



## Chapter 6: System Development

While Chapters 4 and 5 describe system maintenance and management activities and strategies, the expected growth and development of the region as described in Chapter 2 makes system expansion necessary

This chapter summarizes the system expansion, or development activities and strategies identified in the MTP for each mode. System development includes adding capacity to the roadway system, expansion of transit services, constructing bicycle and pedestrian facilities, and enhancing intermodal connections. Within each modal system the individual MTP strategies and projects are outlined.



## 6.1 Roadway System

As described in Chapter 3, one operational measure of how the roadway system functions is vehicle miles traveled (VMT) under congested conditions. Due to the growing travel demand resulting from the growth described in Chapter 2, it will be increasingly challenging to maintain VMT under congested conditions to no more than 5% daily and 10% during peak periods. In addition to the management strategies described in Chapter 5, it is also necessary to identify roadway capacity expansion projects to accommodate the additional travel demand. Figures 6.1 and 6.2 show expected congestion levels in 2040, should none of the projects described later in this chapter be implemented and travel behavior remains the same.

The roadway system is the primary component of the transportation system in Central Ohio. Because nearly all of the transportation systems described later in this chapter require access to the roadway system in order to function, MORPC's approach when identifying roadway expansion projects is to assume that the appropriate bicycle and pedestrian facilities will be included in all new roadway, roadway widening, or intersection projects. This is consistent with MORPC's Complete Streets Policy and complete street policies being adopted by communities throughout the region.

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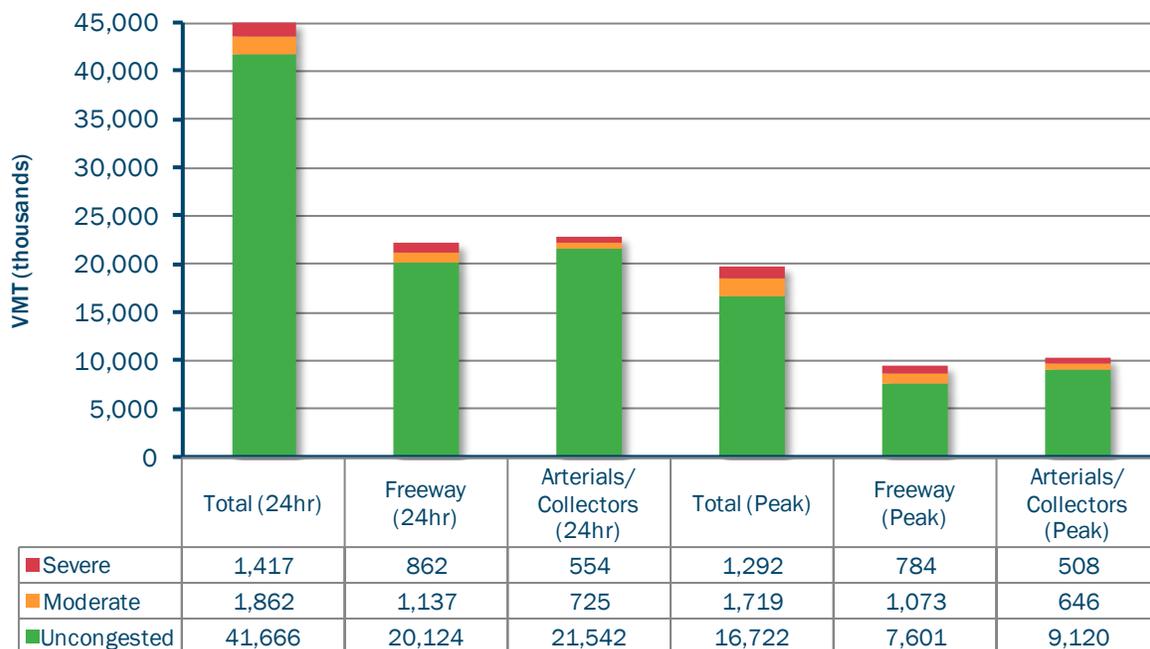
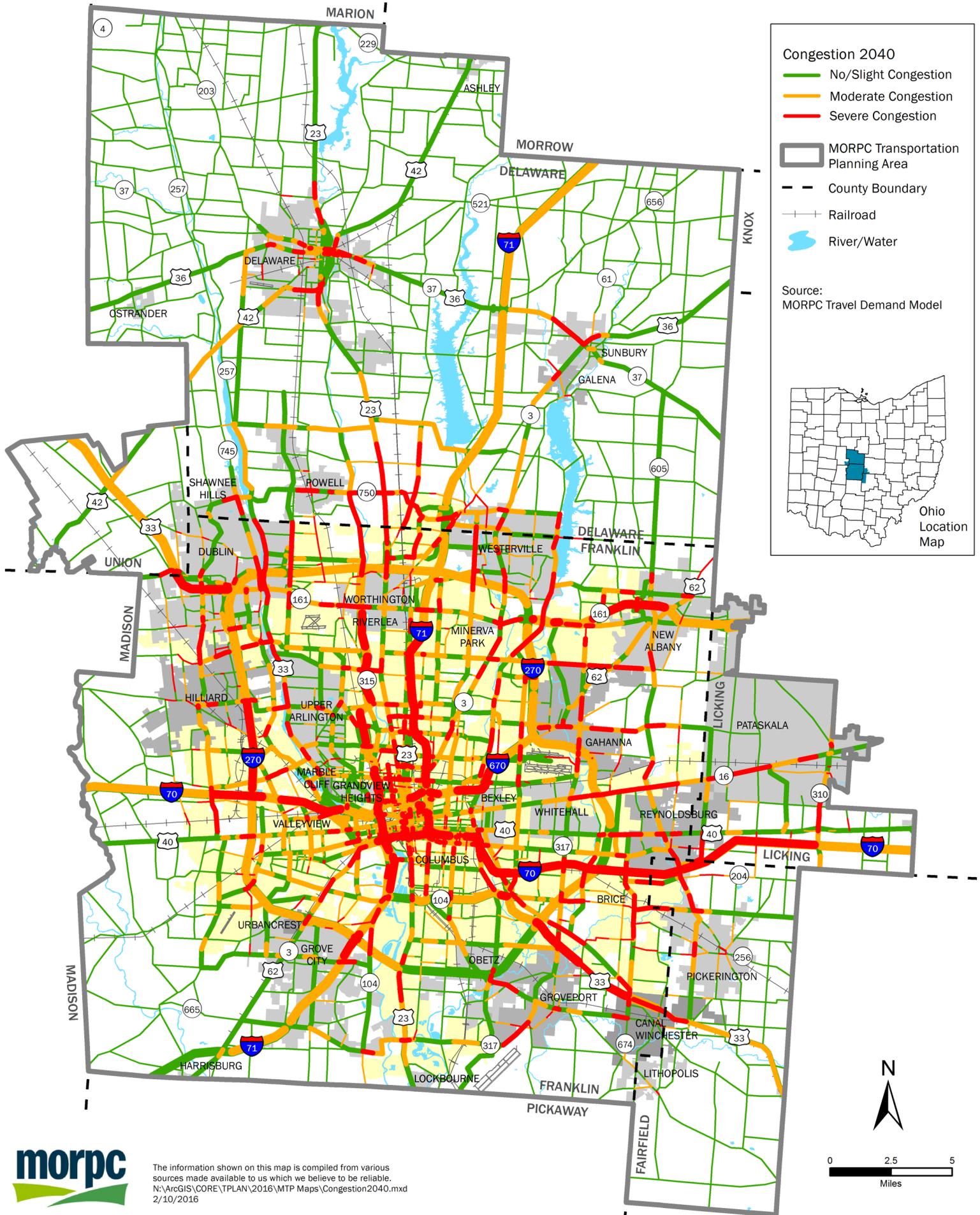
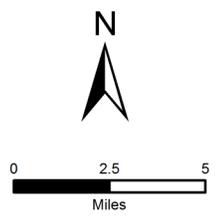


FIGURE 6.1  
VMT by Congestion Level, 2040



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**FIGURE 6.2**  
**Congestion Levels, 2040**



### ROADWAY STRATEGIES AND PROJECTS

Recommendations presented throughout the MTP will help improve conditions on the roadway system. For instance, strategies and projects that will address travel demand will also improve roadway congestion levels. One can make the same connection for any strategies and projects that improve alternative modes of transportation. However, the following strategies and projects specifically address roadway system development.

All project references in this section remain general. Detailed information on specific projects can be found in Chapter 8. While these relate primarily relate expanding the roadway system, Chapter 4 addresses the importance of maintaining and managing the existing system.



#### 1. Alleviate existing or anticipated congestion.

The illustrations on the following pages provide examples of what the different projects types identified in this MTP might accomplish. The project types represented here are:

- Minor widening and safety improvements of surface roadway
- Major widening of surface roadway
- Intersection improvements
- Access management of roadways
- Removal or width reduction of automobile travel lanes to accommodate other modes
- Major widening of freeways
- New interchanges
- Interchange modifications



#### 2. Collaborate on a selection process that advances short-term project priorities through the Transportation Improvement Program (TIP).

MORPC maintains an Attributable Funding Committee that helps decide what transportation projects receive MORPC's federal funding in the short-term. The committee will derive decision criteria for the next rounds of funding from the MTP. Additionally, MORPC monitors local capital improvement plans (CIPs) as well as ODOT's plans to ensure the TIP reflects all short-term project priorities.



### Minor Widening and Safety Improvements of Surface Roadways

Addition of a center median and/or center turn lane or widening existing travel lanes to standard width.



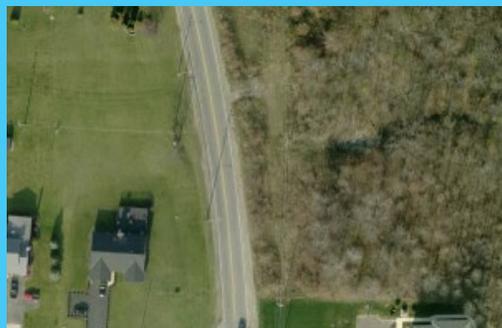
BEFORE



AFTER

### Major Widening of Surface Roadways

Addition of a travel lane



BEFORE



AFTER

### Intersection Improvements

Addition of turn lanes or other reconfiguration such as a roundabout.



BEFORE



AFTER



BEFORE



AFTER

### Access Management of Roadways

Limiting access points to and from a roadway by consolidating driveways and/or limiting turning movement options.



BEFORE



AFTER



### Removal of or Width Reduction of Travel Lanes to Accommodate Other Modes



BEFORE



AFTER

### Major Widening of Freeways

Addition of travel lanes.



BEFORE



AFTER

### New Interchange

Adding a grade-separated interchange where an at-grade intersection or no intersection existed previously.



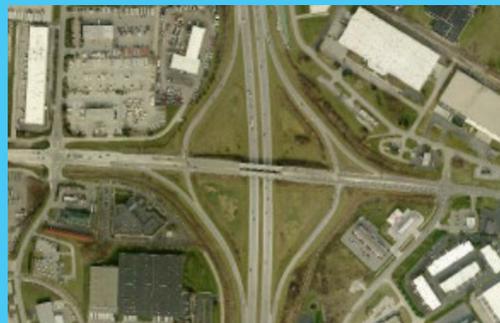
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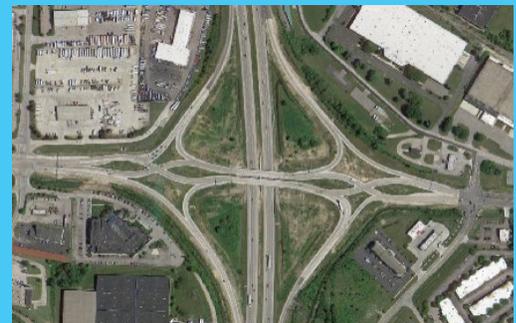
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### Interchange Modification

Modification of existing interchange to improve operations and accommodate additional capacity, widen an overpass, and/or modify ramp intersections.



BEFORE



AFTER



## 6.2 Transit Systems

The growth of the region cannot be accommodated by expansion of the highway system alone. As the costs of automobile ownership, fuel and congestion continue to grow, there is a need to provide alternative means of transportation to sustain the social and economic well-being of Central Ohio. Investment in new and expanded transit services can ease growing congestion while reducing harmful emissions and providing an equitable transportation system.

### TRANSIT STRATEGIES AND PROJECTS

The regional transit service providers and their planning partners are actively working to improve transit services in Central Ohio. Specific improvements to local and express bus service are not listed in this MTP due to the frequent changes made by the service providers, however the financial plan does include funds for these types of improvements. Additionally, the following activities and strategies demonstrate other regional efforts to move transit forward.



#### 1. Improve fixed route and demand response transit service.

##### COTA Transit System Redesign (TSR)

COTA's bus network has kept up with past growth through incremental changes to the radial system centered on Downtown Columbus.

The TSR was developed through a comprehensive review of the existing bus system. This modernization plan is aimed at crafting a system that better serves COTA's customers and stakeholders, while remaining within COTA's current and projected funding limits. Benefits include:

- Simpler, easy to understand alignments
- More direct service with straighter routes and fewer deviations
- More frequent service
- More consistent, easy to remember schedules, 7 days a week
- New connections to major destinations and employment centers
- More cross-town service to provide transfer points outside of Downtown
- Less congestion on High Street in Downtown
- Serving more residents and jobs overall
- 11% increase in service hours between 2016 and 2019

##### Bus On Shoulder Program (BOS)

COTA began operating express buses on freeway shoulders in 2006. Buses traveling on I-70 between downtown Columbus and SR 256 east of Downtown are able to merge onto the freeway shoulder to avoid congestion delays. Buses may use the shoulder when traffic speeds drop below 35 mph, and buses may not exceed traffic speeds by more than 15 mph.

Planning partners are actively working to improve transit services in Central Ohio.



Utilized under bus operator discretion, the I-70 BOS project has resulted in reduced travel times and improved schedule adherence for the express routes using this freeway. The region will continue to implement BOS where appropriate. In 2015, COTA, ODOT, and MORPC partnered and implemented the region's second BOS corridor – I-670 between downtown Columbus and I-270 east of Downtown. While the first corridor along I-70 utilizes the outside (or right) berm, the I-670 corridor utilizes the inside, or left shoulder, similar to Cincinnati's I-71 BOS corridor. To date, coordination continues with state and local police agencies following installation of freeway marker signs and training of COTA operators.

DATABus

The challenge for DATABus is to determine how to best serve the entire county with limited operating funds in the future. The idea of providing this service through demand-response is the most logical way to proceed, but the service needs to be affordable for the passengers so the service will need to be subsidized.

DATABus will continue to explore opportunities to provide this expanded service through grants and potential other local funding sources. In addition, DATABus will continue to monitor the growth and need in the county and will continue to modify its services to best meet the needs and desires of the county.

**2. Improve connections and coordination among transit system operators and other modes of transportation.**



ODOT Statewide Transit Needs Study

As the demand for public transit increases and budgets shrink, the Ohio Department of Transportation has developed recommendations to bring the most efficient and cost-effective improvements to transit riders and taxpayers alike.

Travel trends show that there is a definite rise in the need for convenient, affordable public transportation to jobs, medical appointments, shopping and recreational activities. Ohio transit agencies are struggling to fund this existing service, let alone meet the increased demand.

As of January 2015, ODOT's transit spending per capita at \$0.63 ranks among the lowest in the nation at 38th out of 51. The study identified nine strategies to meet needs and better position the state to strengthen services overall.

Transit Tech Ohio

ODOT received a \$6.8 million TIGER VII Discretionary Grant to help rural transit agencies purchase hardware, software and improve broadband access that will allow them to schedule and dispatch transit vehicles. Vehicles will be equipped with GPS, automatic vehicle location systems, tablets, and mobile data terminals. These upgrades will promote the ability for multiple agencies to share services. In MOPRC's planning area the Lancaster Public Transit System will benefit from this grant.

Regional Coordination Meetings

MORPC hosts a monthly coordination meeting with COTA and DATABus to develop a better understanding of common issues, ideas and planning needs.



These meetings have been helpful to DATABus as it transitions into a large urban area.

#### 5310 Apportionment

Due to MAP-21 provisions, during FFY 2015, Columbus began receiving apportionments to administer Section 5310 funds. MORPC was declared a Designated Recipient on October 9, 2014. Under the FASTAct MORPC will continue to administer this program according to its FTA-approved Program Management Plan.

#### Workforce Mobility

There are a growing number of employment centers in Central Ohio outside of Downtown Columbus. In an effort to connect inner-city residents to suburban job opportunities, COTA offers several reverse-commute express lines that travel from Downtown Columbus to outlying areas. Because these lines often end at transit centers or Park & Rides, they do not directly connect employees to their job sites. In an effort to address this gap in “last-mile” service, COTA has partnered with local municipalities, employers, and MORPC to offer shuttle service from COTA facilities to employment centers. In 2014, COTA partnered with the City of New Albany to launch the SmartRide shuttle. Funded by New Albany, the service connects COTA’s New Albany Park & Ride to all employers in the New Albany International Business Park, which boasts more than 12,000 jobs.

In 2015, MORPC and COTA partnered with the City of Groveport to launch the GREAT shuttle service funded by Groveport with additional assistance from the Village of Obetz. This service provides safe last-mile trips in the Rickenbacker area to over 34 large employer job sites in a low-density industrial area of Franklin County without safe pedestrian or bicycle infrastructure.

The shuttle service is free for employees. This service is being provided with the working goal for the employers to contribute. DATABus has identified not being able to connect people to job sites as an issue to address.

#### Technology and Safety

COTA will complete the implementation of an updated ITS system including dynamic message signs at key high ridership stops, park and rides, transit centers, and selected shelters that provide riders of fixed-route and paratransit with next bus arrival information via web-enabled mobile technologies such as smart phones, and tablets.

#### Park-and-Rides, Bicycle Racks, and Sidewalk Connections

COTA’s *NextGen Plan*, described in Strategy 4 of this section, will identify potential future strategic investments, including the expansion of, improvement to, and addition of park-and-ride locations and transit centers to support potential improvements to transit services. Such investments help make the transfer out of personal automobiles to transit more attractive and convenient.

Both COTA and DATABus have bike racks mounted on the front of their fixed-route vehicles, enabling bicyclists to complete a part of their trips with transit. Lancaster Public Transit System plans to add this capacity within the next few years. This bike-bus combination helps transit riders when their origin or destination remains far from a transit stop. Where suitable, COTA continuously seeks to



add other bicycle amenities, such as racks, near transit stops to improve modal connection. COTA also participates in any updates to MORPC’s Columbus Metro Bike map with park-and-ride and other route information.

COTA’s plans also include the improvement of sidewalk connections that improve accessibility to passenger shelters and stops. The *Franklin County Coordinated Plan* also identifies these sidewalk deficiencies as a barrier to fixed-route transit, especially for the elderly and persons with disabilities. In response, COTA’s Mobility Advisory Board convenes a subcommittee that advocates for sidewalk improvements, and funds limited improvements through FTA Section 5310, Enhancing the Mobility of Seniors and Persons with Disabilities. MORPC’s Complete Streets Policy also encourages and, in some cases, requires the completion of such connections to transit.

COTA, MORPC RideSolutions, CoGo (bikeshare), car2go (carshare) and YayBikes!, a bike education and advocacy group, will continue to work together to educate employees and employers about using transit or rideshare and the other support options available for getting around downtown Columbus. This group has conducted education sessions and attended information events.

COTA and DATABus were involved in the development and will continue to be part of MORPC’s Active Transportation Plan (ATP), described in Section 6.3. The ATP is a coordinated effort across the MPO to create interaction and integration of pedestrian, bicycle and transit facilities within the regional transportation network.

**3. Improve human services transportation, and coordination with public transit.**



MORPC will be combining and updating the locally developed Coordinated Public Transit Human Services Transportation Plans for Delaware and Franklin counties to match the MPO planning area. As required by FTA Section 5310 funding to enhance the mobility of seniors and persons with disabilities, any program or projects selected must be included in the Coordinated Plan.

Since FFY 2013, MORPC has grown in the role of being a designated recipient for FTA Section 5310 funds. Going forward MORPC will have more connection and contact with recipients to work toward more coordination efforts. To date and going forward, public transit, private operator, and private non-profit projects have been selected.

COTA, DATABus, LPTS and LCTB participate in or host the coordinating councils or boards for their counties. Such forums provide an opportunity to identify, maintain and expand human services and public transit coordination. Each seeks to implement its county’s coordinated plan.

DATABus, LPTS and LCTB continue to contract with human services agencies to provide transportation for human service agency clients. Such coordination eliminates potentially overlapping service and provides the transit agencies an additional source of revenue to maintain and operate their fleets.



#### 4. Support efforts to introduce fixed-guideway transit service.

##### CMAX Bus Rapid Transit

The Central Ohio Transit Authority (COTA) has conducted design, engineering and environmental clearance for the proposed Cleveland Avenue Bus Rapid Transit (BRT)/Enhanced Bus Service Project, the CMAX. During project development, the proposed project received environmental review approval from the FTA on July 25, 2014, indicating no significant impacts anticipated for the project. The CMAX BRT is expected to begin in January 2018.

CMAX will transport riders between Downtown Columbus and Polaris Parkway/Africa Road, connecting them with major destinations and transit services. The new service will complement Local Line 1 Cleveland Avenue – COTA's second busiest line – and stop at 64 designated platforms in both directions along the corridor. CMAX will operate on High Street in dedicated bus lanes during rush hours in downtown Columbus; traffic signals will be coordinated to provide priority for CMAX buses between Fort Hayes and SR 161, reducing travel times.

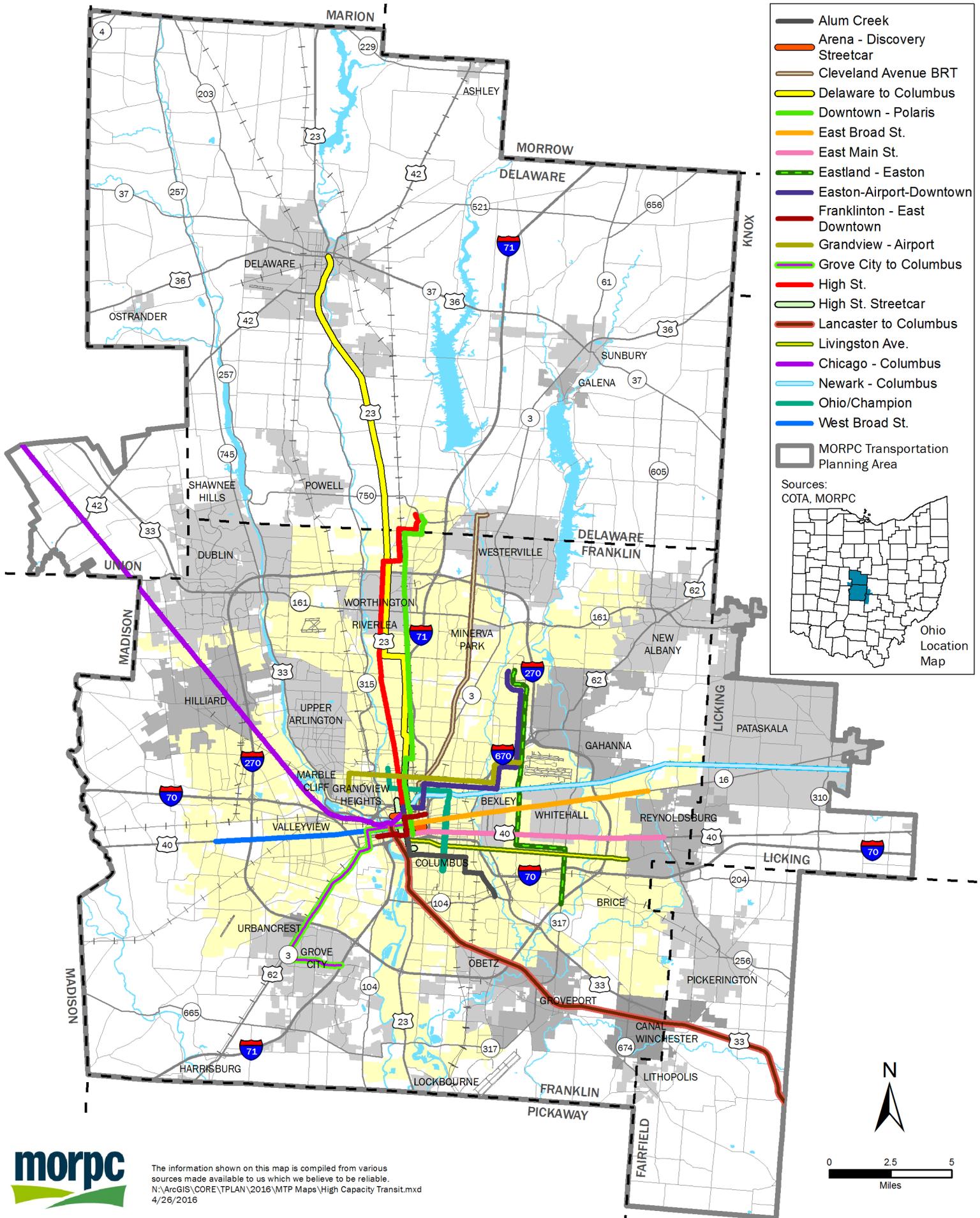
The CMAX service includes weekday 10-minute service frequency during peak hours and 15-minute service frequency during off-peak hours between downtown Columbus and SR 161, and 30-minute service frequency on weekends. This provides approximately 21 percent travel time savings with estimated 35-39 minute trip times between Downtown and SR 161, and 48-56 minutes between Downtown and Polaris Parkway/Africa Road. Service will operate seven days a week.

##### COTA NextGen Initiatives

As the primary provider of public transit services in Central Ohio, COTA is undertaking a long-range planning effort, NextGen, to identify public transportation needs and opportunities through 2050. NextGen will comprehensively consider how changing growth and demographic trends will shape opportunities and demand for public transportation. NextGen is expected to be completed in Spring 2017.

NextGen goals:

- Lead the community in envisioning what our public transportation system needs to accomplish in the coming decades to ensure Central Ohioans have access to jobs, housing, education, and services.
- Prepare Central Ohio for future growth by identifying transit investments that integrate with regional plans and goals. Critical regional goals include maintaining regional competitiveness, minimizing sprawl, and responding to demographic preferences.
- Create transit investment options to support local and regional efforts to develop transit-oriented and multi-modal communities.
- Identify conventional and creative revenue options that offer potential to support the recommended plan and ensure the plan can be implemented.



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.  
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**FIGURE 6.3**  
 High Capacity Transit Corridors for Further Study



#### Columbus StreetRailway Company

The Columbus StreetRailway Company is a non-profit corporation (501(c)3) dedicated to assisting the greater Columbus Community in designing, financing, building, and operating a modern street car circulator system for the center city area.

#### High-Capacity Corridor Planning

Coordination between the MTP project evaluation process (described in Chapter 7), and other regional transit planning initiatives resulted in 19 high-capacity transit corridors being identified for further study. Included are 15 intra-regional routes and 4 commuter routes connecting to other regions. The corridors, described below and shown in Figure 6.2, are routes that have a high potential to support high-capacity transit, but further study is still necessary. The corridors have been identified through several sources including COTA's NextGen, Columbus Street Railway Company studies, and public outreach. Specific transit modes have not been identified for these corridors, but high-capacity transit could include:

- Commuter Rail (connecting cities in adjacent counties with Columbus)
- Light Rail (providing service to Columbus and adjacent communities)
- Streetcar (shorter lines in denser, urban areas)
- Bus Rapid Transit (expanded bus service with light-rail-like amenities)

The corridors are described below, and shown in Figure 6.3.

- CMAX Upgrade: Re-align CMAX service to utilize former Mt. Vernon PRR line between E. 5th Ave and Ferris Rd. Extend alignment to Polaris. Light Rail (providing service to Columbus and adjacent communities)
- 5th Avenue Grandview-Airport: Connects Grandview, Short North, and the Milo-Grogan neighborhood to the Airport using 5th Avenue Bus Rapid Transit (expanded bus service with light-rail-like amenities)
- East Broad: Connects downtown Columbus, Bexley, Whitehall, and Reynoldsburg via East Broad Street
- East Main: Connects Reynoldsburg and downtown Columbus via East Main Street
- East Livingston: Connects Reynoldsburg and downtown Columbus via Livingston Avenue
- High Street-Polaris: Connects downtown Columbus, OSU, and Polaris via High Street (with alternative alignment via 3rd Street through the Short North)
- Eastland Mall-Easton: Connects Eastland Mall, the Airport and Easton Town Center via Stelzer Road
- Alum Creek-Whittier: Connects downtown Columbus to Alum Creek Drive via Whittier and 3rd
- West Broad: Connects Lincoln Village with downtown Columbus via West Broad Street
- Franklinton-East Downtown: Connects Franklinton to east downtown via West Town, High Street, and East Spring Street



- Downtown-Polaris via North Corridor: Connects downtown Columbus and Polaris via High Street, 3rd Street/Summit Street and the North Corridor
- Downtown-Airport-Easton: Connects downtown Columbus, the Airport, and Easton Town Center with a direct high-speed service
- Grove City: Connects downtown Columbus and Grove City via Harrisburg Pike
- High Street Streetcar: Study of streetcar service along High Street from Frankfort St. to Buttles Ave.
- Arena District-Discovery District Streetcar: Study of streetcar service connecting the Arena District and the Discovery District via Neil Ave, Spring St., High St., Broad St., and Mt. Vernon Ave.
- Columbus-Newark: Connects downtown Columbus to Newark, the largest city in Licking County
- Columbus-Lancaster: Connects downtown Columbus to Lancaster, the largest city in Fairfield County
- Columbus-Delaware: Connects downtown Columbus to Delaware, the largest city in Delaware County
- Columbus-Chicago: Connects Port Columbus to Chicago, with potential stops in Ohio and Indiana along the way.

#### Transit-Oriented Development (TOD)

MORPC is convening a group of stakeholders to identify locations and funding for coordinating transit-oriented development in economically distressed areas. Multijurisdictional stakeholders are being identified that specialize in planning, housing, public service and development. As part of TOD and other efforts, MORPC will be reviewing vehicle and pedestrian crash locations in proximity to bus stop locations. MORPC and COTA will work with elected leaders, developers, and community members. As growth and density increase lessons learned can be applied to the DATABus service area and potential transit transfer locations.



## 6.3 Bicycle and Pedestrian System

Bicycling and walking continue to receive higher demand and recognition as modes of transportation in Central Ohio. The region is working to collect data on active transportation facilities and their usage to justify their importance and identify gaps that limit the mobility of people throughout the region, build bicycle and pedestrian facilities, and ensure that educational, enforcement and encouragement programs are available to support bicycling and walking.

### BICYCLE AND PEDESTRIAN STRATEGIES AND PROJECTS



#### 1. Make neighborhoods walkable, bikeable, and accessible by transit through both infrastructure and non-infrastructure projects and programs

##### Active Transportation Plan

The Active Transportation Plan (ATP) provides tools to assist Central Ohio communities in the Metropolitan Planning Area with planning efforts to ensure their residents and visitors can efficiently and safely access and move between pedestrian, bicycle, and transit facilities. The ATP includes an interactive Story Map with active transportation best practices, and a Cost Estimator Tool to help communities budget for the incorporation of active transportation infrastructure into an already programmed infrastructure project. The key regional corridors of the ATP are incorporated into the MTP's project evaluation criteria, as well.

MORPC staff will encourage communities to work with them to schedule collaborative meetings with adjacent communities and other stakeholders regarding specific active transportation projects within the Key Regional Corridors addressed in the plan. Staff will also update the ATP on a regular basis with up-to-date best practices information, links to communities' newly adopted transportation-related plans, and cost data for the Cost Estimator Tool. More information is available in Appendix F.

This MTP prioritizes bicycle and pedestrian projects such as multi-use paths, bicycle lanes, and sidewalks focused along the key regional corridors identified in the Active Transportation Plan. Chapter 8 provides a list and map of specific projects included.

##### Green Infrastructure Best Management Practices

Changes in our climate, development pressures, stormwater impacts to water quality, and interest in fiscal sustainability have resulted in communities being interested in learning about best practices for green infrastructure when retrofitting and constructing transportation facilities. In order to assist Central Ohio communities with building an environmentally and fiscally sustainable transportation infrastructure network, MORPC is compiling information on best practices for green infrastructure for communities to reference when planning and designing transportation projects. The resource will include local examples of best practices so that its users can visit green infrastructure sites for hands-on learning and

Bicycling and walking continue to receive higher demand and recognition as modes of transportation in Central Ohio.



ease of communication with those projects' managers for information to help them implement similar best practices.

#### Active Transportation Safety Initiatives

As detailed in Section 4.3, MORPC continues to facilitate activities aimed at improving pedestrian and bicyclist safety through its various safety initiatives.

#### Assist in Community Active Transportation Plans and Committees

MORPC will participate in the development of local active transportation plans to ensure regional consistency and continuity.

#### Host Central Ohio Greenways Meetings

Since 2005, MORPC has held a quarterly forum related to greenways and trails development in the region. This forum is suited for local governments, parks and recreation groups, and local bicycle advocacy groups. The goals are to develop a united regional trail system, raise awareness of the importance of greenway trails and create the usability of the greenway trail system.

#### COG Board

Central Ohio Greenways (COG) is a trail network of national significance spanning over 180 miles, connecting Central Ohio to other parts of the state and country. These trails are traveled more than 12 million miles annually, providing economic, quality of life, and health benefits to the community.

An informal network of trail developers and trail advocates began meeting in 2005 to plan and prioritize additional trail development, install unified way-finding signage, and study the impacts of trails. Ten years later, the effort was formalized to reenergize, refocus, and strategically pursue the vision of increasing trail miles and trail usage. The COG Board was formed and became embedded within MORPC's Sustainability Advisory Committee in order to coordinate with other regional priorities. Board members represent the public, private, and non-profit sectors. The Board is supported by working teams that address key regional issues including: trail development, programming, partnership, and marketing/communications.

This MTP prioritizes trail projects that are part of the proposed COG trail network. Chapter 8 provides a list and map of specific projects included.

#### Active Transportation Professional Training Opportunities

MORPC continues to work with partners such as FHWA, the American Association of State Highway and Transportation Officials (AASHTO), the Institute of Transportation Engineers (ITE), the Association of Pedestrian and Bicycle Professionals (APBP), The League of American Bicyclists, the National Safe Routes to School Partnership, and YayBikes! – a Columbus-based bicycle advocacy group – to educate local engineers, planners and residents on bicycle- and pedestrian-related topics through a variety of webinars and trainings. Additional training opportunities are provided at conferences, such as ODOT's Ohio Transportation Engineering Conference, the Ohio Bicycle Summit, and the Central Ohio Chapter of the American Planning Association's annual conference.



#### Encourage Bicycle-Friendly America and Bicycle-Friendly Business Applicants

The League of American Bicyclists issues Bicycle-Friendly America and Bicycle-Friendly Business designations. The designations recognize municipalities, universities and businesses for actively supporting bicycling. The League has awarded a “Bronze” designation to the cities of Columbus (2009), Dublin (2012), and Westerville (2012). The League has also awarded a Bronze designation to the following businesses: Ulmer and Berne, Gahanna YMCA, Columbus Food League, The Ohio State University, and Breakaway Cycling, while also awarding Silver designations to EWI, Trek Bicycle Store, Wheelie Fun Bike Shop, Columbus Public Health, and Café Brioso.

#### insight2050

As summarized in Chapter 2, MORPC and project partners ULI Columbus and Columbus 2020 developed insight2050, a community-wide effort to proactively plan for population growth and development. By 2050, Central Ohio is expected to grow by at least 500,000 people, most of whom will be young adults, ages 16 to 34, and seniors aged 65 and over. Both generations share a preference for smaller homes in more compact, walkable neighborhoods. insight2050 demonstrates that communities that accommodate these development preferences for more walkable, bikeable, and transit-accessible neighborhoods will not only enhance their attractiveness to the region’s growing population of young adults and seniors, but will also reduce infrastructure costs and the amount of land needed for development.

#### Bike Share

The City of Columbus introduced its “CoGo” bikeshare system in 2013 and has since grown to over 40 stations. Bikeshare is also available on The Ohio State University campus and at Easton Town Centre. As demand for bikeshare grows, so will the desire of Central Ohio communities to incorporate some form of bikeshare within their jurisdictions. In an effort to build upon existing linkages, MORPC will be available as a resource to communities who wish to implement some sort of bikeshare system. Keeping in alignment with the MTP theme of collaboration, MORPC will work with communities to help guide bikeshare expansion in a way that capitalizes upon existing and planned biking infrastructure, promotes bikeable communities, and is accessible to the diverse populations of Central Ohio.

#### Park & Pedal

MORPC’s Park-and-Pedal initiative encourages commuters who live in the outlying suburbs to park their cars before arriving into congested areas such as downtown Columbus where parking is sparse, and ride a bike for their last few miles to work. Working in conjunction with the City of Columbus, MORPC has identified parking lots owned by the City that are connected to bike-friendly roads or multi-use paths that safely lead into downtown. Lots will be branded with clear signage at their entrances and indicated on MORPC’s digital bike map. Lots will be located within a 5-mile radius of downtown. Two lots have already been established at Dodge and Academy parks, and other locations throughout are pending.



Bike Events

Bike to Work Week, Bike Month, and Pelotonia are among the variety of bike events happening in the region. The goal of these events is to encourage more commuters and residents to bike. MORPC is involved in planning and promotion of many of these events.

**2. Increase the quantity and quality of data on bicycle and pedestrian travel behavior.**



Update Columbus Metro Bike User Map

In 2016, a revised Bike User Map will be distributed throughout the region. This will include updates to the current map based on new facilities built since the last map update in 2014, and input from local jurisdictions, advocacy groups and the public on Level-of-Service for the facilities. Additional periodic updates to the map will take place after 2016.

Complete Streets Equipment Library

In 2010, using grant funding from ODH, MORPC acquired two automatic bicycle tube counters and eight active infrared counters. This equipment is available to local jurisdictions interested in collecting data on pedestrian and bicycle traffic in order to provide the information needed to adequately accommodate non-motorized traffic in facility design decisions.

Bikeway Inventory

MORPC continuously updates bikeway data based on information from local jurisdictions. The updates track both regionally significant bikeways and local bikeways. These data are available to local jurisdictions and the public using an interactive online map. MORPC also shares these data with ODOT and other MPOs in Ohio.

Sidewalk Inventory

In 2015, MORPC partnered with the City of Columbus and the Ohio Department of Transportation (ODOT) to compile an inventory of sidewalk facilities in the MPO planning area. The inventory is available online in an interactive webmap format and includes attributes such as where sidewalks are and are not located, and the location of marked and unmarked crosswalks. The inventory is maintained by ODOT, and local jurisdictions are responsible for providing and updating data. The inventory is used to support transportation planning activities throughout the region.

Bicycle and Pedestrian Counting

Since 2005, MORPC, together with many different volunteers and regional partners, has routinely collected bicycle and pedestrian volume counts across the Central Ohio region. This includes manual counts occurring in concert with the National Bicycle and Pedestrian Documentation Project. Such counts occur twice a year at selected locations throughout the region. In addition to manual counts, automated counting devices are being used to continuously collect counts at select locations across the Central Ohio trail system and are being supplemented with additional short-duration counts. These efforts allow MORPC to create a regional inventory of non-motorist activity, better understand the factors that impact activity levels, and observe trends over several years.



Bicycle and Pedestrian Crash Data

Every year, MORPC identifies pedestrian and bicycle high-crash locations in the region as well as crash fact sheets with more detailed statistics related to bicycle crashes. This information helps identify areas in need of physical safety improvements as well as safety education programs.

Bicycle and Pedestrian Trip Data

The MORPC Travel Demand Model and data from COTA will be used to identify and forecast bicycle activity.



**3. Expand bicycle and pedestrian networks through the implementation of complete streets and multi-use path connections.**

Complete Streets Toolkit Update

In 2010, MORPC was awarded a grant from the Ohio Department of Health (ODH) to create a Complete Streets Toolkit. This toolkit contains factsheets related to engineering, education, enforcement, encouragement and evaluation. An online supplement to the toolkit provides model policies for different types of communities. The supplement also addresses a variety of additional topics. MORPC is updating the toolkit, focusing on both content and format to ensure that it is pertinent and convenient for all of its users.

Complete Streets Outreach

MORPC staff will continue to hold workshops and give presentations to local governments, city councils, and the public on the concepts of Complete Streets and age-friendly communities. The goal of these presentations is to encourage local communities to think differently about their community development and adopt complete streets policies and other policies that support their implementation.

Review Projects for Complete Streets Policy Compliance

MORPC continues to review projects using the checklists developed as part of the Complete Streets Policy. Projects using MORPC-attributable funding must comply with MORPC's Complete Streets Policy.



**4. Develop transportation system to serve all demographic population groups.**

Age-Friendly Communities

In light of the findings of insight2050 that indicate that Central Ohio's population of 65 years or older is expected to double over the next 35 years, MORPC is working with communities about the importance of incorporating age-friendly components into the revitalization of their downtowns and neighborhoods. The Age-Friendly Columbus project is a major step in ensuring that older adults can remain in their own environments and live an active and safe lifestyle in Central Ohio.

Over a 2-year period (2016 – 2018) and through the lens of the eight domains (i.e., transportation, the built environment, respect and inclusion, etc.) as outlined by AARP in partnership with the World Health Organization (WHO), this project will assess the age-friendliness of the City of Columbus through research, field work, and outreach to create a 3-year city-wide action plan that ensures Columbus



embraces age-friendliness as a core value of its work and services to residents. The city-wide assessment around these domains will provide a clear picture of where the City needs to improve. The plan will be written in such a way that it includes both site and service-specific action items for Columbus, but also recommendations that are broader, policy-based, and applicable to other communities around the region. It is our goal that Age-Friendly Columbus will create broad collaboration among cross-sector stakeholders and a strong foundation for continuous improvements within all domains.

#### Coordinate Safe Routes to School (SRTS)

MORPC encourages and supports efforts to increase walking and bicycling to school among students in grades K-8.

#### Bicycle and Pedestrian System Expansion

The non-freeway projects identified in this MTP are all assumed to include appropriate complete streets elements. The stand-alone bicycle and pedestrian projects identified are focused on the 12 key regional Active Transportation Plan corridors and proposed Central Ohio Greenways trails, which are regionally significant. The financial forecast of this MTP sets aside funding for other stand-alone bicycle and pedestrian projects that local communities identify as priorities, however most of these local priorities are not mapped or specifically listed.



## 6.4 Intermodal Freight & Aviation

MORPC works to position the Central Ohio region as an attractive area to attract workers and businesses.

Our region’s freight planning program actively supports a number of the Metropolitan Transportation Plan’s goal strategies, particularly when it comes to positioning Central Ohio to attract and retain businesses that enhance our economic prosperity and position the region to compete on a global scale.

The intermodal freight and aviation industries have an impact beyond local, regional, state, and even national borders. Global trading patterns are shifting, and a competitive advantage will belong to regions that cannot only attract high skilled workers and businesses that employ them, but places that provide affordable housing options, a high quality of life, and transportation hubs that act as gateways to the global economy. Through its work in freight planning and other activities, MORPC works to position the Central Ohio region as an attractive area to attract workers and businesses. However, MORPC also understands its role in the larger picture, and that freight challenges span beyond regional boundaries.

### INTERMODAL FREIGHT AND AVIATION STRATEGIES AND PROJECTS

Recognizing the importance that goods movement plays in the regional, state, and national economies, Central Ohio stakeholders actively collaborate to address the needs of this important sector of our economy. Strategies presented throughout the MTP seek to improve the flow of all modes of transportation, including intermodal freight and ground access to the region’s passenger airports. For example, strategies and projects that address congestion not only help the commuting traffic but also the movement of goods. However, this section directly addresses four strategies related to intermodal freight and aviation ground access, and the activities and projects that implement these strategies.



- 1. Collect information on and analyze freight activity to identify developing trends and work to disseminate that information among partners and peers.**

#### Freight Trends Study

The Central Ohio Freight Trends Study focuses on the impact the freight industry has, globally and locally, on the region’s infrastructure. The study will focus on the need for infrastructure improvements and, in doing so, leverage discussions among private and public partners to determine future infrastructure funding. This study includes information from the Federal Highway Administration (FHWA)’s latest version of the “Freight Analysis Framework,” known as FAF4. The Freight Trends Study is currently underway and is expected to be completed in Summer 2016.

#### Inventory of Railroad Operations and Right-of-Way in Central Ohio

An update to the Inventory of Railroad Operations and Right-of Way in Central Ohio is slated for 2017. Updated every 10 years, the report was originally released in 1968 and previously updated in 1985 and 1995, with the most recent update completed in 2007. The purpose of this study is to examine the rail lines within Central Ohio in order to identify physical constraints and operating pa-



rameters that affect the potential use of excess right-of-way for other transportation purposes. This inventory was originally intended to provide a planning tool to assist in an objective analysis of a rail line's potential in other uses, such as trails or environmental buffers, as well as assist in intermodal planning, rail crossing studies, and potential infrastructure improvements. The 2017 update intends to broaden its scope and will feature web-based mapping to increase the public's access to this information.

Freight Fact Book

MORPC will update the Freight Fact Book in 2016. Like the rail inventory, this fact book will be web-based and will frame Central Ohio's freight story relative to the movement of goods in the rest of the state, the nation, and the world. This fact book will include a "Freight Performance Measures" component. Freight-specific performance measures for the region allow MORPC and its partners to gauge the effectiveness of the region's work to improve the freight transportation system. This system will build upon an already established freight indicator profile, updated annually as part of MORPC's State of the Region. It will complement performance measurement for the MTP.

Freight Scanning Tours

Previous freight-scanning tours have provided policy makers opportunities to get behind-the-scenes glimpses of major companies doing business in the region. In addition, it allows business leaders to ask questions of the group of policy makers with respect to future transportation plans and funding in the region. MORPC plans to conduct a freight scanning tour once a year.

FHWA's Freight Professional Development Program

MORPC will continue to work with FHWA and other U.S. Department of Transportation (USDOT) partners to help build freight planning staff capacity to ensure the long-term integration of the subject into all transportation planning initiatives.

**2. Forge public/private partnerships to provide resources to maintain and expand key linkages among air, rail and roadway transportation modes.**



Regional Policy Roundtable

The Regional Policy Roundtable is a group composed of representatives from diverse interest groups across the Central Ohio region, including local governments, businesses, non-profits and citizens. The Regional Policy Roundtable aims to sustain a strong, prosperous 15-county Central Ohio region by providing a voice on policy and legislative matters. The Roundtable's main task is to agree on the public policy initiatives that MORPC staff pursues.

MORPC will continue to monitor state and federal legislation for its impact on Central Ohio's freight transportation system. In the past, MORPC's Policy Committee has passed resolutions reacting to potential legislative and administrative decisions. Other resolutions have supported local partners' applications for funding under various programs, such as the US 33 and I-270 Interchange project to address congestion issues at this bottleneck that affects regular as well as freight traffic flows. MORPC will monitor federal and state policy and inform the Roundtable when applicable, and, as required, pursue the Policy Roundtable's



identified freight-related priorities.

#### FAST Act Freight Provisions

In December 2015, the FAST Act was signed into law to address funding of federal surface transportation programs for highways, highway safety and transit. The FAST Act includes funding for two new freight-specific programs. One is apportioned to state DOTs and will total \$42 million per year for the State of Ohio, while the other is discretionary and provides \$4.5 billion over five years for freight-significant projects. MORPC staff will work with its regional partners to capture federal freight funding for the region.

Over the past few years, several non-traditional funding sources have emerged that can address freight issues, such as TIGER I, II, III, IV (Transportation Investment Generating Economic Recovery), and the Ohio State Stimulus Logistics and Distribution program. MORPC continues to support and provide technical assistance for funding applications for area projects.

#### Freight TIP

MORPC will continue to refine the Freight TIP and the evaluation criteria used to identify priority freight projects while evaluating the conditions and performance of the NHS (National Highway System) connectors to move freight more effectively and efficiently through Ohio.

#### Rickenbacker Area Study

The Rickenbacker Intermodal Yard is Central Ohio's connection to the NS Heartland Corridor. Infrastructure connections are still necessary to maximize the value of this asset. MORPC is working with stakeholders in the area to conduct an infrastructure needs assessment. This study is slated for completion in 2017.



### **3. Make transportation decisions that positively impact freight movements and maximize the effectiveness of the region's integrated freight transportation system.**

#### Columbus Region Logistics Council

The Columbus Region Logistics Council is an industry-led group, which is an initiative of the Columbus Chamber. The group also serves on MORPC's Transportation Advisory Committee. Likewise, MORPC serves as the Logistics Council's government liaison. This relationship has led to several tactical and strategic successes for the region's freight transportation system. This close partnership will continue into the future.

#### Innovative Financing Initiatives

Traditional funding for transportation projects, including rail and roadway, is becoming increasingly more and more challenging. MORPC will work with transportation funding stakeholders, such as ODOT, counties, local agencies, and the private sector to increase knowledge and use of new innovative financing strategies for Central Ohio, such as Transportation Improvement Districts (TIDs), toll financing, automated truck corridors and other public-private partnership (P3) opportunities.



OARC Freight Working Group

Through the Ohio Association of Regional Councils (OARC), MORPC coordinates the state’s metropolitan areas to facilitate a statewide freight group. This group allows the state’s MPOs to assist each other on freight-related issues when needed. The freight working group also enables ODOT and FHWA staff to share information on state and federal freight activities.

Ohio Conference on Freight

The Toledo Metropolitan Area Council of Governments (TMACOG) organizes the Ohio Conference on Freight. MORPC continues to support TMACOG’s efforts. MORPC represents Central Ohio’s freight infrastructure interests at this annual event and utilizes knowledge gained in the development of our region’s freight planning activities.

Highway System Maintenance, Management, and Expansion

The maintenance, management, and expansion of the region’s freeways, surface roads, last-mile facilities, and intermodal connectors is essential for efficient freight movement through and within Central Ohio. This MTP identifies funding for maintenance and preservation activities, management activities including coordinated Intelligent Transportation Systems, as well as specific freeway and surface roadway improvement projects.

**4. Improve traffic and transit operations by increasing efficiency through investment in advanced technology.**



Automated and Connected Vehicles

Along with other regional stakeholders, MORPC is working with The Ohio State University Center for Automotive Research (OSU CAR) to explore innovative transportation technologies such as automated freight vehicles. Currently, MORPC is working with OSU CAR and its partners to fund a pilot project along US 33.