

5.0 NEEDS ANALYSIS

As indicated in Section 2.0 of the Regional Transportation Plan, OMEGA has established the following goals for the development and implementation of the Regional Transportation Plan:

- **Goal 1:** Preserve, Maintain, and Improve Existing Transportation Systems
- **Goal 2:** Address Safety and Congestion Issues
- **Goal 3:** Facilitate Economic and Community Development
- **Goal 4:** Improve Quality of Life
- **Goal 5:** Develop a Financially Responsible Regional Transportation Plan

These five goals and the associated objectives for reaching each goal provide the overall guidance for assessing the transportation needs of the region. These goals in conjunction with the analysis of the Existing and Future Conditions of the transportation systems of the region along with information provided by the members of the Executive Board, Transportation Advisory Committee (TAC), Citizens Advisory Board (CAB), and other stakeholders provide the framework for the Needs Analysis. Transportation system needs as related to achieving Goals 1 to 4 are summarized in this section. Goal 5 will be addressed in Section 7.0 - Fiscal Analysis.

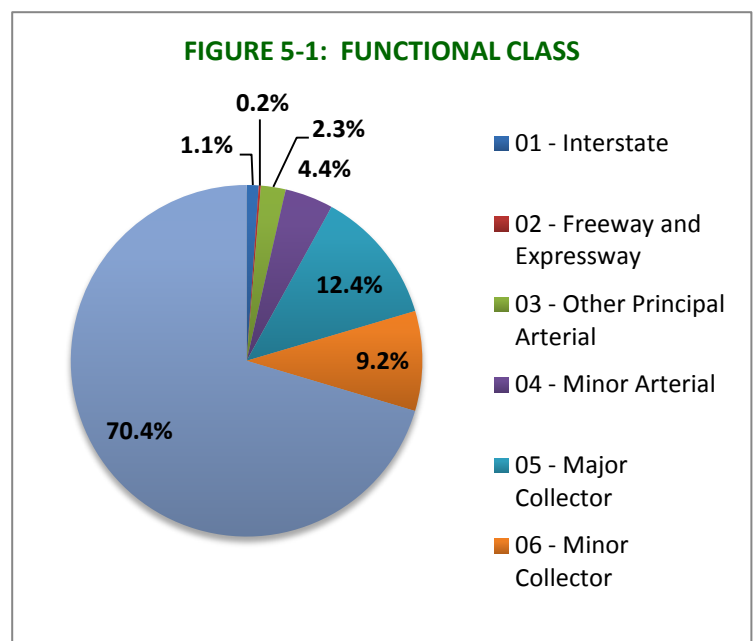
5.1 Preserve, Maintain, and Improve Existing Transportation Systems

The primary goal of the OMEGA RTPO is to preserve, maintain, and improve existing transportation systems. This section summarizes the needs to maintain the roads on the federal aid system, bridge maintenance, rehabilitation, and replacement, and maintenance of the general aviation systems.

5.1.1 Roads

As indicated in Section 3.3.1 of the Regional Transportation Plan, the OMEGA RTPO includes approximately 10,350 center lane miles of road. As indicated in Figure 5-1, 1.1% of these roads are classified as interstate, 28.5% are on the federal aid system, and over 70% of these roads are classified as local roads, not eligible for federal funding.

Pavement Condition Ratings (PCRs) from 2012 were available for roads on the Federal Aid System. Based upon these ratings, approximately 70% of the roads on the federal aid system are in Good to Very Good condition



(PCR \geq 76). The remaining 30% or approximately 850 lane miles of road are in Fair, Fair to Poor, or Poor condition (PCR 41 to 75). These roads will need to be resurfaced within the next five years. Based upon an estimated cost of approximately \$300,000 per mile for a two-lane, 24-foot wide road, the total cost to resurface these roads over the next five years would be approximately \$255 million per 2-lane section of roads on the federal aid system. Additional costs will be incurred to maintain the local roads. Therefore, the needs just to maintain the existing roads within the RTPO system are significant.

OMEGA will need to develop a plan to prioritize the preservation and maintenance of the existing roads on the federal aid system.

5.1.2 Bridges

The OMEGA RTPO includes 2,964 bridges of which 1,801 bridges or 61% are under local jurisdiction. Of these 1,801 bridges, 138 have a general appraisal rating of 4 or less. Maps showing the locations of these bridges with a General Appraisal Rating of 4 or less are provided in Appendix H1 and H2 of the Existing Conditions. In addition, there are 266 bridges that currently have a general appraisal rating greater than 4, but which were constructed in 1950 or earlier and have not undergone any major reconstruction. By 2040, these bridges will be 90 years or older and nearing the end of their useful life.

This data has both short term and long term implications. In the short term, at least 138 bridges under local jurisdiction will need to be repaired or replaced. Between 2020 and 2040, an additional 266 bridges will need to be repaired or replaced. As indicated in Section 4.3 of the Regional Transportation Plan, the minimum estimated repair/replacement cost for these bridges (to include those with a span of less than 20 feet) is approximately \$100 million. As indicated in Section 3.4 of the Existing Conditions, the database originally provided by ODOT did not include all of the local bridges in the OMEGA RTPO Region. ODOT is in the process of updating this database to include the General Appraisal Rating. Once this data is available, then OMEGA will revise accordingly. The projected repair/replacement cost for these bridges will likely increase once this update is completed.

OMEGA will need to develop a plan to prioritize the repair and replacement of the bridges with a span of at least 20 feet which are eligible for federal aid.

5.1.3 Airports

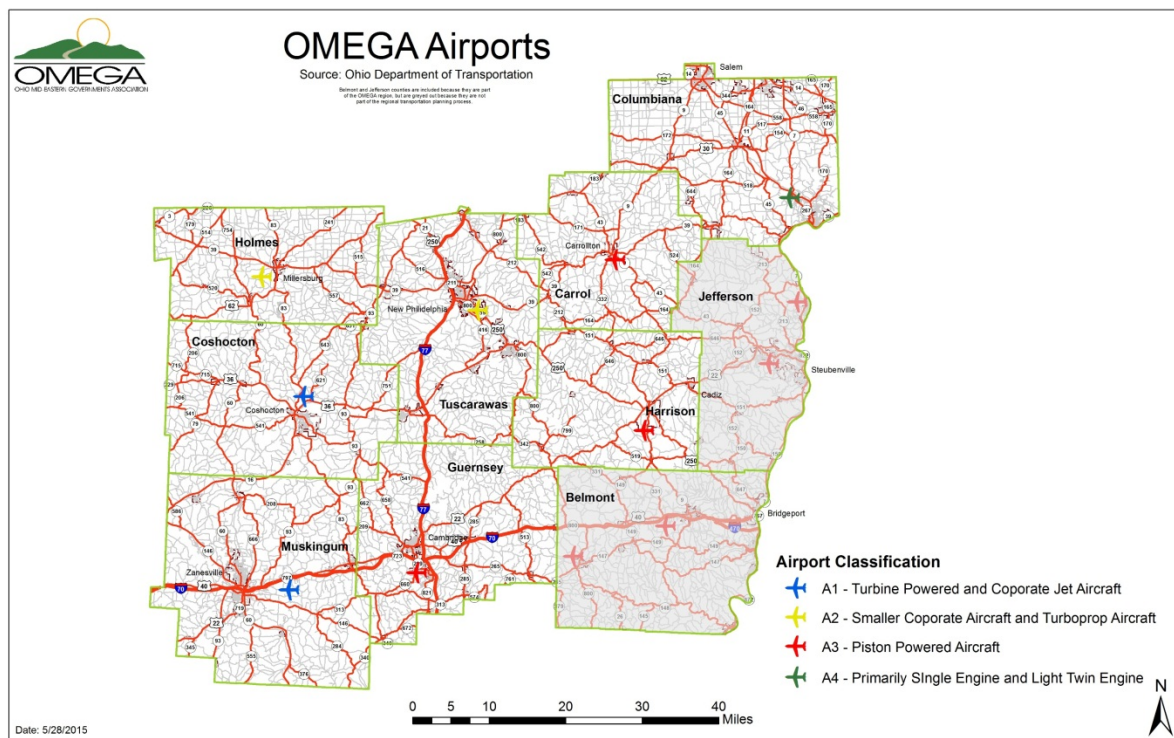
Each of the eight counties in the RTPO region are served by a General Aviation Airport, see Figure 5-2. As documented in the draft Ohio Airports Focus Study, the total estimated cost for these eight airports to maintain system compliance with the current classification level is approximately \$33 million. Approximately **\$31 million (94%)** will be needed over the next 20 years for maintenance of the primary runway and other pavements and approximately \$1.47 million will be needed for land acquisition for runway protection zones. The remaining \$443,000 is needed for the primary runway safety area for the Harry Clever Field in New Philadelphia.

In addition to the recommendations provided in the draft Ohio Airports Focus Study, the following airports plan to expand the primary runway to 5,000 feet:

- Carroll County - Tolson
- Cambridge Municipal
- Harry Clever Field

These runway extensions are needed primarily to meet current demand for turbine powered aircraft and smaller corporate aircraft and jets. In the last year, the Cambridge Municipal Airport has experienced a significant increase in the number of corporate jets. Much of this increase is directly or indirectly attributable to the shale industry.

FIGURE 5-2: AIRPORTS



5.2 Safety and Congestion

The second goal of the OMEGA RTPO is to address safety and congestion issues in the region. By analyzing crash data in conjunction with input from our Executive Board, TAC, CAB, and ODOT, OMEGA has identified several areas of concern in the region and the need for further study to reach our objective to reduce the frequency and severity of crashes in the region. This analysis and specific needs to address these safety concerns are summarized in Section 5.2.1.

Relying on data and modeling conducted by ODOT, OMEGA also identified the current and projected congested areas in the region. Results from this analysis and need for future action is summarized in Section 5.2.2.

The planning measures discussed herein are the first steps needed to reduce the number and severity of crashes, to alleviate congestion, to address slowed commute times, and to address issues arising from increased truck volumes in the shale development region.

5.2.1 Safety

In order to meet the goal of reducing the number and severity of crashes within the OMEGA RTPO, four objectives were established. These objectives include:

1. Obtain and analyze crash data.
2. Identify high hazard areas.
3. Facilitate the development of projects (such as signage, sight distance improvements, road re-alignments, etc.) to improve safety and reduce the frequency and severity of crashes.
4. Develop a financial strategy for projects that can be implemented within the next five years that will address safety and congestion issues.

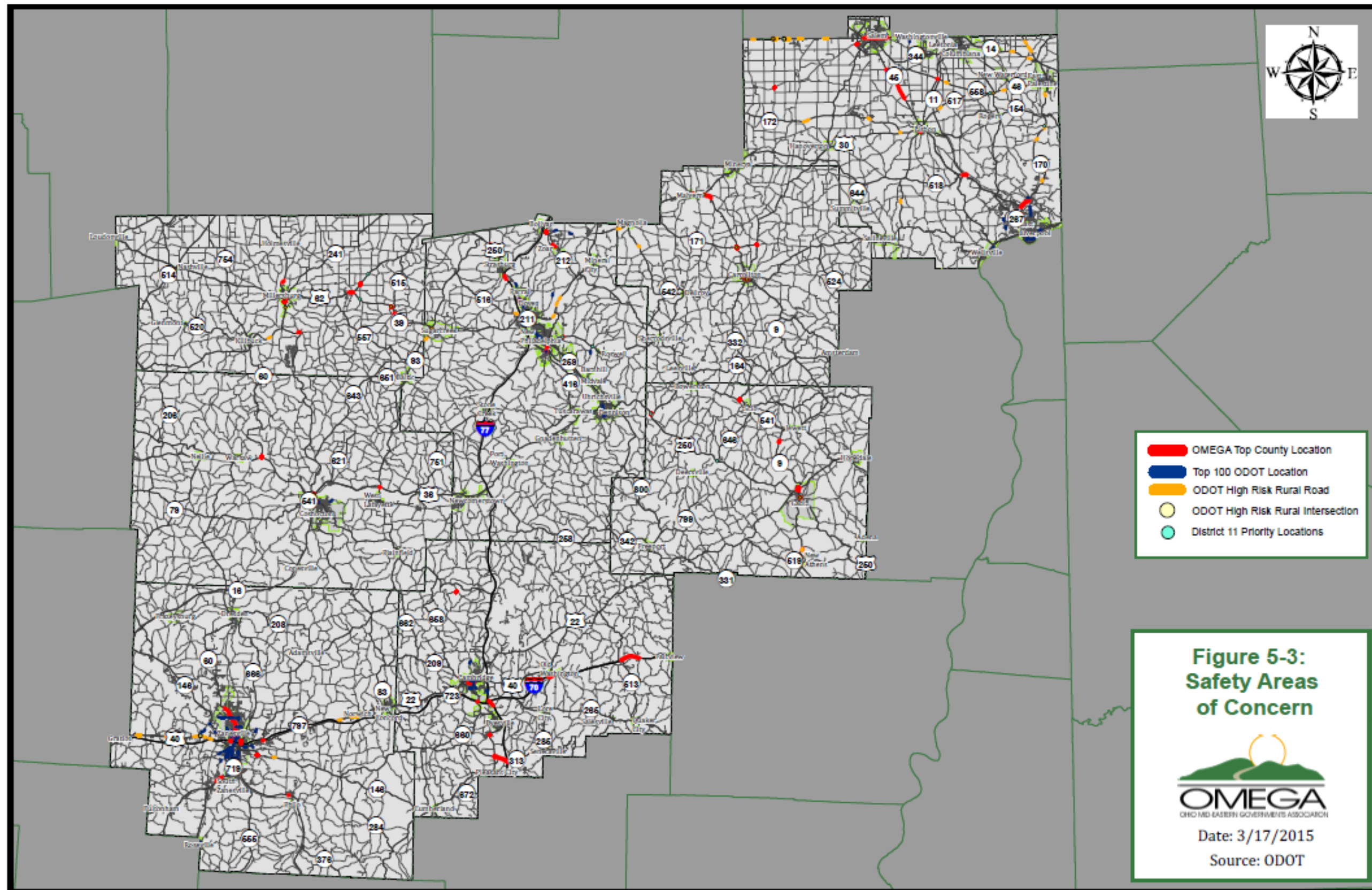
Objectives 1 and 2 have been completed and are documented in Section 3.0: Existing Conditions of the plan. Results of this analysis are summarized herein. As documented in Section 3.9 of the plan, 30,113 crashes occurred within the RTPO region during the period between 2011 and 2013. Of these crashes, 0.56% or 171 were fatal accidents and 24.9% or 7,502 were injury accidents. Fixed object or roadway departures accounted for 29% of all crashes and were the leading cause of all accidents followed by Rear End crashes which accounted for 17% of all crashes. With the hilly, windy, narrow routes of the rural roads characteristic of the region, roadway departures as the leading cause of accidents is expected. OMEGA has compiled several safety priority lists to address intersections and roadways that are of particular concern to our region. These locations are eligible for safety funding through ODOT and the County Engineer's Association of Ohio (CEAO).

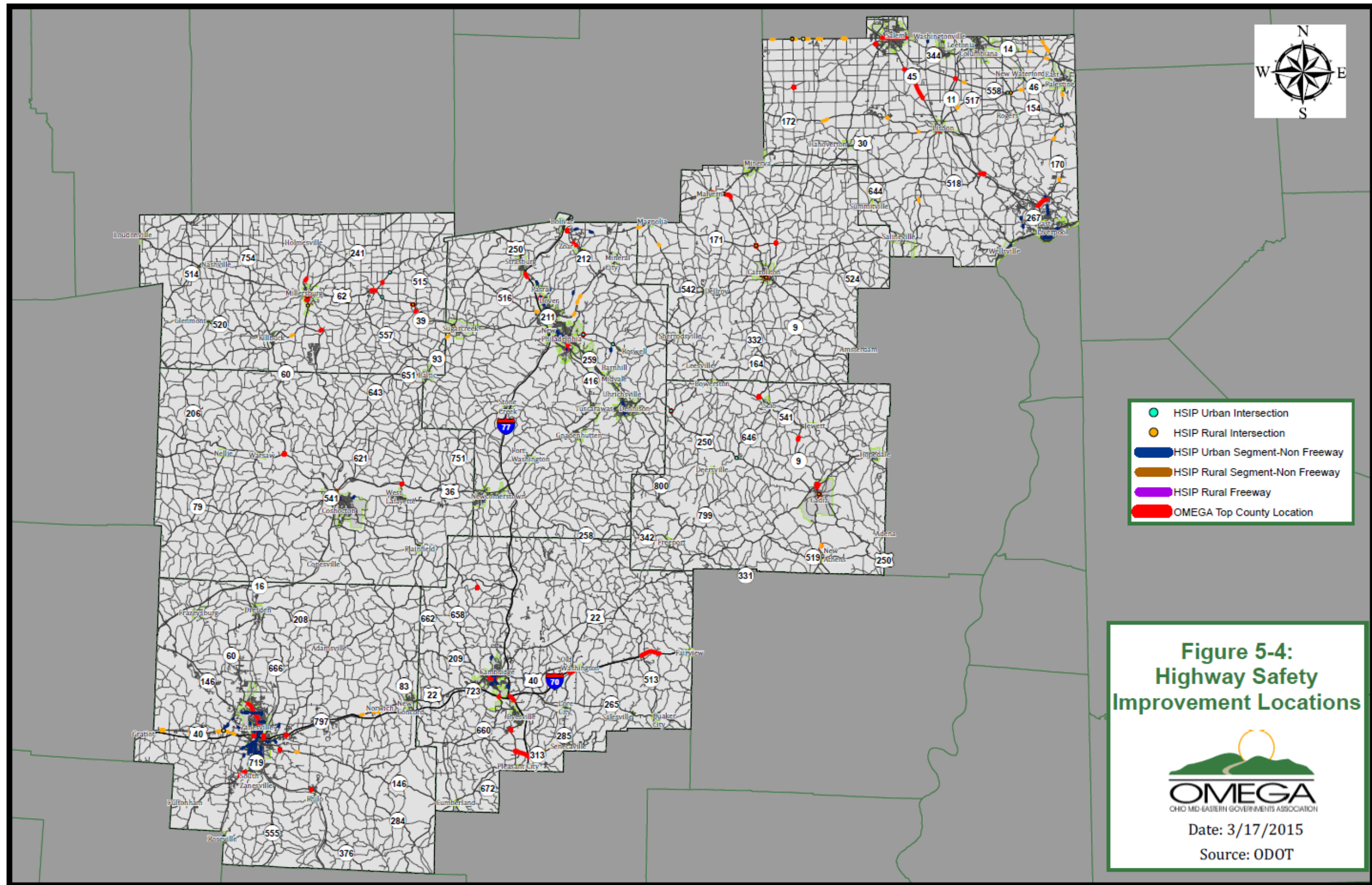
To better define the areas of concern, OMEGA prioritized locations on a county-by-county basis from ODOT's crash data. Crash density was the key factor in the list prioritization; three to five areas within municipalities and outside of municipalities with high crash rates were chosen for each county to provide equal opportunity to improve safety across the region. Our priority areas also took the severity of the crash into account, as well as feedback and project information from our TAC and Executive Board meetings. A list of the top regional priority areas within municipal boundaries as identified by OMEGA are provided in Table A-1 in Appendix A. A list of the top priority areas outside municipalities are listed in Table A-2 of Appendix A.

ODOT has provided three lists for our region using Safety Analyst software. This software uses traffic volumes, the observed number of crashes, and site specific data to calculate the predicted and expected crash frequency rates and prioritize areas of concern in the State as well as the OMEGA RTPO. These lists were compiled based on state, regional, and district wide areas, and further categorized by roadway type. Traffic volume, crash rate, and the predicted rates of these variables are the primary factors. The first list located the top 100 locations on county and township roads in our RTPO region. Please note that these locations excluded the incorporated areas of the RTPO region. The second list is the statewide 2013 Highway Safety Improvement Program list, which analyzes locations and categorized these locations by their rural or urban locations and type (intersection, freeway, non-freeway). The third list is the statewide 2013 High Risk Rural Roads list, which analyzed rural segments and intersections on state, county and township road systems. ODOT District 11 also provided a list of priority locations which are shown on Figure 5-3.

Primary regional areas of concern are shown in Figure 5-3 and regional Highway Safety Improvement locations are shown in Figure 5-4. To better illustrate these areas of concern, county specific maps are provided in Appendix B. The first map of each county in Appendix B shows the areas of concern from OMEGA, ODOT (Top 100 in RTPO and High Risk Rural Roads), and District 11 (where applicable), while the second map shows the areas identified by the Highway Safety Improvement Program.

OMEGA in conjunction with our TAC and ODOT with input from our Executive Board and Citizens Advisory Board will need to prioritize these locations of concern. Safety studies will be conducted to assess the situation and to identify the appropriate countermeasures. Once the safety study is completed, then OMEGA will work with the local sponsor and ODOT to obtain the necessary funding to implement the recommended countermeasures.





5.2.2 Congestion

Two primary means of measuring congestion within a roadway system are Level of Service and the Volume to Capacity (V/C) ratio.

Level of Service (LOS) is a qualitative measure of the operation of traffic flow. Speed, travel time, freedom to maneuver, traffic interruptions, drive inconvenience, safety, and delay are all factors considered in the LOS. The LOS is based upon different measures of effectiveness for different transportation systems. As defined in the Highway Capacity Manual, there are six levels of service from A as being the best to F as being the worst. These levels are defined in Section 3.3.4 of the plan, but essentially a LOS of A is reflective of roads with low volumes of traffic and high speeds, at or above the posted speed limit with conditions degrading through a LOS of F which is reflective of frequent slowing or stopping and traffic jams.

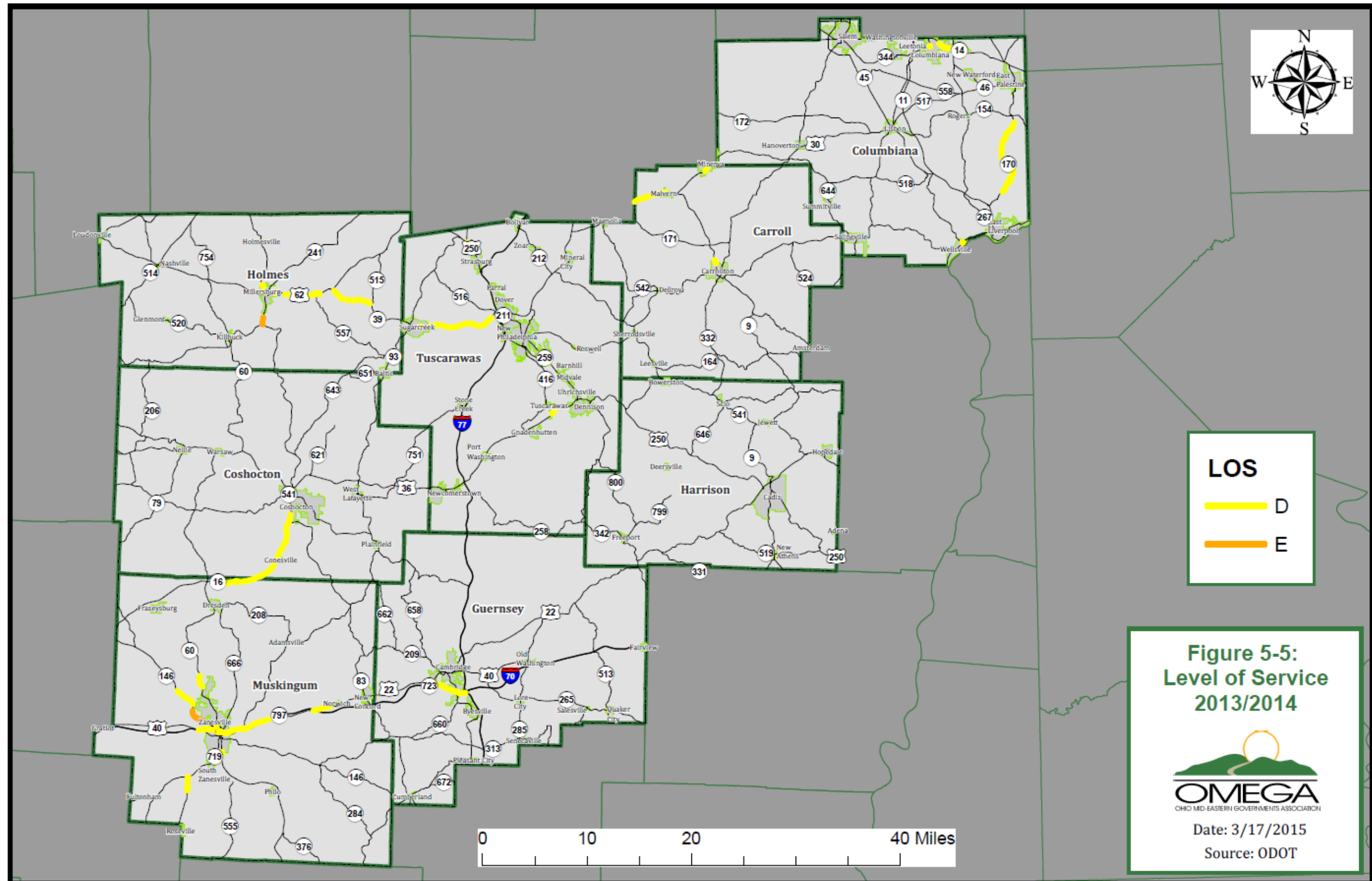
In rural areas, interstates, other freeways and expressways, and arterials are generally designed for a LOS of B (or C in hilly terrain). Collectors are normally designed for a Level of Service C (or D in hilly terrain). In urban and urbanized areas, the design LOS for these functional classifications is normally C, regardless of terrain. Local roads in both rural and urban areas are normally designed for a LOS D.

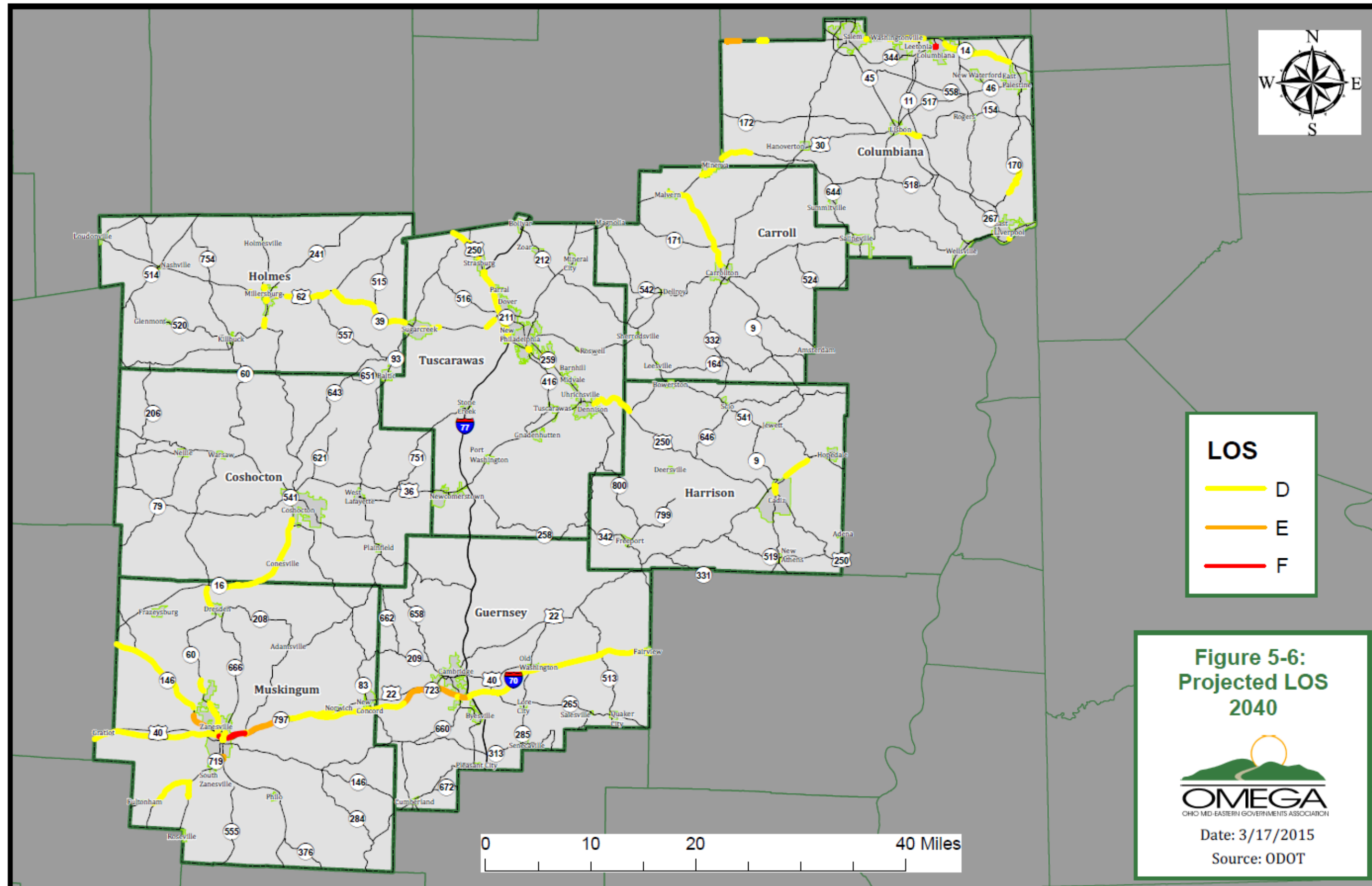
The V/C ratio is a quantitative measure that compares the Average Annual Daily Traffic (AADT) volume to the design AADT for the road. Factors such as number of lanes, lane width, terrain, geometrics, and speed limit are used to determine the design AADT. For our region, the level of congestion as related to the V/C ratio is as follows:

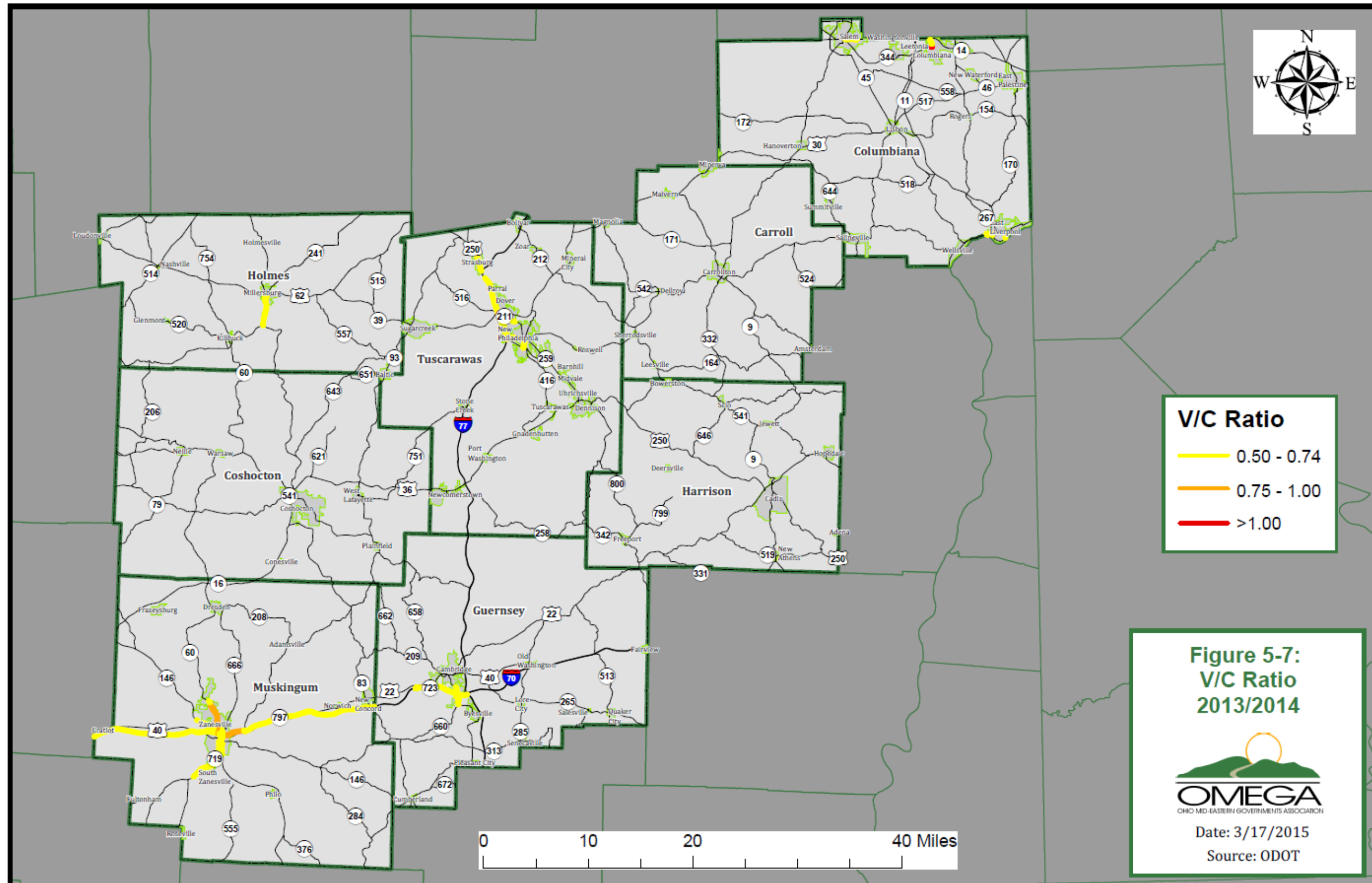
- V/C Ratio > 1.0: Severe Congestion
- V/C Ratio of 0.75 to 1.0: Heavy Congestion
- V/C Ratio of 0.5 to 0.74: Moderate Congestion
- V/C Ratio < 0.5: Low or No Congestion

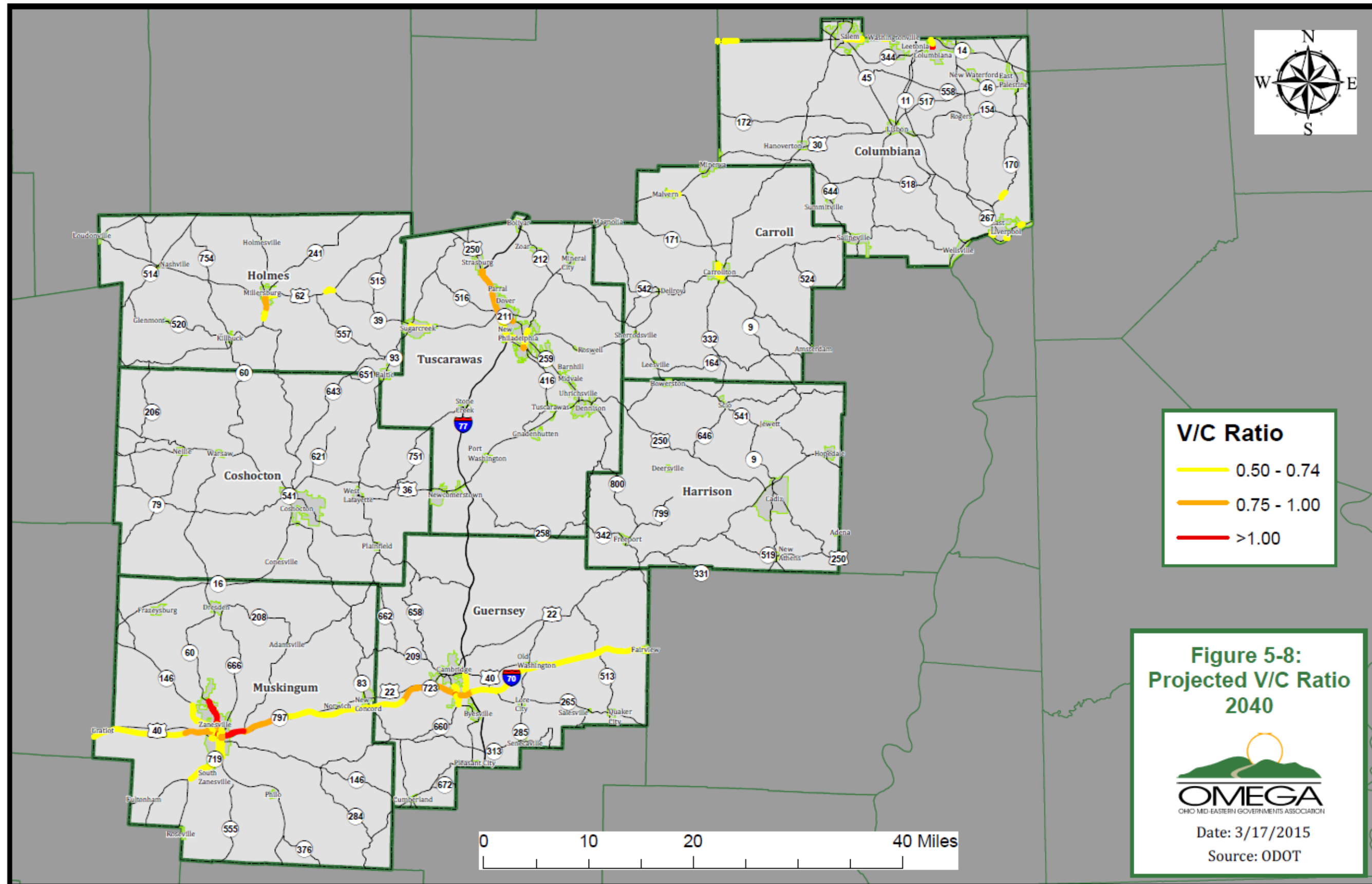
For the OMEGA RTP, we are defining congestion as those areas (other than local roads) that have a LOS of D, E, or F and/or a V/C ratio greater than 0.75. Figure 5-5 shows the locations in the region that currently have a LOS of D, E, or F and Figure 5-6 shows the locations in the region that are projected to have a LOS of D, E, or F by 2040. Figure 5-7 shows the locations of the region that currently have a V/C ratio of 0.5 or greater and Figure 5-8 shows the locations that are projected to have a V/C ratio of 0.5 or greater by the year 2040. Detailed maps showing these congested areas are provided in Appendix C.

Planning needs to be initiated now to address the current congested areas and to minimize or reduce the congestion that is projected to occur in 2040.









Section 5.3: Facilitate Economic and Community Development

Improvements to the existing transportation systems and assets within the OMEGA region are needed to promote economic and community development. OMEGA has established the following objectives to meet these needs:

1. Identify the transportation systems needed to fully support the shale development in the region especially as related to sustainability and importance to the state, national, and international demand for energy and petroleum-based products.
2. Identify current and planned industrial/business parks and clusters and the transportation system improvements (roads, rail, freight, and river) needed to facilitate development and/or to improve existing operations of these industrial/business parks.
3. Identify the transportation systems needed to fully support planned development in the region.
4. Identify corridors that will promote economic development and connectivity.
5. Advocate for the development of these corridors, such as, US 30 Ohio's Energy Corridor or the Columbus to Pittsburgh corridor.
6. Identify projects that will promote the development and use of intermodal facilities including the port at Wellsville.
7. Identify current and planned commercial centers and the transportation system improvements needed to facilitate the development of these centers and to improve public access.

Several economic activities characterize our region, and these activities can benefit greatly from improvements in our transportation assets. Specific needs to promote economic development are summarized in the sections which follow.

5.3.1 Shale Development

Shale development and extraction in the Utica and Marcellus basins have been a dominant economic activity of our region in recent years. Large scale extraction began in 2011 and will likely continue into the foreseeable future. Fluctuations in the price of oil and gas may impact the pace of this development; however, the oil and gas companies have invested billions in the region and have indicated that they will be in the region for years to come. Currently, 310 permits have been issued for wells in the region that have not as yet been drilled. Shale development has presented several unique challenges to the transportation systems in the region which have been identified through our TAC meetings and data analysis.

First, as requested through our regional members, OMEGA will continue to monitor oil and gas development and the impact on the existing transportation systems. Multiple forms of analysis have and will be conducted, such as the regular updates/additions to our database and also through data collection methods such as traffic counts. OMEGA will identify subsequent transportation needs regarding shale development in our region.

Second, improvements and access to existing transportation assets will be necessary to further assist development and to repair existing systems which have been damaged by the increased volume of truck traffic. Restoration and maintenance of local roads are primarily covered by Road Use Maintenance Agreements (RUMAs). However, these agreements do not cover state routes and many times companies will deviate from the route covered in the RUMA. Therefore, the condition of the roads and bridges impacted by shale development will need to be monitored and scheduling of basic maintenance and repair monitored as needed.

Third, the addition of pipelines into our region will bolster economic growth by providing improved access for natural gas and oil. Currently, there is a newly proposed Nexus natural gas pipeline (see Figure 5-9) that will begin in Columbiana County and continue into Michigan, providing opportunity for business expansion within our region. Nexus has indicated this natural gas pipeline will spur economic growth in the region. Based upon their experience in other areas, this pipeline will attract businesses that have high energy usage or power consumption. These businesses will either be able to build their own natural gas powered turbines to generate electricity or use the natural gas directly for their processes. As shown in Figure 5-9, this pipeline will begin at the Kensington processing plant and extend through the southwestern section of Columbiana County in proximity to the US 30 Ohio's Energy Corridor. In order to maximize the potential for economic growth, improvements to the existing regional transportation assets, particularly US 30 Ohio's Energy Corridor will be needed to accommodate these projected new businesses.

Specific project needs as related to shale development and as recommended by members of the OMEGA TAC are summarized herein.

Harrison County

- Paving Giacobbi Road for MarkWest Plant west of Hopedale.
- Rehabilitate rail line from new MarkWest plant at the north end of Cadiz to the main Ohio Central track in Cadiz Junction.
- Upgrade CR 44 between SR 151 and CR 43 which serves several producing Utica gas wells and a number of pipelines.

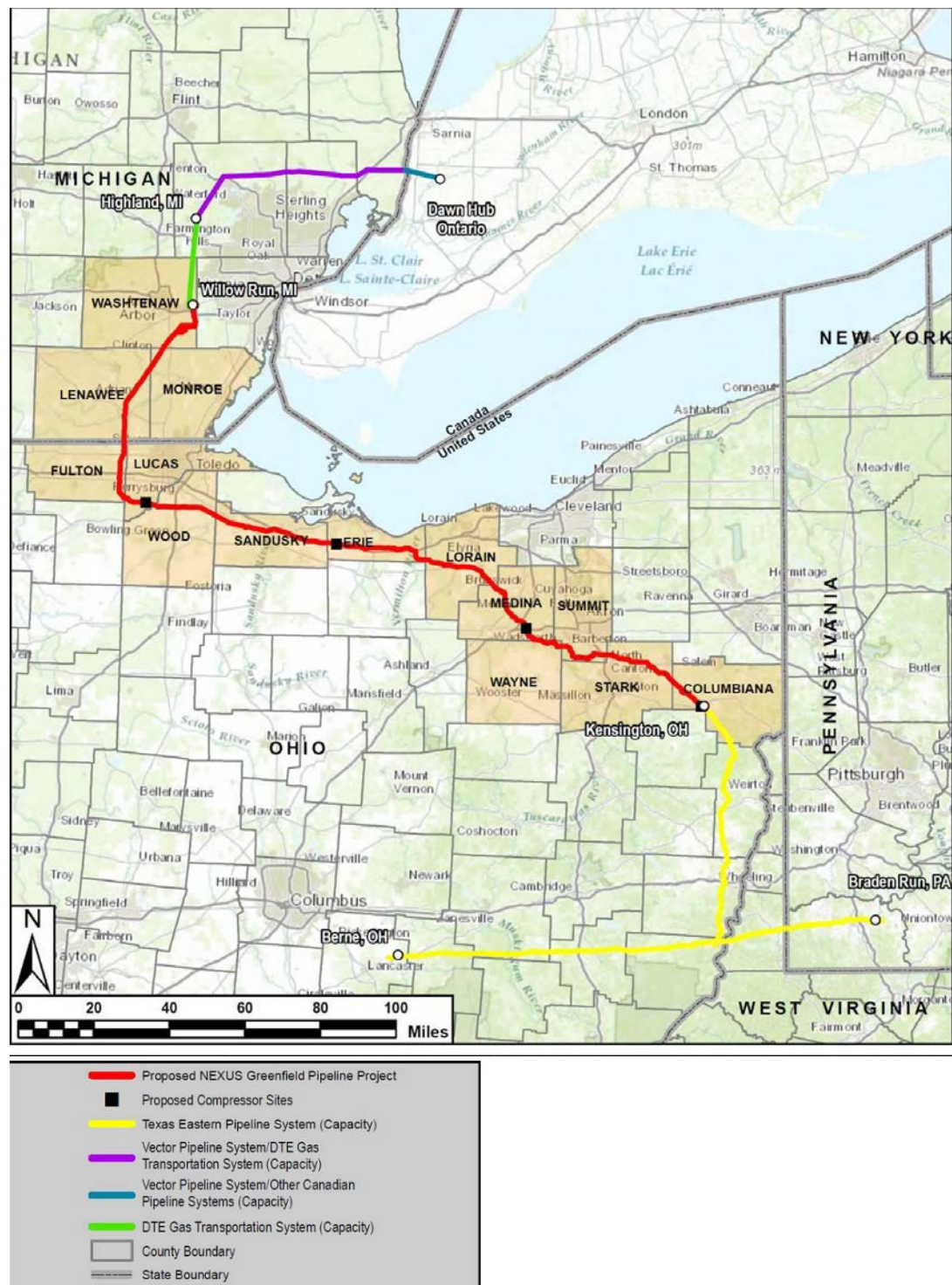
Tuscarawas County

- Study on use of rail for oil and gas industry.

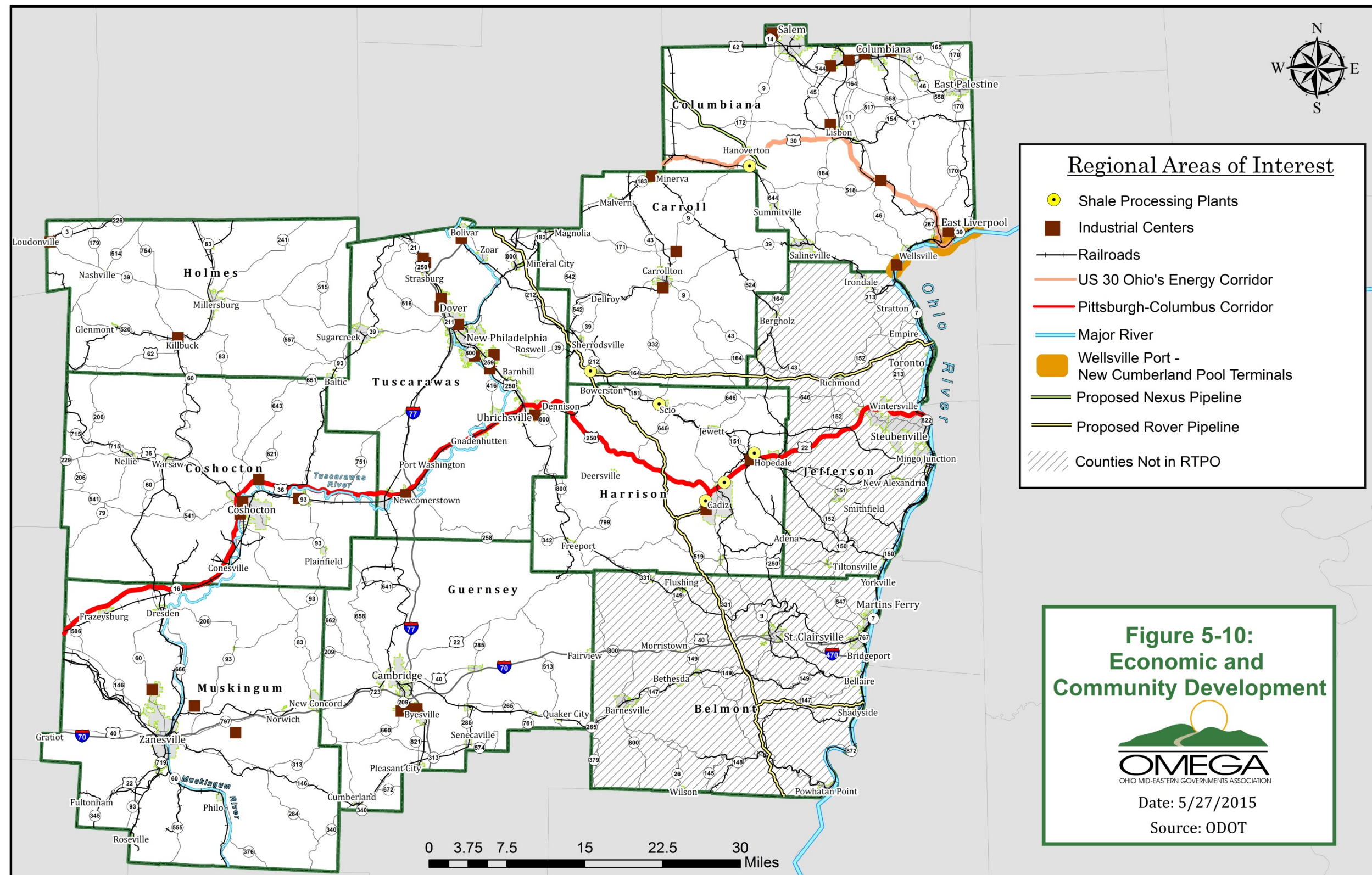
As shown in Figure 5-10, six processing plants are currently located in the RTPO region with a seventh planned for Tuscarawas County. Raw materials and products are shipped by truck, rail, and pipeline to and from these facilities. OMEGA will need to monitor how these raw materials and products are shipped and what improvements to the existing transportation systems are needed to improve the

logistics for transporting these products. As pipelines are developed, shipment by truck and rail should be reduced.

FIGURE 5-9: PROPOSED NEXUS PIPELINE



Source: Nexus Gas Transmission Project FERC Pre-Filing (December 2014)



Finally, as indicated in Section 4.7 of the Regional Transportation Plan, OMEGA will need to continue to monitor traffic volumes associated with well development, pipeline construction, and operation of the processing plants to assess the impact on pavement condition (basic maintenance), bridge condition, safety, and congestion.

5.3.2 Industrial Centers

As shown in Figure 5-10, 37 industrial centers serve as major areas of production and employment for the OMEGA RTPO region. Although many exist within different stages of development, there are some common needs that extend across many of the centers. These include improving access to existing transportation assets, rehabilitating underutilized transportation assets, upgrading roadway conditions to industrial centers, and creating new industrial centers to foster economic development.

Members of our TAC have identified several specific project needs related to industrial parks and major economic centers within the OMEGA region. These projects will contribute to the economic development within the RTPO region.

Coshocton County

- Improve access to RockTenn Plant.
- Improve Airport Road.
- Improve Otsego Road, a primary transportation corridor utilized by RockTenn, Kraft, and Clow as well as several local businesses in the City of Coshocton.

Harrison County

- Repair and resurface CR 29 for Harrison County Industrial Park and MarkWest Facility in Cadiz
- Rehabilitation of Wheeling and Lake Erie rail line from Hopedale to Warrenton on the Ohio River (which has barge access).
- Junction at Jewett Logistics Campus (proposed rail and truck transloading services with unit train capacity).

Holmes County

- Access to Killbuck Industrial Park Phase II
- Four lane access to I-77

Muskingum County

- Access improvements to Eastpointe Business Park

Tuscarawas County

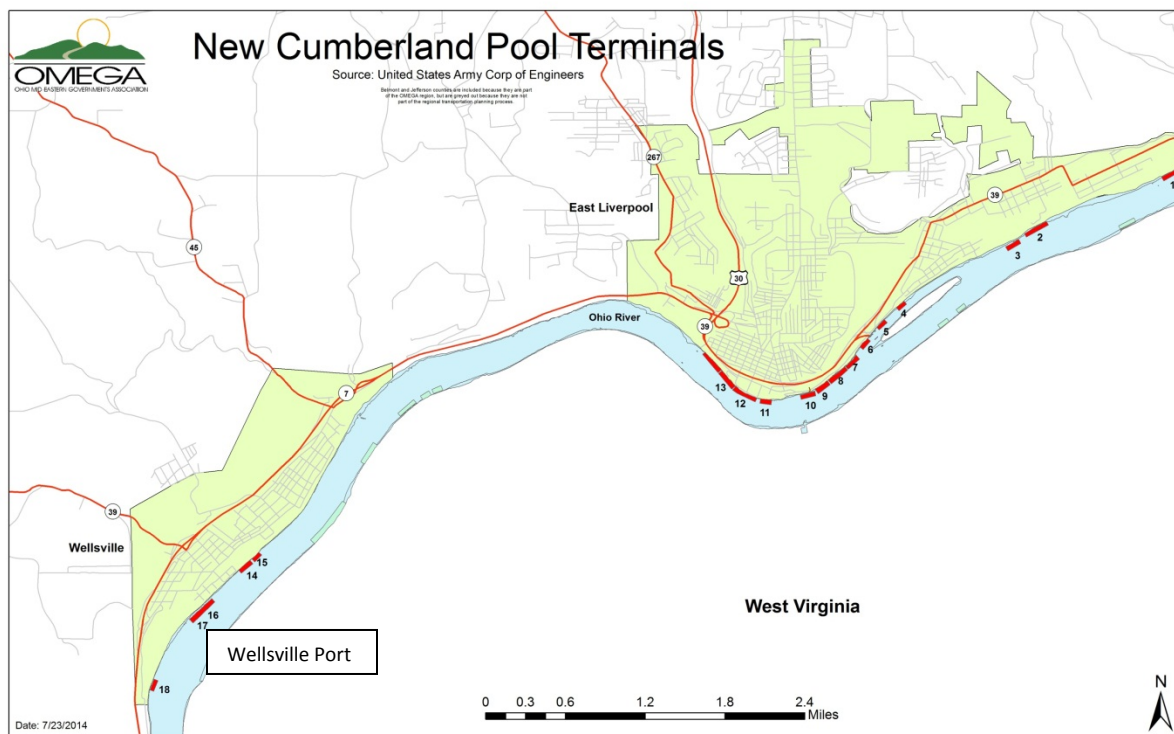
- Improve University Drive in New Philadelphia to provide access to KSU, Technology Park, and Buckeye Career Center or provide alternate access, and potential bridge replacement as well.

5.3.3 Rivers

The rivers of the OMEGA RTPO region provide opportunity for future social and economic advancement regarding transport, recreation, and tourism. While the Ohio River provides the potential for increased barge travel and port activity in Columbiana County, both the Tuscarawas and Muskingum Rivers have the potential to increase tourism and local economic development through recreation. All three of these rivers are a valuable asset to the RTPO region.

Shale development, US 30 Ohio's Energy Corridor, and the opening of the Panama Canal are all projected to increase the demand for the port in Wellsville along the Ohio River. The new 60-ton bridge crane that was recently constructed for this port will also facilitate the use of this facility and the volume of goods that are shipped to and from the region through this port and the private terminals along the

FIGURE 5-11: NEW CUMBERLAND POOL TERMINALS



Ohio River is projected to increase. OMEGA will need to continue to monitor these activities and to work closely with the local economic development professionals in Columbiana County and with Brooke

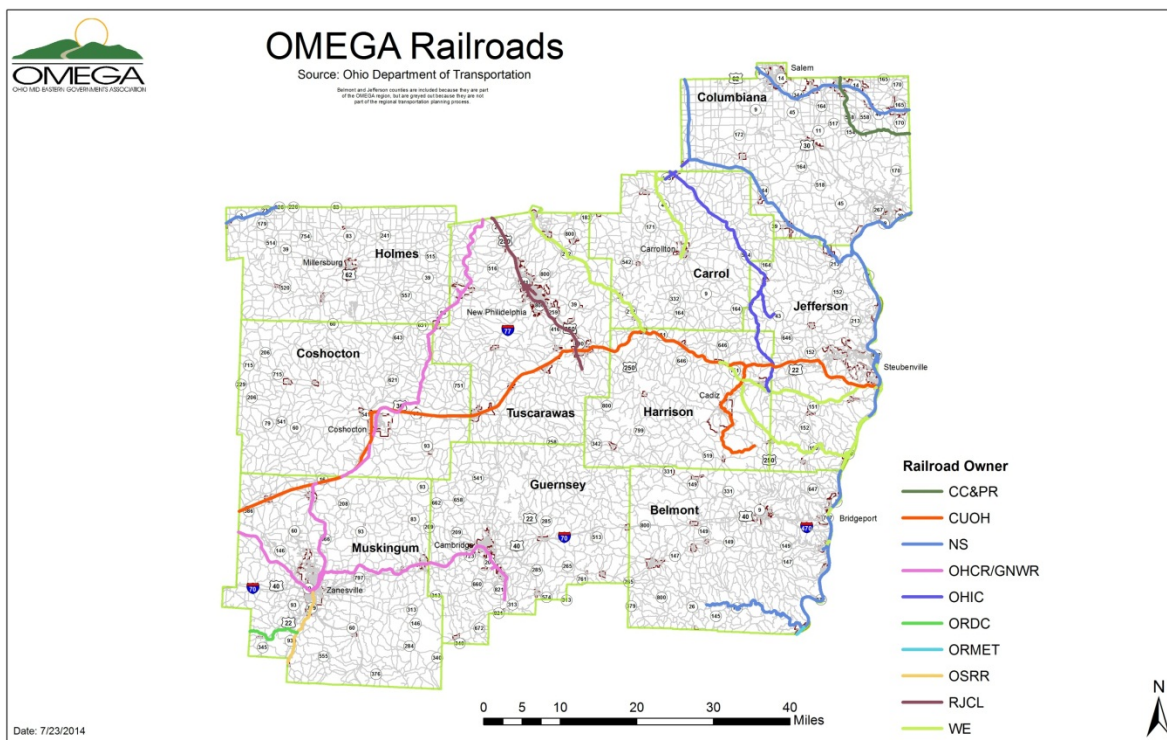
Hancock Jefferson (BHJ) MPO to assess the need for improvements to the existing transportation systems that provide access to this intermodal facility.

The Muskingum River Advocacy Council (MRAC) is working to increase accessibility and general use of the Muskingum River. As of now, windstorms and repetitive flooding have blocked passage on many sections of the river, especially for mid-sized watercraft. The MRAC is planning to remove debris from 80 sites from Ellis Dam to the confluence of the Ohio River in Marietta. In doing so, small barge, recreational motorized and non-motorized boat traffic will again be able to travel safely along this section of the river. Funding to complete this project will be the first step towards making this river more accessible as the project is contingent on grant funding.

5.3.4 Rail

As indicated in Section 3.8 of the Regional Transportation Plan, the OMEGA RTPO region is served by ten railroads which are shown in Figure 5-12. Adequate rail capacity appears to exist as none of the rail lines are congested. However, sections of rail formerly owned by CSX that connected Cleveland and Lorain to Wheeling have been abandoned in Harrison County and Southeastern Tuscarawas County. This rail line may need to be restored so that the processing plants in Harrison County will be able to ship their products more effectively. Similarly sections of rail in Guernsey County have also been abandoned and may need to be restored to promote economic development.

FIGURE 5-12: OMEGA RAILROADS



In addition, as development continues private intermodal facilities, such as Buckeye Transfer in Columbiana County, have been developed to receive materials such as sand used in the hydraulic fracturing process by rail and to transport the sand by truck to the well site. One of the needs identified in Carroll County is the development of an intermodal facility along SR 43 between the Villages of Malvern and Carrollton. Multiple rail sidings to the Wheeling & Lake Erie Railroad will be needed at this location.

OMEGA will need to monitor the additional rail needs in the region to accommodate economic development and to facilitate freight transportation in the region. These needs may range from additional sidings to restoration of tracks that have been abandoned or removed.

5.3.5 US 30 Ohio's Energy Corridor

As documented in ODOT's Access 2040, US 30 Ohio's Energy Corridor is a statewide primary corridor and part of Ohio's Strategic Transportation System that passes through Columbiana County (see Figure 5-10). As previously discussed, the proximity of US 30 to several industrial centers, ports and terminals on the Ohio River, rail connections, and its connectivity to major urban destinations, such as Pittsburgh, make the US 30 corridor a key area for economic prosperity in the OMEGA region. In addition to the development that will be promoted by the construction of the Nexus pipeline, improvements to US 30 Ohio's Energy Corridor are also needed to facilitate the transportation of freight to and from the port in Wellsville as well as the movement of freight across the nation. Several businesses in the region currently use longer alternative routes to bypass US 30 primarily due to safety concerns. Improvements to US 30 Ohio's Energy Corridor will reduce these transportation costs and allow existing businesses to expand and new businesses to develop.

At present, two planning studies are underway to investigate methods to improve the corridor. The first planning study is assessing the need for short and medium term improvements needed to reduce the number and severity of accidents such as intersection improvements and road re-alignment or bypasses around developed areas to alleviate congestion. The second study is assessing alternative corridor alignments that deviate from the current alignment and that will foster the development of a four lane highway. From these studies, improvements to this corridor will be identified and OMEGA will work with Columbiana County on funding the recommended short and medium term improvements. These improvements will promote economic development, assist nearby communities through safety and job creation, and also increase utilization of existing transportation assets such as ports and railways. Improvements to US 30 Ohio's Energy Corridor will promote economic growth and prosperity for the OMEGA region.

5.3.6 Columbus to Pittsburgh Corridor

For several years, members of OMEGA have discussed the need to develop an alternative Columbus to Pittsburgh Corridor, see Figure 5-10. Preliminary studies indicated that this corridor may not be

economically feasible; however, congestion along I-70 in the OMEGA RTPPO is projected to increase. In some areas of Guernsey and Muskingum Counties, the Level of Service is projected to be reduced to E and even F near the City of Zanesville. Similarly, the V/C ratio is projected to be greater than 0.75 and even greater than 1.0 near Zanesville. For this reason, the feasibility of further development of the Columbus to Pittsburgh Corridor will need to be re-assessed. Projected congestion on I-70 along with increased traffic associated with shale development may improve the viability of this corridor especially since much of the proposed corridor SR 16, US 36, and sections of US 250 and US 22 is already built.

5.3.7 Summary

Reliable transportation systems are key to the continued economic growth and development of the RTPPO region. In order to facilitate economic growth and community development, the needs documented in this section must be addressed.

5.4 Improve Quality of Life

OMEGA developed six objectives to improve the quality of life for the residents of the RTPPO. The objectives are primarily focused on improving access and mobility as well as expanding pedestrian/bicycle improvements for recreational and non-recreational users. These objectives are:

1. Identify the service areas of the public and human services transit agencies.
2. Assess the need to improve and/or expand existing transit services in order to increase usage, accessibility, and mobility.
3. Develop a plan to implement the recommended transit system improvements.
4. Identify existing trails and pedestrian/bicycle routes for non-recreational (those who use bicycles as primary mode of transportation) and recreational users.
5. Assess the need to expand or improve pedestrian/bicycle access to encourage linkage to regional, state, and national trail systems and heritage corridors for recreational and non-recreational users.
6. Develop a plan to implement the recommended pedestrian/bicycle improvements for recreational and non-recreational users.

OMEGA has completed Objective 1 as the transit agencies and coordinated transportation agencies and their respective service areas are documented in Section 3.5 of the Regional Transportation Plan. The primary bike trails in the region (Objective 4) have been identified and documented in Section 3.11 of the plan; however additional work is needed to identify the major bicycle routes for non-recreational use particularly those routes used by the large Amish population in Holmes County. This section focuses on the needs to improve access and mobility and to expand the pedestrian/bicycle network in the region.

5.4.1 Transit

As identified in the Existing and Future Conditions of this plan, public transit is an area of concern for our region. Increased ridership, changing demographics, and growing fiscal needs all point to an increased need in state and federal funding, especially within the OMEGA region. Unfortunately, state and federal funding for public transit agencies has remained stagnant or decreased, despite the upward trend of ridership and services across the state.

As previously identified in this plan, the primary users of the existing transit systems in the region are the elderly, disabled, and/or low income persons who need transportation for work and human services such as medical appointments, banking, and shopping. Demand for transit services is expected to increase as the population of those 65 and older increase and the number of low income residents increase. This trend also indicates that, for most of the counties in our region, car ownership amongst households will decrease. Transportation services are also needed to increase access and mobility of disabled persons and those who do not have a vehicle. Only five (Carroll, Columbiana, Guernsey,

Harrison, and Muskingum) of the eight counties in the RTPO are served by public transit agencies. Coshocton and Tuscarawas Counties are served by Coordinated Transportation Agencies; however, Holmes County is not served by any type of transportation agency. The agencies serving the OMEGA RTPO Region are:

- Carroll County Transit
- Community Action Rural Transit System (CART) serving Columbiana County
- Coshocton County Coordinated Transportation Agency (CCCTA)
- South East Area Transit (SEAT) serving Guernsey and Muskingum Counties
- Harrison County Rural Transit
- Tuscarawas Coordinated Public Transportation

SEAT is the only fixed route transit provider within the region; however, SEAT also offers demand response services as well. As shown below ridership for three of the four transit agencies has increased significantly over the period between 2008 and 2012; whereas the ridership for SEAT has decreased by 17%. However, demand response ridership, increased by 52% during this same time period.

- | | |
|---------------------------------|------|
| • Carroll County Transit | 48% |
| • CART | 36% |
| • SEAT | -17% |
| • Harrison County Rural Transit | 37% |

These increases in ridership also have a corresponding impact on vehicle life. The percentage of vehicles that have reached the end of their useful life ranges from a low of 11% for CART to a high of 38% for Harrison County Rural Transit. Even though CART's percentage of vehicles that have reached the end of their useful life is low, CART does have a relatively high number of road calls (6.6 per 100,000) which is twice as high as the average rate for large demand response systems.

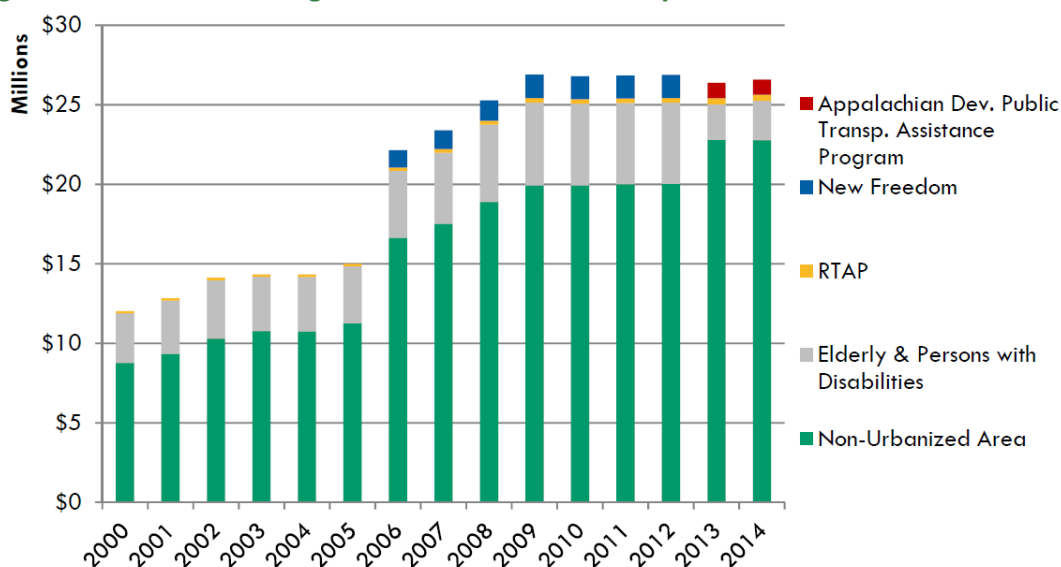
The primary needs to meet existing and projected demand for transportation services in the RTPO are:

- Increased revenue for operations
- Increased revenue for capital expenditures (vehicle replacement and fleet expansion)
- Improved coordination between public transportation and human services transportation
- Regional coordination for out of county and out of region transportation (especially medical transportation to Columbus, Cleveland)
- Effective service to low density population outside the cities and major villages
- Technology investments (automatic vehicle location/global positioning systems (AVL/GPS), scheduling software, real time information, web trip planners/google transit)
- Extended service hours (after 5:00 pm and on weekends)

Primary funding sources for the transit agencies in the RTPo region include the Federal Highway Administration, ODOT, state general revenue funds, local, service contracts (such as Office of Jobs and Family Services, County Boards of Developmentally Disabilities etc.), and fares.

As indicated in the Figure 5-13 from Ohio Statewide Transit Needs Study (January 2015), federal funds for Ohio's rural transit programs increased significantly between 2005 and 2006. Since 2006, funds from the Federal Transit Administration for rural programs have remained relatively flat or increased slightly. With the flat funding for the past few years, ODOT stopped funding new systems to assure adequate funding for existing systems. With inflation, the purchasing power of these funds has decreased even further.

Figure 5-13: Federal Funding Allocated to Rural Transit Systems



Source: Ohio Statewide Transit Needs Study (January 2015)

As state funding for transit services decreased, the state's priorities also changed which greatly impacted rural transportation providers. State funding for rural capital projects and the Ohio Coordination Program were eliminated. State general funds for rural transit programs were reduced by 25% between 2000 and 2014 and state funding for the elderly and disabled program was reduced by 30% over this same period of time. With these reductions in state funding, many transit agencies are unable to meet the match requirements of the federal programs for both operating and capital expenditures.

Additionally, the statewide study found that the transit agencies serving Carroll, Columbiana, and Harrison counties do not have any advanced scheduling software and representatives from SEAT have expressed concern about the difficulties of effectively using their scheduling software. Easy to use scheduling software may improve the efficiency of these agencies.

The two coordinated transit services in Tuscarawas and Coshocton counties were not included in the statewide transit study, but these demand response services have voiced similar needs; vehicle replacement, funding options, and local matches are all current needs.

As transit services continue within our region, funding will remain an integral issue for our transit providers. The Ohio Statewide Transit Needs Study (2015) also recognized the need for regional transit approaches, rather than city or county alone, for public transit in Ohio; medical visits to metropolitan areas, increased work commuting distances, and general regional travel needs all point to the necessity to develop regional approaches to transit that span across city and county boundaries. Increased regionalization (both within and outside the OMEGA region) has been reported as a general need for public transit from local agencies, county officials, and the Ohio Statewide Transit Needs Study.

Regional transit approaches may partially address the current issues with funding that exist within our region, such as reducing administrative costs, hiring more specialized staff, and increasing ridership fare sales. The demand services within our region have also indicated the need to be able to take residents out of their jurisdictions. Regional approaches will ultimately link destinations and origins outside of local funding jurisdictions. This indicates the need for cooperative local funding or the increase in additional revenue streams. Although legislation allows for such actions, specific funding sources for regional coverage are not offered through ODOT. To address this problem, OMEGA plans to develop a transit work group to devise ways to increase regionalization and shared services across the transit agencies in the RTPPO region.

5.4.2 Pedestrian Access

Improving pedestrian access within the OMEGA region will improve the quality of life for our residents. The CCCTA has identified a need to improve mobility and accessibility within the City of Coshocton, in particular the southwestern section of the City. For many residents, areas supporting daily living activities are not accessible due to the lack of existing sidewalks. Grocery stores, banks, schools, places of employment, recreation areas, and other areas of activity are not accessible by pedestrians. Pedestrian safety and accessibility are the primary concerns.

The southwestern section of the City of Coshocton has a relatively high population of low income residents, elderly, young, and disabled, many of whom do not have vehicles. This project will connect residential areas to businesses and commercial districts, recreational facilities and other destinations. The project will improve the quality of life for residents by providing safe, accessible, walkable areas for pedestrians.



FIGURE 5-14: PEDESTRIAN ACCESSIBILITY
Source: CCCTA

5.4.3 Bicycle Trails and Routes

The OMEGA region currently has ten bicycle trails within our region and plans to extend and create new trails. While most of the trails maintain exceptional levels of upkeep, the information about the trails is currently not well publicized; many of the trails do not have maps depicting accessible areas or other points of interest. For residents and the multitude of tourist who access these trails, they are often without the vital information to do so. Figure 5-15 shows the 10 local bicycle trails areas within the RTPO region as well as the planned US 50 bike route.

In addition to these trails, many of the Amish in Holmes County use the trails and shoulders along the state routes as their primary means for transportation by buggy and bicycle. In many cases the shoulders along the major state routes within Holmes County have been widened to accommodate these uses. The trail in Holmes County is also designed to accommodate buggies and horses to include hitching posts and buggy parking spots at trail heads.

In order to address this need, OMEGA will use GIS to create both paper and interactive online maps of these trails. By collaborating with local agencies who maintain these trails, OMEGA will produce usable and informative maps that will show points of access, water sources, historical information, environmental facts, and other points of interest and local attractions that will enhance the experience of the user. These maps will be available to constituents within the region and publicized by OMEGA.

This collaborative mapping project will meet the goal of improving the quality of life for the residents in the RTPO region. First, it will greatly publicize a widely under-advertised asset of our region. Second, nearby businesses will likely generate income from tourists who come from outside areas and residents who would have otherwise not utilized the pathways due to the lack of information about them. Third, it will provide a resource for local trail committees to use for their own, whether it is for publication or funding purposes. Finally, through these methods, it will additionally serve as a way to bolster our region and meet the goal of improving the well-being and quality of life for residents within our region. In addition to the mapping project, our TAC meetings have identified several areas of need concerning bicycle trails:

Columbiana County

- Connection from City of Salem to the Greenway Trail

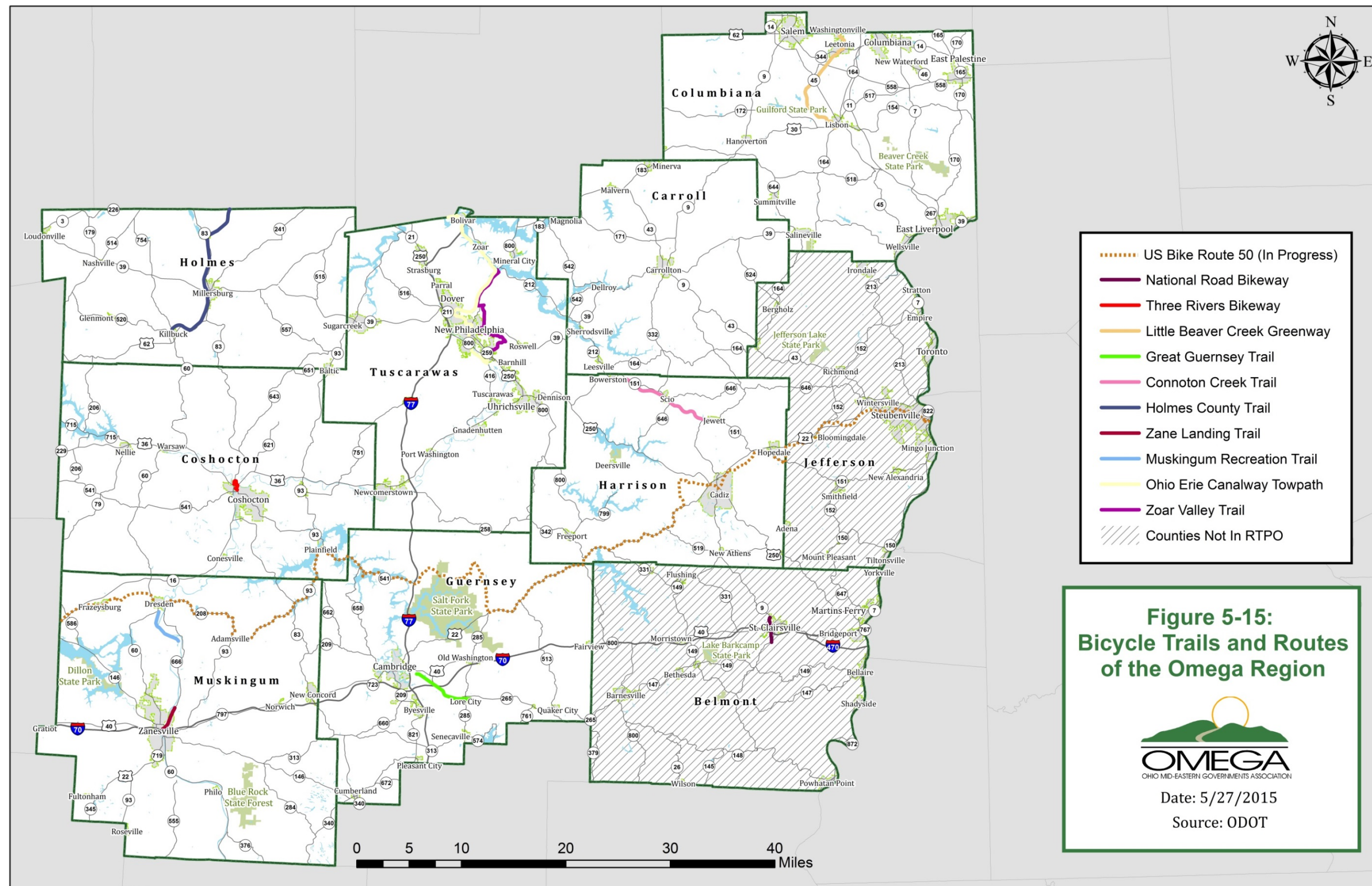
Holmes County

- Completion of trail along CR 23 with bridge replacement over Mohican river
- Connect trail to downtown Millersburg more effectively

Tuscarawas County

- Develop trail network additions identified in Tuscarawas County Trail and Green Space Plan

As the nature of our region continues to change, improvements in public transit, pedestrian access, and bicycle trails will address specific needs within our communities. By addressing such needs, OMEGA hopes to improve the quality of life within our region.



5.5 General Transportation Needs

In addition to the specific transportation needs that have been identified in this section, our stakeholders, members of our TAC, Executive Board, and Citizen's Advisory Board have identified the following needs for consideration in the Regional Transportation Plan. Many of these needs are related to funding and others are issues that should be considered during project planning.

1. Technical assistance with federal processes.
2. Increased funding from non-federal sources.
3. Trade federal transportation dollars for state transportation dollars in CEAO programs.
4. Improve rail service for freight along US 30 Corridor and Columbus to Pittsburgh Corridor.
5. Provide passenger rail service.
6. Increased funding for local public and human services transit systems.
7. Expansion of transit services for those not qualifying for social services and not able to privately pay for transportation.
8. Improve access and safety for non-motorists (pedestrians, bicycles, wheelchairs, etc.).
9. Improve public transit systems.
10. Incorporate complete streets in transportation improvements.
11. Integrated transportation plan for shale development.
12. Bridge improvements and replacement of obsolete and deficient bridges including upgrade of under capacity bridges which are on routes accessing gas processing facilities.
13. Maintenance of existing road surfaces.
14. Upgrades or elimination of at grade railroad crossings on county and township roads.
15. Snow and ice control: salt storage as county supplies many townships and villages.
16. Safety improvements: Striping and other pavement markings.
17. Consider alternative transportation modes (such as bike paths) in conjunction with transportation improvements.
18. Additional funding to maintain existing roads, bridges, and other transportation systems.
19. Increased funding for local transportation needs and operations.
20. Improve pedestrian/bicycle/handicap accessibility, including roads and trails. Safe routes for pedestrians and bicyclists
21. Improved rail service.
22. Improved road safety for all users.
23. Promote green tourism, trails and public access to natural areas.
24. Provide for a single source for inspection and maintenance of municipally owned bridges along with a funding source.
25. Deer and animal control along major routes.