located in or border low-income or minority areas:

1. *Safety* - How will the project affect the relative safety of those using the facility and living in the target area?
2. *Pollution* - How will the project affect the overall air quality, water quality, noise level or soil quality of the target area?
3. *Natural Resources* - How will the project affect vegetation, streams, parks or other aspects of the natural environment in the target area?

4. *Aesthetics* - How will the project affect the appearance and physical attractiveness of the target area?
5. *Community Cohesion* - How will the project affect the identity and cohesiveness of the target area?
6. *Economic Vitality* - How will the project affect the economic health of the target area?
7. *Accessibility* - How will the project affect the level of access to, or from, the target area?
8. *Displacement of Businesses or Residents* - How will the project affect businesses, residents and institutions in the target area? Will it displace any of them?
9. *Traffic Congestion* - How will the project affect existing levels of traffic congestion?
10. *Equal Access to Improvement* - Will the overall benefits of the project be as available to residents of the target area as they will be to the region as a whole?

## Analyses

Two analyses were developed to evaluate the potential adverse human health or environmental impacts of the recommended transportation improvements. These analyses examine: 1) the potential environmental impacts of projects; and 2) transportation accessibility.

### Potential Environmental Impacts

Highway recommendations in *TO2035* were analyzed in order to determine potential adverse impacts on low-income households and minority populations. They continue AMATS' "fix-it-first" policy: focusing on preserving the existing transportation infrastructure rather than building new roads. The shift to prioritizing preservation of the existing system is a result of deteriorating, aging infrastructure and rapidly increasing construction costs. The decrease in capacity expansion projects, such as new roads and road widenings, reduces the potential for negative adverse impacts.

This analysis was completed according to the following procedures:

**Step 1** – Projects were divided into two categories: 1) capacity projects; and 2) non-capacity projects. Non-capacity projects were exempted from further analysis because they are not expected to have any disproportionately high adverse human health and environmental effects on minority and low-income groups.

**Step 2** – Projects were then examined to determine whether they were located in or bordering on a census tract containing a regionally significant concentration of low-income or minority populations. Projects that were not located in or bordering on these areas were exempted from further environmental justice analysis. These census tracts are shown on Maps E-1 and E-2.

There are five recommended projects that are located in or bordering on regionally significant concentrations of low-income or minority areas. Regionally significant concentrations of low-income populations are 27.4 percent or greater and of minorities are 32.8 percent or greater.

*These projects include:*

- **I-76/I-77** – This project involves a major reconfiguration of the S Main St/S Broadway St interchange in Akron.
- **I-76/I-77** – A major reconfiguration of Akron's Central Interchange to increase safety and alleviate traffic congestion.
- **SR 8** – This project will result in the reconfiguration of the Howe Ave interchange in Cuyahoga Falls to improve traffic flow, decrease congestion and improve safety.
- **Cedar St/Exchange St** – This project will reconfigure these streets from one-way streets to two-way streets to improve access and increase safety. The project is in Akron from S Maple St to S Broadway St.
- **Tallmadge Rd** – Reconfigure the interchange with I-76 in Brimfield Township to improve traffic flow and safety.

**Step 3** – These remaining projects were qualitatively evaluated as to their environmental impacts because they have the potential of disproportionately high adverse human health effects on minority and low-income groups.

The potential environmental impacts of highway capacity projects are displayed in Table E-1. Projects that are expected to impact a variable in a positive manner are indicated by a "+", projects that are expected to impact a variable in a negative manner are indicated by a "-".

None of the above projects located in or bordering on low-income or minority areas appear to have any significant environmental justice concerns. All of the projects listed above should be analyzed more closely as they move into later stages of development. Projects which were shown to have potential negative

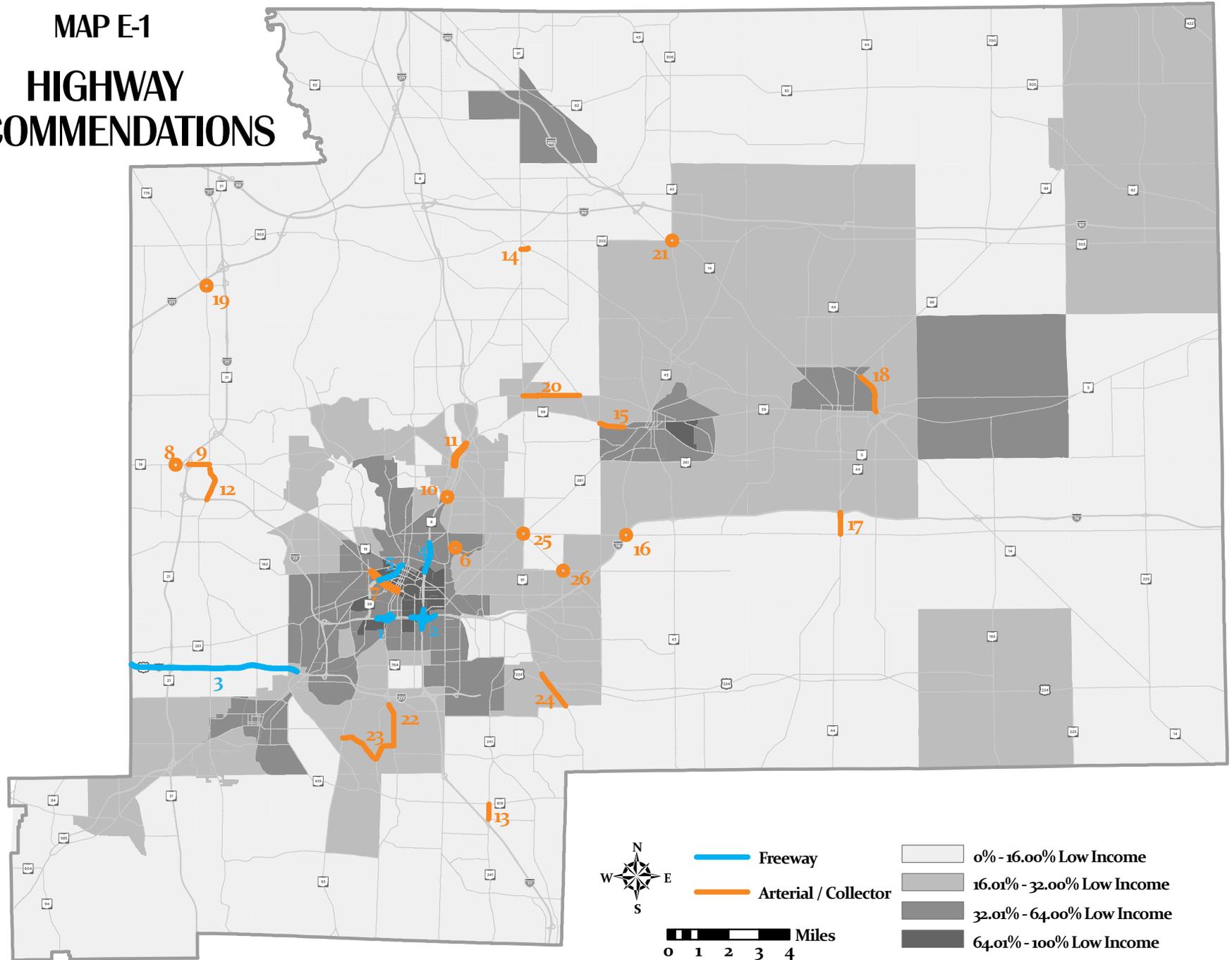
impacts should be closely scrutinized as more detailed environmental analyses are completed, in order to determine whether these impacts will be disproportionately borne by low-income or minority individuals or communities.

**Table E-1  
POTENTIAL ENVIRONMENTAL IMPACTS OF PROJECTS**

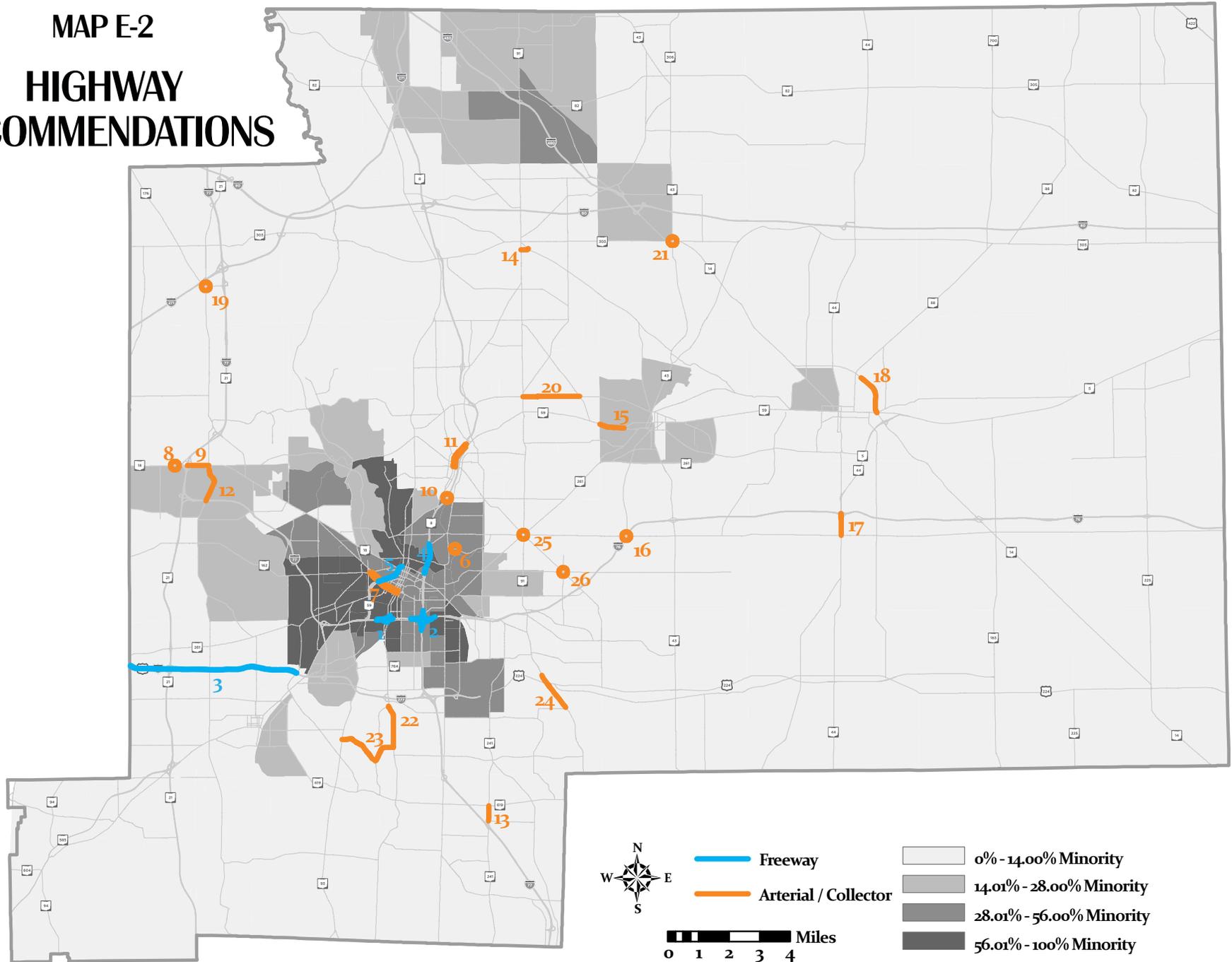
Project	From	To	Category	Location	POTENTIAL IMPACTS									
					Safety	Pollution	Natural Resources	Aesthetics	Community Cohesion	Economic Vitality	Accessibility	Displacement of Residents / Businesses	Traffic Congestion	Equal Access to Improvements
I-76 / I-77	Main / Broadway Interchange		Reconfiguration	Low Income / Minority	+	n	n	+	n	+	+	-	+	n
I-76 / I-77	SR 8 (Central Interchange)		Reconfiguration	Low Income / Minority	+	n	n	+	n	+	+	-	+	n
SR 8	Howe Ave Interchange		Reconfiguration	Low Income / Minority	+	n	n	+	n	+	+	-	+	n
Cedar St / Exchange St	S Maple St	S Broadway St	Reconfigure to Two-Way Traffic	Low Income / Minority	+	n	n	n	n	+	+	+	-	n
Tallmadge Rd	I-76 Interchange		Reconfiguration	Low Income	+	n	n	n	n	+	+	-	+	n

\*KEY: + denotes positive impact, n denotes neutral impact and - denotes negative impact

# MAP E-1 HIGHWAY RECOMMENDATIONS



# MAP E-2 HIGHWAY RECOMMENDATIONS



### Transportation Accessibility in Low-Income and Minority Neighborhoods

The Moving Ahead for Progress in the 21st Century Act (MAP-21), passed by Congress in 2012, provides new provisions that support transportation programming, planning and funding. The new provisions provide increased opportunities to enhance pedestrian and bicycle safety and mobility, reduce traffic congestion, improve efficiency in freight movement, increase intermodal connectivity and create more complete transportation systems that foster healthier, more livable communities. This is especially crucial in low-income and minority communities, which often lack adequate access and mobility to recreational, shopping and employment opportunities.

Three analyses have been completed in order to determine the overall level of accessibility in low-income and minority neighborhoods. The first analysis focuses on the plan's highway recommendations. The second analysis focuses on the existing public transportation system. The third analysis analyzes non-motorized transportation modes, specifically, *TO2035's* bicycle and pedestrian recommendations.

### Highway Accessibility Analysis

The first step in the highway accessibility analysis was to identify a sample of six traffic analysis zones that represent low-income and minority neighborhoods: 1) East Akron; 2) West Akron; 3) North Akron; 4) Barberton; 5) Ravenna; and 6) Kent.

The second step in the analysis was to identify traffic analysis zones that contain major activity centers. Altogether, 15 traffic analysis zones containing major commercial, industrial, medical, educational, transportation and recreational facilities were identified:

1. Akron-Canton Airport
2. Downtown Akron Transit Center
3. Akron Central Business District
4. Akron City Hospital
5. Akron General Hospital
6. Goodyear
7. Lockheed-Martin
8. Twinsburg Industrial Area
9. Geauga Lake Wildwater Kingdom
10. Chapel Hill Mall
11. Summit Mall
12. Montrose
13. Macedonia Commons
14. University of Akron
15. Kent State University

In the third step, the AMATS travel-demand model network, representing the highway system as it is planned to operate in 2015, was used to estimate the average travel time from each low-income and minority neighborhood to each of the 15 major activity centers. In order to provide a valid comparison, a similar analysis was conducted to estimate the average travel time to each major activity center from a sample of six traffic analysis zones, representing neighborhoods without regionally significant concentrations of low-income and minority population: 1) Cuyahoga Falls; 2) Hudson; 3) Stow; 4) Green; 5) Macedonia; and 6) Aurora.

The results of the highway accessibility analysis are shown in Table E-2. According to this analysis, low-income and minority neighborhoods have slightly better access to major activity centers located throughout the AMATS area, than non-low-income and non-minority neighborhoods. The average travel time to major activity centers is 17 minutes for low-income and minority neighborhoods, versus 20 minutes for non-low-income and non-minority neighborhoods.

**Table E-2  
AVERAGE HIGHWAY TRAVEL TIME TO MAJOR ACTIVITY CENTERS  
(in minutes)**

Traffic Zone Number	Akron-Canton Airport	Downtown Akron Transit Center	Akron CBD	Akron City Hospital	Akron General Hospital	Goodyear	Lockheed-Martin	Twinsburg Industrial Area	Geauga Lake Wildwater Kingdom	Chapel Hill Mall	Summit Mall	Montrose	Macedonia Commons	University of Akron	Kent State	OVERALL AVERAGE (minutes)
Traffic Zone Number	452	46	21	8	43	96	112	807	609	55	522	39	566	32	720	
<b>Low Income or Minority Zones</b>	<b>21</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>14</b>	<b>26</b>	<b>34</b>	<b>13</b>	<b>18</b>	<b>20</b>	<b>25</b>	<b>12</b>	<b>16</b>	<b>17</b>
East Akron (zone 93)	14	7	7	5	8	3	5	28	38	9	15	16	24	6	17	14
West Akron (zone 181)	20	6	5	8	4	10	14	29	40	13	8	9	25	6	23	15
North Akron (zone 222)	17	5	4	5	5	8	12	23	34	6	12	14	20	5	18	13
Barberton (zone 259)	16	13	14	16	13	15	13	37	47	20	17	18	33	14	28	21
Ravenna (zone 688)	35	25	26	25	27	23	26	19	21	21	34	35	23	26	10	25
Kent (zone 711)	25	16	17	16	18	13	16	22	26	11	24	26	25	16	3	18
<b>Non-Low Income and Non-Minority Zones</b>	<b>27</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>21</b>	<b>21</b>	<b>23</b>	<b>16</b>	<b>23</b>	<b>17</b>	<b>23</b>	<b>23</b>	<b>16</b>	<b>19</b>	<b>21</b>	<b>20</b>
Cuyahoga Falls (zone 302)	20	11	9	8	11	11	15	21	31	6	14	16	18	10	17	15
Hudson (zone 368)	32	22	20	19	22	23	26	6	16	18	25	26	11	21	17	20
Stow (zone 375)	25	15	14	13	16	16	19	15	24	10	20	22	17	14	10	17
Green (zone 447)	7	14	15	14	17	14	12	35	46	19	23	24	32	15	27	21
Macedonia (zone 568)	35	25	24	23	26	26	30	9	18	21	21	20	3	24	27	22
Aurora (zone 611)	42	32	31	30	33	33	37	10	5	28	33	32	14	31	25	28

### Public Transportation Accessibility Analysis

It is important that the regional transportation system provide adequate mobility for all persons. Public transportation is especially important in low-income and minority communities, which often lack adequate access to employment opportunities, retail, recreational and social/cultural activities. In 2012, *The AMATS Regional Public Transportation Plan* analyzed the overall level of accessibility that the existing fixed-route transit network offered to low-income, minority, elderly and disabled persons in the Akron metropolitan area. Those results were used to analyze public transportation accessibility in *TO2035*.

The first step in the public transportation accessibility analysis determined a suitable coverage area in Summit and Portage counties in conjunction with the Regional Transportation Agencies' (RTA) existing fixed routes. METRO is Summit County's RTA, whereas the Portage Area Regional Transportation Authority (PARTA) serves Portage County. The suitable coverage area used was a comfortable 0.25 mile walking distance from each fixed route – an industry

standard. The second step of the analysis determined the percentage of minority, elderly and disabled populations and low-income households living within a 0.25 mile walking distance of existing fixed route transit service. The third step compared the percentage of minority, elderly and disabled populations and low-income households to the percentage of the total population and total households having access to fixed route transit service. Maps E-3 and E-4 illustrate the transit system routes and coverage areas and Table E-3 summarizes the fixed route transit coverage in the Akron metropolitan area.

The definition of low-income used for the AMATS Public Transportation Plan is a household income at or below 150 percent of the poverty level. Based on 2010 census data, this threshold would be set at \$34,999 or below. Data were collected at the census tract level for low-income, minority and elderly populations. Data illustrating the distribution of those with disabilities was only available at the county level at the time of the analysis.

### Low-Income

In Summit County, 61.8% of the low-income population is within walking distance of a fixed-route transit route, which is approximately 11.5% higher than the accessibility of the total population. In Portage County, which has a less extensive fixed-route transit network due to its smaller population, 41.3% of low-income households are within walking distance to transit. This represents a level of access nearly double that available to the total population. 79.9% of households in Akron have access to transit - the highest coverage in the AMATS region. As might be expected, urban areas provide higher levels of access to transit, whereas less densely populated communities typically have less access.

### Minority

In Summit County, 65.4% of the minority population lives within walking distance to fixed-route transit service, which is approximately 15% higher than service to the total population. In Portage County, 34% of the minority population lives within walking distance of fixed-route transit, compared to only 21% of the total population. Fifteen AMATS communities offer convenient transit service to one-third or more of their minority populations.

### Elderly

*Transportation Outlook 2035* defines the elderly population as anyone 65 years of age or older. In Summit County communities offering fixed-route transit service, 46.9% of elderly residents live within walking distance of a bus line. In Portage County, 27.6% of these residents are within walking distance of fixed-route transit. Depending on ability, the 0.25 mile walking distance used for the general population in this and previous analyses may not be a comfortable walking distance for the older population, which could effectively lower these percentages. However, both METRO and PARTA offer extensive demand-response service which specializes in providing countywide transportation to older persons. Through these and other transportation services offered by private agencies/operators, the AMATS region's elderly population enjoys excellent transportation access.

### Disabled

According to the U.S. Census Bureau, disabled individuals have a physical, visual, emotional or mental limitation or other mobility-restricting condition. Due to data limitations of the 2010 Census, a parallel analysis to those above is not possible - data is only available at the county and larger-city levels. In Summit County, 12.9% of the total population was identified as having some form of

disability. 11.8% of Portage County residents were identified as having some form of disability. Although it is not possible to calculate the percentage of these residents living within fixed-route transit, METRO and PARTA's respective county-wide demand-response services specialize in transporting these individuals and their care providers wherever they need to go, effectively providing them with excellent transportation access.

### Job Accessibility

Many low-income and minority individuals rely on public transportation to access employment opportunities. Both METRO and PARTA work diligently to provide transit service to key employment zones throughout the AMATS region. Both agencies speak regularly with local employers and attempt to not only serve businesses with transit service, but to coordinate bus runs with shift start or ending times. AMATS encourages coordination between employers and local transit providers to increase the access of low-income and minority individuals to job-rich destinations.

Most of the zones with the greatest concentrations of employment are accessible through fixed-route transit. In Akron, the Downtown, Montrose, Market Street and South Arlington Street corridors have among the highest concentrations of employment in the AMATS region, and also enjoy the most frequent transit service available. Other cities with major employment centers, such as Barberton, Cuyahoga Falls, Hudson, Kent and Ravenna have varying degrees of fixed-route transit service.

Notable gaps in transit service to key employment areas are Aurora, portions of Green and Streetsboro, the Village of Mantua and Copley Township. The Village of Richfield and the Cities of Streetsboro, Twinsburg and Macedonia have very large employment concentrations, but are only served by infrequent express or commuter bus routes. Each of these communities could benefit from more regular transit or new transit service to connect the region's employment base to these key employment zones. Map E-5 illustrates the job-rich areas in the AMATS region, relative to existing fixed-route transit lines.

**Table E-3  
TRANSIT ACCESSIBILITY ANALYSIS  
FIXED ROUTE TRANSIT COVERAGE IN THE AMATS AREA**

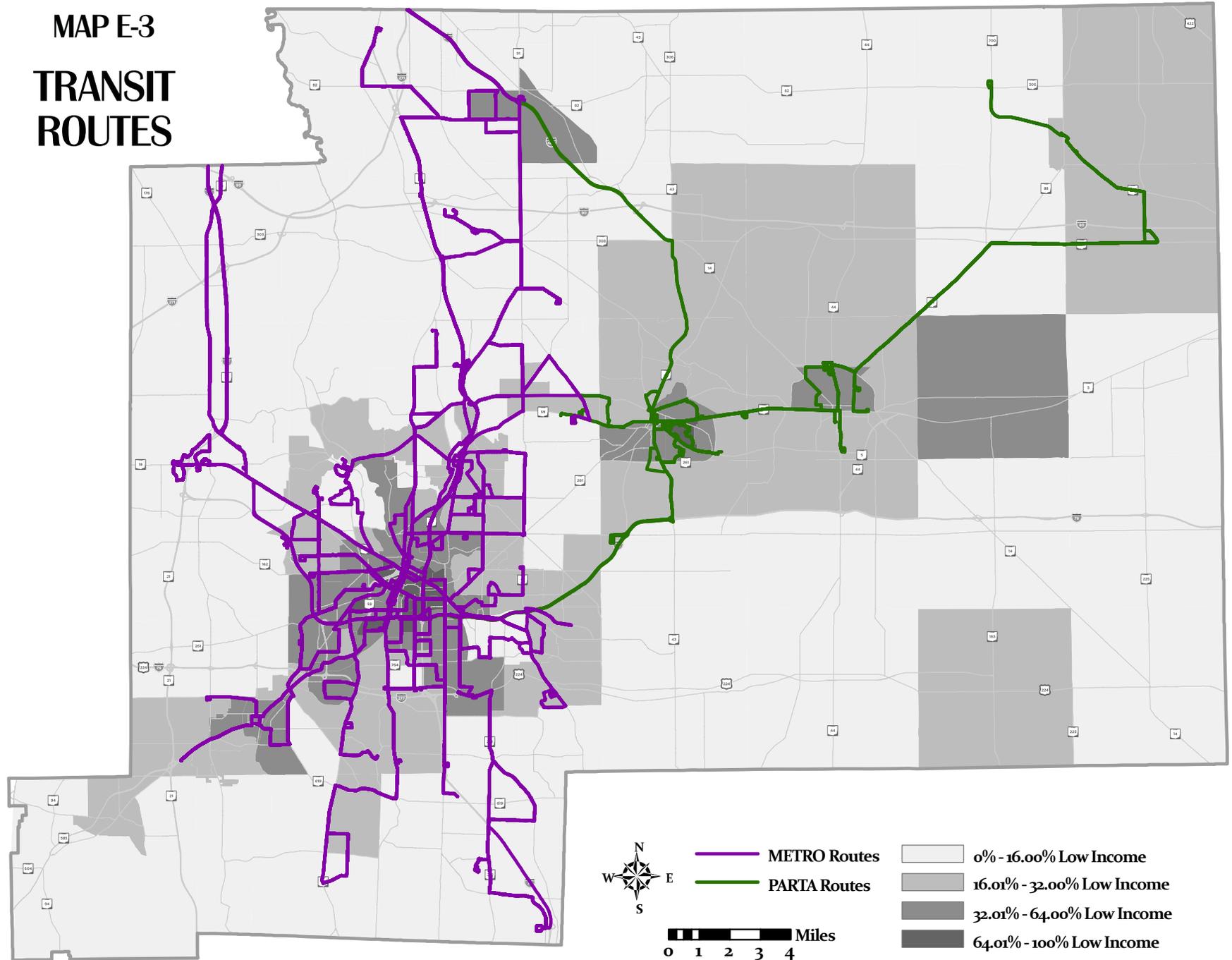
<i>Population Group</i>	<i>Summit County</i>			<i>Portage County</i>		
	<i>Total</i>	<i>Total Covered by Transit</i>	<i>% Covered by Transit</i>	<i>Total</i>	<i>Total Covered by Transit</i>	<i>% Covered by Transit</i>
<b>Total Population</b>	<b>541,781</b>	<b>272,777</b>	<b>50.3%</b>	<b>161,419</b>	<b>33,943</b>	<b>21.0%</b>
<b>Minority Population</b>	<b>110,157</b>	<b>72,093</b>	<b>65.4%</b>	<b>13,892</b>	<b>4,719</b>	<b>34.0%</b>
<b>Low Income Population</b>	<b>82,683</b>	<b>51,114</b>	<b>61.8%</b>	<b>15,793</b>	<b>6,516</b>	<b>41.3%</b>
<b>Elderly Population</b>	<b>78,186</b>	<b>36,684</b>	<b>46.9%</b>	<b>11,489</b>	<b>3,168</b>	<b>27.6%</b>

Source: 2010 US Census

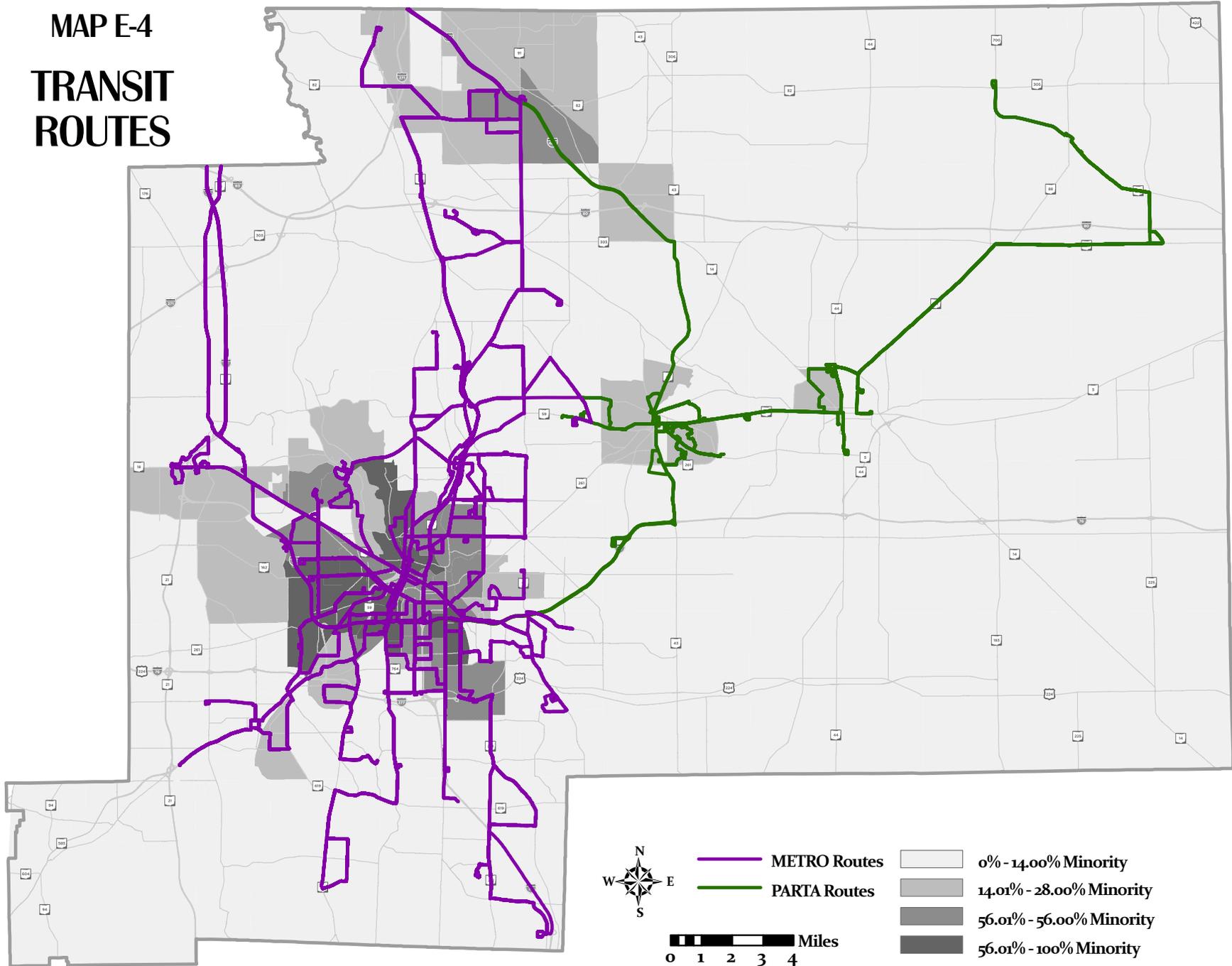
Notes:

- Percentage covered by transit includes all people with a 0.25 mile walking distance of existing fixed-route transit service
- Individual demographic analyses include only those communities offering fixed-route transit service
- Fixed-Route Transit Service in Summit County is provided by METRO RTA, PARTA is the provider in Portage County

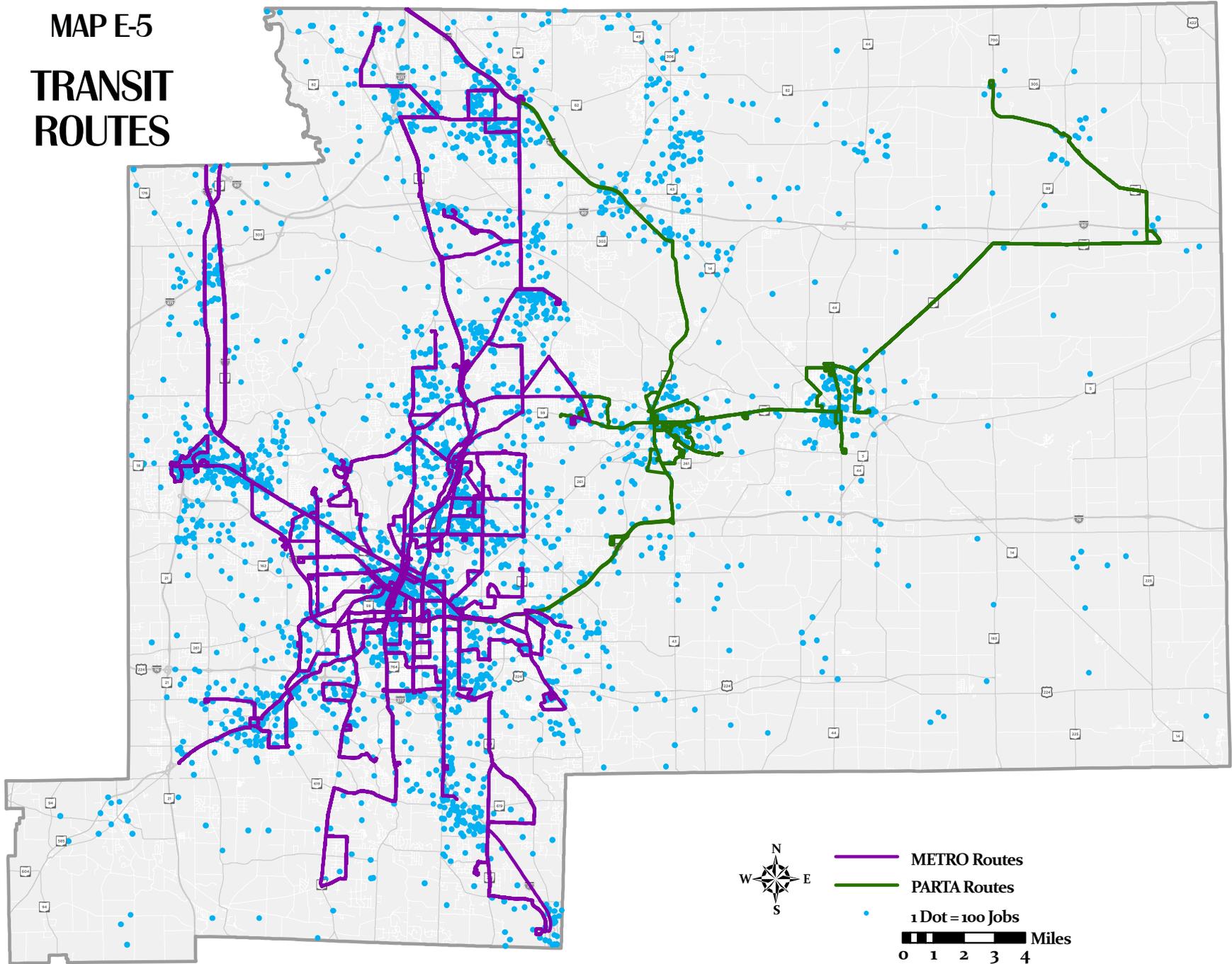
# MAP E-3 TRANSIT ROUTES



# MAP E-4 TRANSIT ROUTES



# MAP E-5 TRANSIT ROUTES



## Non-Motorized Transportation Accessibility Analysis

Low-income and minority neighborhoods benefit greatly from non-vehicular modes of transportation. Walking and bicycling are free or low cost, have few negative externalities (noise, air and other pollution, congestion, etc.) and produce positive health benefits. For short-distance trips in compact neighborhoods, these modes may actually prove the most efficient. One may use these transportation modes on-demand, rather than being constrained by a bus schedule or waiting for a ride in an automobile. In recent years, AMATS has firmly focused on non-motorized transportation modes, and is committed to building a network that allows all residents to travel safely between key regional communities and destinations.

### Bicycle

One half of all the bicycle recommendations listed in *TO2035* are located in or next to regionally significant low-income or minority census tracts. Of the recommended projects, 64% of the on-road bike improvements and 38% of the multi-purpose trail recommendations pass through or touch these census tracts. Multi-purpose trails have the additional benefit of serving pedestrians as well as bicyclists. Maps E-6 and E-7 show the bicycle recommendations in relation to these census tracts.

### Pedestrian

Of the 18 total pedestrian recommendations, 44% are located in or next to regionally significant low-income or minority census tracts. In addition to these pedestrian recommendations and the multi-purpose trail recommendations, it should be noted that most of the regionally significant low-income and minority census tracts are located in the highest density communities within the AMATS region – areas that are currently well served by existing sidewalks, crosswalks and other pedestrian infrastructure. Maps E-6 and E-7 also show the pedestrian recommendations in relation to these census tracts.

## Conclusion

*TO2035* has been thoroughly analyzed to ensure that its recommendations will not have disproportionately high adverse affects on low-income and minority groups. The two analyses completed for this Environmental Justice Analysis may be summarized as follows:

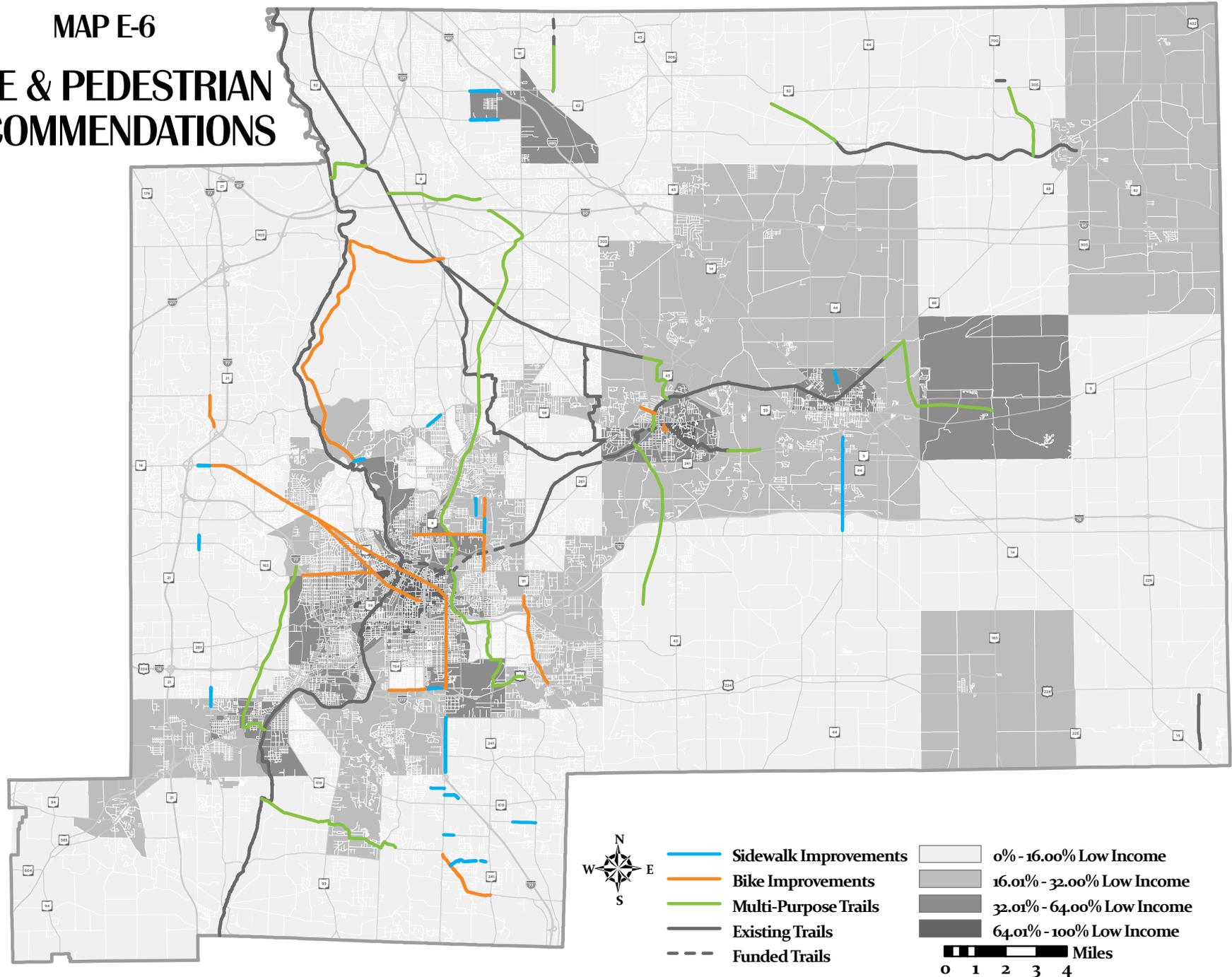
### Potential Environmental Impacts of Projects

- None of the projects recommended in *TO2035* appear to have any serious negative impact from an environmental justice standpoint.
- It is recommended that all of the projects shown in Table E-1 be analyzed more closely as they move into future stages of development.
- As more detailed analyses are completed, projects shown to have potential negative impacts should be closely scrutinized to determine whether these impacts will be disproportionately borne by low-income or minority individuals or communities.

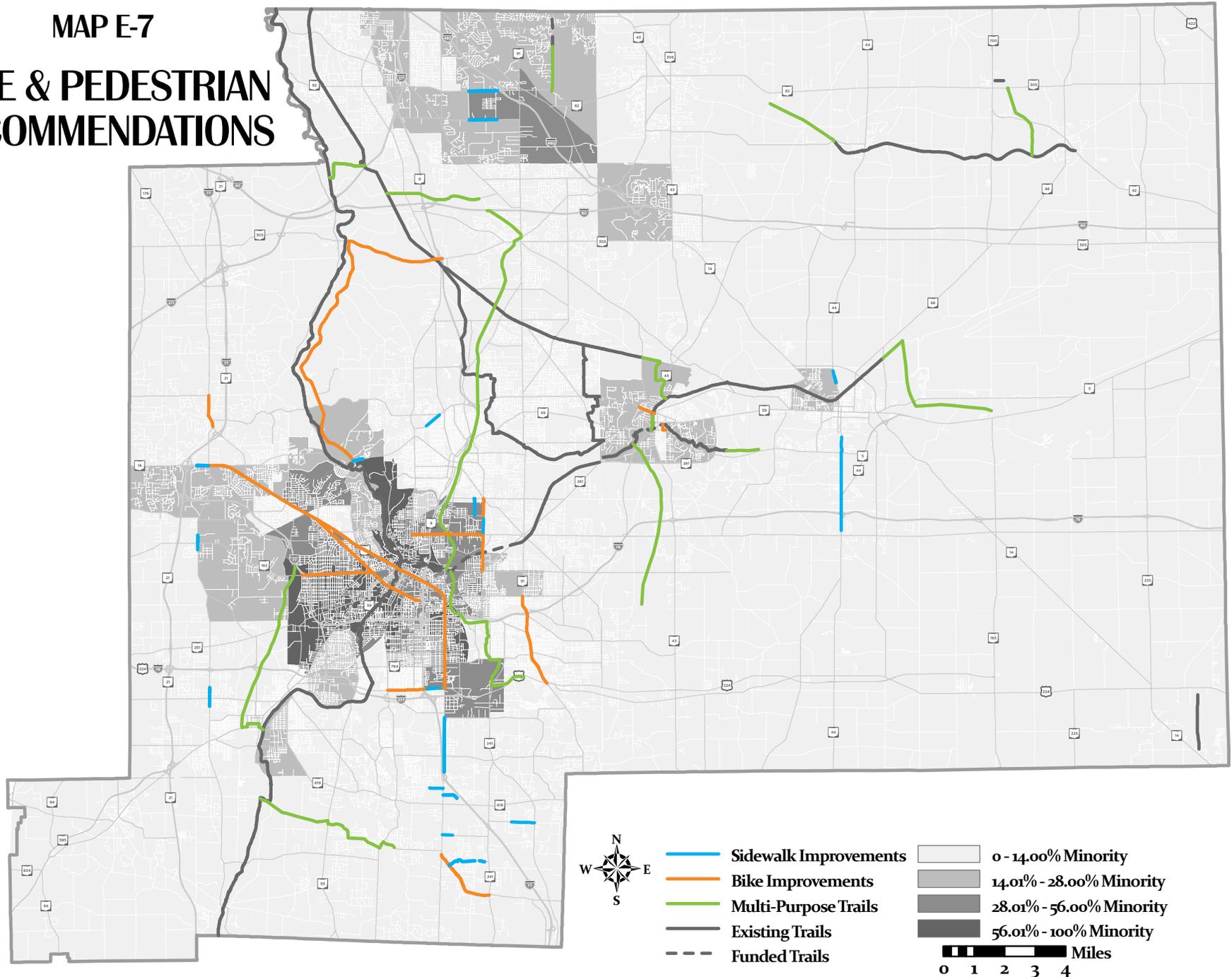
### Transportation Accessibility in Low-Income and Minority Neighborhoods

- Census tracts containing regionally significant low-income and minority populations in both Summit and Portage Counties are well served by the highway, public transportation and bicycle/pedestrian recommendations proposed in *TO2035*.
- In most cases, low-income and minority areas are better served by the proposed recommendations than the general population as a whole.

# MAP E-6 BIKE & PEDESTRIAN RECOMMENDATIONS



# MAP E-7 BIKE & PEDESTRIAN RECOMMENDATIONS



# APPENDIX F - SOCIAL, ECONOMIC & ENVIRONMENTAL FACTOR SCAN

Transportation plays an essential role in the social development, economic impact and environmental (SEE) characteristics of the area. The SEE factor assessment is a process to evaluate the effects the transportation system may have on the user, as well as the greater community. The transportation system should minimize the adverse impacts on human health, the economy and regionally significant environmental resources. Consideration of such impacts is not only required by law, but is simply good planning.

The purpose of evaluating SEE factors is to provide background information on the social, economic and environmental implications of the region that may be affected by *TO2035* and providing an overview for assessing transportation projects. The SEE factor inventory is maintained by AMATS utilizing GIS analysis. The inventory is illustrated on Maps F-1, F-2, and F-3 respectively for the greater Akron area and identifies the following factors:

**Social Characteristics** – hospitals, cemeteries, places of worship, nursing homes, public housing, schools and libraries.

**Economic Characteristics** – airports, airfield/helipads, National Register Historic sites, industrial parks, shopping centers, truck terminals, railroads and the Ravenna Arsenal in eastern Portage County.

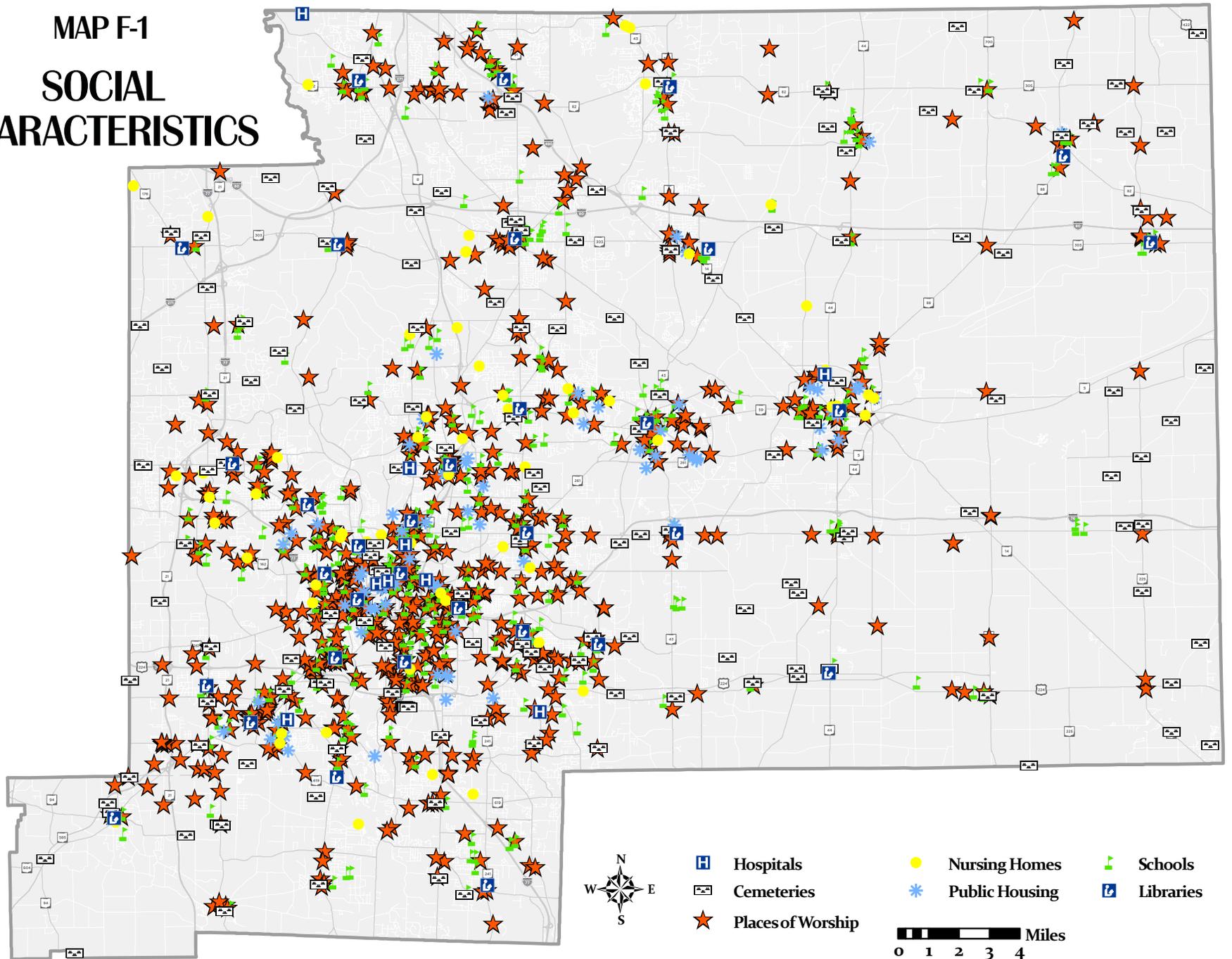
**Environmental Characteristics** – streams and rivers, scenic rivers, lakes and reservoirs, Ohio Lake Erie Basin/Ohio River Basin divide, parks and wetlands.

As projects move into further development stages requiring environmental analyses, SEE factors should be considered by project sponsors. This information can be made available to project sponsors electronically in ArcGIS shapefile format.

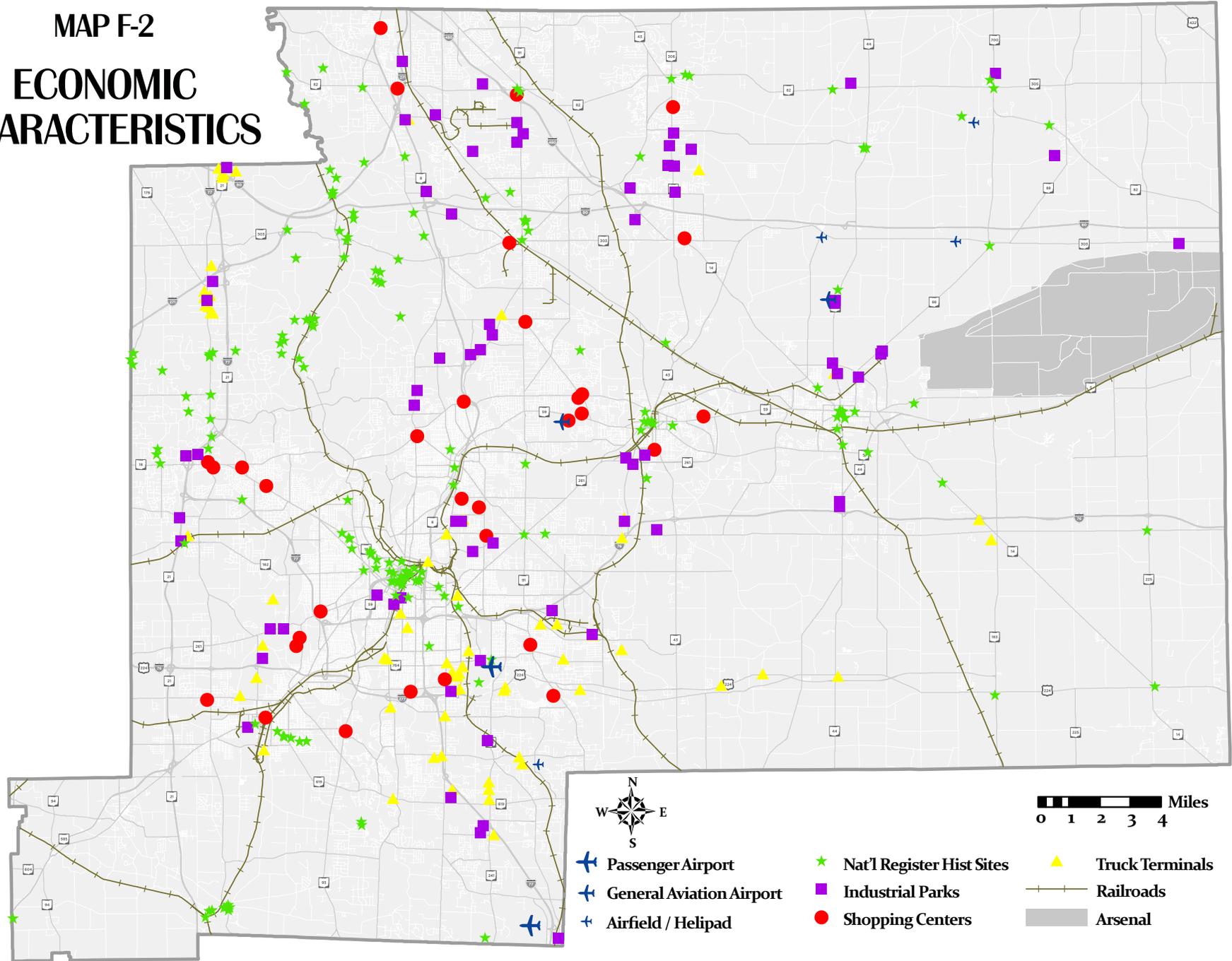
SEE factor information has been integrated into *Transportation Outlook 2035* by reviewing data from the following sources:

- *AMATS Land Use Inventory*
- *Harris Industrial Guide*
- Local departments of parks and recreation
- MetroParks serving Summit County
- *NEFCO Industrial Park Inventory*
- Ohio Department of Health's *Directory of Licensed Nursing Homes*
- Ohio Department of Natural Resources (ODNR)
- Ohio Department of Transportation, Division of Aviation's *Ohio Airport Directory*
- *Ohio Education Directory*
- U.S. Census Bureau
- U.S. Department of the Interior's *National Register of Historic Places*
- U.S. Geological Survey

# MAP F-1 SOCIAL CHARACTERISTICS

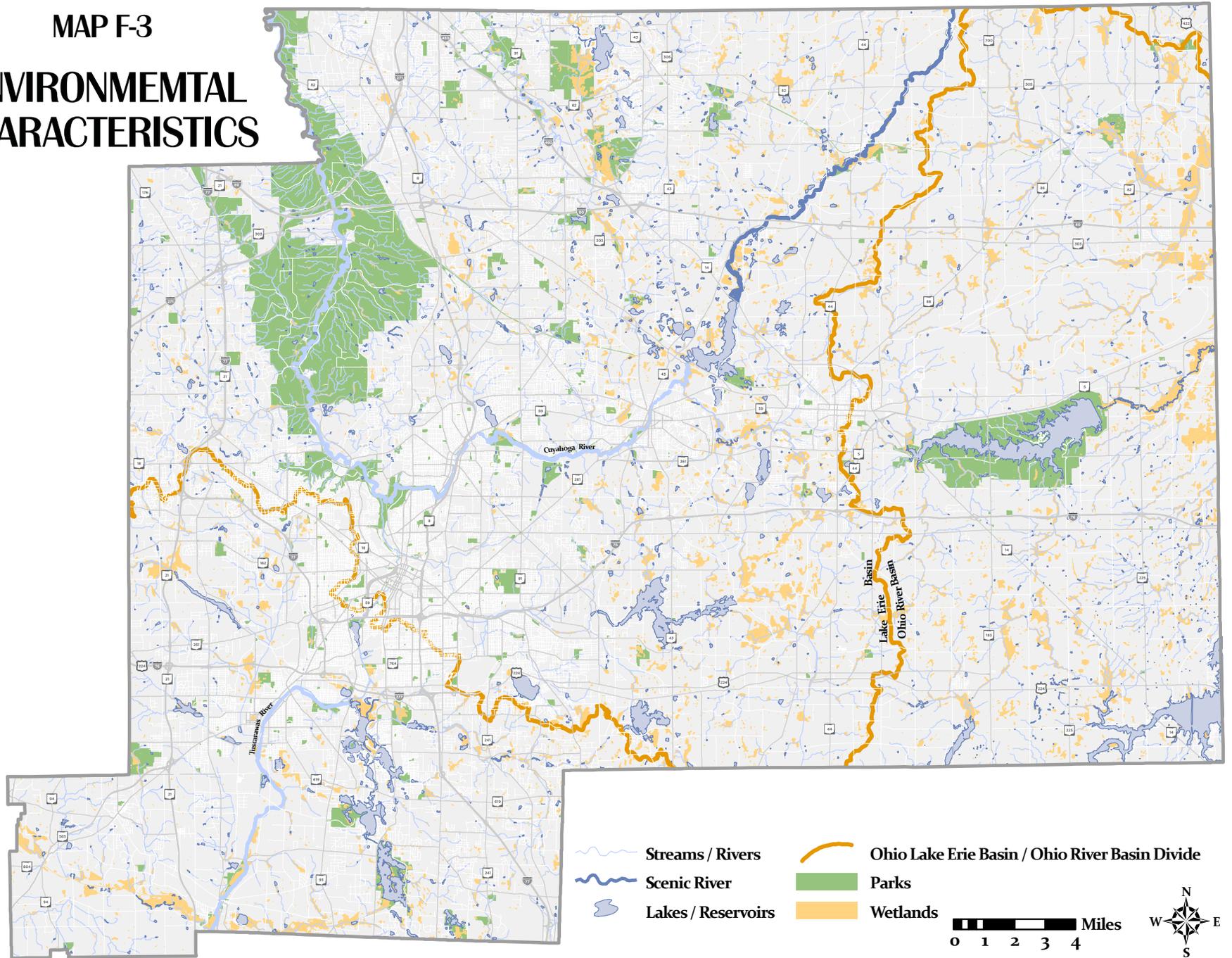


# MAP F-2 ECONOMIC CHARACTERISTICS



- N  
W E  
S
- Miles  
0 1 2 3 4
- Passenger Airport
- General Aviation Airport
- Airfield / Helipad
- Nat'l Register Hist Sites
- Industrial Parks
- Shopping Centers
- Truck Terminals
- Railroads
- Arsenal

# MAP F-3 ENVIRONMENTAL CHARACTERISTICS



# APPENDIX G - ENVIRONMENTAL MITIGATION

Transportation planning must reflect the desires of communities and take into account the impacts on the surrounding natural environment. Environmental mitigation involves activities that serve to avoid, minimize, or as a last resort reduce, eliminate or compensate for by replacing or providing substitute resources. To “mitigate” means to make less harsh or hostile. Mitigation is required for projects that use federal funds in order to minimize adverse impacts on certain natural resources and the environment.

AMATS is responsible for developing a discussion of environmental mitigation as part of *Transportation Outlook 2035 (TO2035)* to consider potential mitigation activities that are regional in scope. Through consultation with federal and state agencies, the discussion is the basis for considering the cumulative impacts of the recommended projects during the planning process.

By identifying regionally significant environmental resources in the planning stage of development, local jurisdictions can be informed early to avoid or at least reduce impacts to these resources. This in turn, could reduce project delays and increased costs of addressing regulatory requirements related to mitigation of environmental impacts.

## Potential Environmental Impacts

Transportation projects can have potential adverse impacts on the environment such as water resources, parks, threatened and endangered species, community impacts, hazardous substances, utilities and noise impacts near a project area. All projects recommended in *TO2035* should be analyzed more closely as they move into future stages of project development. A determination can then be made as to whether a project would result in adverse environmental impacts on the surrounding area.

Regionally significant environmental resources and categories are discussed below and should be considered in project development to analyze potential adverse environmental impacts.

- 1. Water Resources** – The region includes numerous streams and rivers, lakes, reservoirs and wetlands. One designated State Scenic River, the Upper Cuyahoga River, 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. The two major rivers in the region are the Cuyahoga and the Tuscarawas. The region’s water resources are shown on Map F-3 in Appendix F.
- 2. Parks and Natural Areas** – The region is home to the Cuyahoga Valley National Park in Summit County, several state and local parks, and wildlife and waterfowl preserves. The state parks in Portage County include Nelson Ledges, Tinkers Creek and West Branch. Summit County contains the Portage Lakes State Park as well as several nature preserves. The region’s parks are shown on Map F-3 in Appendix F.
- 3. Historic and Cultural Resources** – These resources include potential historic structures, archaeological sites and cemeteries. Historic sites are spread throughout the region with the greatest concentration in the urban areas of Akron, Kent and Ravenna. These resources are noted as National Register Historic Sites on Map F-2 in Appendix F.
- 4. Threatened and Endangered Species** – Many species receiving federal or state protection are tied closely to their habitats, and land use changes have been the most common cause for decline in species’ range and diversity. The region’s ecosystem supports threatened and endangered plants and wildlife such as the Northern monkshood, the Bald eagle, Indiana bat, and 8 other federal species that are identified in the table and shown in photos on the following page.
- 5. Terrestrial Habitat** – Transportation projects should consider the impacts on terrestrial habitats that serve as important ecosystems for numerous plant and animal species. These include vegetative plants, hardwood forests and wooded areas, marshes, field crops, farmland and many other plant species.

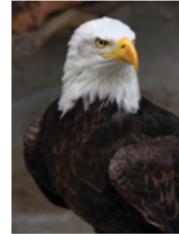
## Threatened and Endangered Species in the AMATS Region

Listed Species	Scientific Name	Federal Status	Summit	Portage	Wayne
<b>Plants</b>					
Handsome Sedge	Carex formosa	Concern		X	
Northern Monkshood	Aconitum noveboracense	Threatened	X	X	
Prairie Fringed Orchid	Plantanthera leucophea	Threatened			X
<b>Animals</b>					
Bald Eagle	Haliaeetus leucocephalus	Concern	X	X	X
Black Tern	Chlidonias niger	Concern	X	X	
Cerulean Warbler	Dendroica cerulea	Concern		X	X
Eastern Sand Darter	Ammocrypta pellucida	Concern		X	
Indiana Bat	Myotis sodalis	Endangered	X		X
Kirtland's Snake	Clonophis kirtlandi	Concern			X
Paddlefish	Polyodon spathula	Concern	X		
Peregrine Falcon	Falco peregrinus	Concern	X		

Source: www.dnt.state.oh.us

## Federally Threatened and Endangered Species and Those of Concern in the Greater Akron Area:

### Animals



Bald Eagle



Black Tern



Cerulean Warbler



Eastern Sand Darter



Indiana Bat



Kirtland's Snake



Paddlefish



Peregrine Falcon

### Plants



Handsome Sedge



Northern Monkshood



Prairie Fringed Orchid

**6. Community Impacts** – Impacts to public and semi-public facilities should be addressed in environmental assessments for transportation projects. Community impacts to consider include hospitals, places of worship, nursing homes, public housing, schools, libraries, industrial areas and shopping centers. The region’s community facilities are shown on Maps F-1 and F-2 in Appendix F.

**7. Hazardous Materials** – Identifying hazardous waste sites is important to the transportation planning process, primarily in the acquisition of right-of-way. Financial liability issues for contaminated property as well as substantial delays to a project can occur if significant cleanup must take place before highway construction can begin.

Superfund is the name given to the environmental program established to address abandoned hazardous waste sites. It was established by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for identifying and cleaning up hazardous sites, and is overseen by the U.S. EPA. The Superfund cleanup process is complex and involves taking steps to assess sites, place them on the National Priorities List (NPL), and establish and implement appropriate cleanup plans. Superfund also identifies non-NPL sites that are potentially contaminated with known or suspected releases of hazardous substances. At non-NPL sites, U.S. EPA can also take shorter-term cleanup actions under the emergency removal program.

The greater Akron region identifies two NPL Superfund sites and 31 non-NPL sites. They are listed in the following table and shown on Map G-1.

**8. Utilities** - Transportation projects should consider the impacts on public utilities that would be affected by a proposed project. Utilities such as gas pipelines, sewer and water systems, electric transmission lines or landfill areas may need to be assessed in further stages of project development. The region’s sewer system is shown on Map G-2.

**9. Noise** – Transportation projects that could result in substantially increased noise levels nearby are required by federal and state regulations to consider attenuating the increased noise. Environmental studies in project development may need to consider noise abatement to protect specific properties. These are known as “sensitive receptors” (i.e. residences, schools, hospitals, libraries, etc.) within screening distance of a project area.

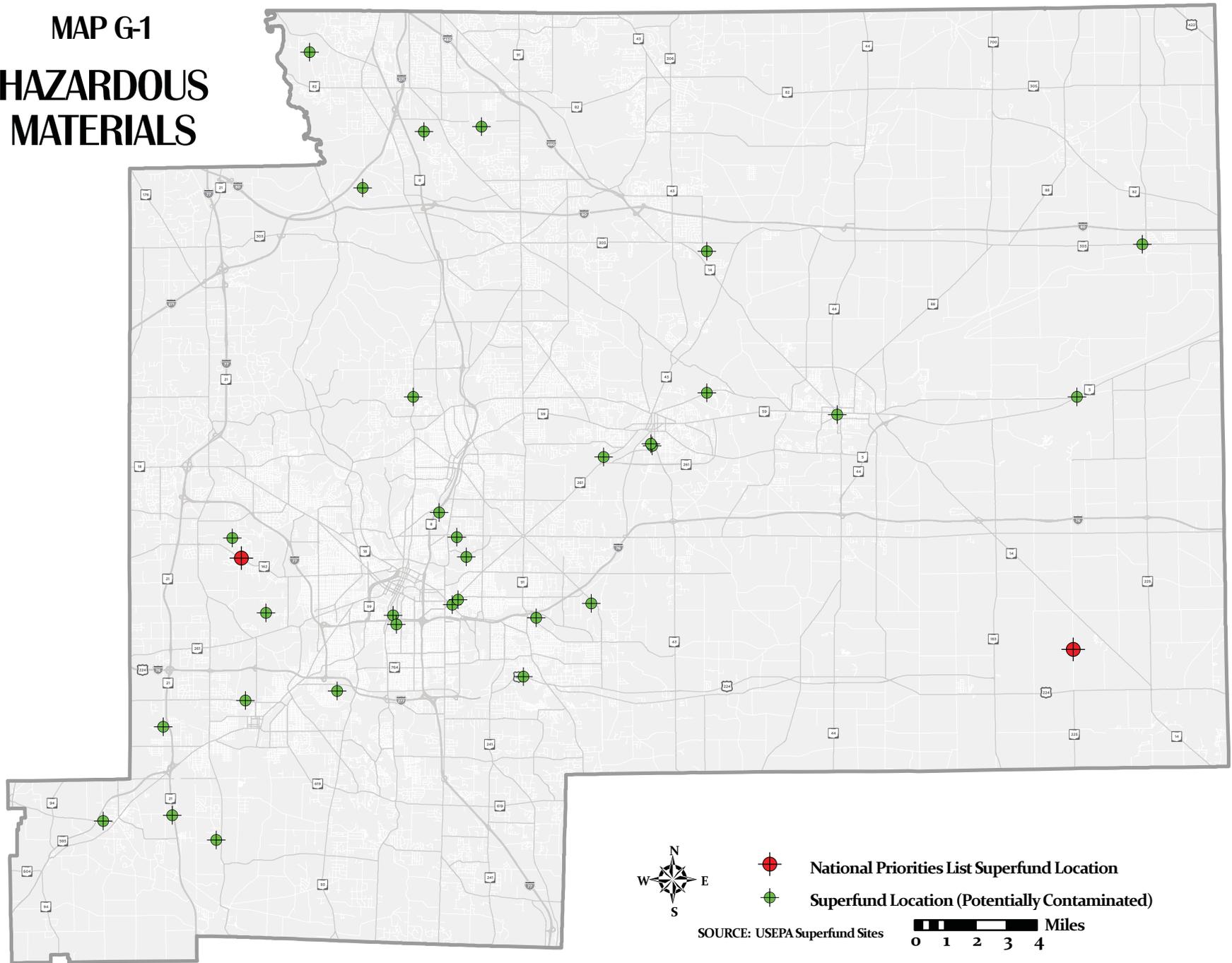
SUPERFUND SITES				
Site Name	Address	City or Twp	Non-NPL	NPL
<b>PORTAGE COUNTY</b>				
Holden School Vapor Intrusion	132 West School Rd	Kent	X	
Jerry’s Professional Cleaners	1002 Franklin Ave	Kent	X	
Old Kent City Dump	Brady Lake Rd	Franklin Township	X	
Ravenna Fire Department Mercury Spill	220 Park Way	Ravenna	X	
Streetsboro High School Mercury Spill	1900 Annalane Dr	Streetsboro	X	
Summit National	1240 Alliance Rd	Deerfield Township	X	X
Tompkin’s Corp	1313 Middlebury Rd	Kent	X	
US Army Ravenna Ammunition Pit	8451 State Rt 5	Ravenna	X	
Wyndham Alloys	9415 State Rt 303 (West Center Rd)	Windham	X	
<b>SUMMIT COUNTY</b>				
American Freight Systems Inc.	2640 Gilchrist Rd	Akron	X	
Anaconda Avenue Georgeoff Site	18 Anaconda	Akron	X	
Bedford Anodizing	7860 Empire Pkwy	Macedonia	X	
Bessie Williams Landfill	2020 Knox Blvd	Copley	X	
Copley Square Plaza	2777 Copley Rd	Copley	X	X
Corwin Road Mercury Spill	975 Corwin Ave	Akron	X	
Hanna Chemical	680 Miami St	Akron	X	
Krejci Dump	814 West Hines Hill Rd	Boston Heights	X	
Laird Avenue Mercury Spill	1146 Laird Ave	Akron	X	
Marathon Pipe Line Spill	2809 Baughman Rd	Clinton	X	
No Name Barberton Site 3	745 Norton	Barberton	X	
Novacor Chemical Ink aka Polysar Plastic	1122 Jacoby Rd	Copley	X	
Ohio Tank Pro	4475 South Hametown Rd	Norton	X	
Sagamore Hills Mercury	1039 Linden Hill Ct	Sagamore Hills	X	
Sam Winer Motors	3417 East Waterloo Rd	Akron	X	
Southeast Ave Mercury Spill	1596 Southeast Ave	Tallmadge	X	
State Road Mercury Spill	3566 State Rd	Cuyahoga Falls	X	
Summit County Jail Mercury Spill	205 East Crosier St	Akron	X	
Summit Equipment & Supplies Inc.	875 Ivor Ave	Akron	X	
T P Long Chem Inc	1092 Evans Ave	Akron	X	
Tri-State Plating	183 North Case Ave	Akron	X	
Univar Hcl Spill	1686 Highland Rd	Twinsburg	X	
<b>WAYNE COUNTY</b>				
Cecil’s Transmission Repair	209 Collier Rd	Doylestown	X	
Ross Landfill	18246 Grill Rd	Doylestown	X	

Source: [www.epa.gov/superfund/sites](http://www.epa.gov/superfund/sites)

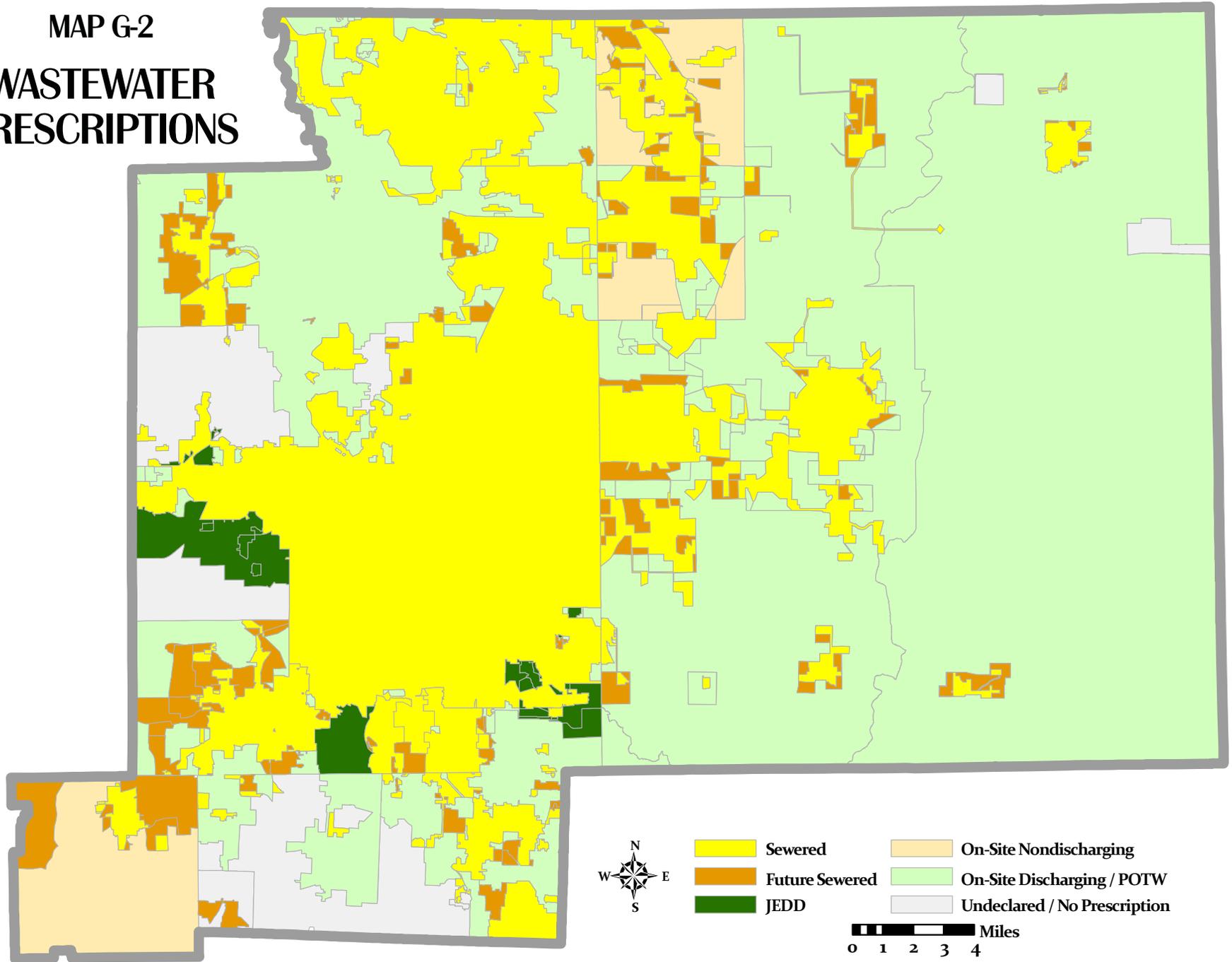
Non-NPL - Sites potentially contaminated under National Priorities List

NPL -  Sites on National Priorities List

# MAP G-1 HAZARDOUS MATERIALS



# MAP G-2 WASTEWATER PRESCRIPTIONS



## Environmental Mitigation Activities

Environmental mitigation guidelines and activities address potential project impacts to environmental resources. A number of mitigation activities that are not project specific are discussed in the following section. Detailed assessment of individual projects in future stages of development may emphasize the importance of certain mitigation efforts, where needed. It is the policy of AMATS to require that all federally funded projects comply with applicable environmental rules as a condition to receiving funding.

### Stream and Wetland Mitigation

Wetlands are an integral part of the ecosystem and regional watersheds. They provide a link between land and water resources, 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.

The ODOT-Office of Environmental Services and project consultants coordinate all stream and wetland mitigation projects. The general procedures for establishing required mitigation for streams and wetlands begins with a determination of mitigation needs in an Ecological Survey Report (ESR). Analyses would then be completed for potential mitigation opportunities within and near the project area (one mile). A final mitigation plan would then be developed for submission to agencies prior to permit authorization. Once construction of the mitigation project begins, monitoring would be performed by ODOT to assure successful development and to meet waterway permit conditions.

Wetland mitigation measures may include mitigation banking, stream and wetland creation, restoration, or preservation, and possibly even preservation of upland buffer adjacent to stream and wetland resources. Wetland mitigation banking is a process that helps limit negative impacts to wetland resources. Banking can be used when affected wetlands cannot be preserved, allowing for the restoration, creation or enhancement of wetlands or other aquatic resources at a different location as compensation.

### Parks and Natural Areas Mitigation

Section 4(f) of the Department of Transportation Act requires that special effort be made to preserve public park and recreation lands, wildlife and waterfowl

refuges, and historic sites where federally-funded transportation projects are involved.

Mitigation measures may involve a replacement of land and/or facilities of comparable value and function, or monetary compensation that could be used to enhance the remaining land. Mitigation of historic sites usually consists of measures to preserve the historic integrity of the site and is agreed to with FHWA. Mitigation for common Section 4(f) resource impacts could include:

- Improve access or expansion of parking areas
- Landscape or screening of resource
- Installation of beautification enhancements such as park benches, trash receptacles, signage, etc.
- Maintenance of traffic accommodation or rerouting of traffic
- Direct compensation for improvements to on-site resources
- Design refinements

### Threatened and Endangered Species Mitigation

The Endangered Species Act and Ohio Revised Code are the specific federal and state legislation that provides for the protection and conservation of plants and animals within Ohio. These laws dictate that roadway projects will build and operate with no, or minimal, impacts to protected species and their habitat.

There are a variety of mitigation techniques that can be used to protect listed species. Common mitigation options available for projects include:

- Restricting the clearing of trees to the period between September 15 and April 15 to avoid potential impacts to roosting Indiana bats
- Survey to identify the presence or absence of endangered animal and plant species near construction areas
- Prevention of disturbance of Indiana bats from blasting activities near sensitive areas
- Establishing buffer areas around existing habitat
- Include construction and post construction plan notes requiring adherence to ODOT's Construction and Material Specifications for Sedimentation and Erosion Control

### Hazardous Materials Mitigation

Any known or potential hazardous waste sources near a project area should be identified through a preliminary environmental evaluation and alternatives to

avoid the site must be explored. If the site cannot be avoided, an assessment of the problem and sampling should be conducted.

When a hazardous waste site is identified, the type of regulatory action it is subject to and any environmental databases that it appears on should be specified. Additional mitigation measures include:

- Environmental site assessment screenings and other required assessments will be conducted on a project-by-project basis
- Unavoidable encroachment on an identified hazardous site will be mitigated according to all applicable federal, state and local requirements

### Stormwater Mitigation

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground that can pick up debris, chemicals and other pollutants. This material flows into a storm sewer system or directly to a lake, stream, river or wetland.

There are a number of mitigation techniques that can be used to curb stormwater runoff, including grass swales, filter strips, detention basins and retention ponds. Grass swales and filter strips are grasses and other vegetation that line a ditch or channel near impervious surfaces to capture stormwater runoff and filter it into the ground. These are low cost stormwater management activities that should be used where possible.

Detention basins and retention ponds are also used to manage stormwater runoff. Detention basins are generally used in large residential or commercial developments to capture large amounts of water temporarily and slowly filter it back into the ground.

The City of Akron's proposed sewer project is an example of a stormwater mitigation measure in the region that would curtail much of the combined sewer overflows that empty into the Cuyahoga and Little Cuyahoga rivers and the Ohio & Erie Canal. The plan calls for the construction of a giant tunnel to store sewer overflows. The project would begin near West Exchange Street and the Akron Innerbelt and extend north ending just south of Memorial Parkway. The tunnel would be able to store up to 25.6 million gallons of stormwater and raw sewage after heavy rains and snowmelts. Other planned projects around the city include the construction of ten concrete storage basins to control the overflows, relief sewers, high-rate treatment facilities and an expansion of the city's sewage

treatment plant on Akron-Peninsula Road.

### Noise Mitigation

Transportation systems are a significant source of noise impacts in areas adjacent to highways, and careful consideration should be given to mitigate potential adverse impacts on surrounding communities.

The FHWA developed noise regulations that apply to highway construction projects, as required, and contained in 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise. The regulations require a review of traffic noise impacts in areas adjacent to federally-aided highways for proposed road projects on a new location or widening project. If the highway agency identifies impacts, it must incorporate all feasible and reasonable noise abatement into the project design.

Noise reduction measures include creating buffer zones, planting vegetation, the consideration of road elevation and constructing barriers. Noise barriers are solid obstructions built between the highway and adjacent land uses that include noise walls, earth mounds or vegetation. While earth mounds and vegetation have a natural appearance, they can require large amounts of land. Noise walls take less space, but are expensive, require maintenance, and can be visually displeasing. The following noise mitigation steps should be considered during the planning and design of a highway project:

- Identification of traffic noise impacts and examination of potential mitigation measures
- The incorporation of reasonable and feasible noise mitigation measures into the highway project
- Coordination with local officials to provide helpful information on compatible land use planning and control

### Environmental Consultation Activities

It is important to give other agencies the opportunity to address any environmental concerns on recommended projects in *TO2035*. The following environmental resource agencies were notified of the availability of the draft *TO2035* and encouraged to review the recommendations.

# ENVIRONMENTAL RESOURCE AGENCIES CONTACT LIST

## **Akron Regional Air Quality Management District**

146 S. High St., Suite 904  
Akron, OH 44308  
[www.araqmd.org](http://www.araqmd.org)  
[ARAQMD@schd.org](mailto:ARAQMD@schd.org)

## **Cuyahoga Valley National Park**

15610 Vaughn Rd.  
Brecksville, OH 44141  
[www.nps.gov/cuva/index.htm](http://www.nps.gov/cuva/index.htm)

## **Federal Highway Administration**

200 N. High St., Rm. 328  
Columbus, OH 43215-2408  
[www.fhwa.dot.gov/ohdiv](http://www.fhwa.dot.gov/ohdiv)  
[www.fhwa.dot.gov/contact](http://www.fhwa.dot.gov/contact)

## **Metro Parks, Serving Summit County**

975 Treaty Line Rd.  
Akron, OH 44313  
[www.summitmetroparks.org](http://www.summitmetroparks.org)  
[www.summitmetroparks.org/contactus.aspx](http://www.summitmetroparks.org/contactus.aspx)

## **Ohio Department of Natural Resources (ODNR)**

Division of Natural Areas and Preserves/Scenic Rivers  
2045 Morse Rd., Bldg. F1  
Columbus, OH 43229  
[www.ohiodnr.com/Home/Home/tabid/867/Default.aspx](http://www.ohiodnr.com/Home/Home/tabid/867/Default.aspx)  
[www.ohiodnr.com/tabid/877/Default.aspx](http://www.ohiodnr.com/tabid/877/Default.aspx)

## **ODNR**

Division of Real Estate and Land Management  
2045 Morse Rd., Bldg. C4  
Columbus, OH 43229  
[www.ohiodnr.com/tabid/941/Default.aspx](http://www.ohiodnr.com/tabid/941/Default.aspx)  
[www.ohiodnr.com/tabid/10750/default.aspx](http://www.ohiodnr.com/tabid/10750/default.aspx)

## **ODNR**

Division of Water - Floodplain Management Program  
2045 Morse Rd., Bldg. B  
Columbus, OH 43229  
[www.dnr.state.oh.us/tabid/3511/Default.aspx](http://www.dnr.state.oh.us/tabid/3511/Default.aspx)  
[dswc@dnr.state.oh.us](mailto:dswc@dnr.state.oh.us)

## **ODNR**

Division of Watercraft - Northeast Region Scenic Rivers  
2010 Milton Blvd., Bldg. C1  
P.O. Box 441  
Newton Falls, OH 44444  
[www.dnr.state.oh.us/watercraft](http://www.dnr.state.oh.us/watercraft)  
[watercraft@dnr.state.oh.us](mailto:watercraft@dnr.state.oh.us)

## **ODNR**

Division of Wildlife  
912 Portage Lakes Dr.  
Akron, OH 44319  
[www.ohiodnr.com/wildlife](http://www.ohiodnr.com/wildlife)  
[wildinfo@dnr.state.oh.us](mailto:wildinfo@dnr.state.oh.us)

## **Ohio Department of Transportation (ODOT)**

Office of Environmental Services  
1980 W. Broad St.  
Columbus, OH 43223  
[www.dot.state.oh.us/Divisions/Planning/Environment/Pages/default.aspx](http://www.dot.state.oh.us/Divisions/Planning/Environment/Pages/default.aspx)  
[Larry.Hoffman@dot.state.oh.us](mailto:Larry.Hoffman@dot.state.oh.us)

## **Ohio Environmental Protection Agency (OEPA)**

Central District Office - Lazarus Government Center  
50 W. Town St., Suite 700  
Columbus, OH 43215  
[www.epa.state.oh.us/Districts.aspx](http://www.epa.state.oh.us/Districts.aspx)  
[webmanager@epa.state.oh.us](mailto:webmanager@epa.state.oh.us)

## **Ohio EPA**

Source Water Assessment and Protection Program -  
Division of Drinking and Ground Waters  
P.O. Box 1049  
50 W. Town St., Suite 700  
Columbus, OH 43215  
[www.epa.ohio.gov/ddagw/DrinkingandGroundWaters.aspx](http://www.epa.ohio.gov/ddagw/DrinkingandGroundWaters.aspx)  
[www.epa.state.oh.us/Contact.aspx](http://www.epa.state.oh.us/Contact.aspx)

## **Ohio EPA**

Northeast District Office  
2110 E. Aurora Rd.  
Twinsburg, OH 44087  
[www.epa.state.oh.us/districts.aspx](http://www.epa.state.oh.us/districts.aspx)  
[www.epa.state.oh.us/Contact.aspx](http://www.epa.state.oh.us/Contact.aspx)

## **Ohio & Erie Canalway Coalition**

47 W. Exchange St.  
Akron, OH 44308  
[www.ohioeriecanal.org](http://www.ohioeriecanal.org)  
[www.ohioeriecanal.org/contact.html](http://www.ohioeriecanal.org/contact.html)

## **Ohio Historic Preservation Office**

567 E. Hudson St.  
Columbus, OH 43211-1030  
[www.ohiohistory.org/ohio-historic-preservation-office](http://www.ohiohistory.org/ohio-historic-preservation-office)  
[www.ohiohistory.org/about-us/contact](http://www.ohiohistory.org/about-us/contact)

**Portage County Health Department**  
Environmental Division  
County Administration Bldg., 3rd Floor  
449 S. Meridian St.  
Ravenna, OH 44266  
[www.co.portage.oh.us/healthdepartment.htm](http://www.co.portage.oh.us/healthdepartment.htm)  
[pchd@portageco.com](mailto:pchd@portageco.com)

**Portage County Soil & Water Conservation District**  
6970 SR 88  
Ravenna, OH 44266  
[www.portageswcd.org/](http://www.portageswcd.org/)  
[elong@portageswcd.org](mailto:elong@portageswcd.org)

**Portage County Water Resources**  
County Administration Bldg., 3rd Floor  
449 S. Meridian St.  
P.O. Box 1217  
Ravenna, OH 44266  
[www.co.portage.oh.us/waterresources.htm](http://www.co.portage.oh.us/waterresources.htm)  
[www.co.portage.oh.us/waterresources.htm#Contact](http://www.co.portage.oh.us/waterresources.htm#Contact)

**Portage Park District**  
705 Oakwood St.  
Ravenna, OH 44266  
[www.portageparkdistrict.org](http://www.portageparkdistrict.org)  
[www.portageparkdistrict.org/contact.htm](http://www.portageparkdistrict.org/contact.htm)

**Summit County Department of Environmental Services**  
2525 State Rd.  
Cuyahoga Falls, OH 44223  
[www.co.summit.oh.us/index.php/departments/  
environmental-services](http://www.co.summit.oh.us/index.php/departments/environmental-services)

**Summit County Engineer**  
Floodplain Management  
538 E. South St.  
Akron, OH 44311  
[www.engineer.co.summit.oh.us](http://www.engineer.co.summit.oh.us)  
[www.engineer.co.summit.oh.us/contact-us](http://www.engineer.co.summit.oh.us/contact-us)

**Summit County Public Health**  
Division of Environmental Health  
1100 Graham Rd. Circle  
Stow, OH 44224  
[www.scphoh.org](http://www.scphoh.org)  
[www.scphoh.org/Programs\\_Contact.html](http://www.scphoh.org/Programs_Contact.html)

**Summit Soil & Water Conservation District**  
2525 State Rd.  
Cuyahoga Falls, OH 44223  
[www.summitswcd.org](http://www.summitswcd.org)  
[staff@summitswcd.org](mailto:staff@summitswcd.org)

**U.S. Army Corps of Engineers**  
Huntington District  
502 Eighth St.  
Huntington, WV 25701  
[www.lrh.usace.army.mil](http://www.lrh.usace.army.mil)  
[www.lrh.usace.army.mil/Contact.aspx](http://www.lrh.usace.army.mil/Contact.aspx)

**U.S. Department of Agriculture**  
Natural Resources Conservation Service  
6970 SR 88  
Ravenna, OH 44266  
[www.oh.nrcs.usda.gov](http://www.oh.nrcs.usda.gov)  
[www.oh.nrcs.usda.gov/contact](http://www.oh.nrcs.usda.gov/contact)

**U.S. Environmental Protection Agency**  
Region 5 – Cleveland Office  
25089 Center Ridge Rd.  
Westlake, OH 44145  
[www.epa.gov/aboutepa/region5.html](http://www.epa.gov/aboutepa/region5.html)  
[www.epa.gov/epahome/comments.htm](http://www.epa.gov/epahome/comments.htm)

**U.S. Geological Survey**  
Ohio District  
6480 Doubletree Ave.  
Columbus, OH 43229  
[www.usgs.gov/aboutusgs](http://www.usgs.gov/aboutusgs)  
[www.usgs.gov/ask/index.php](http://www.usgs.gov/ask/index.php)

**U.S. National Park Service**  
Midwest Regional Office  
601 Riverfront Dr.  
Omaha, NE 68102  
[www.nps.gov/index.htm](http://www.nps.gov/index.htm)  
[www.nps.gov/contacts.htm](http://www.nps.gov/contacts.htm)

**Wayne County Soil & Water Conservation District**  
County Administration Bldg.  
428 W. Liberty St.  
Wooster, OH 44691  
[www.wayneswcd.org](http://www.wayneswcd.org)  
[info@wayneswcd.org](mailto:info@wayneswcd.org)



# APPENDIX H - PUBLIC INVOLVEMENT

Public involvement is a vital component in transportation planning. Public participation provides citizens a way to voice ideas and needs, access to the decision making process, and information on the transportation planning process. It also gives the opportunity to those who are traditionally unheard, such as minority and low-income populations, a voice in the planning process.

AMATS maintains a *Public Participation Plan* to guide public involvement. The purpose of the *Public Participation Plan* is to engage the public in developing and updating the Regional Transportation Plan through a variety of means to provide early and continuing involvement. It requires that at least two public meetings are held, one in Summit County and one in Portage County, copies of the draft Plan are available for a 30-day comment period, news releases are sent out, and newspaper ads are placed. In addition, the Citizens Involvement Committee (CIC) meets throughout the year to advise and provide input to the Policy Committee. Membership on the CIC is open to all residents.

The public participation process to update *Transportation Outlook 2035 (TO2035)* is consistent with the AMATS *Public Participation Plan*. AMATS held two public meetings in April 2013. The following is a summary of these meetings.

The 45-day public involvement period began on Thursday, March 21, 2013 and ended on Monday, May 6, 2013. AMATS scheduled public meetings at two locations for the dates of April 9 and 18, 2013. These meetings were to present the draft of *TO2035* and provide a forum for public questions and comments. A press release, written notices and newspaper advertisements were submitted to notify the public of the public involvement period and meetings. The draft *TO2035* document was available at the offices of AMATS, PARTA and ODOT District 4 as well as on the AMATS website.

The meetings began with a 20-minute presentation by AMATS. The presentation provided background information about AMATS, major transportation issues facing the region and the draft recommendations in *TO2035*. The presentation was followed by an open question-and-answer period. A total of five people attended the two public involvement meetings. There were several questions, but no comments on the draft *TO2035*.

The meetings were scheduled at locations that would be accessible to the entire region, including low-income and minority groups. Two evening meetings were scheduled in public libraries. The meetings were scheduled as follows:

1. April 9, 2013 at 6:00 pm at the Main Library of the Summit County Public Library in Akron.
2. April 18, 2013 at 6:00 pm at the Kent Free Library in Kent.



This report was prepared by the Akron Metropolitan Area Transportation Study (AMATS) in cooperation with the U.S. Department of Transportation, the Ohio Department of Transportation, and the Village, City and County governments of Portage and Summit Counties and a portion of Wayne County. The contents of this report reflect the views of AMATS, which is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view and policies of the Ohio and/or U.S. Department of Transportation. This report does not constitute a standard, specification or regulation.



Akron Metropolitan Area Transportation Study  
806 CitiCenter | 146 S High Street  
Akron, Ohio 44308-1423  
(330) 375-2436 | Fax: (330) 375-2275  
[www.amatsplanning.org](http://www.amatsplanning.org)