3.0 OMEGA's Existing Transportation Network

The OMEGA region has experienced an economic resurgence since 2015. Though a few companies left the region, several new companies have moved into the region, current businesses have expanded, and certain areas of the region experienced net population growth for the first time in decades. This new growth has highlighted the need for a safe and robust transportation network that is vital for the continued economic growth of the region and well-being of residents.

The overarching goal of OMEGA is to ensure that the infrastructure throughout the region is maintained or improved to be in state of good repair. OMEGA will work with the Ohio Department of Transportation (and its federal partners), county engineers, township trustees, municipal officials, and other stakeholders to ensure that existing infrastructure is preserved, and targeted areas are expanded or modified to accommodate future challenges.

An inventory of existing transportation facilities is a key element in developing a Regional Transportation System. This section will identify the multiple modal networks that crisscross the OMEGA RTPO. This section will also outline the current conditions of the regional transportation system and highlight potential areas of concern.

The core of the OMEGA transportation network is centered on Interstate 70 running east-west in the southern part of the region, and Interstate 77 running north-south through the middle. Other major routes carry commuters, freight, tourists, and more throughout the region. OMEGA is also served by several regional or shortline railroads and one Class 1 (Norfolk Southern). CSX Corporation is also a Class 1 railroad and owns rail lines in the OMEGA RTPO, however these lines are operated by other railroads through leasing agreements. Though none of the region's airports host commercial air service, the region is within an hour's drive of three larger airports: Pittsburgh International, John Glenn International (Columbus), and Canton/Akron Regional. Finally, the region utilizes the Ohio River as a prime maritime corridor. There are sixteen private ports, and one public intermodal port in Columbiana County.

3.1 Roadway Network

Roads

The largest infrastructure network in the OMEGA region is roadways. Within the OMEGA RTPO, there are 10,520 center line miles, and 71% of these roads are under local jurisdiction (county, township, and municipal). The National Functional Classification (NFC) System is used to determine the level of importance placed on each road within a planning area. The three levels of classification are:

1. Arterial highways
2. Collector streets
3. Local roads

These classifications represent a balance between mobility and access. Arterial highways have the highest degree of mobility and a low degree of access, whereas local roads are the inverse. Collectors represent a moderated balance between mobility and access. Factors involved with functional classification include efficiency of travel, access points or control, speed limit, route spacing, usage (average daily traffic or vehicle miles traveled), number of lanes, and regional/statewide significance.

Functional classification is important for program and project prioritization, asset management, safety programs, highway and bridge design, traffic control, access management, and maintenance. The current functional classifications are:

01. Interstate
02. Freeway and Expressway
03. Other Principal Arterial
04. Minor Arterial
05. Major Collector
06. Minor Collector
07. Local

01 - Interstate. Two major Interstate highways intersect in the region, with I-77 running north-south through Tuscarawas and Guernsey Counties, and I-70 running east-west through Muskingum and Guernsey Counties. The interchange of these two Interstates is located to the southeast of downtown Cambridge in Guernsey County. The total mileage of the Interstate system is 114.25 miles.

02 – Freeway and Expressway. Additionally, other routes are designated as freeways/expressways and are limited access. These include SR 16 in northwestern Muskingum County to SR 60; US 250 between I-77 and US 36 in Uhrichsville; and SR 11 from East Liverpool to the Columbiana County border with Mahoning County. The total mileage of the freeway/expressway system is 51.1 miles.

03 – Other Principal Arterial. Other primary arterial routes in the region include US 36 in Muskingum/Coshocton/Tuscarawas Counties; US 22 from Cambridge to the Harrison/Jefferson County line; US 250 from Uhrichsville to Cadiz and from I-77 to the Tuscarawas/Stark County line; and SR 39 from Dover to the Holmes/Ashland County line in Loudonville.

As shown in Figures 3-1 and 3-2, roads are classified in the seven categories.

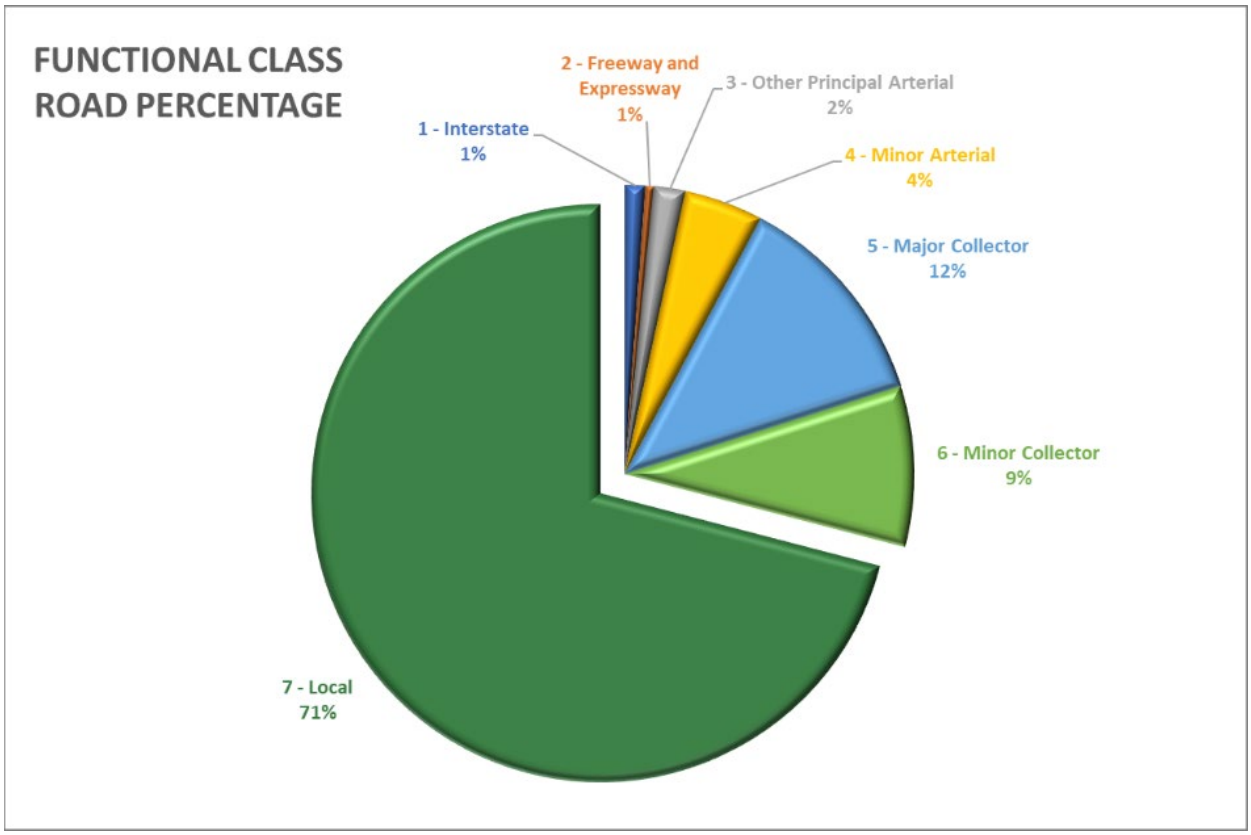


Figure 3-1: Road Percentages by Functional Class

Over 70% of all OMEGA roadways are classified as local roads. These roads are primarily maintained by municipalities, counties, and townships. Some of these roads are on the Federal Aid system, though most of the lane miles are not. Holmes and Carroll Counties are the only two counties within the OMEGA RTPO that do not have any roads with a higher classification than 04 – Minor Arterial. Coincidentally, these counties are also the only counties within the RTPO that are not served by any four-lane roadways.

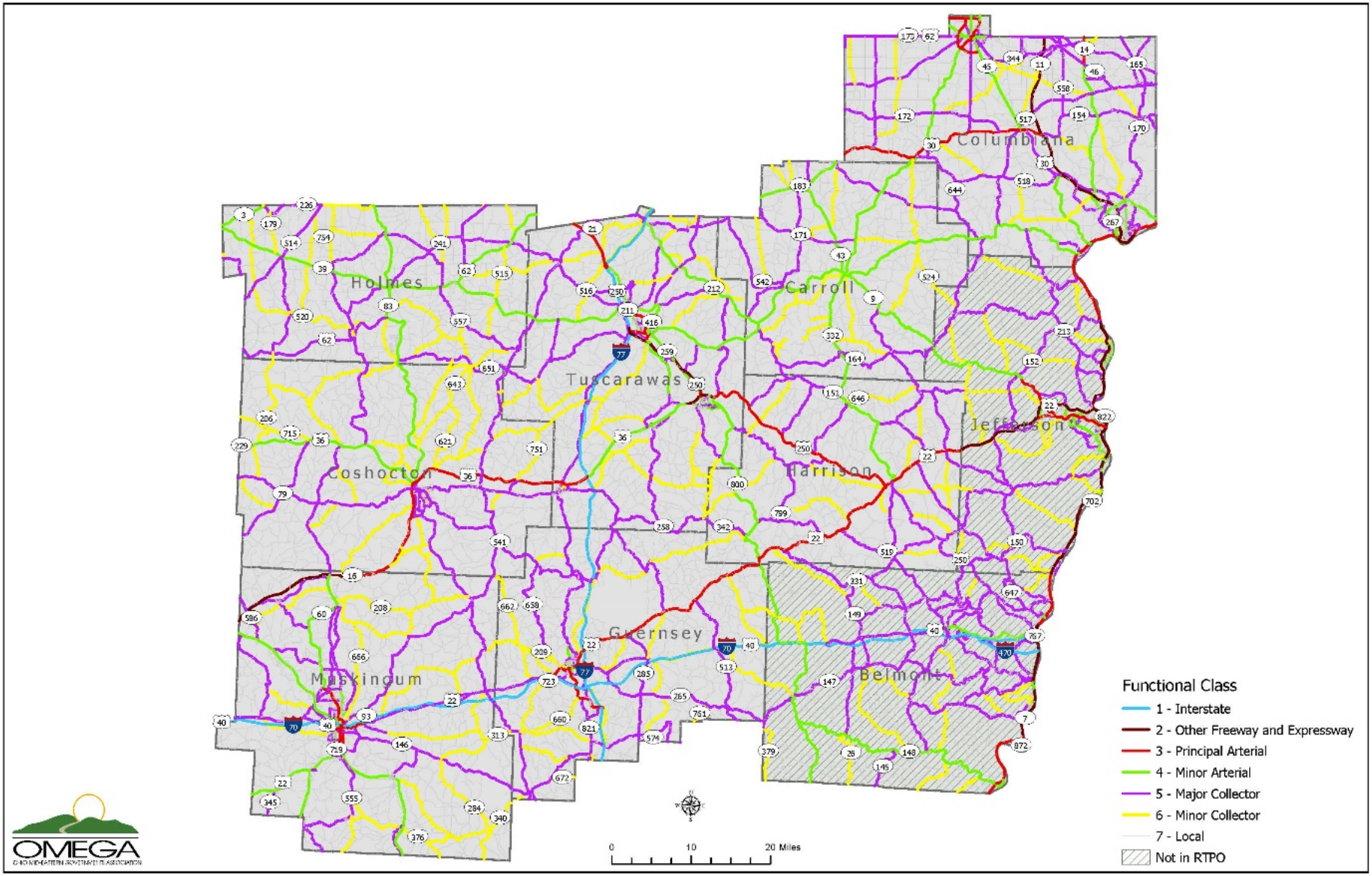


Figure 3-2: Roadway Functional Classification

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 as:

- **Level A** Free flow, with low volumes and high speeds. Traffic flows at or above the posted speed limit and motorists have complete mobility between lanes. Motorists have a high level of physical and psychological comfort and incidents or point breakdowns are easily absorbed. Level of Service A typically occurs late at night in urban areas and frequently in rural areas.

- **Level B** Reasonable free or stable flow, speeds beginning to be restricted by traffic conditions. Maneuverability within the traffic stream is slightly restricted. Motorists still have a high level of physical and psychological comfort.

- **Level C** In stable flow zone, but most drivers are restricted in freedom to select own speed. Ability to maneuver through lanes is noticeably restricted and lane changes require more driver awareness. Most drivers are comfortable, roads remain safely below but efficiently close to capacity, and posted speed is maintained. Minor incidents still have no effect, but localized service will have noticeable effects and traffic delays will form behind the incident.

- **Level D** Approaching unstable flow; drivers have little freedom to maneuver. Lower speeds and increased traffic volume. Minor incidents will create delays.

- **Level E** Unstable flow; operating at capacity. Flow becomes irregular and speed varies, rarely reach the posted limit. Any disruption to traffic flow will create a shock wave affecting upstream traffic. Driver's level of comfort is poor.

- **Level F** Forced or breakdown flow. Frequent slowing required. Demand exceeds capacity and the road is in a constant traffic jam.

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.

As shown in Figure 3-3, the Level of Service for the major routes within the RTPO is C or higher. The following routes within the RTPO have a LOS of D:

- Carroll County
  - SR 183/SR43 from the Stark County Line to Malvern
  - SR 183 in Minerva
  - SR 43 in northeast Carrollton
- Columbiana County
  - SR 170 between St. Clair Township and Middleton Township
  - SR 14 east of Salem (Washingtonville)
  - SR 14 north of Columbiana and SR 7 east of Columbiana
  - US 62/SR 173 west of Salem
- Coshocton County
  - SR 16 from the Muskingum County Line to City of Coshocton
- Guernsey County
  - I-70 between MM 172 and I-77
  - US 40 east of Cambridge to SR 265
- Holmes County
  - SR 39 between Sugarcreek and Berlin
  - US 62 between Berlin and Millersburg
  - SR 83 north and south of Millersburg
- Muskingum County
  - I-70 from Zanesville east to the Perry Township Line
  - SR 16 from SR 60 to Coshocton County Line
  - SR 60 at Philo/Duncan Falls
  - SR 60 at Richvale Rd.
  - Sections of SR 146 in Falls Township
  - SR 93 south of the intersection with US 22
- Tuscarawas County
  - SR 39 between Dover and Sugarcreek
  - US 250 north of Strasburg
  - US 250 from Dennison to Harrison County Line
  - SR 259 in New Philadelphia (KSU-Tusc)
  - I-77 between Exit 81 and 87

The following routes within the RTPO have a LOS of E:

- Columbiana County — US 62/SR 173 east of Alliance
- Guernsey County — SR 209 at I-70 interchange
- Muskingum County — SR 60 north of SR 555
- Tuscarawas County — US 250 south of intersection with SR 21

The following route within the RTPO has a LOS of F:

- Guernsey County — SR 209 north and south of I-70 interchange

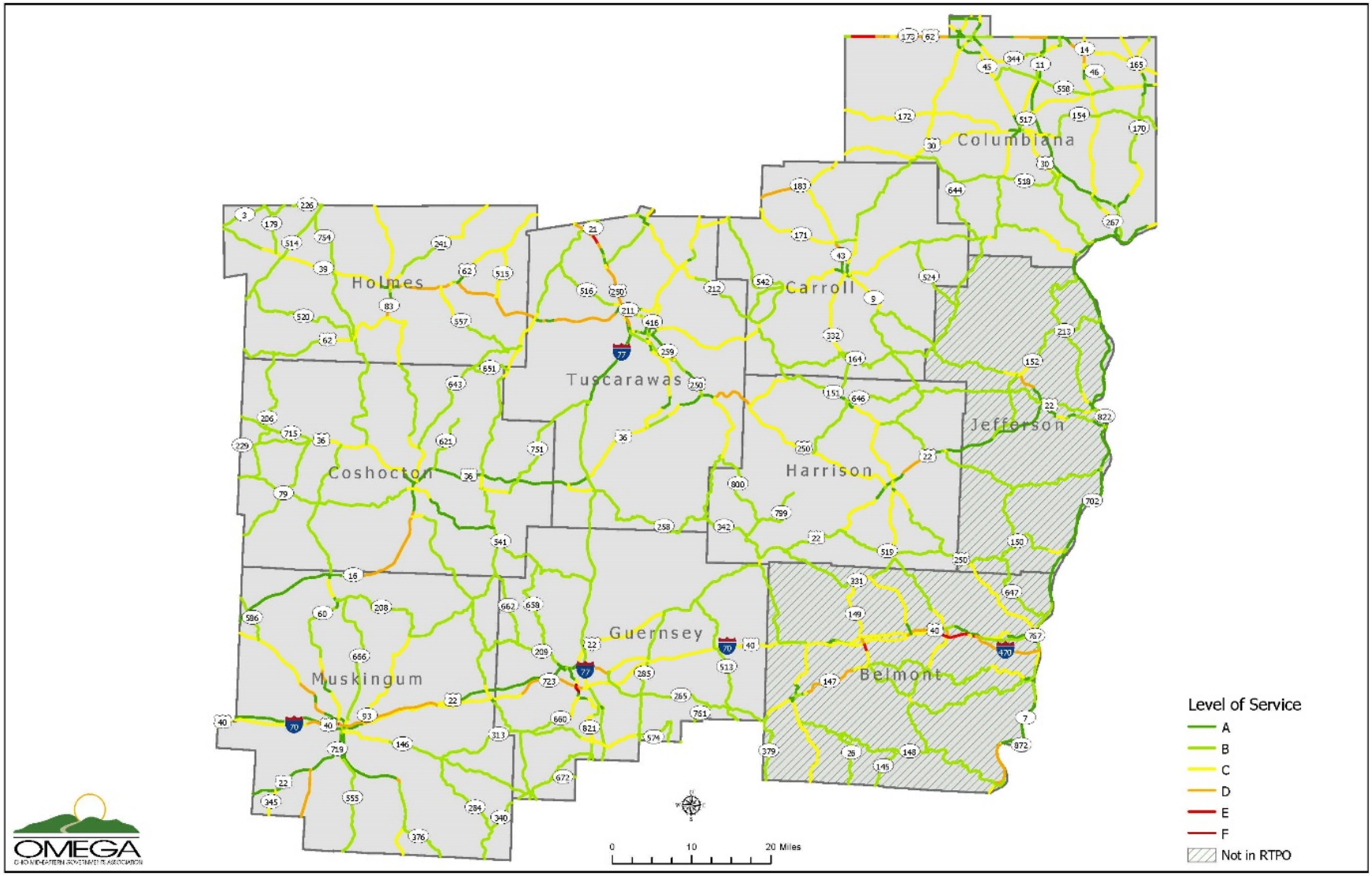


Figure 3-3: Roadway Level of Service

Unsurprisingly, the highest traffic volumes are found along the Interstate highways, primarily Interstate 70. Interstate 70 crosses the US, starting in Utah in the west and terminating in Maryland (outside Baltimore) in the east. In the OMEGA region, this route is used heavily by trucks and through passenger traffic, as well as commercial bus lines. The highest Annual Average Daily Traffic (AADT) in the region is found outside Zanesville along I-70 with 48,272 vehicles, approximately one-third of that volume being classified as trucks. As shown in Figure 3-4, no segment of the highway system appears in the deep red color (50,001-100,000 vehicles). Only one segment in Belmont County appears to cross this threshold, owing to two Interstates diverging to bypass Wheeling, West Virginia. This area is within Belomar Regional Council's transportation planning area.

Interstate 77 originates in Cleveland and terminates outside Columbia, South Carolina, passing through Charlotte, North Carolina. In the OMEGA region, this route is traveled by through freight, local hauler, and passenger vehicles. Commercial bus lines also use segments of this route to connect to other networks. The AADT on I-77 near Dover is 42,376, which is the highest volume along this route in the OMEGA region.

Off the Interstate system, other highways carry high volumes of traffic into and out of the region. Major US routes include US 22, US 30, US 36, US 40, and US 250. Major state routes include SR 9, SR 16, SR 39, SR 60, and SR 83. These routes connect cities and villages to the core network and function as efficient commuter and freight corridors.

Truck volumes have increased in many areas of the OMEGA RTPO over the past decade, with the eastern portion of the region seeing especially significant growth due to the development of the Marcellus and Utica Shale formations for oil and natural gas extraction. Just-in-time logistics and the escalation of online retail has also contributed to the increased number of trucks on the roadways within the OMEGA region.

Figure 3-5 shows the percentage of truck traffic along routes where it is measured. Areas highlighted by red have truck traffic volumes greater than 30%. On average, every third vehicle on these routes is classified as a truck by the Federal Highway Administration's guidelines. This is expected along Interstate 70 (through freight), but it is newer to areas such as Harrison County (US 22, US 250, SR 9) which saw this growth due mainly to the oil and gas extraction within the region. Other areas with higher truck volumes (and their potential explanation) include:

- Holmes County (small manufacturers and retail locations)
- Guernsey County (oil/gas, logistics, Interstate 70/77 interchange)
- Muskingum County (logistics & warehousing)

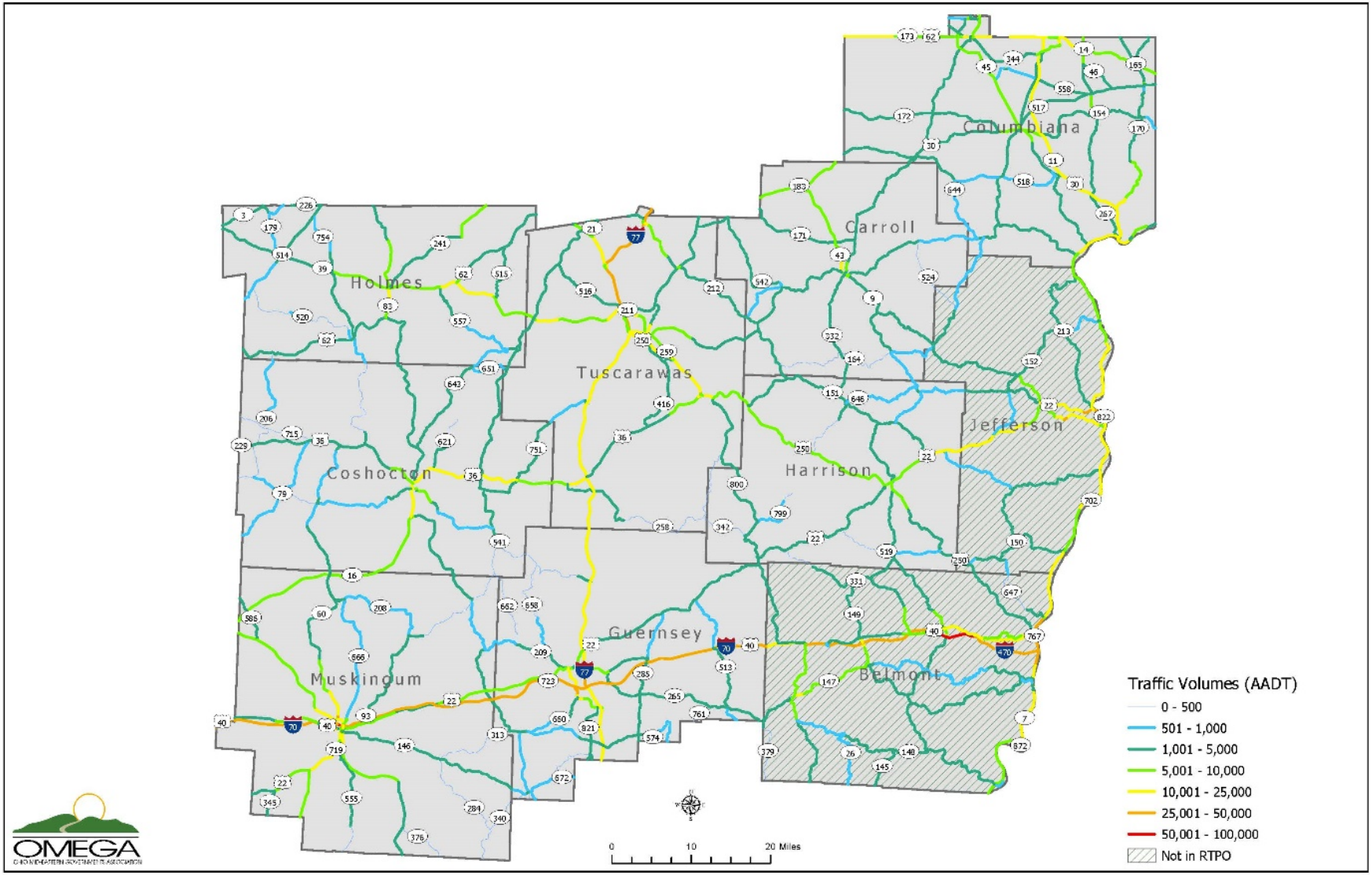


Figure 3-4: Traffic Volumes (AADT)

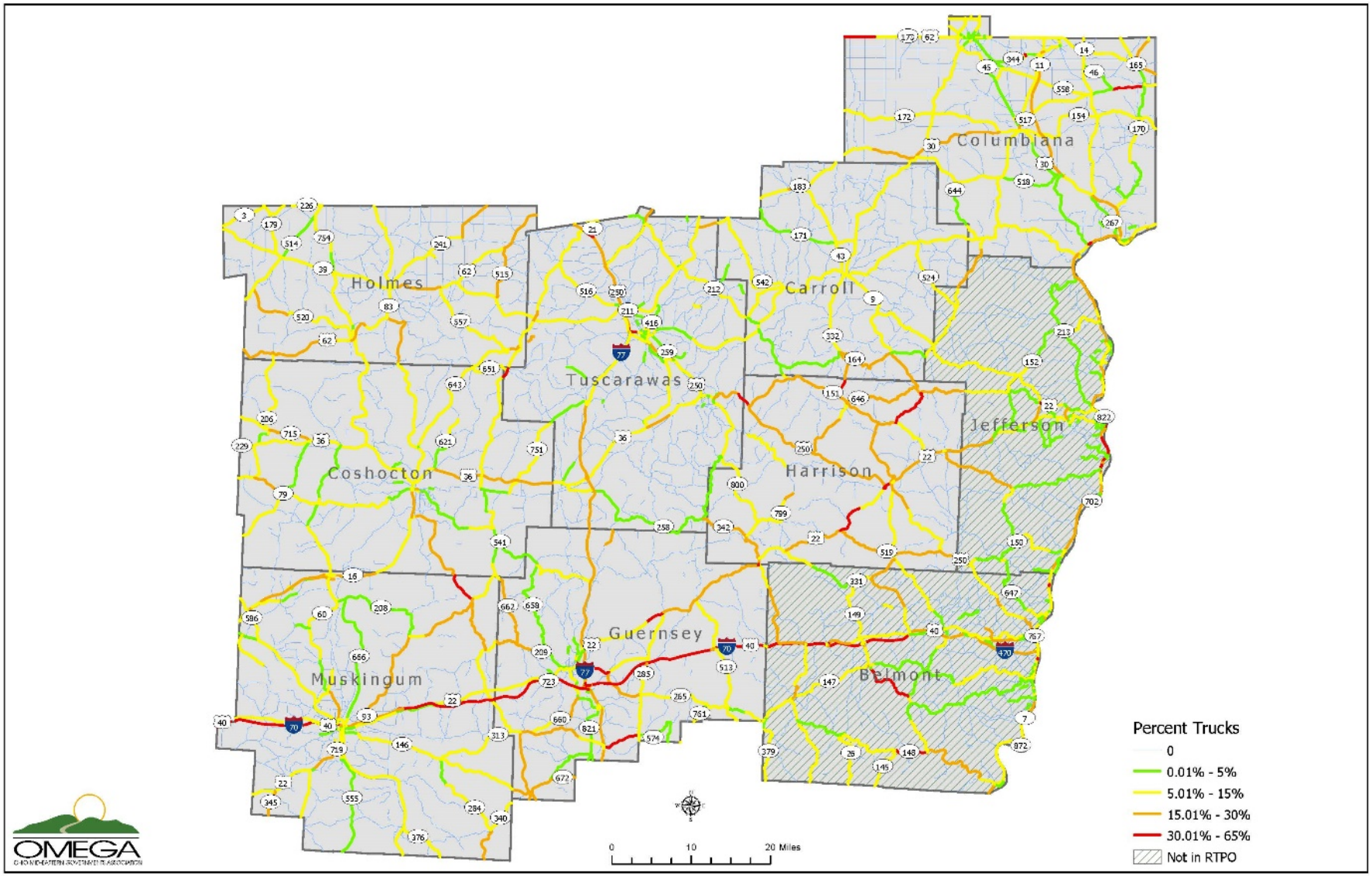


Figure 3-5: Traffic Volumes, Trucks

The transportation network is reaching capacity in a number of areas throughout the OMEGA RTPO. The American Association of State Highway Transportation Officials' (AASHTO) Highway Capacity Manual defines capacity as: "The maximum sustainable flow rate at which vehicles or persons reasonably can be expected to traverse a point or uniform segment of a lane or roadway during a specified time period under given roadway, geometric, traffic, environmental, and control conditions."

Based on calculations using the best available data and as shown in Figure 3-6, we have categorized the volume to capacity ratio to fall into one of four:

- 0 – 0.54
- 0.55 – 0.79
- 0.8 – 0.99
- 1+

Values over "1" have exceeded their designed capacity and may experience delays and congestion, especially at peak travel times. Values nearing "1" (0.8-0.99) should be monitored, as these routes may be nearing or exceeding capacity in peak times, resulting in additional delays. The following routes in the OMEGA RTPO are nearing or exceeding capacity:

- V/C = 0.8-0.99
    - US 250 at I-77 in New Philadelphia
    - Maple Avenue (SR 60) in Zanesville, north of I-70
    - Southgate Parkway (SR 209) in Cambridge, north of I-70
    - US 62/SR 173 between Alliance and Salem in Columbiana County
- V/C = 1+
    - Southgate Parkway (SR 209) in Cambridge, south of I-70
    - Intersection of SR 164/SR344 in the City of Columbiana

A majority of these routes which are nearing capacity also have a Level of D or worse.

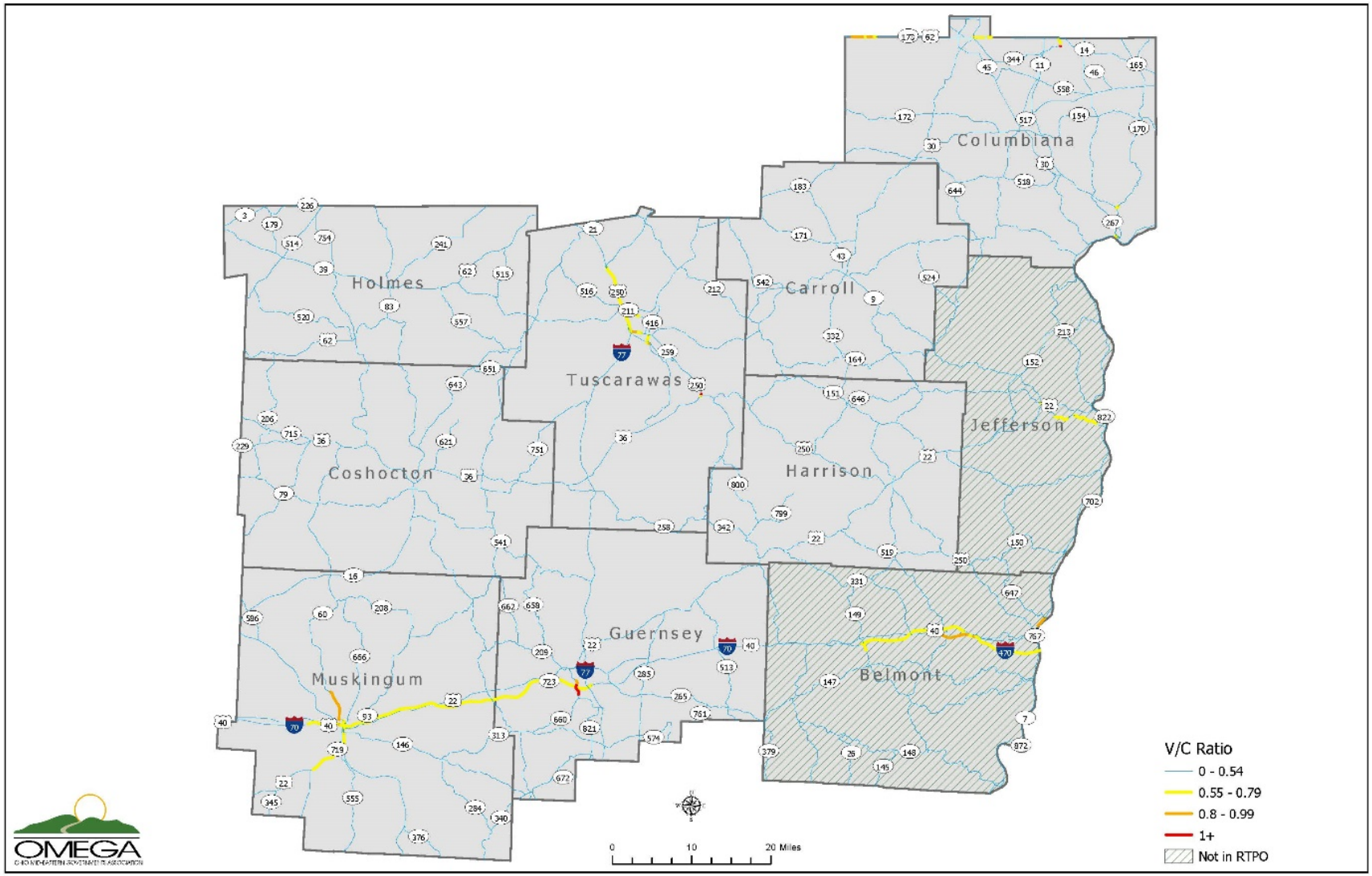


Figure 3-6: Roadway Volume to Capacity Ratio

State funded roadways are also rated based on the condition of their pavement. The Pavement Condition Rating is a distress index based on a continuous rating scale (0-100). Values closer to 0 indicate failed pavement, whereas values closer to 100 indicate new or non-distressed pavement. Thresholds are set to determine potential treatment actions. Depending on the level, the actions may be simple maintenance, a preservation treatment (asphalt overlay), or full rehabilitation or reconstruction. The threshold for rehabilitation or reconstruction is often used to separate acceptable from non-acceptable pavement conditions. This system is primarily used on the state-maintained system to assist in determining where preservation efforts will be targeted in the upcoming work program years.

Pavement Condition Rating		
0 – 40	Very Poor	Non-Acceptable
41 – 55	Poor	
56 – 65	Fair to Poor	May be Acceptable
66 – 75	Fair	Acceptable
76 – 90	Good	
91 – 100	Very Good	

Table 3-1: Pavement Condition Rating Thresholds

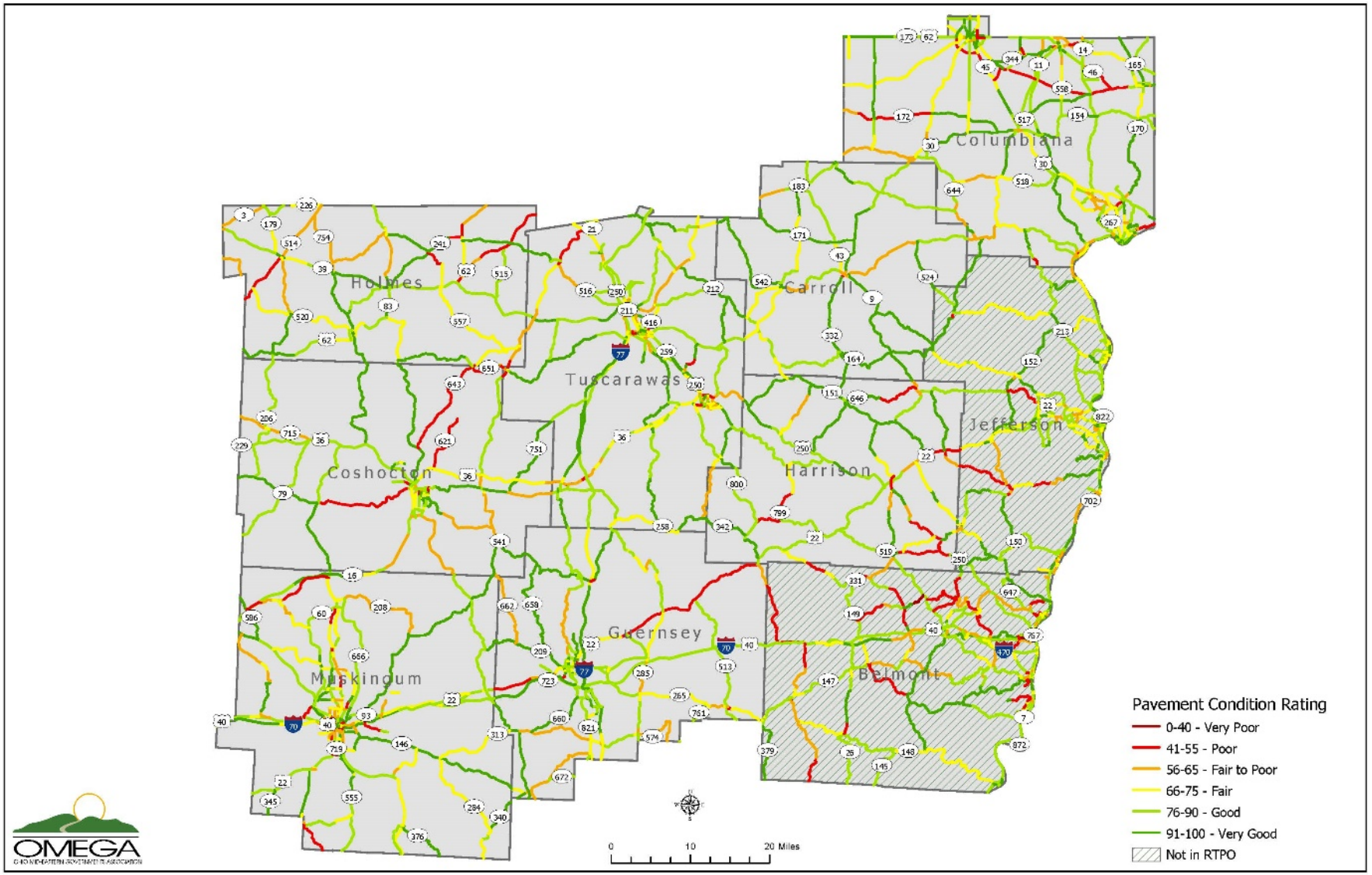


Figure 3-7: Roadway Pavement Condition Rating

Bridges

Bridges function as a vital component of the transportation system, especially in eastern Ohio. Ohio has 44,766 bridges systemwide and 3,423 (7.6%) are in the OMEGA RTPO area. This definition is set by the state and includes spans of 10 feet or greater. The General Appraisal Condition Rating is a composite condition measurement of the major structural items of a bridge. General Appraisal Rating values range from zero (0) to nine (9), with zero being out of service and nine being like new.

Rating	Condition Category	Description
0	Failed	Bridge is out of service and beyond corrective action
1	Imminent Failure	Major deterioration present in critical structural components. Loss may be present in structural support, affecting bridge stability. Bridge is closed to traffic, but corrective action may be sufficient to put bridge back into light service
2	Critical	Advanced deterioration of primary structural components. Cracks in steel or concrete may be present. Unless closely monitored, it may be necessary to close bridge until corrective actions are taken.
3	Serious	Defects and/or deterioration have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
4	Poor	Advanced defects and/or deterioration
5	Fair	All primary structural components are sound but may have minor defects or deterioration
6	Satisfactory	Structural components show minor deterioration
7	Good	Some minor problems
8	Very Good	No problems noted
9	Excellent	New or recently reconstructed

The higher the overall rating, the better condition a bridge is in. Bridges with a rating of four (4) or less are at-risk and maintenance or replacement of these bridges should be prioritized to ensure the safety of the network. In Figure 3-8, bridges with a General Appraisal Condition Rating of four (4) or less are shown. A total of 265 bridges are currently considered at risk within OMEGA, 183 of those being in the RTPO. Compared to 2015, this shows an increase of 127 bridges at-risk, or 92%, highlighting the need for additional investment in the region. Table 3-2 shows the number of at-risk bridges per county on the local- and state-maintained systems.

County	General Appraisal ≤ 4 10 ft. Span				General Appraisal ≤ 4 20 ft. Span			
	Local	State	Unspecified	Total	Local	State	Unspecified	Total
Carroll	1	1	0	2	1	1	0	2
Columbiana	7	3	11	21	3	1	4	8
Coshocton	29	5	0	34	12	2	0	14
Guernsey	25	2	1	28	19	0	1	20
Harrison	8	3	1	12	7	2	1	10
Holmes	6	0	0	6	5	0	0	5
Muskingum	62	6	2	70	36	1	2	39
Tuscarawas	4	5	1	10	3	4	0	7
Total	142	25	16	183	86	11	8	105

Table 3-2: General Appraisal Rating ≤4

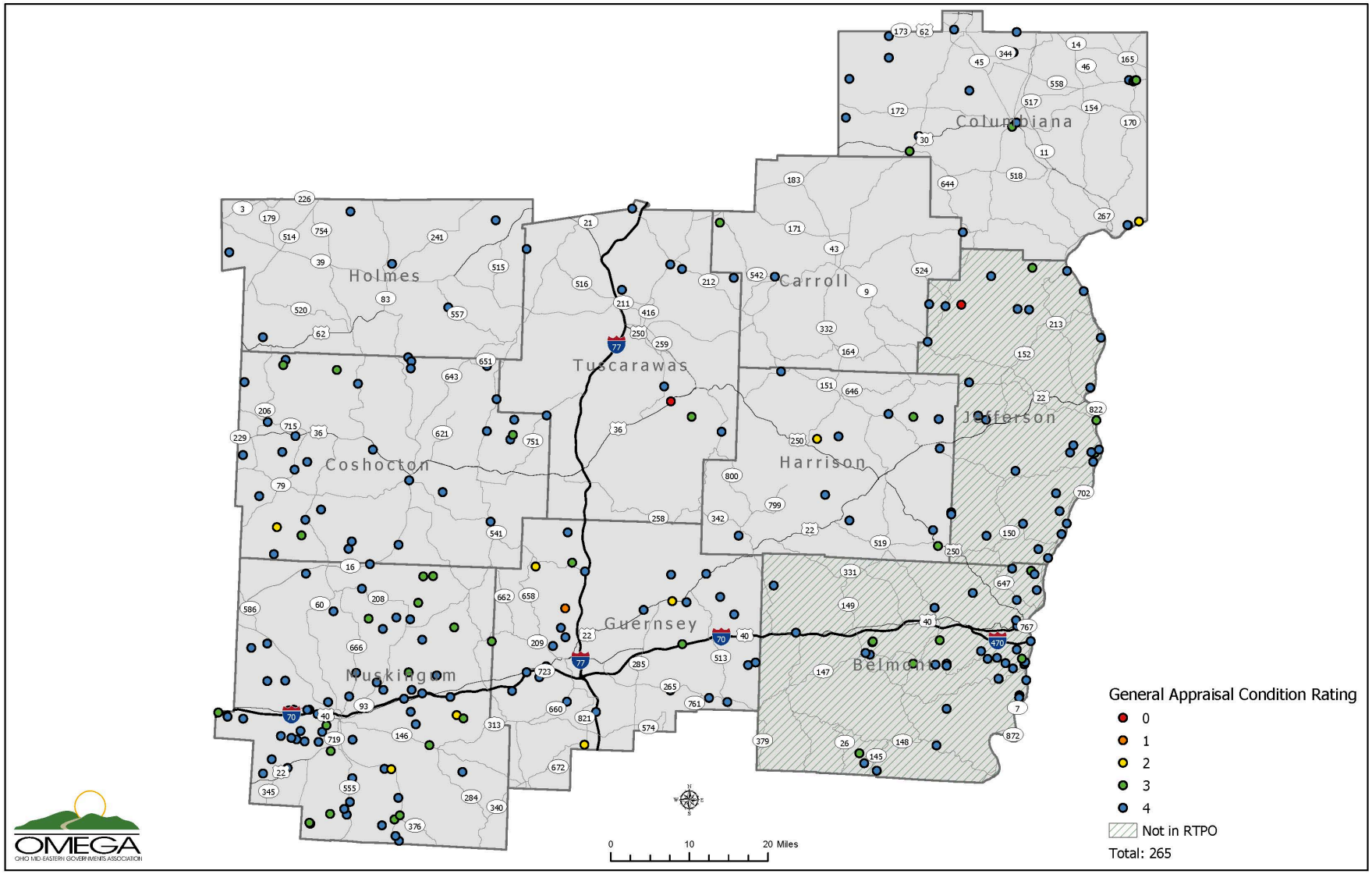


Figure 3-8: General Appraisal Condition Rating

OMEGA used the General Appraisal Condition rating to assess the overall condition of bridges within the RTPO. Federal funding assistance may be used on bridges with a span of 20 feet or greater. Some spans on the local system do not meet this requirement and may require additional funding sources to be considered. To assist local governmental agencies, convey their need OMEGA separated spans into 10-feet and greater and 20-feet and greater categories.

As shown in Figure 3-9, there are 766bridges considered functionally obsolete in the OMEGA RTPO, of which 659 (19% of the total number of bridges) are on the local system. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand, or those that may be occasionally flooded. Twelve bridges in the OMEGA RTPO are closed and will need to be replaced or removed to ensure the safety of the network.

County	Closed				Functionally Obsolete			
	Local	State	Unclassified	Total	Local	State	Unclassified	Total
Carroll	0	0	0	0	46	3	0	49
Columbiana	2	0	2	4	81	16	7	104
Coshocton	0	0	0	0	79	2	0	81
Guernsey	4	0	1	5	127	22	2	151
Harrison	2	0	0	2	20	4	0	24
Holmes	0	0	0	0	109	5	1	115
Muskingum	0	0	0	0	172	16	2	190
Tuscarawas	1	0	0	1	25	21	6	52
Total	**9**	**0**	**3**	**12**	**659**	**89**	**18**	**766**

Table 3-3: Closed & Functionally Obsolete Bridges

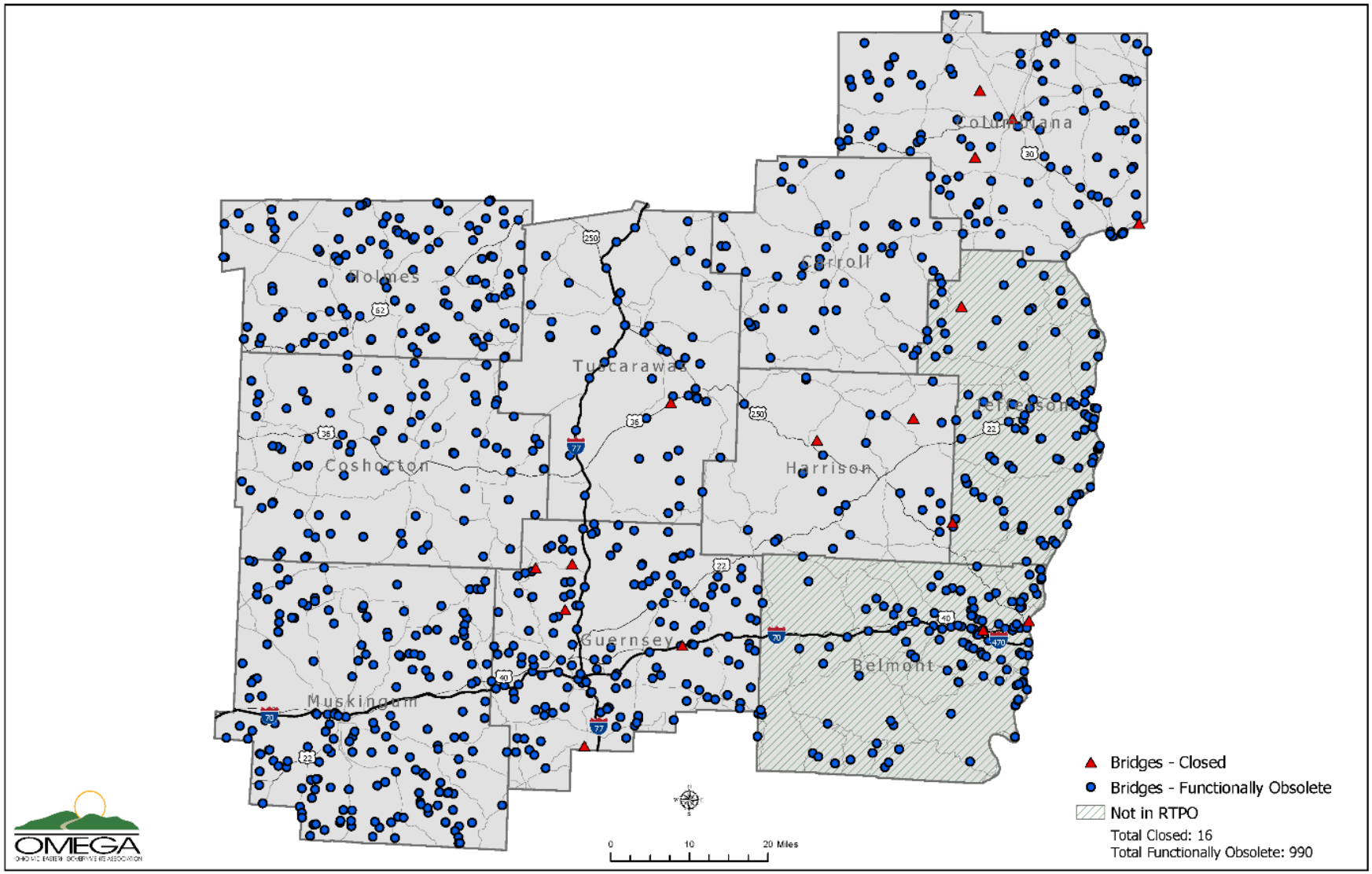


Figure 3-9: Closed or Functionally Obsolete Bridges

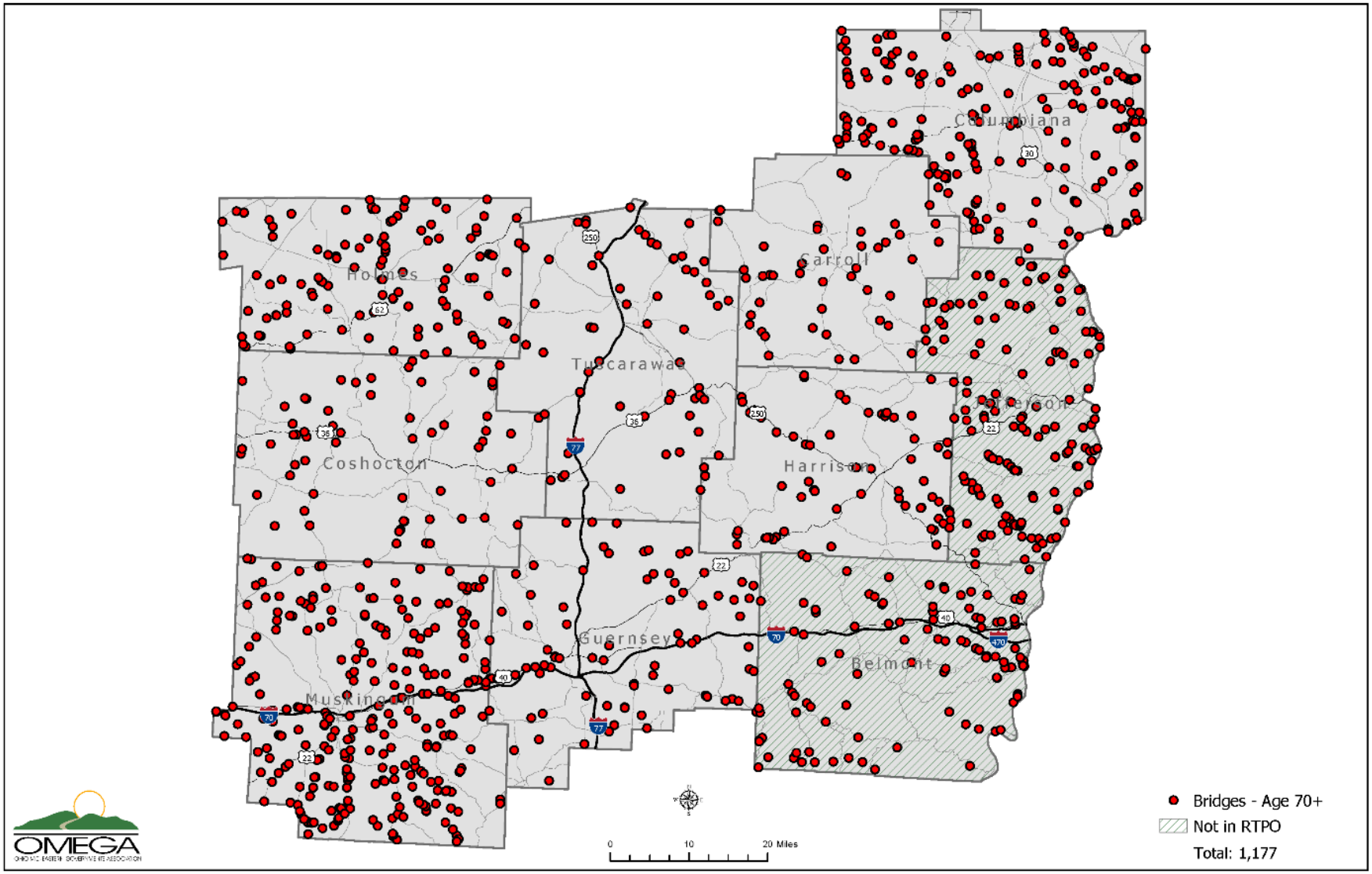


Figure 3-10: Bridges Aged 70 Years or Older

Bridges aged 70 years or older are facing the end of their designed lifespan and may require extensive repairs or complete replacement in the upcoming decades to maintain the present level of service on the network. Bridges over 70 years of age may need to be prioritized for maintenance and/or replacement when projects are considered throughout the region.

Currently, there are 658 bridges located in the OMEGA RTPO that are 70 years or older. This is 19.2% of all bridges in the RTPO. Geographically they are dispersed, though concentrations may be found in Columbiana and Muskingum Counties, the two most populous in the region. These bridges will require a substantial amount of investment between 2020 and 2045 to continue to function as designed. Figure 3-10 shows the location of bridges aged 70 years and older.

Bridges aged 40 and over are also of interest, as these bridges will potentially be aged 70 and over at the horizon year of 2045, unless replaced. These bridges, which are currently functioning as intended, may become focus areas in the upcoming years, as traffic and weather will continue to deteriorate them accordingly. Table 3-4 shows the total number of bridges on the local system aged 40 years and over, as well as those 70 years and over.

As shown in Figure 3-11, there are currently 1,127 local bridges aged 40 and over. 32.9% of all OMEGA bridges fall into this category, and this includes the 658 local bridges aged 70 and over. This puts an additional 469 local bridges on the list of structures to monitor more closely throughout the next 25 years.

County	Aged ≥ 70	Aged ≥ 40
Carroll	29	82
Columbiana	157	218
Coshocton	43	98
Guernsey	59	153
Harrison	36	55
Holmes	84	142
Muskingum	219	289
Tuscarawas	31	90
Total	**658**	**1,127**

Table 3-4: Age of Local Bridges

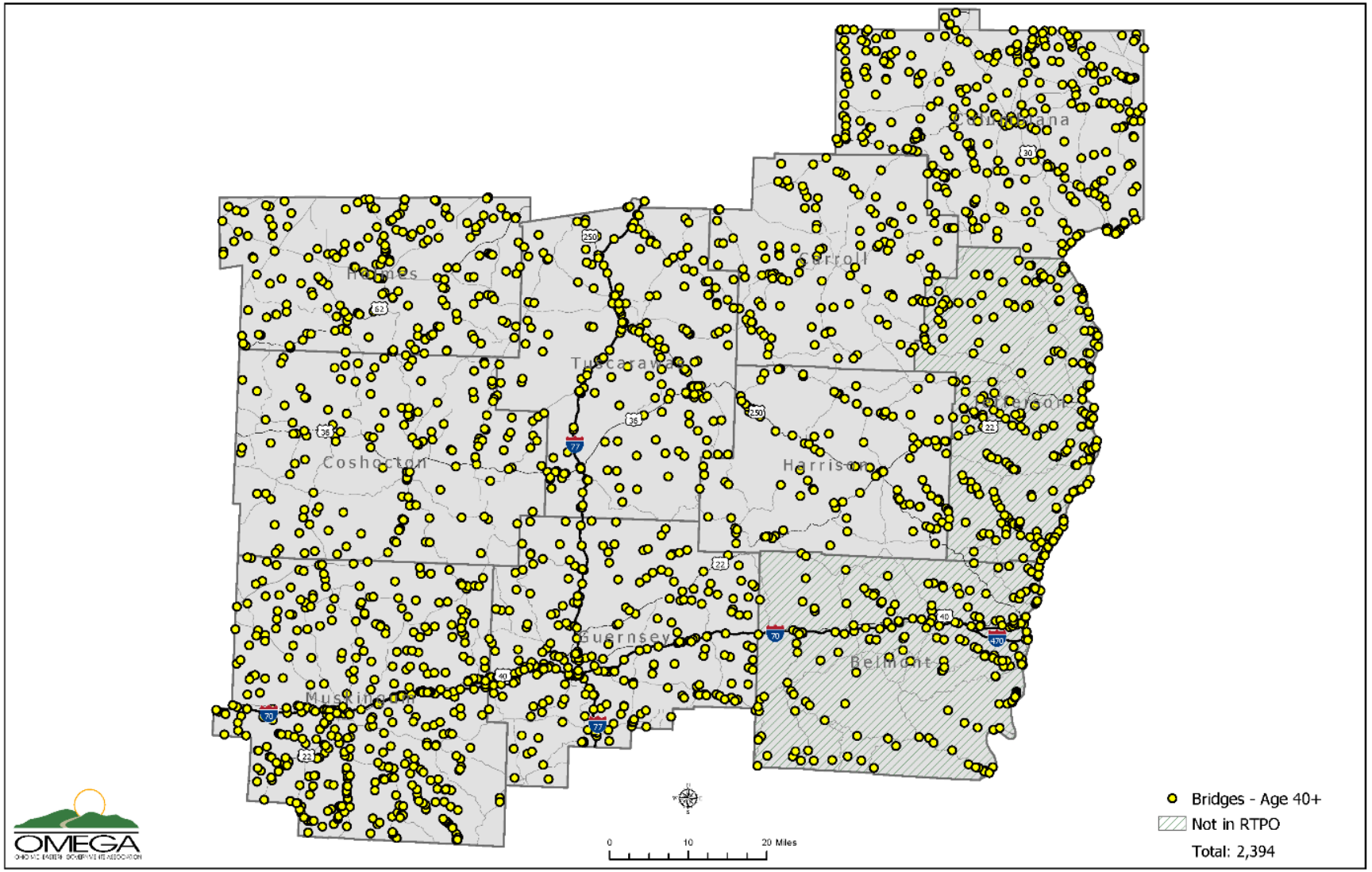


Figure 3-11: Bridges Aged 40 Years or Older

Safety

Roadway safety is a high priority for the OMEGA region. Between January 1, 2016 and December 31, 2018, there were 29,991 crashes logged on OMEGA RTPO roadways. Crashes are categorized by severity on a scale from 1-5, with 1 being Property Damage Only to 5 being Fatal. In December 2017, the OMEGA Executive Board adopted a resolution calling for a 1% reduction in the number and rate of fatal crashes, the number and rate of serious injury crashes, and the number of non-motorized crashes.

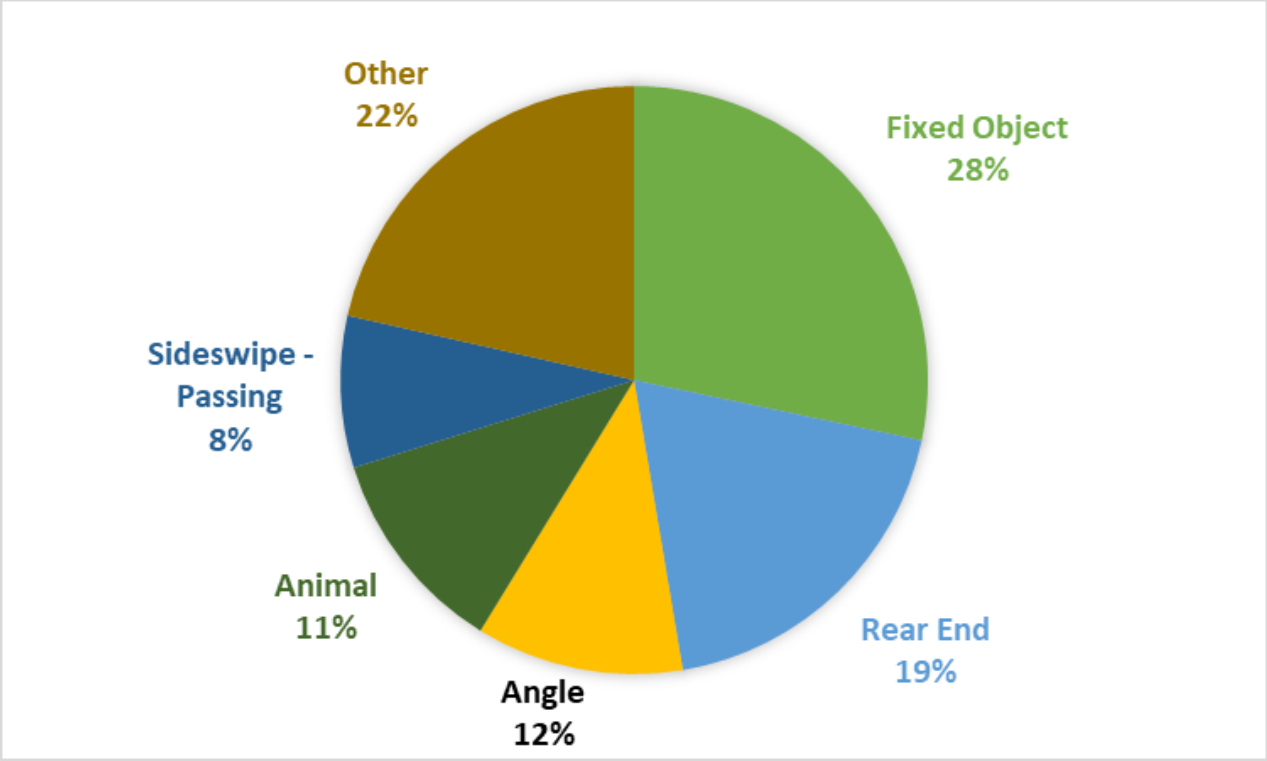


Figure 3-12: Top 5 Types of Crashes *(2016-2018)*

The leading type of crash in the OMEGA region is Fixed Object (28%). These crashes include crashes that leave the roadway and strike objects such as poles, trees, mailboxes, guardrails, ditches, or other items. This type of crash is common in rural areas due to the higher overall speeds, windy and hilly roads, and lower traffic volumes found on rural highways. The next most common type of crash is Rear End (19%). Again, this type of crash is common in rural areas due to the higher speeds. Topography may also be a factor, as windy roads and elevation changes may cause drivers to be unaware of stopped or turning vehicles.

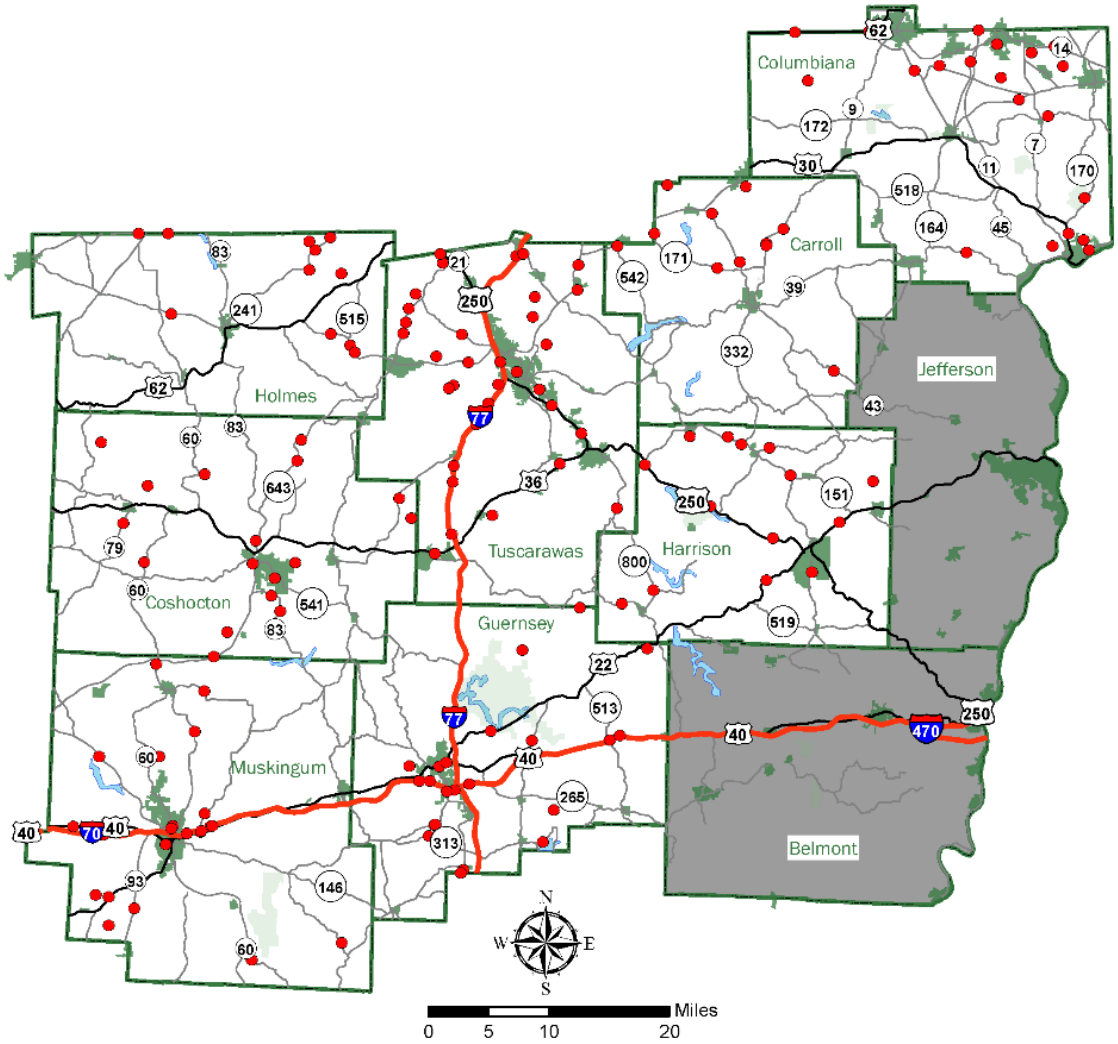


Figure 3-13: Fatal Crashes *(2016-2018)*

Figure 3-13 shows the location of all Fatal crashes from 2016-2018. A total of 170 fatalities in 164 crashes occurred during this time period, or approximately 0.5% of the total number of crashes. Many of these crashes occurred on the state-maintained systems (Interstates, US & State routes).

Figure 3-14 displays the location of serious (incapacitating) injury crashes. A total of 1,134 serious injury crashes took place on OMEGA roadways, or about 3.8% of all OMEGA region crashes. There is some clustering near urbanized areas and along major transportation corridors. Many of the serious injury crashes occurred on the state-maintained system, though a large number also occurred on the locally maintained system.

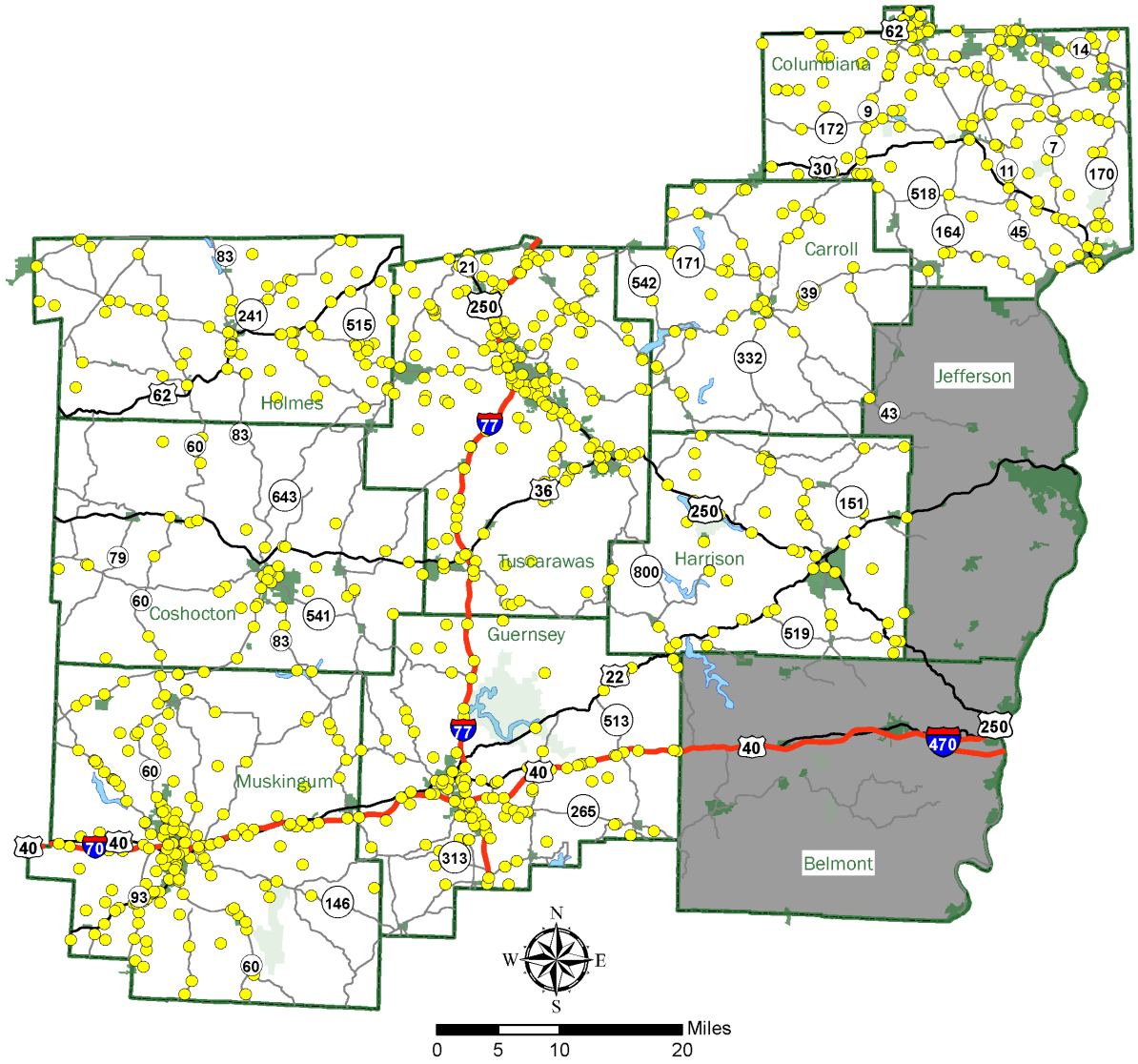


Figure 3-14: Serious Injury Crashes *(2016-2018)*

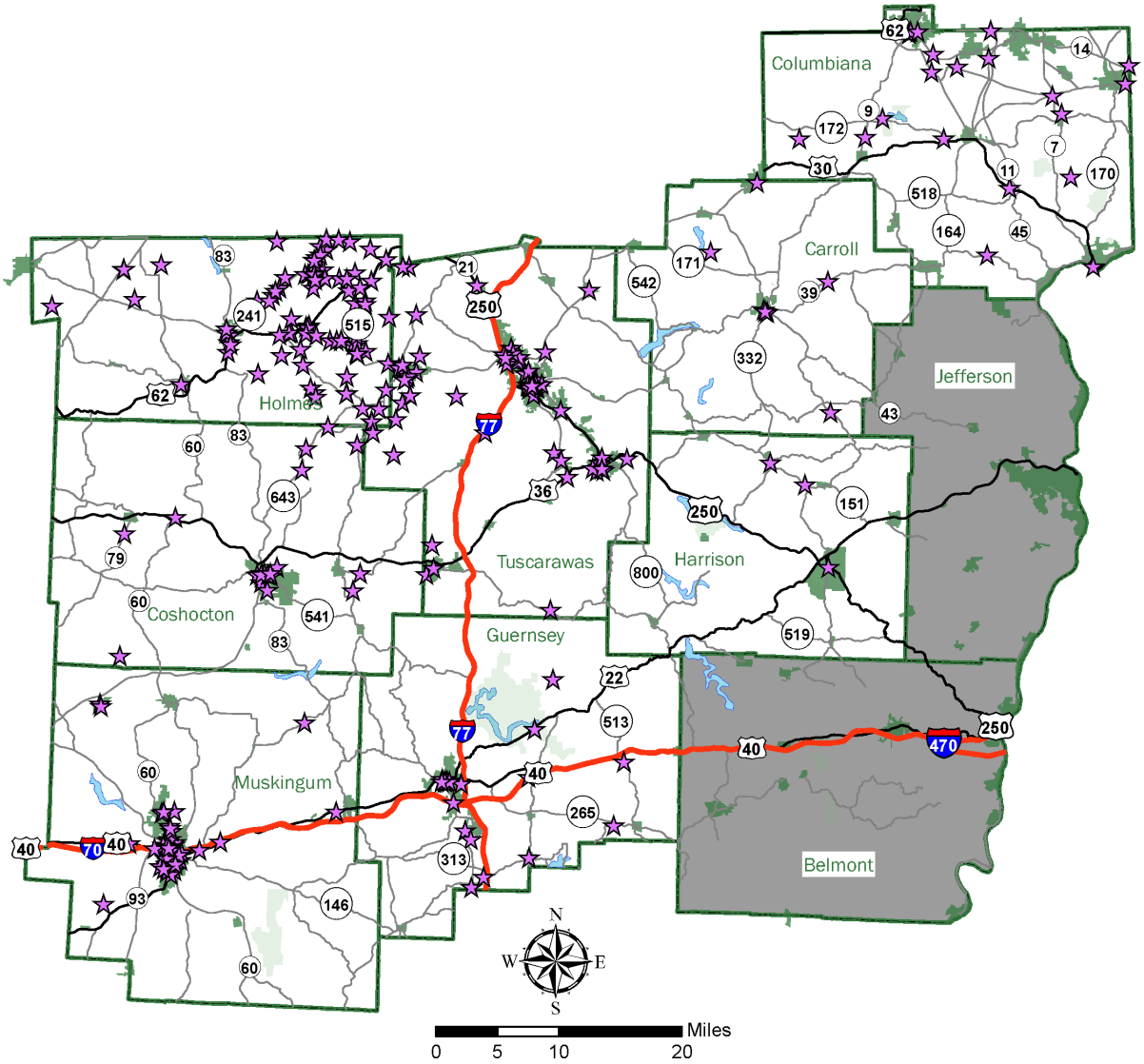


Figure 3-15: Pedestrian/Bicycle/Buggy Crashes *(2016-2018)*

Figure 3-15 shows the 245 crashes involving bicycles, pedestrians or animals (with riders/wagons/buggies). This does not include crashes involving wild animals, such as deer. Most of the buggy/wagon crashes occurred in Holmes County, which is in the epicenter of Amish Country. Clusters of bicycle and pedestrian crashes also occurred in this area, as well as in the urbanized areas, such as Zanesville, Coshocton, New Philadelphia/Dover, Cambridge, and Uhrichsville/Dennison.

Statewide initiatives, such as the 2019 Statewide Amish Travel Study identified priority areas of concern. This study identified three priority areas within the OMEGA RTPO:

- Kilgore Area (southeastern Carroll County)
- Mt. Hope Area (eastern Holmes County & northwestern Tuscarawas County)
- Charm Area (southern Holmes/northeastern Coshocton Counties)

Other areas within the RTPO were noted for smaller, more localized clusters of Amish residents. These population centers are smaller than the priority areas but may still impact travel near their location. These centers include:

- Eastern Guernsey County near Quaker City
- Western Coshocton County, north of Warsaw
- Northeast Muskingum County, near Dresden
- Northern Harrison County, between Scio and Jewett
- Northern and Central Columbiana County
- West-Central and Southern Tuscarawas County

Other initiatives, such as the Local Safety Assistance program through ODOT has been utilized by members of the OMEGA RTPO. This program has funded consultant-led safety studies into high-risk intersections, corridors, and Federal-Aid networks within a city. Holmes County completed a county-wide Safety Action Plan through this program and has begun implementation of recommended countermeasures.

3.2 Transit Network

Public transit and human services transportation providers are an important resource for the OMEGA Region. ODOT used the Ohio Area Agency on Aging regions to select Region 2 (Miami Valley Regional Planning Commission) and Region 9 (OMEGA) to be pilot programs to regionalize transit and human services transportation coordination and mobility transformation. Altogether, there are a total of 71 transportation service providers or human service agencies that provide or contract transportation services to residents in the region. The residents served includes seniors, people with disabilities, zero-vehicle households, low-income individuals, unemployed, veterans, Medicaid-eligible individuals, people with low-English proficiency, and others that need regular and reliable transportation.

Prior to the development of the regional plan, each county was required to complete a locally developed plan for their transportation services in order to be eligible for potential grant funding that could help supplement capital or operational costs for their service. This was the status of each county's plan before the completion of the regional plan:

- Belmont* – Plan complete October 2018, approved until 2022
- Carroll – Plan complete November 2018, approved until 2022
- Columbiana – Plan updated 2019, approved through 2020
- Coshocton – Plan updated 2019, approved through 2020
- Guernsey – Plan updated 2017, approved until 2021
- Harrison – Plan complete October 2018, approved until 2022
- Holmes – Plan complete November 2018, approved until 2022
- Jefferson* – Plan complete February 2019, approved until 2023
- Muskingum – Plan complete September 2018, approved until 2022
- Tuscarawas – Plan complete 2017, approved until 2021

**Not in OMEGA RTPO*

Having the regional plan approved and adopted, it will now be implemented and replace the need to draft a local coordinated plan. In order to apply and be eligible for grant funding, every transportation service provider will reference the regional plan developed for all transportation providers in the region. This allows each county to focus on their local unmet needs and set their own goals to address while still being able to receive funding.

In order to begin to draft a regional plan, a regional coordinated council was first developed which consisted of regional transportation service providers, public transit agencies, human service agencies, and all other stakeholders. A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was created by the entire council to gain a perspective on what is needed in the regional transportation services to serve the public more efficiently. The regional coordinated council then focused on setting goals to work together to meet the unmet needs in the region. Five goals were established:

1. Increase Ridership for all Transportation Service Providers and Transit Agencies in the Region.
2. More efficient Out-of-County and Out-of-Region Transportation Service.
3. Reduce Denials and No-Shows of the Riders that Use Transportation Service in the Region.
4. Cost-Effective Vehicle Replacement for all Regional Transportation Service Providers.

5. Increase Employment Transportation Options for Jobseekers and Employees.

These five goals consist of strategies, action steps, resources needed, and agencies that will lead and support the goal implementation. The goals will begin to address and meet some of the more common unmet needs communicated and ranked by the public:

Rank	Unmet Need Description
1	More Weekend Service
2	More Travel Service & Payment Options
3	More Efficient Employment Transportation
4	Expand Other Types of Transportation Service
5	Improve & Increase Bus Service
6	Expand Non-Medicaid Service Hours
7	Offer Transfers & Improve City Connections
8	Increase Medical Transportation Outside County & State
9	Easy Fare/Rate for Low Income Individuals for Regional Mobility
10	Simplify Public Information (i.e. brochures)
11	Local Area Hospitals Closing/Longer Trips for Providers & Patients

Table 3-5: Unmet Needs Rankings

There were several extra unmet needs from the public that were included from public survey comments such as more frequent trips, evening transportation service, transportation to and from the Akron/Canton Airport, bus stop shelters, and day and seasonal passes.

The primary benefit of regionalization is that nine counties have one plan saving each county time and resources instead of having to draft their own. The transportation service providers collaborate, share best practices and distribute resources in order to perform similar services. The regional plan produced an inventory of all transportation service providers, human service agencies, and mobility managers in the region sharing information that may not have been known across the region. Mobility managers are defined under the Ohio Mobility Management program which increases mobility for the public by integrating transportation into planning and programs. The region will have five mobility managers serving the region during the implementation phase. They are an unbiased and important asset to transportation coordination because they connect the public to the transportation providers and help make transportation services more accessible to the communities they serve. Below is a list of some of the providers from the counties in the region:

Another benefit from regionalization comes from helping to streamline project review from one plan for all 10 counties. In total, 37 projects were identified and proposed by the regional stakeholders for capital, operational, and mobility management projects. Several of these projects have already been piloted during the pilot phase of the plan and will continue during the implementation phase. These successful projects were a regional call center (Mid-Ohio Mobility Solutions), CTS Scheduling Portal, and a Deviated-Fixed Route for southern Columbiana County.

Mid-Ohio Mobility Solutions is a one-call center that serves all 10 counties from the basic need of scheduling a trip in or out of the region as well as regular mobility issues such as helping people with disabilities with medical equipment go from their door to their destination. The CTS Scheduling Portal is an opportunity provided to the region for any willing participating agencies to place overbooked trips in an online portal for any transportation provider to pick up that trip and complete it for the

rider. The goal is to reduce trip cancellations and denials. The Deviated-Fixed Route in Columbiana County is known as the "Make-the-Connection" Shuttle and is a low-cost, one-hour loop between East Liverpool and Calcutta that connects to low-income housing areas to public service locations, commercial stops, and employment centers.

County	Funding	Agency	Address	Service Area
Carroll	5310/5311	Carroll County Transit	2205 Commerce Dr., Carrrollton, OH 44615	Carroll County
Columbiana	5310/5311	CARTS	7880 Lincole Pl, Lisbon, OH 44432	Columbiana County + 50 miles w/in Ohio
	5310 – MM*	Deb Hill (CAAofCC)	7880 Lincole Pl, Lisbon, OH 44432	Columbiana County
Coshocton	5310	CCCTA	401 Main St., Coshocton, OH 43812	Coshocton County
	5310 – MM*	Tracy Haines	401 Main St., Coshocton, OH 43812	Coshocton County
Guernsey	5310	Guernsey County Senior Citizens Ctr	1022 Carlisle Ave., Cambridge, OH 43725	Guernsey County
	5311	SEAT	224 Main St., Zanesville, OH 43701	Muskingum, Guernsey Counties + 150 miles
Harrison	5311	Harrison County Public Transit	536 N Main St. Cadiz, OH 43907	Harrison County + 40 miles
Holmes	No Public Transit Providers			
Muskingum	5311	SEAT	224 Main St., Zanesville, OH 43701	Muskingum, Guernsey Counties + 150 miles
	5310 – MM*	Nichole Silver	375 Fairbanks St., Zanesville, OH 43701	Guernsey & Muskingum Counties
Tuscarawas	5310	SEA, Inc.	1458 5th St., New Philadelphia, OH 44663	Tuscarawas County
	5310	Senior Center of Tuscarawas County	425 Prospect St., Dover, OH 44622	Tuscarawas County
	5310 – MM*	Shannon Hursey	425 Prospect St., Dover, OH 44622	Tuscarawas, Carroll, & Harrison Counties

MM = Ohio's Mobility Management Program*

Table 3-6: Public Transit/Human Services Transportation Agencies + Service Areas

There will be many more projects prioritized based on an order that serves the public in suggested categories:

- Mobility Management
- Vehicle Replacement/Procurement
- Operations (expansion, capital improvements)
- Technology
- Regional Initiatives (Education, training)

When implemented, the regional coordinated plan will continue to improve efficiency, mobility, and access to transportation for senior citizens, people with disabilities, impoverished, and others who rely on regular transportation service. For more information from the complete regional plan, please visit: https://omegadistrict.org/programs/transit/regional

Rural Intercity Bus Program

The OMEGA region is also served by Ohio's Rural Intercity Bus Program, known as GoBus. This program is administered by the Hocking-Athens-Perry Community Action Program (HAPCAP). The program utilizes Federal Transit Administration Section 5311(f) funds to address the intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas resulting in connections of greater regional and national significance.

GoBus stops within the OMEGA RTPO including Cambridge, Newcomerstown, and New Philadelphia. These stops lie along a route from Marietta/Parkersburg to Cleveland, where connections are made to other commercial bus operators (Greyhound or Baron's Bus) and/or Amtrak's intercity passenger rail network.

3.3 Active Transportation Network

Active transportation, such as walking, biking, or traveling by buggy, is an important part of OMEGA's transportation network, for commuting and for recreational purposes. Having a robust, connected network of active transportation facilities, such as sidewalks, designated bike lanes, multiuse trails, and buggy lanes, is critical to ensuring that each member of the community has access to safe, reliable transportation. This is particularly important in Amish and low-income communities who rely on these facilities every day as a primary mode of transportation to and from school, work, and other day-to-day activities. An extensive active transportation network is also a major key to enabling community and economic development, providing multiple ways to access local businesses, community resources, and activities.

As shown in Figure 3-16, the OMEGA RTPO has two US bike routes and five state bike routes designated in the region. All resolutions for the region's US bike routes were finalized in 2019. We are working with our local communities to finalize the state bike routes to ensure the accuracy of the routes and safety for bicyclists. As such, the state bike routes shown may be adjusted slightly before being finalized. As part of the larger active transportation network, OMEGA also has several bike trails and additional bicycle and pedestrian facilities. In total, there are approximately 712 miles of

bicycle facilities that have been documented throughout the RTPO region. These facilities include buggy lanes and widened roadway shoulders that can accommodate bicyclists. We will continue working with our local communities to ensure all known active transportation facilities are accurately documented throughout the region.

Three counties in the region have trail plans finalized or in the planning stages:

- Tuscarawas County Trail and Green Space Plan:
  Tuscarawas County has developed a Trail and Green Space Plan for the conservation, interpretation, development, and management of the cultural, natural, and recreational resources in the county. This plan identifies 92 miles of hiking and biking trails that, when complete, will provide linkages to cities and villages, parks, attractions, historical sites, and other points of interest in the county. The Panhandle Passage Trail, Ohio Erie Canalway Towpath, and Zoar Valley Trail are all part of this network. In addition, another bike trail is being planned to connect the City of New Philadelphia to the Village of Roswell.

- Harrison County Trail Plan:
  The Harrison County Trail Plan was finalized in the fall of 2019, with the goal of developing a regional network of cultural, recreational, and natural resources that promote tourism, alternative transportation, community, and economic development. The county is uniquely positioned between the Ohio & Erie Canal Towpath Trail to the west, and the Great Allegheny Passage Trail to the east. Part of the vision of the plan is to make a multimodal connection between these two regional trail systems. Destinations such as Tappan Lake Park, Sally Buffalo Park, Clendening Lake, Piedmont Lake, Jockey Hollow Wildlife Area, County Fair Grounds and multiple museums will be easily accessible from the proposed trail.

- Mohican Valley Greenway Corridor Plan:
  Led by the Ashland County, Knox County, and Holmes County Engineer's Offices, the Mohican Valley Greenway Corridor Plan seeks to provide a complete connection from the Loudonville Trail south to the Mohican Valley Trail along the Wally Road corridor. The corridor currently serves as the lifeline for up to 1 million visits per year from regional, national, and international tourists, generating millions of dollars per year for the local economy. This plan is currently in the initial planning stages, but once completed, will provide approximately 16.5 miles of new multimodal trail and parking facilities/access points along this section of the Mohican Scenic River Valley.

As part of a broader active transportation network, several counties in the OMEGA region are also part of the following larger trail network visions:

- Cleveland to Pittsburgh (C2P) Corridor:
  Part of the Industrial Heartland Trails Coalition's (IHTC's) 1,500-plus miles network vision, the C2P multiuse trail corridor will travel from Cleveland, Ohio to Pittsburgh, Pennsylvania. In addition to the IHTC trail network connection, 146 miles of the C2P corridor will help complete the Great American Rail-Trail, a burgeoning 3,700-plus miles multiuse trail spanning across the country between Washington, D.C., and Washington State. A 63-page feasibility study outlines the vision for the corridor of "establishing the industrial heartland as a premier destination offering a unique multiuse trail network that will stretch across New York, Pennsylvania, Ohio, and West Virginia." The study also describes the opportunities, challenges, and costs associated with the corridor's completion. Portions of Carroll,

Tuscarawas, and Harrison Counties have open and proposed segments along the C2P corridor, with a total of between 30 to 50 miles of proposed segments within those counties contributing to the corridor.

- Great Ohio Lake to River Greenway:
  Part of the Ohio River Trail Council's vision of forming a mega-trail system from the great lakes region to the east coast, the Great Ohio Lake to River Greenway would help build the connection between Lake Erie and the proposed Ohio River Greenway Trail in Ohioville, Pennsylvania. A conceptual greenway segment has been identified in Columbiana County from Lisbon to East Liverpool at the Ohio-Pennsylvania state line. Once completed, the Great Ohio Lake to River Greenway will be an important part of the trail system beginning at Lake Erie in Ashtabula, Ohio, to the proposed Ohio River Greenway Trail, on to the Great Allegheny Passage in Allegheny County, Pennsylvania, and continuing on to the Chesapeake and Ohio (C&O) Canal Towpath to Washington, D.C.

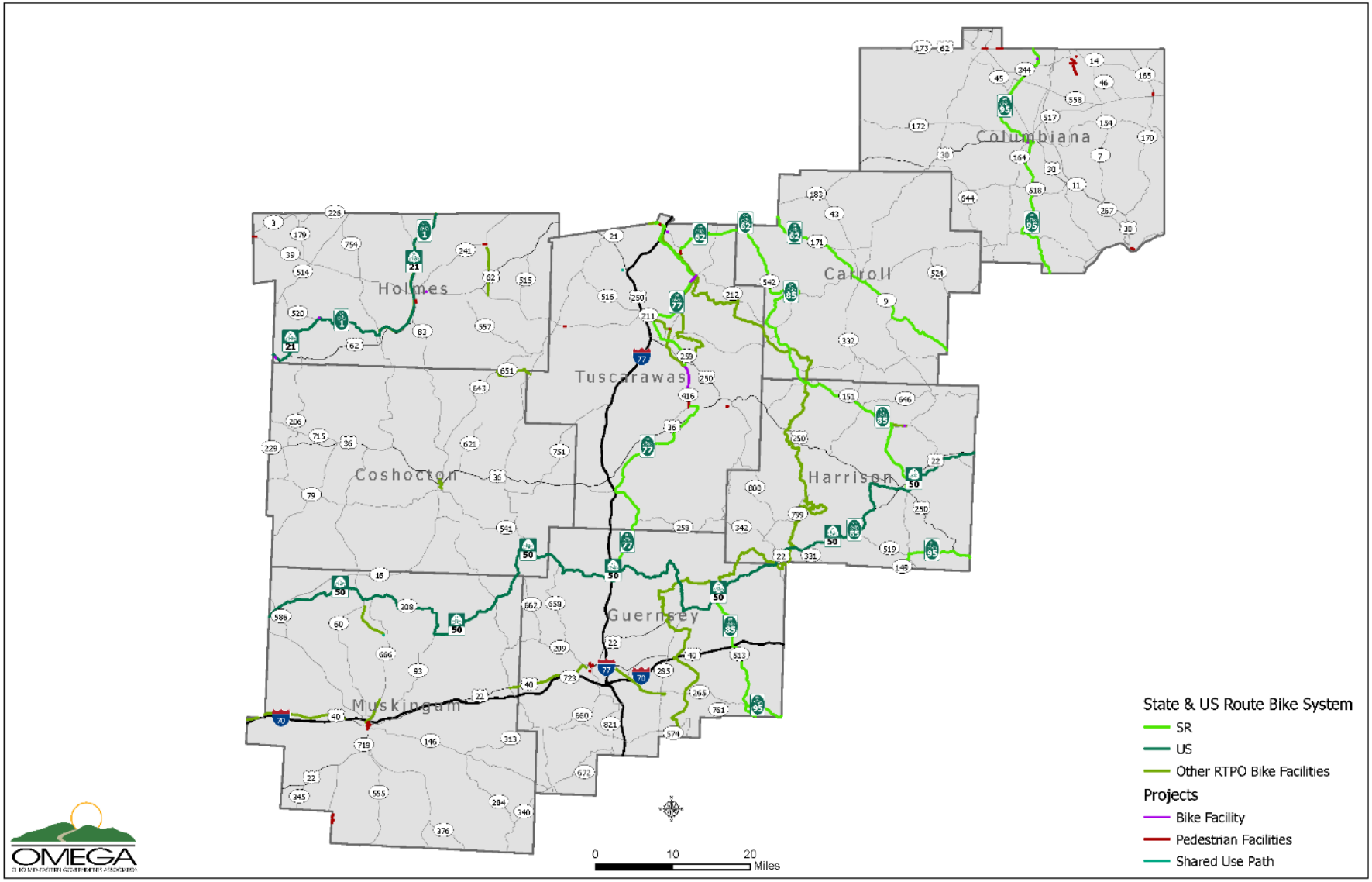


Figure 3-16: Regional Bike Routes/Facilities

3.4 Aviation, Rail & Maritime Networks

Airports

Ohio classifies public airports in five different categories:

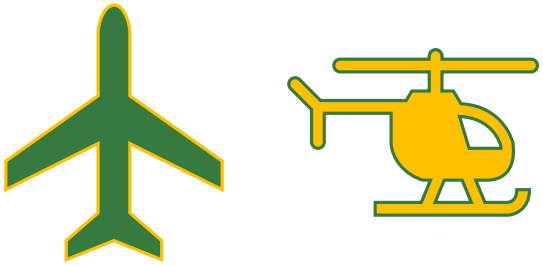
- Air Carrier – Intended to support commercial airline activities.
- Level 1 – Intended to meet nearly all the needs of general aviation turbine powered aircraft and their users. These airports should be able to provide nearly all the services necessary to support corporate jet aircraft.
- Level 2 – Intended to support smaller corporate aircraft, such as small jets and turboprop aircraft and meet many of their needs.
- Level 3 – Intended to serve light, twin-engine and single-engine aircraft for business, pleasure, and training flights. Fulfills needs of piston-powered aircraft and may meet needs of turbine-powered aircraft.
- Level 4 (GA) – Intended to support flight operations of small general aviation aircraft. Primarily single-engine aircraft, but small twin-engine aircraft may be accommodated. Minimal support facilities.

Classification	Public	Private
Air Carrier	0	N/A
Level 1	1	0
Level 2	7 in RTPO, 8 total	0
Level 3	3 in RTPO, 6 total	0
Level 4 / General Aviation (GA)	0	26

Table 3-7: Regional Airport Classification

There are no Air Carrier-designated airports in the OMEGA RTPO. The nearest airports with commercial airline service are in Akron/Canton, Ohio; Columbus, Ohio; or Pittsburgh, Pennsylvania. In addition to the airports, there is one public heliport and ten private heliports in the OMEGA RTPO. There are an additional four public airports and one public heliport in Belmont and Jefferson Counties.

The locations of these airports are provided in Figure 3-17 and a general summary is provided in Table 3-8.



County	Airport Name	Classification	Public/Private Use
Carroll	Adams Tree Farms	GA	Private
	Carroll County – Tolson	**3**	**Public**
	Furey	GA	Private
	Murray Energy	GA	Private
	Parsons	**3**	**Public**
Columbiana	Aeroflight	GA	Private
	Columbiana County	**4**	**Public**
	Crosswind	GA	Private
	East Liverpool City Hospital	Heliport	Private
	Koons	**3**	**Public**
	Mercer Aloft Acres	GA	Private
	Morris Field	GA	Private
	Salem Community Hospital	Heliport	Private
	Salem Lakefront	GA	Private
	Skydive/Petersburg Airport	GA	Private
	Stouffers	GA	Private
Coshocton	Coshocton Co. Memorial Hospital	Heliport	Private
	Richard Downing	**1**	**Public**
	Wrights Field	GA	Private
Guernsey	Brothers	GA	Private
	Cambridge Municipal	**3**	**Public**
	Hilltop Airport	GA	Private
	Salt Fork Lodge	**Heliport**	**Public**
	SE Ohio Regional Medical Center	Heliport	Private
	Taildragger	GA	Private
	Warehime	GA	Private
Harrison	Harrison Community Hospital	Heliport	Private
	Harrison County	**3**	**Public**
Holmes	Fairgrounds/Pomerene Hospital	Heliport	Private
	Holmes County	**2**	**Public**
Muskingum	Bethesda Hospital Maple Campus	Heliport	Private
	Daves Delight	GA	Private
	Double R Airfield	GA	Private
	Good Samaritan Hospital (Genesis)	Heliport	Private
	Graham Field	GA	Private
	Johns Landing	GA	Private
	Massengill	GA	Private
	Parr	**3**	**Public**
	Porter-Ware	GA	Private
	Riverside Zanesville	GA	Private
	Riverview	GA	Private
	Vensil Farms	GA	Private
	Zanesville Municipal	**1**	**Public**
Tuscarawas	Gnadenhutten	GA	Private
	Harry Clever Field	**2**	**Public**
	Plane Country	GA	Private
	Twin City Hospital	Heliport	Private
	Union Hospital (Cleveland Clinic)	Heliport	Private

Table 3-8: Regional Airports Summary

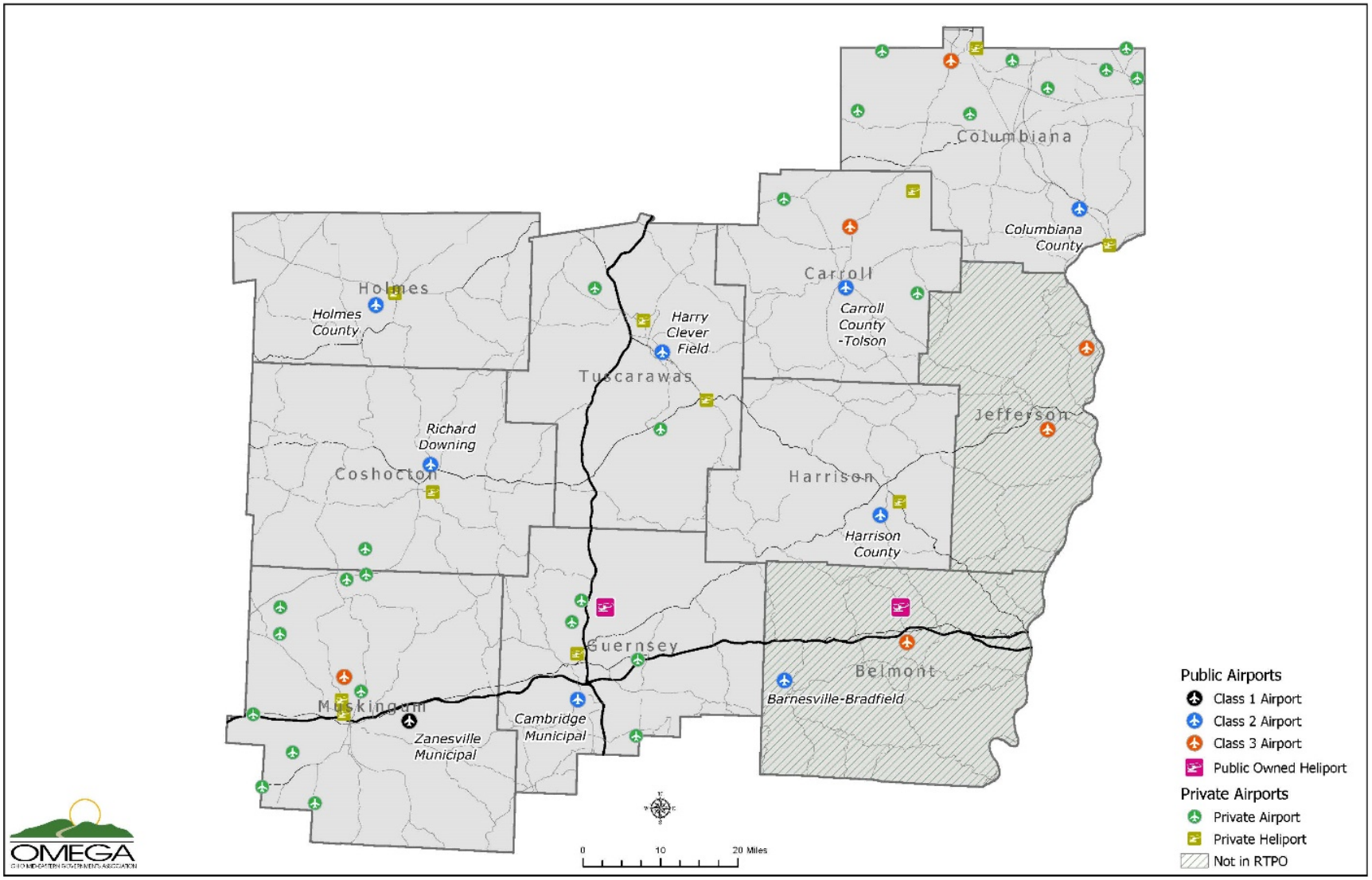


Figure 3-17: Regional Airports

Rail

As shown in Table 3-9 and Figure 3-18, the OMEGA RTPO is served by ten different railroad operators, with eleven different right-of-way owners. Altogether, there are nearly 1,085 miles of railroads within the region. Among the largest of these is the sole Class 1 railroad in the region, Norfolk Southern. Norfolk Southern owns lines in northwestern Holmes County and in Columbiana County. Their lines also follow the Ohio River to serve points in Belmont County and Jefferson County. Except for Norfolk Southern, all railroads in the OMEGA region are single tracked. Norfolk Southern owns and maintains two double-tracked mainlines through Columbiana County. The northern Columbiana County line is on the U.S. Department of Defense's Strategic Rail Corridor Network (STRACNET). The entire Norfolk Southern System covers approximately 21,000 route miles, of which 2,233 miles are in Ohio. As shown in Table 3-9, the Norfolk Southern rail line in the OMEGA RTPO region covers nearly 356 miles and runs the length of the Ohio River connecting all the ports in the region. CSX Corporation is another Class 1 railroad and owns rail lines in the OMEGA RTPO. However, CSX does not operate these lines, and have leased them to shortline or regional railroads for operations.

The Wheeling & Lake Erie Railroad is a regional Class 2 railroad and is the largest in the OMEGA region that is based in Ohio. The line connects the manufacturing and ports on Lake Erie to the ports on the Ohio River, creating a vital link in shipping.

Smaller shortline (Class 3) railroads interchange with the larger national and regional lines. These shortlines provide service to companies along their lines, providing another option to move goods to the global economy. The processing plants in Harrison County have installed several rail sidings in order to be able to ship products by rail. Companies with a sizable rail presence include, but are not limited to, Momentum in Scio, AMG Vanadium in Cambridge, Marathon's fractionation facility in Hopedale, and Kraton Corporation in Dover. With petrochemical development and increasingly congested highways, access to rail is critical for the success and expansion of industries throughout the region. Connectivity of these rail lines to product destinations will be a key component in the viability of shipping product by rail.

In the deregulation era of the 1980s, and continuing to the present day, large Class 1 railroads have streamlined their operations and spun off secondary or branch lines to regional and short line railroads for operation. In some cases, the lines were sold outright to these operators, though more commonly, the operator leases them from the Class 1 railroad. The Class 1 railroad reserves the right to reintegrate these lines into their core system once the lease is terminated. As shown in Table 3-9, there are numerous operators that operate on the tracks of different owners, and even own some of the track themselves.

Just over 50% of railroad owned mileage is abandoned within the OMEGA RTPO. Abandonment generally occurs when there is no longer traffic on the line, and the cost to maintain the facility exceeds the value to the company. Due to the loss of the coal industry, and with Interstate access via I-70 and I-77, many rail lines were abandoned, especially once railroads no longer were mandated to maintain access to markets. This was the result of the Staggers Act of 1980. Abandoned rail corridors do provide potential opportunities for active transportation though, as they can be transformed into recreational trails.

Railroad Owner	Railroad Operator *(if different)*	Total Miles *Operator*	Total Miles *Owner*	% OMEGA Mileage
Norfolk Southern Corp.	Norfolk Southern Railway	110.9*	110.9*	10.2%
CSX Transportation, Inc.	Columbus & Ohio River RR	46.72	76.56	7.1%
	RJ Corman Railroad Group, LLC	29.84		
Genesee & Wyoming, Inc.	Columbus & Ohio River RR	6.01	9.23	0.9%
	Ohio Central RR	0.97		
	Ohio Southern RR	2.25		
Independence Rail Works, Ltd.	Zemba Bros. Rail Services	4.08	4.08	0.4%
MarkWest Energy Partners	Youngstown & Southeastern RR	15.39	15.39	1.4%
Ohio Central Railroad	Ohio Central RR	66.91	66.92	6.2%
Ohio Rail Development Commission	Columbus & Ohio River RR	131.26	161.39	14.9%
	Ohi-Rail Corporation	22.40		
	Zanesville & Western Scenic RR	7.73		
Ohio Southern Railroad	Ohio Southern RR	10.26	10.26	0.9%
Ohi-Rail Corporation	Ohi-Rail Corporation	9.22	9.22	0.8%
RJ Corman Railroad Group, LLC	RJ Corman Cleveland Line	2.93	2.93	0.3%
Wheeling & Lake Erie Railway Company	Wheeling & Lake Erie Railway	73.91	73.91	6.8%
Total Active Mileage			**540.79**	**49.9%**
Abandoned			543.96	50.1%
Total Mileage			**1,084.75**	**100%**

Table 3-9: Railroad Summary

** Mostly doubled tracked in Columbiana. Total mileage is per right of way only, not per track.*

Passenger rail is also present within the OMEGA region. Amtrak's *Capitol Limited* route passes through northern Columbiana County. This route connects Chicago to Washington, D.C. with major stops in Cleveland, Ohio and Pittsburgh, Pennsylvania. The nearest Amtrak stop is just outside the region in Alliance, Ohio. This stop is only a platform and offers no shelter to awaiting passengers. Connections can be made in Cleveland or Pittsburgh to allow for travel east to Philadelphia, New York City, and the Northeast Corridor; or north/northeast to Niagara Falls, Toronto, and Montreal.

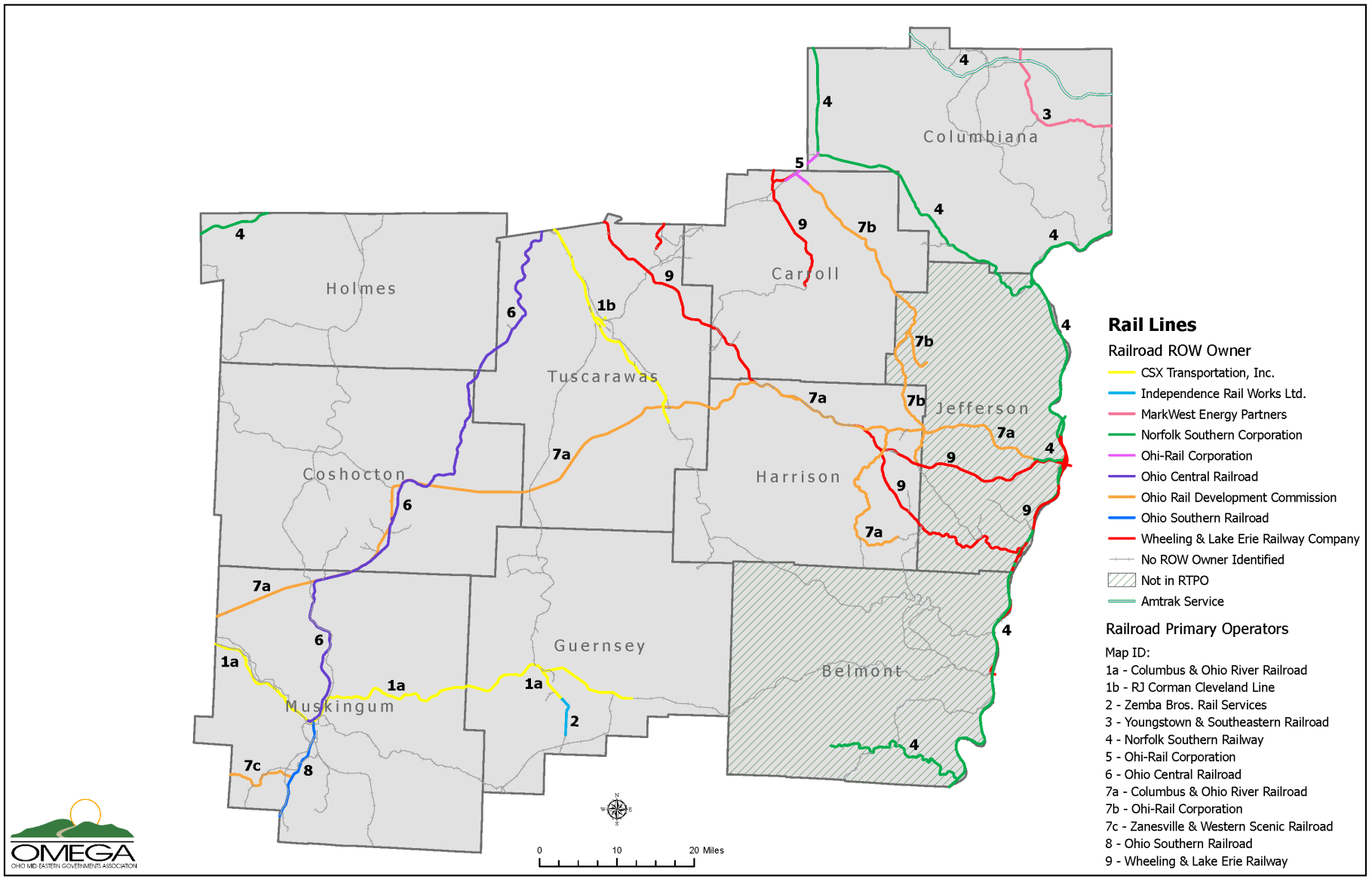


Figure 3-18: OMEGA Railroads

Maritime

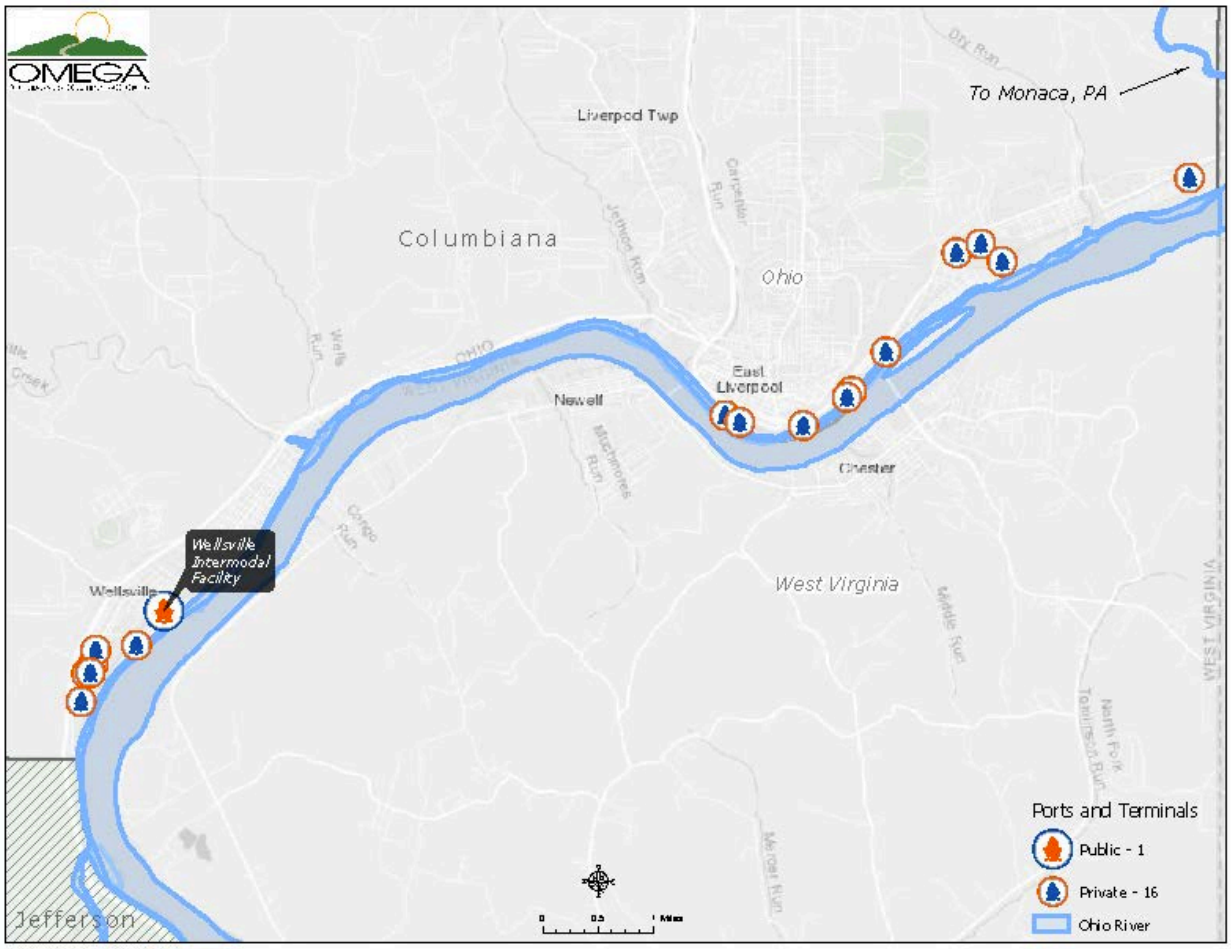


Figure 3-19: Maritime Facilities in OMEGA RTPO

The Ohio River is a primary shipping channel for the region and is also used for recreation. The Ohio River is one of the major shipping conduits in the nation, connecting the Gulf of Mexico ports to the Great Lake Ports. There are multiple dams and locks to help navigate the grade change over the course of the river, including one in the study area at the New Cumberland Lock at River Mile 54.3. Recreational users must be cognizant of these areas as well as the major shipping enterprises on the river. Three counties within the OMEGA region (Columbiana, Jefferson, and Belmont) have direct access to the Ohio River. However, only Columbiana County is included in the RTPO.

For the OMEGA RTPO region, there is only one pool in the Ohio River Navigation System. The New Cumberland Pool begins at River Mile 40, at the Pennsylvania state line, and ends at River Mile 54.3, in Stratton, Ohio at the New Cumberland Locks and Dam. Within Columbiana County, there are 16 river terminals that can be used for the shipment of goods along the river. The Columbiana County Port Authority operates the Wellsville Intermodal Park, a 70-acre facility that connects all modes of commercial transit, rail, road and water. The Intermodal Park is designated as part of Foreign Trade Zone #181. Approximately 15 million tons of cargo originates or is destined to be shipped within the New Cumberland Pool.

Intermodal Park – Wellsville, Ohio – Foreign Trade Zone #181 Located at River Mile 49.4, the Intermodal Park is one of the main connecting points to the Gulf ports in the South and the Great Lake ports in the North. The Park is located off State Route 7, a four-lane highway, and is 40 miles North of Interstate 70 and 40 miles South of Interstates 76/80. This allows the facility to be located within a one-day drive of five of the United States' six largest population markets. Also, on site is a 3,500-foot expandable rail siding that connects to the Norfolk Southern mainline. The 70-acre riverside terminal has a 60-ton overhead river crane and bulk cargo handling system with ready access to both rail and highway.

Fifty-seven percent of Ohio's waterborne freight moves by way of the Ohio River, which equates to 76% of waterborne cargo value. This translates to 45.4 million tons of cargo and $8.7 billion of cargo value via the Ohio River. As shale development continues, use of the Ohio River for shipment of materials and products is expected to increase. Maritime transportation is the lowest cost mode of transport on a per ton basis over longer distances, making it an attractive transportation option for goods and commodities, and key to enabling the economic competitiveness throughout the region and state. With Northeast Ohio and the Cleveland-Pittsburgh corridor being among the top manufacturing regions in the country and the world, the Ohio River System is a critical transportation corridor for these industries.

The largest commodity type moving through the Columbiana County ports and terminals is crude petroleum, accounting for 28.2% of the 2.3 million tons of total cargo in 2018. This percentage could continue to increase as shale development continues throughout the region. Iron and steel cargo follow at 19.4%. A full breakdown of cargo composition is shown in Figure 3-20.

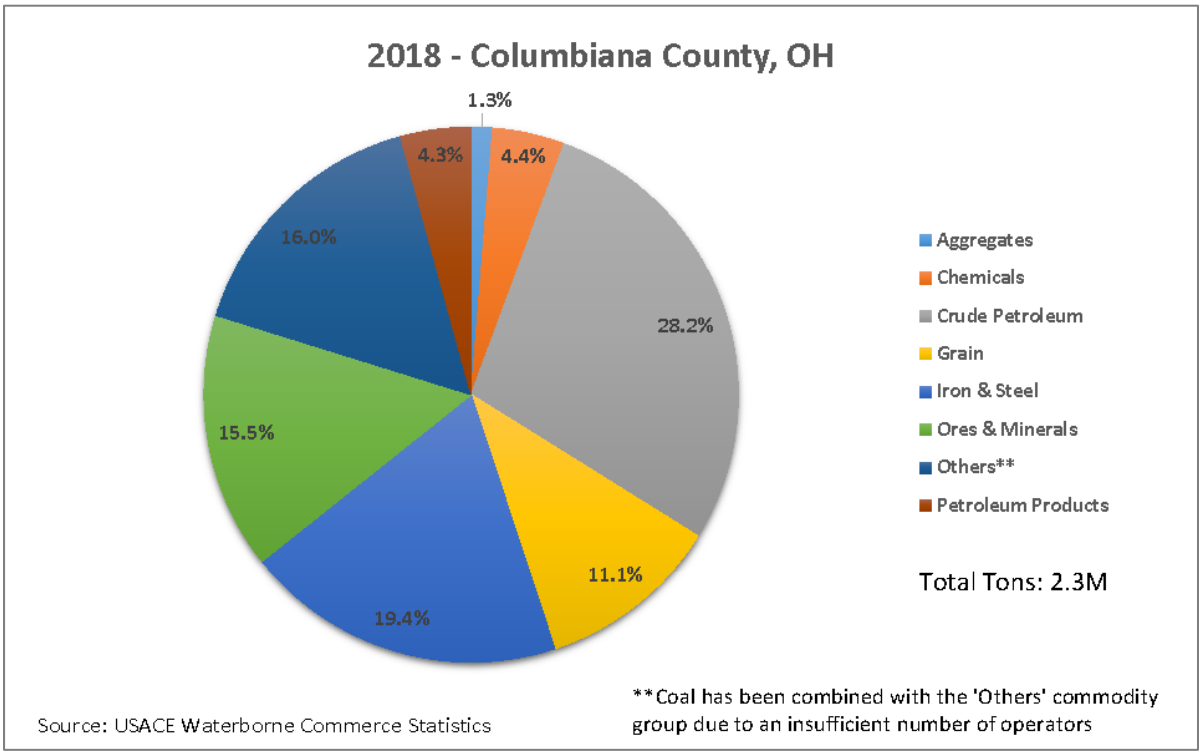


Figure 3–20: Cargo by Type – Columbiana County Ports & Terminals