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.
POPCULATION

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.

<table>
<thead>
<tr>
<th>Population</th>
<th>2000</th>
<th>2010</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMATS</td>
<td>703,038</td>
<td>710,357</td>
<td>1.2%</td>
</tr>
<tr>
<td>Summit County</td>
<td>542,899</td>
<td>541,781</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Portage County</td>
<td>152,061</td>
<td>161,419</td>
<td>6.2%</td>
</tr>
<tr>
<td>Chippewa Twp</td>
<td>7,078</td>
<td>7,157</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

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.
AMATS POPULATION CHANGE 2000 - 2010

Change in %

-19% - 46%
19% - 46%
11% - 46%
9% - 18%
1% - 8%
-1% - 8%
-9% - -18%
-16% - -19%
(-4%) - (-16%)

Transportation Outlook 2035
NET DOMESTIC MIGRATION TO THE AMATS AREA 2005 - 2010

NET MIGRATION

- More than (3000)
- (1001 - 3000)
- (251 - 1000)
- (1 - 250)
- 1 - 250
- 251 - 1000
- 1001 - 5000
- More than 5000

Source: IRS Migration Data
Note: Net Migration calculated based upon information provided only for counties sending and/or receiving at least 10 migrants in any one year.
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

<table>
<thead>
<tr>
<th>Metropolitan Statistical Area</th>
<th>2010 MSA Population</th>
<th>Median Household Income</th>
<th>% of Pop Age &lt; 18</th>
<th>% of Pop Age 65+</th>
<th>Minority %</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>308,745,538</td>
<td>$ 50,046</td>
<td>24.0%</td>
<td>13.0%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Ohio</td>
<td>11,536,504</td>
<td>$ 45,090</td>
<td>23.7%</td>
<td>14.1%</td>
<td>17.3%</td>
</tr>
<tr>
<td>Akron, OH MSA</td>
<td>703,200</td>
<td>$ 46,521</td>
<td>22.4%</td>
<td>14.2%</td>
<td>16.7%</td>
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<tr>
<td>Canton-Massillon, OH MSA</td>
<td>404,422</td>
<td>$ 42,365</td>
<td>22.0%</td>
<td>16.3%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Cleveland-Elyria-Mentor, OH MSA</td>
<td>2,077,240</td>
<td>$ 46,232</td>
<td>23.3%</td>
<td>15.2%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Dayton, OH MSA</td>
<td>841,502</td>
<td>$ 43,832</td>
<td>23.0%</td>
<td>14.9%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Toledo, OH MSA</td>
<td>651,429</td>
<td>$ 41,583</td>
<td>23.5%</td>
<td>13.4%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Youngstown-Warren-Boardman, OH-PA MSA</td>
<td>506,773</td>
<td>$ 39,240</td>
<td>21.8%</td>
<td>17.8%</td>
<td>14.3%</td>
</tr>
<tr>
<td><strong>Out of State Peers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann Arbor, MI MSA</td>
<td>344,791</td>
<td>$ 55,880</td>
<td>20.0%</td>
<td>10.1%</td>
<td>24.9%</td>
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<tr>
<td>Grand Rapids-Wyoming, MI MSA</td>
<td>771,460</td>
<td>$ 47,040</td>
<td>25.0%</td>
<td>11.7%</td>
<td>16.9%</td>
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<tr>
<td>Madison, WI MSA</td>
<td>568,593</td>
<td>$ 57,594</td>
<td>22.0%</td>
<td>10.9%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Rochester, NY MSA</td>
<td>1,054,445</td>
<td>$ 50,211</td>
<td>22.6%</td>
<td>14.1%</td>
<td>18.3%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau

Median Age by County

% of Population Age 65+

Source: U.S. Census Bureau

– 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.)
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 Bachelors 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 ongoing, 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

Source: Ohio Department of Job & Family Services
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

<table>
<thead>
<tr>
<th>NAICS Code</th>
<th>Industry Description</th>
<th>QCEW Jobs 2010</th>
<th>Growth Rate Used</th>
<th>2035 Jobs Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Agriculture, Forestry and Hunting</td>
<td>257</td>
<td>-8.0%</td>
<td>236</td>
</tr>
<tr>
<td>21</td>
<td>Mining</td>
<td>333</td>
<td>-10.3%</td>
<td>299</td>
</tr>
<tr>
<td>22</td>
<td>Utilities</td>
<td>1,821</td>
<td>25.2%</td>
<td>2,280</td>
</tr>
<tr>
<td>23</td>
<td>Construction</td>
<td>9,957</td>
<td>15.8%</td>
<td>11,530</td>
</tr>
<tr>
<td>31-33</td>
<td>Manufacturing - Aggregated</td>
<td>37,736</td>
<td>19.7%</td>
<td>45,170</td>
</tr>
<tr>
<td>42</td>
<td>Wholesale Trade</td>
<td>15,635</td>
<td>6.7%</td>
<td>16,683</td>
</tr>
<tr>
<td>44-45</td>
<td>Retail Trade - Aggregated</td>
<td>33,300</td>
<td>7.5%</td>
<td>35,798</td>
</tr>
<tr>
<td>48-49</td>
<td>Transportation &amp; Warehousing - Aggregated</td>
<td>9,780</td>
<td>23.8%</td>
<td>12,108</td>
</tr>
<tr>
<td>51</td>
<td>Information</td>
<td>4,848</td>
<td>11.5%</td>
<td>5,406</td>
</tr>
<tr>
<td>52</td>
<td>Finance and Insurance</td>
<td>9,197</td>
<td>11.0%</td>
<td>10,109</td>
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<tr>
<td>53</td>
<td>Real Estate and Rental and Leasing</td>
<td>3,054</td>
<td>13.6%</td>
<td>3,469</td>
</tr>
<tr>
<td>54</td>
<td>Professional, Scientific and Technical Services</td>
<td>14,073</td>
<td>67.5%</td>
<td>23,572</td>
</tr>
<tr>
<td>55</td>
<td>Management of Companies and Enterprises</td>
<td>16,314</td>
<td>-2.8%</td>
<td>15,857</td>
</tr>
<tr>
<td>56</td>
<td>Administration and Support and Waste Management and Remediation Services</td>
<td>16,588</td>
<td>7.5%</td>
<td>17,832</td>
</tr>
<tr>
<td>61</td>
<td>Education Services</td>
<td>39,808</td>
<td>0.8%</td>
<td>38,046</td>
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<tr>
<td>62</td>
<td>Health Care and Social Assistance</td>
<td>49,344</td>
<td>48.3%</td>
<td>73,177</td>
</tr>
<tr>
<td>71</td>
<td>Arts, Entertainment, Recreation</td>
<td>4,117</td>
<td>14.2%</td>
<td>4,702</td>
</tr>
<tr>
<td>72</td>
<td>Accommodation and Food Services</td>
<td>24,508</td>
<td>2.1%</td>
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</tr>
<tr>
<td>81</td>
<td>Other Services</td>
<td>9,397</td>
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<tr>
<td>92</td>
<td>Public Administration</td>
<td>9,790</td>
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<td>9,947</td>
</tr>
<tr>
<td>99</td>
<td>Other</td>
<td>101</td>
<td>34.9%</td>
<td>136</td>
</tr>
</tbody>
</table>

TOTAL REGIONAL EMPLOYMENT: 299,868 14.8% 344,301
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

% Employment Growth by Community Type: 2010-2035

Source: 2010 U.S. Census, AMATS
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.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>HTF Balance</th>
<th>Fed Transp Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>2012</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>2013</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>2014</td>
<td>20</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office, FHWA

**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 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.
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, 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.
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

<table>
<thead>
<tr>
<th>Years Ago</th>
<th>Cost of a $1,000,000 Project in 2010 Would Have Been:</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>$850,161</td>
<td>14%</td>
</tr>
<tr>
<td>10</td>
<td>$769,932</td>
<td>30%</td>
</tr>
<tr>
<td>20</td>
<td>$567,092</td>
<td>76%</td>
</tr>
<tr>
<td>30</td>
<td>$317,721</td>
<td>215%</td>
</tr>
</tbody>
</table>
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.

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, 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.

Potential Funding Gap Solutions

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

AMATS Region Existing Highway System

<table>
<thead>
<tr>
<th>Federal Functional Classification</th>
<th>Length (in miles)</th>
<th>Number of Lane Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate / Expressway</td>
<td>137</td>
<td>635</td>
</tr>
<tr>
<td>Ohio Turnpike</td>
<td>35</td>
<td>142</td>
</tr>
<tr>
<td>Urban Arterials</td>
<td>451</td>
<td>1,293</td>
</tr>
<tr>
<td>Rural Arterials</td>
<td>93</td>
<td>194</td>
</tr>
<tr>
<td>Urban Collectors</td>
<td>360</td>
<td>789</td>
</tr>
<tr>
<td>Major Rural Collectors</td>
<td>161</td>
<td>325</td>
</tr>
<tr>
<td>Minor Rural Collectors*</td>
<td>59</td>
<td>124</td>
</tr>
<tr>
<td>Locals*</td>
<td>2,859</td>
<td>5,060</td>
</tr>
<tr>
<td>Totals:</td>
<td>4,355</td>
<td>8,562</td>
</tr>
</tbody>
</table>

* Not eligible to receive federal funds
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 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.

<table>
<thead>
<tr>
<th>Regional Transit Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>(annual unlinked passenger trips - in millions)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of Population Taking Transit to Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Census Bureau</td>
</tr>
</tbody>
</table>

Source: 2012 TTI Urban Mobility Report

<table>
<thead>
<tr>
<th>Ohio</th>
<th>Summit</th>
<th>Portage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5%</td>
<td>2.0%</td>
<td>1.5%</td>
</tr>
<tr>
<td>1.5%</td>
<td>1.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>0.5%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
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®. 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

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1. www.neoride.org
Regional Trends | Transit

– 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

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.

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**

<table>
<thead>
<tr>
<th>Community</th>
<th>Warrants for Increased Transit Service</th>
<th>Possible Route(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aurora</td>
<td>Low Income Population, Minority Population, General Unserved Population, Job Concentration, Government Centers, Population Growth</td>
<td>SR 8a (Garfield Rd) SR 43 (N. Aurora Rd / Chillicothe Rd) SR 306 (Chillicothe Rd)</td>
</tr>
<tr>
<td>Mantua</td>
<td>Elderly Population, Low Income Population, Minority Population, Schools, Government Centers</td>
<td>SR 44 (Painesville Ravenna Rd) High St / Mentor Rd</td>
</tr>
<tr>
<td>Streetsboro</td>
<td>Elderly Population, Low Income Population, Minority Population, General Unserved Population, Job Concentration, Government Centers, Population Growth</td>
<td>SR 14 (Cleveland East Liverpool Rd) SR 303 (Streetsboro Rd) SR 43 (Cleveland Canton Rd)</td>
</tr>
<tr>
<td>Twinsburg</td>
<td>Low Income Population, Minority Population, General Unserved Population, Job Concentration, Park and Ride, Population Growth</td>
<td>SR 84 (Aurora Rd) SR 91 (Darrow Rd) Ravenna Rd</td>
</tr>
</tbody>
</table>

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.

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

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. Count times at Kent State University and the University of Akron varied to accommodate student schedules.

<table>
<thead>
<tr>
<th>Community</th>
<th>Road Location</th>
<th>May 2012</th>
<th>July 2012</th>
<th>September 2012</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akron</td>
<td>E Market St &amp; N Arlington St</td>
<td>212</td>
<td>138</td>
<td>103</td>
<td>151</td>
</tr>
<tr>
<td>Akron</td>
<td>W Market St &amp; S Highland Ave</td>
<td>376</td>
<td>335</td>
<td>453</td>
<td>388</td>
</tr>
<tr>
<td>Kent - KSU</td>
<td>SR 59, S Water St &amp; E Main St</td>
<td></td>
<td></td>
<td>306</td>
<td>306</td>
</tr>
<tr>
<td>Kent - KSU</td>
<td>N Mantua St &amp; Lincoln St</td>
<td>185</td>
<td></td>
<td>185</td>
<td>185</td>
</tr>
<tr>
<td>Kent - KSU</td>
<td>E Summit St &amp; the Esplanade</td>
<td></td>
<td></td>
<td>1055</td>
<td>1055</td>
</tr>
<tr>
<td>Kent - KSU</td>
<td>Franklin Ave &amp; S Water St</td>
<td>289</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Akron - UA</td>
<td>E Exchange St &amp; Spicer St</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

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.

AMATS Region Pedestrian Fast Facts:

- Regional Sidewalk Miles: 2,510
- Regional Sidewalk Gaps (in Miles): 47.95

1 available at www.amatsplanning.org
2 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.
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.

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, 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 categorizes them as suitable for a beginner, intermediate,
Bicycle Infrastructure Comparison

<table>
<thead>
<tr>
<th>Population</th>
<th>Akron, OH</th>
<th>Ann Arbor, MI</th>
<th>Dayton, OH</th>
<th>Grand Rapids, MI</th>
<th>Madison, WI</th>
<th>Rochester, NY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Lane Miles</td>
<td>10</td>
<td>71</td>
<td>2</td>
<td>33</td>
<td>112</td>
<td>45</td>
</tr>
<tr>
<td>Bike Path Miles</td>
<td>16</td>
<td>57</td>
<td>34</td>
<td>8</td>
<td>46</td>
<td>22</td>
</tr>
<tr>
<td>University Enrollment</td>
<td>30,000</td>
<td>41,000</td>
<td>7,500</td>
<td>10,000</td>
<td>42,000</td>
<td>4,500</td>
</tr>
</tbody>
</table>

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. Count times at Kent State University and The 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.

<table>
<thead>
<tr>
<th>Year</th>
<th>Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>111</td>
</tr>
<tr>
<td>2007</td>
<td>114</td>
</tr>
<tr>
<td>2008</td>
<td>117</td>
</tr>
<tr>
<td>2009</td>
<td>106</td>
</tr>
<tr>
<td>2010</td>
<td>116</td>
</tr>
<tr>
<td>2011</td>
<td>112</td>
</tr>
<tr>
<td>Total</td>
<td>676</td>
</tr>
</tbody>
</table>

AMATS is helping to advocate for bicycling in the region by developing and maintaining a website devoted to 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 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.

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.

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.

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.

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.

Connecting Communities was the first
ZONING INVENTORY

Zoning Classification
- Commercial / Office
- Government / Institutional
- Industrial
- Mixed-Use
- Open-Space / Park
- Planned Unit Development
- Rural Residential > 3 Acres
- Residential 1.51 - 3 Acres
- Residential 0.51 - 1.5 Acres
- Residential 0.26 - 0.5 Acres
- Residential 0 - 0.25 Acres
- Multi-Family Residential

Miles
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 (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.
Budget shortfalls at all levels of government are leaving communities with fewer resources, while the needs for infrastructure, services and amenities continue to increase. While many decisions are made at the local level, the need to work together across local boundaries to make dollars and resources go further is increasingly important. It is also important to understand how we are all tied together. Many people live in one community, work in another and shop in several others throughout northeast Ohio. Decisions in one community have effects throughout the region and looking at the big picture in the planning process will help strengthen individual communities and the region.

There are several large-scale efforts in the region to plan for and utilize resources, including the AMATS proposed regional pavement condition data collection system and the Northeast Ohio Sustainable Communities Consortium. Regionalism can also have a big impact on a smaller scale. Shared services, such as police and fire, or JEDDs (Joint Economic Development Districts) are just a few ways that area communities are working together. AMATS’ Connecting Communities Planning Grant is also a way that planning locally, but thinking regionally is happening.

**AMATS Regional Pavement Condition Data Collection System**

Many communities in the AMATS area collect some type of data in regards to the condition of the pavement on their roadways. This data is commonly referred to as Pavement Condition Rating (PCR). ODOT also collects this data for all the roads contained on the federal-aid system within the AMATS area, which includes state and U.S. routes.

AMATS has relied on ODOT PCR data to evaluate project applications that are submitted for funding under the Resurfacing Program. Unfortunately, ODOT announced last year that it will discontinue obtaining pavement condition data on federal-aid roads at the end of calendar year 2013. This will result in AMATS no longer having an apples-to-apples comparison of pavement condition values when evaluating Resurfacing Program applications.

Having reliable, consistent data on pavement conditions is not only important to individual communities but also to the region as a whole. The number one priority for the region’s transportation system is maintenance and preservation, and a significant amount of AMATS funding goes into projects that are either solely or partly intended to improve the condition of the pavement.

Creating a consistent and reliable pavement condition data collection system will allow communities an estimated 30-50% cost savings and provide apples-to-apples comparisons for evaluating applications for the resurfacing program. Working together on this initiative demonstrates how the region is taking an innovative, collaborative approach to public service.

**Connecting Communities Planning Grant**

In September of 2010, AMATS approved Connecting Communities – A Guide to Integrating Land Use and Transportation. The report contained eight major recommendations for AMATS and other agencies to use as a framework for increasing transportation alternatives and supporting land use patterns through targeted investments. The Connecting Communities Planning Grant program was one of the recommendations.

**Richfield Final Concept**

Regional Trends | Shared Services & Regionalism

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.

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 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
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 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:

- 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.

<table>
<thead>
<tr>
<th>Location</th>
<th>Pedestrian</th>
<th># Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Akron</td>
<td>Akron</td>
<td>1,481</td>
</tr>
<tr>
<td>SR 59 / Main St Corridor</td>
<td>Kent to Ravenna</td>
<td>848</td>
</tr>
<tr>
<td>I-277 / Waterloo Rd</td>
<td>Akron, Coventry Twp and</td>
<td>472</td>
</tr>
<tr>
<td>Hillside Corridor</td>
<td>Springfield Twp</td>
<td></td>
</tr>
<tr>
<td>Howe Ave / Chapel Hill</td>
<td>Akron, Cuyahoga Falls</td>
<td>459</td>
</tr>
<tr>
<td>Hill Corridor</td>
<td>and Tallmadge</td>
<td></td>
</tr>
<tr>
<td>State Rd / Portage Trail</td>
<td>Cuyahoga Falls and</td>
<td>433</td>
</tr>
<tr>
<td>Vicinity</td>
<td>Tallmadge</td>
<td></td>
</tr>
<tr>
<td>Tallmadge Circle</td>
<td>Tallmadge</td>
<td>316</td>
</tr>
</tbody>
</table>

Bike and Pedestrian Crashes

<table>
<thead>
<tr>
<th>Common Bike &amp; Pedestrian Safety Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Safety Education</td>
</tr>
<tr>
<td>Marked Bike Lanes</td>
</tr>
<tr>
<td>“Share the Road” Signage / Sharrow</td>
</tr>
<tr>
<td>Improved Lighting</td>
</tr>
<tr>
<td>Protected Bikeways and Paths</td>
</tr>
<tr>
<td>Bike Boxes</td>
</tr>
<tr>
<td>Bike Signals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual New Driver’s Licenses Issued</th>
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</thead>
<tbody>
<tr>
<td>Ohio BMV</td>
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</table>

<table>
<thead>
<tr>
<th>Non-Vehicular Crashes 2009-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ped</td>
</tr>
</tbody>
</table>
**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.
The tables below illustrate the proportion of each LOS rating within the AMATS region:

### 2006, 2010 and 2035

#### Level of Service Comparison

<table>
<thead>
<tr>
<th>Arterials</th>
<th>Percentage of Arterial Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS</td>
<td>2006</td>
</tr>
<tr>
<td>F</td>
<td>1%</td>
</tr>
<tr>
<td>E</td>
<td>1%</td>
</tr>
<tr>
<td>D</td>
<td>10%</td>
</tr>
<tr>
<td>C or Better</td>
<td>88%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Freeways</th>
<th>Percentage of Freeway Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS</td>
<td>2006</td>
</tr>
<tr>
<td>F</td>
<td>6%</td>
</tr>
<tr>
<td>E</td>
<td>6%</td>
</tr>
<tr>
<td>D</td>
<td>27%</td>
</tr>
<tr>
<td>C or Better</td>
<td>67%</td>
</tr>
</tbody>
</table>

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 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 1 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 available at 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 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.

Greenhouse Gases

Over the last several years, the federal government enacted several standards and regulations regarding CO2. Transportation planning can address multiple pollutants simultaneously. While TO2035 does not directly quantify greenhouse gas emissions, many recommendations included help reduce CO2. Transit recommendations including better service, new, cleaner buses, and park and ride lots will aid in reducing CO2 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 (CO2) 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 (CO2) 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 CO2 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 CO2. 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
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 though 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.
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