On the Move: 2015 - 2045
Transportation Plan – Update 2020

TOLEDO METROPOLITAN AREA
COUNCIL OF GOVERNMENTS

JULY 2020

The preparation of this report was financed jointly by the counties of Lucas and Wood, Ohio; Monroe County, Michigan; the cities of Bowling Green, Maumee, Northwood, Oregon, Perrysburg, Rossford, Sylvania, Waterville, and Toledo, Ohio; the Toledo-Lucas County Port Authority; the Ohio Department of Transportation; and the U.S. Department of Transportation, Federal Highway Administration, and the Federal Transit Administration.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICIES

TMACOG TRANSPORTATION STAFF

David Gedeon, AICP, Vice President of Transportation Transportation Council Transportation Legislative Agenda Transportation Summit	Ext. 1125 gedeon@tmacog.org
Marissa Bechstein, Transportation Planner Planning Committee Public Transit Planning Specialized Transportation Planning	Ext. 1117 bechstein@tmacog.org
Jodi Cole, Transportation Administrative Assistant	Ext. 1120 cole@tmacog.org
Lance Dasher, AICP, Transportation Planner Pedestrian and Bikeways Planning Transportation Improvement Program (TIP)	Ext. 1115 dasher@tmacog.org
Michael Fuller, Transportation Planner Land Use/Socioeconomic Data Forecasting/Growth Trends Share A Ride	Ext. 1116 fuller@tmacog.org
Lisa Householder, Transportation Database Analyst/Planner Integrated Transportation Database Systems Performance and Monitoring Traffic Demand Modeling	Ext. 1124 householder@tmacog.org
Roger Streiffert, Transportation Planner Freight Planning Passenger Rail Planning Transportation Service	Ext. 1122 streiffert@tmacog.org
Marc VonDeylen, Transportation Technician Air Quality Coordination Traffic Counting Transportation Safety Coordination Transportation Website	Ext. 1136 vondeylen@tmacog.org

TMACOG OFFICERS

Mark W. Stahl – Chair Commissioner, Ottawa County	
Kay E. Reiter – Vice Chair Commissioner, Sandusky County	
TMACOG STAFF	
Tim W. Brown President	
Jennifer Allen Executive Administrative Assistant	Barbie Kalta Water Quality Associate
Marissa Bechstein Transportation Planner	Mary Pat McCarthy Marketing and Public Information Manager
William Best Vice President of Finance & Administration	Joy Minarcin Water Quality Administrative Assistant
Jodi Cole Transportation Administrative Assistant	Gilda Mitchell Director of Membership and Outreach
Lance Dasher, AICP Transportation Planner	Ann Nair Administrative Assistant/Receptionist
Michael Fuller Transportation Planner	Nate Reiter Accountant
David Gedeon, AICP Vice President of Transportation	Roger Streiffert Transportation Planner
Kari Gerwin Director of Water Quality Planning	Mike Tippett Digital Communications Manager
Sara Guiher Water Quality Planner	Marc VonDeylen Transportation Technician
Lisa Householder Transportation Planner/Data Analyst	

Executive Summary

"We envision a vibrant region with a dynamic economy and high quality of life where transportation is a core strength." – On the Move: 2015-2045 Transportation Plan Vision Statement

What will the Toledo metropolitan area look like in 30 years? Over the next three decades, what improvements in transportation do we need for better freight movement, personal mobility, and regional strength?

These are the core questions that TMACOG and the people of our region (Lucas and Wood counties in northwest Ohio, plus southern Monroe County, Michigan) addressed in developing the "On the Move: 2015-2045 Transportation Plan." These questions were revisited in completing this federally required four-year plan update.

The purpose of the "On the Move: 2015-2045 Transportation Plan – Update 2020" is to provide a program of transportation projects, initiatives, and policies that will guide more than $3.8 billion of public investment over 25 years to enhance our regional transportation system. This plan takes a total modal view as all transportation modes are included, and there is a focus on integrating improvements to further develop an intermodal transportation system moving both people and goods.

For both the original 2045 Plan (2015) and 2045 Plan – Update 2020, there was a focus throughout plan development on full participation by local governments, businesses, and citizens. The 2045 Plan – Update 2020 task force coordinated creation of this plan. The task force was a broad-based group consisting of representatives of governments, economic development and planning agencies, institutions and service agencies, the private sector, transportation stakeholders, and citizen advocates from neighborhoods. For two years, the task force worked with staff to make decisions on plan content and direction to develop an innovative public involvement process. The plan task force looked at technical analysis, brainstormed solutions, and made tough decisions on priorities. All public input was evaluated by the task force and incorporated into the problem statements that were the basis of the plan.

The plan is structured around eight goals, which were used to evaluate and rank proposed projects and initiatives based on impacts to the region and its transportation system:

1. **Safety:** Reduce traffic-related fatalities and serious injuries across all modes.
2. **Infrastructure condition:** Maintain and improve the transportation system to a state of good repair.
3. **Congestion reduction:** Reduce congestion on the National Highway System (NHS)
4. **System reliability:** Improve the efficiency of the surface transportation system.
5. **Freight movement:** Strengthen freight access to national and international trade markets to support economic development
6. **Environmental sustainability:** Protect and enhance the community and natural environments.
7. **Project delivery:** Expedite project delivery to maximize effective use of public funds.
8. **Personal mobility:** Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

Measures of effectiveness were developed and used to evaluate and select plan projects based on these goals. Plan development also was guided by the planning factors and other requirements of the current federal transportation regulations detailed by the Fixing America's Surface Transportation Act (FAST Act) and the Moving Ahead for Progress in the 21st Century Act (MAP-21). The 2045 Plan is fully compliant with the FAST Act and MAP-21, incorporating the new emphases on consultation with environmental and planning agencies, use of visualization methods to more clearly communicate plan content to the public, and working towards a safer and more secure transportation system. As with previous plans, the impacts on air emission constraints and on low income and minority neighborhoods were evaluated to ensure compliance with federal requirements. The "On the Move: 2015-2045 Transportation Plan – Update 2020" is fiscally constrained based on expected federal, state, and local resources. A fiscal balance analysis in Chapter 6 shows anticipated transportation revenue against future project needs.

At the heart of the plan are the 375 projects with funding already committed or expected to be available during the life of the plan. These are listed according to regional priority and identified by the goal they most directly address. To address the system preservation goal, nearly $500 million is set aside for pavement reconstruction projects and bridge improvement projects. This includes projects that will relieve a backlog of system preservation and a list of projects that will address the growing projected need during the life of the plan.

In addition to projects, the plan includes 30 initiatives (major studies, other strategic actions) and 26 policies (to guide future action in the region). These are also based on meeting the eight plan goals.

An implementation schedule concludes the plan. The implementation schedule lists lead agencies, the time period during which the projects can be funded for construction, and the estimated cost in dollars.

1 INTRODUCTION TO "ON THE MOVE: 2015-2045 TRANSPORTATION PLAN – UPDATE 2020" DRAFT REPORT

"On the Move" Vision Statement:
We envision a vibrant region with a dynamic economy and high quality of life where **transportation** is a core strength.

Transportation is a key component to building a strong region. Access to work, school, health care, shopping, entertainment and numerous other destinations via a variety of modes is essential and takes careful planning. All transportation projects start somewhere. In northwest Ohio and southeast Michigan, the transportation plans are the results of research, studies, and evaluations done by the Toledo Metropolitan Area Council of Governments (TMACOG) and its partners. The resulting transportation plans together make up the region's new long-range plan. Under the maintenance of TMACOG, this plan shapes our region's future.

The Process

The 2045 Plan is derived from two years of work, a 36-member task force, and extensive public input from business and neighborhood leaders, employers, real estate experts, planners, educators, economic development professionals, and many other members of the public. The plan has been developed and evaluated with real-world consideration: How efficient are our roads? How can we increase safety for all users and reduce congestion? Can you get places without a car? Do we want better public transit? Are kids able to walk and bike to school safely? Can we reduce pollution from traffic? How will we pay for improvements? The result of the analysis is this list of projects, initiatives, and policies that will change our region over the next 25 years and more.

"On the Move: 2015-2045 Transportation Plan –Update 2020" (2045 Plan – Update 2020) complies with FAST Act and MAP-21 (federal transportation) regulations. TMACOG is the federally designated Metropolitan Planning Organization (MPO) for the Toledo Urbanized Area that includes the counties of Lucas and Wood in Ohio, and the southern three townships in Monroe County, Michigan (**Figure 1.1**). The TMACOG planning process incorporates the new planning cycles, measurable performance targets to be achieved, and goals identified by the TMACOG Transportation Council. The public input process used expanded visual communication techniques that are also linked to more efficient and creative use of the TMACOG website. As required, a new regional transportation plan with a new 20-year horizon will be prepared in 2025.

Projects

The list of projects we plan to accomplish in the region by 2045 is 375 items long. It is divided into committed projects and priority projects. Committed projects are those for which at least some funding is already committed. Priority projects are those for which funding is expected. Of the 375 projects, 222 are committed and 153 are priority. Committed projects are ordered by PID number and priority projects are ranked by priority. The priority projects were developed and selected based on the eight plan goals. To read about how projects were evaluated and ranked, see Chapter 5 and http://www.tmacog.org/onthemove/.

Initiatives

There are many valuable transportation projects that don't involve construction. The 2045 Plan – Update 2020 includes 31 initiatives in our region that stress research, collaboration, and community

education. These initiatives, listed by the goals that they serve, are aimed at solving important regional needs. The initiatives will ensure that we have good information and strategies that will lead us to make smart decisions and take effective action.

Policies

The policies established in the plan will guide future actions in the region. The 2045 Plan – Update 2020 task force made some revisions, but most of the original policies were retained. From support for roundabout intersections to recommending complete streets, these policies establish a foundation for transportation-related work for the next 25 years or more. Like the initiatives, these policies are also organized by the plan's goals.

Goals

The "On the Move: 2015-2045 Transportation Plan – Update 2020" goals are:

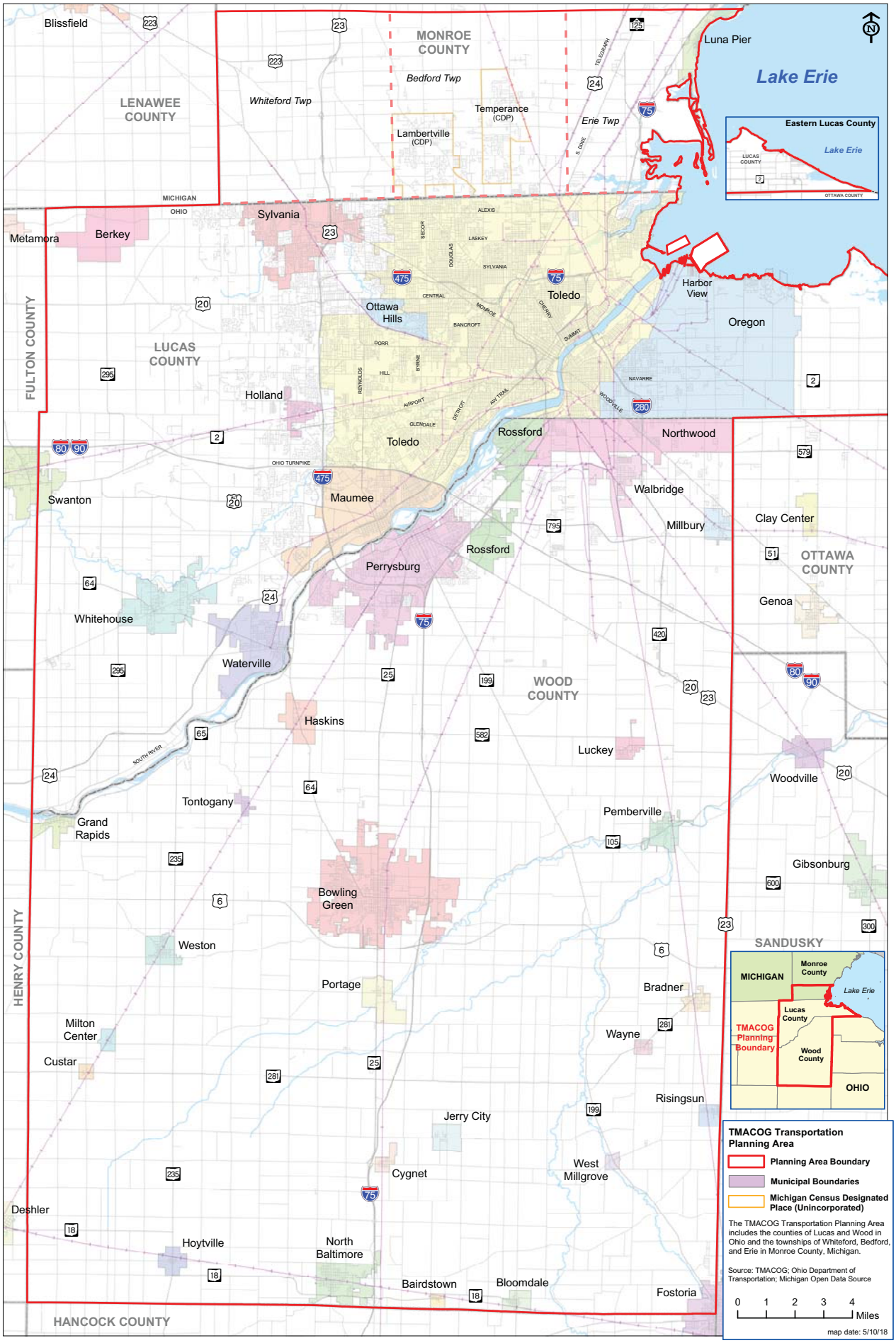
1. **Safety:** Reduce traffic-related fatalities and serious injuries across all modes.
2. **Infrastructure condition:** Maintain and improve the transportation system to a state of good repair.
3. **Congestion reduction:** Reduce congestion on the National Highway System (NHS)
4. **System reliability:** Improve the efficiency of the surface transportation system.
5. **Freight movement:** Strengthen freight access to national and international trade markets to support economic development
6. **Environmental sustainability:** Protect and enhance the community and natural environments.
7. **Project delivery:** Expedite project delivery to maximize effective use of public funds.
8. **Personal mobility:** Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

The goals served as the central organizing tool for the plan process. Needs identified by the task force, stakeholders, and members of the community were related to one or more goals, and proposed solutions were evaluated against measures of effectiveness for each goal. The 2045 Plan – Update 2020 task force agreed that the 2045 Plan goals were still viable and identified the region's transportation objectives.

Figure 1.1: TMACOG Transportation Planning Area

TMACOG Transportation Planning Area

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



2 WHAT WE DO KNOW

2.1 Trends and Projections

2.1.1 Population

Population projections performed by the Toledo Metropolitan Area Council of Governments provide the basis for TMACOG's transportation model. The population projections were calculated using figures from the 2010 Census and projected out to 2045 using recent population trends. To maintain compliance with Ohio Department of Transportation (ODOT) requirements, the totals for each county in the TMACOG region had to be constrained by population projections calculated by the Ohio Development Services Agency. The modeled population projections had to be modified to fit these constraints. The projections for the Monroe County portion of the planning area were taken directly from projections completed by the Southeastern Michigan Council of Governments (SEMCOG).

Figure 2.1 shows the population for the counties comprising the transportation planning area from 1970 to 2010 and includes the 2040 projection published by the Ohio Development Services Agency (ODSA). The projections show that the population in the transportation planning area will decline from a 2010 Census total of 608,943 to 583,442 (approximately a 4% decrease) by 2040. Generally, the population will remain stable but will be redistributed. **Tables 2.1–2.3** show the population projections for Lucas, Wood, and Monroe counties, respectively, for every 5 years through the planning year of 2045. The majority of the population loss will occur within the City of Toledo, with smaller losses taking place in the City of Maumee, Troy Township, and Perry Township. The largest population increases are expected in Monclova Township, Springfield Township, Sylvania Township, Bedford Township, and the City of Perrysburg. The general pattern of growth is within the communities around the City of Toledo to the north, west, and south.

Figures 2.2-2.4 show the population density for portions of the transportation planning area from 1990 to 2010. Population density has declined in the region's core (Toledo, Ottawa Hills, and Washington Township), increased in the suburban areas and Bowling Green, and remained relatively stable in the rural areas. However, population density in the urban core remains significantly higher than in the suburban areas.

According to information from the Ohio Department of Health, birthrates in northwest Ohio will steadily decline through 2045. This trend indicates a continuing increase in the average age of the region's population, with fewer children being born and a gradual lengthening in the average life expectancy. **Figure 2.5** shows the median age by census block group for the transportation planning area in 2016. These figures illustrate the age of the population, which has significant implications for transportation planning. The number of census block groups with a median age of 46 years and above has increased considerably while the number of census block groups with a median age of 31 years and below has decreased. As the population ages, it will become increasingly more important to meet their changing transportation and access needs. It is expected that these needs will include alternative modes of transportation as many of the elderly will either be physically unable to drive or unable to afford the cost of vehicle ownership.

Figure 2.1: 1970-2010 County Population Trends with 2040 Projection

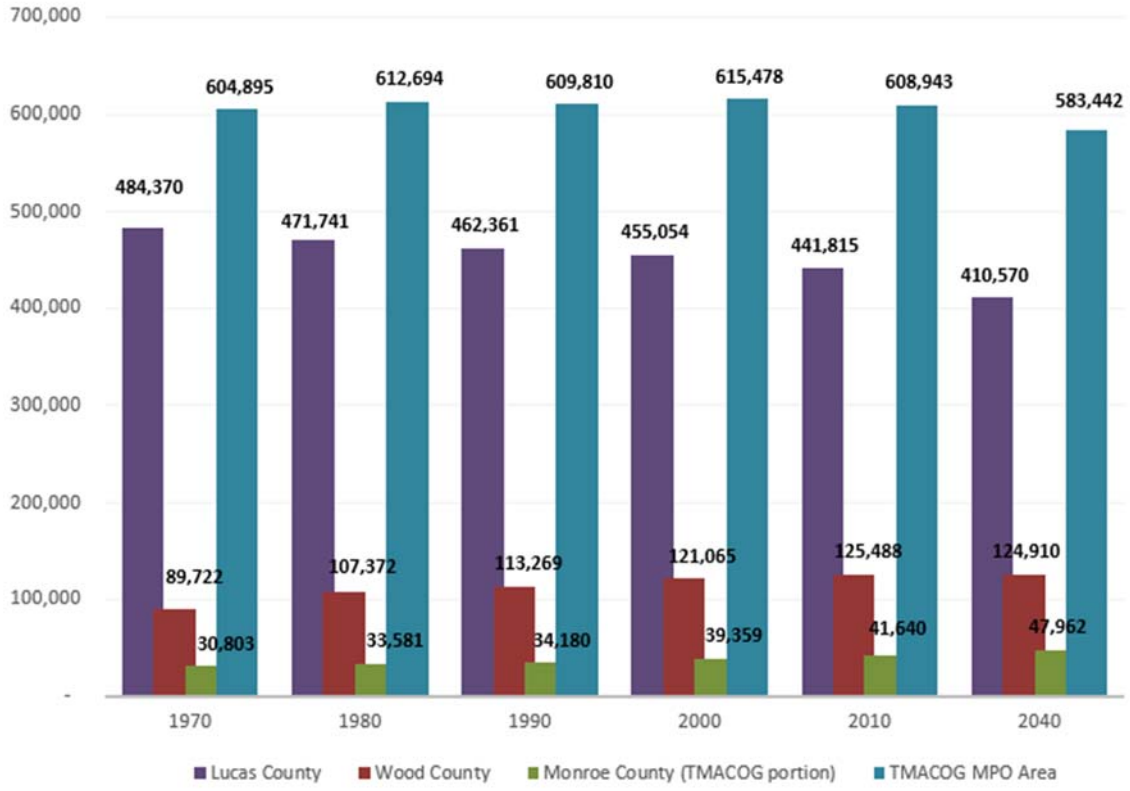


Table 2.1: Lucas County Population Projections

Jurisdiction	2010	2020	2030	2040	2045
Berkey Village	237	234	228	223	222
Harbor View Village	123	99	97	94	94
Harding Township	734	611	596	583	580
Holland Village	1,764	1,685	1,644	1,607	1,599
Jerusalem Township	3,109	3,073	2,999	2,931	2,916
Maumee City	14,286	13,896	13,562	13,255	13,184
Monclova Township	12,400	12,149	11,856	11,588	11,527
Oregon City	20,291	19,995	19,513	19,072	18,971
Ottawa Hills Village	4,517	4,429	4,322	4,224	4,202
Providence Township	3,361	3,315	3,235	3,162	3,145
Richfield Township	1,361	1,295	1,264	1,235	1,229
Spencer Township	1,882	1,662	1,622	1,586	1,577
Springfield Township	24,429	24,017	23,438	22,908	22,786
Swanton Township	2,902	2,854	2,786	2,723	2,708
Swanton Village	110	104	101	99	99
Sylvania City	18,965	18,776	18,324	17,909	17,814
Sylvania Township	29,522	29,110	28,408	27,765	27,618
Toledo City	287,208	278,236	271,533	265,386	263,981
Washington Township	3,278	3,233	3,155	3,083	3,067
Waterville City	5,523	5,461	5,330	5,209	5,181
Waterville Township	1,664	1,854	1,810	1,769	1,759
Whitehouse Village	4,149	4,362	4,257	4,161	4,139
Total	441,815	430,450	420,080	410,570	408,396

Table 2.2: Wood County Population Projections

Jurisdiction	2010	2020	2030	2040	2045
Bairdstown Village	130	131	132	129	129
Bloom Township	1,003	1,011	1,019	997	996
Bloomdale Village	678	684	690	676	676
Bowling Green City	30,028	30,279	30,539	29,894	29,882
Bradner Village	985	993	1,001	980	979
Center Township	1,206	1,216	1,226	1,200	1,199
Custar Village	179	181	183	180	180
Cygnet Village	597	602	607	594	594
Fostoria City	1,038	1,047	1,055	1,033	1,032
Freedom Township	1,356	1,367	1,378	1,349	1,348
Grand Rapids Township	642	647	652	638	637
Grand Rapids Village	965	973	981	960	960
Haskins Village	1,188	1,198	1,208	1,183	1,182
Henry Township	743	749	755	739	738
Hoytville Village	303	306	309	303	303
Jackson Township	489	493	497	486	486
Jerry City Village	427	431	435	426	427
Lake Township	6,744	6,801	6,858	6,716	6,714
Liberty Township	1,633	1,647	1,661	1,626	1,626
Luckey Village	1,012	1,020	1,028	1,006	1,005
Middleton Township	3,266	3,294	3,322	3,253	3,253
Millbury Village	1,200	1,210	1,220	1,194	1,194
Milton Center Village	144	145	146	143	142
Milton Township	656	661	666	651	651
Montgomery Township	1,752	1,767	1,782	1,745	1,745
North Baltimore Village	3,432	3,461	3,490	3,417	3,416
Northwood City	5,265	5,309	5,353	5,240	5,239
Pemberville Village	1,371	1,382	1,393	1,363	1,362
Perry Township	1,431	1,443	1,455	1,424	1,424
Perrysburg City	20,623	20,796	20,970	20,528	20,522
Perrysburg Township	12,512	12,617	12,723	12,454	12,451
Plain Township	1,663	1,677	1,691	1,655	1,655
Portage Township	1,083	1,092	1,101	1,078	1,077
Portage Village	438	442	446	437	437
Risingsun Village	606	611	616	603	603
Rossford City	6,293	6,346	6,399	6,264	6,263

Table 2.2: Wood County Population Projections (CONTINUED)

Jurisdiction	2010	2020	2030	2040	2045
Tontogany Village	367	370	373	365	365
Troy Township	2,867	2,892	2,916	2,855	2,855
Walbridge Village	3,019	3,044	3,069	3,004	3,003
Washington Township	1,474	1,486	1,498	1,466	1,465
Wayne Village	887	895	902	883	883
Webster Township	1,283	1,294	1,305	1,278	1,278
West Millgrove Village	174	175	176	172	171
Weston Township	746	752	758	741	740
Weston Village	1,590	1,603	1,616	1,582	1,581
Total	125,488	126,540	127,600	124,910	124,868

Table 2.3: Monroe County, MI Population Projections (TMACOG Planning Area)

Jurisdiction	2010	2020	2030	2040	2045
Bedford Township	31,085	32,784	34,482	36,181	37,030
Erie Township	4,517	4,555	4,592	4,630	4,649
Luna Pier City	1,436	1,489	1,541	1,594	1,620
Whiteford Township	4,602	4,619	4,637	4,654	4,663

Figure 2.2: Population per Square Mile 1990 Lucas, Monroe, and Wood Counties

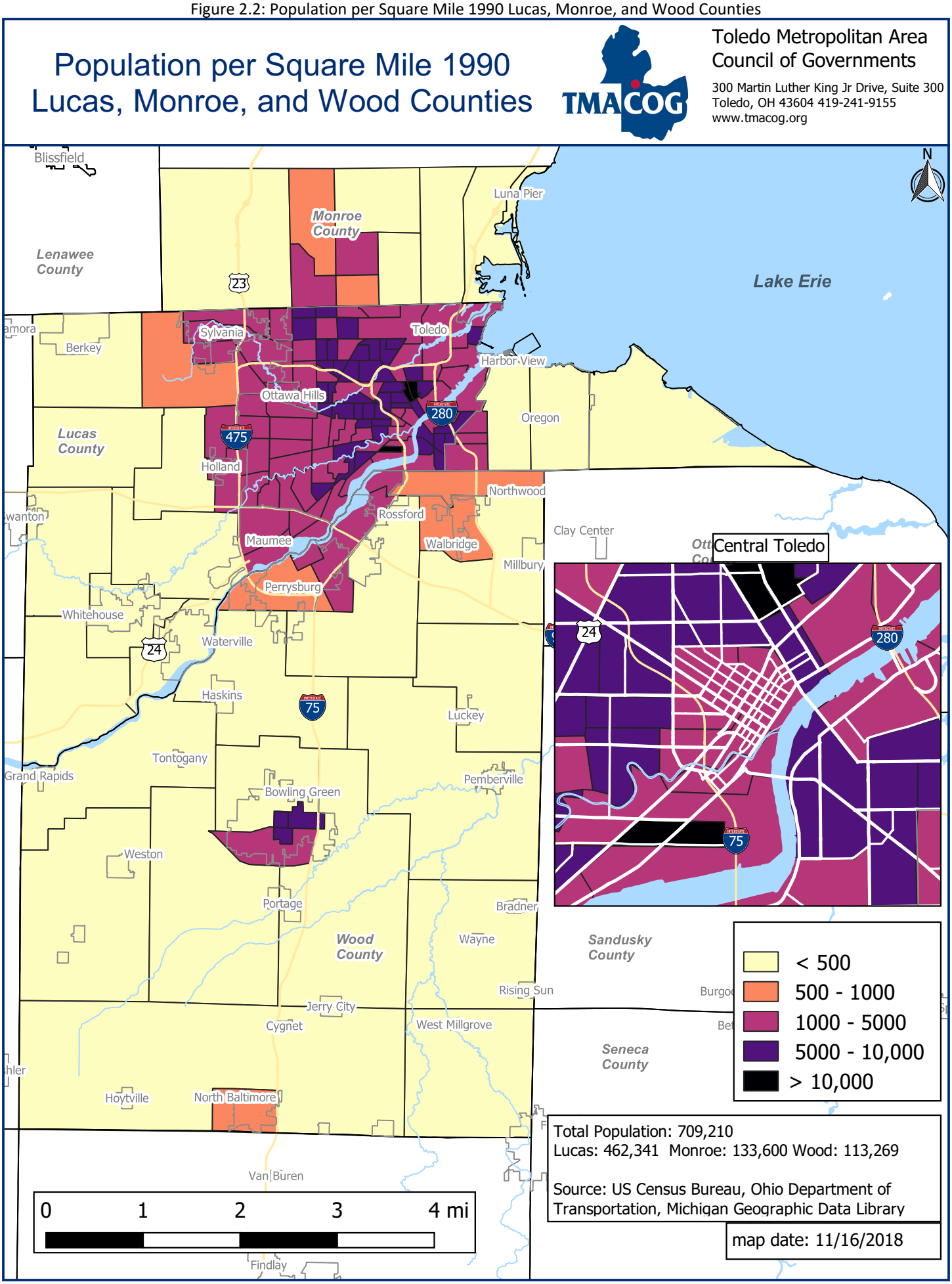


Figure 2.3: Population per Square Mile 2000 Lucas, Monroe, and Wood Counties

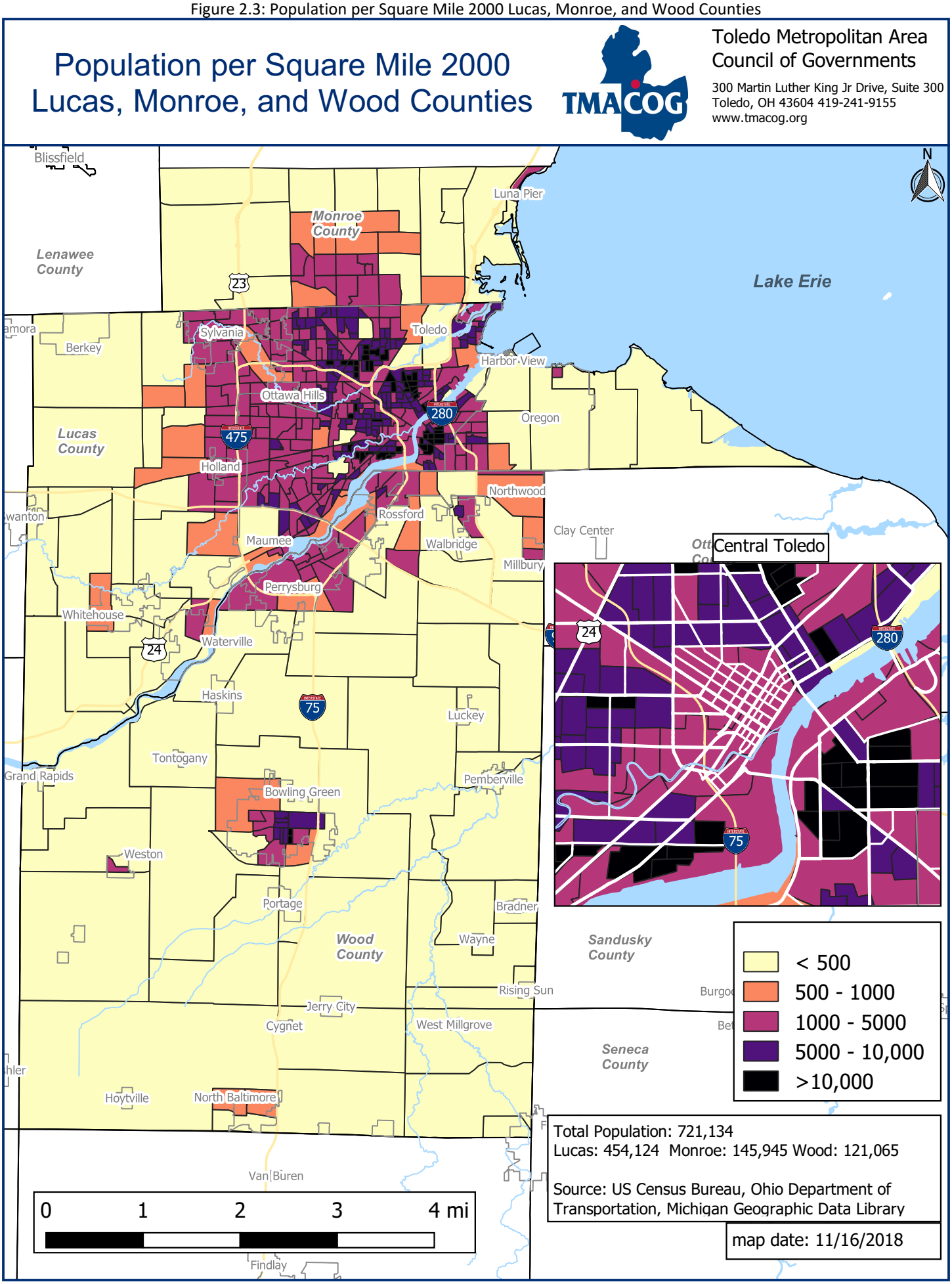


Figure 2.4: Population per Square Mile 2010 Lucas, Monroe, and Wood Counties

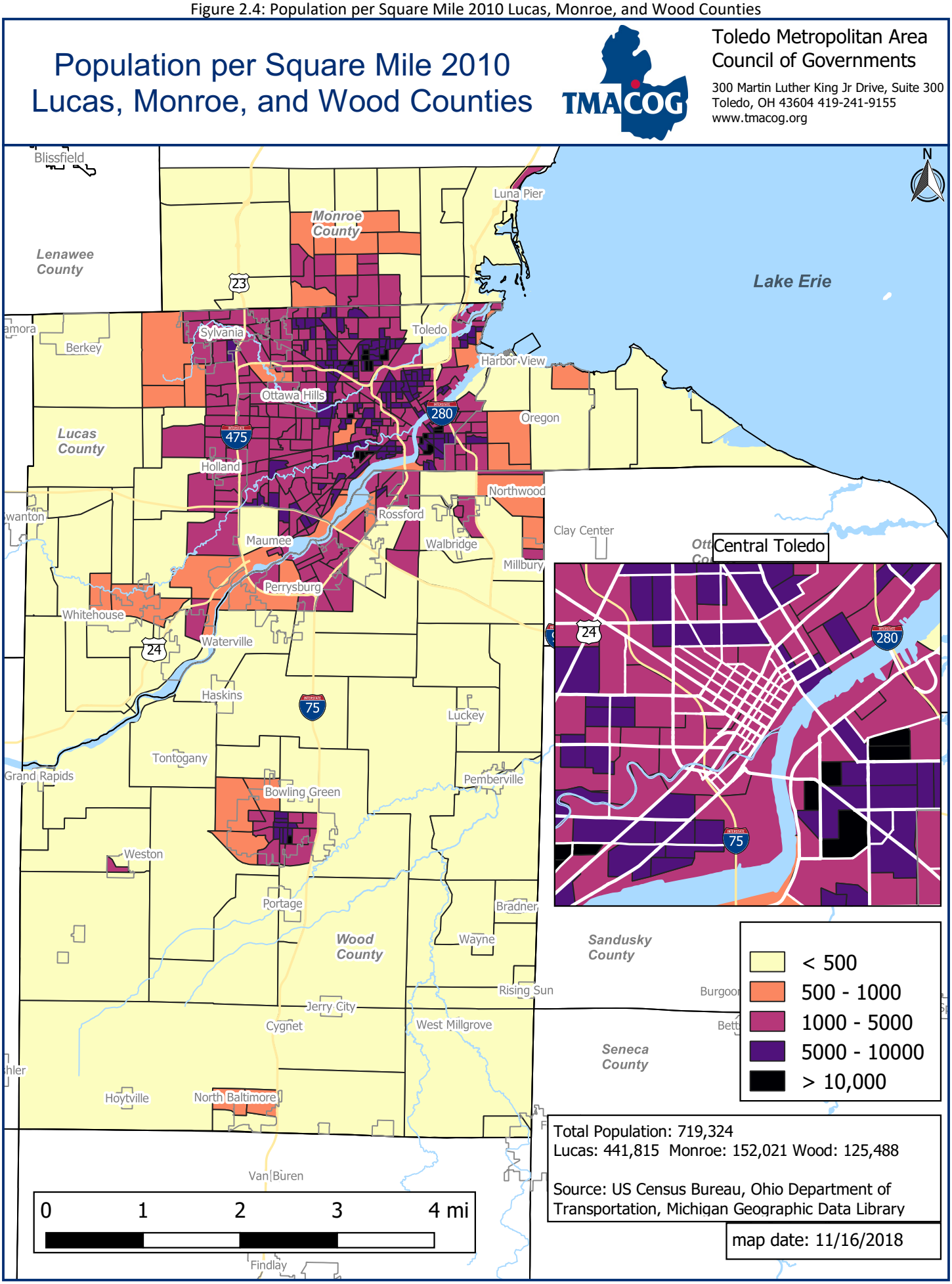
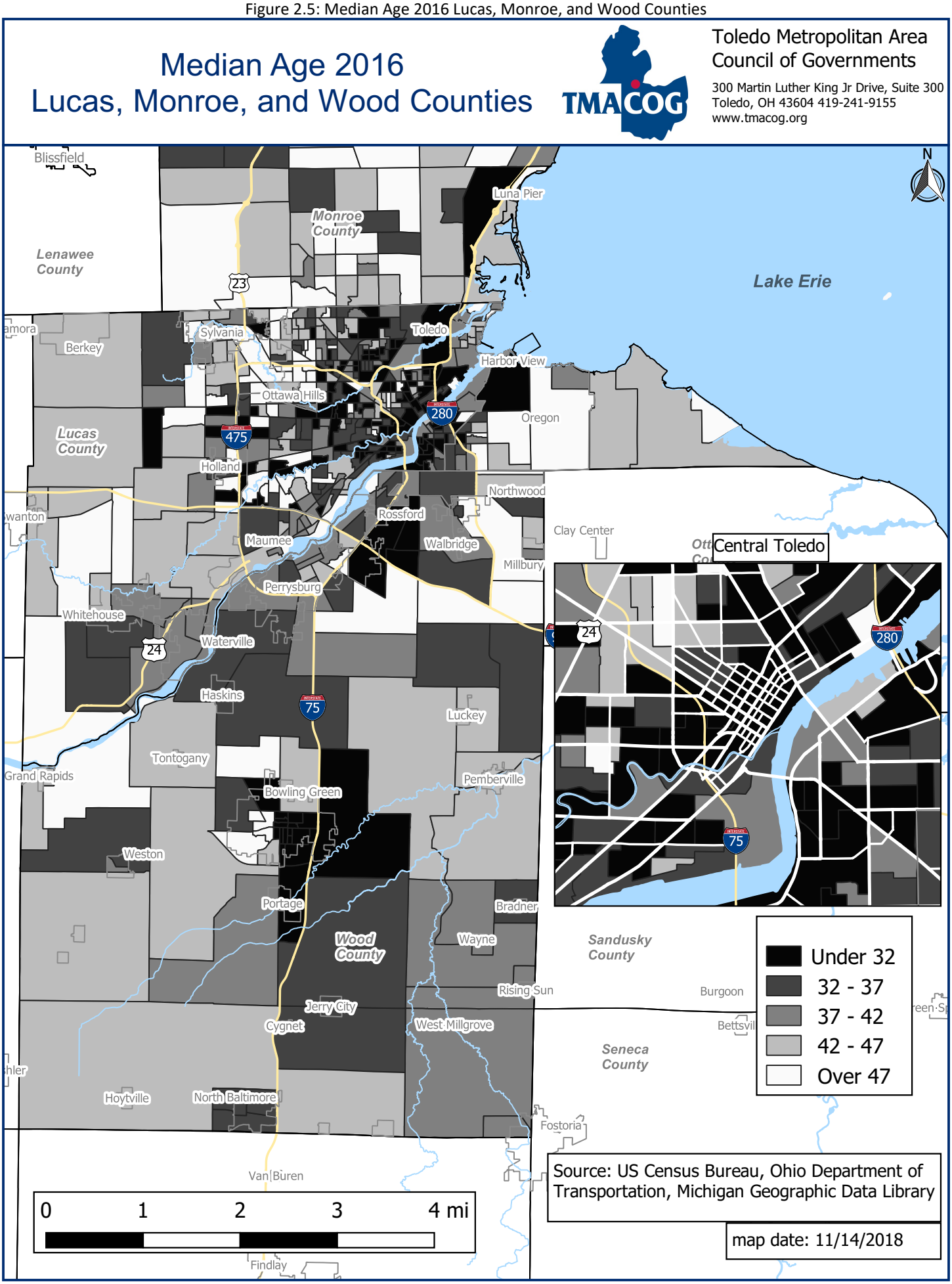


Figure 2.5: Median Age 2016 Lucas, Monroe, and Wood Counties



2.1.2 Housing

Similar to the population data, housing information in the 2045 Plan – Update 2020 is based on Census 2010 data. Data from Census 2010 includes information on the total units and vacant units at a variety of detail levels. This information offers a look into the scope of this new development, as well as the affect the economy has had on vacancy. As would be expected, the areas experiencing the greatest population growth had the largest increase in housing units between the 2000 and 2010 Census. Jurisdictions such as Monclova, Middleton, Springfield and Bedford townships, and the City of Perrysburg, which had some of the largest jumps in population growth, also had large increases in number of housing units. For instance, Monclova Township saw a population growth rate of 83.2% and a 92.8% increase in total housing units. **Table 2.4** highlights this data. Data for Wood and Monroe County Villages has been omitted and is counted in the Township totals.

As expected, those jurisdictions with the smallest increase in new housing units typically had the smallest gains or lost population. Many of these jurisdictions are the older, established communities with little available land and/or lack of market support for new development. Many of the jurisdictions covered by the transportation plan are rural communities with an agricultural base and have not experienced development pressure.

The data shows that the number of units in the City of Toledo decreased by over 1,800 units from 2000 to 2010 and the city lost over 26,000 people. Of the currently available units, over 13% were identified as vacant in the 2010 decennial census. In fact, the number of vacant units increased by over 7,300 units from 2000 to 2010, an increase of 67%. These figures speak to the impact the economy had on the Toledo housing market. This impact hasn't been confined to the City of Toledo limits as nearly all communities in the region experienced an increase in vacant units over that time. However, a positive trend that has continued is the increase in downtown housing redevelopment. There has been a steady demand for living space in and around the core of downtown Toledo by young professionals and others preferring a mixed use, walkable urban atmosphere. The Warehouse District has experienced significant population growth through a mixture of small residential projects above street-level commercial and large projects. Noteworthy projects which have been completed in the past 10 years include Hensville, the Anthony Wayne Trail Gateway, and the Berdan.

The housing statistics exemplify the trends that can be seen in population figures throughout the region. We are growing outward from the core without substantial additions to the overall population base. Overall, housing units have increased by 5.6% in the region offering people more housing choices and locations. Monroe County had the largest housing increase at 14.4%, followed by Wood County at 12.4% and Lucas County at 3.2%.

Table 2.4: 2000-2010 Housing Comparison

Place	Total Housing Units 2010	Vacant Housing Units 2010	Total Housing Units 2000	Vacant Housing Units 2000	% Change in Units from 2000-2010	% Change in Vacant Units from 2000-2010
Village of Berkey	112	13	100	2	12.0%	550.0%
Village of Harbor View	57	9	41	4	39.0%	125.0%
Harding Township	292	17	279	13	4.7%	30.8%
Jerusalem Township	1309	140	1198	85	9.3%	64.7%
City of Maumee	6435	398	6613	273	-2.7%	45.8%
Monclova Township	4808	227	2494	134	92.8%	69.4%
City of Oregon	8759	563	8025	317	9.1%	77.6%
Village of Ottawa Hills	1850	110	1786	90	3.6%	22.2%
Providence Township	1327	83	1251	45	6.1%	84.4%
Richfield Township	649	37	583	21	11.3%	76.2%
Spencer Township	737	43	659	57	11.8%	-24.6%
Springfield Township	11446	878	9982	529	14.7%	66.0%
Swanton Township	1247	79	1267	63	-1.6%	25.4%
City of Sylvania	8165	523	7392	241	10.5%	117.0%
Sylvania Township	19950	1194	17297	657	15.3%	81.7%
City of Toledo	138039	18309	139871	10946	-1.3%	67.3%
Washington Township	1365	96	1387	47	-1.6%	104.3%
Waterville Township	4360	180	3526	131	23.7%	37.4%
Village of Whitehouse	1591	67	1063	27	49.7%	148.1%
Lucas County Total	212498	22966	204814	13682	3.8%	67.9%
Bedford Township	12500	615	10659	332	17.3%	85.2%
Erie Township	1969	188	1917	128	2.7%	46.9%
City of Luna Pier	702	94	661	69	6.2%	36.2%
Whiteford Township	1857	100	1654	72	12.3%	38.9%
Monroe County Total	17028	997	14891	601	14.4%	65.9%
Bloom Township	1004	75	957	43	4.9%	74.4%
City of Bowling Green	12301	1013	10667	401	15.3%	152.6%
Center Township	455	26	419	20	8.6%	30.0%
City of Fostoria	589	81	444	39	32.7%	107.7%
Freedom Township	1099	75	1049	36	4.8%	108.3%
Grand Rapids Township	705	63	670	38	5.2%	65.8%
Henry Township	1763	168	1626	98	8.4%	71.4%
Jackson Township	290	17	276	18	5.1%	-5.6%
Lake Township	4916	395	4365	196	12.6%	101.5%
Liberty Township	715	71	710	39	0.7%	82.1%
Middleton Township	1663	92	1008	52	65.0%	76.9%
Milton Township	426	42	447	24	-4.7%	75.0%

Table 2.4: 2000-2010 Housing Comparison (CONTINUED)

Place	Total Housing Units 2010	Vacant Housing Units 2010	Total Housing Units 2000	Vacant Housing Units 2000	% Change in Units from 2000-2010	% Change in Vacant Units from 2000-2010
Montgomery Township	1779	158	1750	64	1.7%	146.9%
City of Northwood	2135	110	2121	97	0.7%	13.4%
Perry Township	701	43	787	26	-10.9%	65.4%
City of Perrysburg	8845	599	6964	372	27.0%	61.0%
Perrysburg Township	5926	651	5504	343	7.7%	89.8%
Plain Township	684	54	662	46	3.3%	17.4%
Portage Township	635	46	596	32	6.5%	43.8%
City of Rossford	2800	232	2736	126	2.3%	84.1%
Troy Township	1678	123	1710	94	-1.9%	30.9%
Washington Township	758	57	653	41	16.1%	39.0%
Webster Township	497	33	448	14	10.9%	135.7%
Weston Township	1012	109	899	37	12.6%	194.6%
Wood County Total	53376	4333	47468	2296	12.4%	88.7%

2.1.3 Environmental Justice

Environmental Justice requires the consideration of several socio-economic indicators that are useful in identifying the transportation-challenged and disadvantaged population. The impact of transportation investments on this population must be carefully considered. These indicators include elderly population, disabled population, minority population, household income, the number of no-vehicle households, and limited English proficiency population.

Figure 2.6 shows the percentage of elderly population (65+) by census block group. Areas with the highest percentage of elderly appear to be concentrated in the western and southern portions of Toledo as well as areas in western Bowling Green, Holland, Perrysburg, Oregon, Walbridge.

Figure 2.7 shows the percentage of population with disabilities by census block group. There appear to be significant concentrations of persons with disabilities throughout Toledo, with a noticeable higher portion in central Toledo. Western Lucas County also has a higher percentage of people with disabilities.

Figure 2.8 shows the minority population by census block group. The census block groups with the highest minority population are found primarily in the central portion of Toledo, west and north of the downtown area, and in southern Toledo.

Figures 2.9 shows the median household income by census block group for the transportation planning area for 2016. The census block groups with the lowest median household income are clustered in the central portions of Toledo, along with an area adjacent to Bowling Green State University that is home to a large student population. The lowest income category represents the poverty level for a family of four as defined by the U.S. Department of Health and Human Services for 2016.

Figure 2.10 shows the percentage of occupied housing units with no vehicles. The census block groups with the highest percentage of housing units with no vehicles are found in downtown Toledo and south of the downtown area. Census block groups with the next highest percentage of housing units with no vehicles extend outward from the central portion of Toledo.

Figure 2.11 shows the percentage of the population speaking English less than very well. Census tracts with a relatively high percentage (greater than 4%) are fairly dispersed throughout Toledo, with the highest portion just next to the University of Toledo.

The above indicators point to geographic areas that may be experiencing environmental justice issues. Specifically considering minority concentration and income, **Figure 2.12** identifies census block groups that are areas of concern due to a high concentration of minority and/or low-income population. Environmental justice areas concerning both minority concentration and low-income levels include much of central Toledo and adjacent portions of Toledo extending in every direction from the downtown area, as well as several outlying areas of the city. The city of Bowling Green also has environmental justice areas of concern in the eastern and southern portions. Areas of concern based on minority concentration alone include portions of Springfield and Spencer townships, while areas of concern based on income levels alone include portions of Bowling Green adjacent to Bowling Green State University and northern Toledo. Impacts to public health and to the environment in these areas of concern must be explicitly considered and addressed in the transportation planning process.

Figure 2.6: Population Age 65 or Older 2016 Lucas, Monroe, and Wood Counties

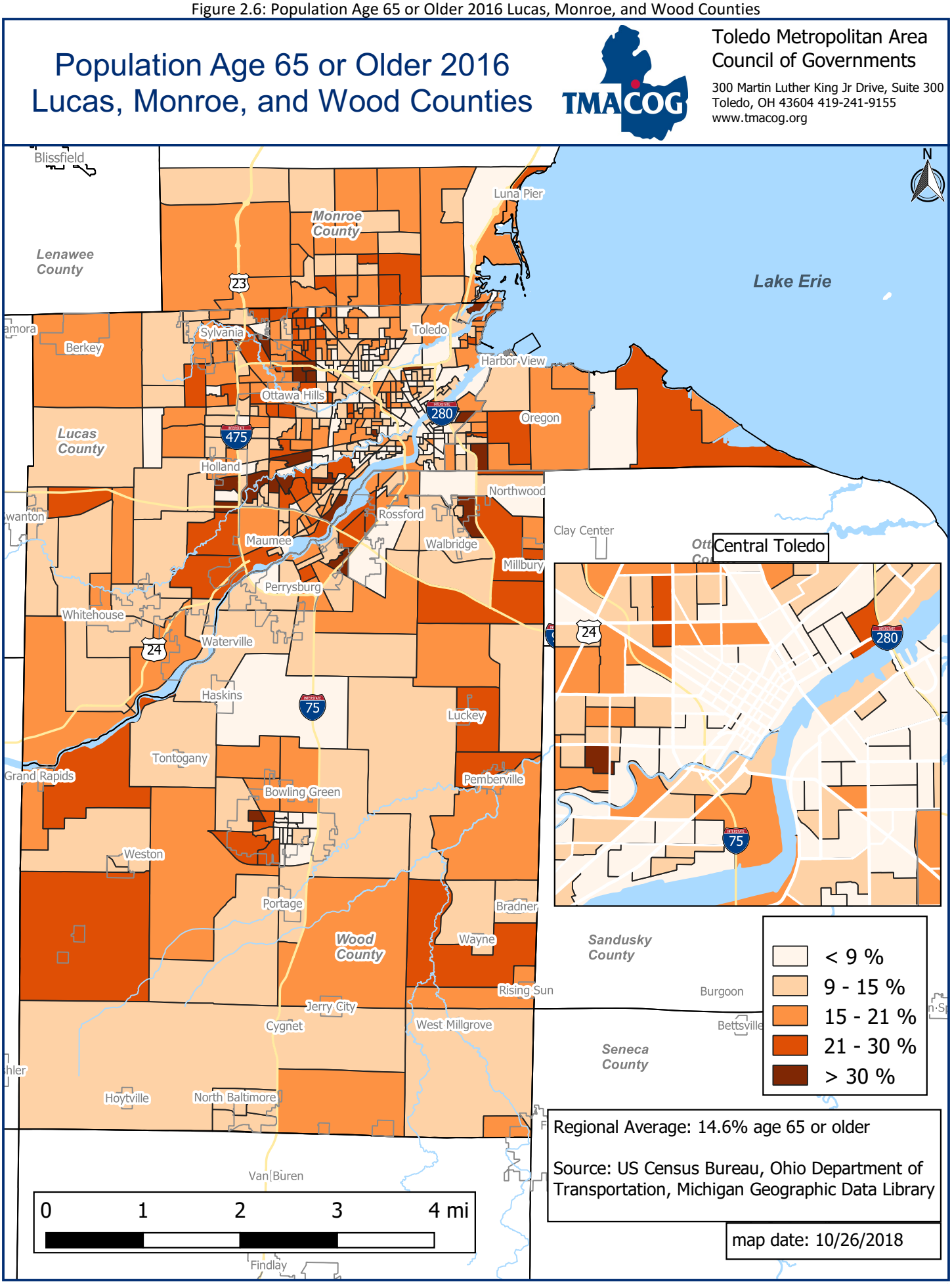


Figure 2.7: People with Disabilities 2016 Lucas, Monroe, and Wood Counties

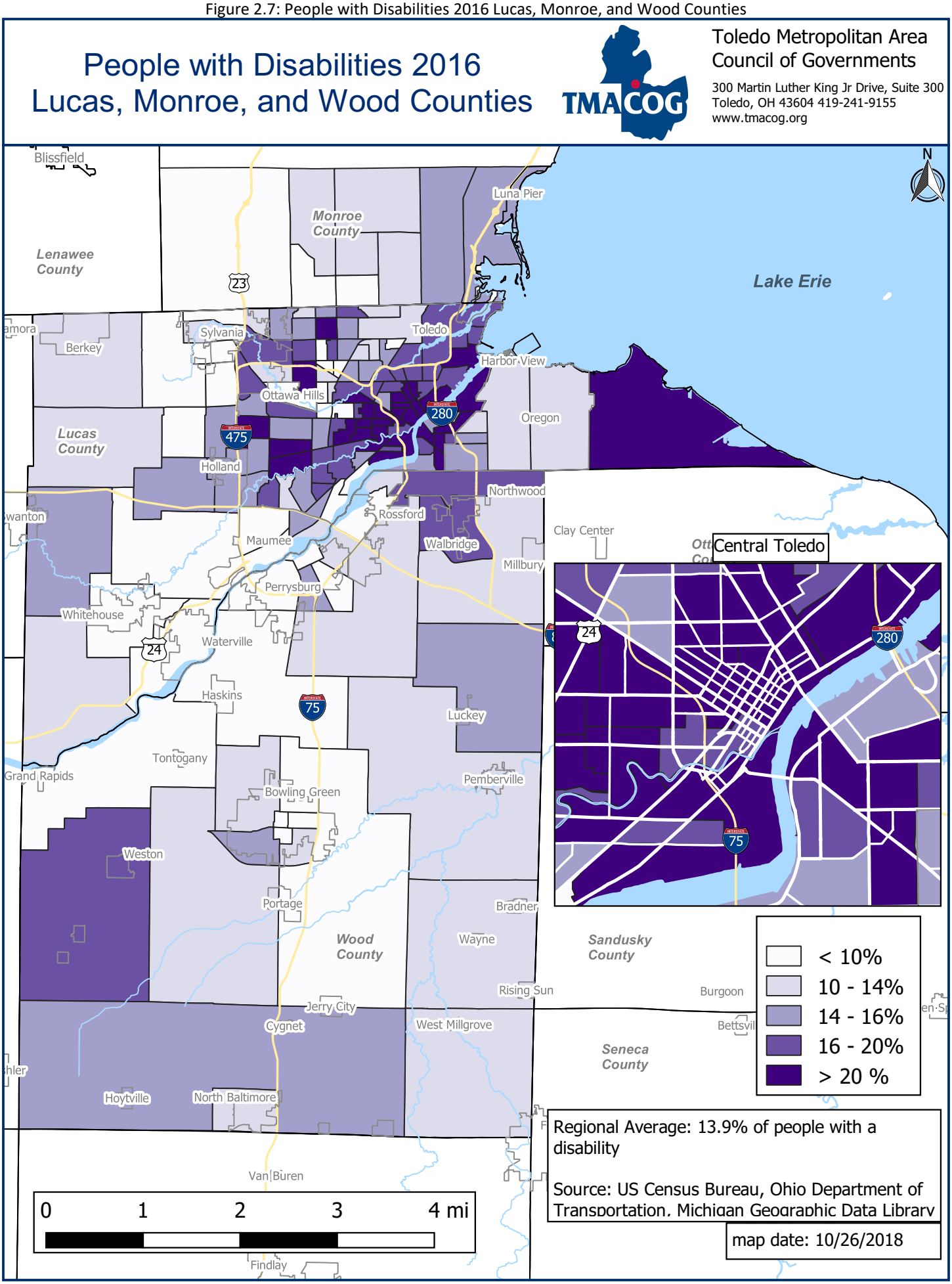


Figure 2.8: Minority Population by Block Groups 2016 Lucas, Monroe, and Wood Counties

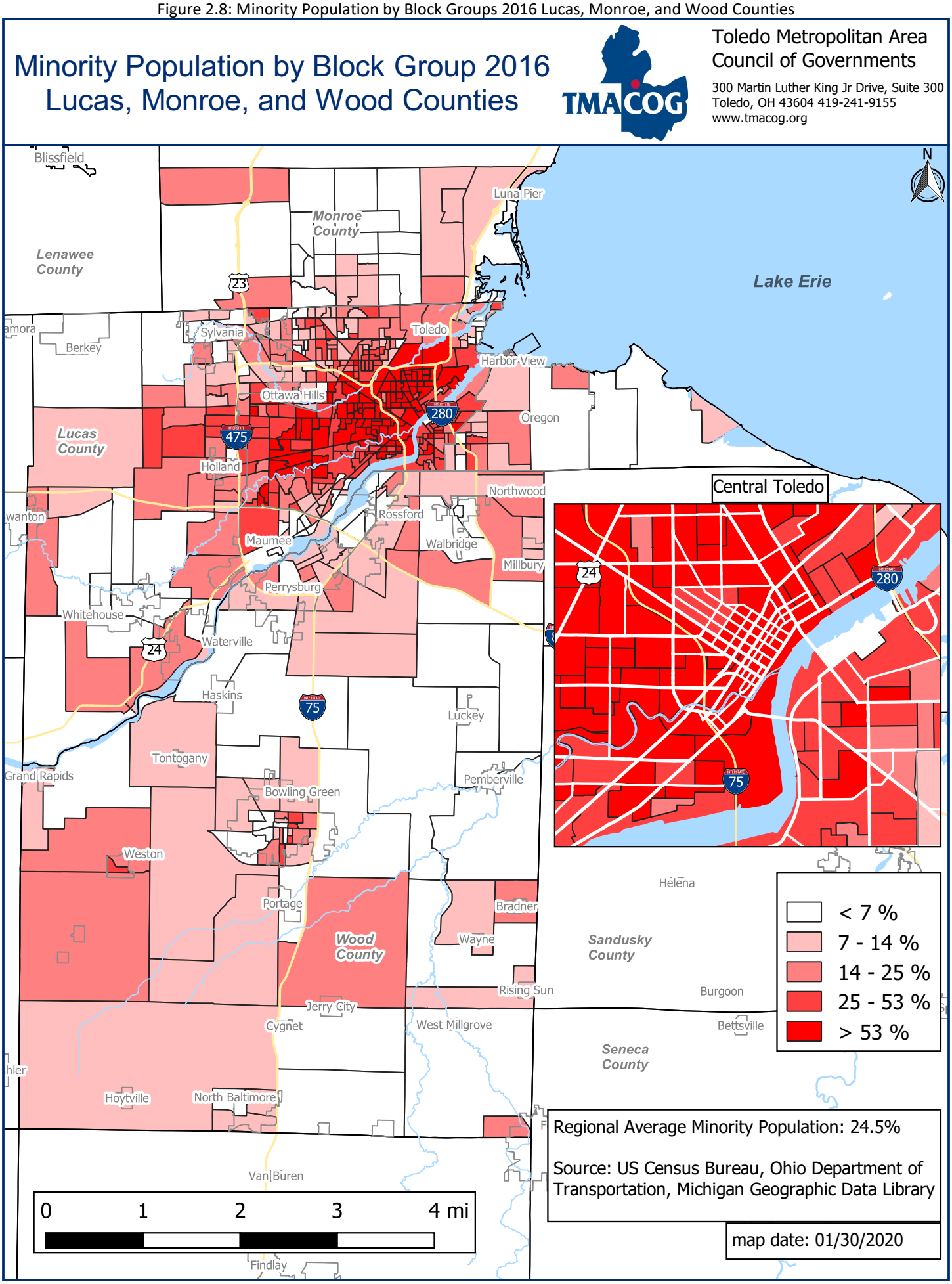


Figure 2.9: Median Household Income 2016 Lucas, Monroe, and Wood Counties

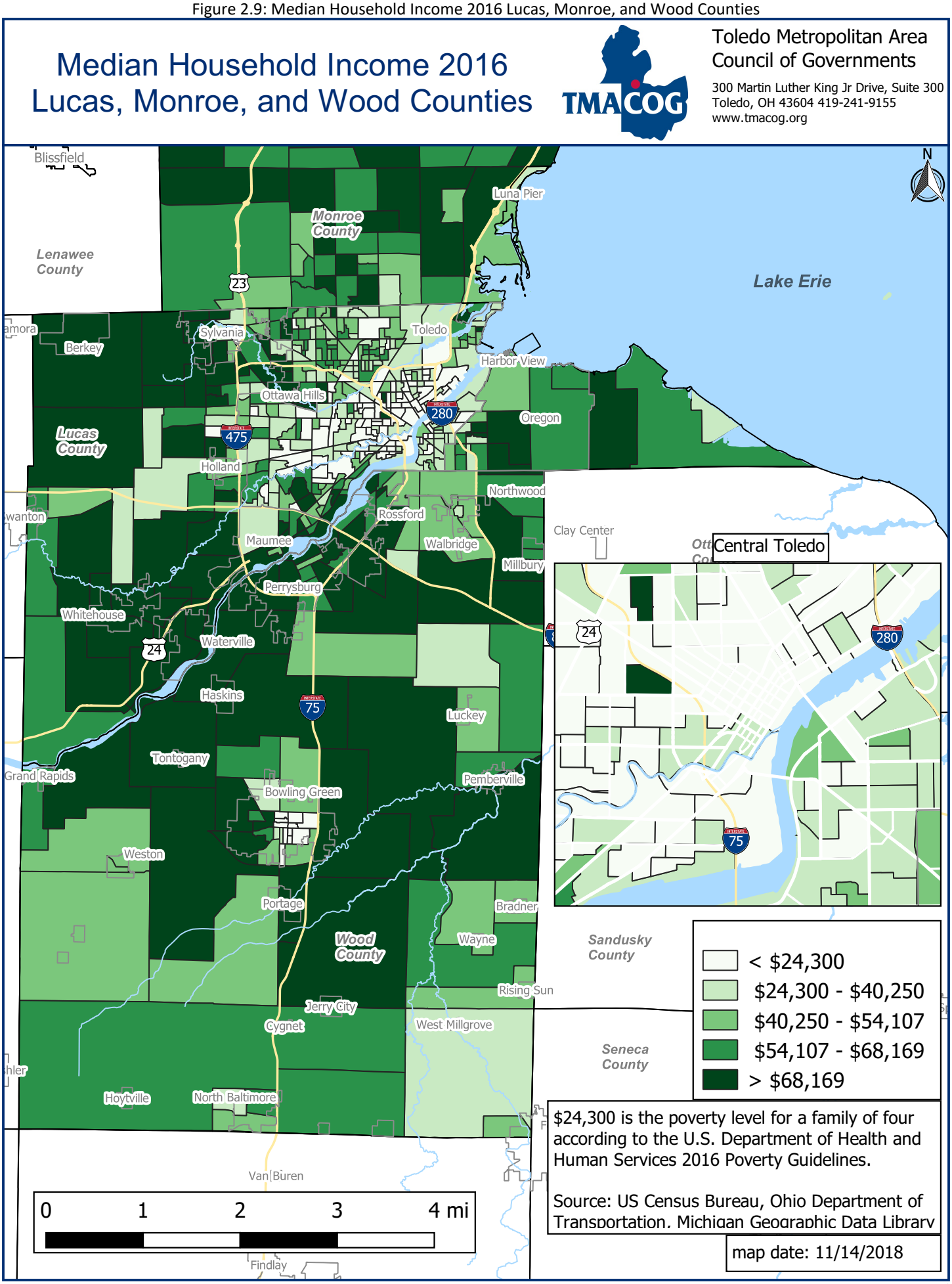


Figure 2.10: No Vehicle Households 2016 Lucas, Monroe, Wood Counties

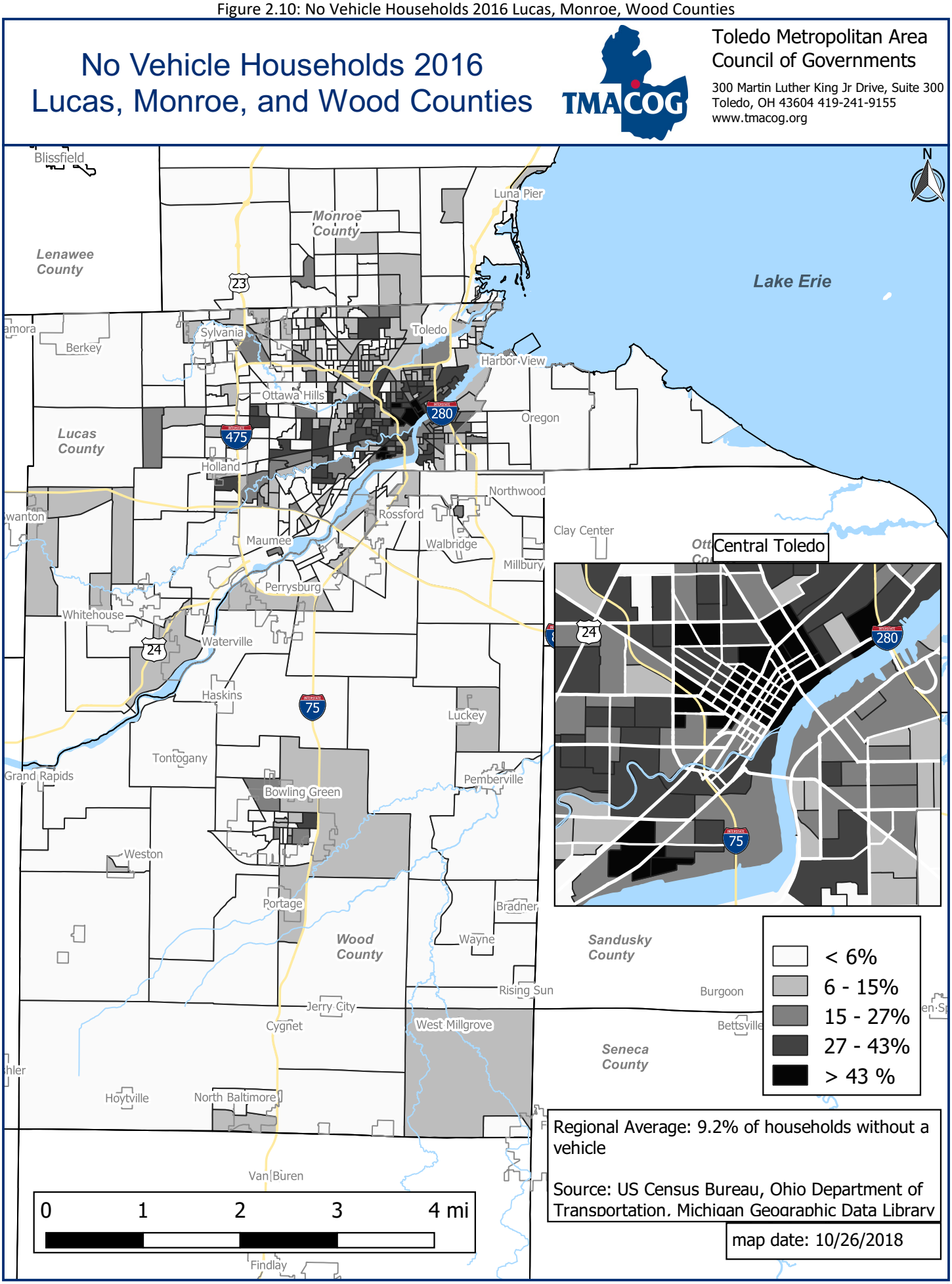


Figure 2.11: Population Speaking English Less Than Very Well 2016 Lucas, Monroe, and Wood Counties

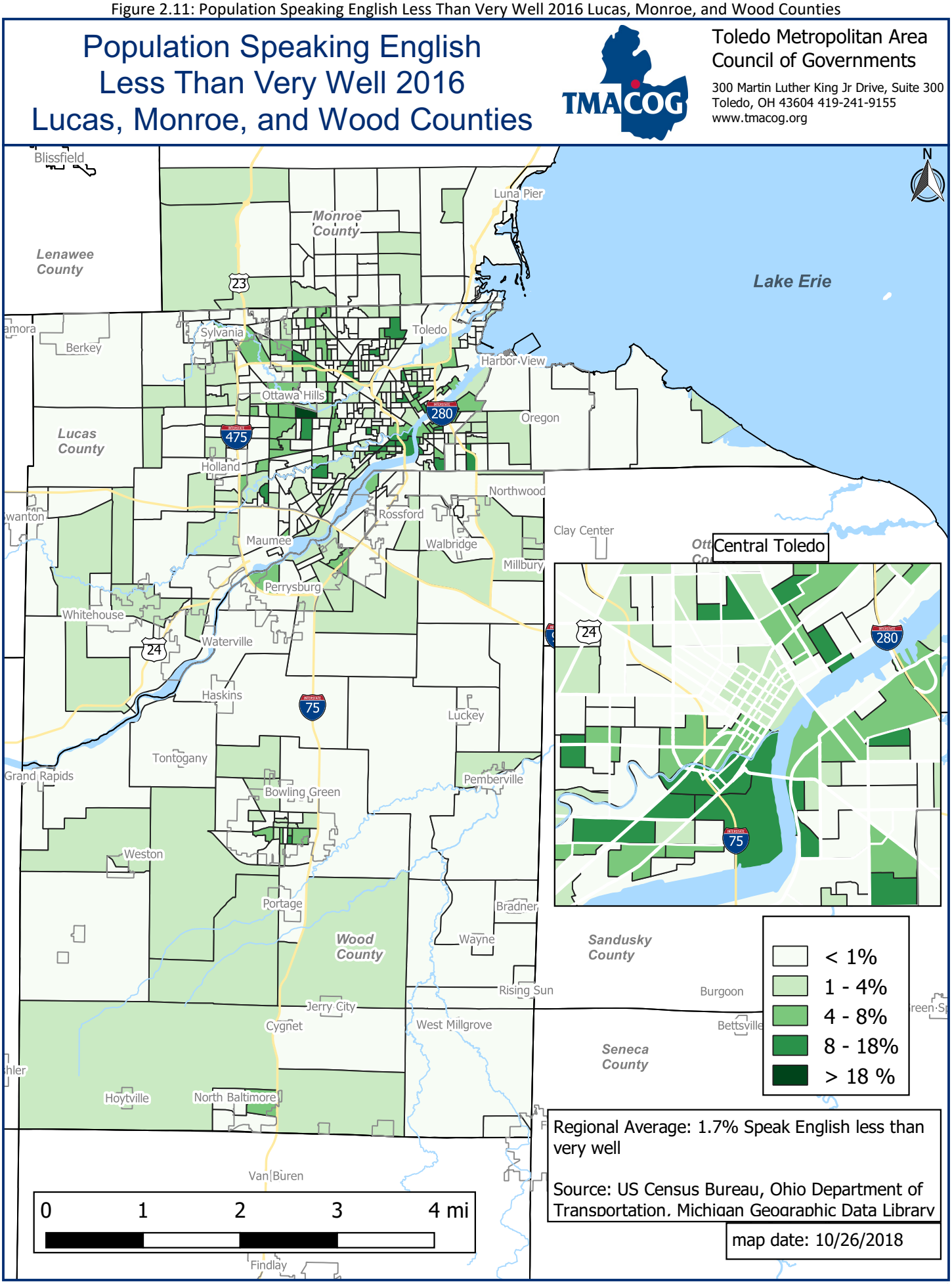
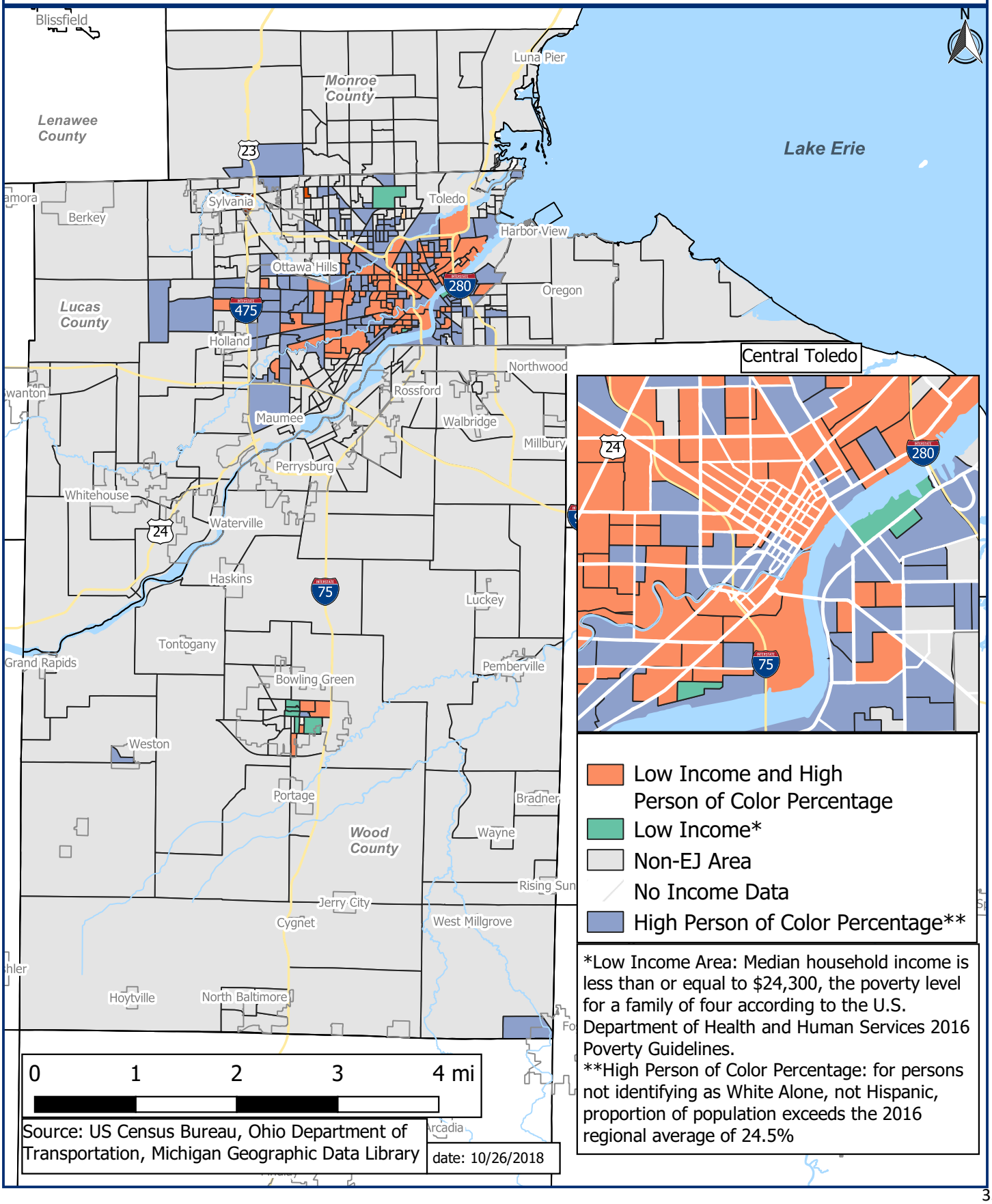


Figure 2.12: Environmental Justice Areas 2016 Lucas, Monroe, and Wood Counties

Environmental Justice Areas 2016 Lucas, Monroe, and Wood Counties

Toledo Metropolitan Area Council of Governments
300 Martin Luther King Jr Drive, Suite 300
Toledo, OH 43604 419-241-9155
www.tmacog.org



*Low Income Area: Median household income is less than or equal to $24,300, the poverty level for a family of four according to the U.S. Department of Health and Human Services 2016 Poverty Guidelines.
**High Person of Color Percentage: for persons not identifying as White Alone, not Hispanic, proportion of population exceeds the 2016 regional average of 24.5%

Source: US Census Bureau, Ohio Department of Transportation, Michigan Geographic Data Library

date: 10/26/2018

2.1.4 Employment

Employment projections, like the population projections, are a foundation of the TMACOG transportation model and were completed by TMACOG. Specifically, this data determines how many trips are generated from each traffic analysis zone (TAZ) based on the trip-making characteristics of each employment classification. TMACOG received and analyzed the Quarterly Census of Employment and Wages for the first quarter of 2010 to develop updated projections.

The employment projections are based on the North American Industry Classification System (NAICS) which groups employment into categories that are similar in nature. For incorporation into the transportation model, TMACOG projected employment for 25 NAICS classifications that incorporate all employment types found in the region.

The employment projections are based on figures computed by the Ohio Department of Job and Family Service (ODJFS) using a shift-share model. A shift-share model analyzes how well the region's current industries are performing by systematically examining the national, local, and industrial components of employment change. A shift-share analysis will provide a dynamic account of total regional employment growth that is attributable to growth of the national economy, a mix of faster or slower than average growing industries, and the competitive nature of the local industries. TMACOG utilized the growth or decline factors for each sector and applied them to them to the total employment reported in each TAZ.

Projections are based on the assumption that the trends seen in the ODJFS data would carry on into 2045. To get the data as accurate as possible, some modifications were made to the data to account for projects that have arisen or companies that have relocated since 2010. Additionally, employment for schools, fire, police, and the postal service, for example, had been disaggregated to better distribute workers from a central location to their actual location of employment.

Figure 2.13 shows the employees per square mile by Traffic Analysis Zone in 2015. The Traffic Analysis Zones with the highest employment density (over 5,000 employees per square mile) are located in and around downtown Toledo, Arrowhead Business Park in Maumee, the Franklin Park Mall area, Westgate, the University of Toledo, the University of Toledo Health Science campus, Spring Meadows in Springfield Township, the Central Avenue corridor in Sylvania Township, Bowling Green State University, downtown Bowling Green, the General Motors and Libbey Glass manufacturing plants in Toledo and the major hospitals and health care facilities in the Toledo area. Smaller pockets of high employment density include downtown Maumee, downtown Perrysburg and the Toledo Zoo.

Traffic analysis zones in the second highest employment density category (over 1,000 employees per square mile) include the industrial corridor in the northern portion of Toledo that is home to the Jeep Plant and other industrial concerns, the Navarre Avenue corridor in Oregon and East Toledo, the Port of Toledo, the Owens Community College area in Perrysburg Township, the Levis Commons area in Perrysburg, the Reynolds Road/Airport Highway area and Hill Avenue industrial area in South Toledo, the portion of Sylvania abutting U.S. 23, the portion of Maumee west of Conant Street, the Shops at Fallen Timbers in Maumee and parts of West Toledo and Bowling Green. Other areas that have likely increased employment density since 2010 include the Hollywood Casino area in Toledo and the area surrounding several newly constructed manufacturing and distribution facilities in northern Wood County. Rossford will also see a significant growth in the number of employment density due to the spring 2019 announcement of the Amazon Distribution Center.

Major employers in the transportation planning area are shown in **Table 2.5** compiled by the Regional Growth Partnership (RGP). Although the list includes employers with multiple work sites in the region, the location of the major employers corresponds closely to the location of traffic analysis zones with high employment density.

Employment Forecasts

Forecasts prepared by the Ohio Department of Job and Family Services indicate that total employment in the Toledo Metropolitan Statistical Area (MSA) will grow from 317,026 in 2016 to 322,167 in 2026 as shown in **Table 2.6**. This is a projected increase in employment of 5,141, or 1.3%, over this time period. While the Toledo MSA boundaries do not correspond precisely with the transportation planning area boundaries (the Toledo MSA includes Fulton County, which is not in the transportation planning area, and does not include Monroe County, which is partly in the transportation planning area), the projections do provide general guidance on anticipated employment growth in the area

Table 2.5: Major Employers in TMACOG Planning Area – 2017

EMPLOYER	*NUMBER OF EMPLOYEES*
PROMEDICA HEALTH SYSTEMS	14,465
MERCY HEALTH	8,827
UNIVERSITY OF TOLEDO	6,662
FCA US LLC	6,159
BOWLING GREEN STATE UNIVERSITY	3,399
CITY OF TOLEDO	2800
WAL-MART	2,316
MAGNA INTERNATIONAL	2,000
GENERAL MOTORS POWERTRAIN	1,971
HCR MANORCARE, INC.	1,845
DANA INCORPORATED	1,571
THE ANDERSON'S, INC.	1,545
TOLEDO MOLDING & DIE	1,480
UNITED PARCEL SERVICE	1,400
LIBBEY, INC.	1,300
KROGER, INC.	1,253
OWENS CORNING	1,237
WOOD COUNTY	1200
OWENS COMMUNITY COLLEGE	1,064
TOLEDO EDISON/ A FIRST ENERGY CO.	1,060
INTERNATIONAL AUTOMOTIVE COMPONENT, INC.	1,030
HOME DEPOT DISTRIBUTION	1,025
CONTINENTAL STRUCTURAL PLASTICS	966
BLOCK COMMUNICATIONS, INC.	955
NSG PIKINGTON	940
HOLLYWOOD CASINO	892
ADIENT/JOHNSON CONTROLS	881
WOOD COUNTY HOSPITAL	875
COOPER FARMS	850
OWENS-ILLINOIS, INC.	843
FEDEX GROUND	810
FIRST SOLAR	800
VEHTEK SYSTEMS, INC.	750
WALGREENS DISTRIBUTION CENTER	659
BP TOLEDO REFINING	600
MOBIS NORTH AMERICA LLC	600
NORFOLK SOUTHERN CORP.	600

Figure 2.13: Total Employment by Traffic Analysis Zone, 2015

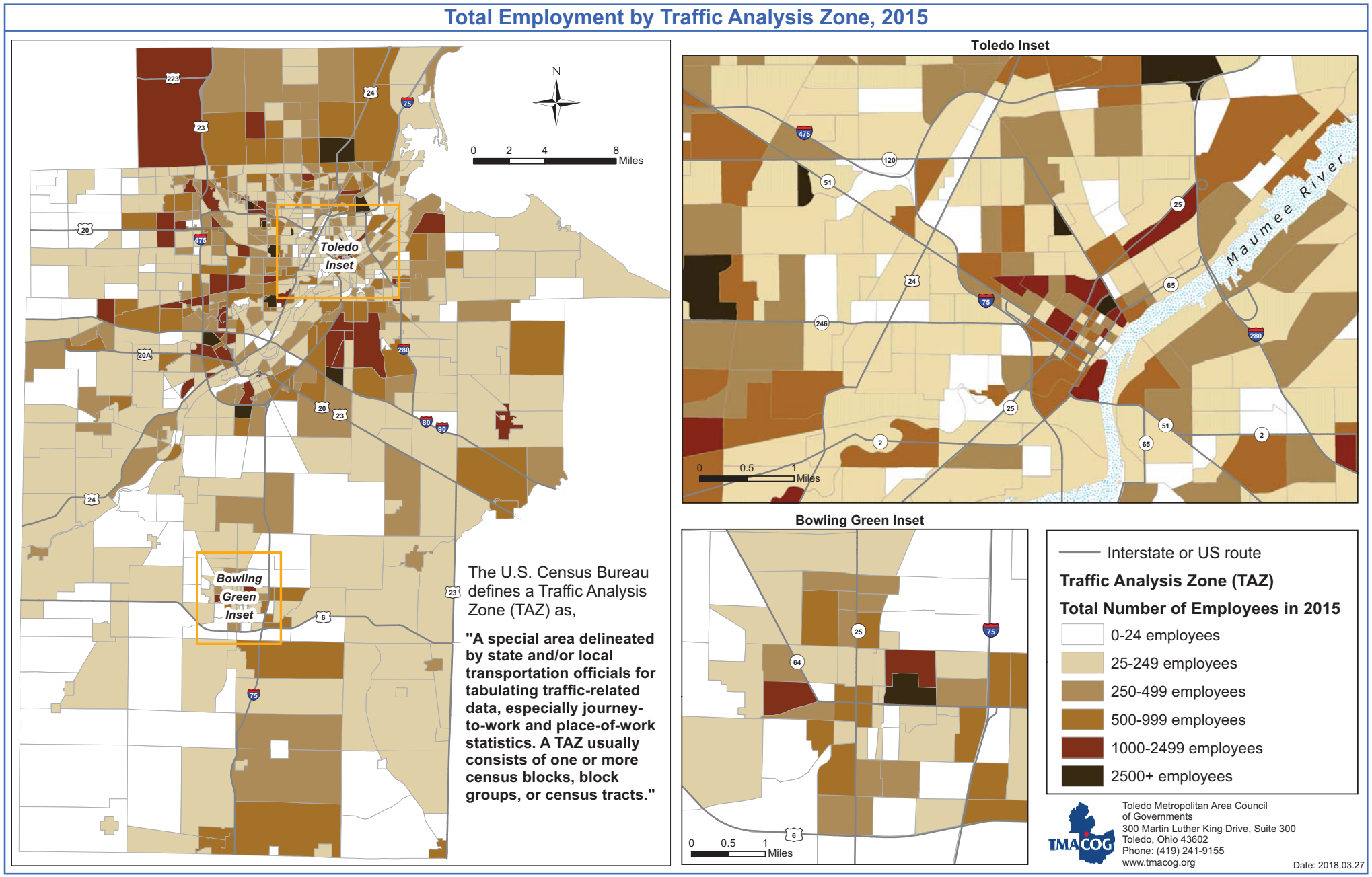


Table 2.6: Toledo MSA Industry Employment Projection Report 2016-2026

NAICS CODE	Description	Employment* 2016 Annual	Employment* 2026 Projected	Projected Change in Employment 2016-2026	Projected Change in Employment Percent
	TOTAL	**317,026**	**322,167**	**5,141**	**1.6%**
	Goods Producing	**61,244**	**60,713**	**-531**	**-0.9%**
	Natural Resources and Mining	**3,372**	**3,310**	**-62**	**-1.8%**
	Agriculture, Forestry, Fishing, and Hunting	3,200	3,172	-28	-0.9%
	Construction	**13,295**	**14,122**	**827**	**6.2%**
236	Construction of buildings	2,421	2,566	145	6.0%
237	Heavy and civil engineering construction	2,217	2,377	160	7.2%
238	Specialty trade contractors	8,657	9,179	522	6.0%
	Manufacturing	**44,577**	**43,281**	**-1,296**	**-2.9%**
311	Food manufacturing	1,738	1,648	-90	-5.2%
323	Printing and related support activities	1,430	1,170	-260	-18.2%
326	Plastics and rubber products manufacturing	2,259	1,766	-493	-21.8%
327	Nonmetallic mineral product manufacturing	4,257	3,792	-465	-10.9%
332	Fabricated metal product manufacturing	3,959	3,805	-154	-3.9%
333	Machinery manufacturing	2,738	2,492	-246	-9.0%
335	Electrical equipment, appliance, and component manufacturing	1,110	1,176	66	5.9%
336	Transportation equipment manufacturing	15,873	16,567	694	4.4%
337	Furniture and related product manufacturing	2,816	2,935	119	4.2%
	Service Providing	**240,736**	**246,039**	**5,303**	**2.2%**
	Trade, Transportation, and Utilities	**57,325**	**57,094**	**-231**	**-0.4%**
	Wholesale Trade	11,173	11,138	-35	-0.3%
423	Merchant wholesalers, durable goods	6,457	6,412	-45	-0.7%
424	Merchant wholesalers, nondurable goods	3,652	3,684	32	0.9%
425	Wholesale electronic markets and agents and brokers	1,064	1,042	-22	-2.1%
	Retail Trade	32,570	31,789	-781	-2.4%
441	Motor vehicle and parts dealers	4,774	4,965	191	4.0%
442	Furniture and home furnishings stores	566	516	-50	-8.8%
444	Building material and garden supply stores	2,611	2,518	-93	-3.6%
445	Food and beverage stores	5,196	4,815	-381	-7.3%
446	Health and personal care stores	1,750	1,744	-6	-0.3%
447	Gasoline stations	2,149	2,122	-27	-1.3%
448	Clothing and clothing accessories stores	2,296	2,176	-120	-5.2%
453	Miscellaneous store retailers	1,829	1,835	6	0.3%
	Transportation and Warehousing	N/A	N/A	N/A	N/A
484	Truck transportation	4,648	4,752	104	2.2%
488	Support activities for transportation	1,001	969	-32	-3.2%
	Information	**2,812**	**2,513**	**-299**	**-10.6%**
511	Publishing industries, except internet	546	429	-117	-21.4%
517	Telecommunications	1,531	1,357	-174	-11.4%
	Financial Activities	**10,264**	**10,357**	**93**	**0.9%**
	Finance and Insurance	7,149	7,119	-30	-0.4%
522	Credit intermediation and related activities	2,765	2,706	-59	-2.1%
524	Insurance carriers and related activities	3,676	3,664	-12	-0.3%
	Real Estate and Rental and Leasing	3,115	3,238	123	3.9%
531	Real estate	2,095	2,201	106	5.1%
	Professional and Business Services	**35,649**	**37,321**	**1,672**	**4.7%**
	Professional, Scientific, and Technical Services	N/A	N/A	N/A	N/A
5411	Legal services	1,536	1,287	-249	-16.2%
5412	Accounting, tax preparation, bookkeeping, and payroll services	1,548	1,512	-36	-2.3%
5415	Computer systems design and related services	1,103	1,129	26	2.4%

Table 2.6: Toledo MSA Industry Employment Projection Report 2016-2026 (CONTINUED)

NAICS CODE	Description	Employment* 2016 Annual	Employment* 2026 Projected	Projected Change in Employment 2016-2026	Projected Change in Employment Percent
5416	Management, scientific, and technical consulting services	759	859	100	13.2%
5419	Other professional, scientific, and technical services	2,132	2,050	-82	-3.8%
	Administrative and Waste Services	18,251	19,205	954	5.2%
5613	Employment services	8,843	9,405	562	6.4%
5617	Services to buildings and dwellings	3,970	4,092	122	3.1%
5619	Other Support Services	698	664	-34	-4.9%
	Education and Health Services	**73,009**	**77,556**	**4,547**	**6.2%**
	Health Care and Social Assistance	N/A	N/A	N/A	N/A
621	Ambulatory health care services	16,049	18,793	2,744	17.1%
622	Hospitals	16,647	16,441	-206	-1.2%
623	Nursing and residential care facilities	9,575	10,384	809	8.4%
	Leisure and Hospitality	**32,850**	**32,792**	**-58**	**-0.2%**
	Arts, Entertainment, and Recreation	4,959	5,163	204	4.1%
713	Amusement, gambling, and recreation industries	3,014	3,075	61	2.0%
	Accommodation and Food Services	27,891	27,629	-262	-0.9%
721	Accommodation	2,013	1,991	-22	-1.1%
722	Food services and drinking places	25,878	25,638	-240	-0.9%
	Other Services	**13,159**	**13,090**	**-69**	**-0.5%**
811	Repair and maintenance	2,821	2,774	-47	-1.7%
812	Personal and laundry services	2,890	3,019	129	4.5%
813	Religious, grantmaking, civic, professional, and similar organizations	6,399	6,412	13	0.2%
814	Private households	1,049	885	-164	-15.6%
	Government	**15,668**	**15,316**	**-352**	**-2.2%**
	Federal Government	2,101	2,000	-101	-4.8%
	Postal service	1,160	980	-180	-15.5%
	Federal government, except postal service	941	1,020	79	8.4%
	State Government	2,003	1,900	-103	-5.1%
	Local Government	11,564	11,416	-148	-1.3%
	Self Employed and Unpaid Family Workers	**15,046**	**15,415**	**369**	**2.5%**

*Selected industries with 500 or more employees.

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, July 2019.

2.1.5 Land Use

Existing Land Use

Figure 2.14 shows generalized existing land use for the transportation planning area. Agricultural land, shown in green along with parks and open space**,** is the predominant land use in the rural portions of the planning area. The developed portions of the planning area include a mix of land uses, including a large area devoted to single-family residential uses, shown in yellow, as well as clusters of commercial and industrial land uses. The commercial land uses, shown in red, are fairly dispersed throughout the developed portion of the planning area. The industrial land uses, shown in purple, are concentrated along transportation corridors such as rail lines and interstate highways as well as near the port and in areas with natural resources such as quarries. The map insets depict existing land use in downtown Toledo and in Bowling Green in more detail.

Expected Future Development Patterns

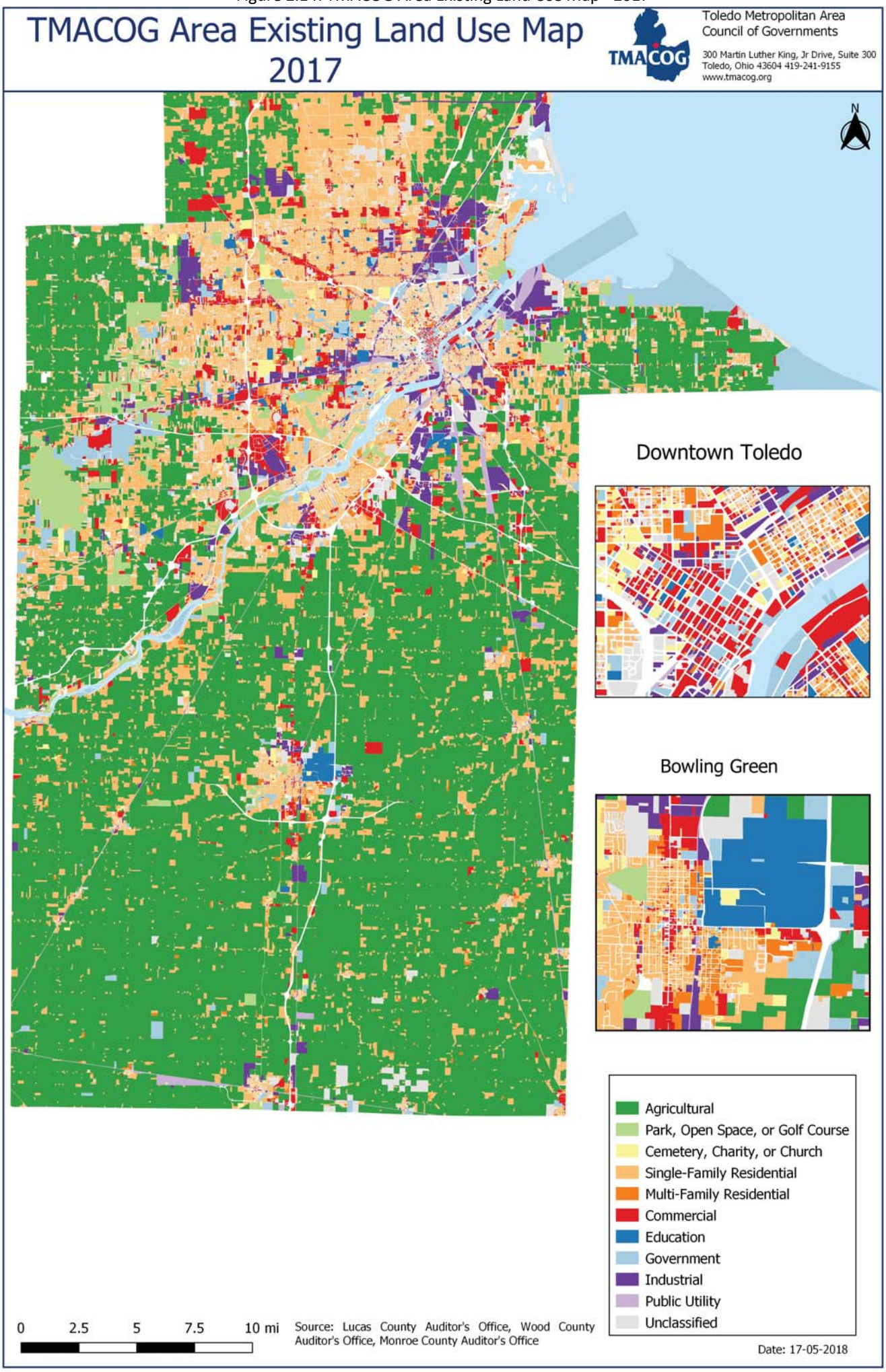
Expected future development patterns will likely reflect a continuation of recent trends, with the fastest residential growth occurring in western Lucas County (Sylvania Township, Springfield Township, Monclova Township, Waterville and Whitehouse), northern Wood County (Perrysburg, Perrysburg Township and Middleton Township) and Bedford Township in Monroe County. Higher density, residential development will continue near the University of Toledo and Bowling Green State University

to accommodate students who desire off-campus housing. Residential development will continue in Downtown Toledo and the Warehouse District as the demand for loft-type residences in the urban core continues to grow.

The bulk of new retail commercial development will likely occur in the Franklin Park Mall/Westgate area and Spring Meadows area in Lucas County as well as the Levis Commons area and Route 20 area in Wood County. Office development will likely remain concentrated in business parks such as Arrowhead, and the newly opened ProMedica development in downtown Toledo. This development is expected to generate renovation and repurposing of existing buildings in the area.

New industrial development will likely occur in existing industrial areas adjacent to U.S. 23 and I-75 in Lucas County and near the Ohio Turnpike and I-75 in northern Wood County. Additionally, industrial development will also continue to expand in areas near the Port of Toledo and in industrial parks in Oregon and Bowling Green. The Overland Industrial Park is located adjacent to the I-75/475 northside split. The industrial park was the original Jeep Plant, which closed in 2006 to move into a newer facility: the Toledo Assembly Complex. The Toledo-Lucas County Port Authority bought the Jeep Plant property in 2010, and efforts are ongoing to redevelop the area. Industrial companies including Dana Inc. and Detroit Manufacturing Systems LLC have moved into the Overland Industrial Park and invested in redevelopment there. Furthermore, in 2019 Rossford announced the development of an Amazon Fulfillment Center, which will be located east of I-75 and north of US 20/23.

Figure 2.14: TMACOG Area Existing Land Use Map - 2017



2.1.6 Trends Affecting Regional Transportation

Funding

The simple fact is transportation infrastructure is severely underfunded. An increasing backlog of repairs and deferred maintenance coupled with much needed expansions in capacity create an urgent call for legislative action. Elected officials at all levels of government must work in coordination to answer this call. At the federal and state level, a partial solution involves raising the gas tax and indexing it to inflation. In 2019, the Ohio House and Senate approved a proposal to increase the state gas tax by 10.5 cents per gallon. Additionally, they approved a diesel fuel tax increase of 19 cents per gallon. The gas tax went into effect on July 1, 2019. Even though the new gas tax will bring in more revenue for transportation projects, raising the gas tax is not the sole solution. The Highway Trust Fund needs a long term, sustainable source of funding. At the regional level, public-private partnerships, using tools such as Regional Infrastructure Improvement Zones (RIIZ) and Regional Transportation Improvement Projects (RTIP), are becoming increasingly important.

Multimodal Advantages

The availability of multiple modes for freight and passenger transport in the transportation planning area is being recognized and leveraged to create economic opportunities for area residents. Numerous shipping and retail companies are choosing to locate in the Toledo region. The 12 largest distribution centers in the region have made $651 million in capital investments in warehouses and equipment. They directly employ more than 5,300 Ohioans and indirectly support many thousands more jobs. The Toledo region is well-positioned to further leverage its developing logistics cluster. The multimodal asset base of the region encompasses all freight modes: the CSX National Gateway Intermodal Facility, the Norfolk Southern Airline Junction Intermodal Yard, the Toledo Seaport, the Toledo Express Airport, and US 24 "Fort-to-Port." Nationally significant highway corridors include the intersection of I-80/90 (Ohio Turnpike) and I-75. I-75 is the main north-south trade corridor in the Midwest connecting Canada to Florida, and I-80/90 is one of the nation's busiest east-west trade corridors.

Advancement in Technology

Since the development of the "On the Move 2015-2045 Transportation Plan" a growing advancement in transportation is the development of autonomous vehicle and connected vehicle (AV/CV) technology. As this technology continues to grow and expand AVs and CVs will greatly affect how the region plans for regional transportation. The technology behind AV/CVs have been quickly growing and since 2015, multiple companies and stakeholders have successfully been implementing AV/CV technology to advance driver-assisted vehicles. Some of the technologies have already become normalized in society. For example, adaptive cruise control, self-parking, and automatic emergency braking are all technologies that can be found in almost all newly made vehicles. AV/CV technology still has a long way to go and AV/CV technology has several issues. Detecting pedestrians, bicyclists, and trains can present multiple issues for autonomous and connected vehicles. Having safe and proper infrastructure is just one way to help AV/CV technology overcome these issues.

Another growing technology is the development of the Hyperloop. The Hyperloop would greatly affect the movement of goods and people across the country and the world. The Hyperloop would carry people and goods in a pod through a sealed tube. The pod could potentially reach speeds of 760 miles per hour. TMACOG has played a role in the discussion of a Hyperloop that would run from Pittsburg to Chicago with a potential stop in Toledo. Comparable to the AV/CV technology, the Hyperloop technology is still under development, and has many years before these ideas come to fruition.

However, in the future having a Hyperloop station would not only affect the regional transportation system, but would greatly impact the regional economy.

Finally, an additional innovative technology affecting the regional transportation system is the development of passenger and transport drones. Like the Hyperloop using drones to move people and goods will not only affect how we plan for transportation but will affect the entire economy. Amazon has been a leading commercial company working on using drones to transport light packages. Uber has been conducting research on the development of air taxis. Over the next 25 years technology will continue to advance and evolve and planning for these advancements is becoming increasingly important.

Streets, Highways, and Bridges

The emphasis in planning for streets, highways, and bridges is on the timely completion of scheduled system upgrades and improvements and the pursuit of upgrades and improvements to key corridors. Trends also include a preference for roundabouts due to their safety and operational benefits, support for rail/highway grade separation projects, and implementation of the regional Complete Streets Policy.

Passenger and Freight Rail Transportation

The emphasis in planning for passenger and freight rail transportation is on leveraging the nationally significant freight rail investments made in the region with public investments to reduce congestion and enhance economic opportunities, supporting infrastructure funding for passenger rail necessary for a national rail system and improved regional service, and supporting the preservation of right-of-way of abandoned rail lines for future uses.

Public Transportation

In the Toledo urbanized area approximately 45% of transit trips are work related, while in rural areas 60% of transit trips are services for seniors and people with disabilities. There are challenges in the source and amount of funding for public transit that must be addressed in order to provide public transit that serves the entire Toledo area, including major employment centers and service providers, and connections to surrounding areas.

Air Transportation

While passenger air service continues to be consolidated at major hub airports, Toledo Express Airport and Toledo Executive Airport support four major areas of aviation operations: passenger, cargo, general aviation, and military. Each operational area is important to the economic vitality of the airports and the region.

Water Transportation

As the largest landmass seaport on the Great Lakes, the Toledo Seaport produces a significant economic impact throughout the region. Recent investments at the port have improved efficient handling of bulk, break bulk, project cargo, and containers. Current issues include the need for annual dredging of the harbor, the need to regulate the discharge of ballast water to control the introduction of invasive species, opportunities to extend the shipping season, funding for seaport infrastructure and establishment of maritime corridors linked to intermodal transportation systems.

Pedestrian and Bicycle Transportation

Investments in sidewalks, paths, sidepaths, and on-road bike facilities such as bike lanes provide a variety of benefits and support the same trip purposes as autos and transit. The regional trail system continues to expand in terms of facilities and usage, and paving is ongoing for the Chessie Circle Trail through west and south Toledo with connections to northern Wood County, the University of Toledo and the University Parks Trail. The regional Complete Streets Policy and Regional Sidewalk Policy support these pedestrian and bicycle planning efforts.

2.2 Inventory of Existing Transportation Systems

2.2.1 Introduction and Overview

This section lays the groundwork for the 2045 Plan's seven goals. Included is an inventory of the existing transportation system detailed for each aspect of the goals. The section will also include a description of our region's current needs using this inventory.

2.2.2 Infrastructure Condition Goal

The infrastructure goal focuses on maintaining and protecting the infrastructure that is currently in place. Heavy use and the region's weather pose some difficult and expensive challenges for protecting our roadways and bridges. This section reviews the condition and usage of our current system and examines the costs associated with maintaining it.

Traffic Flows

As part of the ongoing transportation system performance monitoring conducted for the region, TMACOG and its governmental partners conduct traffic counts on major roads and highways. The data is published on the TMACOG website and provides the annual average daily traffic, a 24-hour traffic count number that is adjusted for season and for category of road, and hourly traffic counts.

Traffic flows are calculated by placing hoses attached to electronic counting devices on roadways. As vehicles drive over the hoses, the device detects a difference in air pressure in the hose and counts the vehicles. The raw counts will not accurately reflect an average traffic volume due to changes in seasonal traffic patterns on various types of roads, so the numbers need to be adjusted using a numerical standardization that is approved by ODOT. These are the numbers that are shown on the traffic flow maps.

Functional Classification

Functional classification is the grouping of highways, roads and streets by the character of service they provide. Functional classification, as outlined in **Table 2.7,** defines the part that a particular route plays in serving the flow of trips through a highway network. **Figure 2.15** shows a map of the functional classifications for the region. This map shows the functional classification of roadways, including a split between rural and urban roads.

Table 2.7: Functional Classifications

#	Description
Principal Arterial Roads	
01	Interstates
02	Other Freeways or Expressways
03	Other Principal Arterial Roads
Minor Arterial Roads	
04	Minor Arterial Roads
Collector Roads	
05	Major Collector Roads
06	Minor Collector Roads
Local Roads	
07	Local Roads

The top classification of roadways is arterials. They include those classes of highways emphasizing a high level of mobility for the through movement of traffic. Land access is subordinate to this primary function. Generally, travel speeds and distances are greater on these facilities compared to the other classes. The highest classes of arterials—interstates, freeways, and other principal arterials—are limited access to allow the free flow of traffic. These are followed by the classification of minor arterial roads, which offer connectivity to the principal arterial roads. Collectors feed traffic into the arterials. They collect traffic from the lower facilities and distribute it to the higher ones. Collectors provide both mobility and land access. Major collectors are generally higher speeds and span greater distances than minor collectors. Generally, trip lengths, speeds, and volumes are moderate for both.

At the bottom of the hierarchy are local streets. Their primary function is to provide land access. Travel speeds, distances, and volumes are generally low, and through traffic is usually discouraged. Neither rural minor collectors nor local roads are eligible for federal funds.

Pavement and Bridge Conditions

TMACOG analyzed data from ODOT to evaluate pavement and bridge conditions in the TMACOG region. The data acquired on pavement conditions includes only the federally eligible roads in the Ohio portion of the TMACOG planning area and rates pavements on the scale of very good, good, fair, poor, and very poor. **Figure 2.16** following shows a map of the location and condition of our major roadway system based on 2017 ratings.

Pavement ratings are performed by visually inspecting roadways and uniformly scoring conditions based on a variety of factors. These factors include edge cracking, longitudinal cracking, raveling, spalling, and rutting among many others. The scores are summed up for each section of roadway evaluated and the roadway receives its PCR value. The higher the score, the better the condition the roadway is in.

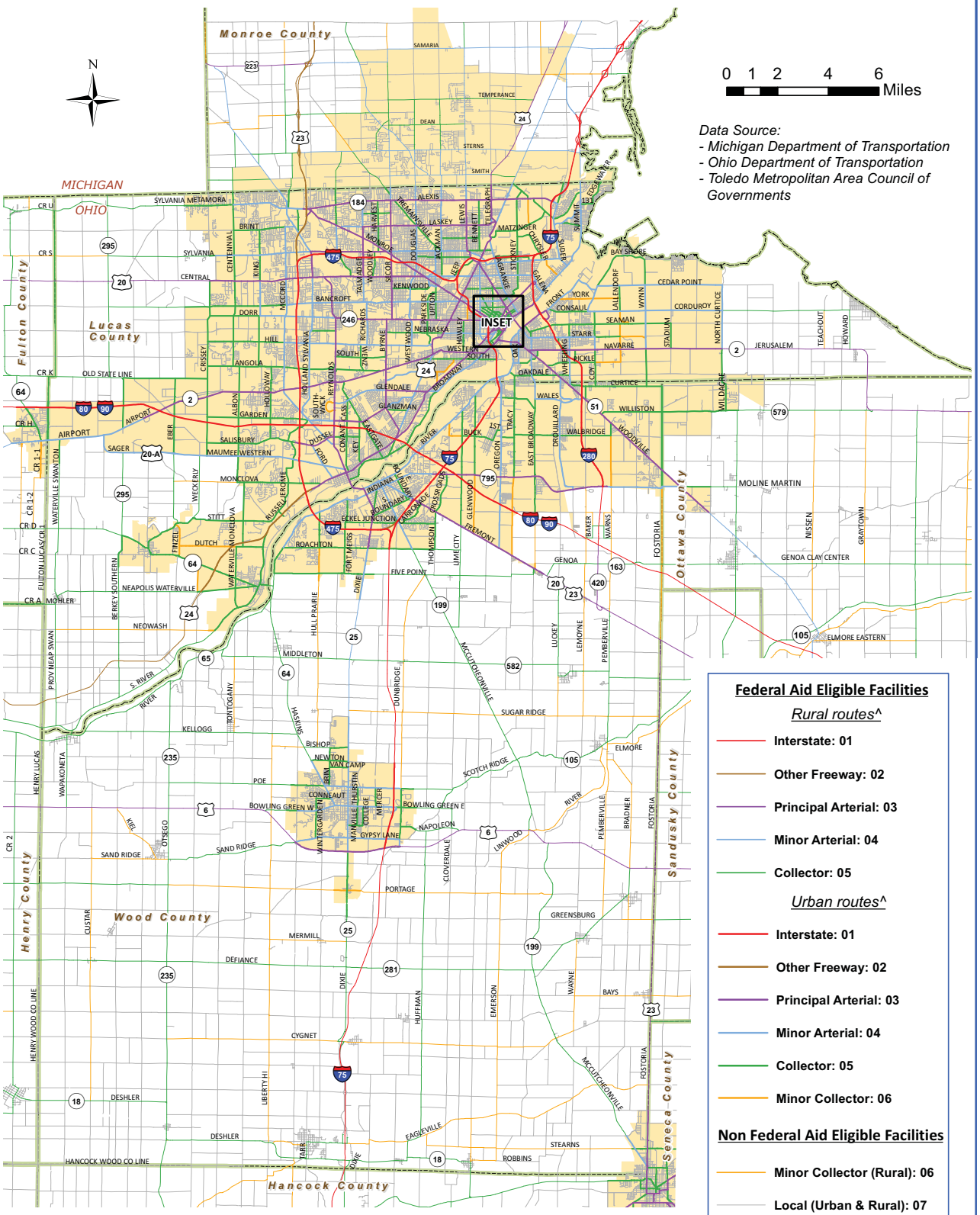
The data from 2017 on pavement condition shows that the region's roadways are generally in good to fair condition. The concentrations of roads in poor and very poor condition are located in the City of Toledo. Overall, there were 960.9 lane miles of roadway rated in fair condition and 21.1 lane miles in poor condition. Roadway conditions in the region are heavily impacted by weather conditions, high volumes of truck traffic on many roadways, and the financial ability of local communities to make

needed repairs. Over the past few years, the miles of pavements in poor and very poor condition have increased more quickly than the rate of repairs.

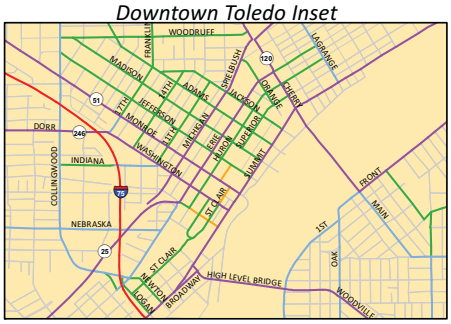
Figure 2.17 is a map of Proposed System Preservation Projects. Based on the same 2017 data, it shows sections of roadway that are proposed projects for reconstruction based on a PCR rating of 65 or below. This map also shows the locations of bridges that received a general appraisal rating of either Fair or Poor. Currently, 27% of all bridges are rated either fair or poor. A complete list of these bridges can be found in Appendix F.

Figure 2.15: Functional Classificaiton System TMACOG Area - Year 2010

Functional Classification System
TMACOG Area - Year 2010



Downtown Toledo Inset



^ Urban and rural routes are based on 2010 Census urban area boundaries.

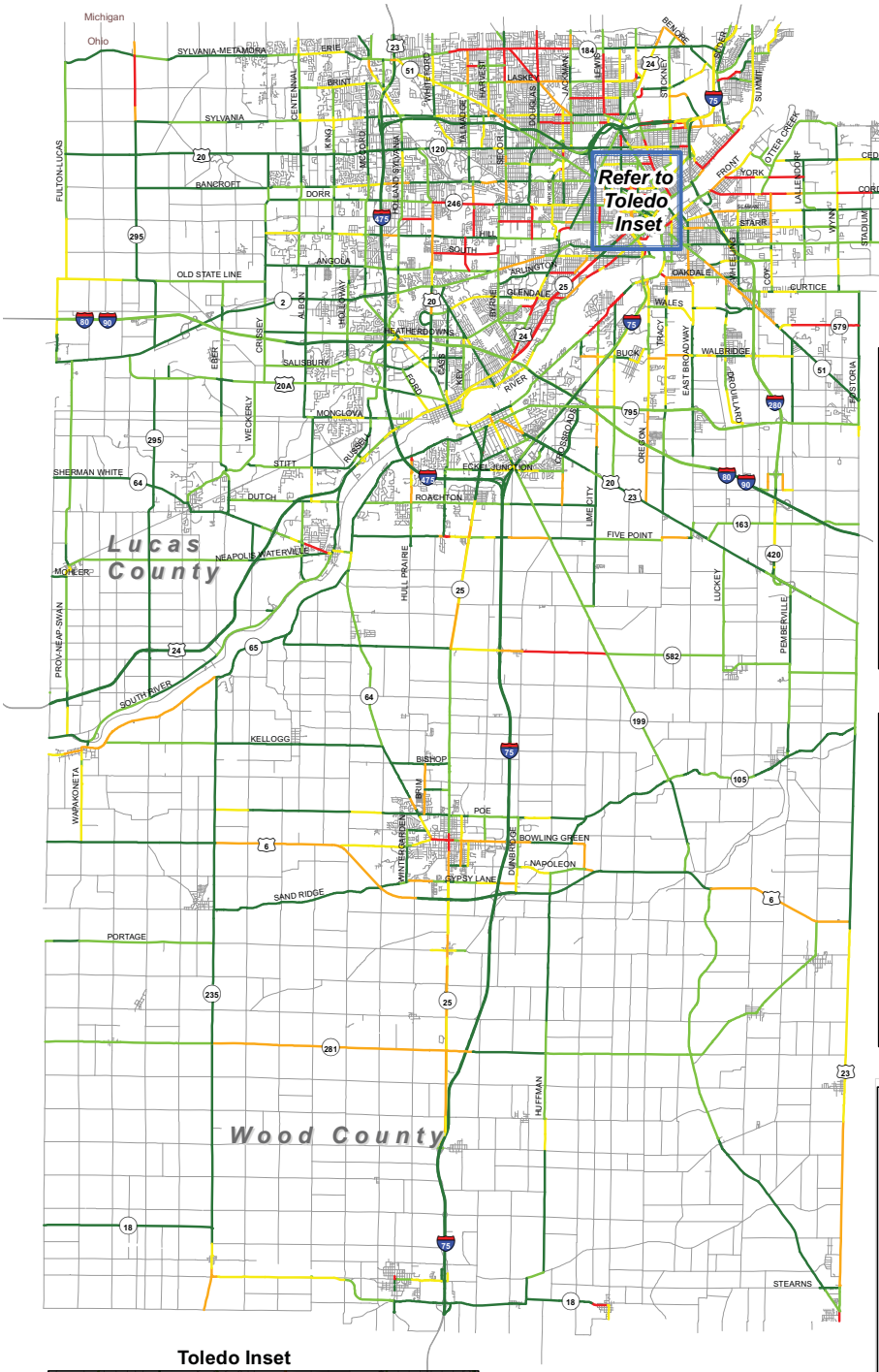
Toledo Metropolitan Area Council of Governments
300 Martin Luther King Drive, Suite 300
Toledo, Ohio 43602
Phone: (419) 241-9155
www.tmacog.org

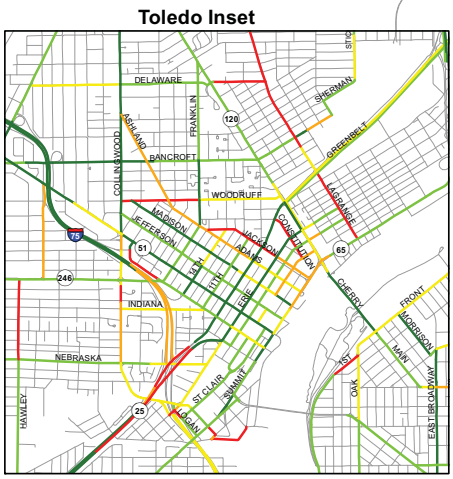
Date: 2018.4.16

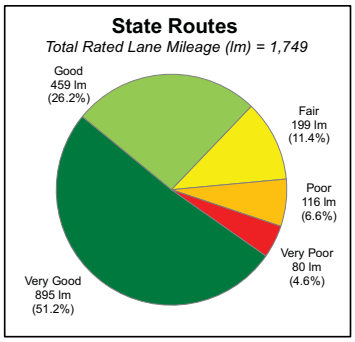
Figure 2.16: Pavement Condition on Federal Aid Eligible Roads - 2017

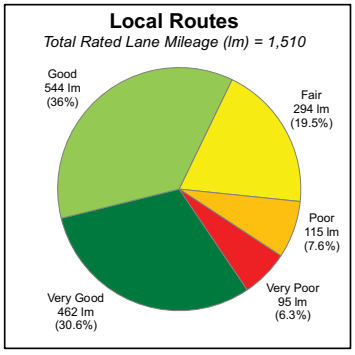
Pavement Condition on Federal Aid Eligible Roads 2017

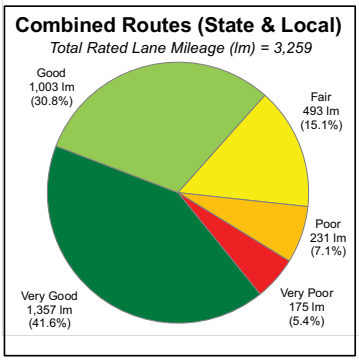
Toledo Metropolitan Area Council of Governments
300 Martin Luther King Jr. Drive
Toledo, Ohio 43604
Phone (419) 241-9155, Fax (419) 241-9116
www.tmacog.org











Pavement Condition Rating (PCR)

- Very Poor (<55)
- Poor (56-64)
- Fair (65-74)
- Good (75-89)
- Very Good (90-100)

N

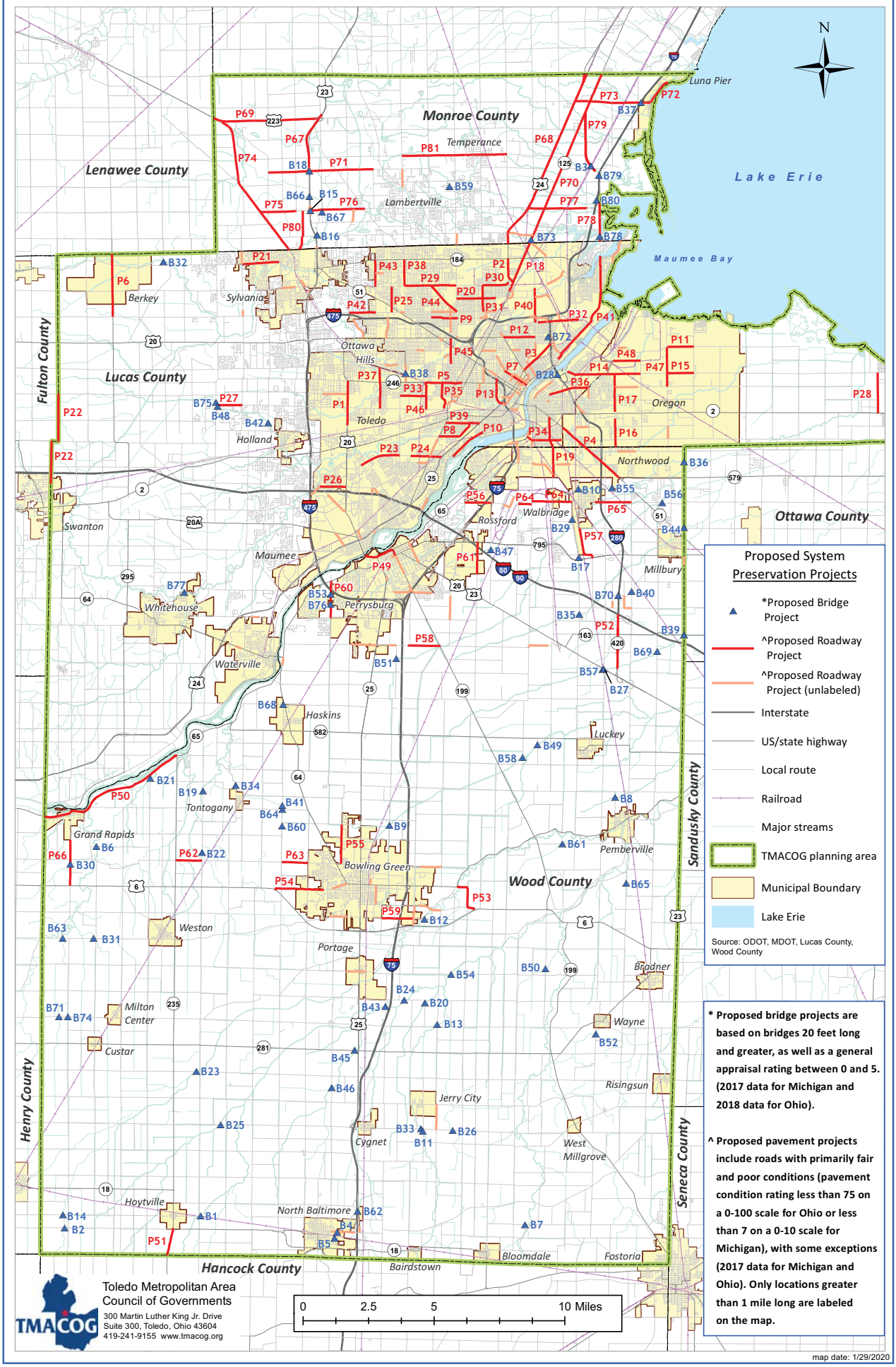
0 1.25 2.5 5 7.5 Miles

Source for pavement data:
Ohio Department of Transportation
Division of Engineering
Office ofPavement Engineering
1980 W. Broad Street
Columbus, Ohio 43223

Date of Map: 8/27/2018

Figure 2.17: 2045 Transportation Plan Update - Proposed System Preservation Projects

2045 Transportation Plan Update
Proposed System Preservation Projects



Infrastructure Condition Needs Identified Through Public Input

From the needs input received at public meetings and through surveys, numerous responses related to the need to adequately maintain existing transportation infrastructure, provide more funding for maintenance to protect the public investment already made, and recognize the close connection between infrastructure maintenance and public safety. Specifically, comments on these points included:

- Bridge maintenance is a concern
- Rough roads and potholes are becoming major issues
- Need to improve storm drainage as poor drainage contributes to flooding and deteriorating roadways
- Railroad crossings and signals need to be maintained along with roadways
- Research is needed on better roadway materials and road repair technology

2.2.3 Safety Goal

This section is focused on the level of safety in our transportation system. The main priority of the safety goal is to reduce traffic-related fatalities and serious injuries across all modes of transportation.

Safety Hot Spots

A common way of helping achieve this goal is by determining safety hot spots, which is where there are high occurrences of traffic-related crashes across modes. When hot spots are located, planning efforts can be focused towards these locations in order to make changes that improve safety for all users at high-risk locations. In this section, safety hot spots for vehicles, bicycles, and pedestrians are analyzed. These maps were generated using 2014 -2016 data from the Ohio Department of Transportation and Michigan Department of Transportation

Vehicular Safety Hot Spots

Figures 2.18 and 2.19 show the top vehicle crash segments and intersections, respectively, in the TMACOG planning area, not including state, U.S., or freeway routes.

The map of the top crash sections in **Figure 2.18** shows the top vehicle crash sections. A crash section is a specific segment of roadway identified by the data as having a high frequency of crashes. The map shows the top five crash segments in major jurisdictions in Lucas, Wood, and Monroe County. The top five crash segments in Lucas, Wood, and Monroe County include Sylvania Ave. from Jackman to Phillips (183 crashes), Laskey Rd. from Douglas to Jackman (162 crashes), Airport Hwy. from McCord to Holland Sylvania (281 crashes), Airport Hwy. from Byrne to South (172 crashes), and Cherry St. from Delaware to Bancroft (101 crashes). As shown in the tables in the bottom of the map, each location is ranked and scored by number of crashes and type of crashes.

Figure 2.19 is the map of the top crash intersections in the TMACOG planning area. Similar to the map of top crash sections, there are multiple tables included with the map that show the top five crash intersections from jurisdictions in Lucas, Wood, and Monroe County. The top five crash intersections include Arlington and Byrne (88 crashes), Central and Reynolds (128 crashes), Reynolds and Hill (130 crashes), Navarre and Wheeling (107 crashes), and Telegraph and Alexis (92 crashes) These top crash intersections tend to be primarily at high volume locations where traffic will try to make it through signals and often conflict with vehicles turning into businesses or changing lanes.

The 2045 Plan looks at addressing many of these safety concerns on our region's roadways. Examples of key projects planned for safety hot spots include improvements to the intersection of Douglas Rd./Laskey Rd./Tremainsville Rd., the intersection of Sylvania Ave./Jackman Rd./Tremainsville Rd., Holland Sylvania corridor improvements, Navarre Avenue Access Management, and corridor improvements to McCord Rd.

Figure 2.18: Top 50 Crash Segments in TMACOG Region (2014-2016)

Top 50 Crash Segments in TMACOG Region (2014-2016)

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org

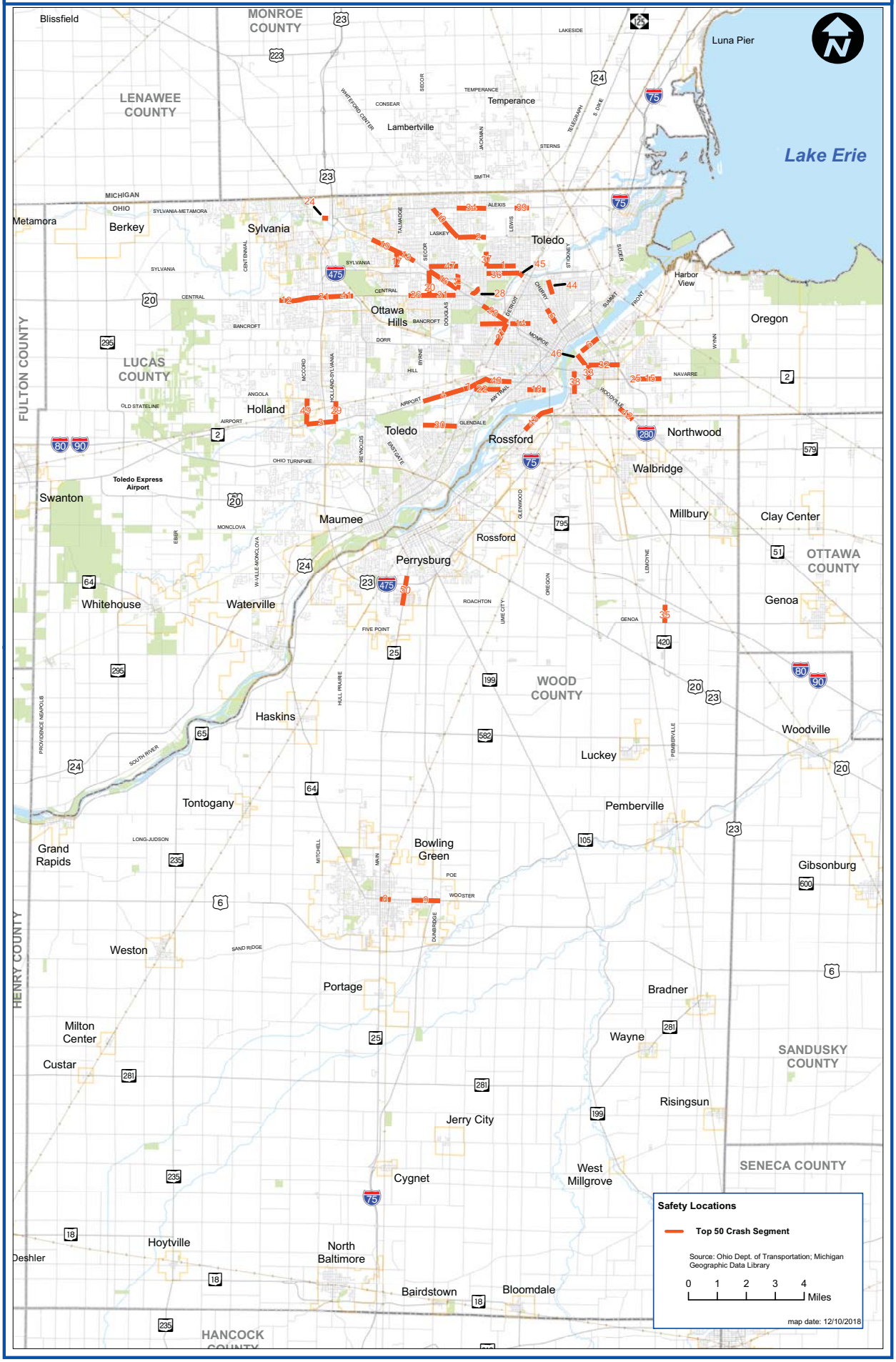


Figure 2.18: Top 50 Crash Segments in TMACOG Region (2014-2016)

Top 50 Segments					
Overall Rank	Segment	Jurisdiction	Total Crashes	EPDO Index	Crash Rate
1	Sylvania (Jackman to Phillips)	Toledo	183	3.80	13.20
2	Laskey (Douglas to Jackman)	Toledo	162	3.77	8.16
3	Airport (McCord to Holland Sylvania)	Springfield Twp.	281	3.92	7.01
4	Airport (Byrne to South)	Toledo	172	3.89	6.67
5	Cherry (Delaware to Bancroft)	Toledo	101	3.57	9.12
6	Front (Morrison to Craig Bridge)	Toledo	60	5.05	7.60
7	Airport (South to Fearing)	Toledo	51	4.61	10.26
8	Wooster (Main to Thurstin)	Bowling Green	74	3.54	12.22
9	Wooster (Mercer to Dunbridge)	Bowling Green/Center Twp.	126	3.62	6.61
10	Tremainsville (Alexis to Laskey)	Toledo	84	4.31	5.84
11	Douglas (Berdan to Monroe)	Toledo	98	3.32	8.59
12	Central (King to McCord)	Sylvania Twp.	128	4.76	4.20
13	Monroe (Talmadge to Harvest)	Toledo	129	3.38	6.83
14	Bancroft (Monroe to Collingwood)	Toledo	57	4.53	7.12
15	Navarre (Isaac Street to Coy)	Oregon	135	3.22	6.38
16	Monroe (Secor to Douglas)	Toledo	158	3.65	5.03
17	Talmadge (Monroe to Sylvania)	Toledo	109	2.61	15.22
18	South (Broadway to 75)	Toledo	105	2.57	21.53
19	Monroe (Laskey to Talmadge)	Toledo/Sylvania Twp.	158	2.75	7.98
20	Secor (Monroe to Central)	Toledo	327	2.19	12.21
21	Central (McCord to Holland Sylvania)	Sylvania Twp.	225	3.13	5.49
22	South (Detroit to Spencer)	Toledo	96	2.76	8.66
23	Monroe (Cove to Detroit)	Toledo	104	3.51	5.07
24	Monroe (Harroun to 23 ramp)	Sylvania	69	3.31	7.38
25	Navarre (Wheeling to Isaac)	Oregon	47	3.74	7.79
26	Central (Woodley to Secor)	Toledo	90	3.45	5.25
27	Detroit (Bancroft to Dorr)	Toledo	78	3.13	6.32
28	Promedica Pkwy (Upton to Central)	Toledo	80	2.29	29.56
29	Holland Sylvania (Angola to Airport)	Toledo/Springfield Twp.	97	2.38	8.87
30	Glendale (Byrne to Detroit)	Toledo	115	3.43	4.48
31	Central (Douglas to Secor)	Toledo	74	3.69	5.06
32	Starr (Earlwood to East Broadway)	Toledo	116	2.18	9.97
33	East Broadway (Starr to Navarre)	Toledo	76	2.51	10.91
34	Alexis (Douglas to Jackman)	Toledo	88	4.42	3.14
35	420 (Turnpike to Genoa)	Lake Twp.	66	3.54	5.48
36	Berdan (Jackman to Haverhill)	Toledo	71	2.97	7.64
37	Jackman (Eleanor to Sylvania)	Toledo	63	2.99	7.87
38	Oak (Woodvile to Fassett)	Toledo	75	3.04	6.32
39	Alexis (Lewis to Bennett)	Toledo	51	5.03	4.02
40	Bancroft (Upton to Detroit)	Toledo	63	4.30	4.18
41	Central (Holland Sylvania to Reynolds)	Sylvania Twp.	70	3.73	4.28
42	Woodville (Wheeling to Oakdale)	Oregon/Northwood	41	4.71	5.41
43	Superior (Glenwood to Oregon)	Toledo/Rossford	91	2.86	5.83
44	Lagrange (Manhattan to Central)	Toledo	52	2.98	9.64
45	Berdan (Jeep to Haverhill)	Toledo	65	2.25	25.38
46	Main (Front to East Broadway)	Toledo	51	3.41	6.50
47	Sylvania (Secor to Douglas)	Toledo	124	2.36	6.10
48	Airport/Western (Detroit to Hawley)	Toledo	89	2.70	6.01
49	McCord (Angola to Airport)	Holland/Springfield Twp.	96	2.72	5.60
50	Dixie Hwy (Roachton to Eckel Junction)	Perrysburg	217	2.18	5.93

Figure 2.19: Top 50 Crash Intersections in TMACOG Region (2014-2016)

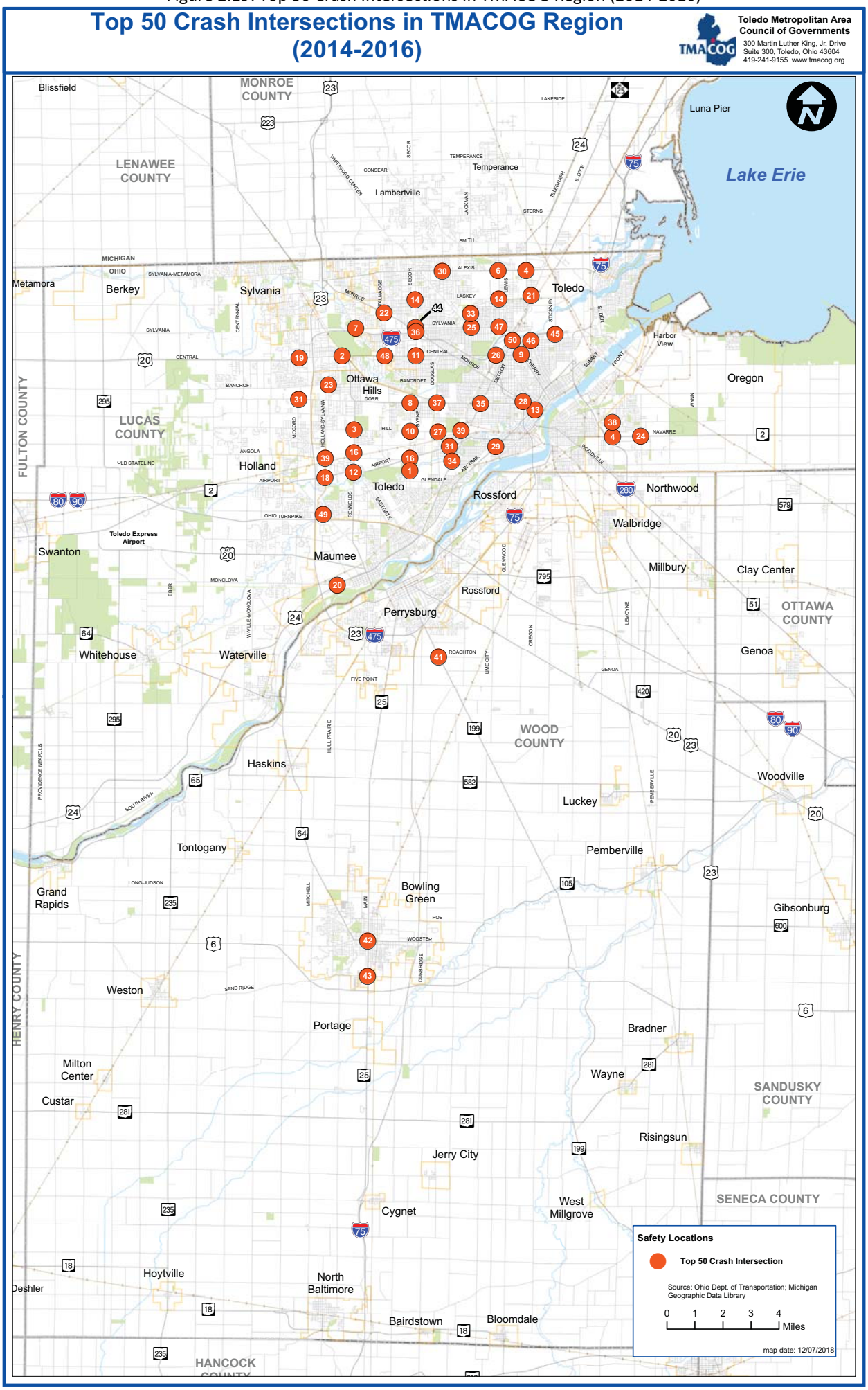


Figure 2.19: Top 50 Crash Intersections in TMACOG Region (2014-2016)

Top 50 Crash Intersections					
Overall Rank	Name	Jurisdiction	Toal Crashes	EPDO Index	Crash Rate
1	Arlington & Byrne	Toledo	88	4.34	2.59
2	Central & Reynolds	Sylvania Twp	128	3.44	3.01
3	Reynolds & Hill	Toledo	130	3.30	3.20
4	Navarre & Wheeling	Oregon	107	3.60	2.94
4	Telegraph & Alexis	Toledo	92	4.25	2.50
6	Lewis & Alexis	Toledo	139	3.21	3.29
7	Corey Sylvania Whiteford	Toledo/Sylvania Twp	110	3.46	2.96
8	Dorr & Byrne	Toledo	138	3.13	3.26
9	Central & Cherry	Toledo	81	3.34	3.36
10	Byrne & Hill	Toledo	125	3.38	2.70
11	Central & Secor	Toledo	152	2.91	3.37
12	Airport & Reynolds	Toledo	166	2.91	2.95
13	Erie & Monroe	Toledo	70	3.24	3.16
14	Laskey & Secor	Toledo	133	2.81	3.04
14	Laskey & Lewis	Toledo	85	3.73	2.29
16	Airport & Byrne	Toledo	211	2.44	4.07
16	Reynolds & Angola N	Toledo	67	4.34	2.13
18	Airport & Holland Sylvania	Toledo/Springfield Twp	142	2.89	2.70
19	Mccord & Central	Sylvania Twp	128	3.01	2.61
20	AW Trail & Monclova	Maumee	61	4.73	2.04
21	Laskey Detroit & Telegraph	Toledo	45	4.54	2.68
22	Monroe & Talmadge	Toledo/Sylvania Twp	138	2.42	3.46
23	Holland-Sylvania & Bancroft	Toledo	72	3.36	2.42
24	Navarre & Coy	Oregon	94	2.87	2.86
25	Jackman Sylvania Tremainsville	Toledo	124	2.43	3.67
26	Central & Jeep	Toledo	175	2.24	10.90
27	Westwood & Hill	Toledo	48	5.13	2.27
28	17th & Monroe	Toledo	44	4.73	2.42
29	AW Trail & South	Toledo	100	3.13	2.22
30	Douglas & Alexis	Toledo	70	4.02	1.82
31	Airport & South	Toledo	46	3.85	2.45
31	Dorr & Mccord	Springfield Twp	45	4.42	2.14
33	Jackman & Eleanor	Toledo	47	4.29	2.09
34	Arlington & Detroit	Toledo	54	3.38	2.36
35	Dorr & Detroit	Toledo	60	3.65	2.03
36	Monroe & Secor	Toledo	146	2.56	2.26
37	Dorr & Douglas	Toledo	94	2.29	3.16
38	Starr & Wheeling	Oregon	47	3.80	2.29
39	Holland Sylvania & Angola	Toledo/Springfield Twp	71	2.47	3.03
39	Fearing & Hill	Toledo	69	2.94	2.38
41	Mccutchenville & Roachton	Perrysburg Twp	26	9.87	3.35
42	Wooster & Main	Bowling Green	83	2.56	2.57
43	Gypsy Lane & Main	Bowling Green	56	3.17	2.39
44	Sylvania & Secor	Toledo	130	2.32	2.53
45	S Expressway & Stickney	Toledo	53	2.52	3.48
46	Lagrange & Manhattan	Toledo	49	3.24	2.44
47	Lewis Phillips Sylvania	Toledo	91	2.10	3.22
48	Central & Talmadge	Toledo/Ottawa Hills	72	3.11	1.97
49	Manley & Heatherdowns	Toledo	40	3.33	2.79
50	Cherry & Detroit	Toledo	186	1.69	6.33

ODOT Safety Work Program

Data on vehicular safety hot spots and safety priority locations was taken from ODOT to produce a work program map. The state of Ohio uses a computer program to analyze roadways, looking for those with the highest potential for reducing crashes, those with higher-than-predicted crash frequencies, and locations with a higher severity of crashes. The focus is to determine and prioritize locations where the largest amounts of serious crashes occur, rather than locations where the total number of crashes is high, regardless of severity.

Safety Location Report

In June 2018, TMACOG completed a Safety Locations Report, using 2014-2016 crash data. The report identifies the leading causes of serious injury crashes and deaths on public roadways. Additionally, the report demonstrates locations that see higher than normal crash occurrences. The report was developed using ODOT's Highway Safety GCAT (GIS Crash Analysis Tool) and the Michigan crash data site www.michigantrafficcrashfacts.org. **Figure 2.20** shows a map from the report that shows the locations of serious and fatal injury crashes. A full version of the report can be found at http://www.tmacog.org/Transportation/Safety_Data.htm.

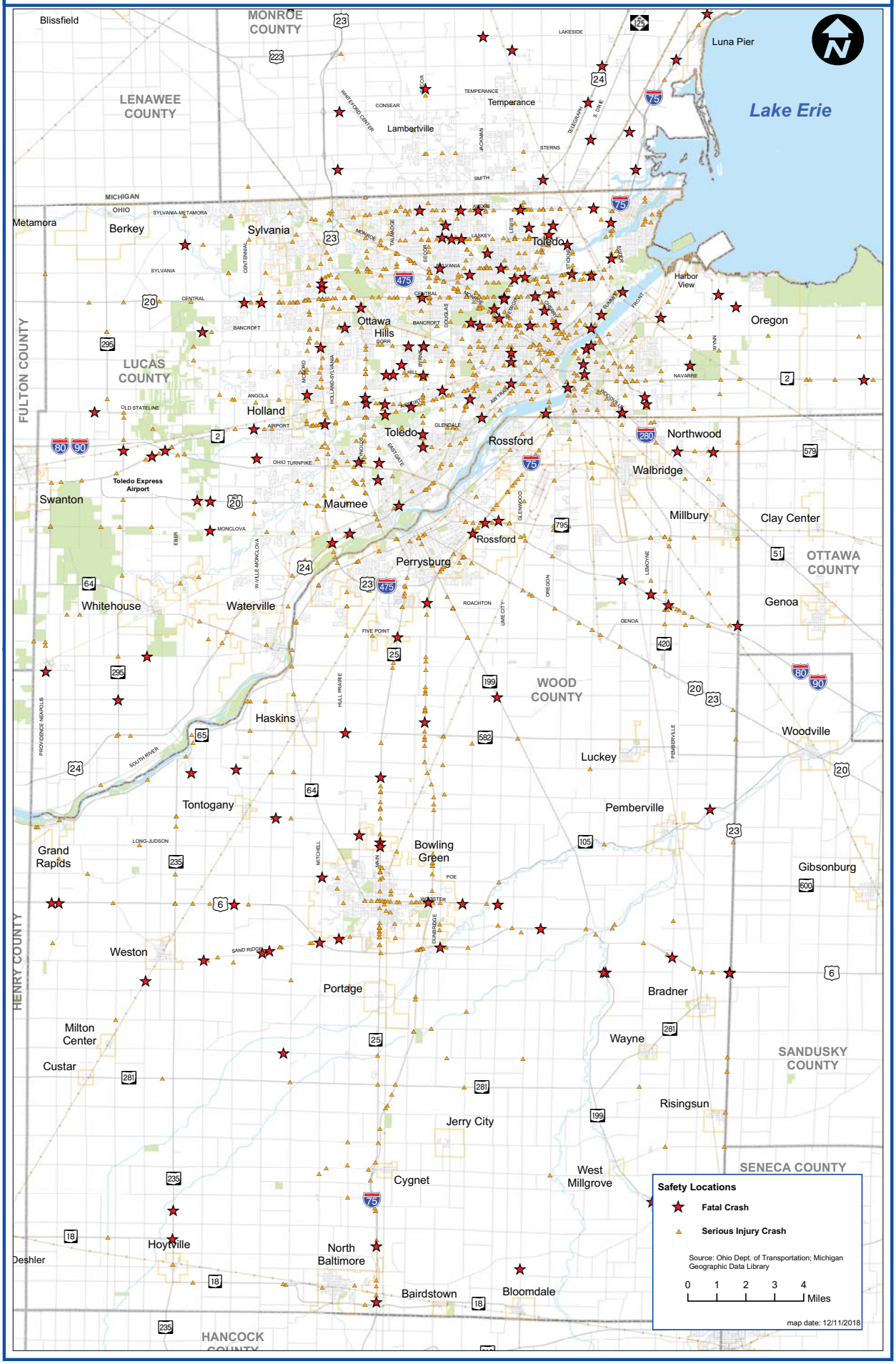
TMACOG's Transportation Safety Plan

In 2019, ODOT funded a consultant lead regional safety plan for the TMACOG region. The Ohio Department of Transportation has adopted the national strategy, *Toward Zero Deaths*. ODOT has encouraged entities to develop regional safety plans to help the state get closer to zero transportation deaths. The safety plan provides a framework for identifying, analyzing, and prioritizing roadway safety improvements. Stakeholders from Lucas and Wood counties gathered twice during the development of the plan to provide local professional input on regional safety needs and priorities. During the development of the plan three emphasis areas were identified as the region's most significant challenge. These three areas include young drivers, distracted drivers, and intersections. Priority locations and an action plan are included in the safety plan. The safety plan can be found online at **www.tmacog.org/Transportation/Safety**.

Figure 2.20: Fatal & Serious Injury Crashes (2014-2016)

Fatal & Serious Injury Crashes (2014-2016)

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



Bicycle Safety Hot Spots

Figure 2.21 is a map of the safety hot spots for bicycle crashes from the latest data. The map breaks the crashes down by type: fatal, injury, or property damage only (PDO). This allows an analysis of the locations that saw more severe bicycle crashes. Most crashes are shown along busy, major roadways where traffic is probably highest. This includes along Bancroft St. where bicycle facilities in the form of "share the road" signs/sharrows are present. Along this corridor, multiple crashes, including a fatality, have occurred. Additionally, most crashes occurred in the city center and the west part of Toledo.

Table 2.8 shows the statistics on all the bicycle crashes in the area, including time of day, weather condition, roadway condition, day of week, and lighting when the crashes occurred. **Figure 2.22** and **Figure 2.23** show bicycle crashes by hour of day and by severity. There were 360 total crashes from 2014-2016. The total number of crashes decreased by 76 crashes compared to the 2009-2011 data. Of all bicycle crashes, 4 (1.1%) were fatal. The majority of crashes were injury crashes, making up 296 (82.2%).

Examples of key bicycle projects in the 2045 Plan include many that are in areas prone to bicycle crashes, such as a construction of a sidepath along Dorr St., construction of a bicycle facility along Sylvania Ave., and construction of a Riverside Trail along Summit St. and the riverfront, with connections to a planned path along the Anthony Wayne Trail.

Figure 2.21: Bicycle-related Crashes: 2014-2016

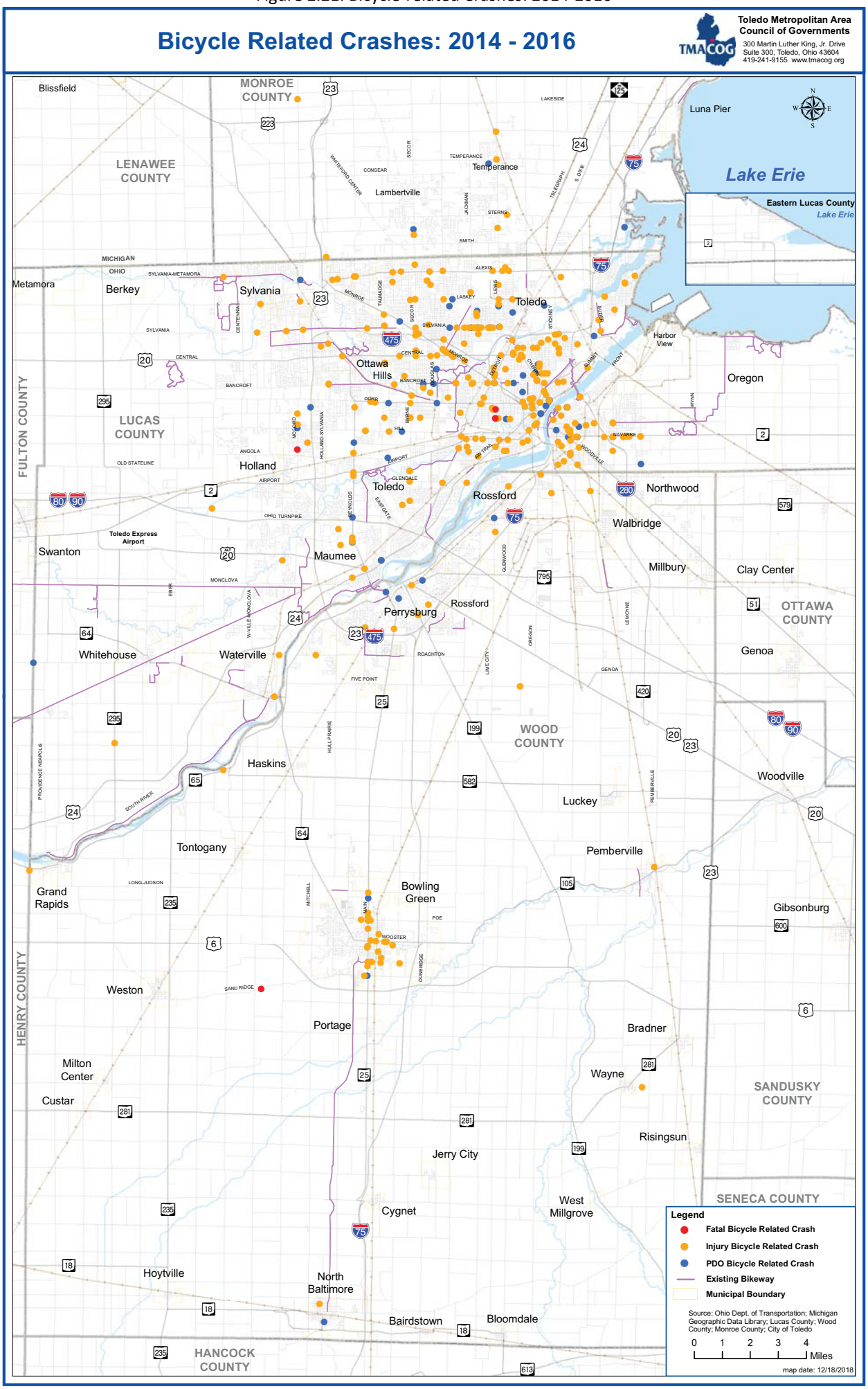


Table 2.8: Bicycle-related Crashes Data 2014-2016

Crashes by Year

2014	118	32.80%
2015	117	32.50%
2016	125	34.70%
Total	**360**	**100.00%**

Crash Severity

Fatal Crash	4	1.10%
Injury Crash	296	82.20%
PDO Crash	60	16.70%
Total	**360**	**100.00%**

Month of Year

January	6	1.70%
February	7	1.90%
March	10	2.80%
April	17	4.70%
May	33	9.20%
June	55	15.30%
July	45	12.50%
August	48	13.30%
September	60	16.70%
October	40	11.10%
November	31	8.60%
December	8	2.20%
Total	**360**	**100.00%**

Day of Week

Sunday	38	8.70%
Monday	53	12.20%
Tuesday	43	9.90%
Wednesday	68	15.60%
Thursday	54	12.40%
Friday	56	12.80%
Saturday	48	11.00%
Total	**360**	**100.00%**

Hour of Day

12:00 - 12:59 AM	2	0.50%
1:00 - 1:59 AM	3	0.70%
2:00 - 2:59 AM	0	0.00%
3:00 - 3:59 AM	1	0.20%
4:00 - 4:59 AM	2	0.50%
5:00 - 5:59 AM	2	0.50%
6:00 - 6:59 AM	4	0.90%
7:00 - 7:59 AM	8	1.80%
8:00 - 8:59 AM	8	1.80%
9:00 - 9:59 AM	13	3.00%
10:00 - 10:59 AM	14	3.20%
11:00 -11:59 AM	11	2.50%
12:00 - 12:59 PM	22	5.00%
1:00 - 1:59 PM	16	3.70%
2:00 - 2:59 PM	27	6.20%
3:00 - 3:59 PM	32	7.30%
4:00 - 4:59 PM	46	10.60%
5:00 - 5:59 PM	39	8.90%
6:00 - 6:59 PM	31	7.10%
7:00 - 7:59 PM	28	6.40%
8:00 - 8:59 PM	18	4.10%
9:00 - 9:59 PM	12	2.80%
10:00 - 10:59 PM	11	2.50%
11:00 - 11:59 PM	10	2.30%
Total	**360**	**100.00%**

Figure 2.22: Bicycle Crashes: Hour of Day

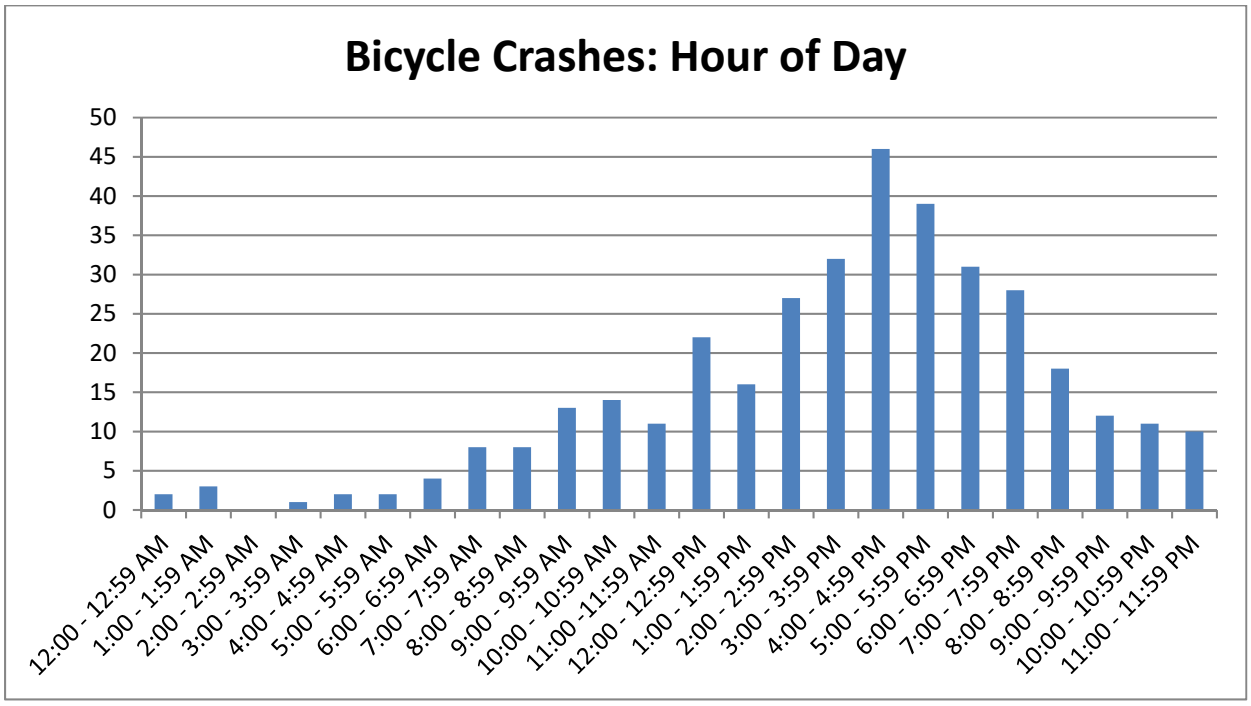
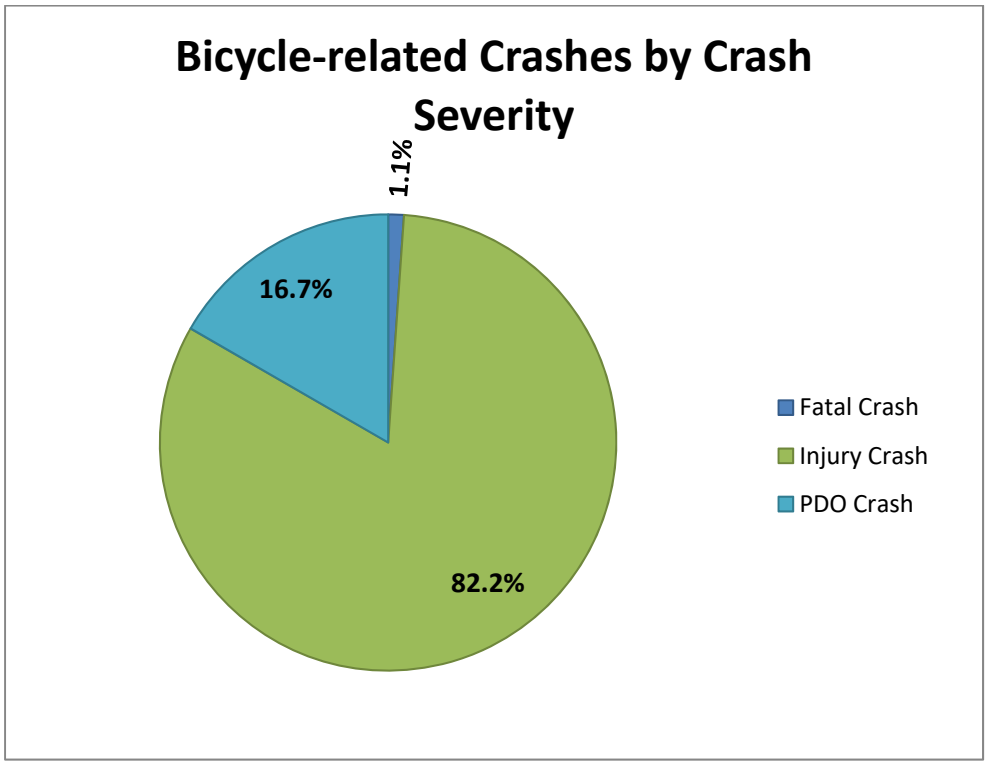


Figure 2.23: Bicycle Related Crashes by Crash Severity



Pedestrian Safety Hot Spots

Figure 2.24 is the map of pedestrian-related crashes from 2014-2016. The data in the map is categorized in the same manner to the bicycle-related crashes, by type of crash (fatal, injury, or PDO). From the map, it can be seen that most pedestrian-related crashes occur along main roadways where higher speeds and heavier vehicle traffic would occur, with a higher amount of crashes occuring in the central part of the city. The fatal accidents don't appear to be concentrated in any one area.

The data, summarized in **Table 2.9**, shows that there were 26 pedestrian-related fatalities during this time period. This represents 6.1% of pedestrian-related crashes. The data tables also show the distribution of crashes by time of day, day of week, weather conditions, roadway conditions, and lighting conditions. **Figures 2.25** and **2.26** show pedestrian crashes by hour and by crash severity.

In addition to the planned construction of shared use paths in the plan, TMACOG also supports and has adopted a complete streets policy. When a roadway is reconstructed or repaved, the policy requires that all modes be considered and that every effort to include multimodal infrastructure is made. This supports expanded pedestrian facilities and sidewalk networks, which will increase the safety of pedestrians.

Figure 2.24: Pedestrian-related Crashes 2014-2016

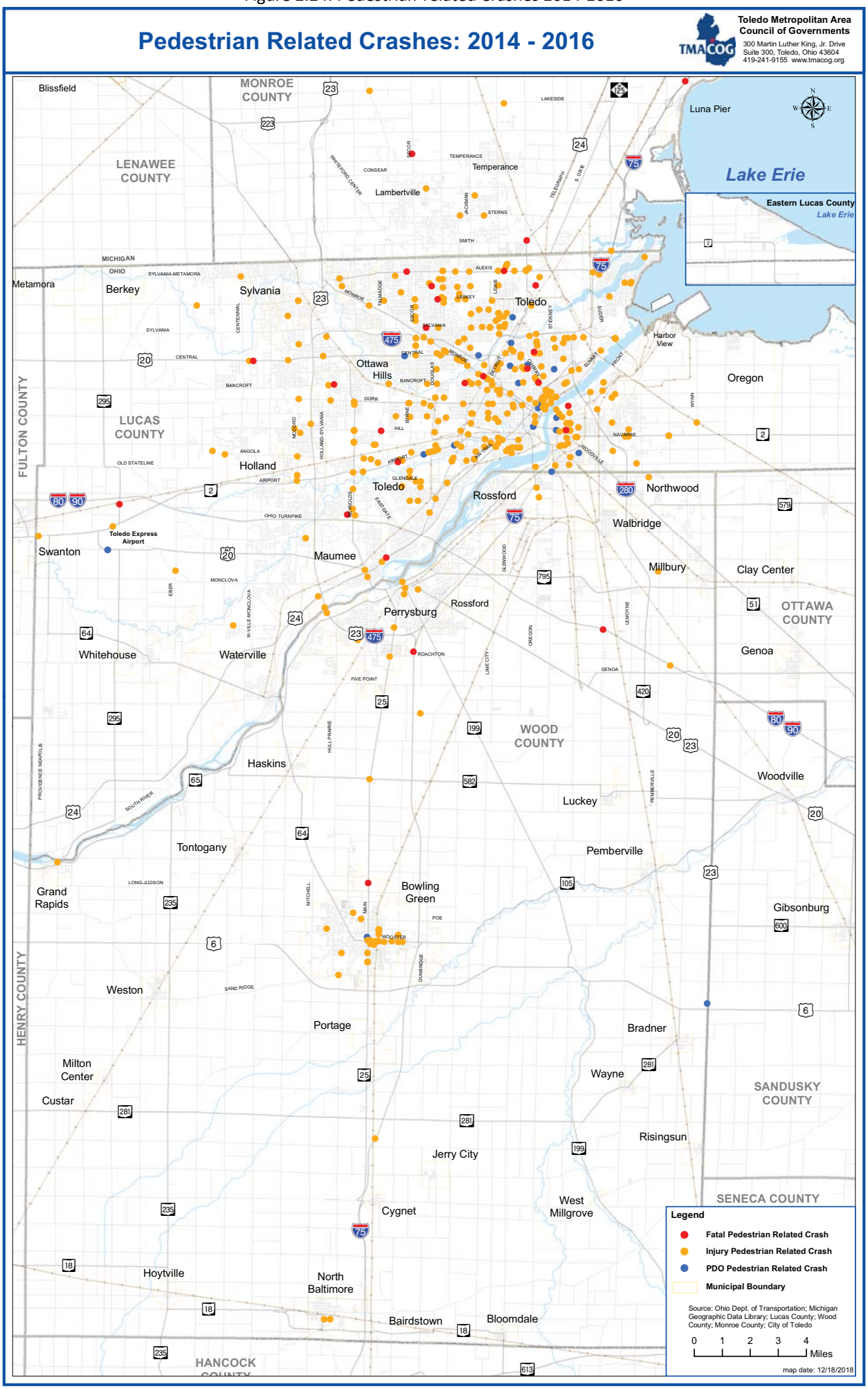


Table 2.9: Pedestrian-related Crashes Data

Crashes by Year

2014	134	31.30%
2015	139	32.50%
2016	155	36.20%
Total	**428**	**100.00%**

Crash Severity

Fatal Crash	26	6.10%
Injury Crash	378	88.30%
PDO Crash	24	5.60%
Total	**428**	**100.00%**

Month of Year

January	26	6.10%
February	38	8.90%
March	22	5.10%
April	25	5.80%
May	40	9.30%
June	30	7.00%
July	33	7.70%
August	34	7.90%
September	42	9.80%
October	52	12.10%
November	47	11.00%
December	39	9.10%
Total	**428**	**100.00%**

Day of Week

Sunday	51	11.90%
Monday	59	13.80%
Tuesday	60	14.00%
Wednesday	66	15.40%
Thursday	54	12.60%
Friday	83	19.40%
Saturday	55	12.90%
Total	**428**	**100.00%**

Hour of Day

12:00 - 12:59 AM	8	1.90%
1:00 - 1:59 AM	6	1.40%
2:00 - 2:59 AM	11	2.60%
3:00 - 3:59 AM	9	2.10%
4:00 - 4:59 AM	2	0.50%
5:00 - 5:59 AM	9	2.10%
6:00 - 6:59 AM	9	2.10%
7:00 - 7:59 AM	18	4.20%
8:00 - 8:59 AM	17	4.00%
9:00 - 9:59 AM	9	2.10%
10:00 - 10:59 AM	20	4.70%
11:00 -11:59 AM	18	4.20%
12:00 - 12:59 PM	10	2.30%
1:00 - 1:59 PM	29	6.80%
2:00 - 2:59 PM	26	6.10%
3:00 - 3:59 PM	28	6.50%
4:00 - 4:59 PM	31	7.20%
5:00 - 5:59 PM	33	7.70%
6:00 - 6:59 PM	25	5.80%
7:00 - 7:59 PM	32	7.50%
8:00 - 8:59 PM	26	6.10%
9:00 - 9:59 PM	19	4.40%
10:00 - 10:59 PM	21	4.90%
11:00 - 11:59 PM	12	2.80%
Total	**428**	**100.00%**

Figure 2.25: Pedestrian Crashes: Hour of Day

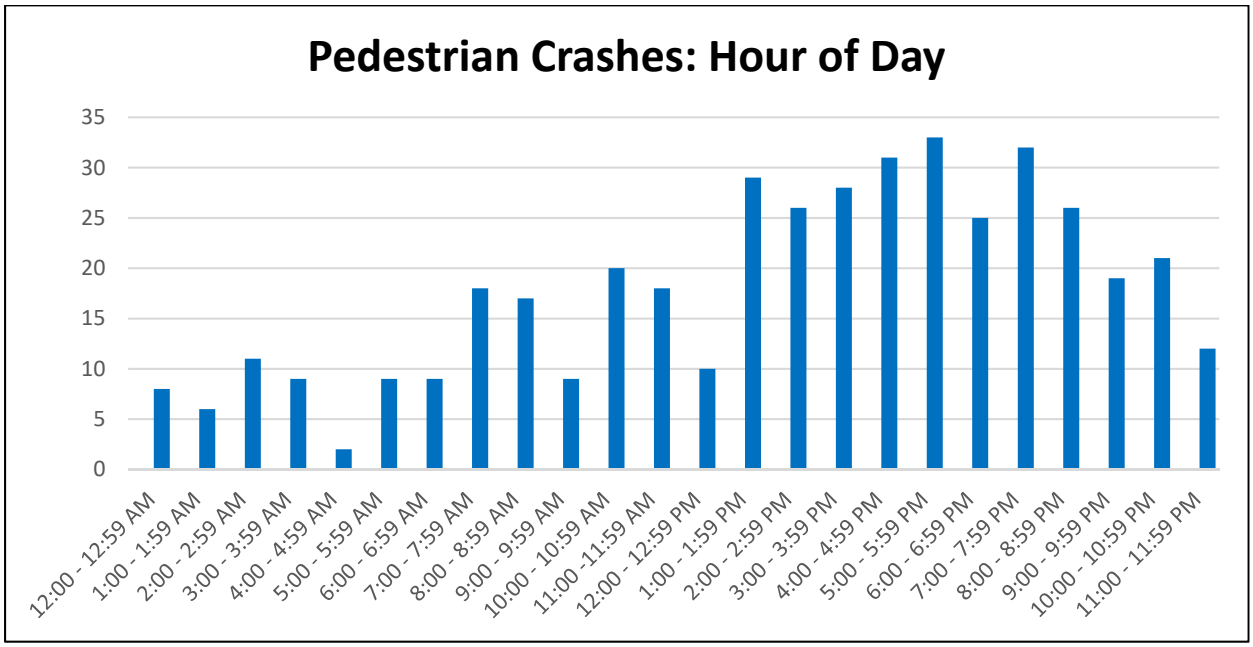
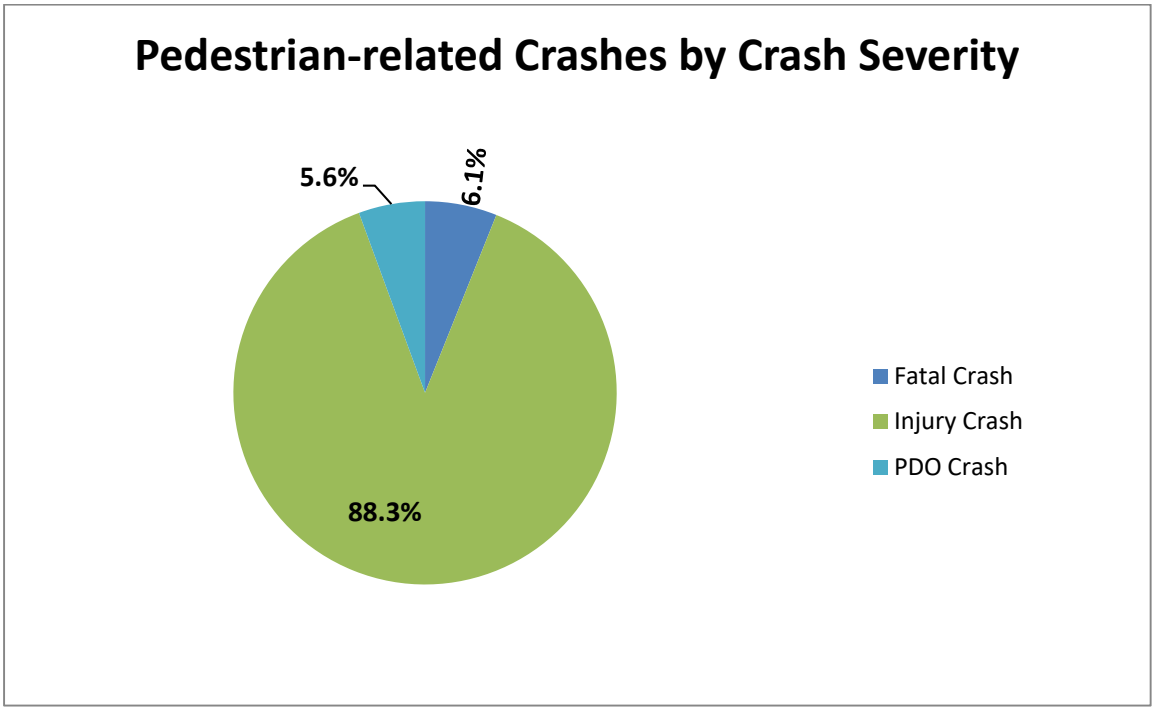


Figure 2.26: Pedestrian-related Crashes by Crash Severity



Modal Conflict Locations

Modal conflict locations are those where different modes of transportation intersect and must accommodate one another. These include locations such as highways or rail lines crossing the river, rail lines crossing highways, or bike paths crossing roadways or rail lines. **Figure 2.27** shows the bicycle and motorized modal conflict locations in the TMACOG planning region. The map identifies bicycle conflicts including areas along the Chessie Circle Trail, University Parks Trail, Ottawa Park Path, Parkside Blvd. Path, Greenbelt Parkway Trail, and the Craig Bridge Trail, also where average daily vehicular traffic exceeds 4,000. **Figure 2.28** illustrates regional modal conflicts.

Figure 2.27: Bicycle and Motorized Traffic Modal Conflict Points

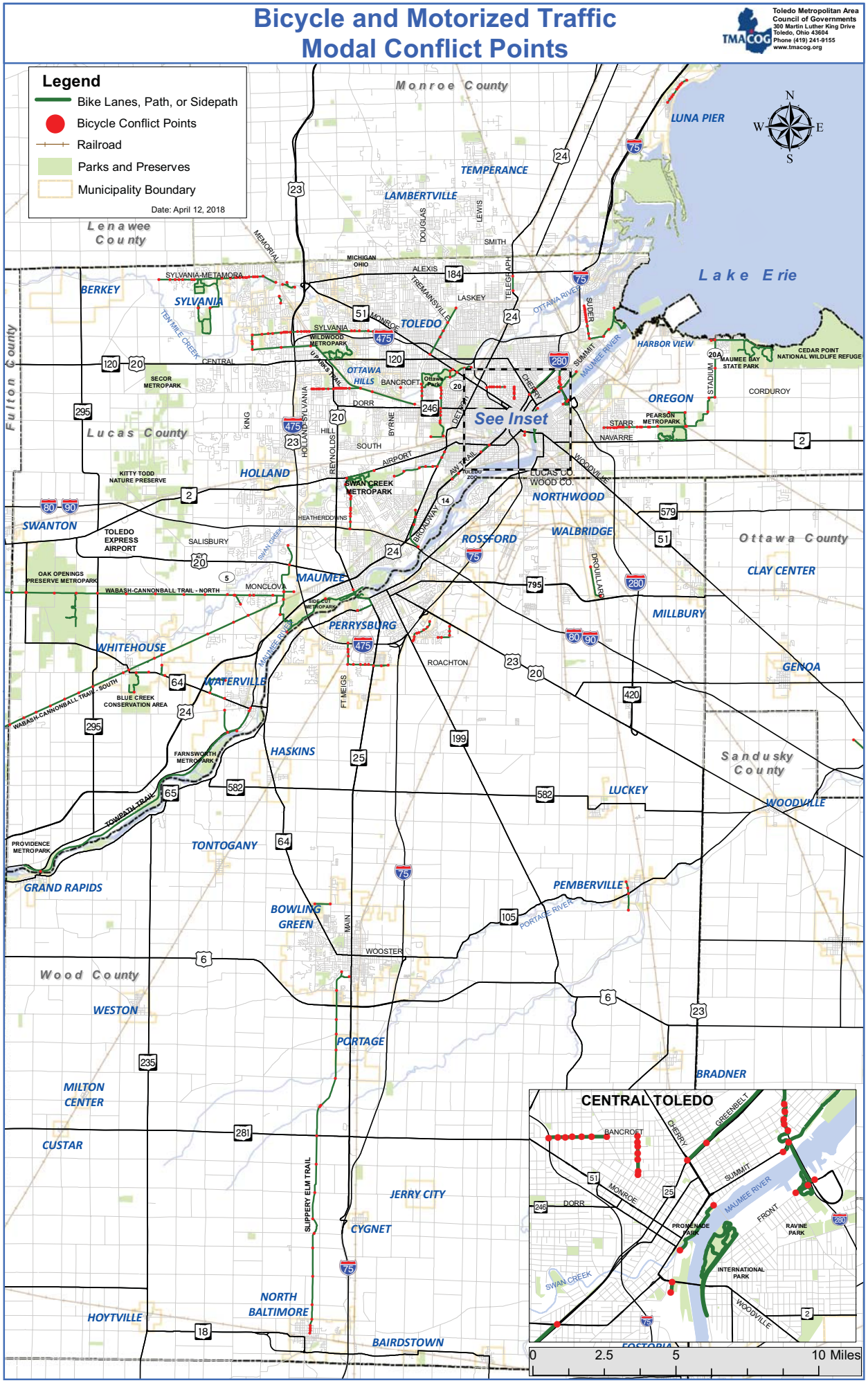
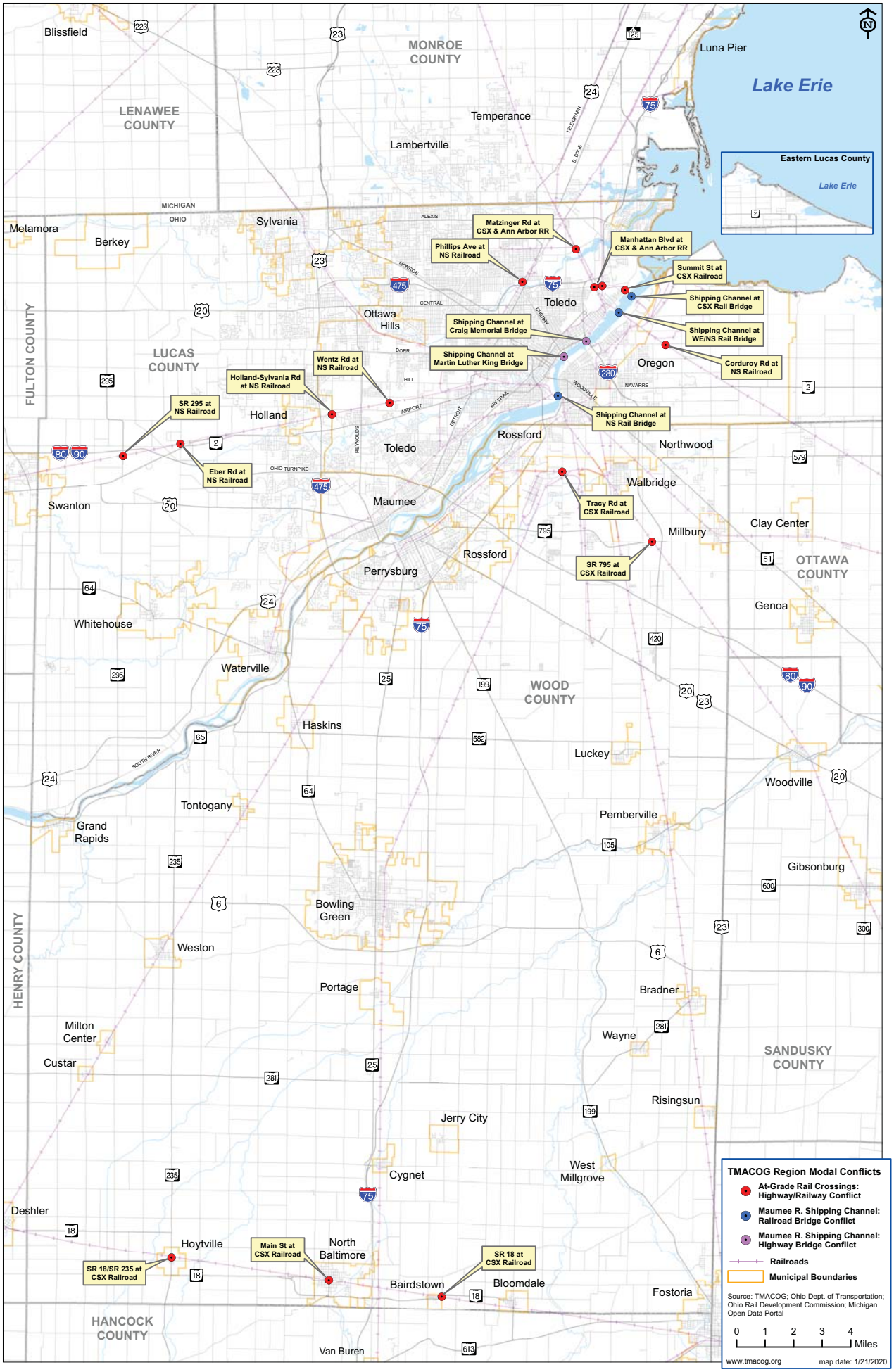


Figure 2.28: TMACOG Regional Modal Conflicts

TMACOG Region Modal Conflicts

Toledo Metropolitan Area Council of Governments



Needs Identified through Public Input

From the needs input received at public meetings and through surveys, numerous responses related to the need for improvements to reduce traffic-related fatalities and serious injuries across all modes of transportation. These include safety improvements addressing pedestrian and bicycle safety issues, design modifications at hazardous roadway intersections and highway interchanges, and infrastructure condition improvements. Specifically, comments on these points included:

- Conflicts at many interchanges and on/off ramps, including at U.S. 23/I-475 and I-475/SR 25
- U.S. 20 east of I-75, Eckel Junction at 199, SR 25 in Levis Commons area, Angola and Crissey, Dorr and Secor, Dorr and Byrne, Jackman/Tremainsville/Sylvania, and Douglas/Tremainsville/Laskey, Anthony Wayne Trail and S. Detroit, I-475 Central Avenue Overpass, and Bancroft and Secor were noted as roadways or intersections with safety issues
- More roundabouts should improve safety at dangerous intersections
- Poor infrastructure condition needs to be addressed to improve safety
- Need for driver/cyclist education
- Streets need to be made safer for pedestrians and bicyclists: develop walkable neighborhoods and business districts; slow traffic speeds with methods such as traffic calmers; improve sidewalk connectivity; snow removal along sidewalks and at bus stops
- View of signage often blocked by trees and vegetation and should be kept clear
- Better lighting and safety signage for rail crossings

2.2.4 Congestion Reduction and System Reliability

Congestion Reduction and System Reliability Goal: Reduce congestion on the National Highway System (NHS) and improve the efficiency of the surface transportation system.

Congestion Reduction

For roadway users, the ideal transportation system would move people and goods to where they need to be in a quick, safe, and cost-effective manner. However, the traffic demand placed upon the current roadway system is increasing more quickly than can be accommodated by projects and programs to expand roadway capacity. Congestion continues to grow in both time and geographic extent on the nation's most heavily traveled corridors, many of which are located in highly urbanized regions such as ours where roadway expansion may not be politically and/or economically feasible. Therefore, an increasing importance has been placed on maximizing roadway capacity through a combination of physical and operational roadway improvements.

Congestion is generally defined from the perspective of the roadway user. The public's perception of congestion relies primarily on their own experiences when traveling on the nation's roadways. For example, roadway congestion experienced by a rush-hour commuter in Toledo, Ohio is different from that experienced by a rush-hour commuter in much larger cities, such as Chicago, Los Angeles, or New York City. It is these differences in experiences that create difficulties when attempting to define congestion. However, an engineer would describe congestion as the condition where traffic demand

approaches and/or exceeds the roadway's capacity to facilitate travel at normal speeds. Typically, roadway congestion manifests itself as stop-and-go traffic conditions.

According to the Federal Highway Administration (FHWA), roadway congestion has three key elements: severity, extent, and duration. The blending of these elements will determine the overall effect of congestion on roadway users. The severity of congestion refers to the magnitude of the problem at its peak. The extent of congestion describes the geographic area or number of affected motorists, while the duration describes the length in time that users experience congested conditions. Because these elements are related, any increase in one will subsequently result in an increase in the others. Therefore, as roadway congestion continues to build (increased severity), more travel will occur under congested conditions (increased duration) affecting an increasing number of motorists and roadway facilities (increased extent).

Roadway congestion occurs due to a number of planned and unplanned events either in isolation or in conjunction. In some cases, the clockwork nature of recurring congestion can be the sole event. However, as presented below, research by FHWA has identified several additional root causes for roadway congestion along with their percent contribution as a cause of national roadway congestion.

- Physical bottlenecks (40%) – Sections of the roadway system that have reached their operational capacity.
- Traffic incidents (25%) – Random events occurring in the travel lanes that disrupt otherwise normal traffic flow, such as crashes, disabled vehicles, or roadway debris.
- Weather (15%) – Environmental conditions can affect driver behavior, causing motorists to drive more slowly and /or allow for larger gaps between cars.
- Work zones (10%) – Construction activities that alter traffic flow due to lane or shoulder restrictions, lane shifts, or temporary closures.
- Traffic control devices (5%) – Poorly timed or spaced signals and railroad crossings can cause disruptions in traffic flow.
- Special events (5%) – Sudden increases in traffic demand due to planned events, particularly in rural areas, can temporarily overburden the roadway system.
- Fluctuations in normal traffic flow (unknown) – Day-to-day changes in the traffic demand placed on the system due to random unknown causes.

Other than bottlenecks resulting from maximized roadway capacity and the timing of traffic control devices, the above listed events take place irregularly throughout the day. Though these events typically result in traffic congestion, it is almost impossible to predict when they might occur. According to FHWA, 55% of roadway congestion can be attributed to non-recurring events: traffic incidents, inclement weather, work zones, or special events. Therefore, accurately predicting travel times between two points becomes increasingly difficult as congestion caused by irregular events disrupts the transportation network over longer periods of time and larger sections of roadway, leading to frustration for commuters, commercial operators, and public officials.

Currently, there are a number of strategies that transportation planners and engineers implement to reduce the geographic and temporal extent of roadway congestion. These countermeasures include both physical and operational roadway improvements. More often, two or more of these strategies are

combined to provide for maximum congestion relief. Below is an abbreviated list of potential roadway congestion countermeasures:

- Access Management – These physical roadway treatments attempt to regulate how motorists access adjacent land uses by consolidating multiple driveways, providing exclusive turning lanes, and/or incorporating various median treatments including two-way left-turn lanes and non-traversable barriers.
- Traffic Signal Timing – Adjusting signal times for current roadway demand can be a cost-effective way to increase roadway capacity and is one of the most basic roadway congestion countermeasures.
- Freeway Management Systems – These systems integrate a number of operational enhancements, such as cameras, dynamic message signs, and highway advisory radio, into a traffic management center which provides the motoring public with up-to-the-minute updates on current traffic conditions, allowing them to by-pass areas with roadway congestion.
- Travel Demand Management – A transportation policy that aims to spread transportation demand amongst numerous modes and strategies, including carpooling, transit, and bikeway/pedestrian pathways, to reduce dependence on the automobile.
- Traffic Incident Management – A program that encourages the quick, safe, and coordinated removal of traffic incidents to restore normal traffic flow.
- Value Pricing – A strategy that charges travelers a user fee to access favored corridors during pre-determined periods of high demand.

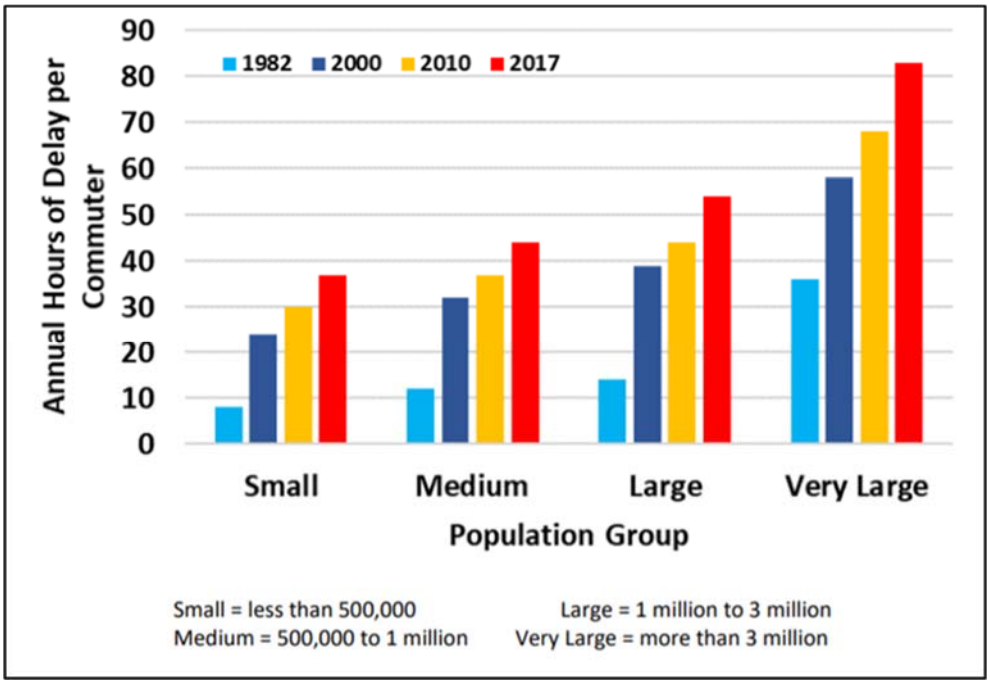
As technologies emerge and our understanding of roadway congestion expands, the use of these and other strategies will have a significant effect on reducing roadway congestion, thus providing a safer and more reliable transportation network.

Congestion Trends

One of the premier sources of statistics and analysis on the current state of roadway congestion comes from the Texas Transportation Institute (TTI). The 2019 Urban Mobility Scorecard gives a detailed description of congestion conditions in all of America's 494 urban areas with populations ranging from 50,000 to large urbanized regions with populations of over three million people. Based on data compiled by the TTI, national roadway congestion increased steadily from the 1980s through 2006 and then receded with the onset of the recession in December 2007.Congestion delay is continuously rising and according to the TTI, commuters are experiencing five percent more delay compared to the amount of delay before the 2007 recession. Population and employment growth, two principal factors impacting travel demand, are projected to grow slightly more slowly from 2012 to 2020 than in the previous 10 years. Although the rate of population growth is expected to decrease, the TTI projects that congestion related travel delays will continue to increase.

Nationally, hours of delay due to congestion are related to the size of the urban area with delays increasing with population, **Figure 2.29.** The Toledo metropolitan area is in the medium population group having an urbanized area of 500,000 to one million people.

Figure 2.29: USA Average Annual Hours of Peak Period Traveler Delay



Source: TTI

According to the TTI, congestion in 2017 caused Americans to travel 8.8 billion hours more and purchase an extra 3.3 billion gallons of fuel, which is somewhat less than the peak of 3.23 billion gallons as reported in 2007. Comparing national data since 1982, the cost of fuel wasted in 2014 was $160 billion compared to $42 billion in 1982 (in 2014 dollars).

The number of annual hours wasted per vehicle due to congestion is shown in **Table 2.10**.

Table 2.10: Average Annual Hours of Delay

Group	Hours of Delay 1982	Hours of Delay 2015	Hours of Delay 2017
National Average	20	51	54
Medium Size Urban Areas	12	42	44
Toledo	12	37	40

Source: TTI

Trends for the Toledo area are comparable to national averages and urban areas of similar size. However, the actual hours of delay are significantly less than the national averages.

The estimated cost of delay reflects total personal delay and the value that motorists place on their time. In 2017 the TTI reported that congestion caused Americans to travel 6.94 billion hours more and purchase an extra 3.12 billion gallons of fuel. The TMACOG region wastes approximately 8 million gallons of fuel.

From a statewide perspective, traffic congestion for the medium size and larger urban areas in Ohio closely mimics congestion at the national level. The significance of this issue is borne out by the ETC Institute Statewide Customer Preference Survey completed in the summer of 2012 for the Ohio

Department of Transportation (ODOT). The purpose of the study was to help identify and prioritize the transportation items that are most important to the residents and leaders of Ohio. Eighty-two percent of the residents surveyed responded that the most important transportation topic was improving highway safety which has a direct relationship to congestion. Seventy-three percent responded that relieving traffic congestion was either "extremely important" or "very important." According to ODOT, though the current transportation management program will be able to adequately maintain pavement and bridge conditions into the future, there is insufficient funding to add system capacity through the major new construction program. The revenue-to-needs funding gap is quantified in the Access Ohio 2040 Technical Memorandum No. 9 which states Ohio's estimated roadway and transit needs between the years 2014 and 2040 are $55 billion. With estimated highway and transit revenues of $41 billion, Ohio is facing a $14 billion-dollar gap to fund the state transportation system's current and future needs.

System Reliability

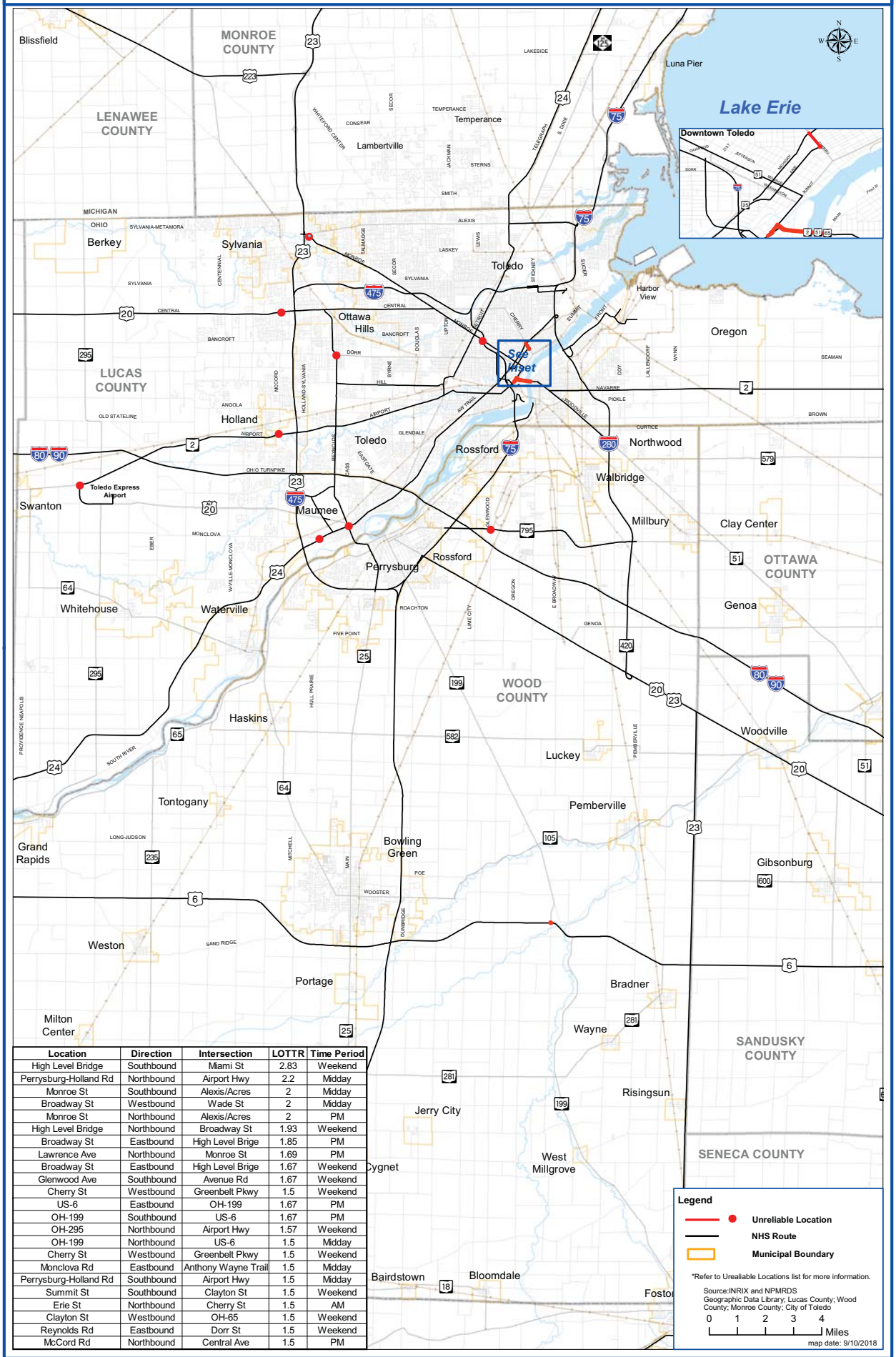
System reliability refers to the probability that a trip can reach the destination within a specified time interval. By its very nature, roadway performance is simultaneously consistent and repetitive, and yet highly variable and unpredictable. It is consistent and repetitive in that peak usage periods occur regularly and can be predicted with a high degree of reliability. At the same time, it is highly variable and unpredictable, in that on any given day, unusual circumstances such as crashes can dramatically change the performance of the roadway, affecting both travel speeds and throughput volumes. The traveling public experiences these large performance swings, and their expectation or fear of unreliable traffic conditions affects both their view of roadway performance, and how and when they choose to travel. For example, if a road is known to have highly variable traffic conditions, a traveler using that road to catch an airplane routinely leaves "extra" time to get to the airport. In other words, the "reliability" of this traveler's trip is directly related to the variability in the performance of the route she or he takes.

Level of Travel Time Reliability (LOTTR) of the transportation system begins to decrease as roadway congestion grows to absorb longer periods of time and more stretches of highway. LOTTR is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile). The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable. **Figure 2.30** shows unreliable locations in the TMACOG region. In these unreliable locations additional buffer time is sometimes needed in order to arrive at a destination on time.

Figure 2.30: Level of Travel Time Reliability 2017: Unreliable Locations on the NHS

Level of Travel Time Reliability 2017: Unreliable Locations on the NHS

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



Location	Direction	Intersection	LOTTR	Time Period
High Level Bridge	Southbound	Miami St	2.83	Weekend
Perrysburg-Holland Rd	Northbound	Airport Hwy	2.2	Midday
Monroe St	Southbound	Alexis/Acres	2	Midday
Broadway St	Westbound	Wade St	2	Midday
Monroe St	Northbound	Alexis/Acres	2	PM
High Level Bridge	Northbound	Broadway St	1.93	Weekend
Broadway St	Eastbound	High Level Brige	1.85	PM
Lawrence Ave	Northbound	Monroe St	1.69	PM
Broadway St	Eastbound	High Level Brige	1.67	Weekend
Glenwood Ave	Southbound	Avenue Rd	1.67	Weekend
Cherry St	Westbound	Greenbelt Pkwy	1.5	Weekend
US-6	Eastbound	OH-199	1.67	PM
OH-199	Southbound	US-6	1.67	PM
OH-295	Northbound	Airport Hwy	1.57	Weekend
OH-199	Northbound	US-6	1.5	Midday
Cherry St	Westbound	Greenbelt Pkwy	1.5	Weekend
Monclova Rd	Eastbound	Anthony Wayne Trail	1.5	Midday
Perrysburg-Holland Rd	Southbound	Airport Hwy	1.5	Midday
Summit St	Southbound	Clayton St	1.5	Weekend
Erie St	Northbound	Cherry St	1.5	AM
Clayton St	Westbound	OH-65	1.5	Weekend
Reynolds Rd	Eastbound	Dorr St	1.5	Weekend
McCord Rd	Northbound	Central Ave	1.5	PM

Congestion Management Strategies

In 2018, TMACOG approved an update to the Congestion Management Process (CMP). The CMP is a required planning document for areas with a population over 200,000 and is used as an input to the long-range transportation plan. In the CMP, TMACOG recommends a balanced and diversified approach to reduce congestion. The solutions will be different depending on the conditions and situation where they are implemented. There will also be a different mix of solutions in various parts of the region depending on the type of development, the level of activity and policy or geographic constraints in particular communities or transportation corridors. Portions of the region might be best served by construction solutions; other areas might use more demand management, productivity improvements, diversified land use patterns, or redevelopment solutions. **Figure 2.31** shows the top 25 congested location in the region. **Tables 2.11** and **2.12** identifies AM and PM time of day delay.

A number of strategies have been explored and implemented to reduce the cumulative effect of roadway congestion in the TMACOG region. The strategies presented in this chapter will help define how we approach congestion issues and offer a variety of options to alleviate the problem. Reducing congestion will take long term efforts by municipalities, townships, state and local agencies, and the public. The strategies in the CMP include the following:

- Public Transportation
- Intelligent Transportation Systems (ITS)
- Pedestrian and Bikeway Planning
- Gohio Commute
- I-475 Strategic Plan

The full text of the TMACOG Congestion Management Process document can be found on the TMACOG website.

Congestion and System Reliability Needs Identified Through Public Input

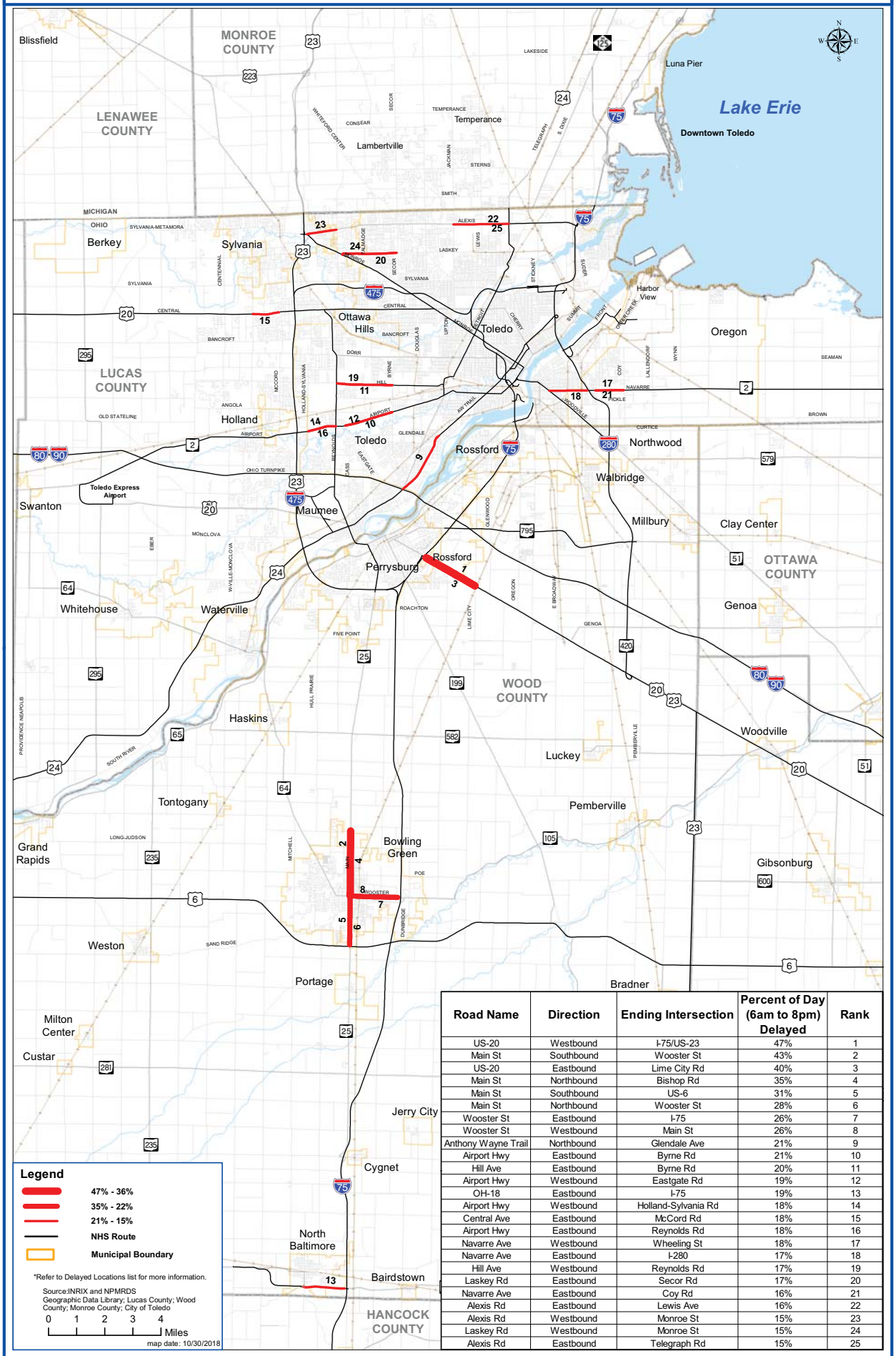
From the needs input received at public meetings and through surveys, numerous responses related to the need to reduce congestion on the roadway system, resolve rail- and truck-related congestion issues, and increase the operational efficiency of the surface transportation system in the region. Many responses also addressed temporary congestion issues related to construction and school traffic. Specifically, comments on these points included:

- Route 20 in Rossford/Perrysburg, I-475 north at US 24 to Airport Hwy., Jackman Rd. and Smith Rd., Secor Rd., and Airport Hwy. from Albon Rd. to Reynolds Rd. were noted as congested locations
- North Baltimore, Conant St. in Maumee, and the Manhattan/Summit/Suder area were noted as areas with significant rail-related congestion issues
- Concern with congestion related to construction on I-75 and I-475 with length of some construction detours
- Continue access management improvements

Figure 3.31: Top Congestion Locations: 2017

Top Congested Locations: 2017

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



Road Name	Direction	Ending Intersection	Percent of Day (6am to 8pm) Delayed	Rank
US-20	Westbound	I-75/US-23	47%	1
Main St	Southbound	Wooster St	43%	2
US-20	Eastbound	Lime City Rd	40%	3
Main St	Northbound	Bishop Rd	35%	4
Main St	Southbound	US-6	31%	5
Main St	Northbound	Wooster St	28%	6
Wooster St	Eastbound	I-75	26%	7
Wooster St	Westbound	Main St	26%	8
Anthony Wayne Trail	Northbound	Glendale Ave	21%	9
Airport Hwy	Eastbound	Byrne Rd	21%	10
Hill Ave	Eastbound	Byrne Rd	20%	11
Airport Hwy	Westbound	Eastgate Rd	19%	12
OH-18	Eastbound	I-75	19%	13
Airport Hwy	Westbound	Holland-Sylvania Rd	18%	14
Central Ave	Eastbound	McCord Rd	18%	15
Airport Hwy	Eastbound	Reynolds Rd	18%	16
Navarre Ave	Westbound	Wheeling St	18%	17
Navarre Ave	Eastbound	I-280	17%	18
Hill Ave	Westbound	Reynolds Rd	17%	19
Laskey Rd	Eastbound	Secor Rd	17%	20
Navarre Ave	Eastbound	Coy Rd	16%	21
Alexis Rd	Eastbound	Lewis Ave	16%	22
Alexis Rd	Westbound	Monroe St	15%	23
Laskey Rd	Westbound	Monroe St	15%	24
Alexis Rd	Eastbound	Telegraph Rd	15%	25

Table 2.11: 2017 Time of Delay – AM Period

Road	Direction	Intersection	AM Period Percentage
Main St	Southbound	Wooster St	11.68
US-20	Westbound	I-75/US-23	11.64
US-20	Eastbound	Lime City Rd	9.52
Main St	Northbound	Bishop Rd	8.97
Main St	Southbound	US-6	8.62
Main St	Northbound	Wooster St	8.17
Airport Hwy	Eastbound	Byrne Rd	7.29
Airport Hwy	Westbound	Eastgate Rd	6.76
Hill Ave	Eastbound	Byrne Rd	6.72
Wooster St	Northbound	Main St	6.57
Wooster St	Southbound	I-75	6.55
Anthony Wayne Trail	Northbound	Glendale Ave	5.69
Hill Ave	Westbound	Reynolds Rd	5.62
Navarre Ave	Eastbound	I-280	5.08
Airport Hwy	Westbound	Holland-Sylvania Rd	5.03
Central Ave	Eastbound	McCord Rd	4.93
US-23	Southbound	Stearns Rd	4.92
Airport Hwy	Eastbound	Reynolds Rd	4.8
OH-18	Eastbound	I-75	4.49
US-23	Southbound	Main St	4.43
OH-795	Westbound	Luckey Rd	4.36
Alexis Rd	Eastbound	Lewis Ave	4.34
Anthony Wayne Trail	Southbound	Detroit Ave	4.31
I-475	Southbound	Airport Hwy	4.29
Alexis Rd	Westbound	Secor Rd	4.25

Source: 2018 Congestion Management Process

Table 2.12: 2017 Time of Delay – PM Period

Road	Direction	Intersection	PM Period Percentage
US-20	Westbound	I-75/US-23	12.16
US-20	Eastbound	Lime City Rd	10.94
Main St	Southbound	Wooster St	10.57
Main St	Northbound	Bishop Rd	7.82
Main St	Southbound	US-6	7.34
Wooster St	Southbound	I-75	6.52
Wooster St	Northbound	Main St	6.44
Anthony Wayne Trail	Northbound	Glendale Ave	6.03
Main St	Northbound	Wooster St	5.88
OH-18	Eastbound	I-75	5.77
Navarre Ave	Westbound	Wheeling St	5.17
Anthony Wayne Trail	Northbound	South Ave	4.56
Central Ave	Eastbound	McCord Rd	4.51
Airport Hwy	Eastbound	Byrne Rd	4.48
Laskey Rd	Eastbound	Secor Rd	4.29
Airport Hwy	Eastbound	Reynolds Rd	4.28
Alexis Rd	Eastbound	Telegraph Rd	4.24
Hill Ave	Eastbound	Byrne Rd	4.2
Hill Ave	Westbound	Reynolds Rd	4.14
Airport Hwy	Westbound	Holland-Sylvania Rd	4.12
Navarre Ave	Eastbound	Coy Rd	4.01
Airport Hwy	Westbound	Eastgate Rd	3.95
Alexis Rd	Westbound	Lewis Ave	3.91
Alexis Rd	Eastbound	I-75	3.73
Laskey Rd	Westbound	Monroe St	3.7

Source: 2018 Congestion Management Process

2.2.5 Personal Mobility

Personal mobility goal: Improve the quality, accessibility, and efficiency of the multimodal personal transportation system

Overall, the TMACOG Travel Demand Model estimates that in 2010, a total of 1.9 million trips were made daily in the region. Trips can be grouped into four basic categories for analysis: home-based, non-home-based, commercial vehicles, and trucks. Home-based trips are those that begin at home with a destination of work, shopping, school or other unspecified destinations. Of the total 1.9 million trips made daily in the region, roughly 700,000 were trips from home to work, school, or shopping. Non-home-based trips begin somewhere other than at home, such as work or school, and can end either at work or at any possible location including home, shopping, a restaurant, or athletic field. Commercial vehicles include all short haul trips made by shipping companies, delivery services, etc. Truck trips include long haul trips that are made within the region.

Average trip distances within the TMACOG planning region are computed from TMACOG's travel demand model and reported based on a variety of trip purposes. From the modeling data in **Table 2.13**, the average distance traveled for any particular trip made within the TMACOG region is 7.11 miles. Home-based trips range from over 5 miles for shopping to nearly 9 miles for work trips. Non-home-based trips are generally shorter than home-based, due largely to trip chaining, such as trips made to drop children off at daycare and then traveling to work. Commercial vehicle trips average less than 5 miles and truck trips have the highest average at over 12.82 miles.

Table 2.13: Average Trip Distance

Purpose	Average Distance (miles)
Home-Based Work	8.91
Home-Based Shopping	5.64
Home-Based School	8.37
Home-Based Other	6.11
Non-Home-Based Work	6.57
Non-Home-Based Other	4.57
Commercial Vehicles	4.90
Trucks	12.82
Average, all trips	7.11

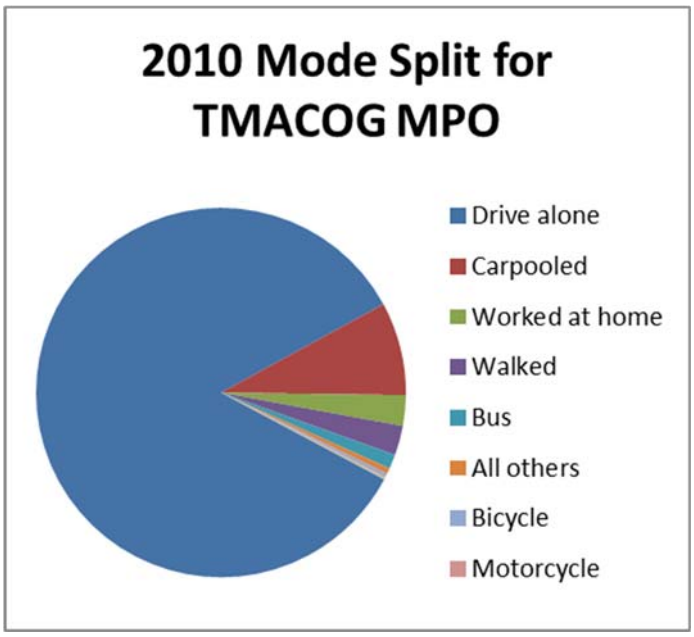
This data tells us that people make longer trips to work than they are willing to make for shopping and other home-based trips. This is often by necessity, but it still shows that when evaluating trade-offs for a home purchase, people are willing to make a longer trip to work and live in their desired area than to live somewhere deemed less desirable but have a shorter drive.

Shopping has the lowest average among home-based trips indicating that people prefer to shop at locations relatively close to home. This can be seen in the locations of the region's major grocery chains. For example, in the urbanized area, most grocery stores are located with 4 to 5 miles of each other. Commercial vehicles have the shortest average trip length and trucks had the longest at 12.82 miles per trip.

Based on 2010 American Community Survey data, the modal split of commuters traveling to work in the TMACOG region shows that the vast majority of commuters drive alone, at over 84%. Approximately 8%

of the population uses a carpool to get to work with walking ranking third in the list at 2.68%. **Figure 2.32** and **Table 2.14** show the commuting to work mode split comparisons in the TMACOG region.

Figure 2.32: Regional Commuting to Work Mode Split



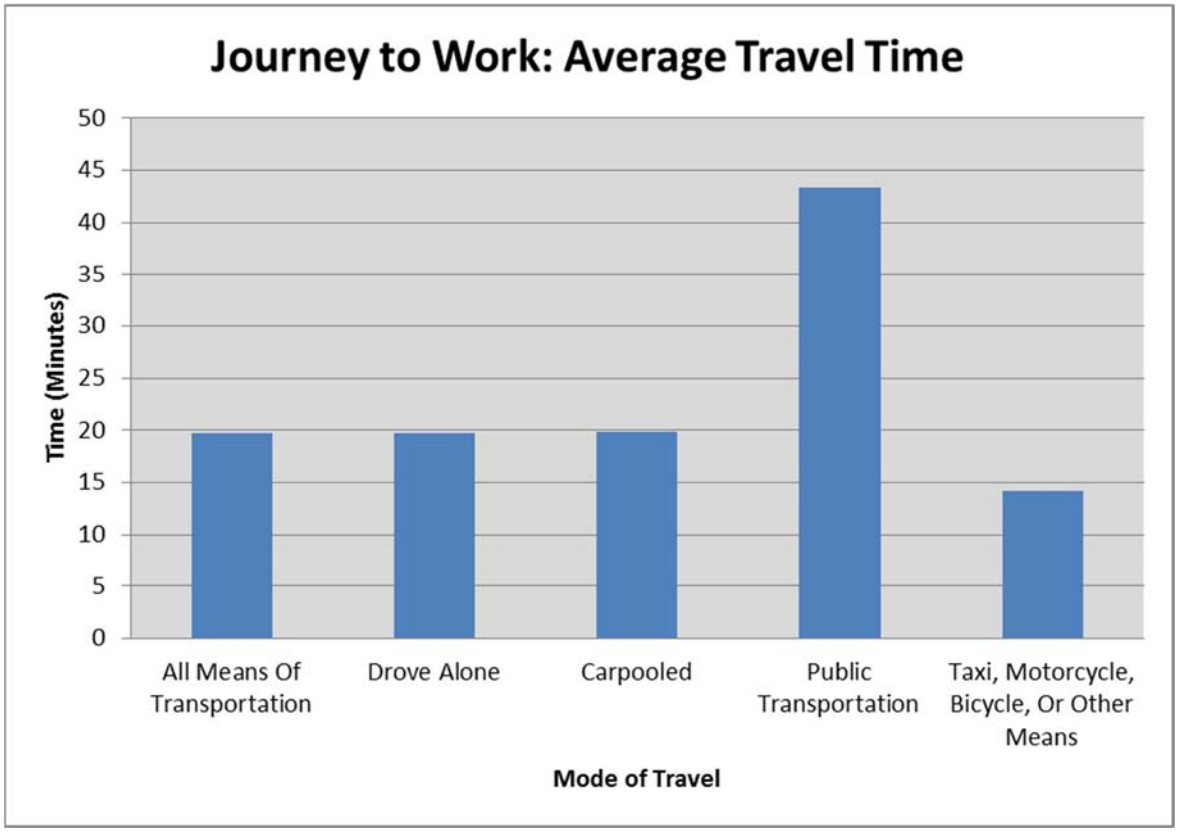
Overwhelmingly, the data shows that people prefer to use their car over mass transit options or alternative modes such as walking or biking. There are a variety of reasons for an individual's mode choice including time, availability of other options, and cost, as well as personal freedom.

When fuel costs rise, indications are that individuals expand their work travel options to include buses, bicycling, and walking. The Toledo Area Regional Transit Authority (TARTA) has indicated that bus ridership increases as the price of gasoline increases. In fact, they witnessed some of their largest monthly increases in the first half of 2008 when the price of gas reached $4.00 per gallon. Compared to the 2000 Census, bus ridership grew from 0.68% to 1.25%, which was an 83.8 % increase.

Table 2.14: Regional Commuting to Work Mode Split

Mode	Number of Trips	% of Total
All Modes	276,100	100.00%
Drive alone	232,705	84.28%
Carpooled	22,535	8.16%
Worked at home	7,389	2.68%
Walked	7,141	2.59%
Bus	3,460	1.25%
All others	1,378	0.50%
Bicycle	779	0.28%
Motorcycle	410	0.15%
Taxicab	303	0.11%

Figure 2.33: Regional Average Travel Time to Work



Another measure of trip-making is travel time to work. Within the region TMACOG analyzed data from the Census Transportation Planning Package (CTPP) which reported travel time for people who drove alone, in carpools of two or three people, rode a bus or a train, or who bicycled, walked, took a cab, rode a motorcycle or used some other transportation option, see **Figure 2.33** and **Table 2.15**.

Table 2.15: Regional Average Travel Time to Work

Mode	All Means of Transportation	Drove Alone	Carpool	Public Transportation	Bicycle, Walk, Taxicab, Motorcycle, Or Other
Time (Minutes)	19.7	19.7	19.85	43.3	14.25

The average trip length of all the modes identified is a little under 20 minutes. Workers who drove alone matched the average travel time of all modes. However, workers who drove in carpools of two or more persons took only slightly longer to get to work than single drivers at 19.85 minutes. The CTPP data indicates that the average commute to work is slightly less than 20 minutes within both Lucas and Wood counties. Monroe County, Michigan was not included in these figures since the data for the three townships in the TMACOG area could not be obtained from the CTPP.

Travel time for people who take public transit to work is just under 45 minutes. The trade-off with bus riders is travel time versus vehicle operation/maintenance costs which far exceed that of a bus fare.

Studies show that riding the bus is usually a financial consideration more than a philosophical choice of utilizing mass transportation.

Air Facility Inventory

The TMACOG region is serviced by eight air facilities located within the region and by a multitude of others throughout northwest Ohio and southeastern Michigan. The facilities in the region are Toledo Express Airport, Wood County Airport, Toledo Executive Airport, Erie Aerodrome, Bradner Airport, and the Seagate Helistop. The largest of these is Toledo Express Airport which saw 196,937 total enplanements in the year of 2017. The total number of passengers is growing, which can be contributed to the 2017 addition of the two daily routes to Charlotte, North Carolina.

Although located roughly an hour from Toledo, 976,000 passengers are drawn away from Toledo Express Airport and fly out of Detroit Metropolitan Airport annually. The reason cited by many travelers using Detroit Metro is the number of direct flights and the wider range of flight times. Toledo Express Airport is the primary air freight service in the region.

Most of the air facilities in the region provide only private air service. Toledo Express and Detroit Metropolitan Airports are the primary providers of commercial airline service for regional air passengers.

Passenger Rail

Passenger rail service through the TMACOG region is provided by Amtrak which operates four trains per day into Martin Luther King Jr. Plaza, two eastbound and two westbound. More than 67,000 passengers per year utilize the Toledo station, the most of any Amtrak station in Ohio. The Lake Shore Limited travels from Chicago through Toledo with destinations in Boston and New York, and the Capitol Limited travels from Chicago through Toledo to Washington D.C.

Figure 2.34: Proposed Ohio Hub Map

Amtrak's service through Toledo has remained consistent over the past decade despite the ongoing funding issues surrounding Amtrak nationally. Passenger rail has a great deal of support in the TMACOG region, including support for the Midwest Regional Rail System (Chicago Hub) and Ohio Hub plan developed in 2004 by the Ohio Rail Development Commission (ORDC) that would link Toledo with numerous other destinations via higher speed rail, **Figure 2.34**.

The Ohio Hub would be an 860-mile intercity passenger service with 32 passenger stations, serving 22 million people in four states and Canada. Feeder bus service to smaller communities, colleges and university towns would enhance the reach of the rail system. Same-day, round-trip service throughout the region would complement both automobile and air travel by offering a modern transportation option with competitive travel times, reliable and frequent schedules and new, comfortable passenger trains.

The capital cost projection for the Ohio Hub System is approximately $2.6 billion or $3.5 million per mile for a 79-mph system, or $3.324 billion or about $4.5 million per mile for a 110-mph system. A fleet of 24 trains is needed for a total cost of $322 million. The estimated capital cost for each of the major corridors is highlighted in **Table 2.16** below. Data from the 2004 Ohio Hub plan is outdated. Revisiting and updating the Ohio Hub Plan is an initiative

Table 2.16: Ohio Hub System Capital Costs

	Cleveland-Columbus-Cincinnati	Cleveland- Detroit via Detroit Airport	Cleveland-Pittsburgh via Youngstown	Cleveland-Buffalo-Toronto	Ohio Hub System Total Cost
Start-up Year	**2010**	**2011**	**2012**	**2013**	**2013**
Infrastructure	$1,161.6	$445.0	$535.0	$841.2	$2,982.8
Rolling Stock	$80.5	$80.5	$80.5	$80.5	$322.0
Total	**$1,242.1**	**$525.5**	**$615.5**	**$941.7**	**$3,324.8**

*costs are in 2004 dollars

More recent than the Ohio Hub study, was the completion of the Toledo-Detroit Passenger Rail Study. The Toledo-Detroit Passenger Rail study was developed in May 2019 by Transportation Economics & Management Systems, Inc (TEMS, Inc). The study analyzed the potential economic benefits of a passenger rail system connecting the cities of Toledo, Detroit, and Ann Arbor. The study found that the passenger rail system would expand the governmental tax base, increase personal income, increase property values, and increase employment. The study also found that the rail line would be used by commuters traveling between the cities due to the relatively short trip length. Since the conclusion of the study was that this corridor would be economically feasible and beneficial, the next step includes completing another more in depth study to further analyze potential routes, partnerships, and stakeholders.

Pedestrian and Bike

As the price of gasoline increases, the number of people walking and riding a bicycle noticeably increase as a result. There are a variety of reasons that residents choose to walk or bicycle instead of driving a car, such as cost, physical fitness, accessibility, or personal preference. Given the growing interest and need in walking and biking, it is vital that non-motorized transportation needs be addressed in the overall transportation picture. Under state law, bicycles are vehicles, meaning they are legally able to

operate on roadways unless explicitly stated otherwise. Within the TMACOG region, only a few roadways prohibit bicycles, including interstate routes and the Anthony Wayne Trail.

In the development of the 2045 Plan, a key tool was the regional bicycle network **Figure 2.35**. The bicycle network identifies existing bicycle facilities, including paths, trails, lanes, and "share the road"/sharrow routes. It also identifies proposed facilities that are planned to be built in the future. The bike network helped to set the future direction of bicycling infrastructure and to ensure that an interconnected system exists for the community.

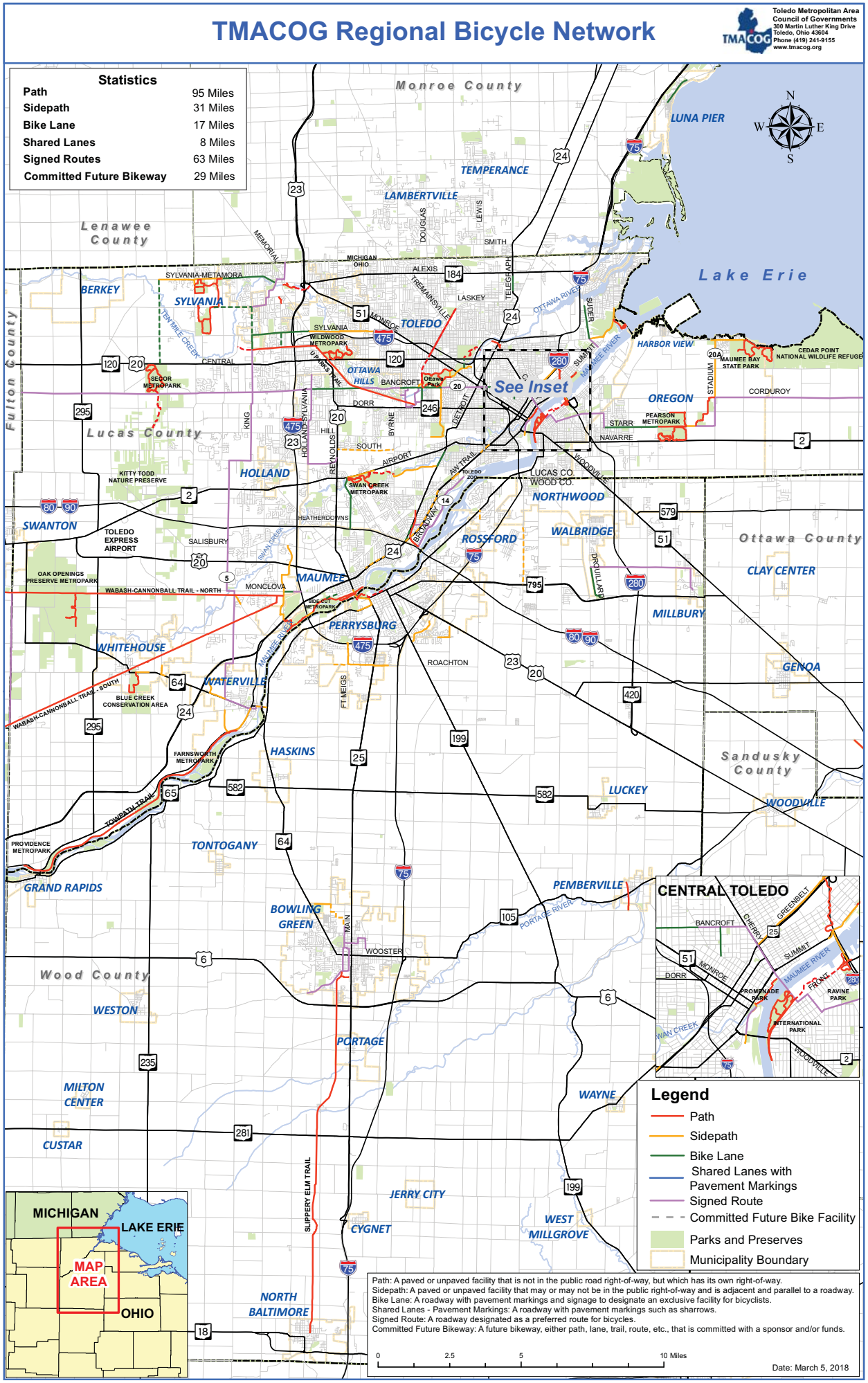
A major connection that still needs to be made is the completion of the North Coast Inland Trail to connect with existing trails in the region. Currently, of the 270 miles planned for this trail, about 67.5 miles have been constructed. When this connection is made, there will be a nearly complete system of trails extending across Ohio from Indiana to Pennsylvania.

Other desirable connections would be from the Wabash Cannonball Trail, through the Oak Openings, and connecting with the University/Parks Trail and the Olander Park System, and the continued development of the Chessie Circle Trail which would serve as the spine of trail system in the region.

There are four basic types of bicycle facilities that are provided in the region: bike lanes, bike paths or trails, sidepaths, and "share the road"/sharrows.

- A bike path or trail is usually 10-12 feet wide, paved or unpaved. It is separate from the road, has an independent right-of-way, and is usually designed for two-way travel. All in our region are multi-purpose trails for non-motorized uses (biking, walking, rollerblading, etc.). The more rural trails usually permit horseback riding.
- A bike lane is a one-way specially marked lane, usually 5 feet wide, adjoining each side of the road.
- A sidepath is a shared use path that is adjacent to and runs parallel to a roadway. It's similar to a sidewalk but is wider and accommodates more than just pedestrians.
- "Share the road" signs and sharrows along roadways provide awareness to drivers that cyclists are likely to be present. These are often placed along signed bike routes that are numbered or named for cyclists to follow. It often connects to major destinations or connects parts of trails to one another.
- A full bicycle route may include streets, bike lanes, sidepaths and trails/paths.

Figure 2.35: TMACOG Regional Bicycle Network



Public Transit

The TMACOG region is serviced by three main providers of public transit: the Toledo Area Regional Transit Authority (TARTA), B.G. Transit, and Bedford Dial-a-Ride operated by Lake Erie Transit, **Figure 2.36**. Bowling Green State University, the Area Office on Aging, and the Lucas County Developmental Disabilities Board are among those that operate client-specific transit services.

TARTA operates an extensive system of approximately 27 fixed routes and services, including Call-a-Ride flex route services in five suburban communities. Additionally, in 2018, TARTA announced that they will be taking over busing services for the University of Toledo. TARTA serves these member jurisdictions: the cities of Toledo, Sylvania, Maumee, Waterville, and Rossford; the village of Ottawa Hills; and Sylvania Township. TARTA provides approximately 1 million rides per year.

TARTA operates the door-to-door, on-demand Toledo Area Regional Paratransit Service (TARPS) providing approximately 260,000 rides per year to persons with disabilities throughout the communities it serves. This exceeds the requirements of the Americans with Disabilities Act of 1990 (ADA), which requires that transit systems serve only trips within .75 mile of fixed bus routes. Ridership is growing substantially each year (in 2014, they provided approximately 220,000 rides), in part because of increasing numbers of elderly no longer able to drive.

The Bedford Dial-a-Ride provides approximately 19,000 rides per year of curb-to-curb service for Bedford Township (Michigan) residents, for trips within the township, nearby locations in adjacent Erie and Whiteford townships, and connections to TARTA at transfer points in Toledo. Bedford Dial-a-Ride is a route deviation circulator bus service.

To identify unmet needs for public transit, TMACOG partnered with interested local governments, agencies, and institutions to conduct a Regional Transit Study (RTS) in 2004 based on substantial public input and analysis by a consultant team. TARTA subsequently followed with their Comprehensive Operations Analysis (COA) in 2009, as a response to TMACOG's RTS and to develop specific recommendations to improve service. **Table 2.17** outlines the RTS's recommended objectives related to key concerns. In 2018, the Lucas County Commissioners formed a task force with the goal of reviewing TARTA operations.

Table 2.17: Transit Study Recommendations

	Short Term (1-3 years)	Longer Term (4-10 years)
A. Existing Transit Areas	1) Investigate options and fund service improvements to address the following: • Add direct service between non-downtown destinations (cross-town routes) in the TARTA service area • Add/expand evening, night, weekend, and holiday service in all transit service areas • Increase service frequency in all service areas • Expand the Bedford Dial-a-Ride service area, and add more connections to TARTA 2) Work with stakeholders to coordinate transportation resources of senior citizens, workforce development, Medicare, and social service agencies to address transportation needs 3) Continue to provide ADA-compliant Paratransit service to the growing disabled population in transit service areas 4) Improve transit marketing / public information 5) Work with local governments to improve pedestrian access to bus stops (sidewalks, paved pads, snow removal, etc.)	1) Add connection between Bedford and Monroe City area 2) Add connection between Bowling Green and the metro area
B. New Transit Areas	1) Work with local stakeholders to investigate alternatives for providing service, and pursue new service in the following areas: 1. Oregon area 2. Northwood 3. Holland/Springfield 4. Perrysburg Township	1) Reorganize transit to operate and fund it as a county-wide or multi-county system, allowing areas of need to be served 2) Pursue coordination and connectivity with adjoining rural county transit systems (Ottawa County, etc.)

A total of 4 different service plan change scenarios were analyzed in TARTA's COA. **Table 2.18** highlights the preferred service plan (Scenario 3) and the other recommendations found by the report. Many of these recommendations overlap with TMACOG's recommendations in the RTS.

Table 2.18: TARTA's COA-preferred Service Plan and Other Recommendations

Preferred Service Plan:
• Funded by a county-wide sales tax, including Rossford • 5 new routes to serve expanded service areas • Existing routes expanded into new service areas • Existing routes eliminated according to lowest ridership • Elimination of downtown lineup in favor of one downtown hub
Other Recommendations:
• Development of service standards • Ridership data collection • Regular surveys of customers and households • Production of annual agency report card

In 2018, the Lucas County Commissioners put together a task force composed of a wide variety of community members who reviewed TARTA's operations. The goal of the task force was to review the strengths and weaknesses of TARTA and to identify opportunities and offer recommendations for the organization. Recommendations from the task force report include:

- *Rebranding*
  TARTA has not rebranded since the 1970's. Rebranding will convey progress and help area residents envision a new and improved TARTA.
- *Transit Service Delivery changes*
  Explore faster, less confusing and more frequent routes from a community hub that are connected by main arteries. Additionally, TARTA should explore more on demand routes and have fewer fixed line routes. Finally, TARTA should invest in technology to enhance their current apps to help improve the consumer experience.
- *Re-engage stakeholders*
  TARTA should consult with several local organizations that can assist with updating policies and procedures.
- Sustainable funding (sales tax versus property tax)

Transit Supportive Areas

Based on the characteristics of the TMACOG region, industry standards, and standards established by other transit systems, the transit study consultant team developed a transit-supportive area standard for the TMACOG region: a minimum gross employment density of 3 persons per acre and a gross population density of 4 persons per acre. A transit-supportive area is one which could be expected to support transit service within walking distance, ¼ mile of the transit route.

Figure 2.36: Public Transit and Connectivity

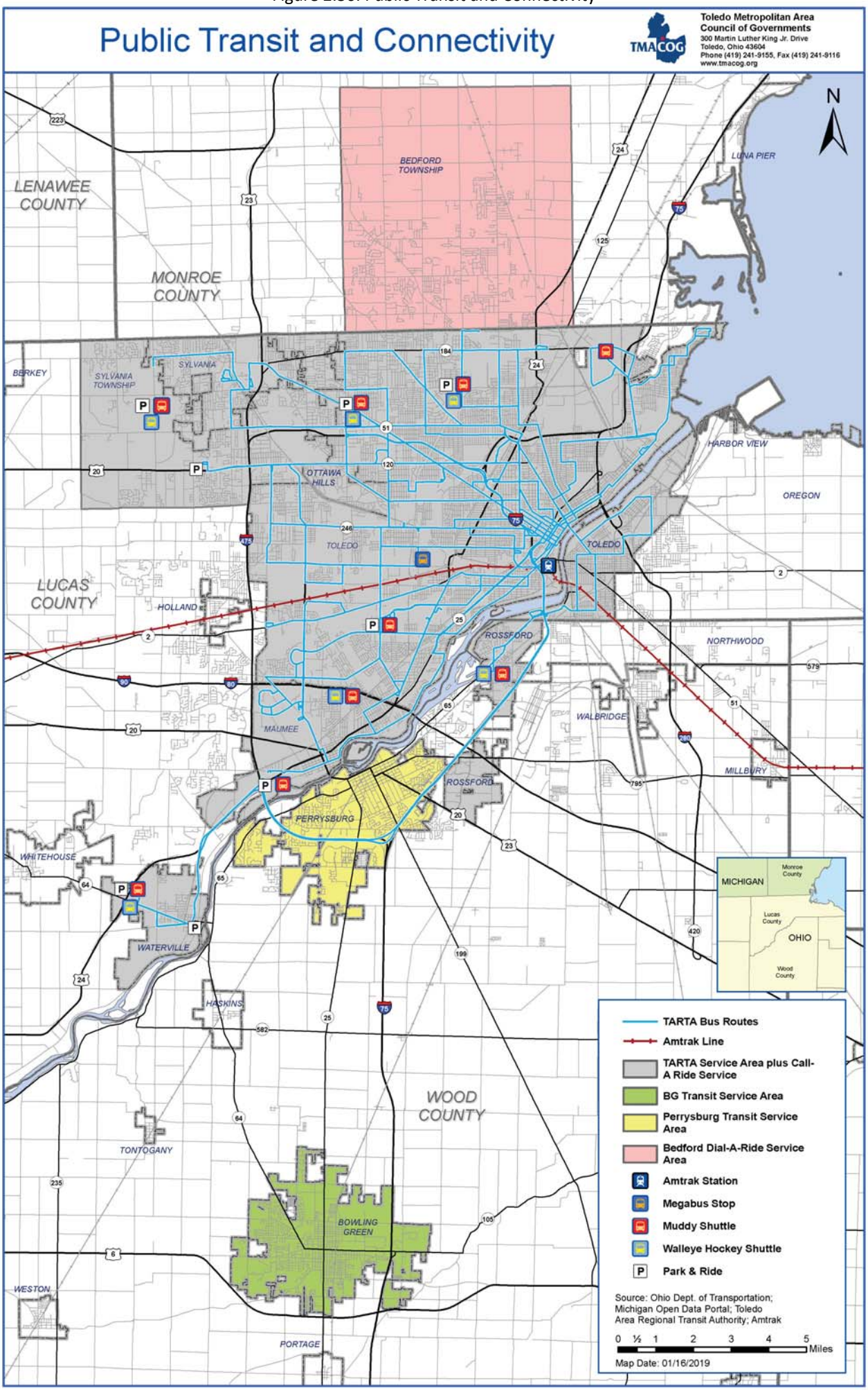


Figure 2.37: Transit Supportive Areas Map

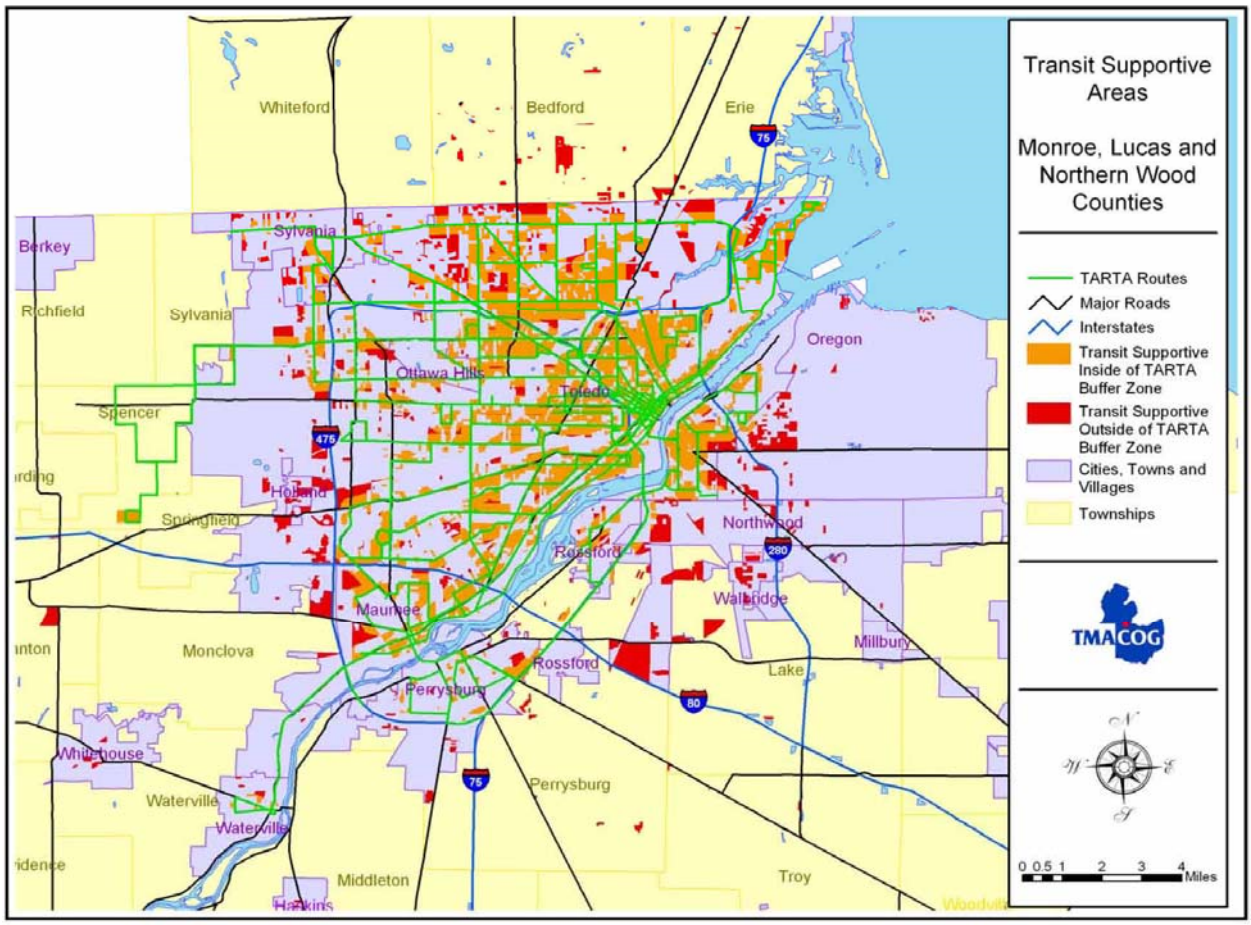


Figure 2.37 shows most of the transit-supportive areas and the fixed transit routes. While many of these transit supportive areas are located near downtown Toledo and within the City of Toledo, many are located far from downtown Toledo, and some are outside the fixed-route transit service area. Oregon, Northwood, Perrysburg Township, Monclova Township, and Springfield Township, and much of Bowling Green are among the locations of significant concentrations of transit-supportive development not served by fixed-route transit.

Personal Transportation Needs Identified Through Public Input

Numerous public comments related to the need for improved transit, pedestrian, bicycling, and passenger rail options. These comments included:

- Ineffective urban and interurban transportation options
- Lack of sidewalk(s) or bike path connectivity between communities and with other facilities
- Passenger rail: dependable, higher speed trains desired
- Increased public transit options throughout region there is currently a lack of connection throughout the region
- Lack of transportation services for seniors and individuals with disabilities
- Conflicts between various transportation modes

2.2.6 Freight Transportation System

Freight Movement Goal: Strengthen freight access to national and international trade markets to support economic development.

The Toledo region has played a significant role in the movement of goods around the world. Toledo is strategically located at a national crossroads of four railroads and two transcontinental highways. Forty-three percent of the U.S. industrial market and 47% of the Canadian market are located within a one-day drive (500-mile radius) of Toledo.

Our system includes all the modes for moving freight. Our rail and highway systems link us to Canada, Mexico, and the east and west coasts of the U.S. Our seaport on Lake Erie and air facilities link us to international markets. Although not part of public infrastructure, a substantial network of pipelines carries massive quantities of petroleum products and other commodities.

However, our role in the movement of goods around the world is shaped by what is happening internationally. The economic crisis of 2008 had a huge impact on the demand for goods movement. U.S. trade with other countries via air and sea is still recovering. According to the International Transport Forum's Statistics Brief of July 2013, "The overall picture for global freight continues to be uncertain in the EU27 and the United States." This report notes that in Europe and the U.S., imports by air and sea "remain below pre-crisis levels (June 2008) while exports to Asia remain high, increasing the dependency on Asia- and export-led growth."

This section examines freight transportation modes and discusses related needs and opportunities.

Overview: Ohio and Michigan Issues

In 2013, the Ohio Department of Transportation (ODOT) published the Ohio Statewide Freight Study. The final report, quoted below, can be viewed on the ODOT website (see the Access Ohio 2040 webpage, Tech Memos and Reports).

The study identified major freight facts and trends for Ohio:

- Ohio is a major freight-moving state, with the fourth largest interstate highway system, robust rail service, extraordinary air-freight capacity, and ports along Lake Erie and the Ohio River.
- Trucks handle 67% of the freight compared with 28% for rail and 4% for water.
- Ohio is a major crossroads for freight movement: 43% of the freight tonnage passes through the state, compared to 27% that begins or ends in Ohio.
- More than $438 billion in goods are shipped annually by trucks in Ohio – the third largest of any state.
- Railroad service is exceptionally good, with coverage by the two largest Class I railroads in the eastern U.S. (CSX and Norfolk Southern).
- Railroad companies have invested heavily in new and expanded intermodal facilities, which give Ohio extremely good intermodal access. An example is the CSX National Gateway project, which includes the new intermodal facility in North Baltimore, in southern Wood County. Intermodal is the biggest segment of traffic growth for railroads initially spurred by import/export traffic, and with new corridors, growing in domestic service.

- Excess air-cargo capacity – Within the last 15-20 years, Ohio has been the home of major air-cargo hubs in Toledo, Dayton, and Wilmington, with significant air-cargo operations at Columbus's Rickenbacker Airport. Due to downsizing and industry consolidation, the three hubs have closed or moved out of state. This cargo generally shifted to parcel carriers such as FedEx and UPS.
- The Lake Erie ports face competitive challenges such as significant competition from railroads. While these coastal ports have established supply chain links that move the majority of Ohio's international trade, the size of the St. Lawrence Seaway limits trade to smaller ocean-going vessels, and the Seaway shuts down in the winter.

The Ohio freight study also predicted future modes of freight movement and noted opportunities and challenges, including:

- Trucking is forecasted to increase by about 67% by 2040, from over 900,000 tons to nearly 1.6 million tons per year. Other mode shares are predicted to remain relatively flat.
- While the interstate highway system represents the "trunk" lines for trucking, shippers emphasize the importance of Ohio's regional (U.S. and State Route) system for mobility and access to major customers.
- There is inadequate investment in Lake Erie port dredging, even though the federal trust fund carries an $8 billion balance. Inadequate dredging threatens the viability of lake ports and their ability to compete regionally and globally.

The Southeast Michigan Council of Governments (SEMCOG) completed a Freight and Economic Analysis report in 2012. The report notes that, in their freight industry survey, the most frequently mentioned bottlenecks/choke points were the Ambassador Bridge for highway and the Livernois-Junction Yard area for rail. SEMCOG and the Michigan Department of Transportation (MDOT) have proposed relief through the New International Trade Crossing (the Gordie Howe Bridge) and the Detroit Intermodal Freight Terminal project, respectively. The new highway bridge crossing into Canada, which is strongly supported by northwest Ohio freight interests, is moving forward with the financial backing of the Canadian government. The I-75 corridor through southeast Michigan was also noted as a bottleneck and reflecting this concern, beginning in 2015, MDOT initiated a series of four major projects to improve the I-75 corridor in Southeast Michigan.

Air Freight

The Toledo-Lucas County Port Authority operates the City of Toledo's two airports - Toledo Express Airport and Toledo Executive Airport. While passenger operations are the most visible, the airports actually support four major areas of aviation in Toledo – passenger, cargo, general aviation, and military. It is somewhat unusual for an airport of Toledo's size to diversify into all four of these areas of operations, all of which contribute to the economic vitality of the airport and the Toledo region.

The airport is part of a Foreign Trade Zone (FTZ) designation obtained by the Port Authority, the airport operator. In a FTZ, goods may be landed, handled, manufactured or reconfigured, and re-exported without involving customs authorities. The goods become subject to customs duties only when they leave the FTZ and are moved to customers within the U.S.

On the Toledo Express property is the "south cargo development area" which has more than 75 acres available for development. In marketing both this property and the airport itself, the Port Authority states Toledo Express Airport "is well positioned to function as an inland port and an alternative to congested air cargo gateways." Also noted are the region's proximity to population centers and industrial space in the eastern and Midwestern U.S., as well as excellent access to multiple modes of transportation (highway, rail, and seaport).

Water Freight

Figure 2.38 shows the Port of Toledo which is comprised of fifteen marine terminals that can handle nearly any commodity transported on a barge or ship. Further, the Port of Toledo is the most cargo diverse and largest land mass seaport in the Great Lakes/St. Lawrence Seaway System, handling heavy lifts and project cargo, grain, coal, iron ore, all types of general cargo, and bulk materials. Connected to global markets via the Great Lakes/St. Lawrence Seaway System, lake trading vessels, barges, and ocean vessels up to "Handy" size are accommodated.

The Port of Toledo, located at the confluence of the Maumee River and the western basin of Lake Erie, links producers and consumers to domestic and international markets. With nearly seven miles of seaway draft waterfront and integrated access to rail, trucking, and air transport modes, the Port of Toledo is one of the busiest and most diverse transportation centers on the Great Lakes. Cargos from corn to coal to metal products along with numerous other dry and liquid goods are currently handled at port facilities. Since 2009, the Toledo-Lucas County Port Authority has invested over $35 million to improve port infrastructure. These improvements include bulk material handling systems, rail loops, roadway upgrades, new cranes and loaders, and docks.

The port handles approximately 400 vessel calls and 8.4 million short tons of cargo. Coal, iron ore, and grain make up a high percentage of the tonnage, and annual tonnage is relatively stable, usually in the 10 to 12 million range. Miscellaneous general cargo (such as steel coils), though a small percentage of the tonnage, has the potential to generate the most revenue; and the Port Authority was seeing an upward trend in this type of cargo in 2014.

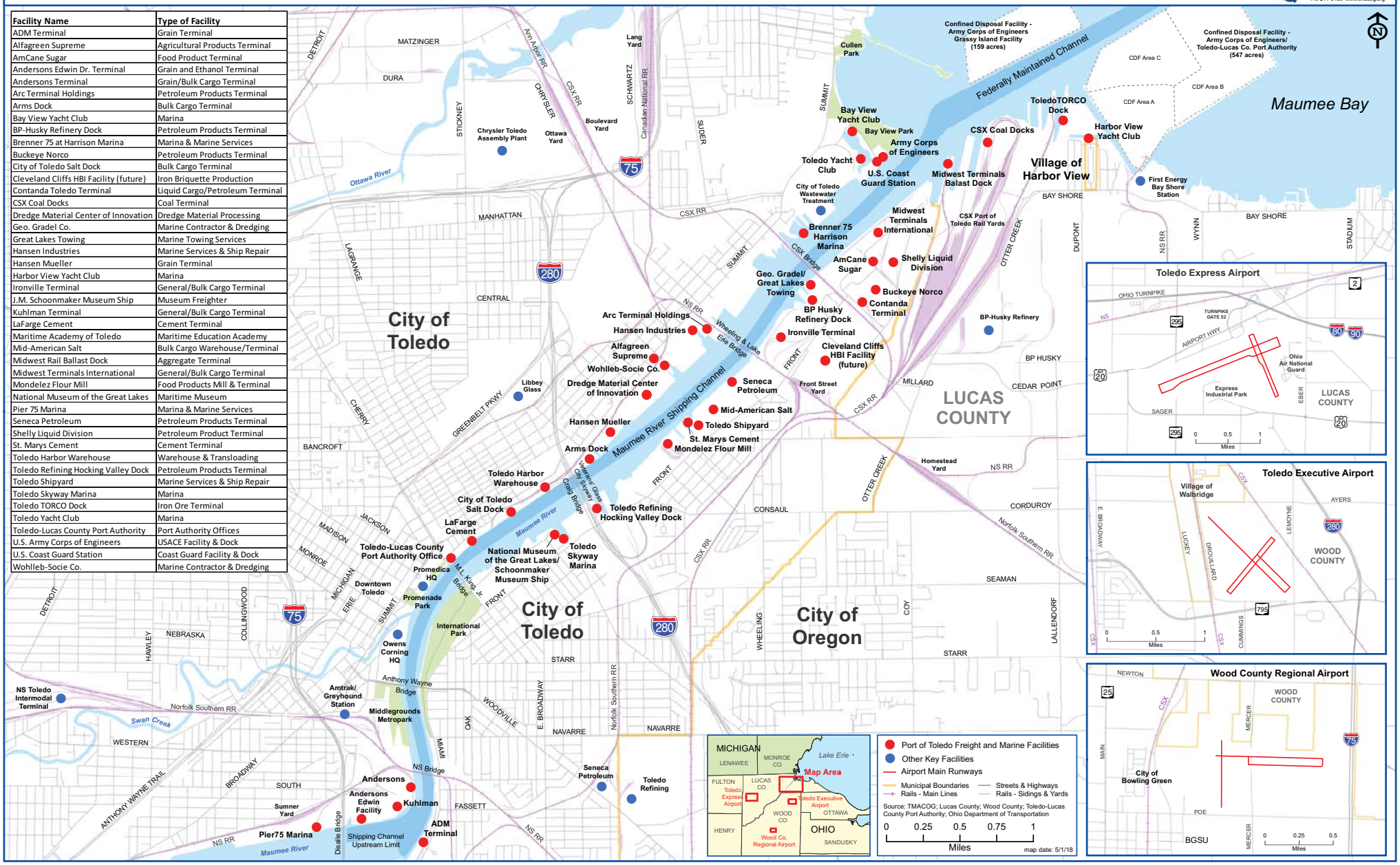
Major operators and users of the port include the General Cargo Terminal and the new Ironville Terminal both operated by Midwest Terminals of Toledo International; the CSX coal and iron ore terminals; bulk grain terminals of The Andersons, ADM, and Mondelez Global; the bulk aggregate terminal of Kuhlman; several petroleum terminals; and the Toledo Shipyard operated by Ironhead Marine. On-dock rail connections are available at most terminals and are served by CSX, NS, and CN railroads. The Port of Toledo is also a designated Foreign Trade Zone area.

Figure 2.38: TMACOG Region Marine and Airport Facilities

TMACOG Region Marine and Airport Facilities

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org

Facility Name	Type of Facility
ADM Terminal	Grain Terminal
Alfagreen Supreme	Agricultural Products Terminal
AmCane Sugar	Food Product Terminal
Andersons Edwin Dr. Terminal	Grain and Ethanol Terminal
Andersons Terminal	Grain/Bulk Cargo Terminal
Arc Terminal Holdings	Petroleum Products Terminal
Arms Dock	Bulk Cargo Terminal
Bay View Yacht Club	Marina
BP-Husky Refinery Dock	Petroleum Products Terminal
Brenner 75 at Harrison Marina	Marina & Marine Services
Buckeye Norco	Petroleum Products Terminal
City of Toledo Salt Dock	Bulk Cargo Terminal
Cleveland Cliffs HBI Facility (future)	Iron Briquette Production
Contanda Toledo Terminal	Liquid Cargo/Petroleum Terminal
CSX Coal Docks	Coal Terminal
Dredge Material Center of Innovation	Dredge Material Processing
Geo. Gradel Co.	Marine Contractor & Dredging
Great Lakes Towing	Marine Towing Services
Hansen Industries	Marine Services & Ship Repair
Hansen Mueller	Grain Terminal
Harbor View Yacht Club	Marina
Ironville Terminal	General/Bulk Cargo Terminal
J.M. Schoonmaker Museum Ship	Museum Freighter
Kuhlman Terminal	General/Bulk Cargo Terminal
LaFarge Cement	Cement Terminal
Maritime Academy of Toledo	Maritime Education Academy
Mid-American Salt	Bulk Cargo Warehouse/Terminal
Midwest Rail Ballast Dock	Aggregate Terminal
Midwest Terminals International	General/Bulk Cargo Terminal
Mondelez Flour Mill	Food Products Mill & Terminal
National Museum of the Great Lakes	Maritime Museum
Pier 75 Marina	Marina & Marine Services
Seneca Petroleum	Petroleum Products Terminal
Shelly Liquid Division	Petroleum Product Terminal
St. Marys Cement	Cement Terminal
Toledo Harbor Warehouse	Warehouse & Transloading
Toledo Refining Hocking Valley Dock	Petroleum Products Terminal
Toledo Shipyard	Marine Services & Ship Repair
Toledo Skyway Marina	Marina
Toledo TORCO Dock	Iron Ore Terminal
Toledo Yacht Club	Marina
Toledo-Lucas County Port Authority	Port Authority Offices
U.S. Army Corps of Engineers	USACE Facility & Dock
U.S. Coast Guard Station	Coast Guard Facility & Dock
Wohlleb-Socie Co.	Marine Contractor & Dredging



Rail

The Toledo area historically and presently is a freight rail hub. Four major freight railroads move goods through the region – CSX, Norfolk Southern (NS), Canadian National (CN), and Ann Arbor. Three of these— CSX, NS, and CN—are Class I railroads, each with annual revenues of $250 million or more. With several rail yards loading petroleum products, automotive parts, completed automobiles, bulk and break-bulk cargo, and food products, Toledo ranks as a top rail hub in the United States. **Figure 2.39** shows the regional rail system, ownership, and train traffic volumes.

Combined, the three Class I companies and the Ann Arbor operate over 350 miles of active rails, as shown in **Table 2.19.**

Table 2.19: Miles of Active Rail Lines in TMACOG Area (2010)

Railroad	Lucas Co.	Wood Co.	Monroe Co.	Total
Ann Arbor	2.6	0	6.8	9.4
Canadian National	3.5	0	7.1	10.6
CSX	21.6	175.6	6.9	204.1
Norfolk Southern	103.7	12.3	16.6	132.6
Total miles	**131.4**	**187.9**	**37.4**	**356.7**

Note: Main lines only; not including spurs, sidings or yards. Double tracks count as two lines. Monroe County numbers include Erie, Bedford, and Whiteford townships only.

Train volumes on regional lines vary greatly: the NS line running through Sylvania and Ottawa Hills carries on average one train per week, while both the NS mainline through Toledo and the CSX mainline through southern Wood County carry 90 or more trains per day. These NS and CSX east-west mainlines are two of the busiest tracks in the nation, connecting the Atlantic coast with rail hubs in Chicago. Between these two extremes are the CN line carrying approximately five trains per week of coal and mixed freight to Detroit, the Ann Arbor that carries up to five trains per day of auto parts and mixed freight, and various CSX lines carrying 30 to 40 trains per day of coal and mixed freight north-south through the region.

A significant rail development in the area was the construction and expansion of the $175 million CSX Northwest Ohio Terminal in southern Wood County near North Baltimore, Ohio. Completed in 2011 to bypass the congested Chicago area, this blocking and transfer yard is a key part of CSX's National Gateway, a double-stack freight rail corridor between East Coast sea ports and the Midwest. Initially using five wide-span cranes, the intermodal terminal handled 30 trains per day, mostly reconfiguring containers on trains but also transferring containers to trucks for regional delivery. In 2015, CSX completed an expansion of the facility by adding 16,000 feet of tracks and two additional cranes to increase its capacity to 2 million container transfers per year.

In 2014, Norfolk Southern completed expansion of its largest rail classification yard in Bellevue, Ohio, just outside the TMACOG area. NS invested $160 million to nearly double the size of a "hump yard," adding 38 new classification tracks to the existing 42. Five NS main lines, including the east/west line that serves Toledo, converge near Bellevue. The improvements improve efficiency and reduce transit time for rail shipments, further strengthening northwest Ohio as a freight movement hub.

Under consideration is the possible expansion of Norfolk Southern's Airline Intermodal Terminal in central Toledo. If it goes forward, this would be a multimillion-dollar project to extend tracks, add

signals, and add new equipment to provide for significantly more lifts per year (movement of containers from rail to truck or vice versa). A previous expansion/extension of the facility was completed in 2010.

A potential rail bottleneck in the region is the Norfolk Southern Maumee River bridge. In addition to being an essential link in the national freight rail system, the bridge carries four Amtrak trains a day. A shutdown of this two-track bridge would have a significant impact on both freight and passenger transportation.

Having several rail lines means having many at-grade rail crossings. The Ohio Rail Development Commission reports that Lucas and Wood counties have approximately 250 at-grade crossings each. This creates many conflict points between trains and cars, trucks, bicycles, and pedestrians. In 2017 the Ohio Department of Public Safety identified 312 train-motor vehicle crashes statewide, including six crashes with fatalities and 68 crashes with injuries. While the total number of train-related crashes has declined in Ohio in recent years, the number of fatal and injury crashes have not. **Table 2.20** shows the crash distribution and type for 2014-2017.

Table 2.20 Railway Grade Crossing Crashes, Ohio

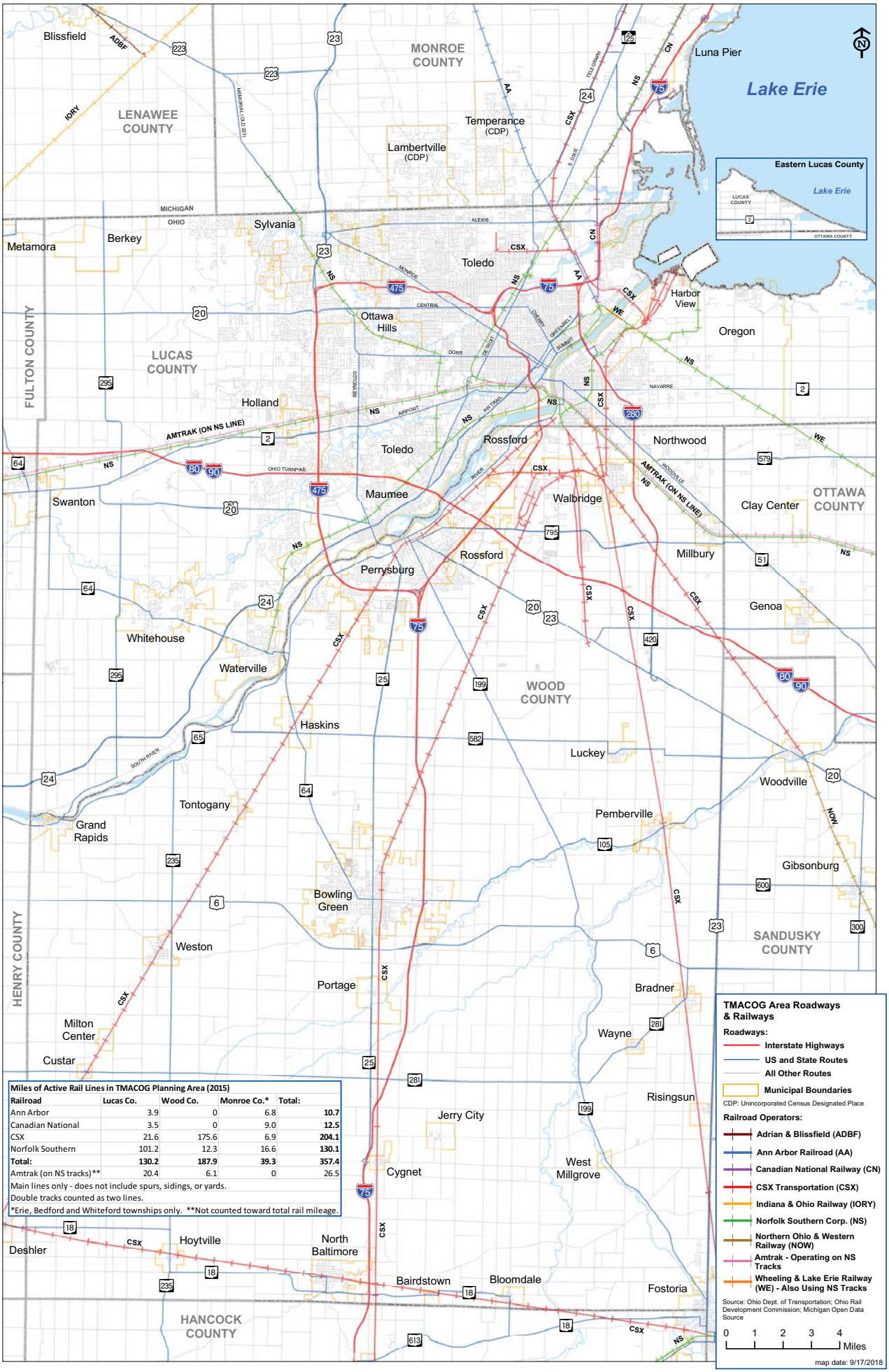
Year	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total
2017	**6**	**68**	**238**	**312**
2016	**3**	**55**	**255**	**313**
2015	**6**	**63**	**277**	**346**
2014	**2**	**49**	**262**	**313**

Source: Ohio Department of Public Safety, Traffic Crash Facts reports

Figure 2.39: TMACOG Area Roadways & Railways

TMACOG Area Roadways & Railways

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



Miles of Active Rail Lines in TMACOG Planning Area (2015)

Railroad	Lucas Co.	Wood Co.	Monroe Co.*	Total:
Ann Arbor	3.9	0	6.8	**10.7**
Canadian National	3.5	0	9.0	**12.5**
CSX	21.6	175.6	6.9	**204.1**
Norfolk Southern	101.2	12.3	16.6	**130.1**
Total:	**130.2**	**187.9**	**39.3**	**357.4**
Amtrak (on NS tracks)**	20.4	6.1	0	26.5

Main lines only - does not include spurs, sidings, or yards.
Double tracks counted as two lines.
*Erie, Bedford and Whiteford townships only. **Not counted toward total rail mileage.

Trucking

The region is situated at a crossroads of two major trade routes (I-75 and I-80, the Ohio Turnpike) within an emerging Great Lakes mega-region that extends east-west from Buffalo through Chicago (and on to St. Louis), and north-south from Ontario, Canada through Cincinnati (and points further south). In Lucas and Wood counties and the southern three townships of Monroe County, Michigan, our network of major highways is comprised of just over 1,300 miles of roadways and 700 bridges located on federal aid eligible routes. With respect to the highway system, 125 miles are limited access freeways (interstates), 500 miles are U.S. and State Routes, and the balance are arterial or collector roadways.

The highway system carries an average of more than 2 million vehicle trips per day with more than 11% made by trucks. **Figure 2.40** shows a map of commercial vehicle volumes on interstate, U.S. routes, and state highways within the region. **Figure 2.41** shows the percentage of commercial vehicles on those same routes. Truck traffic is predicted to increase dramatically in the future, so current and planned projects to widen and improve the interstate system in the TMACOG region will provide needed additional capacity and help maintain a good level of service. The average daily commercial vehicle miles traveled can be seen by county in **Table 2.21**.

Table 2.21: Average Daily Commercial Vehicle Miles Traveled

County	Average Truck VMT per day 2015	Average Truck VMT per day 2018
Lucas	561,929	669,003
Wood	609,058	682,338
Total	1,170,987	1,351,341

Source ODOT

Unique and vital to the commerce of northwest Ohio, is the ability for trucks carrying “Michigan Legal Loads” to access the Port of Toledo and other industry sites located in Lucas, Fulton and Williams counties. While the maximum load for trucks operating in Ohio is 80,000 pounds, trucks carrying loads up to 154,000 pounds are allowed (with a permit) on designated roadways in Ohio counties bordering Michigan. Access to both Michigan and Canadian markets is essential for the commercial viability of steel, agriculture, and other heavy weight commodity enterprises located in Ohio counties bordering Michigan.

Truck traffic through the region occurs mostly on the interstates and on larger arterial roads. The roads with the highest daily volume of truck traffic are I-75, I-80 (the Ohio Turnpike); I-280; I-475; US 23 north of I-475; and US 24 west of I-475 The map in **Figure 2.42** shows the Michigan Weight Designated Permit Routes throughout northwest Ohio.

Based on FHWA data, projected truck volumes will increase substantially across the region, especially on I-75, I-280, US 6, US 20, US 24, and SR 51.

Figure 2.40: Average Daily Commercial Vehicle Volumes

Average Daily Commercial Vehicle Volumes

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org

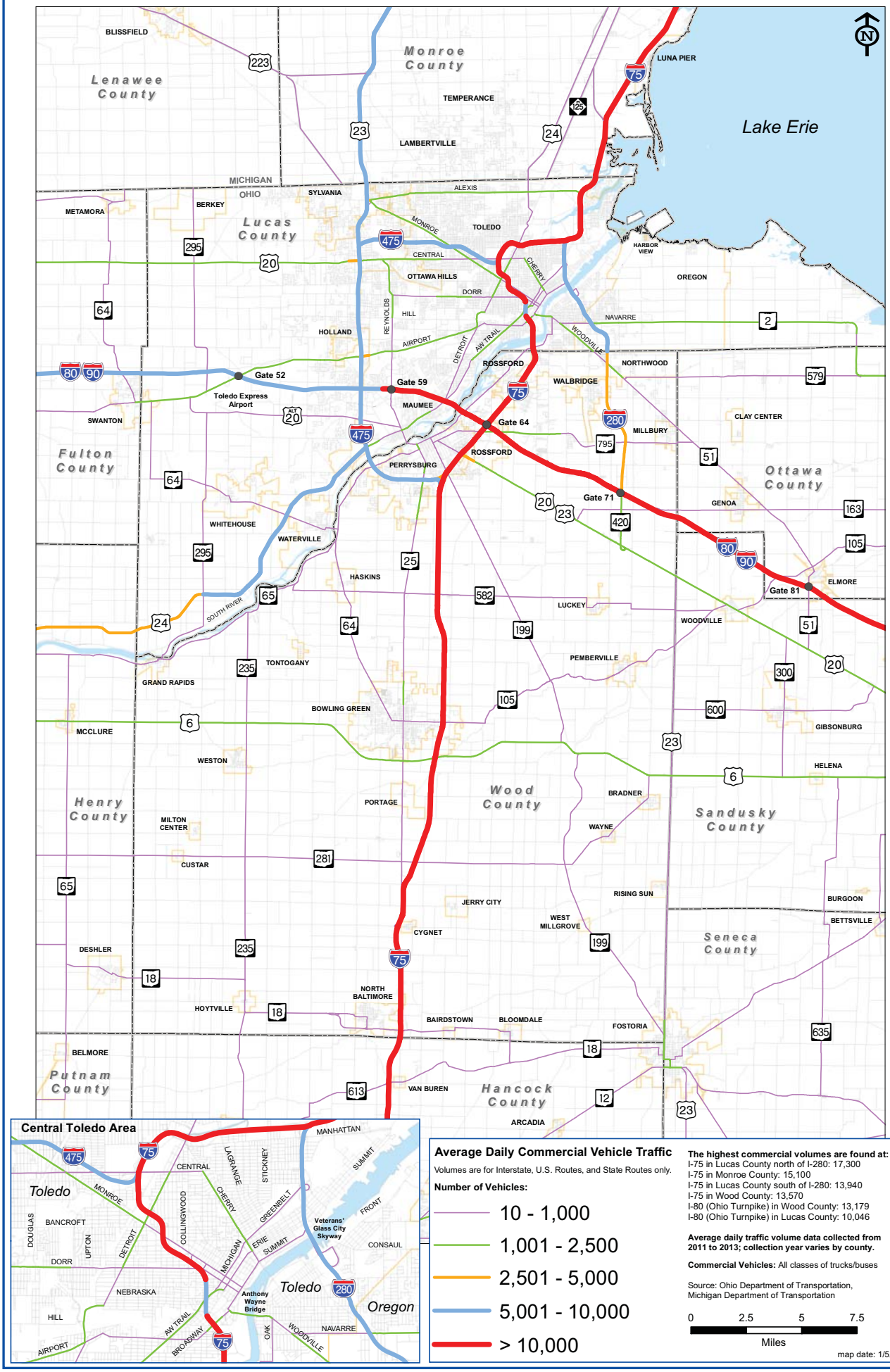


Figure 2.41: Percentage of Daily Commercial Vehicle Traffic

Percentage of Daily Commercial Vehicle Traffic

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org

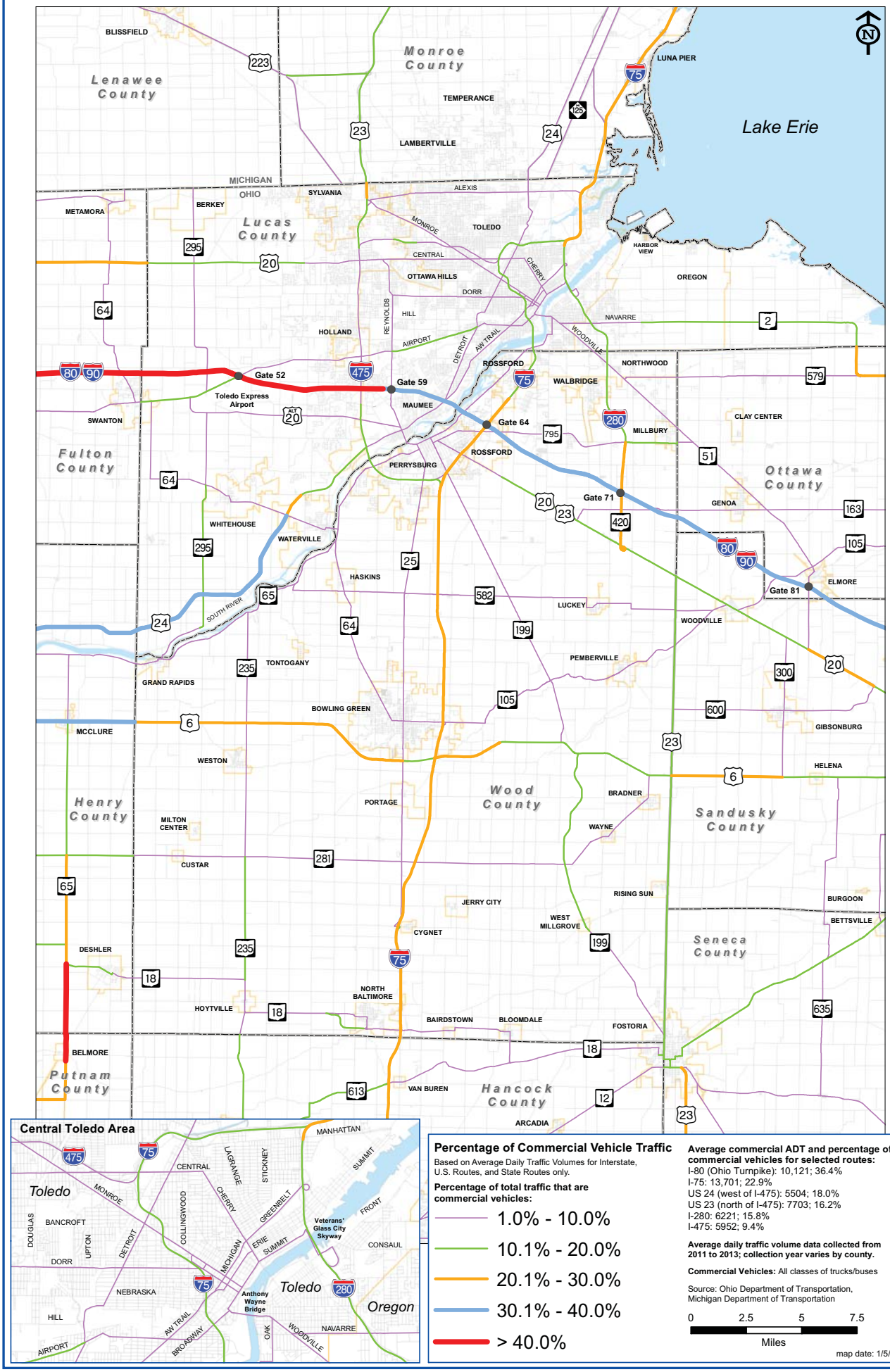
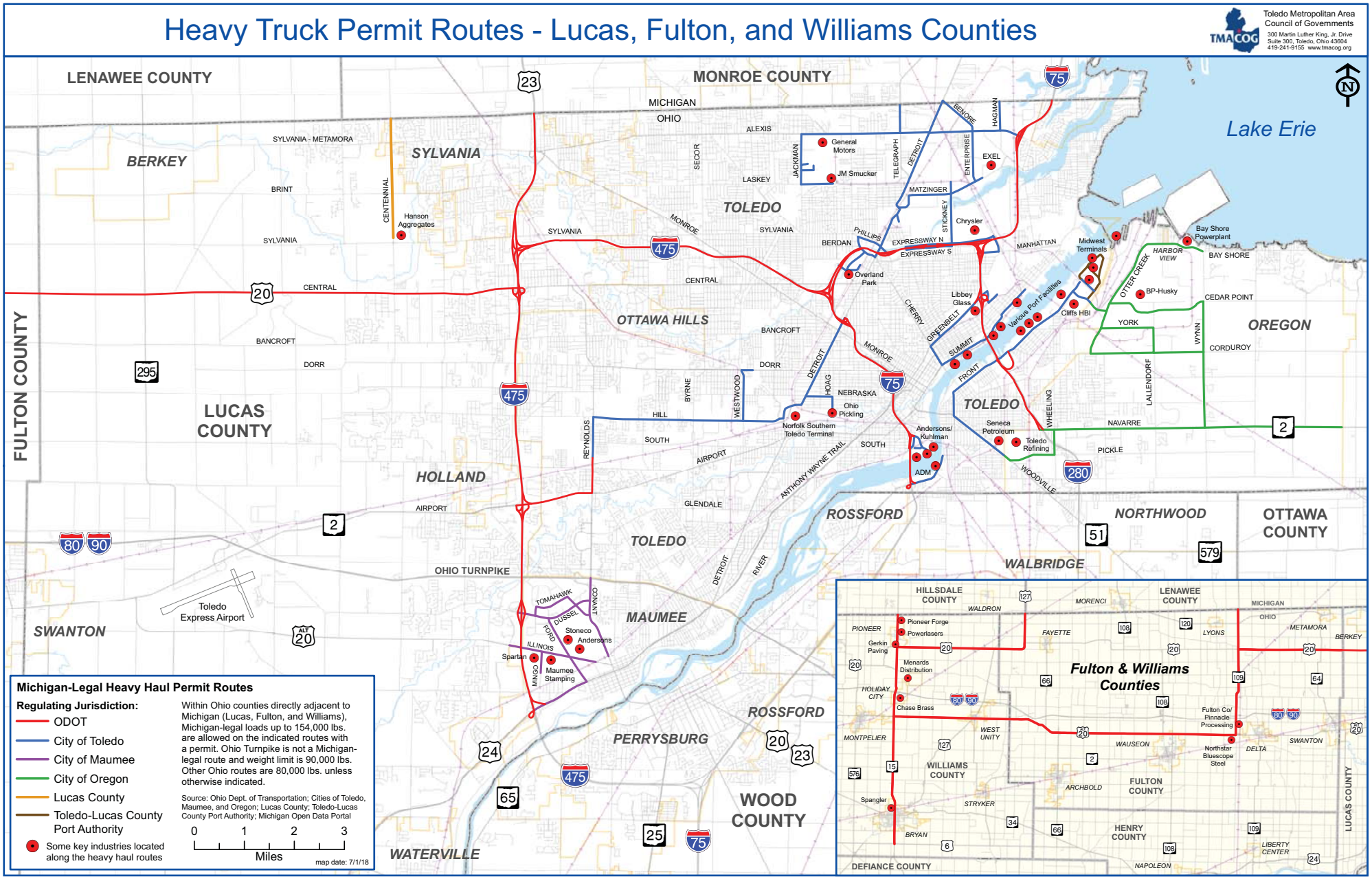


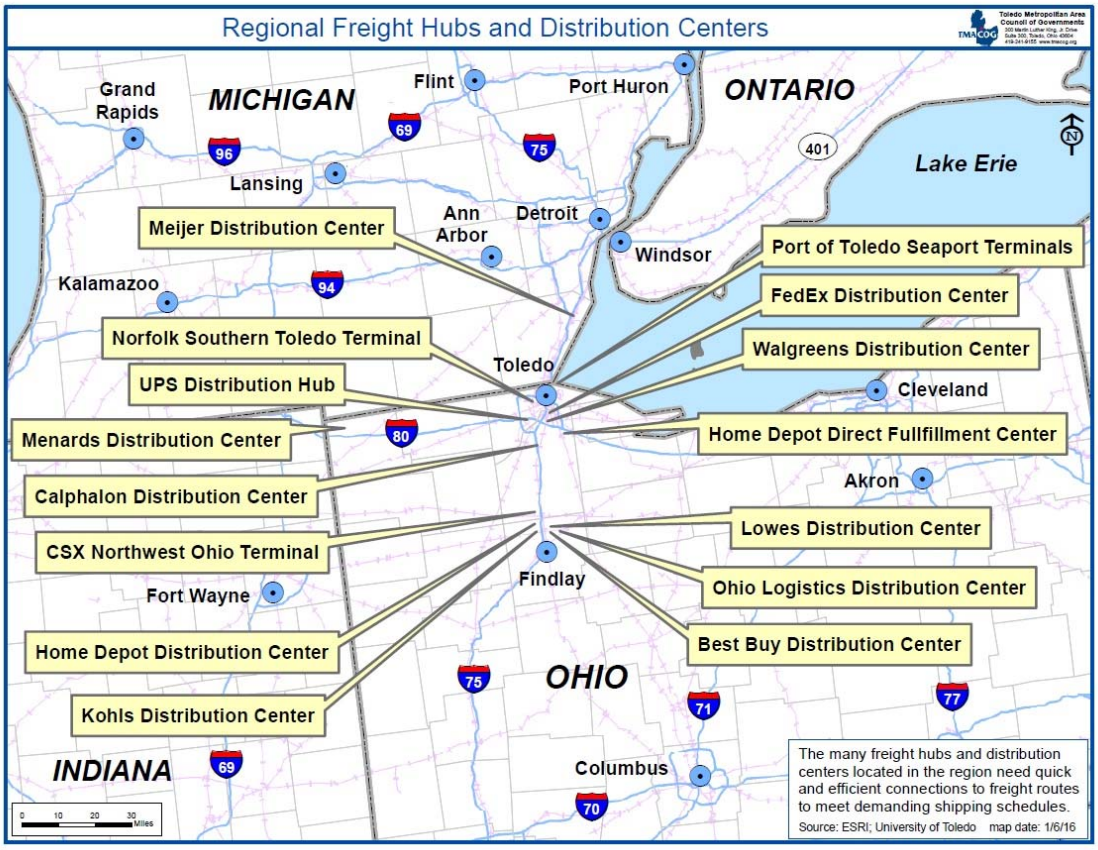
Figure 2.42: Heavy Truck Permit Routes - Lucas, Fulton, and Williams Counties



Large Distribution Facilities

Numerous shipping and retail companies are choosing to locate in the Toledo region. The 12 largest distribution centers in the region have made $651 million in capital investments in warehouses and equipment. They directly employ more than 5,300 Ohioans and indirectly support many thousands more jobs. **Figure 2.43** shows major freight hub and distribution center locations in the region.

Figure 2.43: Major Freight Hubs and Distribution Centers



Freight Transport Needs Identified through Public Input

From comments received at public meetings and from surveys, there is a need to promote freight assets in the region (port, rail, air, and highway) to attract new business; improve connections between modes; address truck and rail issues; and upgrade freight transport facilities. Specifically, comments on these points included:

- Keep the rail corridors open and get more trucks off the road by shifting freight transport to rails.
- Address concerns with highway truck traffic volumes, such as wear and tear on roads and plans to increase truck weight limits.
- We have all the freight assets here and should use them to attract more business.
- Concerns in North Baltimore with railroad crossings and truck traffic.
- Important to dredge the Maumee River and keep the port open for shipping.

2.2.7 Environmental Sustainability Goal

This goal is concerned with the interaction between area residents, their community and the natural environment. It looks at population and employment trends, and their impacts on air and water quality. The focus is on how we can protect the environment while still trying to maintain and inevitably grow and develop our present and future communities.

Water Quality

Water quality has been and continues to be an issue in the TMACOG region. The area contains numerous river basins including the Maumee, Portage, Ottawa, Toussaint, and Sandusky River basins. Each of these river basins has a differing set of issues based on geology, geography, and land development, but there are similarities that all share.

Due to the generally flat topography of the region, much of the land area is within a floodplain or contains wetlands. Historically, much of the region was part of the Great Black Swamp and was subsequently drained for settlement through an elaborate system of drains and ditches. Many of these ditches are still in place today. An important environmental feature that the region benefits from is the Oak Openings area. The Oak Openings Region, located within portions of the Swan Creek and Ottawa River watersheds, is a 130-square-mile area supporting globally rare oak savanna and wet prairie habitats. It is home to more rare species of plants and animals than any other area of Ohio. Its trees, plants, sandy soils, wet prairies, and floodplains benefit the region by acting as natural filters for our air and water.

The floodplains and wetlands play an important role in water quality. Floodplains provide water storage during heavy rains or periods of snow melt. Both floodplains and wetlands allow for natural filtration of sediment and chemical pollutants which improves water quality. Floodplains and wetlands also offer habitat for wildlife. Over the past 40 years, development has greatly expanded and many of the area's floodplains and wetlands have been lost. Many professionals point to this loss as a significant contributor to the decline in water quality during that time.

Currently, most of the wetlands in the region are clustered either adjacent to waterways or are located in western Lucas County in the Oak Openings area. The Toledo Metroparks has been working to purchase additional acreage containing wetlands as protection from development pressures. Once a wetland is lost, it is very difficult to restore it to its original natural condition. Organizations such as the Toledo Metroparks, the Black Swamp Conservancy, and the Nature Conservancy are trying to either acquire or enter into agreements with landowners to protect these sensitive environmental areas.

Overall, regional water quality is impacted by nitrates, phosphates, pesticides, bacteria, and by industrial metals such as chromium, zinc, copper, mercury and lead. Fecal bacteria can carry a variety of disease organisms, including those that cause typhoid fever, cholera, dysentery, infectious hepatitis, and numerous other illnesses.

Sediment is an important pollutant as well. Ecologically it is important because phosphorus attaches to and is carried with sediment. Actions that reduce the amount of sediment going into the lake will reduce the amount of phosphorus. When sediment settles out of suspension, it covers the bottom of streams, bays, and Lake Erie. Doing so, it covers fish feeding and spawning areas.

Accumulating sediment ultimately makes Maumee Bay and some near shore areas inaccessible. The Toledo shipping channel connects the Maumee River with the Western Basin of Lake Erie. It is dredged

some 20 feet below the floor of the Maumee River and Maumee Bay for a distance of 22 miles. Without annual dredging, which averages about 950,000 cubic yards per year, the Port of Toledo cannot operate. Recreational access is affected too. The Ottawa and Toussaint Rivers have needed dredging in recent years, as have some marinas. Access to marinas is also strongly affected by the fluctuating lake levels.

The sources of fecal bacteria are birds, mammals, and humans. Sewage in water is detected by testing for "indicator" bacteria. One indicator group is called fecal coliform. These bacteria are present in sewage and contaminated water in far greater numbers than pathogens. As such, they are easier to detect, and demonstrate the presence of fecal matter. In recent years many regulatory agencies have begun using a test for a specific bacterium, *Escherichia coli* (*E. coli*). In streams, the presence of fecal coliform has documented the need for sewerage facilities to eliminate septic systems, package plants, sewer overflows, and to mandate improved sewage treatment.

The result of decades of pollution is that many area waterways do not meet attainment standards set by the Environmental Protection Agency (EPA). **Table 2.22** lists the consumption advisories in the planning area.

Table 2.22: Consumption Advisories

Water Body	Fish Species	Consumption Advisory	Contaminants
Lake Erie	Brown Bullhead	Limit to one meal/month	Mercury
	Common Carp 27" and larger	Limit to one meal/two months	PCBs
	Channel Catfish, Common Carp less than 27", Freshwater Drum, Lake Trout, Smallmouth Bass, Steelhead Trout, White Bass, Whitefish, White Perch	Limit to one meal/month	PCB
Lake Erie Tributaries: Lucas, Ottawa, Sandusky Counties	Steelhead Trout	Limit to one meal/month	PCBs
Maumee River (Indiana State line to Defiance)	Freshwater Drum, Smallmouth Bass, Common Carp, Flathead Catfish, Smallmouth Buffalo	Limit to one meal/month	PCBs, Mercury
Maumee River (Defiance to mouth)	Channel Catfish, Common Carp	Limit to one meal/two months	PCBs
	Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Flathead Catfish	Limit to one meal/month	PCBs
Ottawa River (Lima)	Rock Bass, Smallmouth Bass	Limit to one meal/month	Mercury
Ottawa River (Toledo)	Common Carp, Channel Catfish, Golden Shiner	Limit to one meal/month	PCBs
	Pumpkinseed Sunfish	Limit to one meal/week	PCBs
Portage River (Ohio Turnpike to Lake Erie)	Channel Catfish, Common Carp	Limit to one meal/two months	PCBs
Portage River-North Branch	Common Carp, Channel Catfish	Limit to one meal/two months	PCBs

Table 2.22: Consumption Advisories (Continued)

Water Body	Fish Species	Consumption Advisory	Contaminants
Sandusky River	Channel Catfish 16" and over, Rock Bass, Smallmouth Bass	Limit to one meal/month	mercury
	Common and Smallmouth Buffalo Carp	Limit to one meal/month	PCBs
	Largemouth Bass, Channel Catfish 16" and larger	Limit to one meal/month	PCBs, mercury
Swan Creek (Whitehouse to mouth)	Yellow Perch	Limit to one meal/week	PCBs
	Common Carp	Limit to one meal/month	PCBs, mercury
	Northern Pike, Freshwater Drum, Northern Pike, Rock Bass	Limit to one meal/month	Mercury
Toussaint Creek (Rt. 23 to mouth)	Common Carp	Limit to one meal/month	PCBs

Air Quality

The United States Environmental Protection Agency (U.S. EPA) has established air quality regulations and regional compliance designations for six transportation-related criteria air pollutants. The six pollutants of concern are ozone, particulate matter, sulfur dioxide, carbon monoxide, lead, and nitrogen dioxide. A region's attainment or nonattainment with the standards for each pollutant determines how frequently regional transportation plans must be updated and whether a conformity determination is required. The air region incorporated into this plan consists of Lucas and Wood counties.

In 1997, the U.S. EPA revised the standard for ozone to .08 parts per million (.085 with rounding) computed using the formula of the fourth highest measurement over the past three years for an 8-hour period. Lucas and Wood counties received a *Basic Nonattainment* designation for ozone in 2004, meaning that we did not meet the pollution standard. In June of 2007, U.S. EPA approved a re-designation plan that changed Lucas and Wood counties to a "Maintenance Area," meaning that we comply with the standard. Planning areas that are either nonattainment or maintenance areas must submit a conformity determination with updated transportation plans identifying that modeled emissions from plan projects are below the allowable budget for the region.

In 2008, the U.S. EPA again revised the ozone standard and set it at .75 parts per million using the same formula as the 1997 standard. The Lucas and Wood County air region has not violated this standard. However, the region had still been identified as an ozone maintenance area since the 1997 standard remained in place. In December of 2014, the U.S. District Court of Appeals formally revoked the 1997 ozone standard thus removing any designations regions had received from it. This revocation made Lucas and Wood counties an ozone attainment area.

The following are the current Lucas and Wood County designations:

Ozone – Attainment
Sulfur Dioxide – Attainment
Lead – Attainment
PM2.5 – Attainment
Carbon Monoxide – Attainment
Nitrogen Dioxide – Attainment

Lucas and Wood counties are required by the U.S. EPA to meet the 8-hour standard for ozone at every monitor in the region. There are five ozone monitors in northwest Ohio—four in Lucas County and one in Wood County. Over the past couple decades monitor readings have been steadily dropping due to point source controls, cleaner vehicles and fuels, and societal changes that have raised public awareness of air quality issues. U.S. EPA is federally required to review pollution standards every five years and it is likely that the standards will be lowered in the future. It is not known what levels could be set or how the region's attainment status may be impacted.

Air pollution emissions are generated from three major types of sources; point, area, and mobile sources. Point sources include facilities such as manufacturing plants, dry cleaners, and paint shops. Area sources include backyard grills, lawn mowers, vapors released while pumping gas and other types of sources that can't be identified as originating from a particular point. Mobile sources refer to cars and trucks that produce emissions from the combustion of fossil fuels.

Information supplied by ODOT shows that the emissions from mobile sources should drop as newer, cleaner vehicles are put into service and the older, inefficient, pollution producing vehicles are taken off the roads. Overall, it is projected that the mobile source contribution to the region's air pollution will decrease significantly through 2045. The promotion of alternative fuels and hybrid engines and efforts to encourage alternative modes of transportation (such as transit, walking and biking) will be a driving force in lowering the overall emissions contribution of mobile sources.

Environmental Sustainability Needs Identified through Public Input

From the needs inputs received at public meetings, and through surveys, numerous responses related to the need to recognize the link between development patterns and environmental sustainability; promote mixed use development to reduce the need to drive; develop walkable, connected communities; and preserve farmland and natural resources. Specifically, comments on these points included:

- More destinations should be within walking distance
- Offer people transportation choices to reduce dependence on cars
- Make urban areas more attractive for in-fill, higher density development desired by many young people, "creative class" and technology employees, and some empty nesters
- Farmland preservation should be a priority - we are losing high quality farmland
- Compact, mixed use development will preserve natural resources and reduce infrastructure costs, but is dependent upon market demand
- The use of alternative modes of transportation and green infrastructure practices will promote environmental sustainability in terms of air quality and water quality

2.2.8 Project Delivery Goal

Project delivery goal: Expedite project delivery to maximize effective use of public funds.

To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

By expediting project delivery during the 2045 Plan's time period, we can minimize the cost of inflation on the project's cost, thus decreasing the total cost of delivery. Additionally, once the projects are started, completing them in a timely manner will reduce the cost to the public by decreasing labor costs, as well as minimizing the impact to moving people and goods through the region caused by traffic delays, road closures, and detours

3 WHERE DO WE WANT TO GO

To decide where we are trying to go and what we are trying to achieve with the 2045 Plan, TMACOG stakeholders were guided by a series of adopted statements. These include TMACOG's vision; what kind of transportation system we want (a sustainable and seamless intermodal system); and our goals and targets for the transportation plan.

3.1 Regional Vision and Mission

TMACOG members have adopted a vision for this agency that reflects an overall desired direction for the region – that our regional stakeholders will work together to find solutions to challenges:

> *"Our Vision: Toledo Metropolitan Area Council of Governments will be the governmental partner of choice to coordinate regional assets, opportunities, and challenges."*

TMACOG's mission statement further reflects the intent of public and private sector members and participants to strengthen the region through collaborative action:

TMACOG Mission Statement:

To improve quality of life in the region, TMACOG will:

- *Promote a positive identity for the region.*
- *Enhance awareness of the region's assets and opportunities.*
- *Be an impartial broker of regional disputes and challenges.*
- *Provide stakeholders a voice in regional decision-making.*
- *Support opportunities for regional stakeholder networking.*

3.2 Transportation Goals and Objectives

Creating the regional plan is the job of the TMACOG Transportation Department, led by the Transportation Council. The Council broadly represents the interests of transportation stakeholders, including local governments, the Ohio Department of Transportation, and public transit agencies, plus the citizen, nonprofit, public sector, and business organizations that participate in the Council's subcommittees.

The transportation department is guided by the following vision statement that articulates the chief objective for transportation in the region:

<u>Transportation Vision Statement:</u>

> *To achieve a sustainable and seamless intermodal transportation system, we will be both the recognized regional convener of all transportation stakeholders within the region and one of the stakeholders that has a role in providing transportation services.*

Most specific to the metropolitan area plan process, the Transportation Council adopted both a vision statement and a set of goals for the "On the Move: 2015-2045 Transportation Plan – Update 2020." Note that the plan goals were based on the national goals (see below) and incorporated regional concerns.

On the Move Vision Statement:

> *We envision a vibrant region with a dynamic economy and high quality of life where transportation is a core strength.*

On the Move Plan Goals:

1. Safety: Reduce traffic-related fatalities and serious injuries across all modes.
2. Infrastructure condition: Maintain and improve the transportation system to a state of good repair.
3. Congestion reduction: Reduce congestion on the National Highway System (NHS)
4. System reliability: Improve the efficiency of the surface transportation system.
5. Freight movement: Strengthen freight access to national and international trade markets to support economic development.
6. Environmental sustainability: Protect and enhance the community and natural environments.
7. Project delivery: Expedite project delivery to maximize effective use of public funds.
8. Personal mobility: Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

3.3 Performance Targets and Measures

3.3.1 National and State Goals and Targets

The FAST Act, the federal surface transportation act, calls on states and metropolitan areas to set measurable targets that are to be achieved. This performance-based approach to planning established by MAP-21, aims to ensure that investments are made where needed. Targets must address national goals. Their development, at the metropolitan/regional level, is to be coordinated with state and public transit targets and objectives. The targets are to be used to track progress on a region's desired critical outcomes.

The national performance goals for the Federal highway (surface transportation) programs as established in the FAST Act are as follows:

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System
- **System Reliability** - To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment

- **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

For each of these goals, the U.S. Department of Transportation's Federal Highway Administration (FHWA) sets the targets to be achieved at the national level. The states are then required to set their targets, and finally the metropolitan areas such as the TMACOG region set their targets to be achieved. TMACOG has adopted the national and state targets. Another federally required component of performance-based planning is the development of a System Performance report. To view the full system performance report, which includes established targets, please see *Appendix F***.**

Below is the timeline for performance measure adoption:

- PM1 – Safety
    - Ohio and Michigan Targets approved on…
        - CY 2018
            - November 28, 2017 (Ohio) and February 21, 2018 (Michigan)
        - CY 2019
            - February 20, 2019 (Ohio and Michigan)
        - CY 2020
            - October 16, 2019 (Ohio and Michigan)
- PM2 – NHS Pavement and Bridge Conditions
    - Ohio and Michigan Targets approved on November 14, 2018
- PM3 – Travel Time Reliability and Freight Performance
    - Ohio and Michigan Targets approved on November 14, 2018
- Transit Performance Management Targets
    - Ohio Targets approved on September 19, 2018

Tables 3.1 through **3.8** illustrate current performance measures and targets.

Table 3.1: CY 2020 Safety Performance Targets

	Ohio -TMACOG Region		MDOT	
Safety Performance Measures	**Baseline 2014-2018**	**2020 targets**	**Baseline 2014-2018**	**2020 targets**
Number of fatalities	57.0	55.9	987.4	999.4
Rate of fatalities per 100 million Vehicle Miles Traveled (VMT)	0.974	0.954	0.99	0.97
Number of Serious Injuries	493.0	483.2	5,415.6	5,520.4
Rate of Serious Injuries per 100 million VMT	8.422	8.255	5.41	5.34
Number of non-motorized fatalities and serious injuries	51.8	50.8	742.4	735.8

Table 3.2: Bridge and Pavement Targets (Ohio)

Pavement	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of Interstate Pavements in Good Condition	N/A	N/A	50%
Percentage of Interstate Pavements in Poor Condition	N/A	N/A	1%
Percentage of Non-Interstate NHS Pavements in Good Condition	59.10%	35%	35%
Percentage of Non-Interstate NHS Pavements in Poor Condition	13.00%	3%	3%

Bridge	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of NHS Bridges in Good Condition	59.00%	50%	50%
Percentage of NHS Bridges in Poor Condition	1.60%	5%	5%

Table 3.3: Bridge and Pavement Targets (Michigan)

Pavement	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of Interstate Pavements in Good Condition	56.8%	N/A	47.8%
Percentage of Interstate Pavements in Poor Condition	5.2%	N/A	10%
Percentage of Non-Interstate NHS Pavements in Good Condition	49.7%	46.7%	43.7%
Percentage of Non-Interstate NHS Pavements in Poor Condition	18.6%	21.9%	24.9%

Bridge	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of NHS Bridges in Good Condition	32.7%	27%	26%
Percentage of NHS Bridges in Poor Condition	9.8%	7%	7%

Table 3.4: System Performance Targets (Ohio)

Travel Time Reliability	Baseline	2 Yr. Target	4 Yr. Target
Interstate Travel Time Reliability	90.80%	85%	85%
Non-Interstate NHS Travel Time Reliability	N/A	N/A	80%

Truck Travel Time Reliability	Baseline	2 Yr. Target	4 Yr. Target
Interstate Truck Travel Time Reliability Index	1.33	1.50	1.50

Table 3.5: System Performance Targets (Michigan)

Travel Time Reliability	Baseline	2 Yr. Target	4 Yr. Target
Interstate Travel Time Reliability	85.1%	75%	75%
Non-Interstate NHS Travel Time Reliability	85.5%	N/A	70%

Truck Travel Time Reliability	Baseline	2 Yr. Target	4 Yr. Target
Interstate Truck Travel Time Reliability Index	1.38	1.75	1.75

Table 3.6: Revenue Vehicle Targets

Asset Class (NTD)	Asset Class (ODOT)	Baseline % Past Useful Life	Performance Target
Automobile	Automobile (AO)	30.43%	30% older than 8 years
Bus	Heavy Duty Bus (B30-HD, B35-HD, B40-HD, B60-HD); Medium Duty Bus (B30-D, B35-MD); Light Duty Bus (B30-LD)	21.05%	21% older than 14 years
Cutaway Bus	LTL/LTN, LTV, LTV-FS, LTV-HC, LTV-N, LTV-S	1.48%	2% older than 10 years
Van	Accessible Van (AV); (BSV); Converted Vans (CV); Modified Mini Van (MMV); (MV-1); Mini Van (SMV)	9.60%	10% older than 8 years

Table 3.7: Transit Equipment Targets

Asset Class (NTD)	Asset Class (ODOT)	Performance Target
Non- Revenue Vehicle	Service Vehicles	100% less than 10 years old
Equipment	Mobile Vehicle Lift	100% less than 14 years old
Equipment	Generator	100% less than 10 years old

Table 3.8: Transit Facility Targets

Asset Class (NTD)	Baseline % Below "3" on TERM Scale	Performance Target*
Passenger Facilities	0.00%	0% below at 3
Maintenance Facilities	22.22%	22% below a 3
Administrative Facilities	37.50%	38% below a 3

4 How Will We Get There? Plan Projects, Initiatives, and Policies

The On the Move 2045 – Update 2020 is based on a solid understanding of our region, its existing transportation system, and unmet transportation needs.

The plan was developed to meet the seven plan goals. The problems and opportunities were identified, and solutions were proposed. After evaluation, the best solutions to the highest priority needs were selected for inclusion in the plan.

The plan is cost-constrained, based on the best estimates of available funding. For more details on the plan development process, see Chapter 6.

The 2045 Plan proposes several lists of projects to implement. But it goes beyond physical improvements: it provides a vision and framework of regional transportation policy to guide action and investment in the years to come. In addition, this TMACOG long range plan proposes and sets aside expected funding for a variety of regional initiatives. Some initiatives are studies that may lead to future construction projects, while others focus on collaborative research and development of strategies for positive change.

During the first few months of 2020, TMACOG solicited public input on the draft projects, initiatives, and policies. A total of seven public meetings were held and a public survey was open for approximately one month. During the public meetings and survey the public was asked to review key components of the plan by viewing list and maps. To view marketing materials, materials presented at the public meetings, and public survey results please see *Appendices C & D.*

4.1 Plan Projects

4.1.1 Committed Projects

The committed projects are those for which there is a significant regional commitment, including full or partial funding. **Table 4.1** shows the committed projects for the 2045 Plan. The accompanying map (**Figure 4.1**) shows locations for major committed projects. The projects are listed and numbered by Project Identification (PID). Locally funded projects with no PID and transit projects are located at the end of the list. The order of the projects does not indicate priority.

The funding sources for the committed projects include the TMACOG Transportation Improvement Program, a four-year capital program based on federal funds assigned to the TMACOG transportation planning area and various state funding programs. Additionally, projects that have been identified by local jurisdictions as planned projects with local funds have been included on the list. While most of the projects listed are fully funded, a few projects are included that have partial funding and are expected to advance to construction.

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-1	79901	SR 25 Bridge Replacement over Delaware Creek	Replace bridge under 50 feet of fill; perform necessary related work.	ODOT	2023	$1,122,000
C-2	88563	I-75 Resurface from I-280 to Michigan State Line	A district funded project to resurface I-75 in Lucas County from I-280 to Michigan State Line; perform necessary related work.	ODOT	2021	$10,560,000
C-3	88564	I-475 Preventative Maintenance from SR 25 to Lucas County line	A district allocation preventive maintenance project to smoothseal I-475 in Wood County from SR 25 to Lucas County line.	ODOT	2023	$1,390,000
C-4	88645	I-280 Resurface from Greenbelt Pkwy to I-75	Resurface I-280 in Lucas County from Greenbelt Pkwy to I-75; perform necessary related work.	ODOT	2024	$853,000
C-5	88647	I-280 Preventative Maintenance from the Turnpike to Navarre Ave	Perform a preventive maintenance on I-280 from the Turnpike in Wood County to Navarre Ave (SR-2) in the City of Oregon.	ODOT	2024	$7,021,000
C-6	92088	SR 64 Bridge Replacement over Maumee River	A district allocation funded project to replace the existing Waterville bridge (SR-64) over the Maumee River with a new wider bridge.	ODOT	2021	$7,987,250
C-7	92117	SR 199 Resurface from US 6 to SR 105	Resurfacing on SR 199 from US 6 to SR 105.	ODOT	2024	$316,500
C-8	92122	I-75 Resurface from SR 199 to Glenwood	A district allocation funded project to resurface I-75 in Wood County from SR-199 to Glenwood Rd.	ODOT	2024	$5,648,000
C-9	92133	SR 25 Reconstruction	Road Reconstruction: SR 25 from Cygnet Rd to US 6 in Wood County. Includes several culvert replacements throughout.	ODOT	2021	$17,994,600
C-10	93592	I-75 Reconstruction from Glenwood Ave to South Ave	A Major Bridge and Multi Lane funded project on I-75 from Glenwood Ave to South Ave to perform major reconstruction and minor widening to existing pavement; rehabilitate/widen/replace existing bridges.	ODOT	2023	$28,165,143
C-11	93680	SR 65 Culvert Replacement	A district allocation funded project to replace two culverts on SR 65 in Wood County; perform necessary related work.	ODOT	2024	$470,000
C-12	94340	SR 281 Resurface from SR 235 to Rocky Ford Creek	A 2-Lane district allocation funded project to resurface SR-281 from SR-235 to Rocky Ford Creek in Wood County.	ODOT	2022	$2,987,000
C-13	95753	US 20A Resurface from Hallett to Wilkins	A district allocation funded project to resurface US 20A (Airport Hwy) from Hallett Rd to Wilkins Rd.	ODOT	2024	$328,000
C-14	95797	SR 105 Resurface from Bowling Green to SR 199	A district allocation funded project to resurface SR 105 from Bowling Green Corp Line to SR 199.	ODOT	2024	$392,000
C-15	96010	US 23/SR 51 Bridge Redeck	Detailed design for bridge redeck over US 23/SR 51(construction to occur in 2025). Work will include: parapets, vandal fence, light pedestals, and sidewalks. Consultant selected "Structure Point".	ODOT	2021	$50,000
C-16	98909	Bennett Rd Reconstruction from Laskey Rd to Alexis Rd	Reconstruction of Bennett Rd in Toledo from Laskey Rd to Alexis Rd (SR 184).	Toledo, City of	2021	$2,476,300
C-17	101104	SR 64 Resurface in Bowling Green	A urban paving project to resurface SR 64 in Bowling Green from Campbell Hill Rd. to the CSX RR and then from N. Church St to the BG Corp Line.	ODOT	2021	$2,610,000

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-18	101116	Lucas County Bridge Deck Sealing	Deck sealing of various bridges in Lucas County along US-23, US-24 & I-475; total of 27 bridges impacted.	ODOT	2021	$482,396
C-19	101152	Traffic Signal Upgrade	A district allocation funded project to upgrade existing traffic signals on SR 582, at I-75 at SR 795 (east intersection) and SR 51 at SR 163.	ODOT	2021	$260,000
C-20	101275	SR 2 Resurface	Preventative maintenance - SR 2 in Lucas and Ottawa County; perform necessary related work.	ODOT	2024	$2,559,000
C-21	101286	SR 199 Resurface from Elm St to US 6	Road Resurfacing on SR 199 from Elm St. (northern village line of West Millgrove) to US 6.	ODOT	2021	$689,100
C-22	101287	SR 64 Resurface from SR 582 to Mechanic St	Resurface SR 64 in Wood County from SR 582 to Mechanic St (Waterville Bridge).	ODOT	2023	$408,800
C-23	101289	SR 795 Resurface in Wood County	Road Resurfacing: SR 795 from US 20/Sandusky St to Lime City, and then from Perrysburg corp. line to CSX bridge (0.35 mi E of Lemoyne Rd)	ODOT	2023	$4,211,000
C-24	101290	SR 18 Resurface from Henry County Line to S. Dixie Hwy	Road Resurfacing: SR 18 from Henry County line to S. Dixie Hwy (0.25 mi W of I 75).	ODOT	2024	$2,433,000
C-25	101327	Alexis Rd (SR 184) Bridge Replacement	Alexis Rd (SR 184) bridge replacement over Shantee and Silver Creeks.	ODOT	2022	$2,540,500
C-26	101556	Anthony Wayne Bridge Dehumidification	Anthony Wayne Bridge Dehumidification over the Maumee River.	ODOT	2021	$4,622,302
C-27	101914	TMACOG FY 21 Air Quality Program	TMACOG FY 21 Air Quality Program.	TMACOG	2021	$85,000
C-28	101915	TMACOG FY 22 Air Quality Program	TMACOG FY 22 Air Quality Program.	TMACOG	2022	$85,000
C-29	101916	TMACOG FY 21 Rideshare Program	TMACOG FY 21 Rideshare Program.	TMACOG	2021	$112,800
C-30	101917	TMACOG FY 22 Rideshare Program	TMACOG FY 22 Rideshare Program.	TMACOG	2022	$112,800
C-31	102623	Jerusalem Rd (SR 2) Bridge Replacement	Jerusalem Rd (SR 2) bridge replacement over Cedar Creek.	ODOT	2023	$1,543,874
C-32	102907	US 20A Resurface from SR 2 to Briarfield	Road Resurfacing on US 20A (Wilkins/Maumee-Western) from SR 2 (Airport Hwy) to Briarfield.	ODOT	2023	$1,051,000
C-33	102909	US 24 Resurface from Maumee Corp to Monclova Rd	Resurface US 24 from near Maumee Corp line to Monclova Rd.	ODOT	2022	$2,174,000
C-34	102922	US 23 Resurface from Ault Rd to Pemberville Rd	A district allocation funded project to resurface US-23 from Ault Rd to Pemberville Rd.	ODOT	2022	$2,678,000
C-35	102925	SR 235 Bridge Replacements	Replace bridges on SR 235 over North Branch Portage River and Edwards Ditch.	ODOT	2022	$785,200
C-36	102928	Fallen Timbers Ln Bridge Rehab	Rehab Fallen Timbers Ln bridge over US 24.	ODOT	2022	$2,013,553
C-37	102930	Gypsy Lane Rd and Poe Rd Bridge Rehab	Rehabilitate the Gypsy Lane Rd and Poe Rd bridges over I-75 by replacing bridge decks, rehab. abutments to semi-integral and replace approach slabs.	ODOT	2021	$2,275,600
C-38	102938	I-475 Bridge Deck Sealings	Deck sealing on various bridges along I-475 in Lucas County; 26 bridges impacted.	ODOT	2022	$1,063,000

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-39	102940	SR 120 Bridge Replacement	Replace SR 120 Bridge over Ottawa River.	ODOT	2024	$4,309,000
C-40	102942	US 20 Bridge Replacement	Replace US 20 bridge over Heldman Ditch.	ODOT	2022	$1,200,200
C-41	103417	Chessie Circle Trail Paving	This 3.0 mile CMAQ project will provide a 16' paved surface on the existing Chessie Circle Trail from Bowman Park to University Hills.	City of Toledo	2021	$1,773,000
C-42	103508	SR 25 Reconstruction from Detroit Ave to Glendale Ave	Reconstruct of SR-25 (AWT) in Toledo from Detroit Ave to Glendale Ave.	City of Toledo	2022	$20,544,778
C-43	103647	I-475 Noisewall Construction: Various Locations	Noisewall Construction: on I-475 from University Parks Trail to Holland Sylvania Rd. (US 23 interchange), on I-475 from Woodley Rd to Secor Rd, and on US 23 from I-475 to Sylvania corp. line.	ODOT	2021	$5,457,000
C-44	103758	Marengo St Bridge Replacement	Replacement of the Marengo St bridge over ravine to Delaware Creek.	City of Toledo	2021	$2,168,283
C-45	104417	Wenz Rd Reconstruction from Angola Rd to Hill Ave	Full Depth Reclamation of Wenz Rd from Angola Rd to Hill Ave including widening for asphalt shoulders, new walk, new bike facilities, and water quality drainage improvements.	City of Toledo	2021	$2,286,600
C-46	104428	Oregon Rd Resurface from Turnpike to First/Biniker	Oregon Rd Resurfacing from the Turnpike to First/Binker. This project consists of 2" of pavement planning, 1.5" of Intermediate course and 1.5" of Surface course. A 5' stone berm and all appropriate pavement markings and casting adjustments will also be included.	WOOD COUNTY ENGINEER	2021	$2,550,718
C-47	104484	TMACOG SFY 21 TIP Management	TMACOG SFY21 TIP Management.	TMACOG	2021	$100,000
C-48	104487	Holland Sylvania Rd Resurface from Bancroft St to Elmer St	This project will resurface Holland Sylvania Rd, from Bancroft St to Elmer St Also includes the installation of sidewalk south of Bancroft St.	City of Toledo	2021	$1,198,240
C-49	104493	SR 25 and Roachton Rd Intersection Improvements	Add a through / right lane on the east approach; add a through outbound Lane on the west approach, from SR-25 to Doug Guest Drive. Extend the storage length for the east approach left-turn lane. Upgrade pavement markings, signage and signalization.	City of Perrysburg	2021	$841,000
C-50	104496	SR 25 and W. South Boundary Intersection Improvements	Add a second left turn lane for the east approach and a right turn lane for the south approach. Upgrade pavement markings, signage, and signalization.	City of Perrysburg	2021	$550,485
C-51	104498	Bancroft St Resurface and Intersection Improvements	Intersection improvements at Bancroft St and McCord Rd Bancroft St resurfacing from St. Andrews to Wilford; McCord from Woodridge Apts. to Regents Park.	LUCAS COUNTY ENGINEER	2021	$637,000
C-52	105531	SR 795 Resurface from CSX Bridge to Fostoria Rd	Microsurfacing SR 795 from CSX Bridge to Fostoria Rd in Wood County.	ODOT	2024	$360,000
C-53	105652	SR 281 Bridge Replacement	SR 281 bridge replacement. Replace superstructure with composite prestressed box beams.	ODOT	2023	$832,000
C-54	105704	District Wide Traffic Signal Upgrades	A district allocation funded project to upgrade existing traffic signals.	ODOT	2022	$250,000

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-55	105705	ODOT District 2 Traffic Signal Improvements FY 23	A district allocation funded project to maintain/upgrade existing traffic signals district wide.	ODOT	2023	$250,000
C-56	106389	US 24 (Anthony Wayne Trail) Multiple Intersection Improvements	A safety funded project to improve various intersections on US 24 (Anthony Wayne Trail) from Monclova Rd to Detroit Ave in the City of Maumee.	City of Maumee	2022	$7,346,130
C-57	106393	US 20A at Weckerly Rd Roundabout	preventative maintenance - SR 2 in Lucas and Ottawa County; perform necessary related work.	LUCAS COUNTY ENGINEER	2021	$1,390,528
C-58	106633	Schneider Rd ADA Ramps from Byrne Rd to Detroit Ave	A SRTS project to construct ADA compliant ramps on the north side of Schneider Rd between Byrne Rd and Detroit Ave.	City of Toledo	2021	$440,000
C-59	106709	TMACOG FY 23 Air Quality Program	TMACOG FY 2023 Air Quality Program.	TMACOG	2023	$68,000
C-60	106711	TMACOG FY 23 Rideshare Program	TMACOG FY2023 Rideshare Program.	TMACOG	2023	$112,800
C-61	106931	US 23 Noisewall Construction from Monroe St to Michigan Line	Construct type II noise barriers on US 23 in Lucas County between Monroe Street bridge and Michigan State Line.	ODOT	2022	$2,601,530
C-62	107168	Monclova Rd and Wreckerly Rd Roundabout	A CEAO HSIP funded project to convert the intersection of Monclova Rd and Weckerly Rd from a minor-road stop control to a modern roundabout including lighting and landscaped center island.	LUCAS COUNTY ENGINEER	2022	$522,000
C-63	107405	Roche De Boeuf Bridge improvements	Address safety concerns of the Roche De Boeuf Interurban bridge over the Maumee River in Wood/Lucas County.	ODOT	2022	$1,570,000
C-64	107469	Swan Creek Trail	Using CMAQ funds, construct a 10 foot wide shared use path beginning at the existing parking lot off Airport Hwy. to Swan Creek Metropark.	Toledo Area Metropark District	2021	$2,675,981
C-65	107485	Jefferson Ave Cycle Track	This CMAQ funded project would create a 10' cycle track along one side of Jefferson Avenue from Summit St. to Collingwood Blvd.	City of Toledo	2021	$2,033,900
C-66	107489	Monroe St and Silica Dr Intersection Improvements	This CMAQ fund project would construct intersection improvements at Monroe St and Silica Dr, including an additional EB lane on Monroe St from Silica Dr to Main St.	City of Sylvania	2023	$3,263,562
C-67	107613	SR 199 Bridge Replacement	Replace bridge on SR 199 over the North Branch Portage River tributary.	ODOT	2021	$632,000
C-68	107717	SR 582 Bridge Replacement	Replace bridge on SR 582 over the Toussaint Creek tributary.	ODOT	2024	$295,000
C-69	107740	SR 64 Culvert Replacement	Replace existing culvert on SR 64 at mile marker 7.82.	ODOT	2022	$275,000
C-70	107947	ODOT District 2 Traffic Signal Improvements FY 24	A district allocation funded project to maintain/upgrade existing traffic signals district wide; perform necessary related work.	ODOT	2024	$250,000
C-71	107956	Road Work: Chip Seal	Chip seal Various Routes in Various locations. Grand Rapids bridge to Berkey Southern (SR 295); Berkey Southern (SR 295) from River to US 24; and SR 281 from Henry-Wood County Line to SR 235.	ODOT	2024	$2,000,000
C-72	107958	US 23 Resurface from I-475 to Michigan line	Resurface US 23 from I-475 to Michigan line.	ODOT SPONSORING AGENCY	2024	$3,400,000
C-73	108147	Napoleon Rd and Campbell Hill Rd Roundabout	A CEAO funded safety project to construct a roundabout at the intersection of Napoleon Rd. & Campbell Hill Rd. in Wood County south of Bowling Green, Ohio.	ODOT	2021	$1,475,717

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-74	108421	SR 2 Bridge Rehab	A bridge rehab project on SR 2 over I-280.	ODOT	2021	$242,000
C-75	108441	Wooster St and Campbell Hill Rd Roundabout	A CMAQ funded safety project to construct a roundabout at the intersection of Wooster St & Campbell Hill Rd in City of Bowling Green, Ohio.	ODOT	2023	$1,143,750
C-76	108444	SR 64 Intersection Improvements	A CMAQ funded project to install two right turn lanes on SR 64 in Lucas County. Specifically, a southbound right-turn lane on the Anthony Wayne Trail (AWT) at Farnsworth Rd and adding a westbound right-turn lane on Mechanic St at the AWT.	City of Waterville	2022	$665,000
C-77	108456	Indiana Ave Road Widening from SR 25 to Findlay St	A CMAQ funded project to install additional turn lanes at the intersection SR 25 & Indiana Ave; widen Indiana Ave from SR 25 to Findlay St.	City of Perrysburg	2022	$1,485,625
C-78	108457	City of Toledo Signage	City of Toledo Gateway on US 20 (near Heatherdowns) signage.	City of Toledo	2021	$210,000
C-79	108465	SR 2 and Byrne Rd Intersection Improvements	A CMAQ funded project to construct double turn lanes on Byrne Rd for WB traffic on Airport Hwy and also on Airport Hwy for NB traffic on Byrne Rd. It would also allow for exclusive right turn drop lanes on Airport Hwy, in both directions and SB to WB turn movement.	City of Toledo	2022	$4,563,960
C-80	108682	Laskey Rd and Lewis Ave Intersection Improvements	A safety funded project for intersection improvements (signal, turn lanes) at Laskey Rd and Lewis Ave in the City of Toledo.	City of Toledo	2022	$600,000
C-81	108683	Laskey Rd and Talmadge Rd Intersection Improvements	A safety funded project for Intersection improvements (signal, turn lanes) at Laskey Rd and Talmadge Rd in the City of Toledo.	City of Toledo	2022	$810,000
C-82	108793	Airport Hwy Resurface from Byrne Rd to South Ave	An Urban paving project to resurface Airport Hwy (SR 2) from Byrne Rd to South Ave in the City of Toledo.	City of Toledo	2021	$1,352,000
C-83	108794	Dorr St (SR 246) Resurface from Reynolds Rd (US 20) to Byrne Rd	An Urban paving project to resurface Dorr St (SR 246) from Reynolds Rd (US 20) to Byrne Rd in the City of Toledo.	City of Toledo	2021	$2,000,000
C-84	108877	Corduroy Bridge Replacement	Corduroy bridge replacement over Reno Side Cut.	Lucas County Engineer	2024	$765,000
C-85	109082	Gaurdrail Replacement	Replace existing guardrail along various routes in Wood County.	WOOD COUNTY ENGINEER	2021	$100,000
C-86	109196	Starr Ave Resurface from Whittlessey to Lanllendorf	A MPO funded project to resurface Starr Ave in Lucas County from Whittlessey St to Lallendorf Rd.	City of Oregon	2021	$1,145,353
C-87	109330	Maumee Bay State Park Improvements	ODNR project to resurface Cabin Rd. and perform maintenance in Maumee Bay State Park.	ODNR	2021	$520,000
C-88	109339	Mary Jane Thurston Park Improvements	ODNR project to resurface Day-Use area in the Mary Jane Thurston State Park.	ODNR	2021	$125,000
C-89	109346	Fort Meigs Wildlife Area Improvements	ODNR resurfacing project in Fort Meigs Wildlife Area.	ODNR	2022	$60,000
C-90	109388	Maumee River Multi-use Path: Phase 3	Maumee River Multi-use path Phase 3 on Water St from Riverside Park to the Greenlane.	City of Perrysburg	2022	$247,500
C-91	109391	Kilburn Rd Bike Lanes Phase 2	A TMACOG funded project to add bike lanes along Kilburn Rd. from Sylvania Ave to Brint Rd.	LUCAS COUNTY ENGINEER	2022	$1,249,600
C-92	109392	Kilburn Rd Bike Lanes Phase 3	A TMACOG funded project to add bike lanes along Kilburn Rd from Brint Rd to Metamora Rd.	LUCAS COUNTY ENGINEER	2023	$1,194,600

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-93	109516	US 20 Resurface	Road Resurfacing: US 20 from East Boundary to SR 795/Indiana, and SR 25 from Craig to Findlay.	City of Perrysburg	2021	$65,274
C-94	109559	Stoney Ridge Bridge Replacement	Replace existing bridge on Stoney Ridge Rd over Ditch 1873.	WOOD COUNTY ENGINEER	2021	$786,005
C-95	109560	Mermill Rd Bridge Replacement	Replace existing bridge on Mermill Rd over Bull Creek.	WOOD COUNTY ENGINEER	2022	$1,005,400
C-96	109596	SR 2 and Coy Rd Road Improvements	An ODOT Safety funded project to install right turn lanes on Coy Rd, median islands on Navarre Ave and upgrade signal. Replace bridge on Coy Rd, north of the intersection.	City of Oregon	2021	$1,469,470
C-97	109598	Monroe St and Harroun Rd improvements	Realign intersection, upgrade Signal and install right in right outs at access drives on Monroe St at Harroun Rd and Kroger Dr in the City of Sylvania. Also, eliminate EB Monroe St left turn lane to Toledo Memorial Park (TMP) access drive at Kroger.	City of Sylvania	2022	$1,531,372
C-98	109640	Neapolis-Waterville and SR 295 Roundabout	A Safety funded project to construct a roundabout at Neapolis-Waterville Rd and SR 295 in Lucas County.	ODOT	2022	$1,094,460
C-99	109672	Road Improvements: Various Wood County Locations	A CEAO funded project to paint pavement markings on various county routes in Wood County.	WOOD COUNTY ENGINEER	2021	$50,000
C-100	109794	Brint Rd and Kilburn Rd Roundabout	A CEAO project to construct a roundabout at the intersection of Brint Rd and Kilburn Rd in Lucas County.	LUCAS COUNTY ENGINEER	2022	$881,000
C-101	110037	SR 25 Resurface from Bowling Green Corp Line to SR 582	A resurfacing project to mill and fill SR-25 from BG north corp line to SR-582 with some minimal pavement repairs.	ODOT SPONSORING AGENCY	2022	$1,133,500
C-102	110068	Bridge and Storm Water Maintenance	An electrical maintenance contract for 3 bridges and 4 storm water pump stations in Lucas County.	ODOT	2021	$143,000
C-103	110071	Craig Bridge St Bridge Operations	A contract to operate the Craig and Port Clinton lift bridges over the Maumee River.	ODOT	2021	$465,000
C-104	110330	Angola Rd and King Rd Roundabout	A CEAO project to construct a roundabout at the intersection of Angola Rd (CR 32) and King Rd (CR 71) and also installing left turn lanes at the intersections of Meadow Blvd and Wentworth Ave.	LUCAS COUNTY ENGINEER	2023	$1,895,000
C-105	110334	Guardrail Replacement: Various Wood County Locations	Replace existing guardrail along various routes in Wood County.	WOOD COUNTY ENGINEER	2022	$100,000
C-106	110335	Wood County Road Improvements	A CEAO funded project to paint pavement markings on various county routes in Wood County.	WOOD COUNTY ENGINEER	2022	$50,000
C-107	110342	Bays Rd Bridge Replacement	A CEAO Fed/State Exchange bridge replacement on Bays Rd over Ditch 2441.	WOOD COUNTY ENGINEER	2022	$615,000
C-108	110345	Brint Rd and Centennial Rd Roundabout	A CEAO project to construct a roundabout at the intersection of Brint Rd and Centennial Rd in Lucas County.	LUCAS COUNTY ENGINEER	2024	$898,000
C-109	110346	Hill Ave and Centennial Rd Roundabout	A CEAO project to construct a roundabout at the intersection of Hill Ave and Centennial Rd in Lucas County.	LUCAS COUNTY ENGINEER	2024	$910,000
C-110	110362	Garden Rd and Albon Rd Roundabout	A CEAO project to construct a roundabout at the intersection of Garden Rd and Albon Rd in Lucas County.	LUCAS COUNTY ENGINEER	2024	$858,000

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-111	110486	US 20 and McCord Traffic Signal Improvements	A safety funded project at the Intersection of US 20 (Central Ave) and McCord Rd to upgrade the existing signal with mast arms, install overhead use signs and make left turns protected only.	ODOT	2021	$550,000
C-112	110490	Access Management at Reynolds Rd and Hill Ave	A Safety funded project at Reynolds Rd and Hill Ave to control access management for NB & WB approaches, upgrade signal to provide protected left turn phases on all approaches, resurface all 4 approaches, reconstruct slip ramps for improved angle of approach.	ODOT	2022	$2,000,000
C-113	110495	Alexis Rd and Lewis Ave Intersection Improvements	A Safety funded project at SR-184R (Alexis Rd) at CR-500 (Lewis Ave) to upgrade signal to provide protected left turn phases on all approaches, resurface all 4 approaches, restripe WB & NB approaches to create dual left turn lanes, install NB overhead lane.	ODOT	2021	$1,560,000
C-114	110500	Reynolds Rd and Heatherdowns Blvd Intersection Improvements	A Safety funded project on US 20 (Reynolds Rd) at CR-84 (Heatherdowns Blvd) to upgrade signal, provide protected left turns for EB approach, resurface/restripe West leg to provide dual EB left turn lanes, and install medians on Heatherdowns Blvd.	ODOT	2022	$770,000
C-115	110512	I-75 Bridge Rehab	Construct a new bridge overlay on the I-75 NB Ramp Bridge over the Ohio Turnpike.	ODOT	2021	$456,500
C-116	110514	Walbridge Rd Bridge Rehab	Place a new bridge overlay on the Walbridge Rd bridge over I-280 in Wood County.	ODOT	2022	$643,500
C-117	110516	Perrysburg-Holland Rd Bridge Rehab	A project to re-deck the Perrysburg-Holland Rd bridge over I-475 in Lucas County.	ODOT	2022	$1,690,000
C-118	110547	I-75 Noisewall Replacement	Replace existing Noisewall along SB I-75 between US 20 and SR 795 in Wood County and place new noisewall along I-475 between Douglas Rd and Monroe St in Lucas County.	ODOT	2023	$770,000
C-119	110827	Jackman Rd Pedestrian Signal Improvements	Install signalized crossing on Jackman Rd to allow student crossing for Longfellow Elementary and connect to part of the City of Toledo Bike Plan trail system that is adjacent to the school.	City of Toledo	2022	$435,438
C-120	110839	N. Lemoyne Rd Sidewalk Installation	Install sidewalk along N Lemoyne Rd between Curtice Rd and Wise St.	City of Northwood	2022	$165,000
C-121	111121	Lewis Rd Reconstruction from Shantee Creek to Laskey Ave	Lewis Rd Full reconstruction of the pavement from Laskey Rd to Shantee Creek, including new curb, drive aprons, and new sidewalk. Lewis Rd. will be resurfaced from Shantee Creek to Alexis Rd and will include widening at the Alexis Rd intersection.	City of Toledo	2023	$5,567,210
C-122	111193	South Main Street rehab from Napoleon Rd to Gypsy Lane Rd	A TMACOG funded four lane rehabilitation on South Main St (SR 25) from Napoleon Rd to Gypsy Lane Rd Project includes milling the existing surface; excavation and repair of deteriorated joints in concrete base; concrete drive approaches; curb replacement. Reconstruction on SR 25 from Gypsy Lane Rd to US 6 will be completed in FY 2024.	City of Bowling Green	2024	$1,960,900
C-123	111200	Collingwood Blvd Reconstruction from Central Avenue (SR-120) to Hackett Rd	A TMACOG funded project to reconstruct Collingwood Blvd, in the City of Toledo, from Central Ave. (SR-120) to Hackett Rd; The project includes the full reconstruction of the pavement, new curb, drive aprons, and sidewalk.	City of Toledo	2024	$2,155,300
C-124	111203	Holland Sylvania Rd Resurface from Perrysburg-Holland Rd to Merger Dr	A TMACOG funded "small" project to resurface Holland-Sylvania Rd from Perrysburg-Holland Rd to Merger Dr in Lucas County.	LUCAS COUNTY ENGINEER	2023	$1,150,000
C-125	111207	Main Street Reconstruction from Ten Mile Creek to Convent Blvd	Full-depth reconstruction of Main St including storm sewer replacement and traffic signals from bridge over Ten Mile Creek to Convent Blvd. The existing roadway width will undergo a "road diet".	City of Sylvania	2023	$792,133

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-126	111208	Starr Ave Resurface from East Broadway to I-280	A MPO funded project to resurface Starr Ave in the City of Toledo from east Broadway St to I-280.	City of Toledo	2024	$1,225,692
C-127	111219	North Main St Resurface from CSX Railroad to Breckman St	Road Resurfacing from North Main St between the CSX Railroad to Breckman St within the Village of Walbridge; revise signs and markings to provide bicycle facilities.	Village of Walbridge	2023	$298,734
C-128	111253	Wapakoneta Rd Resurface from SR 65 to Grand Rapids	A TMACOG funded project to Mill and resurface Wapakoneta Rd from SR 65 to the Southern Corp line within the Village of Grand Rapids including completing sidewalk gaps and installing curb ramps.	GRAND RAPIDS	2023	$356,619
C-129	111262	Local NHS Type A Terminal assemblies Replacement	Replacement of type "A" terminal assemblies on the local NHS system; perform necessary related work.	ODOT	2021	$907,500
C-130	111306	Broadway St Reconstruction from Stebbins St to Western Ave	Full reconstruction of the Broadway St including new curbs, drive aprons, and sidewalk from Stebbins St to Western Ave. Also, the project would include a road diet on Broadway St from South to Western Ave.	City of Toledo	2024	$7,653,344
C-131	111328	TMACOG SFY 22 TIP Management	TMACOG SFY22 TIP Management.	TMACOG	2022	$100,000
C-132	111330	TMACOG SFY 23 TIP Management	TMACOG SFY23 TIP Management.	TMACOG	2023	$100,000
C-133	111332	TMACOG SFY 24 TIP Management	TMACOG SFY24 TIP Management.	TMACOG	2024	$100,000
C-134	111333	TMACOG FY 24 Air Quality Program	TMACOG FY 24 Air Quality Program.	TMACOG	2024	$85,000
C-135	111336	TMACOG FY 2024 Rideshare Program	TMACOG FY2024 Rideshare Program.	TMACOG	2024	$112,800
C-136	111371	King Rd Resurface from Central Ave to King's Pointe Rd	A TMACOG funded project on CR 71 (King Rd) from Central Ave to King's Pointe Rd. The scope of work includes milling the existing pavement, performing spot full depth repairs, placing a two course asphalt concrete overlay, adjusting manholes.	LUCAS COUNTY ENGINEER	2024	$535,567
C-137	111374	Stickney Ave Resurface from CSX RR to Benore Rd	A TMACOG funded project on Stickney Ave (CR 169) from CSX RR track to Benore Rd. The scope of work includes milling the existing pavement, performing spot full depth repairs, placing a two course asphalt concrete overlay, spot curb and gutter replacement.	LUCAS COUNTY ENGINEER	2024	$550,000
C-138	111416	Centennial & King Rd Intersection Improvements at US 20	Install NB right turn lanes and traffic signal modifications at the intersections of Centennial at US 20 (Central Ave) and King at US 20 (Central Ave).	LUCAS COUNTY ENGINEER	2021	$200,000
C-139	111509	Perrysburg Roadway Improvements	A TMACOG small project funded project to add left turn lanes on SR 25, upgrade Preston Prky and Ft Meigs Blvd approaches, convert Harold St to right in - right out and install walk and signal at the intersection.	City of Perrysburg	2021	$638,000
C-140	111513	Airport Hwy Sidepath	A TMACOG TAP funded project to construct a side path along the north side of Airport Hwy (SR 2) from West Mall Dr to Holland Sylvania Rd. Traffic signal modifications at the I-475 SB exit and NB entrance ramps.	Springfield Twp.	2022	$703,730
C-141	111523	SR 64 Sidepath	A TMACOG funded TAP project to install a 10' path along the north side of SR 64 between Whitehouse Sq. Blvd and Finzel Rd. Project includes a new 14' wide pedestrian bridge over Blue Creek.	Village of Whitehouse	2023	$604,500

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-142	111524	Munding Dr & Dearborn Ave Reconstruction	A TMACOG funded project to reconstruct Munding Dr and Dearborn Ave between Navarre Ave and S. Wheeling St. The project will also include signage, pavement markings, ADA curb ramps and related work.	City of Oregon	2023	$1,250,704
C-143	111525	Martin Luther King Memorial Bridge Boardwalk	A TMACOG funded project to install boardwalk under the Martin Luther King Memorial Bridge. The boardwalk will connect Glass City Metro-park with International Park along the edge of the Maumee River.	Toledo Area Metropark District	2024	$1,742,573
C-144	111528	Jackman Rd Resurface from Alexis Rd to Brim Dr	A TMACOG funded project to mill and resurface Jackman Rd from Alexis Rd to Brim Dr. Project includes full depth pavement repairs, sidewalk additions and improvements, minor drainage improvements, and curb repairs as needed.	City of Toledo	2024	$1,387,360
C-145	111529	Ottawa River Rd/108th St Mini Roundabout	A TMACOG CMAQ funded project to install a "mini-roundabout" at the intersection of Ottawa River Rd and 108th St in Point Place.	City of Toledo	2024	$530,300
C-146	111530	Holloway/Salisbury Rd Roundabout	A TMACOG CMAQ funded project for construction of a roundabout at the intersection of Holloway Rd and Salisbury Rd. The roundabout will be a single lane roundabout with drop right turn lanes on the westbound and southbound approaches.	Lucas County Engineer and Monclova Twp.	2024	$1,730,131
C-147	111533	Martin Luther King Memorial Bridge Multi-use Path	A TMACOG funded project to install a Multi-use path on the Martin Luther King Memorial Bridge from Summit St to International Park.	City of Toledo	2024	$4,286,274
C-148	111537	Newton Rd Resurface from Brim Rd to SR 25	A TMACOG funded project to resurface Newton Rd from Brim Rd to State Route 25 (North Main St).	City of Bowling Green	2024	$333,000
C-149	111563	Silica St Bridge Replacement	Silica St bridge replacement over Ten Mile Creek within the City of Sylvania.	City of Sylvania	2023	$1,272,981
C-150	111565	Riva Ridge Bridge Replacement	Riva Rd bridge replacement over Ditch 2404 within the Village of Ottawa Hills.	OTTAWA HILLS	2023	$744,050
C-151	111542	Riverside Trail and Water St Sidepath	Construct a sidepath along Water St between the MLK bridge and Olive St.	City of Toledo	2025	$2,138,141
C-152	111544	Oregon Multiuse Path	Construct a multiuse path between Pickle Rd and Brown Rd.	City of Oregon	2025	$250,000
C-153	111546	Byrne Rd Bike Lane Construction	Construct bicycle lanes on Byrne Rd from Glanzman Rd to Detroit Ave.	City of Toledo	2025	$2,216,630
C-154	105889	US 23 and Monroe Street Interchange Upgrades	Upgrade the US 23 and Monroe St Interchange.	City of Sylvania	2025	$28,051,064
C-155	111303	Secor Rd Reconstruction from Alexis Rd to Laskey Rd	Reconstruct Secor Rd from Alexis Rd to Laskey Rd.	City of Toledo	2025	$8,892,362
C-156	111368	Manhattan Blvd Resurface from Stickney to Wallace	Resurfacing Manhattan Blvd from Stickney Ave to Wallace Ave.	City of Toledo	2025	$4,124,808
C-157		Road Improvements	Resurfacing Overlay on Samaria Rd, St. Anthony Rd, Secor Rd, and Lakeside Rd from US 23 to US 24.	MCRC	2021	$920,000
C-158		Jackman Rd Road Improvements	Resurfacing on Jackman Rd from the Ohio State line to Smith Rd.	MCRC	2021	$105,000
C-159	99731	20A Interchange	20A Interchange and I-475 widening.	ODOT	2022	$90,000,000
C-160		SR 51 resurfacing	SR 51 resurfacing from Talmadge Rd to US 23 NB on ramp.	Lucas County, City of Sylvania & City of Toledo	2023	$2,673,000
C-161		Brint Rd Resurfacing	Resurfacing on Brint Rd from Wind Swept Ln to Silica Rd.	Lucas County & City of Sylvania	2020	$561,000

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-162		Centennial Rd Resurfacing	Resurfacing on Centennial Rd from Sylvania Metamora Rd to Timothy Ln.	City of Sylvania	2020	$264,000
C-163		Corduroy Resurfacing	Resurfacing on Corduroy Rd from Yondota to Anchor Point.	Lucas County	2020	$255,000
C-164		Douglas Rd Resurfacing	Resurfacing on Douglas Rd from Alexis Rd to the Michigan State Line.	City of Toledo	2024	$1,404,000
C-165		Dutch Rd Resurfacing	Resurfacing on Dutch Rd from Waterville Monclova Rd to east of Waterville Monclova Rd.	Lucas County	2020	$159,500
C-166		Erie Rd Resurfacing	Resurfacing on Erie Rd from west of Centennial Rd to east of Centennial Rd.	City of Sylvania & Lucas County	2020	$71,500
C-167		Gibbs Rd Reconstruction	Reconstruction of Gibbs Rd from Anthony Wayne to Meadow apartments driveway.	City of Maumee	2020	$418,000
C-168		Hill Rd Resurfacing	Resurfacing on Hill Rd from Orchid to McCord Rd.	Lucas County	2021	$396,000
C-169		Hill Rd Resurfacing	Resurfacing on Hill Rd from Hilton to Holland Sylvania Ave.	City of Toledo	2021	$2,210,000
C-170		King Rd Resurfacing	Resurfacing on King Rd from Sylvania to north of Sylvania.	City of Sylvania & Lucas County	2020	$49,500
C-171		Oak Rd Resurfacing	Resurfacing on Oak Rd from Woodville Rd to Front St.	City of Toledo	2021	$539,000
C-172		Resurfacing on Providence Neapolis Swanton Rd	Resurfacing on Providence Neapolis Swanton Rd from Central to Wabash Cannonball Trail South Form.	Lucas County	2020	$37,500
C-173		River Rd Reconstruction	Reconstruction of River Rd from Jackson Rd to the Ohio Turnpike.	City of Maumee	2023	$12,948,000
C-174		Tremainsville Rd Resurfacing	Resurfacing on Tremainsville Rd from Laskey Rd to Alexis Rd.	City of Toledo	2024	$737,000
C-175		Waterville Monclova Rd Resurfacing	Resurfacing on Waterville Monclova Rd from Dutch Rd to Stitt Rd.	Lucas County	2020	$555,500
C-176		SR 18 Resurfacing	Resurfacing on SR 18 from west of Rose to Hancock County Line.	ODOT	2022	$177,750
C-177		Bridge Replacement	Bridge Replacement on Lemoyne Rd over Dry Creek.	Wood County (Lake Township)	2020	$165,900
C-178		Bridge Replacement	Bridge Replacement on Hull Prairie Rd over Ditch 2090.	Wood County (Perrysburg Township)	2020	$187,200
C-179		Bridge Rehab	Bridge Rehab on Cummings Rd over Henry Ditch.	Wood County (Lake Township)	2022	$89,100
C-180		Bridge Rehab	Bridge rehab on Milton Rd over Ditch 2389.	Wood County (Grand Rapids Township)	2021	$85,230
C-181		Bridge Replacement	Bridge Replacement on Yarrow Rd over Otter Creek.	City of Oregon	2020	$271,200
C-182		Bridge Replacement	Bridge Replacement on Perrysburg Holland Rd over Cairl Creek.	Lucas County (Springfield Township)	2023	$513,300
C-183		Bridge Rehab	Bridge Rehab on East Broadway St over Cedar Creek.	Wood County (Lake Township)	2021	$422,460
C-184		Bridge Rehab	Bridge Rehab on Long Judson Rd over Ditch 2244.	Wood County (Plain & Washington Township)	2020	$151,200
C-185		Bridge Rehab	Bridge Rehab on Hammansburg Rd over Brush Creek.	Wood County (Jackson Township)	2022	$219,060

Table 4.1: 2045 Plan Committed Projects

Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-186		Bridge Rehab	Bridge Rehab on Robinson Rd over Tontogany Creek.	Wood County (Washington Township)	2020	$292,500
C-187		Bridge Rehab	Bridge rehab on Gorrill Rd and Mitchell Rd over Ditch 2313.	City of Bowling Green (Plain Township)	2020	$154,980
C-188		Bridge Rehab	Bridge Rehab on Monroe St over Ten Mile Creek.	City of Sylvania	2021	$490,140
C-189		Bridge Replacement	Bridge Replacement on SR 65 over Grassy Creek.	City of Rossford	2025	$571,500
C-190		Bridge Rehab	Bridge Rehab on SR 64 over Neiss Ditch.	Village of Swanton (Swanton Township)	2026	$473,040
C-191		Bridge Rehab	Bridge Rehab over SR 579 over Dry Creek.	Wood County (City of Northwood and Lake Township)	2021	$433,980
C-192		Bridge Rehab	Bridge Rehab on SR 295 over Wiregrass Ditch.	Lucas County (Spencer Township)	2025	$306,180
C-193	90125	TARTA Downtown Transit Hub	Downtown transit hub.	TARTA	2021	$10,371,661
C-194	104499	TARTA Enhanced Mobility	Enhanced Mobility for Seniors and Individuals with Disabilities FFY19, FFY20, and FFY21.	TARTA	2021-2024	$3,444,126
C-195	104511	TARTA Preventative Maintenance	Preventive maintenance using 5307 funds; capitalized maintenance using STP funds as a flex fund transfer for the Urban Transit Program.	TARTA	2021	$2,266,250
C-196	104512	TARTA Adv ADP Hardware and Software	Advanced ADP Hardware and Software.	TARTA	2021	$350,000
C-197	104514	TARTA ADA Service	ADA Service FFY21.	TARTA	2021	$4,800,000
C-198	104515	Bus Associated Transit Enhancements	Associated Transit Improvements FFY21.	TARTA	2021	$36,250
C-199	104516	TARTA Operating Assistance	Operating Assistance FFY21.	TARTA	2021	$6,200,000
C-200	104517	Buy Replacements - Bus STD 35 FT	Bus Replacement	TARTA	2021-2024	$4,596,344
C-201	104518	TARTA Bus Replacement	Bus Replacement	TARTA	2024	$1,920,896
C-202	107512	TARTA Bus Replacement	Bus Replacement	TARTA	2022	$1,000,000
C-203	111670	TARTA FY21 State of Good Repair	State of good repair	TARTA	2021	$57,624
C-204	112155	TARTA Enhanced Mobility	Enhance mobility with program admin.	TARTA	2021	$583,948
C-205	112156	TARTA Preventative Maintenance	Preventative maintenance	TARTA	2021	$6,268,998
C-206	112159	TARTA 5310 Enhanced Mobility	Enhanced Mobility for Seniors and individuals with disabilities.	TARTA	2021	$1,720,054
C-207	112160	TARTA Transit Hub	Transit Hub	TARTA	2021	$982,000
C-208	112161	TARTA State of Good Repair Cap	State of good repair - capital	TARTA	2021	$25,000
C-209	112162	TARTA Capitalized Maintenance	Capitalized maintenance	TARTA	2021	$1,173,000

Table 4.1: 2045 Plan Committed Projects

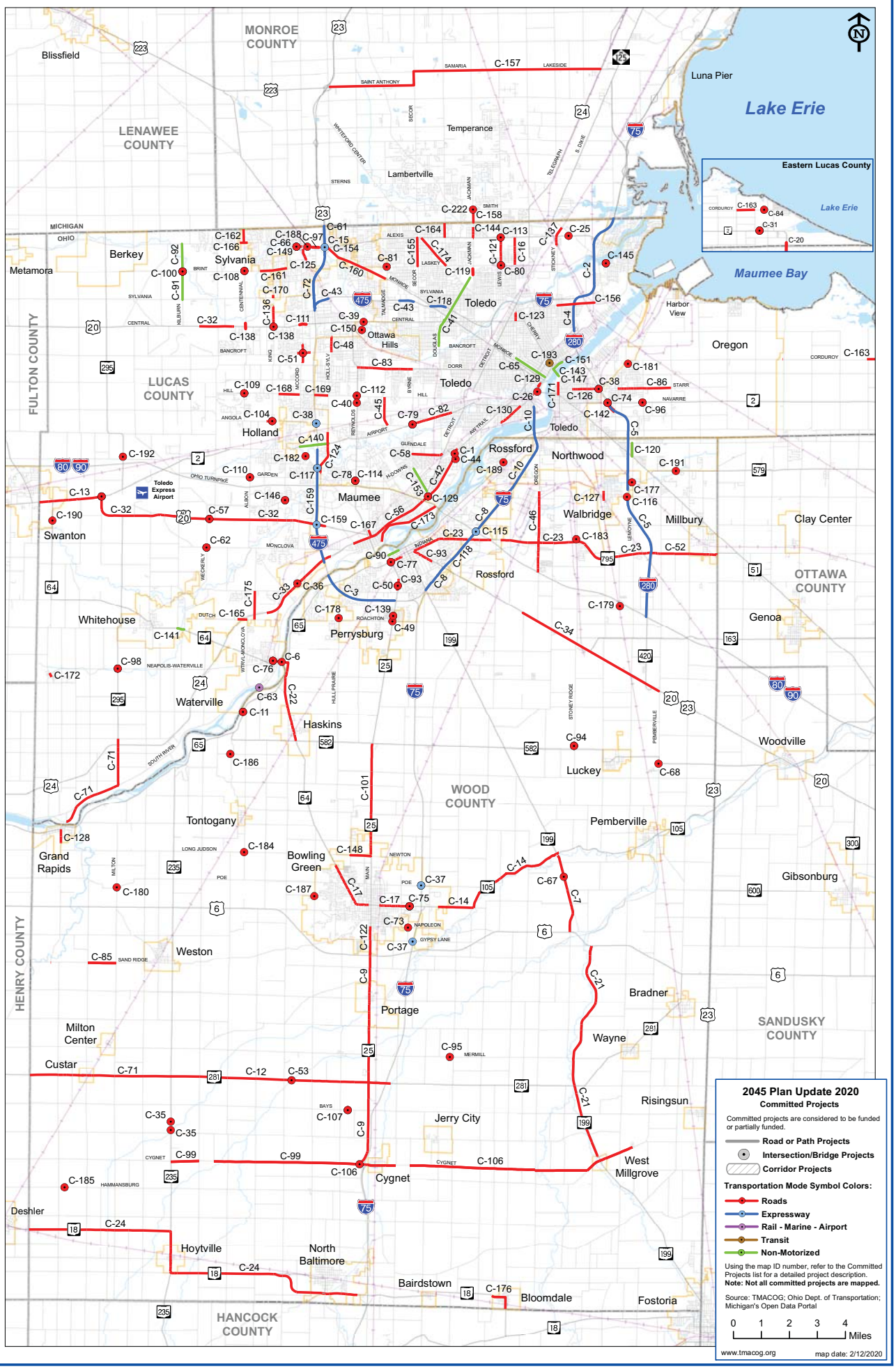
Project Number	PID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Project Cost
C-210	112163	TARTA ADV HDP Hardware	ADV HDP hardware	TARTA	2021	$350,000
C-211	112164	TARTA ADA Service 2019	ADA service 2019	TARTA	2021	$4,800,000
C-212	112165	TARTA Associated Transit Improvement	Associated transit improvements	TARTA	2021	$72,500
C-213	112166	TARTA OPT2 Bus	< 30 Buses	TARTA	2021	$1,715,000
C-214	112167	TARTA Preventative Maintenance	Preventative maintenance	TARTA	2022	$3,831,055
C-215	112168	TARTA Capitalized Maintenance	2021 capitalized maintenance	TARTA	2021	$2,266,250
C-216	112181	TARTA ADA Paratransit	ADA paratransit	TARTA	2021-2024	$7,728,380
C-217	112191	TARTA Operating Assistance	Operating assistance	TARTA	2021-2024	$21,317,920
C-218	112194	TARTA State of Good Repair	State of good repair	TARTA	2021	$119,090
C-219	112197	TARTA Bus and Bus Facilities	Bus & bus facilities program FY2021	TARTA	2021	$1,920,896
C-220	112200	TARTA Enhanced Mobility	TARTA enhanced mobility	TARTA	2021	$527,868
C-221	112201	TARTA Enhanced Mobility	TARTA enhanced mobility	TARTA	2021-2024	$191,952
C-222		Intersection Improvements	Jackman Rd and Smith Rd roundabout.	MCRC	2021	$1,000,000

* Projects without a PID number are funded locally

Figure 4.1: TMACOG 2045 Plan Update 2020 - Committed Projects

TMACOG 2045 Plan Update 2020 - Committed Projects

Toledo Metropolitan Area Council of Governments



4.1.2 Priority Projects

Priority projects are those that are not yet funded but have been identified as regional needs. Priority projects are ordered by their rank. **Table 4.2** lists the plan's Priority projects. Based on the estimate of resources available between now and the year 2045, there should be adequate resources to fund all projects. Note that some projects will be able to proceed only through additional funding not included as part of the expected fiscal resources. The column of costs excludes the full cost of projects that will require the additional funding.

For Priority projects, a date or date range is listed for "estimated construction year." The project cost is the estimated cost for the expected year of construction: it was calculated using an inflation factor of 1%. For any projects with a date range for construction, the inflation rate was applied to the middle year of the date range.

The total estimated year-of-construction cost of the Priority projects, excluding needed special funding, is $2.427 billion. The breakdown of priority projects by mode is shown in the following graph in **Figure 4.2**. "Non-motorized" refers to pedestrian and bikeway projects; "Rail" includes rail-highway grade separations (over- or underpasses) and passenger rail projects.

Figure 4.2: Priority Project Breakdown by Mode

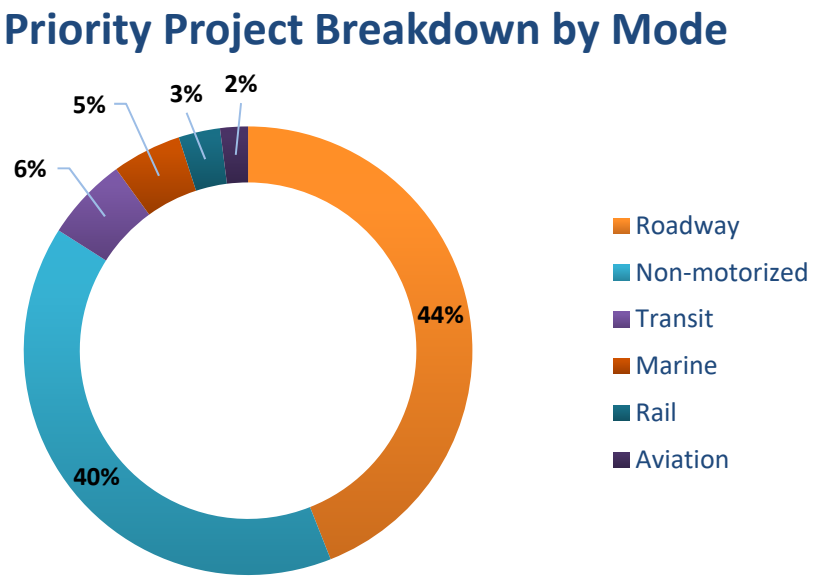


Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
1	Access Management to Navarre Ave. from Isaac St. to Lallendorf Rd.	2025-2030	$10.7	Road
2	Improve I-75/US 20 interchange in Perrysburg to more efficiently handle truck traffic moving to/from US 20.	2025-2035	$33.1	Road
3	Widen I-475 to 6 lanes from US 23 interchange east to Douglas Rd.	2030-2035	$199.2	Expressway
4	Holland-Sylvania corridor improvements from Airport Hwy. to Central Ave. Access management and intersection improvements (Angola, Hill, Door, and Bancroft).	2030-2035	$28.5	Road
5	Widen I-475 to 6 lanes(including Maumee River bridge) from US 24 to I-75 interchange in Wood County, including safety improvements at interchange.	2035-2045	$183.0	Expressway
6	Widen US 23 to 6 lanes from I-475 to the Monroe St. Interchange.	2025-2030	$32.2	Expressway
7	Reconstruct Sylvania Ave. from Secor Rd. to Douglas Rd. to improve safety.	2025-2030	$5.4	Road
8	Build Douglas/Laskey/Tremainsville intersection improvements.	2025-2030	$7.5	Road
9	Widen SR 795 to 4 lanes between Lemoyne Rd. and I-280 Interchange; widen the I-280 overpass bridge; build a grade separation at the CSX rail crossing.	2025-2035	$55.2	Road
10	Replace TARTA bus fleet (2 cycles of replacement).	2030-2035	$159.3	Transit
11	Construct rail grade separation at Phillips Ave. and Norfolk Southern railroad to improve access to the Phillips I-75 interchange.	2035-2045	$24.4	Road
12	Replace the existing signalized intersection at SR-105 (Wooster St.) & Dunbridge Rd. with a roundabout.	2025-2030	$1.5	Road
13	Implement Lucas County-wide public transit.	2025-2030	$21.4	Transit
14	Upgrade most frequently-used transit stops to make them user friendly and handicapped accessible.	2025-2030	$5.4	Transit
15	Find a solution to truck traffic using Nebraska Ave. to connect from Norfolk Southern rail terminal to I-75 Collingwood interchange - possible new connector route.	2030-2040	$34.8	Road
16	Widen Corey Rd. from I-475 to Alexis Rd. with complete streets improvements.	2040-2045	$25.1	Road
17	Build Sylvania/Jackman/Tremainsville intersection improvements.	2026-2035	$6.1	Road
18	Build Detroit/Telegraph/Laskey intersection improvements.	2025-2030	$5.4	Road
19	Construct the downtown Riverwalk/Nautical Mile.	2025-2033	$218.7	Non-motorized
20	Construct Chessie Circle Trail (multi-use trail), from Laskey Rd. to W.W. Knight Preserve in Wood County (excludes three separate projects, path from river to Glanzman, path from Jackman to University Hills Blvd, and new Maumee River bridge).	2025-2030	$6.1	Non-motorized
21	Replacement of the existing T intersection entrance to Woodbridge Industrial Park at Woodbridge Blvd. & Dunbridge Rd. with a roundabout.	2025-2030	$1.0	Road
22	McCord Rd. corridor improvements from Kipling Dr. to Sylvania Ave: access management and intersection improvements (Angola, Hill, Dorr, and Bancroft).	2030	$22.1	Road
23	Add left and/ or right turn lanes on US 20/23 at Glenwood Rd., Tracy Rd., and Luckey Rd. to improve safety and traffic flow.	2025-2035	$4.4	Road
24	Intersection improvements at Summit St. and Clayton St.; possible roundabout.	2025-2030	$4.8	Road
25	Swan Creek Trail: Construct a bike facility from Manley Rd. to Garden Rd. to Holland-Sylvania Rd. into Swan Creek Metropark to connect to Byrne Rd. to Arlington Ave., then to the Chessie Circle Trail.	2025-2030	$6.4	Non-motorized
26	Add center turn lanes to Sterns Rd. (Adler Rd. to Telegraph/US 24) and Smith Rd. (Whiteford to Telegraph) in Monroe County.	2026-2030	$32.5	Road
27	Sylvania Ave. capacity and safety improvements, McCord Rd. to US-23, additional lanes and / or roundabout project.	2030	$13.3	Road

Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
28	Safe Routes to School - Toledo: Complete facilities outlined in approved Toledo Public Schools travel plan.	2025-2030	$5.6	Non-motorized
29	Eliminate rail/highway conflicts on Matzinger Rd. at the Ann Arbor and CSX rail crossings - possible grade separation.	2030-2040	$34.8	Road
30	Widen US 20 (Central Ave.) from Centennial Rd. to west of Crissey Rd. (increase to 5 lanes).	2040	$18.3	Road
31	Riverside Trail: Construct a multi-use path from Cullen Park south along Summit St., to Water St., along the riverfront to Owens Corning Pkwy, to bike lanes on Ottawa St. and Emerald Ave. and connect to the committed sidepath along the Anthony Wayne Trail.	2025-2030	$2.1	Non-motorized
32	Re-establish Toledo to Detroit passenger rail service.	2025-2035	$220.9	Rail
33	New Maumee River passenger and freight rail bridge at the Middle Grounds.	2030-2040	$348.3	Rail
34	Riverside Trail East: Construct a path from Hollywood Casino north along the Maumee River to Miami St. at Oakdale Ave.; continue north along Miami St. International Park.	2025-2030	$1.2	Non-motorized
35	Overland Trail: Construct a sidepath from Expressway Dr. and Stickney Ave. to Manhattan Ave. to existing facilities on Summit St.	2025-2030	$7.5	Non-motorized
36	Cherry-University Trail: Construct a sidepath along Dorr St. from Douglas Rd. to 17th St. where the trail would turn north into bike lanes to Franklin Ave. and continue as bike lanes until Cherry St. where it would turn northwest into a sidepath to meet the Overland Trail.	2025-2030	$1.3	Non-motorized
37	Upgrade the interchange at I-75 and Cygnet Rd. in Cygnet.	2030-2035	$28.5	Road
38	Construct Chessie Circle Trail Bridge over the Maumee River.	2025-2030	$8.9	Non-motorized
39	Support added mechanisms for transit expansion within Wood County.	2025-2030	$4.3	Transit
40	Secor Rd. Improvements from Bancroft St. to Central Ave. (lane widening, access management)	2026-2035	$16.7	Road
41	Maumee City Bicycle Network: Provide a group of facilities to create a bicycle network connecting to and through the City of Maumee.	2030-2035	$1.4	Non-motorized
42	Safe Routes to School: Complete facilities outlined in approved school travel plans (excluding Toledo Public Schools, listed as separate project).	2025-2030	$2.7	Non-motorized
43	Build Sylvania Ave. / Herr Rd. roundabout, includes sidewalks, a sidepath and accommodation for bikes.	2035	$1.6	Road
44	Implement a transit connection between Toledo and Bowling Green.	2030-2035	$5.7	Transit
45	Erie Township and Overland Trail Connector: Provide a bike facility from Stickney Ave. at Manhattan Ave., north to Benore Rd. to Dixie Hwy.	2025-2030	$0.6	Non-motorized
46	Build Crissey Rd./Angola Rd. (E) roundabout, includes sidewalk and accommodation for bikes	2035-2030	$1.7	Road
47	Find a solution to blocked rail crossing at SR 235/SR 18 and CSX railroad in Hoytville - possible grade separation or highway bypass.	2025-2035	$21.4	Road
48	Woodville Rd. corridor safety improvements from Wheeling St. to Williston Rd. (SR 579). Project includes signal upgrades, and roundabout at SR51 & Lemoyne Rd., sidewalk improvements, and a road diet on SR 579.	2025-2030	$5.2	Non-motorized
49	Greenhouse Trail: Construct a bike facility from the University/ Parks Trail at Reynolds Rd. to Elmer Dr., then south through Toledo Botanical Gardens to Bancroft St.; via various streets to a path through Keil Farm; then via various streets to existing sidepath to Eastgate and Cass Rd. facilities to Turnpike.	2025-2030	$2.3	Non-motorized
50	Trilby-Washington Trail: Construct a bike facility on Sylvania Ave. from Talmadge Rd. to Harvest Ln., then bike lanes north to McGregor Ln., then east via various streets to Jackman Park, to the Chessie Circle Trail, and through various streets to Lagrange St. to the Overland Trail.	2025-2030	$6.1	Non-motorized

Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
51	Bowling Green City Bicycle Network: Provide a group of facilities to create a bicycle network in the city and connecting to surrounding Wood County communities.	2030-2035	$2.4	Non-motorized
52	Oregon Trail: Construct a path/sidepath to connect Craig St. Bridge path and Seaman Rd., to connect Cities of Toledo and Oregon.	2025-2030	$0.6	Non-motorized
53	Construct a pedestrian bridge over Douglas Rd. (Chessie Circle Trail and Marwood Ave. to University of Toledo).	2025-2030	$5.8	Non-motorized
54	Widen Monclova Rd. to three lanes with bike lanes east of N. Jerome Rd to I-475.	2025-2030	$2.9	Road
55	Build Providence-Neapolis-Swanton Rd. / Archbold-Whitehouse Rd. roundabout, includes sidewalks and accommodation for bikes	2030	$1.5	Road
56	Albon Rd. and Monclova Rd. intersection roundabout, includes paved shoulders for bikes on the approaches and new sidewalks for peds within the roundabout.	2035-2040	$1.7	Road
57	Buckeye Basin Trail: Construct a facility to provide connection to Uptown District with a trail starting at f Woodruff/Franklin Ave., then following the existing Greenbelt Pkwy. trail to the Overland Trail via Buckeye St.	2030-2035	$0.2	Non-motorized
58	Intersection Improvements at Flower Hospital Driveway (Harroun Rd). Potential light or roundabout.	2025-2030	$1.6	Road
59	University/Parks Trail Extension North: Construct a multi-use rail-with-trail or rail-to-trail (right-of-way acquisition needed) adjacent to Memorial Hwy. starting at U/P Trail, north to Sterns Rd. in Monroe County.	2026-2030	$2.7	Non-motorized
60	Build Monclova Rd./Waterville-Monclova Rd. roundabout, includes sidewalks and accommodation for bikes.	2025	$1.1	Road
61	Collingwood, Monroe St. to I-75 – Reconstruct Collingwood Blvd. with roundabout at Monroe St. Realign local street access to Toledo Museum of Art and enhance gateway area.	2025-2030	$5.9	Road
62	Bancroft St. and Crissey Rd. roundabout, includes paved shoulders for bikes on the approaches and new sidewalks for pedestrian within the roundabout.	2040-2045	$1.9	Road
63	Crissey Rd. and Dorr St., two roundabouts, includes paved shoulders for bikes on the approaches and new sidewalks for pedestrian within the roundabout.	2035-2045	$3.3	Road
64	Widen Lime City Rd. in the City of Rossford (SR 65-Buck Rd.); and widen in Wood County (I-75 to SR 795).	2025-2030	$2.7	Road
65	Monclova Rd., roundabout at Coder Rd., and widen to Monclova Rd. to three lanes from Coder Rd. to Waterside; includes paved shoulders for bikes, and elimination of gaps in sidewalks for pedestrians.	2040-2045	$3.8	Road
66	Find a solution to blocked CSX rail crossings in North Baltimore - possible grade separation/pedestrian bridge/advance warning signals.	2030-2040	$29.0	Road
67	Build Weckerly Rd. / Stitt Rd. roundabout, includes sidewalks and accommodation for bikes.	2030	$1.5	Road
68	Secor Rd. reconstruction & widening & intersection improvements, Ohio state line to Summerfield Rd.	2025-2030	$3.0	Road
69	Angola-Scott Park Trail: Construct a facility to provide connection to UT Scott Park campus, starting at Angola Rd. on Reynolds Rd. north to South Ave., continuing on Arco Dr. north to Hill Ave., then east to campus.	2026-2030	$0.5	Non-motorized
70	Replacement of the two existing intersections (Shepler Ave. and Providence St.) that are located only 200' apart along SR 64 with a new five leg roundabout.	2025-2030	$2.0	Road
71	Holland Sylvania corridor improvements from Central Ave. to Harroun Rd. Includes access management and intersection improvements.	2030	$8.8	Road
72	Complete the Oregon bike network.	2030-2035	$1.9	Non-motorized
73	Build Frankfort Rd./Crissey Rd. roundabout, includes sidewalks and accommodation for bikes.	2040-2045	$1.9	Road

Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
74	Provide bicycle lanes on SR 65 in Rossford from the Lucas/Wood County line through the Rossford downtown area.	2026-2030	$0.5	Non-motorized
75	Improve Tracy Rd. between SR 795 and Wales Rd. to accommodate truck traffic - increase weight limit; minor widening; improve guardrail; add sidewalks.	2025 - 2035	$11.0	Road
76	Chessie Circle Trail Alternate Routes: provide bike facilities to bypass the active rail section (Dorr St. to Glanzman Rd.).	2025-2030	$1.6	Non-motorized
77	Cherry-University Trail to Riverside Trail connector: Construct a bike lane on City Park Ave. between Dorr St. and Anthony Wayne Trail at Emerald Ave., to connect Cherry University Trail with Riverside Trail and the proposed facility on Emerald Ave.	2025-2030	$0.2	Non-motorized
78	Complete Sylvania River Trail Phases 3: provide a path to connect to existing facilities.	2025-2030	$1.6	Non-motorized
79	Intersection improvements in Sylvania at Monroe St. and Erie St. Single lane roundabout installation.	2025-2030	$2.6	Road
80	Salisbury Rd. from Holloway Rd. to Strayer Rd. geometric improvements.	2040	$24.4	Road
81	Build Nebraska Ave./Centennial Rd. roundabout, includes sidewalks and accommodation for bikes.	2035-2040	$1.7	Road
82	Improve an existing route to serve as a safe and efficient truck connection between I-75 and the City of Fostoria.	2030-2040	$69.7	Road
83	Bancroft St. improvements McCord Rd. to I-475.	2030-2035	$3.4	Road
84	Fill in the gaps of sidewalks and provide ADA curb ramps and crosswalks at public roadway intersections along the Angola Rd. corridor from Holland Sylvania Ave. to Crissey Rd.	2021-2025	$1.0	Non-motorized
85	Replace pavement on Oregon Rd. from US 20 to the Ohio Turnpike.	2025-2030	$2.5	Road
86	Implement a one-call/one-click transit information center for Toledo metro area.	2030-2035	$0.2	Transit
87	Western Lucas County bike connections: Provide a facility along Fulton-Lucas County line from Bancroft St. to Brint Rd., and on Brint Rd. from the county line to Kilburn Rd. Provide a facility along Old State Line Rd. from the county line to Crissey Rd., then on Crissey Rd. to Angola Rd., then along Angola Rd. to Holland Sylvania Ave.	2026-2030	$0.5	Non-motorized
88	Add a sidepath along SR 64 (Waterville-Swanton Rd.) from Whitehouse to Waterville.	2026-2030	$1.4	Non-motorized
89	Improve infrastructure at the Toledo Shipyard facility at the Port of Toledo - repair dry dock gates/dredging.	2022-2035	$2.2	Marine
90	Find solution to blocked rail crossing on Summit St. at CSX impeding access to Point Place - possible grade separation.	2030-2040	$17.4	Road
91	Corridor Trail: Construct multiuse path from Wiregrass Lake to the Wabash Cannonball Trail North Fork.	2025-2030	$5.7	Non-motorized
92	University/Parks Trail Extension: Extend the University/Parks Trail from Silica Rd. to Sylvan Prairie.	2025-2030	$0.8	Non-motorized
93	Construct a railroad grade separation over Norfolk Southern in Lucas County, at either SR 295 or Eber Rd.	2026-2035	$23.7	Road
94	North Curtice Rd. roundabouts (3) at Seaman Rd., Corduroy Rd., and Cedar Point Rd., main entrance to Maumee Bay State Park off of SR 2, includes paved shoulders for bikes on the approaches, and new sidewalks for peds.	2035-2040	$6.3	Road
95	Construct a roundabout at Hull Prairie Rd. and Five Point Rd.	2040-2045	$2.1	Road
96	Richards Rd. connector: Construct a bike facility from University Parks Trail south on Richards Rd., west on Hill Ave., and south on Wenz Rd. to connect to Greenhouse Trail facility.	2025-2030	$0.4	Non-motorized
97	Sylvania-Wildwood connector: Provide a facility along Monroe St. in the City of Sylvania from Alexis Rd. to Corey Rd. and continuing south on Corey Rd. to Wildwood Metropark.	2025-2030	$1.1	Non-motorized
98	Harvard Blvd. and Woodsdale Ave. connector: Add a bike facility from Highland Park to the existing facility on Broadway St. along Woodsdale and Harvard.	2026-2030	$0.3	Non-motorized
99	Wabash-Cannonball Trail and North Coast Inland Trail Connector: Provide a facility along SR 163 (Genoa Rd.) west of Genoa to East Broadway St. to Five Point Rd., west to River Rd., then cross the Maumee River in Waterville.	2026-2030	$4.2	Non-motorized
100	Construct a Regional Central Traffic Control System including adaptive traffic control for major arterial corridors.	2025-2030	$3.8	Road

Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
101	Provide signal prioritization for transit and emergency vehicles, extending green light as they approach intersection.	2030-2035	$2.3	Transit
102	Point Place Connector: Add a facility from existing Suder Ave. bike lanes north to Shoreland Dr., east to Summit St., then south to Riverside Trail facility at Cullen Park.	2026-2030	$1.0	Non-motorized
103	Dock wall replacement at Port Facility 1 (General Cargo Facility).	2025-2035	$11.8	Marine
104	Toledo Express Airport facility improvements - taxiways; approaches; boarding bridge; perimeter roads; fences.	2025-2030	$13.9	Aviation
105	Hill Ave. improvements McCord Rd. to Holland Sylvania Ave.	2035-2040	$5.5	Road
106	US 20A from SR-2 to Briarfield Blvd.	2035	$16.1	Road
107	Southern Monroe County East-West Connector: Provide a facility from proposed University/Parks Trail North extension at Sterns Rd., north along Head-O-Lake Rd., east on Consear Rd., south on Douglas Rd.; and south from Consear Rd. on Whiteford Rd. to Sterns Rd. and Whiteford Stoneco Park.	2026-2030	$3.6	Non-motorized
108	Improve an existing route to serve as a safe and efficient truck connection between US 23 and I-75 in Monroe County.	2040-2045	$25.1	Road
109	Add paved berms to SR 65 (Village of Grand Rapids to City of Rossford).	2025-2030	$5.4	Non-motorized
110	Governor's Showcase and Chessie Circle Connection: Provide a bike facility from Luna Pier on Luna Pier Rd., crossing the Governor's Showcase Trail west along Samaria Rd. to Lewis Ave., then south through Temperance, then west on Dean Rd., then south on Douglas Rd. to Tremainsville Rd., then southeast to Chessie Circle Trail.	2026-2030	$3.1	Non-motorized
111	Whiteford Township to Trilby-Washington Trail Connector: Provide a bike facility starting on McGregor Ln. then north on Clover Ln., crossing the state line to Clover Rd., and then northwest on Whiteford Center Rd. to connect to Sterns Rd. near Whiteford Stoneco Park.	2026-2030	$0.6	Non-motorized
112	Build second vessel berth at Port of Toledo Ironville Terminal.	2025-2035	$8.8	Marine
113	North Coast Inland and Wabash Cannonball connector: Provide a facility along Thompson Rd. from Five Point Rd. to existing sidepath, and provide a sidepath along Crossroads Pkwy., to Bass Pro Blvd. with a sidepath along Bass Pro Blvd. to Lime City Rd. Provide a facility along Lime City Rd. between Mandell and Five Point Rds. Provide facilities along Buck, Ford, and Bates Rds.	2025-2030	$3.5	Non-motorized
114	Bowling Green-Pemberville Connector: Add bike facilities from the Bowling Green network at Gypsy Ln., Napoleon Rd., and Poe Rd. heading northeast to connect to SR 105, then south on Silverwood Rd., then east on Alexander Rd. to Pemberville.	2026-2030	$0.3	Non-motorized
115	Governor's Showcase Trail: Provide a facility in Erie Township along M-125 (Dixie Hwy) from Ohio-Michigan state line north toward Detroit. Potential US Bike Route 25 and/or 30 facility.	2026-2030	$7.6	Non-motorized
116	River Road Towpath Connector: Provide a connection between Towpath Trail and Sidecut Metropark as well as the Wabash-Cannonball Trail.	2026-2030	$0.9	Non-motorized
117	North Coast Inland Trail-Oregon Connector: Add a facility on Drouillard Rd. north from Ayers Rd. through Walbridge and Northwood to connect to the Oregon bike network.	2026-2030	$4.2	Non-motorized
118	TARTA facilities improvements Future TARTA Transit Hub phases 3-4+.	2025-2030	$7.6	Transit
119	Build an eight mile extension of the Adrian & Blissfield Railroad to connect with Norfolk Sothern near Ottawa Lake, Michigan.	2025-2030	$21.4	Rail
120	Improve Port of Toledo Ironville Terminal by adding secondary bulk products stacker, additional rail car storage, and access trackage.	2025-2035	$3.9	Marine
121	Purchase of an Autonomous Shuttle Bus.	2030-2040	$3.5	Transit

Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
122	Bowling Green-Perrysburg Connector: Add a facility along Hull Prairie Rd. from River Rd. south to Hannah Rd., then east to Brim Rd. then south to the Bowling Green bike network.	2026-2030	$2.7	Non-motorized
123	Pray Blvd. connector: Construct a mulit-use path from SR 64 to Towpath Trail.	2026-2030	$1.3	Non-motorized
124	Bowling Green-Grand Rapids connector: Add a facility from Grand Rapids to Bowling Green from Sycamore Rd. south to Long Judson Rd., then heading east until Liberty Hi Rd., south to Gorrill/Conneaut Ave. into existing BG bike network.	2026-2030	$0.3	Non-motorized
125	Design and construct Toledo Express Airport drainage improvements.	2025-2030	$17.7	Aviation
126	Find a solution to blocked rail crossing at SR 18 and CSX RR in Bairdstown - possible grade separation or highway bypass.	2030-2040	$23.2	Road
127	East-west shared use path in Springfield Township. The path will connect Township parks to the Toledo Metroparks from McCord Rd. to Eber Rd.	2021-2025	$1.0	Non-motorized
128	Widen Glenwood Rd. to three lanes; includes bridge replacements/upgrades, & signal upgrades (SR 65 to SR 795).	2026-2035	$13.6	Road
129	Implement a good wayfinding system (how to walk to destinations). Place signs at main locations, such as train station, bike trails, gateways to cities.	2026-2030	$0.5	Non-motorized
130	Extend walking/bike trail .25 miles (from College Ave./Rees Rd.) north along abandoned railroad into recently acquired parkland (Pemberville).	2025-2030	$0.2	Non-motorized
131	Construct bulk material warehouse and liquid bulk transfer facility at Port Facility 1 (General Cargo Facility).	2025-2035	$32.2	Marine
132	Provide a share-the-road signed route along S. River Rd. from Fulton-Lucas County Line to Waterville.	2026-2030	$0.3	Non-motorized
133	Bowling Green-Weston connector: Add a facility from Weston to Bowling Green along Sand Ridge Rd. and connecting to BG bike network.	2026-2030	$0.2	Non-motorized
134	Neapolis-Waterville Rd. facility: Provide a bicycle facility along Neapolis-Waterville Rd. from Michigan Ave., west to Schadel Rd. where it connects with the Blue Creek Conservation Area and the Village of Whitehouse.	2026-2030	$1.2	Non-motorized
135	Multi-use Path between Door St. and Nebraska Ave.	2021-2025	$0.0	Non-motorized
136	Oak Openings-Blue Creek Connectors: Provide a facility along Whitehouse-Spencer Rd. from the Wabash Cannonball Trail-North Fork south through Whitehouse to Blue Creek; and provide an east-west link on Obee Rd.	2025-2030	$0.2	Non-motorized
137	Obtain two mobile harbor cranes for Port Facility 1 (General Cargo Facility).	2025-2035	$9.6	Marine
138	Maumee Bay State Park to Ottawa National Wildlife Refuge Trail.	2035-2045	$5.7	Non-motorized
139	Replace Rudolph Rd./ Middle Branch Portage River bridge.	2025-2030	$0.6	Road
140	Replace remaining bridges on Hull Prairie Rd. over Ditch 2090.	2025-2035	$1.0	Road
141	Maumee Bay and Metroparks Connector: Provide a connection between Maumee Bay State Park and east Lucas County Metroparks' land.	2026-2030	$1.9	Non-motorized
142	Improve/widen Poe Rd. (Green Rd. to Range Line Rd.); realignment at railroad crossing; bridge replacement.	2025-2030	$1.4	Road
143	Implement Pemberville downtown street enhancements to improve pedestrian safety.	2025-2030	$0.4	Non-motorized
144	Confined Disposal Facility three improvements - add material capacity and pursue re-use opportunities for dredge material.	2020-2025	$10.3	Marine
145	Toledo Executive Airport facility improvements - runway rehabilitation; runway crack seal; wildlife fencing.	2025-2030	$3.8	Aviation
146	Install clean air-alternative fueling stations for TARTA vehicles and public use.	2025-2035	$11.0	Transit
147	Replace bridge on Bridge St .over Middle Branch Portage River.	2025-2035	$1.1	Road

Table 4.2: 2045 Plan Priority Projects

Rank	Project Description	Estimated Construction Year	Estimated Project Cost in Millions	Primary Mode
148	Providence Neapolis Swanton Rd. facility: Provide a bicycle facility along Providence Neapolis Swanton Rd. from Wabash-Cannonball-South Fork south to South River Rd. to meet the Towpath Trail.	2025-2030	$1.6	Non-motorized
149	Replace bridge on Luckey Rd. over Toussaint Creek.	2025-2035	$0.8	Road
150	Replace bridge on Wintergreen Rd. over Beaver Creek.	2025-2035	$1.0	Road
151	Replace bridge on Potter Rd. over Middle Branch Portage River.	2025-2035	$0.6	Road
152	Swan Creek Bridge: Pedestrian bridge connecting Lafayette St. between Summit St. and Ottawa St.	2021-2025	$2.6	Non-motorized
153	Upgrade Dr. Martin Luther King Jr. Plaza infrastructure including renovations to the B&B storage and maintenance building.	2025-2030	$1.2	Rail

Figure 4.3 and **Figure 4.4** show the location of the Priority projects:

- Figure 4.3 illustrates motorized project modes.
- Figure 4.4 illustrates non-motorized projects, which includes the location of pedestrian and bikeway Priority projects.

Figure 4.3: TMACOG 2045 Plan Update 2020 - Priority Projects

TMACOG 2045 Plan Update 2020 - Priority Projects

Toledo Metropolitan Area Council of Governments

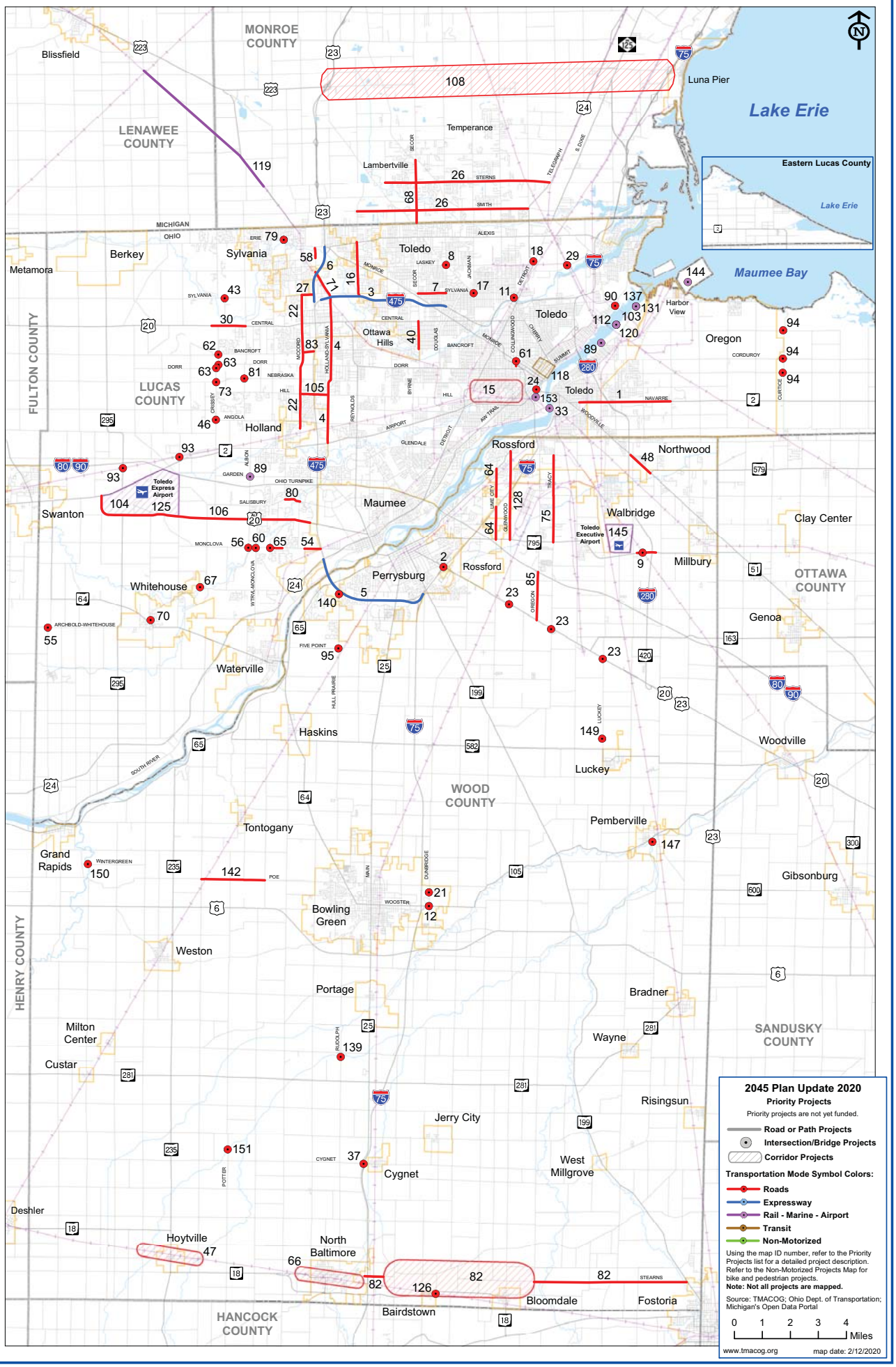
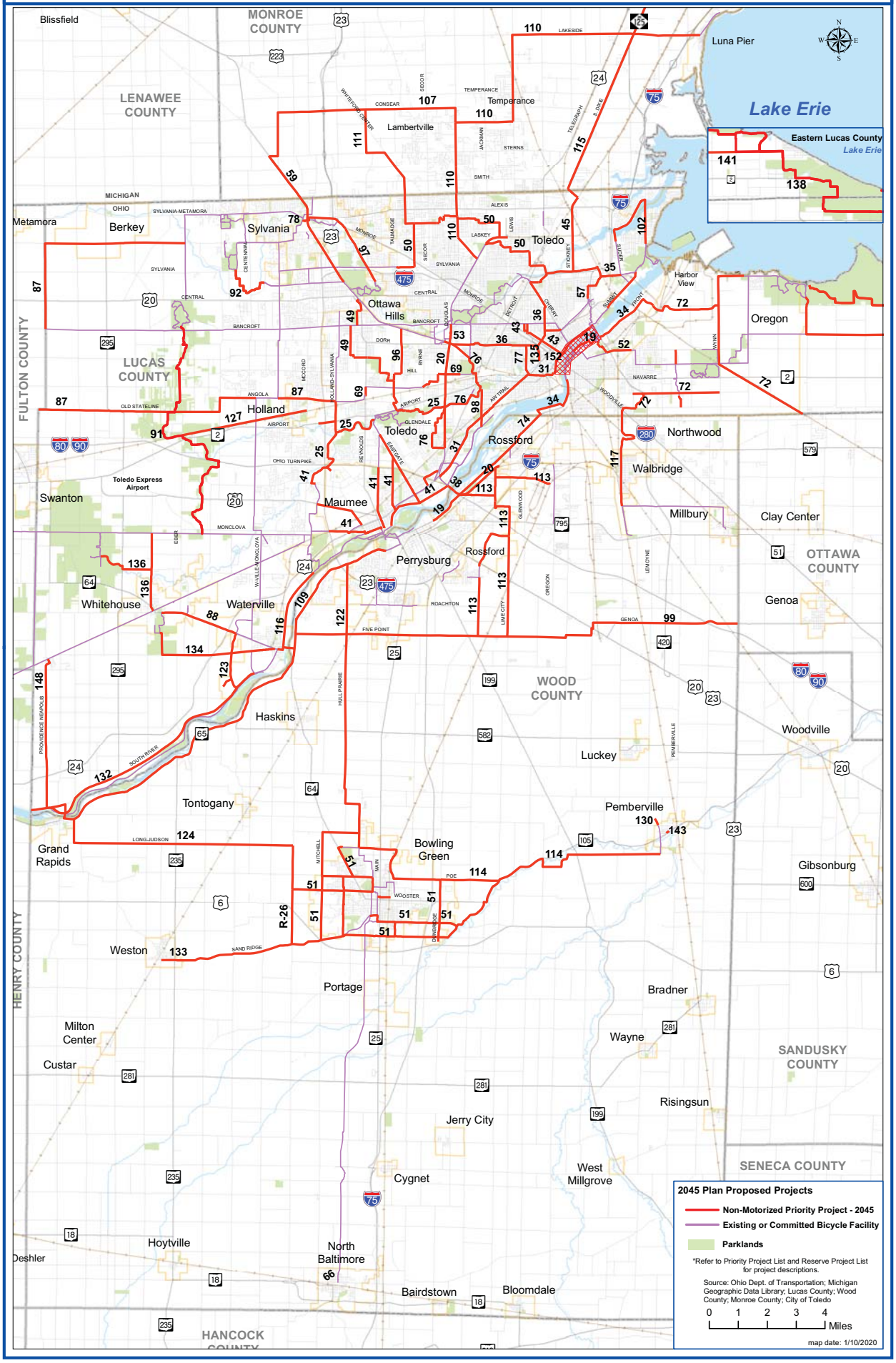


Figure 4.4: 2045 On the Move-Update 2020 Priority Non-Motorized Projects

2045 On the Move-Update 2020 Priority Non-Motorized Projects

Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



4.1.3 Bikeway Network

The TMACOG bikeway network is illustrated on the non-motorized projects map, **Figure 4.4**. When completely implemented, the network will provide a system of interconnected bicycle facilities across the region. The goal is to enable and encourage citizens to use bicycling as a regular form of transportation.

The non-motorized map includes projects from the priority project list. The facility types range from sharrows/share-the-road signage, to specially marked bicycle lanes, to separate paths; and in many cases, a project includes a combination of facility types.

4.1.4 System Preservation Projects

The 2045 Plan designates $559,337,521 of the expected transportation funding resources to deal with the backlog of capital investment. This primarily means replacing or reconstructing deficient roads and bridges.

A total of 201 major road corridors with predominantly fair to very poor pavement condition were identified, based on the ODOT pavement condition rating data. These are listed in **Table 4.3**. The order of the list does not indicate priority. The estimated total cost is $479.2 million.

Also included in the plan are 80 recommended bridge replacement and rehabilitation projects. These were selected based on ODOT bridge sufficiency ratings, **Table 4.4**. The order of the list does not indicated priority. They have an estimated cost of over $80 million. System preservation projects are not ranked.

The plan anticipates that once these “catch-up” projects are completed, there will be a need for an additional $258 million for federal aid-eligible road rehab and federal or state-eligible bridge repair or replacement. Thus approximately $817 million will be set aside specifically for system preservation.

The intent is to bring infrastructure up to an acceptable level, and then maintain it at a steady state of good repair. Therefore, as stated in the Policies section of this plan, it is a regional objective and recommendation to better manage the maintenance of good infrastructure condition through a management system for bridges that relies on targets for sufficiency ratings and a management system for pavement based on pavement condition rating (PCR) and functional class.

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
P1	US 20	Dorr to 0.13 mi N of Angola	Lucas	1.73	4	$9,937,181				60	NB/SB
-	US 24	Glendale to 0.11 mi S of Arlington	Lucas	0.72	4		$919,487			67	NB/SB
-	US 24	0.11 mi N of Hill to Buckingham	Lucas	0.42	4	$2,295,406				50	NB/SB
P2	US 24	California to Laskey	Lucas	0.37	4		$1,711,268			70	NB/SB
		Laskey to Alexis		0.97	4					66	
P3	SR 25	Cherry (SR 120) to I 280	Lucas	1.44	2		$919,487			74	WB
P4	SR 51	Wood County line to 0.09 mi E of Holmes	Lucas	1.12	4	$6,433,319				62	EB/WB
-	SR 51	Collingwood to Robinwood	Lucas	0.36	4		$459,744			73	EB/WB
-	SR 51	Promedica to Central	Lucas	0.18	4		$229,872			65	EB/WB
-	SR 64	0.1 mi W of Waterville-Monclova to 0.36 mi W of Waterville-Monclova	Lucas	0.25	2		$159,633			69	EB/WB
-	SR 65	Bangor to Oregon	Lucas	0.37	4		$472,514			73	EB/WB
-	SR 65	Oakdale to Fassett	Lucas	0.36	4		$459,744			70	NB/SB
-	SR 120	Oneida to Greenbelt	Lucas	0.13	4		$166,019			74	NB/SB
-	SR 120	Summit to Water	Lucas	0.1	4		$127,707			74	NB/SB
P5	SR 246	Westwood to Smead	Lucas	1.41	4		$1,800,663			73	EB/WB
P6	SR 295	Sylvania to 0.48 mi N of Sylvania	Lucas	0.48	2			$5,023,828		56	NB/SB
		0.48 mi N of Sylvania to Sylvania-Metamora		1.5	2					51	
		Sylvania-Metamora to 0.41 mi N of Sylvania-Metamora		0.41	2					56	
-	1st	Utah to Oak	Lucas	0.14	2	$402,082				55	EB/WB
-	14th	Jefferson to Jackson	Lucas	0.18	2		$114,936			74	NB/SB
P7	ADAMS	Ashland to 10th	Lucas	0.61	4	$5,801,475				63	NB/SB
		10th to Summit		0.4	4					70	
P8	ARLINGTON	Detroit to Spencer	Lucas	0.8	2	$2,414,815				46	EB/WB
-	ASHLAND	Collingwood to 21st	Lucas	0.67	4	$3,848,503				60	NB/SB
-	BANCROFT	Fordway to Brookside	Lucas	0.49	2	$1,407,289				64	EB/WB
-	BANCROFT	Elm to Mulberry	Lucas	0.18	2	$516,963				64	EB/WB
-	BENORE	Alexis to Michigan line	Lucas	0.82	2	$2,584,816				59	NB/SB
		Ohio line to M125 (Dixie)	Monroe	0.08	2					4	NB/SB
P9	BERDAN	Douglas to Jackman	Lucas	1.02	2	$3,078,890				50	EB/WB
-	BERDAN	Drexel to Haverhill	Lucas	0.25	2	$754,630				54	EB/WB
-	BRINT	Silica to McCord	Lucas	0.51	2		$309,847			73	EB/WB
P10	BROADWAY	Glendale to Salem	Lucas	0.88	4	$8,501,172				61	NB/SB
		Salem to Hawley		0.44	4					55	
		Hawley to Stebbins		0.16	4					69	
-	CEDAR POINT	Otter Creek to 0.33 mi E of Otter Creek	Lucas	0.33	2		$210,716			68	EB/WB
P11	CEDAR POINT	Wynn to Stadium	Lucas	1.01	2		$644,918			66	EB/WB
-	CENTENNIAL	Sylvania to 0.24 mi N of Sylvania	Lucas	0.24	2		$153,248			69	NB/SB
P12	CENTRAL	Cherry to Stickney	Lucas	1.23	2		$785,395			73	EB/WB

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	CHERRY	Central to Hillwood	Lucas	0.23	4		$293,725			68	NB/SB
-	CHRYSLER	Manhattan to N. Expressway	Lucas	0.33	4	$1,992,223				63	NB/SB
-	CHRYSLER	0.61 mi E of Stickney to Stickney	Lucas	0.61	4	$3,682,594				63	EB/WB
P13	COLLINGWOOD	Logan to Nebraska	Lucas	0.49	4	$7,365,187				70	NB/SB
		Nebraska to Pinewood		0.38	4					60	
		Pinewood to 0.04 mi S of Dorr		0.11	4					51	
		0.04 mi S of Dorr to I 75 SB ramp		0.14	4					69	
		I 75 SB ramp to I 75 NB ramp		0.1	4					74	
P14	CONSAUL/ CORDUROY	Front to Yarrow	Lucas	1.34	2	$7,787,984				50	EB/WB
		Yarrow to Otter Creek		0.26	2					60	
		Otter Creek to 0.45 mi W of Lallendorf		0.7	2					55	
		0.45 mi W of Lallendorf to Lallendorf		0.55	2					62	
P15	CORDUROY	Wynn to Stadium	Lucas	1.02	2	$2,787,279				54	EB/WB
-	COREY	Central to 0.04 mi N of Hingham	Lucas	0.87	2		$555,524			73	NB/SB
P16	COY	Wood County line to Worden	Lucas	1.08	2		$689,616			65	NB/SB
P17	COY	0.06 mi N of Navarre to Cordoroy	Lucas	1.44	2	$4,135,705				57	NB/SB
-	DELAWARE	Detroit to Collingwood	Lucas	0.58	2		$370,349			73	EB/WB
-	DELAWARE	Cherry to Lagrange	Lucas	0.35	2	$956,419				51	EB/WB
P18	DETROIT	Laskey to Alexis	Lucas	1.01	4	$9,477,658				72	NB/SB
		Alexis to Michigan line		0.64	4					59	
-	DROUILLARD	Glennross to Woodville	Lucas	0.18	2	$516,963				64	NB/SB
-	DURA/LINT	Detroit to Robert Lee	Lucas	0.41	2	$1,120,377				44	NB/SB
-	EARLWOOD	Navarre to 0.13 mi N of Wren	Lucas	0.15	2		$306,496			69	NB/SB
		0.13 mi N of Wren to 0.17 mi S of Starr		0.33	2					70	
P19	EAST BROADWAY	Wood County line to Woodville	Lucas	1.19	2	$3,417,701				62	NB/SB
-	EASTGATE	I 80 (bridge) to Heatherdowns	Lucas	0.26	4		$332,037			74	NB/SB
-	EDGEWATER	131st to 149th	Lucas	0.83	2		$625,762			71	NB/SB
		149th to Michigan line		0.15	2					70	
P20	ELEANOR	Jackman to Lewis	Lucas	1	2	$754,630				53	EB/WB
		Lewis to Bennett		0.5	2					67	
-	EMERALD	Williams to Wade	Lucas	0.27	4	$1,475,618				51	EB/WB
P21	ERIE (Sylvania)	0.05 mi E of Centennial to Monroe	Lucas	1.39	2		$887,561			72	EB/WB
-	ERIE (Toledo)	Collingwood to Lafayette	Lucas	0.5	4		$638,533			69	NB/SB
-	ERIE (Toledo)	Cherry to Walnut	Lucas	0.09	4		$114,936			70	NB/SB

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	N. EXPRESSWAY	Stickney to I 75 SB off ramp	Lucas	0.22	2	$601,178				48	EB/WB
-	S. EXPRESSWAY	Stickney to Doyle	Lucas	0.15	2	$1,639,576				68	EB/WB
		Doyle to 0.25 mi N of Manhattan		0.27	2					41	
		0.25 mi N of Manhattan to Manhattan		0.18	2					56	
-	FORD	Anthony Wayne to Illinois	Lucas	0.61	4		$779,010			67	NB/SB
-	FRONT	Oak to Main	Lucas	0.14	4		$1,034,423			69	EB/WB
		Main to Carbon		0.67	4					73	
P22	FULTON LUCAS	0.07 mi N of Church to Shaffer	Lucas	0.69	2				$1,012,945	74	NB/SB
		Shaffer to Old State Line		0.99	2					65	
		Old State Line to Frankfort		1.81	2					74	
-	GALENA	Summit to Michigan	Lucas	0.27	4	$4,016,960				52	NB/SB
		Michigan to 0.16 mi S of Central		0.41	4					66	
		0.16 mi S of Central to Central		0.11	2					66	
P23	GLENDALE	Eastgate to Byrne	Lucas	1.57	4		$2,004,993			74	EB/WB
P24	GLENDALE	Charmaine to Luscombe	Lucas	0.44	4		$1,506,938			72	EB/WB
		Luscombe to Glenbrook		0.34	4					65	
		Glenbrook to Anthony Wayne		0.4	4					72	
-	HARROUN	Holland Sylvania to Sylvan Green	Lucas	0.06	2		$38,312			69	NB/SB
P25	HARVEST	Sylvania to Monroe	Lucas	0.2	2	$2,872,018				59	NB/SB
		Monroe to Laskey		0.8	2					74	
-	HAVERHILL	Berdan to Phillips	Lucas	0.21	4		$268,184			70	NB/SB
-	HAWLEY	Nebraska to Dorr	Lucas	0.51	2	$1,393,639				46	NB/SB
P26	HEATHERDOWNS	Perrysburg-Holland to Reynolds	Lucas	1.01	4		$1,289,837			70	EB/WB
P27	HILL	Crissey to Centennial	Lucas	1	4		$1,277,066			71	EB/WB
-	HOLLAND SYLVANIA (MAIN)	Brint to Convent	Lucas	0.32	4		$408,661			73	NB/SB
P28	HOWARD	Jerusalem to Corduroy	Lucas	1.55	2				$449,875	72	NB/SB
-	HURON	Cherry to Walnut	Lucas	0.1	4	$574,404				62	NB/SB
-	JACKMAN	Central to 0.08 mi N of Central	Lucas	0.08	4		$102,165			70	NB/SB
-	JACKSON	Summit to Erie	Lucas	0.25	4	$3,634,393				59	NB/SB
		Erie to 11th		0.22	4					53	
		11th to 13th		0.1	4					50	
		13th to Adams		0.19	2					50	
-	KENWOOD	Drummond to Douglas	Lucas	0.32	2		$204,331			71	EB/WB
-	KEY	River to Anthony Wayne	Lucas	0.1	2		$63,853			70	NB/SB
-	KEY	I 80 (bridge) to Heatherdowns	Lucas	0.21	4		$268,184			67	NB/SB
		Summit to Greenbelt		0.49	4					51	

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	LAGRANGE	Greenbelt to Utica	Lucas	0.2	4	$3,771,024				68	NB/SB
P29	LASKEY	Secor to Jackman	Lucas	1.97	4	$11,315,749				56	EB/WB
P30	LASKEY	Lewis to 0.17 mi E of Tractor	Lucas	0.85	4	$6,338,890				65	EB/WB
		0.17 mi E of Tractor to Crabb		0.2	4					60	
-	LAWRENCE	Dorr to Monroe	Lucas	0.61	4	$3,503,861				58	NB/SB
P31	LEWIS	Sylvania to Laskey	Lucas	1	2	$2,732,626				54	NB/SB
-	MADISON	Superior to 10th	Lucas	0.23	4		$293,725			67	NB/SB
P32	MANHATTAN	Doyle to Expressway	Lucas	0.36	4	$6,979,003				51	EB/WB
		Expressway to Harvey		0.19	4					64	
		Harvey to Wallace		0.69	2					64	
		Wallace to Suder		0.32	4					72	
-	MANLEY	I 475 to I 80 (bridges)	Lucas	0.15	2		$236,257			70	NB/SB
		I 80 (bridge) to Garden		0.22	2					72	
-	MATZINGER	Enterprise to 0.1 mi S of Matzinger	Lucas	0.52	2	$2,498,655				66	EB/WB
		0.1 mi S of Matzinger to Matzinger		0.08	2					64	
		Matzinger to Benore		0.27	2					65	
-	MCGREGOR	Talmadge to Clover	Lucas	0.31	2	$847,114				50	EB/WB
-	NEBRASKA	Holland Sylvania to Reynolds	Lucas	0.98	2	$2,677,974				52	EB/WB
P33	NEBRASKA	Byrne to Westwood	Lucas	1	2	$2,732,626				47	EB/WB
-	NEBRASKA	0.06 mi W of Brown to Detroit	Lucas	0.31	2	$890,325				64	EB/WB
-	NEBRASKA	0.07 mi E of Hyatt to Erie	Lucas	0.36	4		$459,744			68	EB/WB
-	NEWTON	Wade to Broadway	Lucas	0.07	2	$191,284				49	EB/WB
P34	OAKDALE	Miami to Tracy	Lucas	0.22	2	$3,992,104				46	EB/WB
		Tracy to East Broadway		0.73	2					63	
		East Broadway to 0.1 mi W of White		0.17	2					58	
		0.1 W of White to Holmes		0.27	2					73	
-	OREGON	Wood County line to 0.04 mi N of Wood County line	Lucas	0.04	2	$545,683				75	NB/SB
		0.04 mi N of Wood County line to Miami		0.15	2					64	
-	OTTAWA	Circle to Torrey Hill	Lucas	0.2	2	$861,605				72	NB/SB
		Torrey Hill to Upton		0.1	2					51	
P35	PARKSIDE	Hill to Nebraska	Lucas	0.53	4		$1,328,148			71	NB/SB
		Nebraska to Dorr		0.51	4					68	
-	PERRYSBURG HOLLAND	Reynolds to 0.1 mi N of Hickory Pointe	Lucas	0.96	4		$1,225,983			69	NB/SB
-	PICKLE	Deal to Wheeling	Lucas	0.53	2		$338,422			74	EB/WB
P36	RAVINE/SEAMAN	East Broadway to Dearborn	Lucas	0.43	2	$4,509,068				74	EB/WB
		Dearborn to Wheeling		1.14	2					61	
P37	RICHARDS	Hill to Overlook	Lucas	0.89	2	$4,344,876				52	NB/SB
		Overlook to Dorr		0.12	2					82	
		Dorr to University Parks Trail		0.58	2					64	

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	RIVER	I 80 (bridge) to Midland	Lucas	0.51	2		$325,652			70	EB/WB
-	SCHNEIDER	Heatherdowns to Detroit	Lucas	0.4	2	$1,093,050				53	EB/WB
-	SEAMAN	Coy to 0.1 mi W of Lallendorf	Lucas	0.9	2		$574,680			71	EB/WB
-	SECOR	Dorr to Bancroft	Lucas	0.71	4	$4,078,265				58	NB/SB
P38	SECOR	Laskey to Alexis	Lucas	1	4	$5,465,252				54	NB/SB
P39	SOUTH	Detroit to 0.02 mi E of Detroit	Lucas	0.02	4	$7,787,780				56	EB/WB
		0.02 mi E of Detroit to Spencer		0.89	4					72	
		Spencer to Daniels		0.23	4					78	
		Daniels to Anthony Wayne		0.15	4					57	
-	SOUTH	Sumner to I 75 (bridge)	Lucas	0.1	2		$63,853			71	EB/WB
P8	SPENCER	Arlington to South	Lucas	0.65	2	$1,866,811				56	NB/SB
-	STARR	Main to East Broadway	Lucas	0.1	2		$63,853			74	EB/WB
-	STICKNEY	Sherman to Maywood	Lucas	0.29	4		$370,349			73	NB/SB
P40	STICKNEY	Manhattan to 0.1 mi N of Matzinger	Lucas	1.33	4		$1,698,498			74	NB/SB
P41	SUMMIT	Buckeye to Galena	Lucas	0.24	4	$26,077,919				61	NB/SB
		Galena to 0.1 mi S of Lasalle		1.6	4					53	
		0.1 mi S of Lasalle to 131st		2.42	4					69	
		131st to 0.23 mi S of Shoreland		0.28	4					74	
-	SUNRISE	Collingwood to Erie	Lucas	0.11	2		$70,239			73	SB
-	SUPERIOR	Monroe to Jefferson	Lucas	0.11	4		$140,477			72	EB/WB
-	SUPERIOR	Madison to Cherry	Lucas	0.38	4	$2,294,075				62	EB/WB
P42	SYLVANIA	Whiteford to Talmadge	Lucas	1.02	4		$1,302,607			71	EB/WB
-	SYLVANIA	Monroe to Secor	Lucas	0.18	4		$229,872			67	EB/WB
-	SYLVANIA	Douglas to Chessie Circle Trail	Lucas	0.52	4		$1,190,783			71	EB/WB
		Chessie Circle Trail to Upton		0.22	4					53	
		Upton to Jackman		0.24	4					69	
-	SYLVANIA	Lewis/Phillips to Bennett	Lucas	0.5	2	$1,366,313				45	EB/WB
P43	TALMADGE	Laskey to Alexis	Lucas	1.02	2	$2,929,458				56	NB/SB
-	TRACY	Florence to Oakdale	Lucas	0.26	2	$746,725				56	NB/SB
P44	TREMAINSVILLE	Sylvania to Laskey	Lucas	1.41	2	$4,049,545				61	NB/SB
P45	UPTON	Bancroft to Monroe	Lucas	0.7	4	$5,744,035				69	NB/SB
		Monroe to Wellesley		0.19	4					54	
		Wellesley to Central		0.11	4					66	
-	UPTON	Promedica to Tremainsville	Lucas	0.98	4		$1,251,525			72	NB/SB
-	WADE	Emerald to Newton	Lucas	0.03	4	$172,321				56	NB/SB
-	WASHINGTON	Summit to Erie	Lucas	0.25	4		$319,266			67	EB/WB
P46	WESTWOOD	Hill to Dorr	Lucas	1.03	4	$5,629,210				54	NB/SB

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	WHEELING	0.04 mi S of Bleeker to Seaman	Lucas	0.42	2		$268,184			73	NB/SB
-	WOODLEY	Central to I 475 (bridge)	Lucas	0.8	2		$510,826			66	NB/SB
-	WYNN	Brown to Pickle	Lucas	0.5	2		$319,266			73	NB/SB
P47	WYNN	Seaman to Cedar Point	Lucas	1.49	2		$951,414			67	NB/SB
P48	YORK	Otter Creek to Lallendorf	Lucas	1.05	2	$2,869,257				53	EB/WB
P49	US 20	Lucas County line to West Boundary	Wood	0.46	4	$5,584,261				74	EB/WB
		West Boundary to Louisiana		0.68	2					70	
		Front to Third		0.16	2					59	NB/SB
		Third to Indiana		0.09	2					56	
P4	SR 51	0.15 mi W of Williston to Lucas County line	Wood	1.75	4	$10,052,061				63	EB/WB
-	SR 64	0.22 mi N of Reitz to Mechanic	Wood	0.31	2		$179,197			66	NB/SB
P50	SR 65	Henry Wood County Line to Saylor	Wood	0.49	2			$12,990,356		73	EB/WB
		Saylor to Wapakoneta		0.52	2					59	
		Second to River		0.08	2					60	NB/SB
		Wapakonta to Sycamore		0.51	2					62	EB/WB
		Sycamore to Otsego		4.28	2					60	
-	SR 199	0.09 mi N of South Boundary to Silver Maple	Wood	0.24	2		$510,826			70	NB/SB
		Silver Maple to Indiana		0.56	2					72	
P51	SR 235	Hancock Wood County Line to Deshler	Wood	1.07	2				$295,486	57	NB/SB
P52	SR 420	0.28 mi N of US 20 to 0.27 mi S of Libbey	Wood	1.55	2				$449,875	72	NB
P52	SR 420	0.07 mi S of Truman to I 80	Wood	1.53	2				$444,071	71	SB
-	BAKER	Hanley to 0.26 mi N of Hanley	Wood	0.26	2			$574,404		60	NB/SB
P53	BOWLING GREEN (EAST)	SR 105 to US 6	Wood	1.45	2			$3,203,404		63	NB/SB
P54	BOWLING GREEN (WEST)	US 6 to 0.4 mi W of Mitchell	Wood	0.87	2		$1,206,827			72	EB/WB
		0.4 mi W of Mitchell to 0.15 mi W of Wintergarden		1.02	2					71	
P55	BRIM	Poe to Bishop	Wood	1.5	2	$4,308,026				62	NB/SB
-	BROADWAY/ EAGLEVILLE	Rudolph to Insley	Wood	0.91	2				$264,120	74	EB/WB
		Bates to Lime City		0.51	2					57	

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
P56	BUCK	Lime City to Glenwood	Wood	0.5	2		$613,618			71	EB/WB
-	COLLEGE	Napoleon to Clough	Wood	0.65	2		$478,900			69	NB/SB
		Clough to Wooster		0.1	2					70	
-	COUNTY HOME	0.04 mi N of US 6 to Gypsy Lane	Wood	0.25	2		$159,633			68	NB/SB
P57	CUMMINGS	SR 795 to Moline-Martin	Wood	0.11	2		$70,239			72	NB/SB
-	CURTICE	Beachcraft to Bryan	Wood	0.7	2		$446,973			69	EB/WB
-	D	Third to First	Wood	0.44	2		$280,954			71	NB/SB
P57	DROUILLARD/ MOLINE-MARTIN	Cummings to Drouillard	Wood	0.18	2		$836,478			69	NB/SB
		Moline-Martin to Ayers		1.13	2					65	
-	DUNBRIDGE	Gypsy Lane to 0.25 mi N of Gypsy Lane	Wood	0.25	2		$319,266			69	NB/SB
		0.25 mi N of Gypsy Lane to Napoleon		0.25	2					74	
-	EAST BOUNDARY	Sandusky to Front	Wood	0.9	2		$574,680			69	NB/SB
P19	EAST BROADWAY	0.2 mi S of Wales (S) to Lucas county line	Wood	1.02	2		$651,304			70	NB/SB
-	ECKEL JUNCTION	Running Brook to SR 199	Wood	0.87	2		$555,524			72	EB/WB
-	ECKEL JUNCTION	SR 199 to Old Trail	Wood	0.72	2		$459,744			65	EB/WB
-	FINDLAY	W Boundary to Lober	Wood	0.13	2	$355,241				52	NB/SB
-	FIVE POINT	Pargillis to Fort Meigs	Wood	0.21	2	$2,677,974				60	EB/WB
		Fort Meigs to 0.05 mi E of Fort Meigs		0.05	2					48	
		0.05 mi E of Fort Meigs to Rivers Edge		0.11	2					52	
		Rivers Edge to SR 25		0.61	2					69	
-	FIVE POINT	0.29 mi W of Frusher to Frusher	Wood	0.29	2				$84,170	72	EB/WB
P58	FIVE POINT	0.08 mi W of Scheider to SR 199	Wood	1.23	2			$2,717,370		61	EB/WB
-	FIVE POINT	Tracy to 0.12 mi W of Stony Ridge	Wood	0.76	2			$1,679,026		57	EB/WB
-	FOSTORIA	0.34 mi S of South to 0.13 mi S of South	Wood	0.21	2		$217,101			66	NB/SB
		0.13 mi S of South to 0.07 mi S of South		0.06	2					73	
		0.07 mi S of South to South		0.07	2					74	
-	GRANT	Eagleville to I 75 NB ramps	Wood	0.23	2				$66,756	65	NB/SB
P59	GYPSY LANE	Klopfenstein to Campbell Hill	Wood	0.48	2	$3,503,861				73	EB/WB
		Campbell Hill to I 75 (bridge)		0.17	2					71	
		I 75 (bridge) to Dunbridge		0.57	2					62	
-	GYPSY LANE	Sand Ridge to Gypsy Lane Estates MHP	Wood	0.69	2	$1,981,692				64	EB/WB
-	HANLEY	Warns to Pemberville	Wood	0.29	2				$84,170	69	EB/WB

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	HUFFMAN	Cygnet to Jerry City	Wood	0.96	2				$278,633	74	NB/SB
P60	HULL PRAIRIE	Roachton to 0.06 mi S of River Ridge	Wood	0.47	2	$4,049,545				58	NB/SB
		0.06 mi S of River Ridge to Forest Gate		0.12	2					70	
		Forest Gate to 0.06 mi S of Chapel Creek		0.07	2					69	
		0.06 mi S of Chapel Creek to 0.17 mi S of I 475 (bridge)		0.22	2					71	
		0.17 mi S of I 475 (bridge) to 0.14 mi S of I 475 (bridge)		0.03	2					58	
		0.14 mi S of I 475 (bridge) to 0.09 mi S of Prairie Farms		0.19	2					57	
		0.09 mi S of Prairie Farms to 0.13 mi S of River		0.18	2					56	
		0.13 mi S of River to River		0.13	2					50	
-	INDIANA	0.06 mi E of Findlay to Louisiana	Wood	0.19	4		$242,643			73	EB/WB
-	LEMOYNE	Woodville to 0.68 mi N of Wise	Wood	0.07	2		$44,697			73	NB/SB
P61	LIME CITY	0.35 mi S of Deimling to Bass Pro	Wood	0.69	2	$3,532,582				64	NB/SB
		Bass Pro to 0.08 mi N of Bass Pro		0.08	2					67	
		0.08 mi N of Bass Pro to SR 795		0.46	2					61	
-	MAIN (PORTAGE)	0.38 mi W of Blackford to 0.32 mi W of Blackford	Wood	0.44	2		$478,900			72	EB/WB
		0.32 mi W of Blackford to 0.12 mi E of Third		0.31	2					73	
-	NAPOLEON	0.14 mi E of Dunbridge to 0.18 mi E of Innovation	Wood	0.26	2		$574,680			73	EB/WB
		0.18 mi E of Innovation to 0.1 mi W of Dirlam		0.11	2					69	
		0.1 mi W of Dirlam to Dirlam		0.11	2					70	
		Dirlam to Huffman		0.42	2					73	
-	OREGON	Wales to Lawndale	Wood	0.42	2		$402,276			74	NB/SB
		Lawndale to Lucas County line		0.21	2					72	
P62	POE	Otsego to Range Line	Wood	1.01	2				$293,145	71	EB/WB
P63	POE	Liberty Hi to Mitchell	Wood	1.02	2				$296,047	69	EB/WB
-	POE	0.27 mi E of Dunbridge to Carter	Wood	0.81	2				$235,096	71	EB/WB
-	THIRD	J to D	Wood	0.26	2		$166,019			71	EB/WB
-	THOMPSON	0.12 mi S of Eckel Junction to Roachton	Wood	0.92	2	$2,642,256				64	NB/SB
-	THURSTIN	Wooster to Ridge	Wood	0.24	4		$306,496			73	NB/SB

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
-	TRACY	Five Point (S) to Five Point (N)	Wood	0.08	2		$51,083			74	NB/SB
P64	WALBRIDGE (UNION)	Oregon to Tracy	Wood	0.51	2	$5,887,636				60	EB/WB
		Tracy to 0.16 mi W of East Broadway		0.63	2					61	
		0.16 mi W of East Broadway to East Broadway		0.16	2					66	
		East Broadway to 0.14 mi E of East Broadway		0.14	2					75	
		0.14 mi E of East Broadway to 0.5 mi E of East Broadway		0.36	2					65	
		0.5 mi E of East Broadway to 0.09 mi W of Ross		0.12	2					61	
		0.09 mi W of Ross to Luckey		0.13	2					72	
P65	WALBRIDGE	Martendale to Lemoyne	Wood	0.38	4		$1,219,598			69	EB/WB
		Lemoyne to 0.14 mi E of Lemoyne		0.14	4					66	
		0.14 mi E of Lemoyne to 0.1 mi W of Owen		0.52	2					68	
		0.1 mi W of Owen to Pemberville		0.35	2					71	
-	WALES	Tracy to East Broadway	Wood	0.99	2		$632,148			68	EB/WB
-	WALES	0.48 mi E of East Broadway to 0.53 mi W of Drouillard	Wood	0.56	2		$357,578			73	EB/WB
P66	WAPAKONETA	US 6 to 0.25 mi S of Long Judson	Wood	1.75	2				$507,924	74	NB/SB
-	WARNS	Hanley to Bahnsen	Wood	0.48	2			$1,060,437		58	NB/SB
-	WOOSTER	Ridgewood to Haskins	Wood	0.61	2		$389,505			74	EB/WB
-	US 23 NB	Ohio line to 0.05 mi N of Ohio line	Monroe	0.05	2		$31,927			7	NB
-	US 23 NB	Sterns off ramp to Sterns on ramp	Monroe	0.35	2		$223,487			7	NB
-	US 23 NB	Consear (bridge) to Consear on ramp	Monroe	0.15	2				$43,536	7	NB
P67	US 23 SB	US 223 off ramp to Consear (bridge)	Monroe	2.35	2				$682,069	7	SB
-	US 23 SB	Sterns (bridge) to Sterns on ramp	Monroe	0.14	2				$40,634	7	SB
-	US 23 SB	0.05 mi N of Ohio line to Ohio line	Monroe	0.05	2				$14,512	7	SB
P68	US 24	Ohio line to Smith/Lavoy	Monroe	0.43	5		$5,360,484			4	NB/SB
		Smith/Lavoy to Crabb		0.12	5					6	
		Crabb to 0.27 mi N of Crabb		0.27	2					6	
		0.27 mi N of Crabb to split		6.04	2					5	
		split to Rauch		0.37	2					5	NB
		split to Rauch		0.34	2					5	SB

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
P69	US 223	Lenawee County line to Stone Quarry	Monroe	1.11	2			$8,704,422		4	EB/WB
		Stone Quarry to US 23 SB ramps		2.83	2					6	
P70	M 125	Ohio line to Benore	Monroe	0.06	4	$20,247,724				4	NB/SB
		Benore to Dean		2.47	2					4	
		Dean to Temperance		1.1	2					5	
		Temperance to Summit		1.79	2					6	
		Summit to Rauch		1.57	2					5	
P71	CONSEAR	Sylvania Petersburg to US 23 SB on ramp	Monroe	0.46	2			$6,539,363		4	EB/WB
		US 23 SB on ramp to US 23 NB on/off ramps		0.11	2					7	
		US 23 NB on/off ramps to Adler		2.39	2					4	
P72	HAROLD	Luna Pier to Gaynier	Monroe	1.05	2			$2,319,706		3	NB/SB
-	JACKMAN	Ohio line to Smith	Monroe	0.44	2		$267,319			4	NB/SB
-	LAVOY	US 24 to 0.08 mi E of US 24	Monroe	0.08	3		$644,918			7	EB/WB
		0.08 mi E of US 24 to M 125		0.89	2					7	
P73	LUNA PIER	US 24 to I 75 SB ramps	Monroe	2.39	2			$6,605,640		4	EB/WB
		I 75 SB ramp to I 75 NB ramp		0.25	2					3	
		I 75 NB ramp to Evans		0.12	4					3	
		Evans to Harold		0.11	2					3	
P74	MEMORIAL	US 223 to Temperance	Monroe	1.66	2	$16,485,381				5	EB/WB
		Temperance to Railroad		0.83	2					4	
		Railroad to Beck		0.2	2					5	
		Beck to Ohio line		3.05	2					4	
-	SECOR	Summerfield to Dean	Monroe	0.2	2		$446,973			6	NB/SB
		Dean to Consear		0.5	2					5	
P75	STERNS	Memorial to Sylvania Petersburg	Monroe	1.37	2				$397,632	6	EB/WB
-	STERNS	Wadsworth to US 23 SB ramps	Monroe	0.04	2				$11,610	7	EB/WB
P76	STERNS	US 23 NB (bridge) to US 23 NB ramps	Monroe	0.05	2	$5,973,796				7	EB/WB
		US 23 NB ramps to 0.05 mi W of Whiteford Center		1.98	2					4	
		0.05 mi W of Whiteford Center to Whiteford Center		0.05	2					3	
P77	STERNS	US 24 to M 125	Monroe	0.63	2	$6,462,039				5	EB/WB
		M 125 to 0.75 mi W of Suder		0.88	2					7	
		0.75 mi W of Suder to Suder		0.74	2					4	
		Ohio line to Morin Grove		0.46	4					3	

Table 4.3: System Preservation Projects

List of Pavements with Poor and Fair Pavement Condition Ratings for TMACOG 2045 Long Range Plan - Update (2017 pavement data)											
Map ID[6]	Route	Extent	County	Segment Length (miles)	# Lanes	URBAN Reconstruction Cost ($1.3m per lane mile) + Inflation	URBAN Resurfacing Cost ($275k per lane mile) + Inflation	RURAL Reconstruction Cost ($1m per lane mile) + Inflation	RURAL Resurfacing Cost ($125k per lane mile) + Inflation	PCR[1]	Direction
P78	SUMMIT	Morin Grove to Sterns (N)	Monroe	0.79	5	$9,118,656				3	NB/SB
		Sterns (N) to Bay Creek		0.14	4					3	
P79	SUMMIT	I 75 ramp to 0.26 mi N of Substation	Monroe	0.24	2			$5,235,909		3	NB
		0.26 mi N of Substation to M 125		2.13	2					4	
P79	SUMMIT	Substation to 0.26 mi N of Substation	Monroe	0.26	2			$5,213,816		5	SB
		0.26 mi N of Substation to Temperance		0.45	2					4	
		Temperance to Manhattan		0.79	2					5	
		Manhattan to M 125		0.86	2					4	
P80	SYLVANIA PETERSBURG	Ohio line to Tennyson	Monroe	0.18	2		$951,414			7	NB/SB
		Tennyson to Muller		0.08	2					4	
		Muller to Yankee		0.24	2					7	
		Yankee to Sterns		0.99	2					7	
P81	TEMPERANCE	Secor to Central	Monroe	2.85	2	$11,516,790				6	EB/WB
		Central to McClanathan		0.31	2					3	
		McClanathan to Forestview		0.69	2					4	
		Forestview to Crabb		0.16	2					3	
-	WHITEFORD	Sterns to Section	Monroe	0.51	2		$325,652			7	NB/SB
P80	YANKEE	Sylvania Petersburg (W) to Sylvania Petersburg (E)	Monroe	0.05	2		$31,927			7	EB/WB
					Total	$353,461,051	$57,950,301	$61,867,683	$5,952,308		

GRAND TOTAL: $435,779,250

TOTAL with inflation: $479,231,343

[1] Pavement Condition Rating (PCR) Code Color: Red = Very Poor; Orange = Poor; Yellow = Fair; Green = Good/Very Good
[2] Functional Classification: 1 = Interstate; 2 = Other Freeway; 3 = Principal Arterial; 4 = Minor Arterial; 5 = Collector; 6 = Minor Collector; 7 = Local Road
[3] Average Annual Daily Traffic (AADT) = Average number of vehicles in a 24 hour period
[4] Pavements with a score less than 65 (Poor and Very Poor) will be treated as a total reconstruct unless otherwise noted
[5] Attempt at cost is a planning level estimate. Potential cost per lane mile does not indicate the actual cost of forthcoming pavement work on those identified for near term
[6] Only locations greater than 1.0 mile will be shown on the map, unless grouped with adjacent locations.

2017 Ohio pavement condition rating (PCR) data obtained from the Ohio Department of Transportation - Division of Engineering, Office of Pavement Engineering.
2017 Michigan Pavement Surface Evaluation and Rating (PASER) data obtained from the State of Michigan Transportation Asset Management Council (TMAC).

Table 4.4: List of Bridges with Sufficiency Rating

List of Bridges with Poor and Fair General Appraisal Rating (2017-18 Ratings[1])

Map ID	County	Route	Intersecting Feature	Deck Width	Area	Length	General Appraisal Rating[2]	Sufficiency Rating[3]	Replacement Cost ($300 per square foot)[4] + Inflation	Rehabilitation Cost ($180 per square foot)[4] + Inflation
B1	WOOD	HOYTVILLE	RADER DITCH	16	753	47	3	17.2	$249,534	
B2	WOOD	REIGLE	YELLOW CREEK	16	960	60	3	19.5	$318,131	
B3	MONROE	SUMMIT	NORFOLK SOUTHERN RR	54.1	16,225	300	3	27.2	$5,376,748	
B4	WOOD	EAGLEVILLE	ROCKY FORD CREEK	28.3	1,722	61	4	7.6	$570,648	
B5	WOOD	WATER	ROCKY FORD CREEK	24	1,296	54	4	23	$429,477	
B6	WOOD	WINTERGREEN	BEAVER CREEK	22.6	3,523	156	4	32.9	$1,167,475	
B7	WOOD	PELTON	SOUTH BRANCH PORTAGE RIVER	23.3	1,496	64	4	35.4	$495,754	
B8	WOOD	WEGMAN	DITCH 2251	25.8	747	29	4	35.7	$247,546	
B9	WOOD	MERCER	TOUSSAINT CREEK	24	1,292	54	4	36	$428,152	
B10	WOOD	DROUILLARD	DRY CREEK	26.5	635	24	4	36.4	$210,431	
B11	WOOD	MEARS	BULL CREEK	20.5	1,517	74	4	37	$502,714	
B12	WOOD	GYPSY LANE	NORTH BRANCH PORTAGE RIVER	28	2,659	95	4	45.5	$881,157	
B13	WOOD	HUFFMAN	BULL CREEK	28.3	1,615	57	4	46.8	$535,189	
B14	WOOD	HOYTVILLE	YELLOW CREEK	22	1,184	54	4	49.3	$392,362	
B15	MONROE	STERNS	US 23	33.1	7,481	226	4	57	$2,479,103	
B16	MONROE	HICKER	OTTAWA LAKE OUTLET	28	1,023	36.5	4	58.8	$339,009	
B17	WOOD	LUCKEY	DITCH 2195	30	600	20	4	63.4	$198,832	
B18	MONROE	CONSEAR	US 23	33.1	7,481	226	4	64	$2,479,103	
B19	WOOD	RANGE LINE	WEST BRANCH TONTOGANY CREEK	24	743	30.5	4	64.4	$246,220	
B20	WOOD	MEARS	DITCH 2312	20	420	21	4	67	$139,182	
B21	WOOD	WESTON	KETTLE CREEK	N/A	468	26	4	70.9	$155,089	
B22	WOOD	RANGE LINE	DITCH 2311	24.5	1,841	75	5	30.2		$404,347
B23	WOOD	BAYS	NORTH BRANCH PORTAGE RIVER	22	1,012	46	5	32.9		$222,270
B24	WOOD	GREENSBURG	MID BRANCH PORTAGE RIVER	30.6	4,618	151	5	49.1		$1,014,271
B25	WOOD	CYGNET	DITCH 2200	26.4	2,379	90	5	49.7		$522,510
B26	WOOD	CYGNET	DITCH 2435	28	1,372	49	5	54.3		$301,338
B27	WOOD	LEMOYNE	TWO ROOT CREEK	25.1	904	36	5	55.3		$198,549
B28	LUCAS	SR 65	MAUMEE RIVER & NS RR	84	141,120	1680	5	55.5		$30,994,779
B29	WOOD	LUCKEY	CEDAR CREEK	26.1	678	26	5	57.1		$148,912
B30	WOOD	WAPAKONETA	LITTLE BEAVER CREEK	27.7	635	23	5	59.1		$139,468
B31	WOOD	SAND RIDGE	JACKSON CUTOFF DITCH	27	2,214	82	5	59.3		$486,270
B32	LUCAS	GIBBS	TENMILE CREEK	23	1,403	61	5	60.3		$308,147
B33	WOOD	CYGNET	BULL CREEK	29	2,175	75	5	61.4		$477,704

Table 4.4: List of Bridges with Sufficiency Rating

List of Bridges with Poor and Fair General Appraisal Rating (2017-18 Ratings[1])

Map ID	County	Route	Intersecting Feature	Deck Width	Area	Length	General Appraisal Rating[2]	Sufficiency Rating[3]	Replacement Cost ($300 per square foot)[4] + Inflation	Rehabilitation Cost ($180 per square foot)[4] + Inflation
B34	WOOD	TONTOGANY CREEK	TONTOGANY CREEK	20	900	45	5	63.9		$197,671
B35	WOOD	LUCKEY	DITCH 2212	17	340	20	5	64.1		$74,676
B36	WOOD	FOSTORIA	DRY CREEK	28	952	34	5	64.4		$209,092
B37	MONROE	LUNA PIER	I75	31.2	8,078	259	5	65		$1,774,205
B38	LUCAS	SECOR	OTTAWA RIVER	63.3	6,006	94.8	5	65		$1,319,123
B39	WOOD	SR 163	PACKER CREEK	32	3,068	96	5	65.7		$673,838
B40	WOOD	PEMBERVILLE	CRANE CREEK	28	728	26	5	65.8		$159,894
B41	WOOD	LIBERTY HI	DITCH 2426	22	690	30	5	65.8		$151,548
B42	LUCAS	KING	DRENNAN DITCH	122	2,917	24	5	66		$640,673
B43	WOOD	SOLETHER	MID BRANCH PORTAGE RIVER	26.7	2,400	90	5	66.1		$527,122
B44	WOOD	FOSTORIA	CRANE CREEK	28	1,036	37	5	67.7		$227,541
B45	WOOD	SR 281	CREPS DITCH	32	1,728	54	5	67.8		$379,528
B46	WOOD	RUDOLPH	DITCH 2441	27	972	36	5	67.8		$213,484
B47	WOOD	GLENWOOD	DRY CREEK	28	786	28	5	68.5		$172,632
B48	LUCAS	ORCHARD LAKE	DRENNAN DITCH	48.7	1,076	20.3	5	68.6		$236,326
B49	WOOD	LAYMAN	TOUSSAINT CREEK	21	883	42	5	68.8		$193,937
B50	WOOD	CASKIE	DITCH 2271	23	506	24	5	70.9		$111,135
B51	WOOD	FRUSHER	CEDAR CREEK	16.3	327	20	5	71.7		$71,820
B52	WOOD	WAYNE	DITCH 2228	26.5	663	25	5	73		$145,617
B53	WOOD	HULL PRAIRIE	DITCH 2090	28	3,132	112	5	75		$687,894
B54	WOOD	PORTAGE	MID BRANCH PORTAGE RIVER	27.7	3,627	131	5	75.4		$796,613
B55	WOOD	PLUMEY	DRY CREEK	28	1,119	40	5	76.2		$245,771
B56	WOOD	WALBRIDGE	AYERS CREEK	28	1,119	40	5	76.3		$245,771
B57	WOOD	LEMOYNE (ACCESS)	DITCH 1963	28	1,624	58	5	76.3		$356,686
B58	WOOD	CARIS	TOUSSAINT CREEK	25.7	1,410	55	5	77.3		$309,684
B59	MONROE	STONEYBROOK	INDIAN CREEK	36.7	1,758	47.9	5	77.9		$386,117
B60	WOOD	LIBERTY HI	DITCH 2144	28	1,584	56.6	5	79.1		$347,901
B61	WOOD	ALEXANDER	DITCH 2178	27.5	549	20	5	79.4		$120,579
B62	WOOD	GRANT	ROCKY FORD CREEK	29	3,439	118.6	5	79.9		$755,322

Table 4.4: List of Bridges with Sufficiency Rating

List of Bridges with Poor and Fair General Appraisal Rating (2017-18 Ratings[1])

Map ID	County	Route	Intersecting Feature	Deck Width	Area	Length	General Appraisal Rating[2]	Sufficiency Rating[3]	Replacement Cost ($300 per square foot)[4] + Inflation	Rehabilitation Cost ($180 per square foot)[4] + Inflation
B63	WOOD	SAND RIDGE	DITCH 1918	28	1,204	43	5	80.9		$264,440
B64	WOOD	KELLOGG	DITCH 2426	32	1,136	35.5	5	83.5		$249,504
B65	WOOD	PEMBERVILLE	DITCH 2406	26.6	560	21	5	84		$122,995
B66	MONROE	US 23 SB	NORTH BRANCH TEN MILE CREEK	47.2	1,501	31.8	5	84.1		$329,671
B67	MONROE	JEFFS	OTTAWA LAKE OUTLET	28	1,089	38.9	5	84.7		$239,182
B68	WOOD	KING	DITCH 2313	30.5	702	23	5	84.8		$154,183
B69	WOOD	BRADNER	TWO ROOT CREEK	28	1,540	55	5	84.9		$338,237
B70	WOOD	BAHNSEN	I 280	75.2	17,072	227	5	85		$3,749,595
B71	WOOD	MERMILL	DITCH 2091	28	980	35	5	85.1		$215,242
B72	LUCAS	CENTRAL	I 280 AND BUCKEYE STREET	68.1	5,856	86	5	85.7		$1,286,178
B73	MONROE	M125	INDIAN CREEK	46.6	1,864	40	5	85.9		$409,398
B74	WOOD	MERMILL	DITCH 30-A	28	812	29	5	86		$178,343
B75	LUCAS	CRISSEY	DRENNAN DITCH	74.6	2,237	30	5	87.5		$491,322
B76	WOOD	HULL PRAIRIE	DITCH 2090	N/A	667	20.8	5	88.4		$146,496
B77	LUCAS	WECKERLY	SWAN CREEK	53.3	5,221	98	5	88.9		$1,146,710
B78	MONROE	SUMMIT	SHANTEE CREEK	64	3,507	54.8	5	93.5		$770,257
B79	MONROE	I75 RAMP	I75	26.6	11,066	416	5	96		$2,430,472
B80	MONROE	I75 RAMP	SUMMIT ST.	26.7	12,709	476	5	99		$2,791,331
									$17,841,857	$62,264,321
									TOTAL = $67,180,380	
									TOTAL including inflation =	

[1] Bridge ratings were obtained for Ohio (Lucas and Wood counties) in 2018 and Michigan (Monroe County) in 2017.

[2] **"The General Appraisal (GA) is a composite condition measurement of the major structural items of a bridge such as superstructure,**

[3] **"Sufficiency Rating: A method of evaluating highway bridge data by calculating four separate factors (1. structural adequacy and safety;**

[4] Attempt at cost is a planning level estimate. Potential cost per square foot does not indicate the actual cost of forthcoming bridge work on those

4.2 Initiatives

Initiatives are another important component of the 2045 Plan. Not all transportation needs can be addressed by building a highway or other modal project. The intent regarding initiatives is to set aside funding and commit to pursuing studies and other collaborative actions. In the finance plan, $42 million is set aside over the 25 years of the plan, or an average of $1.7 million per year, to accomplish initiatives.

The 30 initiatives selected for the plan are described in **Table 4.5**. The order of the initiatives does not indicate priority. TMACOG will take a leading role in some of the initiatives. In others, TMACOG will play a supporting role such as convening the appropriate agencies and other transportation stakeholders in order to facilitate the necessary actions.

Table 4.5: 2045 Plan Initiatives

Init #	County	Project Name	Project Description	Potential Sponsor	Goal	Cost - millions	Mode
1	All	Bike/ Pedestrian counting program	Continue to improve and expand a regional bicycle & pedestrian counting program to document bike traffic volumes at selected locations.	TMACOG	Document bike and pedestrian traffic volumes to plan for needed transportation facilities	$1.00	Non-motorized
2	Lucas & Wood	Active transportation plan	Conduct (and update) an active transportation plan for the TMACOG region to identify existing facilities, develop feasible linkages, and prioritize projects.	TMACOG	Plan for needed Active Transportation facilities	$0.06	Non-motorized
3	All	Safety Report	Update TMACOG Safety Locations and Measures Report every three years with current crash data	TMACOG	Identify and address street corridors and intersections of high concern for safety.	$0.75	Roadway; Non-motorized
4	All	Safety studies	Conduct safety or safety/complete streets studies for high priority corridors.	Various jurisdictions	Identify specific countermeasures needed to reduce crash risk for motorized and non-motorized travel on highly traveled road corridors.	$0.93	Roadway
5	All	Access management	Develop a regional access management plan or policy	TMACOG, ODOT, various jurisdictions	Improve safety and traffic flow on major road corridors through strategies to reduce the number of	$0.00	Roadway
6	Lucas	High Capacity Transit Study	Determine best high capacity transit to implement, whether that is Bus-Rapid Transit or Light Rail. **Ph 1: Identify high capacity corridors**	TARTA/ TMACOG	Providing high capacity transit would increase ridership, benefit current riders as well as attract choice ridership Ph 1: Identify corridors with BRT or light rail potential	$0.15	Transit
			Ph 2: Alternatives analysis in order to apply for federal funding.	TARTA	Ph 2: Do an alternatives analysis (cost $300-500,000) in order to apply for New Starts federal transit construction funds-- includes more in-depth analysis, operating plan, testing options; and a certain level of engineering to get a credible cost estimate. (BRT is a flexible option -- corridor can cost $15 to 280 m)	$0.50	Transit
7	All	Transit Origin- Destination Study	Transit O & D study, metro area, to collect data on travel origins/destinations, trip purposes, and travel characteristics to upgrade TMACOG travel forecasting tools and better understand how people travel.	TARTA/ TMACOG/ Lake Erie Transit/ Perrysburg Transit	Provide data to show the various roles that transit riders and trips play in the area in trip distribution and ensure that the travel forecasting models reflect those roles. Determine the region's demographics of current transit	$0.50	Transit
8	All	Commuter needs	Work with area businesses to determine their employees' transportation needs.	TMACOG	Improve air quality by getting more single occupancy vehicles off the road.	$0.50	Transit
9	All	Environmental Justice Outreach	Conduct regional meetings to determine best methods of outreach to low income and minority communities; create a report with the findings. Consider the need for bilingual call centers to provide transportation information for people with limited English proficiency.	TMACOG/ TARTA	Underserved communities should be involved in transportation decisions that affect them.	$0.10	Transit
10	Lucas	TARTA Countywide Plan	TARTA supports regional transit system by implementing countywide service via sales tax.	TARTA	To grow and sustain transit in the Toledo Region	$0.25	Transit
11	All	Transit promotion	Work with area service providers to promote transit as a viable mode to get where you are going	TMACOG	To promote the benefits of transit as a way to get around for everyone.	$0.50	Transit
12	All	Travel Training	Increase area travel training (how to use public transit)	Various	Improve the mobility of senior citizens and individuals with disabilities	$0.60	Transit
13	Wood	Volunteer Driver Program	Implement a Volunteer Driver Program to provide transportation for residents of rural areas	Wood County	Assist rural residents with access to jobs, medical appointments and shopping and provide mobility options in Wood County. Use primarily federal S. 5310 funds (separate funding source).	$3.00	Transit
14	Lucas	Transit Economic Study	Complete a transit economic study to estimate the economic value of the Greater Toledo public transportation system and assess the viability of replacing the property tax with sales tax-based financing.	Ability Center; University of Toledo; others to be determined		0.06	Transit
15	Lucas	Mobility Management	Continue to expand the Mobility Management program specifically focusing on the implementation of a call center, which can be utilized by seniors and persons with disabilities to acquire information on eligibility and transportation options in the region.	TARTA	Improve transportation for seniors and persons with disabilities dependent on public transportation through a informational transportation 211 call center to assist rider navigate the multiple transportation systems available; develop a phone protocol for a soft handoff to appropriate transportation provider after determining rider's eligibility for Medicaid, PASSPORT, MyCare, DD, Senior Services Levy, TARTA Levy (TARPS) and other program eligibility to steer them to the proper transportation provider to leverage local funds in effort to increase rides community wide. Serve as quasi-ombudsman to resolve recurrent and/or systemic transportation issues and seeking guidance through the Public Transit Board who provides oversight to the Mobility Management and 5310 funded	$0.05	Transit
16	Lucas	Low Speed Vehicles/Golf Carts	Work with local stakeholders to identify additional jurisdictions and residential neighborhoods where low speed vehicles/golf carts can be utilized.	TMACOG	Increase personal mobility and accessibility.	$0.03	Roadway
17	All	Connected and Autonomous Vehicles	Develop a regional Connected and Autonomous Vehicle (CV/AV) strategic plan. The strategic plan will identify multiple needs including how CV/AV's will interact with pedestrians and bicyclists.	TMACOG	Plan and prepare for Connected and Autonomous Vehicles	$0.05	Roadway
18	All	Electric Scooters	Identify responsible providers and identify policies and procedures for scooter use within the region	TMACOG	Increase personal mobility by providing additional options for users	$0.03	Non-motorized
19	Lucas	Hyperloop	Partner with NOACA to conduct a feasibility study.	TMACOG	Increase the efficiency of travel	$0.10	Rail
20	State of Ohio	Ohio Hub	Update the Ohio Hub plan from 2004 as a new plan for a statewide passenger rail network connecting the largest cities in Ohio with efficient high speed service.	TMACOG	Increase personal mobility	$2.00	Rail
21	Lucas and Wood	ToleGO Bikeshare	Identify ways to expand the ToleGO bikeshare program into surrounding Lucas and Wood County jurisdictions.	City of Toledo	Increase personal mobility and availability of transportation options	$2.00	Non-motorized
22	Lucas/Wood/Hancock	Feasibility Study	Fund a feasibility study for north-south passenger rail service connecting Toledo to Bowling Green, Findlay, and south to Columbus.	Lucas/Wood/Hancock County	Increase transportation options for the region and connect the TMACOG region to other areas of the state	$1.20	Rail
23	Lucas/Fulton/Henry/ Defiance	Feasibility Study	Fund a feasibility study for a passenger rail connection from Fort Wayne to Toledo.	Lucas County	Increase transportation options for the region and connect the TMACOG region to surrounding states	$1.20	Rail
24	Lucas/Wood	Feasibility Study	Fund a feasibility study for connecting the Toledo area with light rail, street cars, or bus rapid transit.	Lucas/Wood County	Increase transportation options for the region	$1.00	Rail/Transit
25	Wood	SR 795 Corridor	Evaluate the SR 795 corridor from I-75 to I-280 and make improvements as needed to efficiently handle traffic serving existing and future industry.	Wood County	Increase freight capacity and movement in Wood County	$1.00	Roadway

Table 4.5: 2045 Plan Initiatives

Init #	County	Project Name	Project Description	Potential Sponsor	Goal	Cost - millions	Mode
26	Lucas	I-475/US 24 Interchange Improvements	Evaluate possible safety improvements for the I-475/US 24 interchange where entering and exiting traffic merge on access ramps.	ODOT	Improve roadway efficiency and safety	$1.20	Roadway
27	Lucas, Wood, Monroe	Truck Corridor Improvements	Evaluate truck corridors and improve signage as needed to improve visibility and safety, including the use of lighted stop, yield, and speed limit signs.	Lucas, Wood, Monroe County	Support freight movement and safety	$2.00	Roadway
28	All	Great Lakes Mid Atlantic Corridor (formerly I-73/I-74/I-75)	Evaluate the improvements needed in the TMACOG Region to support the proposed Corridor, which will connect Myrtle Beach South Carolina through Ohio to Mackinac Michigan.	TMACOG	Support regional growth and economic development	$0.25	Roadway
29	Wood	Tracy Rd Corridor Improvements	Evaluate the Tracy Rd corridor from US 20 to Oakdale Ave and make improvements as needed to better accommodate truck traffic serving existing or future	City of Rossford	Support freight movement and economic development	$1.00	Roadway
30	Lucas County	Sidewalk/sidepath Connectivity	Identify solutions and funding sources to connect the urban and suburban areas with sidewalks.	Lucas County/TMACOG	Increase sidewalk connectivity and safety throughout the County	$20.00	Non-motorized
31	Lucas/Wood County	SR 65 and I-475 Interchange Feasibility Study	A feasibility study will include the potential widening of I-475 and an interchange at SR 65 and I-475	ODOT	Increase roadway capacity	$2.50	Roadway

* The initiative number does not reflect priority

4.3 Policies

The policy statements developed for the "On the Move: 2015-2045 Transportation Plan – Update 2020" provide a framework and guidance for the efforts of transportation stakeholders to accomplish our mutual vision. These policies were developed in response to identified needs and opportunities. They were the third type of "solution" the planning committees could consider. While no specific dollars are committed to implement policies, they have the potential to inform and guide action across the region.

The 26 policies, listed by plan goal, are as follows. (Note that the policy numbers do not indicate priority order.) As part of plan implementation, these policies will be actively promoted in the region:

Environmental sustainability goal: Protect and enhance the community and natural environments.

Policy 1: Our region will **protect and improve air quality** to improve personal health and allow for further economic development, by

1. Supporting development and use of fuel efficient and non-motorized modes of transportation (rail, water, bicycling, and walking).
2. Supporting use of cleaner fuels, including provision of alternative fueling stations.

Policy 2: Our region will **support balanced growth** to protect the natural environment and existing communities, by:

1. Encouraging development in existing communities with existing road and utility infrastructure, in order to reduce loss of prime farmland, wetlands, and other natural areas, and to decrease the need to build and maintain more infrastructure.
2. Encouraging more mixed-use development, increased densities, traffic calming, and transit-oriented development to promote walkability and decrease the need for driving to destinations.
3. Encouraging state enabling legislation to establish transportation impact fees (on development) to reflect the real costs of green field development, and/or providing incentives for infill development.

Policy 3: Our region will **protect and improve water quality,** and slow the increase in stormwater-related flooding, by:

1. Mitigating surface run-off from roads and other transportation-related facilities with best management practices (BMPs) to improve water absorption, especially use of "green infrastructure" such as grass swales, pervious surfaces, and plantings of trees and native grasses.
2. Aiming to reduce unneeded pavement through "road diets" and carefully considering the need to add lane miles to the existing road and highway system.
3. Promoting reduction of farmland run-off that contributes to the growth of algae in Lake Erie.

Policy 4: Our region supports the ongoing development of a network of **state scenic byway designated roads**. Benefits of scenic byways include preservation of natural resources and economic benefits from tourism. We support byway designation for the original US 24 between Napoleon and Waterville since that section is no longer part of US 24.

Personal mobility goal: Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

Policy 5: To provide more viable personal transportation choices, our region supports development of a **passenger transportation system providing a full range of integrated, interconnected modal choices** to insure mobility of all citizens and improve community and natural environments.

Policy 6: Our region will **improve pedestrian and bicycle networks and connectivity** to accommodate safe, efficient, accessible, and convenient non-motorized travel trips for work, school, shopping, entertainment, and recreation. To accomplish this, we will:

1. Continue to improve our counting program for pedestrian and bicycle traffic to better understand how and when (time of day, time of year) people are using the network, what its key corridors are, and where improvements are most needed.
2. Encourage increased use of the pedestrian/bikeways network through the installation of wayfinding and route signage, bicycle parking, and amenities for bicyclists and pedestrians.
3. Acknowledge the varying skill levels of cyclists and improve the network to attract new users while also addressing the needs of experienced users. Increase personal transportation choices across a broad range of users.
4. Preserve abandoned railroad and other linear corridors for future bicycle, pedestrian, and utility use.

Policy 7: Our region will **improve safety for pedestrians and bicyclists.** Action steps will include:

1. Promote educational campaigns to increase awareness of traffic laws; educate and encourage law enforcement agencies to engage with motorists, bicyclists, and pedestrians to enforce rules, particularly in high crash locations.
2. Support safe routes to school programs to address pedestrian/bicycle routes, funding, infrastructure (including more sidewalks and curb cuts), etc.
3. Promote opportunities to improve the skills of bicyclists regardless of age.
4. Track per capita crash rates for pedestrians and bicyclists through the use of safety data to set goals for safety improvements and crash reduction strategies.

Policy 8: Our region will **enhance regional economic competitiveness** through these actions:

1. Promote implementation of the regional complete streets policy to create more livable, walkable, and bikeable communities within the region.
2. Promote collaboratively developed educational campaigns that build awareness of non-motorized mode choices.
3. Strengthen the regional network by building cooperative relationships among communities and other public, private, and non-profit partners.
4. Invest in high-capacity transit corridors along with transit-oriented development which concentrates commercial space and a variety of housing options around major transit stops. This compact, mixed use and pedestrian-oriented development encourages more transit use, reduces congestion, increases property values, and reduces infrastructure costs.

Policy 9: Our region will support **broadening and strengthening public transit** in our region, through these actions:

1. Develop a truly integrated transit system that services all areas and people.
2. Support implementation of the Ohio transit needs study recommendations, including establishing a state legislator panel to identify dedicated state funding for transit.
3. Improve transit operations and expand hours of service, which will require more money for transit.
4. Increase intercity bus and passenger rail service and between communities and major destinations such as airports in northwest Ohio and southeastern Michigan.
5. Implement regional transit by developing a broad-based funding mechanism (such as a regional sales tax.)

Policy 10: Our region will **enhance transportation for seniors, people with disabilities, and other non-drivers**, by:

1. Encouraging private providers (for example, taxicab companies) to make their vehicles accessible to people with disabilities.
2. Implementing the adopted public transit-human services transportation coordination plans that call for coordinating resources, providing for mobility management, and creative and effective use of available federal funds.
3. Support the development of a 211 call center to assist riders navigate the multiple transportation systems available.
4. Research ways connected and autonomous vehicles can be used to assist mobility for seniors, individuals with disabilities or other non-drivers.

Policy 11: We will support **modernization and expansion of intercity passenger rail service**

1. Support the long-term goal of implementing statewide and interstate high-speed passenger rail with fast, frequent, and reliable service.
2. Work to preserve and improve existing service in the Chicago-Toledo-Cleveland and eastbound corridors and develop new service in the Detroit-Toledo-Columbus corridor.
3. Partner with freight railroads to reduce conflicts between freight and passenger service, improve rail infrastructure, and create new passenger routes.
4. Educate public transit stakeholders on the benefits of preserving and expanding passenger rail service.
5. Work to improve multi-modal access to rail stations to better connect population centers with passenger rail service.
6. Support the use of public/private partnerships where appropriate in addressing passenger rail needs.

Congestion reduction and system reliability goals: Reduce congestion on the National Highway System; improve the efficiency of the surface transportation system.

Policy 12: Our region needs to **reduce congestion and manage traffic on arterials** and expressways. To do so, we support the following:

1. A region-wide access management policy and effective access management in land use plans.
2. Signal coordination, intelligent transportation systems (ITS), freeway incident management programs, and roundabout intersections (see Policy 26).
3. Upgrading area expressways, including freeway entrance ramp metering.
4. Corridor studies to determine how a travel corridor can function more efficiently.

Policy 13: To **reduce roadway congestion**, our region supports measures to reduce travel demand and motor vehicle miles traveled through:

1. Increased freight railroad, water transport, and pipeline capacity and usage.
2. Providing better and more convenient access to public transit.
3. Providing rideshare and implementing vanpool programs to reduce the number of individual work trips.
4. Completing the regional bikeway network.
5. Providing pedestrian facilities and developing denser, more walkable neighborhoods.

Freight Goal: Strengthen freight access to national and international trade markets to support economic development

Policy 14: Strengthen the region's position as a multimodal freight hub.

1. Support a strategy of marketing the Toledo region as a desirable location for industry based on the connectivity and reliability of the freight transportation network.
2. Ensure the reliability of the freight transportation network by addressing needed improvements in infrastructure, access, and freight flow.
3. Support the use of public/private partnerships where appropriate in addressing freight transportation needs.
4. Plan for the potential impact freight-generating facilities could have on the regional transportation system and on the community.

Policy 15: Improve access, capacity, and reliability for highway freight.

1. Support efforts to improve highway infrastructure, reduce bottlenecks and modal conflicts, implement truck-friendly design elements, and provide adequate truck parking.
2. Provide efficient and reliable highway connections for industry by maintaining first and last mile connectors and using managed access along important freight corridors.
3. Ensure commercially viable access to Michigan-legal heavy load routes in Lucas, Fulton, and Williams counties that are vital to interstate and international flow of commerce.
4. Promote the development of connected and automated technology for commercial vehicles and support the use of alternative fuels.

Policy 16: Expand regional freight capacity by **supporting the increased use of rail freight**.

1. Support efforts to improve rail access to industry, improve highway connections to rail terminals, and reduce rail/highway conflicts.
2. Support the development of satellite industry near major rail terminals.

3. Work with railroads to alleviate blocked crossings and to provide access and track time for the completion of highway, bridge, and utility projects that intersect railroad property.

Policy 17: Expand the use of **waterborne freight,** support the development of **a viable air freight industry,** and support the **use of pipelines** where appropriate.

1. Support infrastructure and capacity improvements and work to improve highway and rail access at the Port of Toledo.
2. Ensure routine dredging of the Toledo Harbor to maintain safe and commercially viable navigation and develop a plan to dispose of dredged material in an environmentally acceptable and financially feasible manner.
3. Support the operation and potential expansion of air freight service and work to increase airport capacity and efficiency with infrastructure improvements as needed.
4. Support the use of pipelines as an efficient and cost-effective mode to deliver commodities, with the utmost consideration toward impacts to public safety, the environment, and the community.

Infrastructure condition goal: Maintain and improve the transportation system to a state of good repair.

Policy 18: To preserve our transportation system, our region will work to **overcome the lack of funds** needed to implement appropriate improvements. Therefore, our region supports:

1. Appropriate impact fees.
2. Placing emphasis on maintaining the system vs. capacity improvements.
3. Support sufficient and appropriate funding to maintain our multi-modal system (including seaport, airport, public transit, and rail facilities) in good condition.
4. Planning for extreme weather events, including more funding for maintenance and repair reserves, environmental solutions, and avoiding building on flood plains.

Policy 19: To better **manage the maintenance of good infrastructure condition**, our region supports:

1. A management system for bridges that relies on targets for sufficiency ratings and functional class.
2. A management system for pavement, based on pavement condition rating (PCR) and functional class.
3. Coordination of infrastructure projects (for example, pavement and drainage projects).
4. Coordination and possible management of culverts (for stormwater management).
5. Implementing the Deighton System for pavement projects. This will aid with scenario planning and is the system being used by ODOT.
6. Implementing a public input (reporting system) tied to a Geographic Information System (GIS).

Policy 20: Our region will work to **maintain bicycle and pedestrian systems**. It is recommended that:

1. Political jurisdictions enforce their laws on construction and maintenance of sidewalks.
2. Jurisdictions enforce snow removal laws for private property owners, and include in their snow/ice removal plans a policy concerning publicly owned sidewalks and trails
3. To establish a mechanism to give townships authority over maintaining and clearing sidewalks.
4. Regional consistency in sidewalk/trail maintenance regulations be promoted.

Safety Goal: Reduce traffic-related fatalities and serious injuries across all modes.

Policy 21: Our region will work to ensure that timely, reliable, and comprehensive **crash data is available** in order to better understand and improve transportation safety:

1. TMACOG will regularly produce a multimodal safety report analyzing crash data for the region.
2. Law enforcement agencies are urged to provide the most accurate possible crash reports, since these are the basis of all crash data.
3. Local jurisdictions are urged to conduct detailed engineering safety studies of high crash locations to develop appropriate countermeasures.

Policy 22: Our region will work to **improve safety at railroad crossings.**

Policy 23: Our region will work to **improve safety through better utilization of traffic control devices.** We encourage:

1. Video detection systems at more signalized intersections (aiding detection of motorcycles and bicycles).
2. Reviewing quantity and location of signs, and removal of unwarranted traffic signals and other traffic control devices.
3. Regular upkeep of signage and maximizing its visibility, especially as the number of older drivers increases.
4. Appropriate use of signage (for example, trucks in right lanes), and uniform speed limits among all vehicles.

Policy 24: Our region needs to **improve safety for pedestrians and bicyclists on all streets.** It is regional policy to:

1. Consider adding pedestrian and bicycle facilities (bike lanes or paths) with roadway construction projects.
2. Consider improving ped/bike access as bridges are re-decked, rebuilt, or newly constructed. Bridges over or under major barriers – expressways, railroad tracks, and rivers – should be considered for inclusion of raised sidewalks and striped/signed bike lanes as part of a "complete streets" policy and to eliminate choke points.
3. Provide education about and enforcement of the uniform vehicular code for bicycles.

Policy 25: To **increase safety and maintain operational efficiency in work zones**, our region supports:

1. Following the state Manual of Uniform Traffic Control Devices procedures as appropriate for work zones.
2. Employing ITS equipment to detect backups and alert drivers.
3. Enforcing construction zone speed limits and the "assured clear distance" law (mandates that a driver be able to stop within the distance he or she can clearly see).

Policy 26: Intersection policy in support of roundabouts: when thorough analysis shows that a roundabout is a prudent and feasible alternative, it is regional policy that a roundabout should be considered a preferred alternative due to the proven substantial safety and other operational benefits. Exceptions to this policy are when the intersection.

1. Has no current or anticipated safety, capacity or other operational problems.
2. Is within a well-coordinated signal system in a low speed (with 85th percentile speeds less than 25 mph) urban environment with acceptable crash histories.
3. Is where signals will be installed solely for emergency vehicle preemption.
4. Has steep terrain that makes providing an area and grading at 5% or less for the circulating roadways infeasible.
5. Has been deemed unsuitable for a roundabout by a qualified professional engineer with significant experience in roundabout design and operations.

5 How Did We Get Here? Plan Development Process

Developing a regional transportation plan takes time and collaboration. Many people participated, and there were numerous tasks to be completed. This chapter outlines the major steps in the two-year planning process.

Two key documents guided the plan's creation. First, this federally mandated plan was developed in compliance with the numerous requirements of the Fixing America's Surface Transportation (FAST) Act. Secondly, we followed the guidelines of the "TMACOG Public Involvement Policy for Transportation."

5.1 First Steps

5.1.1 Plan Task Force and TMACOG Transportation Council

TMACOG has a standing Transportation Planning Committee. The committee's primary responsibility is the update of the regional transportation plan. The membership was reviewed, and additional members were invited in order to ensure enough representation across the region and across the various interests and stakeholders.

The expanded committee served as the 2045 Plan Update Task Force throughout the process. Their first tasks included approving the plan goals, plan development process, and public involvement process.

The Planning Committee is a subcommittee of the TMACOG Transportation Council. At key points in plan development, the council reviewed and/or approved the work of the Planning Committee, such as approving the proposed plan goals.

5.1.2 Technical Analysis

Early on, TMACOG staff began to update and create an inventory of the existing transportation system and evaluate how well components of the system were functioning. In addition, the region to be served was analyzed using Census and related data. The results of this technical analysis are represented in Chapter 2, "What Do We Know?"

The information developed was used throughout the planning process: it was shared with the public at meetings, used by the Planning Committee in developing plan recommendations, and used to evaluate proposed plan projects.

5.1.3 Early Public Input

TMACOG plan updates begin with many opportunities for the general public to weigh in on transportation needs. The 2045 Plan- 2020 Update was a model of early and regular public participation.

In spring of 2019, informational displays and fliers were distributed to 15 public libraries across the region, announcing a survey, public meetings, and the 2045 Plan web page. See *Appendix C* for the flier. A total of 10 public meetings followed, held at libraries and other community facilities. Half of the meetings were held in environmental justice target areas: neighborhoods with a concentration of minority and/or low-income households, as shown on the map in **Figure 5.1**. TMACOG conducted special outreach to the Hispanic community, the largest area group with limited English proficiency. The public input questionnaire was translated into Spanish, and a public meeting was held at the Adelante

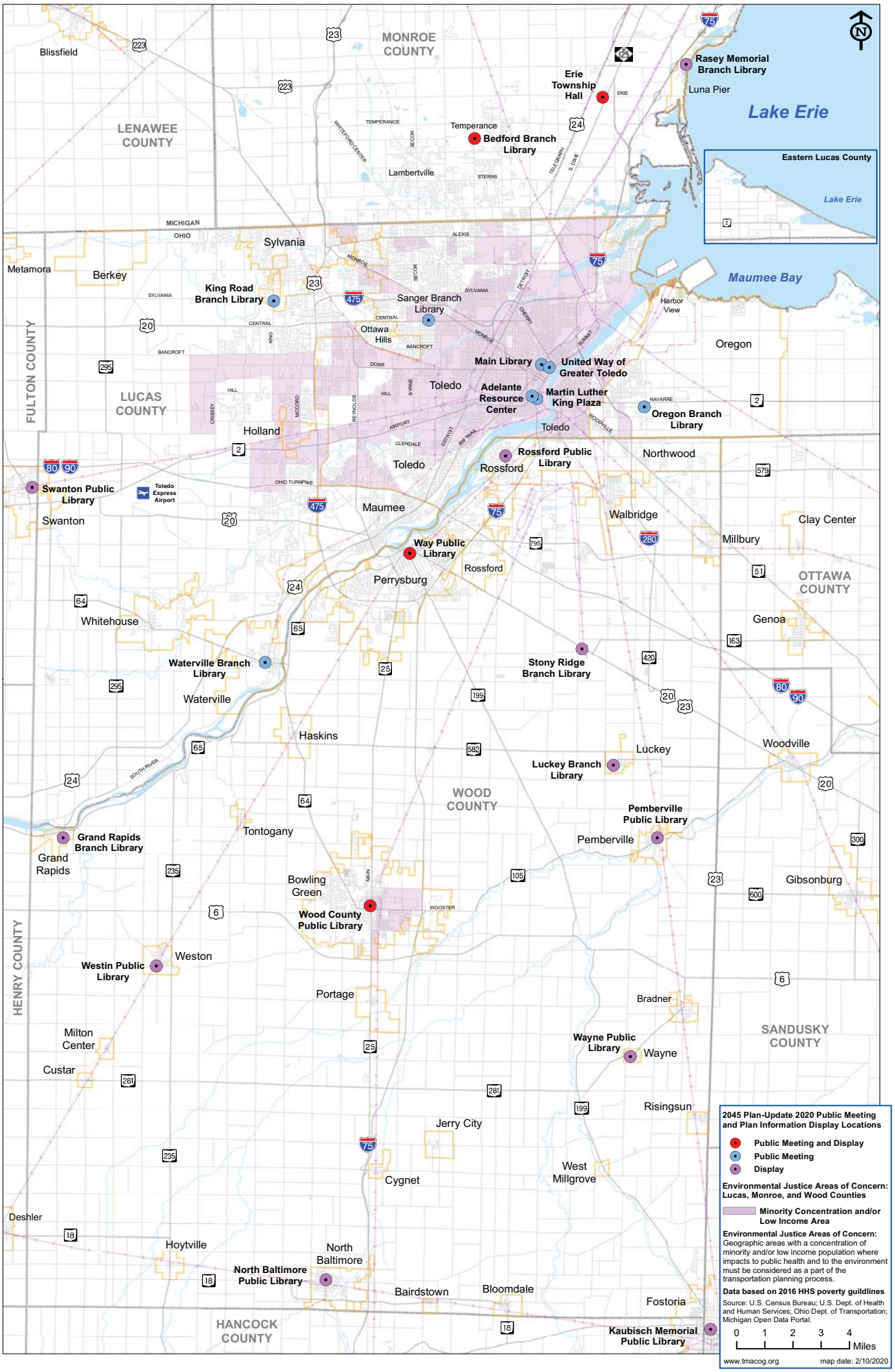
Center with a Spanish translator on site. The surveys were available at the public meetings and on the TMACOG website.

The results from the 2019 survey and a summary of issues noted at public meetings are in *Appendix D*. The information gathered in this phase was presented to the Planning Committee and used in identifying needs and issues to be addressed in the plan.

Figure 5.1: Public Meetings and Display Locations with Environmental Justice Areas of Concern

Public Meetings and Display Locations with Environmental Justice Areas of Concern

Toledo Metropolitan Area Council of Governments



5.1.4 Consultation with Key Stakeholders

TMACOG sent local government entities (including park districts, port authorities, and transit agencies) a questionnaire in May 2019, see *Appendix C.* The request was two-fold: what general transportation issues were of concern, and what specific projects did they wish to pursue in future.

A similar questionnaire was sent to major employers and other key stakeholders. These included hospital systems, universities, freight transportation providers, and economic development organizations.

The responses were provided to the Planning Committee and other TMACOG committees for their consideration in developing the plan.

5.1.5 Review of Performance-based Plans

TMACOG staff reviewed key plans that call for action in improving the transportation system. These included:

- Access Ohio 2040 Plan (2014): focused on identifying and upgrading a "strategic transportation system" of major corridors in the state.
- Ohio Statewide Freight Study (2013): identified major trends and noted opportunities and challenges.
- Freight and Economic Analysis report (2012), Southeast Michigan Council of Governments: included identification of major freight bottlenecks and potential solutions.
- Ohio Statewide Transit Needs Study (2014-2015): analyzed transit needs and called for specific action steps to address them.

In addition, staff reviewed local land use and comprehensive plans that set forth the vision for the future of local jurisdictions. All of the plans that were reviewed provided valuable data and information that helped guide the development of the 2045 Plan including development of goals and targets. **Table 5.1** shows public involvement steps in developing the plan.

Table 5.1: Public Involvement in the 2045 Plan Development

Step in Plan Process	Main Public Involvement Components	Notes
1. Update plan process	Created plan task force	Broad-based, representing wide spectrum of public and private stakeholders.
	Created plan logo and Web page (on TMACOG website)	
2. Set plan vision and goals	Draft goals set by task force; draft goals revisited after "needs meetings"; goals reaffirmed for Update 2020	Task force approved goals from the 2015 update.
3. Predict future conditions (population and land use for 2045)	Consultation with local governments and local government planning departments on population and employment projections	Comments received were considered, and projections modified as appropriate.
	Display and informational bookmarks in various local libraries, with survey form asking for comments on expected patterns of growth	
	Conduct Scenario Planning exercise with task force	
4. Identify current and future transportation needs and opportunities	12 public meetings co-sponsored by community organizations plus presentations to civic groups	Prepared needs input summary. Produced popular summary on needs, "Building the Case" (distributed to public libraries)
	Display in public libraries with survey form on transportation needs, and public meeting fliers	
	Input from TMACOG transportation committees	
	Survey form posted on-line	
	Needs surveys mailed to major institutions	
	Reviewed technical analysis on needs with task force	Task force identified additional analysis needed
5. Develop and prioritize solutions to needs statements	Mailing to local governments requesting project suggestions	
	Technical analysis and ranking of projects; ranking of initiatives and policies (staff and task force)	
6. Environmental Consultation	Draft project list and comment form sent out to environmental stakeholders for review and comments	
7. Public comment on projects, initiatives, and priorities	7 public meetings	Task force review of comments and modification of plan
	Flyer placed at public libraries	
	Link to survey and draft projects & initiatives on TMACOG website	
	Public survey and public meeting locations available on social media	
8. Draft Plan and Air Quality Conformity Comments Period	Mailing to local governments, posting on social media, press release, direct emailing, and announcement of comment period during committee meetings	

5.2 Developing the Draft Plan

The early input phase helped build a solid understanding of the existing multimodal system, the perceptions of the public, and the desires of the local governments and other major stakeholders. The next step was to identify a set of solutions to problems and opportunities.

5.2.1 Financial Resources Analysis

Federal law (FAST Act) requires the regional transportation plan to be based on expected financial resources. Thus, the plan is not a "wish list" but is a reasonable plan of action for how to best use the funds likely to be available during the life of the plan.

TMACOG staff worked with ODOT and the regional public transit agencies to develop a financial estimate of state and federal funding for FY 2020-2045. A significant consideration was the past history: how much money flowed to the TMACOG region in recent years. Also included in the estimate were the local matching funds that would be required to utilize the federal funding.

TMACOG estimated that $3.8 billion dollars would be available to the region to implement the 25-year plan, or approximately $152 million dollars per year. For the details on how this estimate was developed and used, see the financial plan in Chapter 6.

5.2.2 Draft Project Lists: TMACOG Committees

Following the early input and technical analysis phases, several groups set to work to develop lists of proposed projects.

TMACOG Public Transit & Passenger Rail Committee

This committee reviewed the previous 2045 plan projects and provided feedback on status of projects and needed amendments of additions. Several of the projects continued to fall into the "initiatives" category, that is, non-capital projects such as planning studies and collaborative efforts to initiate transit improvements.

TMACOG Pedestrian & Bikeway Committee

This committee and staff met with numerous local governments and other key stakeholders to review the plan projects for the proposed regional bikeway network. Stakeholders were asked to provide input about barriers and gaps in the existing network. The committee also reviewed the set of objectives and strategies that were incorporated into the plan policies.

TMACOG Freight Advisory Committee

The Freight Advisory Committee and staff started creating the projects list with a brainstorming session that included all possible projects before narrowing the list to the most reasonable ones. The project list went through many revisions before the group arrived at a final draft list. To prioritize the list, they ranked the projects based on how well they achieved certain freight-related factors. The factors included improving infrastructure, increasing capacity, improving safety, reducing modal conflict, improving access, improving first/last mile connections, achieving a measurable goal, showing support by sponsors, and others.

To the final prioritized list of projects, the committee and staff added an approximate cost based on similar projects, past projects, or on generic project cost examples. They also reviewed the freight-

related initiatives and policies from the previous plan and created an updated list of freight policies covering all modes of transportation. Final freight projects and policies were submitted to the TMACOG Planning Committee for their consideration.

System Preservation Projects

Staff used current ODOT pavement condition and bridge condition ratings to identify "system preservation projects" needed to bring roads and bridges into a state of good repair. The System Performance & Monitoring Committee reviewed this work.

Key Stakeholder Input

Before the Planning Committee finalized the draft project and initiatives lists, staff consulted with local governments, ODOT, and other potential project sponsors to clarify project descriptions, costs, and expected time frames for implementation.

Ranking Process

Based on committee suggestions, staff developed a set of measures of effectiveness to evaluate proposed plan Priority Projects. (The list of already funded "committed" projects and the system preservation projects to fix road pavements and bridge improvements were not ranked.) There were ranking measures for each of the major plan goals. In addition, the Planning Committee included bonus economic development measures and points.

Staff populated the ranking tables with data and information relevant to each measure for each project. Staff then assigned points and reviewed the draft scores with the Planning Committee. The committee modified the scores as needed and approved the Priority Project ranking.

An outline of the evaluation measures that were used is shown in **Figure 5.2**. For a more detailed depiction of the evaluation process, see Appendix *H*.

Figure 5.2: Scoring Matrix

Total Points	PLAN GOAL	Measure	Metric	Category Point Total	Scoring Legend
13	**Safety: Reduce traffic-related fatalities and serious injuries across all modes.**				
		Crash characteristics		**6**	
		Crashes	Total crashes		
		Crash rate	Crashes per traffic volume (Million VMT)		
		Fatalities	Total fatalities		
		Fatality rate	Fatalities per MVMT		
		Bicycle fatalities	Total bicycle fatalities		
		Serious injuries	Total serious injuries		
		Serious injury rate	Serious injuries per MVMT		
		Bicycle serious injuries	Total bicycle serious injuries		
		Location characteristics		**4**	
		TMACOG top 50 safety priority list	Is on list		Y/N
		ODOT safety program list	Is on list		Y/N
		Other significant safety factors	Subjective	**3**	
10	**Infrastructure condition: Maintain and improve the transportation system to a state of good repair.**				
		Effectiveness		**3**	
		Area of existing infrastructure to be improved	Lane miles		1 0-1.0 miles 2 1.1-10.0 miles 3 over 10 miles
		Condition		**4**	
		Pavement condition	Pavement condition rating (PCR)		0 na; very good 1 good 2 fair 3 poor 4 very poor
		Bridge condition	Bridge sufficiency rating		0 na; over 70% 1 70% or below
		Wear usage factors		**3**	
		Traffic volume	Annual average daily traffic (AADT) and Truck annual average daily traffic (TAADT)		0 no data 1 less than 2,500 and less than 250 2 2,501-10,000 and 251-1,000 3 over 10,000 and over 1,000
10	**Congestion reduction: Reduce congestion on the National Highway System (NHS)**				
		Traffic flow in area with significant truck traffic	Share of truck traffic to total traffic	**3**	0 0%-4% 1 5%-9% 2 10%-16% 3 over 16%
		Congestion	Percent of time congested	**3**	0 0-39 1 40-56 2 57-81 3 82-119
		Mode shift	Promotes alternative mode	**2**	0 share the road/sharrow/signed route only 1 bike lane, partial path/side path 2 path/transit/passenger rail
		NHS	Is on the NHS system	**2**	0 No 2 Yes
10	**Freight movement: Strengthen freight access to national and international trade markets to support economic development**				
		Improves freight capacity		**3**	
		Highway capacity	Truck annual average daily traffic (AADT)		0 under 1000 1 1,000-5,000 2 5000-9999 3 over 10000
		Non-hwy freight mode	Concerns rail, marine, air, pipeline modes		0 No 3 Yes
		Improves freight connectivity		**2.5**	
		Between major hwy to freight generator/dev't area			0 none 1.5 between hwy and generator
		Between freight modes			0 does not connect two or more modes 1 connects two or more modes
		Freight and overall safety		**3**	
		Truck crashes	Total truck crashes		0 under 10 1 between 10 and 20 2 over 20
			Truck crash rate per million VMT		0 less than 0.5 1 greater than or equal to .5
		Reduces modal conflict	Number of conflicting moves/mode		0 no reduction 1 some modal conflict reduction
		Reliability	Improves travel time reliability	**1.5**	1 Y/N

Sliding scale

Figure 5.2: Scoring Matrix

Total Points	PLAN GOAL	Measure	Metric	Category Point Total	Scoring Legend
10	**Environmental sustainability: Protect and enhance the community and natural environments.**				
		Impact on sensitive areas		**-1, 0, 1**	
		Areas impacted			
			100 year flood		-1 3 or more heavy impacts or new right-of-way
			Historic sites and districts		
			Parks and preserves		0 2 or more minimal impacts, or 1-2 heavy impacts or new right-of-way
			Oak Openings		
			Prime farmland		1 0-1 minimal impacts, and 0 heavy impacts or new right-of-way
			Riparian stream zones		
			Wetlands		
		Impacts on air quality		**-1, 0, 1, 2**	
		Current congestion level			1-2 Improves congestion
		Reduce congestion and/or delays, improve speedand/or flow			0 minor improvement but no congestion
					0.5 improvement but no congestion/minor improvement
					1 railroad separation
		Shift to nonmotorized or more fuel efficient mode			0.5 very short route
					1 route
					1.5 mixed route
					2 mostly lane/path or town network
		Induce more motorized traffic			Y/N
		Support redevelopment of existing brownfields and developed areas		**2**	
		Number of brownfields and urban sites with new or improved transportation			1 greater than zero
		Urban area			1 yes
		Stormwater runoff impacts		**-1, 0, 1, 2**	
		Number of new lane miles or acres of pavement			-1 12 plus miles
					-0.5 7-11.9 miles
					0 2-6.9 miles
					0.5 .1 - 1.9 miles or unsure
					1 not applicable
		Impact EJ areas		**-1, 0, 1, 2**	
					-1 negative
					0 neutral
					1 positive
					2 very positive
		Consistent with Complete Streets Policy		**1**	1 Y/N
10	**Personal mobility: Improve the quality, accessibility, and efficiency of the multimodal personal transportation system**				
		Improves personal mobility connectivity			
		On bike network			1 Y/N
		Connects alternate modes			1 Y/N
		Connects jurisdictions			1 Y/N
		Populations served with .5 mile of facility		**7**	
		Population	Number of people total		1 2,000-6,000
					2 6,001-12,000
		Proximity to schools	Number of schools		3 over 12,000
					1 1-3
					2 4-9
					3 0ver 10
		Environmental justice area			1 Y/N
3	**Non-goal related scoring factor**				
		Economic Development		**2**	
		Significant economic driver			Y/N
		Economic development benefits			Y/N
		Attract/retain characteristics			Y/N
		Funding		**1**	
		Funding availability			Y/N
		Public-private/public-public partnership opportunity			Y/N

5.3 Finalizing the Plan

By the beginning of calendar year 2020, the plan was ready for the last steps in development. These included review and comment, various types of analyses, and approvals.

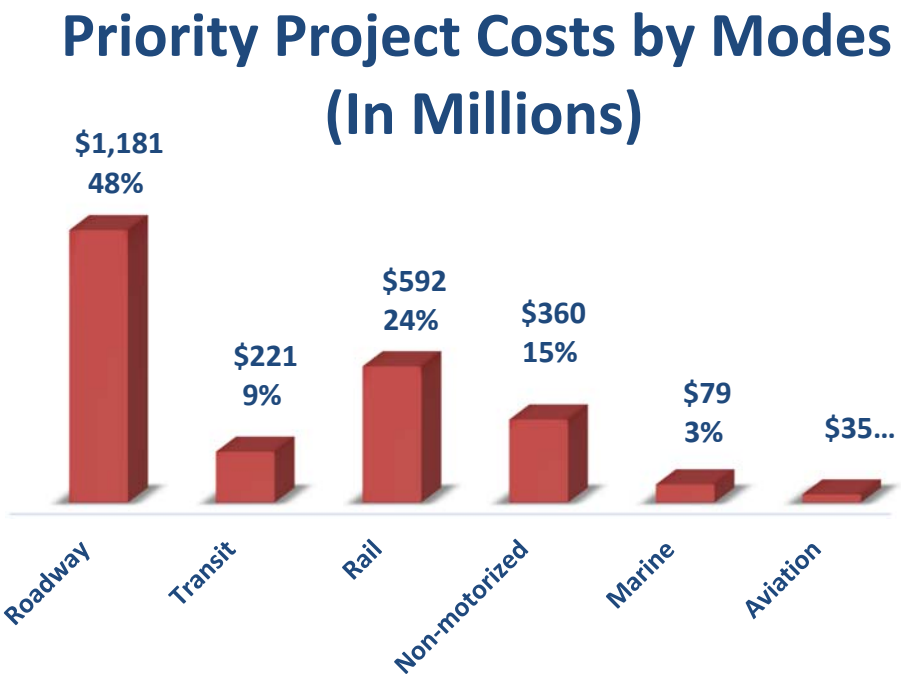
5.3.1 Financial Analysis

As previously noted, the plan is subject to a fiscal constraint: the proposed expenditures must not exceed expected funding. Working with the Planning Committee, staff developed a proposed expenditures table that fit within the plan budget. A simplified version is below in **Table 5.2**; see Chapter 6 for details. The costs for the plan's Priority projects, displayed by mode, are illustrated in the graph in **Figure 5.3.**

Table 5.2: 2045 Plan Proposed Expenditures

Steps	Numeric Result
Estimated resources	*$3.8 Billion*
System Preservation project costs	*$8.3 Million*
Committed project costs	*$5.3 Million*
Initiatives costs	*$42 Million*
Priority project costs	*$2.4 Billion*

Figure 5.3: Priority Project Spending by Mode



5.3.2 Public Review

At the beginning of the 2045 Plan process, members of the public were asked for input on what they wanted the plan to accomplish. To bring plan development full circle, the draft plan was presented to the public to ask if it lived up to their expectations. In February 2020, 6 public meetings were held. All local governments were sent an invitation to the public meetings. All public meetings were held accessible locations, on different days and times, and special accommodations were available upon request. See *Appendix C* for meeting fliers and a newspaper article.

Presentations and displays at the meetings used easily understood visual images to communicate the main components of the draft plan. To see the materials, along with photos from the public meetings, see *Appendix C*.

A public survey was distributed for public feedback. Fliers announcing the meetings and requesting completion of the survey were distributed to multiple public libraries in the region. In addition, TMACOG sent notices via an extensive e-mail list to members and stakeholders. Questionnaires for comment on the draft plan were provided online for 45-days from March 4, 2020 to April 17, 2020. For a summary of survey responses and a table with response to significant comments, see *Appendix D*.

5.3.3 Environmental Consultation and Mitigation

How might the proposed Priority projects affect natural and community resources? Would these impacts be acceptable? To complete this evaluation, staff overlaid the projects on eight resource maps: wetlands, parks and preserves (and the Oak Openings region), significant stream habitats, prime farmland, 100-year flood plains, historic sites, brownfields, and Environmental Justice target areas (low income and minority neighborhoods). The environmental maps are included in *Appendix E*.

Additionally, staff identified the projects that were proximal to the key natural resources in the region. The key resources table and the maps were provided to the necessary environmental agencies for comment. The request was for general concerns, as opposed to the detailed evaluation that must be completed when a project is heading for construction.

Environmental agency responses are noted in *Appendix E.* In summary, many plan projects border sensitive environmental resources, but precise assessments of potential environmental impacts cannot be made until project details are further refined. However, use of best management practices, environmentally sensitive project design (such as placing bikeways on boardwalks where they cross wetlands), adequate notice to environmental agencies, and adherence to applicable regulations should address most of these potential impacts through avoidance and mitigation strategies.

In addition to consulting with environmental agencies on the Priority projects, TMACOG staff reviewed and updated the "Environmental Mitigation" strategies included in the plan—an overview of potential environmental impacts and general information about the types of actions that may be needed to guard against or reduce those impacts. Since most of the projects in the 2045 Plan will use federal transportation funding and thus be subject to federal environmental requirements, this detailed discussion of environmental mitigation issues, requirements, and techniques is included in *Appendix E.* Additional information can be provided by both the Michigan and Ohio departments of transportation (MDOT and ODOT), as well as the states' environmental protection and natural resources agencies. Relevant environmental considerations are mapped and shown in *Appendix E.*

As early as possible, agencies seeking to sponsor a project in this plan should consider the potential environmental implications. The goal is to protect and sustain both the natural environment and the manmade environments while improving the transportation system. Context-sensitive strategies and designs should be developed as part of a collaborative process. Through informal discussion with environmental groups and agencies at a preliminary stage, it may be possible to identify creative solutions that allow beneficial infrastructure improvements while protecting valuable natural and cultural resources.

5.3.4 Environmental Justice (EJ) Analysis

The U.S. Environmental Protection Agency (EPA) Office of Environmental Justice (EJ) defines EJ as:

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

EJ applies to all programs and activities of federal-aid recipients, whether specific programs and activities are federally funded or not. This means that any agency that receives federal funds must:

- make a meaningful effort to involve low-income and minority populations in the processes established to make decisions regarding its programs and activities, and
- evaluate the nature, extent, and incidence of probable and adverse human health or environmental impacts of its programs and activities upon minority or low-income populations.

The "TMACOG Public Involvement Policy" (available from TMACOG and on the TMACOG website) outlines how target populations are included in regional transportation planning. As part of this plan development public meetings were held and plan displays posted in EJ areas. See the map of public meeting locations earlier in this chapter on **Figure 5.1**.

In the project evaluation and ranking process, several measures of effectiveness helped to identify projects that would have either positive or negative impacts on low-income and minority neighborhoods. Examples are indicated in **Table 5.3.**

Once projects were selected for the draft plan, they were mapped against low-income and minority areas. Fifty-seven out of the 211 committed projects are located in EJ areas (27%). Of the 153 priority projects, 57 are planned in EJ areas (37%). Of all the combined projects, approximately 31% of them are planned in EJ areas. The majority of projects effecting EJ areas, would have minimal impact because they likely would be on existing alignment and not require additional right-of-way, see *Appendix E* for the EJ project maps.

As plan projects seek federal funding through the TMACOG Transportation Improvement Program (TIP), or the through the state of Ohio or Michigan, and move towards construction, more detailed analysis will be required to identify any adverse impacts on neighborhoods.

Table 5.3: Project Evaluation Measures Related to Environmental Justice

Measure	Relationship to EJ Goals
Does project impact environmentally sensitive areas? (example, new R-O-W in prime farmland, wetlands, floodplain, parkland, woodland areas)	Identify negative environmental impacts on EJ areas
How will the project impact EJ & related areas (positive, neutral, or negative)	Is there disproportionate impact on EJ areas?
Support redevelopment of existing developed areas & brownfields? (number of brownfield and urban sites with new or improved transportation)	Identify positive economic impacts on EJ areas
Personal mobility: does project serve EJ or other transportation-disadvantaged areas?	Increase transportation for transportation-disadvantaged households
Personal mobility: Increase in population served within .5 mi of bike facility or transit service	Increase transportation for low income and other transportation-disadvantaged households
# schools within .5 mi of new bike facility or new transit area	Increase education options for low-income households
Area of existing infrastructure to be improved (number of lane miles or other measure)	Identify road upgrades with minimal impact on neighborhoods (no new right-of-way)

5.3.5 Travel Demand Model Process

Year 2045 congestion forecasts were prepared using the updated forecasting model for the TMACOG region, with the goal of comparing expected congestion with and without plan projects. The results will be submitted to ODOT, in order to be inputted into the Motor Vehicle Emission Simulator (MOVES). The preliminary results showed the proposed 2045 Plan projects would reduce congestion in the TMACOG region.

5.3.6 Air Quality Conformity

Air quality conformity is a planning requirement for areas that are either nonattainment or maintenance areas in accordance with the National Ambient Air Quality Standards (NAAQS) Clean Air Act Amendments of 1990. The TMACOG planning area had been a nonattainment area under the 1997 ozone standard and was subsequently re-designated to maintenance after the standard had been met. On April 6, 2015, EPA's final 2008 ozone NAAQS SIP requirements rule (80 FR 12264) became effective; this rule revoked the 1997 ozone NAAQS for all purposes. Therefore, transportation conformity for the 1997 ozone standard no longer applies in 1997 ozone nonattainment/maintenance areas after April 6, 2015. As a result of these actions, the TMACOG 2045 Plan is subject to a Qualitative Air Quality Conformity. To view the Air Quality Conformity document, see *Appendix G.*

5.3.7 TMACOG Approvals

In May 2020, the TMACOG Transportation Council held a public meeting in conjunction with their regularly scheduled monthly meeting to provide an opportunity for any unresolved concerns to be expressed. Hearing no significant concerns, the council then recommended approval of the plan. In June 2020, the TMACOG Board of Trustees approved the 2045 Plan update via TMACOG resolution.

6 How Will We Make It Happen

6.1 TMACOG 2045 Plan Financial Plan

On December 4, 2015 President Obama signed into law the Fixing America's Surface Transportation (FAST) Act. Building on MAP-21, the FAST Act requires that the MPO planning process include a financial plan that demonstrates how transportation improvements will be implemented and indicate resources reasonably expected from public and private sources to be available to carry out the planned improvements.

It is required that the plan be "fiscally constrained" which means that the costs of implementing the Plan recommendations are within anticipated revenue projections through the year 2045. Federal planning guidance encourages state DOTs to assist MPOs in developing these fiscal projections. In response to this guidance, ODOT has developed the methodology described below which TMACOG has opted to follow for establishing the 2045 Transportation Plan 2020 Update revenue assumptions.

Methodology:

1. Capture 2000-2019 historical transportation investments data (federal, state, and local) for the TMACOG region from ODOT's Ellis project management data base.
2. Establish baseline federal and state funding levels based on the average annual expenditure levels from the historical data.
3. Establish FY 2021-2045 Transportation Plan funding level projections.
    a. Federal – Apply a growth rate of 0% for FY 2021-2045.
    b. State - Apply state funding level growth rates of 1% for FY 2021 and 0.5% for FY 2022-2025. A 0% growth rate was applied to years 2026-2045.
    c. Local - Consistent with the above methodology for projecting federal and state funding levels, apply a growth rate of 0% for FY 2021-2045.

Table 6.1 shows the history of funding levels at TMACOG for FY 2000-2019, broken down by source, and **Table 6.2** shows the average of these historic numbers.

Table 6.1: Encumbrance History for all Revenue Sources

SFY	Federal Funds	State Funds	Local Funds	Bonds	Total - All Fund Types	
2000	$36,738,390	$9,710,110	$1,135,778	$4,013,920	**$51,598,197**	TMACOG Supplied Data from 2045 Plan - 2000 to 2008
2001	$87,652,712	$31,354,340	$3,629,174	$4,363,401	**$126,999,627**	
2002	$36,303,827	$57,881,574	$2,288,572	$131,540,769	**$228,014,741**	
2003	$55,047,039	$22,712,482	$2,581,572	$15,638,982	**$95,980,076**	
2004	$53,339,692	$21,290,988	$4,174,139	$9,595,879	**$88,400,698**	
2005	$38,111,688	$12,429,853	$1,276,819	$48,434,597	**$100,252,957**	
2006	$49,984,960	$15,379,804	$1,654,123	$318,695	**$67,337,581**	
2007	$25,488,908	$18,395,846	$330,394	$20,592,182	**$64,807,332**	
2008	$25,257,858	$21,014,912	$4,710,279	$18,298,520	**$69,281,569**	
2009	$60,128,637	$22,145,749	$3,070,038	$127,505,702	**$212,850,125**	ODOT Supplied data - 2009-2019
2010	$51,365,776	$12,109,146	$3,307,918	$33,169,336	**$99,952,177**	
2011	$39,753,394	$9,337,202	$3,457,503	$7,728,293	**$60,276,392**	
2012	$69,096,299	$13,834,025	$1,837,334	$18,648,028	**$103,415,686**	
2013	$52,192,138	$41,854,561	$671,194	$52,455,318	**$147,173,212**	
2014	$58,281,708	$306,739,860	$7,663,564	$26,239,322	**$398,924,454**	
2015	$48,698,580	$228,047,727	$4,329,652	$14,533,757	**$295,609,716**	
2016	$64,961,066	$23,321,361	$2,314,501	$17,807,903	**$108,404,832**	
2017	$48,386,574	$23,550,487	$2,340,245	$2,846,932	**$77,124,238**	
2018	$54,215,266	$186,317,625	$8,098,076	$41,395,732	**$290,026,700**	
2019	$60,664,562	$150,924,647	$9,740,169	$46,455,871	**$267,785,249**	
Total	$1,015,669,075	$1,228,352,300	$68,611,044	$641,583,139	**$2,954,215,558**	

Figure 6.2: SFY 2000-2013 Funding Totals and Averages

2000-2019 Total	$1,015,669,075	$1,228,352,300	$68,611,044	$641,583,139	**$2,954,215,558**
Average	$50,783,454	$61,417,615	$3,430,552	$32,079,157	**$147,710,778**

A 1% growth rate is applied to SFY 2021 State funding and a 0.5% growth rate is applied to SFY 2022-2025 State funding. No other growth rates are applied. The projections are based on an assumption of a continuation of the federal and state gas tax at current levels. The total federal, state, bond, and local revenues projected over the life of the plan are detailed in **Table 6.3.**

Table 6.3: SFY 2021-2045 Revenue Projections

Year	Federal	Growth Rate	State	Growth Rate	Bonds	Growth Rate	Local	Growth Rate
SFY21	$50,783,454	0%	$62,031,791	1%	$32,079,157	0%	$3,430,552	0%
SFY22	$50,783,454	0%	$62,341,950	0.50%	$32,079,157	0%	$3,430,552	0%
SFY23	$50,783,454	0%	$62,653,660	0.50%	$32,079,157	0%	$3,430,552	0%
SFY24	$50,783,454	0%	$62,966,928	0.50%	$32,079,157	0%	$3,430,552	0%
SFY25	$50,783,454	0%	$63,281,763	0.50%	$32,079,157	0%	$3,430,552	0%
SFY26	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY27	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY28	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY29	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY30	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY31	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY32	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY33	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY34	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY35	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY36	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY37	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY38	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY39	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY40	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY41	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY42	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY43	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY44	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
SFY45	$50,783,454	0%	$63,281,763	0%	$32,079,157	0%	$3,430,552	0%
Total	**$1,269,586,343**		**$1,578,911,348**		**$801,978,924**		**$85,763,805**	

Finally, **Table 6.4** then totals the projected revenue for the duration of the 30-year plan, including expected funds from SEMCOG for improvements in southeastern Michigan.

Table 6.4: SFY 2021-2045 Revenue Projections

Federal	State	Bonds	SEMCOG $	Local	Total
$1,269,586,343	**$1,578,911,348**	**$801,978,924**	**$125,000,000**	**$85,763,805**	**$3,861,240,420**

To gain an understanding of how the expected revenue was divvied up and expenditures for each set of projects were derived, refer to **Table 6.5**. The table begins with the total of estimated resources for the 25 years of the plan. It then tabulates the amount of money that is dedicated in the plan towards addressing the backlog of system preservation projects, which includes reconstruction, replacement, repaving, etc. of roadways and bridges. The next step, number 3, takes out additional funds for system preservation projects that are anticipated to be necessary once the backlog is cleared. This leaves $3,043,082,460 for the remaining plan projects. Of these remaining funds, $526,081,099 is set aside for committed projects in the 2045 Plan. Then, $44,510,000 is set aside for plan initiatives, as shown in steps 7 and 8. Finally, of the remainder, approximately $2.5 billion is set aside for plan priority projects.

Table 6.5: 2045 Plan Expenditures Derivation

Steps	Description	Amount
1. Estimated Total Resources	An estimate of all resources for transportation in the region for 2020-2045	$3,861,240,420
2. Backlog of system preservation of roadways and bridges	Current backlog of reconstruction/replacement of deficient roadways and bridges	$559,337,521
3. Additional need for system preservation	Estimated need for pavement replacement, reconstruction, repair, and other projects on roadways and bridges after current deficiencies are addressed	$258,820,439
4. Subtotal available for new improvements after system preservation projects		$3,043,082,460
5. Committed projects	The projects included in the 2045 Plan for which funding is secured and/or expected	$526,081,099
6. Subtotal available after committed projects		$2,517,001,361
7. Initiatives	2045 Plan specified research, education, and collaborative efforts supported from transportation funds	$44,510,000
8. Subtotal available for priority projects after initiatives		$2,472,491,361
9. Priority projects	2045 Plan designated priority projects, for which funding is not secured but likely	$2,472,491,360
Final Balance		$0

The projects recommended in this plan can be financed using many different federal and state funding programs – each of which maintains its own funding stream and eligibility requirements. The following is a brief description of the more relevant programs and financing options that can be accessed by project sponsors. A complete listing and description of funding programs available in Ohio is available using ODOT's Program Resources Guide. Excerpts from the ODOT Guide are provided below.

ODOT Bridge and Road

1. **District Pavement & Bridge Preservation** – Each ODOT District receives an annual allocation that varies from year to year to provide funding for the preservation and rehabilitation of the Priority, Urban and General System pavement and state-maintained bridge structures. The goal of the program is to maintain pavements and bridges at "steady state" conditions where a predictable rate of preventive maintenance and regular repairs can sustain the system conditions.
2. **Multi-Lane Major Rehab Program** – This program provides funding for major rehabilitation projects along multi-lane divided priority system (interstate or interstate look alike) which restores the structural integrity of the pavement. The program is currently allocated $200 million each year statewide.
3. **Major Bridge Program** – The program is intended to allow ODOT districts to focus their funding on general bridges while the statewide program concentrates funding through this program on major bridges, generally more than 1,000 feet in length. The program is currently allocated $90-$100 million each year to maintain 180 structures statewide.

4. **County Local Bridge** – The County Engineers Association of Ohio (CEAO) is responsible for statewide project selection, establishing funding criteria, and setting program priorities for replacement or rehabilitation of bridges over 20 feet in length. ODOT currently allocates $34 million of funding each year for a program that generally provides 80% federal funding of the project construction cost. There is a $5 million per project maximum and each county is subject to a $7.5 million overall federal funding limit for projects within any four-year program period.

5. **County Surface Transportation** – The County Engineers Association of Ohio (CEAO) is again responsible for statewide project selection, establishing funding criteria, and setting program priorities. To be eligible, a road must be classified as an Urban Collector or Rural Major Collector or higher functional classification if the road was on the Federal-aid Rural Secondary System as designated on January 1, 1991. The program is currently funded at approximately $14 million annually with the standard federal participation rate of 80%. The maximum per project federal share is $2 million.

6. **County Highway Safety Program** – This program provides funds to counties for highway safety treatments or corrective activity designed to alleviate a safety problem or potentially hazardous situation. The County Engineers Association of Ohio (CEAO) is responsible for statewide project selection, establishing funding criteria, and setting program priorities for a program that currently receives statewide funding of about $14 million each year. The standard federal participation rate is 80% on roadway projects and sign upgrades, 90% on safety studies, and 100% on guardrail, pavement markings, and curve upgrade sign projects.

7. **Local Major Bridge** – This is a new program that provides federal funds to counties and municipalities for bridge replacement or major bridge rehabilitation projects. Working with Ohio's county engineers, the program provides $20 million statewide for work to replace, improve, or rehabilitate bridges more than 20 feet in length within the next three to four years. To be eligible, the bridge must have County maintenance responsibility, be structurally deficient, be open and carry vehicular traffic, and not funded by other state or CEAO programs.

8. **Ohio's Bridge Partnership Program** – Provides federal funds to counties and municipalities for roadway bridge replacement projects. The funding limit per project is $1 million. The program provides $5 million annually to counties and municipalities Other eligibility requirements are similar to the local major bridge program described above.

9. **Metro Park** – This program provides state funds for park drives or park roads within the boundaries of township or county parks, together with roads leading from state highway into the park. Funds can be used for construction, reconstruction, improvement, repair, and maintenance of park drives, park roads, park access roads, parking lots, materials hauling, and equipment rental.

10. **Metropolitan Planning Organizations** – This program provides capital program allocations to each of Ohio's 17 Metropolitan Planning Organizations (MPOs) to finance multimodal transportation projects and programs in Ohio's urban areas. Currently TMACOG receives approximately $7 million of Surface Transportation Block Grant Program (STBGP) funding and approximately $750,000 of Transportation Alternative Program (TAP) funding each year. STP funds are eligible for financing a wide variety of multimodal maintenance, operation and new construction projects with urban areas. TAP funds are eligible for historical, pedestrian/bicycle projects, and other transportation community related improvements. Project sponsors may also apply for Congestion Mitigation and Air Quality (CMAQ) funding through TMACOG for projects that result in measurable improvements to the region's multimodal transportation networks. The program is administered by a statewide committee of the large MPO transportation

directors responsible for project selection, establishing funding criteria, and setting program priorities. Statewide funding available through the CMAQ program is approximately $60 million each year, of which TMACOG has historically received approximately $4 million annually.

11. **Municipal Bridge** – This program is currently funded statewide at approximately $10 million annually to fund municipal bridge replacement or rehabilitation. ODOT will provide up to 80% of the eligible costs to fund construction only and the local match is required to be cash. Eligible bridges must be structurally deficient or functionally obsolete, more than 20 feet in length, and be listed in the ODOT Bridge Management System with a sufficiency rating value of 80 or less for rehabilitation, or less than a general appraisal rating less than 5.
12. **Noise Walls** – This program provides funds for retrofitting existing highways with noise barriers and historically received statewide funding of $5 million each year. Applications for type II Noise Mitigation is the first step toward potentially getting a noise wall constructed for an eligible community. Once ODOT approves the application, ODOT will proceed with preparing a noise analysis/study for the community to determine if the noise wall is feasible and reasonable in accordance with agency procedures and federal regulations.
13. **Safe Routes to School (SRTS) –** The SRTS program provides federal funds to enable and encourage children in grades K-8, including those with disabilities, to walk or bicycle to school. The program is currently funded at approximately $4 million annually statewide and ODOT will provide up to 100% of the eligible costs for engineering, encouragement, education, enforcement or evaluation. A school may apply for up to $400,000 for infrastructure projects and $60,000 for non-infrastructure projects. Generally, ODOT also looks to the regional MPO to provide local funding as well and infrastructure projects must be sponsored by a local governmental agency. Eligible applicants are individual schools, school systems, nonprofit organizations or other private organizations that have developed their School Travel Plan.
14. **Safety** – This program provides funds to ODOT and local governments for highway safety treatments or corrective activity designed to alleviate a safety problem or a potentially hazardous situation. The program is funded at approximately $159 million each year with priority given to projects that will improve safety at roadway locations with a high frequency, severity, and rate of crashes. ODOT will provide up to 90% of the eligible costs for preliminary engineering, detailed design, right-of-way acquisition, and construction. Project types include signalization, turn lanes, pavement markings, traffic signs, traffic lights, guardrails, impact attenuators, concrete barrier treatments, and break away utility poles.
15. **Transportation Review Advisory Council (TRAC)** – The TRAC selects major new capacity projects estimated to cost more than $12 million to be constructed in a four-year period. To be selected for funding, projects must provide connectivity, increase the accessibility of a region for economic development, increase the capacity of a transportation facility, or reduce congestion. Qualified applicants include political subdivisions, metropolitan planning organizations, transit boards, port authorities, and ODOT district offices.
16. **Urban Paving Program** – An annual allocation is set statewide and distributed to each of ODOT's 12 districts to fund eligible surface treatment and resurfacing projects on state and U.S. Routes within municipal corporations. Funding is provided up to 80% with the local government providing at least a 20% match. ODOT will not participate in costs related to curbs, gutters, utility relocation, and other non-pavement surface related items.

MDOT

1. An allocation of funding is received from MDOT via Southeast Michigan Council of Governments (SEMCOG) to be used for transportation improvements in the southernmost three townships of Monroe County, Michigan that fall within the TMACOG planning boundary. These funds are estimated to be $125 million throughout the course of the 25-year planning period.

Other Ohio Infrastructure Funding Sources

1. **State Infrastructure Bank (SIB)** – This is a revolving loan program that leverages federal and state funds to make direct loans to eligible projects. Qualified applicants include any public entity, such as a political subdivision, boards or commissions, regional transit boards, and port authorities. The financing term is up to 30 years with below market interest rates determined at the time of the loan application. Interest is deferred for the first year and closing costs can be financed into the loan. There is no set application limit and 100% financing is available. The availability of dollars is dependent upon SIB activity and loan repayments.
2. **State Infrastructure Bank (SIB) General Revenue Fund (GRF) Bond** – The bond fund program was created to generate additional SIB loan proceeds and to fund larger projects. Similar to the SIB program, qualified applicants include any public entity, such as a political subdivision, boards or commissions, regional transit boards, and port authorities. There is no reserve or equity requirements and no set limit with up to 100% financing available toward a project. The financing term is up to 25 years and interest is established at the current market rate. There is no free interest period, but interest can be accrued for potentially up to three years.
3. **Transportation Improvement Districts (TIDs)** – TIDs were created to promote intergovernmental and public-private cooperation by coordinating resources in transportation projects. For the prior 2012-2013 biennium, the program provided $4.5 million each fiscal year to finance TIDs. The total amount of funding provided for each project is limited to 25% of the total project cost or $250,000 per fiscal year, whichever is greater. Funding may be used for preliminary engineering, detailed design, right-of-way acquisition, construction, and other federally eligible project costs.

   Federal Discretionary Funding – Congressional set-asides or "earmarks" were commonly enacted outside the authority of other funding categories. However, federal funding set asides out of FHWA or FTA programs for highway or other projects are currently not available nor are expected to become available during the life of this plan.

Transit

1. **Section 5307 and Section 5340 Urbanized Area Apportionments** – Federal FTA funding for urban public transportation providers is apportioned to each Urbanized Area as a transportation block grant. These funds are flexible and may be used for a variety of transportation projects; however, they tend to be exclusively used to fund transit projects such as bus replacements and other transit capital projects. For urbanized areas with over 200,000 population, Section 5307 funds may not be used for operating expenses. The exceptions to this restriction include expenses for preventive maintenance, capital cost of leasing, planning, and complementary ADA paratransit service. The funding participation rate is generally 80% federal and 20% local. The designated recipient of these funds in the Toledo Urbanized Area is TARTA. Of the total $6,822,756 allocated to the Toledo urbanized area for federal FY 2019, 5.6% of the total or $382,436 is sub-allocated to SMART for the Bedford Dial a Ride program.
2. **Section 5337 State of Good Repair** – The formula-based State of Good Repair program is FTA's first stand-alone initiative written into law that is dedicated to repairing and upgrading the

nation's rail transit systems along with high-intensity motor bus systems that use high-occupancy vehicle lanes, including bus rapid transit (BRT). These funds reflect a commitment to ensuring that public transit operates safely, efficiently, reliably, and sustainably so that communities can offer balanced transportation choices that help to improve mobility, reduce congestion, and encourage economic development. Funds may be used for capital projects to maintain a system in a state of good repair, including projects to replace and rehabilitate: rolling stock; signals and communications; passenger stations and terminals; security equipment and systems; maintenance facilities and equipment; and operational support equipment, including computer hardware and software. Funds may also be used for Transit Asset Management Plan development and implementation. The federal share is 80% with a required 20% match. The total federal funding received by TARTA for the Toledo urbanized area under this program was $48,020 in FY2019.

3. **Section 5339 Bus and Bus Facilities** – This portion of the federal transit program provides capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. Eligible activities include capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities. The federal share is 80% with a required 20% match. The total federal funding received by TARTA for the Toledo urbanized area under this program was $820,550 in FY 2019.
4. **Section 5310 Specialized Transportation** – Funding received under this program is provided to assist public agencies and private non-profit corporations in transporting the elderly and disabled. The Specialized Transportation Program focuses on assisting those unable to use regular transit service. Coordination of existing transit services is emphasized. TARTA is the designated recipient of the funds received for the Toledo urbanized area and a Memorandum of Understanding has be signed by TARTA and TMACOG related to management of the program. The total federal funding apportioned to the Toledo urbanized area under this program was $494,930 in FY 2014.
5. **Section 5311 Rural Transit** – The Formula Grants For Other than Urbanized Areas is a rural program that provides funding to states for the purpose of supporting public transportation in rural areas, with population of less than 50,000. The goal of the program is to provide the following services to communities with population less than 50,000:
    a. Enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services, and recreation.
    b. Assist in the maintenance, development, improvement, and use of public transportation systems in non-urbanized areas.
    c. Encourage and facilitate the most efficient use of all transportation funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services.
    d. Assist in the development and support of intercity bus transportation.
    e. Provide for the participation of private transportation providers in non-urbanized transportation.

In the TMACOG planning area, Bowling Green transit is a designated sub-recipient of the federal funds received by ODOT and may use the funding for capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including

service agreements with private providers of public transportation services. The federal share of eligible capital and project administrative expenses may not exceed 80% of the net cost of the project. For operating expenses, the federal share may not exceed 50% of the net operating cost of the project. For projects that meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, they may be funded at 90% federal match. Under this program, Bowling Green Transit received sub-allocated FY 2014 federal funding from ODOT of $12,938 for capital expenses and $244,309 for operating expenses.

6.2 Project Delivery

A national performance goal established in MAP-21 and continued in the FAST Act is the reduction of project delivery delays. The Federal Highway Administration defines this goal as follows.

> "*To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices."*

Since the last update of the plan the FAST Act has been implemented. Both the FAST Act and MAP-21 provided an array of provisions designed to increase innovation and improve efficiency, effectiveness, and accountability in the planning, design, engineering, construction and financing of transportation projects. Building on FHWA's "Every Day Counts" initiative, MAP-21 changes helped speed up the project delivery process, saving time and money for individuals and businesses, and yielding broad benefits nationwide. The FAST Act continues to expand on these initiatives.

Some MAP-21 provisions are designed to improve efficiency in project delivery, broadening the ability for states to acquire or preserve right-of-way for a transportation facility prior to completion of the review process required under the National Environmental Policy Act of 1969 (NEPA), providing for a demonstration program to streamline the relocation process by permitting a lump sum payment for the acquisition and relocation if elected by the displaced person, enhancing contracting efficiencies, and encouraging the use of innovative technologies and practices. Other changes targeted the environmental review process, providing for earlier coordination, greater linkage between the planning and environmental review processes, using a programmatic approach where possible, and consolidating environmental documents. The FAST Act has established new procedural requirements that will assist in accelerating project deliveries. The requirements have continued to improve the process by ensuring collaboration occurs early in the process and environmental reviews are completely efficiently.

One area in particular the FAST Act focused on to speed up project delivery is expanded authority for use of categorical exclusions (CEs). "Categorical exclusion" describes a category of actions that do not typically result in individual or cumulative significant environmental impacts. CEs, when appropriate, allow federal agencies to expedite the environmental review process for proposals that typically do not require more resource-intensive Environmental Assessments (EAs) or Environmental Impact Statements (EISs). In addition to those currently allowed, the FAST ACT continued the expansion of the usage of CEs to a variety of other types of projects, including multimodal projects, projects to repair roads damaged in a declared disaster, projects within existing operational right-of-way, and projects receiving limited federal assistance.

6.2.1 TIP Management

The 2045 Plan identifies project delivery as one of its eight plan goals. Specifically, the plan states that the goal of project delivery is to "expedite project delivery to maximize effective use of public funds." Although the plan does not assign a target to the goal, project delivery is important. The primary means for TMACOG to impact project delivery is through the Transportation Improvement Program (TIP) process and the resources allocated to the agency for projects in Lucas and Wood counties.

TMACOG receives a direct allocation of funds from the Surface Transportation Block Grant Program (STBG) and the Transportation Alternatives program (TAP). The agency had previously received a direct allocation of funds from the Congestion Mitigation/Air Quality (CMAQ) program that were administered in Lucas and Wood counties as well. In 2013, CMAQ was consolidated into a statewide program comprised of the eight large MPO's in Ohio (Cleveland, Columbus, Cincinnati, Toledo, Youngstown, Akron, Canton, and Dayton) and funding is allocated through a statewide process.

The Transportation Improvement Program is a detailed, fiscally constrained four-year program of capital projects, updated every two years, intended to implement the plans set forth in this document and the plans of individual local jurisdictions. The TIP lists all specific transportation projects and improvements that will use federal and state transportation funding over the next four state fiscal years. The TIP is designed to provide one comprehensive year-by-year listing of all spending on significant transportation projects to allow coordination between the various agencies with jurisdiction over portions of the transportation system in our area.

Projects identified within the TIP are programmed by fiscal year and closely monitored. TMACOG, ODOT and project sponsors regularly meet to discuss project development with the aim of constructing projects in the year they are programmed. Every effort is made to expedite projects when resources are available and minimize the impacts of inflation.

Project delivery is emphasized throughout the TIP process. Each MPO has a limit to the funding that can be carried over from one fiscal year to the next within each of their managed programs. Funds that exceed carryover limits are subject to withdrawal and redistribution to MPOs that have not exceeded their limits. Additionally, the statewide CMAQ program scoring system is structured to deduct points from a sponsor's application if they had a recent project that was delayed or deleted. These efforts have greatly improved project delivery throughout the state.

6.3 Funding Issues

Fixing America's Surface Transportation (FAST) Act is the transportation funding and authorization legislation that currently (as of the writing of this report) governs federal surface transportation policy. The previous legislation, MAP-21 did not fill the gap between financial resources and infrastructure investment needs because it was only a short-term extension. The FAST Act is a long-term, multi-year bill that aims to reduce the gap between financial resources and investment needs. However, the FAST Act expires in September 2020, so new legislation will need to be enacted in order to maintain the certainty and efficiency of transportation investments.

6.3.1 The Growing Infrastructure Funding Gap

The Highway Trust Fund (HTF) provides federal financial support for much of the nation's transportation infrastructure. After growing steadily for decades, tax receipts have leveled off and even declined in

recent years; however, costs for constructing and maintaining roads and bridges are trending upward. The cost of providing seamless multimodal mobility for people and goods now exceeds the HTF funds. The result is a substantial backlog of transportation infrastructure projects in the region, the state, and the nation. Ohio's shortfall alone is measured in tens of billions of dollars. Without a solution to the current funding issues, the AASHTO predicts that states could see a 40% drop in highway funding from FY 2020 to FY 2021.

6.3.2 Why Fuel Taxes Alone Do Not Solve the Problem

Fuel taxes are important, but heavy reliance on them has become increasingly problematic. Our fuel-tax-based funding model no longer keeps pace with infrastructure investment needs. If this funding model is left unchanged the transportation system will deteriorate at an ever-increasing rate.

- In 1993 the federal gas tax for regular gasoline was **fixed at 18.4 cents per gallon** and has not changed since. (Diesel fuel is taxed at 24.4 cents per gallon.) Due to inflationary forces, the purchasing power of gas tax revenue has fallen by approximately 40% over the past 21 years.
- Transit funding is impacted by the same forces because 2.86 cents of the tax collected on both regular and diesel fuel sales is deposited in the Mass Transit Account (MTA) as a trust fund for public transit.
- HTF revenues are declining because fuel consumption per mile traveled is declining.
- Drivers are choosing more fuel-efficient vehicles. Electric and hybrid vehicles are gaining popularity and some fleets are converting to natural gas power—cutting into traditional fuel use.
- For nearly 30 years the corporate average fuel efficiency (CAFE) standard was 27.5 miles per gallon for passenger cars. Now, new CAFE standards agreed to by industry and government are being phased in, and by 2025 the average fuel efficiency standard will nearly double to 54.5 miles per gallon. Better fuel economy is desirable. It reduces the amount of pollutants per mile traveled and provides better air quality outcomes. However, it also widens the gap between gas tax revenue and our ability to provide safer roads, better commutes, and more productive communities.

State taxes (and fees) also support transportation infrastructure. Before the gas tax increase, Ohio's per gallon state tax rate is 28 cents for both regular and diesel fuel. In 2019, Governor Mike DeWine passed a 10.5 cent statewide gas tax increase for regular fuel and a 19-cent gas tax increase for diesel fuel. This will increase the state gas tax total to 38.5 cents per gallon on regular fuel and 47 cents per gallon on diesel fuel. Comparable to the federal gas tax, Ohio's state tax is not indexed to inflation, so without incremental increases, the extra money will only increase Ohio's funding for a couple of years. The current funding structure has produced a crisis in transportation funding that must be addressed.

6.3.3 Solutions

Evidence abounds that the general public and the business community support increased infrastructure investment. In a statewide survey of consumer preferences conducted in spring of 2012, the Ohio Department of Transportation found that 62% of Ohioans think funding should be increased over the next five years to improve safety, offer smooth pavement, prevent congestion, and provide connections between different modes of transport. States and municipalities are voting in favor of transportation levies. Numerous industry groups call for increased investments. Several of these trends point to widespread support for sustainable funding that provides the certainty needed for long range planning and transportation project delivery.

While taxes are not the sole solution to the transportation funding crisis, there are numerous tax policy options that can be explored at the state and federal levels. These include:

- Until a permanent solution to the infrastructure funding gap is found, consider continuing a general fund contribution to the Highway Trust Fund (HTF).
- In the short term, consider gradually phasing in annual increases to the gas tax. To address the long-term viability of the federal tax and ensure that it keeps pace with our changing and growing economy, consider indexing it to construction costs or another relevant measure.
- Long term fiscal policy needs to generate additional revenue and should rely strongly on the user-pays principle. A vehicle miles traveled (VMT) fee—also known as a mileage-based user fee—should be considered.

Other state and federal funding options that could be explored include:

- Explore the feasibility of a National Infrastructure Bank to leverage private resources.
- Consider expanding credit programs such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the State Infrastructure Bank.
- Encourage use of Ohio's State Infrastructure Bank and Clean Ohio Funds to support transportation and redevelopment projects.
- Consider ways to enable the prudent use of public-private and public-public partnerships, such as specially designated Transportation Improvement Districts (TIDs) and Regional Infrastructure Improvement Zones (RIIZs).
- Consider expansion of tolling options. If considering use of toll revenues beyond the tolled facility, such as turnpike bonds, use the funds primarily within jurisdictions closest in geographic proximity to that facility.
- Allow greater flexibility in design and financing to deliver projects at lower cost and in less time.
- Consider retaining the tax-exempt status of municipal bonds (i.e., governmental bonds and private activity bonds) in order to support lower borrowing costs for locally developed infrastructure projects.
- Consider increasing Ohio's base vehicle license plate fee and allowing counties and municipalities to enact permissive use plate fees.

The funding options described above are not comprehensive; there are several other solutions that could be considered. A combination of policies is required. In general, solutions that yield the highest overall revenue are needed. Fair and equitable solutions that proportionately link user fees and user benefits are preferred.

Source: adapted from Toledo Region Transportation Coalition, Transportation Legislative Agenda, 2017-2018

6.4 Importance of Tracking Plan Implementation

The FAST Act calls upon states and metropolitan areas to set measurable targets that are to be achieved. This performance-based approach to planning aims to guarantee that investments are made where

needed. Targets must address national goals. Their development, at the metropolitan/regional level, is to be coordinated with state and public transit targets and objectives. The targets are to be used to track progress on a region's desired critical outcomes.

Chapter 3 identified the goals, measures and targets that have been included in the 2045 Plan. During the planning process, TMACOG adopted the targets set by the state.

Each of the projects and initiatives in the 2045 Plan address one or more of the goals identified in Chapter 3. In order to assess the degree to which the plan is meeting the approved performance targets, planning organizations need to collect and analyze data to establish a baseline condition and to assess the change in performance as the plan is implemented. A planning requirement included in the FAST Act requires transportation plan updates to include a Metropolitan System Performance Report. The System Performance Report summarizes the system trends in comparison to targets. The baseline conditions and the System Performance Report are included in A*ppendix F*.

Appendix A: List of Acronyms

2045 Plan .....Regional Transportation Plan ..... TMACOG
208 Plan .....Areawide Water Quality Management Plan..... TMACOG
319 .....Grants for non-point source water pollution ..... US EPA/ OEPA
5310 .....Specialized Transportation Program..... ODOT
AADT .....Annual Average Daily Traffic.....Term
AASHTO .....American Association of State Highway & National Agency Transportation Officials .....
....National Org.
ABC.....Ability Center of Greater Toledo.....Sylvania, OH
ACGT.....Ability Center of Greater Toledo.....Toledo, OH
ACIR.....Advisory Commission on Intergovernmental Relations ..... Federal Agency
ACOE .....Army Corps of Engineers (also known as COE).....National Org.
ACS .....American Community Survey (census) ..... Federal Survey
ACT .....Association of Commuter Transit .....Internal Org.
ADA .....Americans with Disabilities Act.....Federal Law
AGCNWO.....Associated General Contractors of Northwest Ohio ..... Regional Org.
AICP .....American Institute of Certified Planners .....National Org.
AMPO .....Association of Metropolitan Planning Organizations .....National Org.
AoA.....Administration on Aging ..... Federal Agency
AOC .....Area of Concern .....Term
AOoA .....Area Office on Aging of Northwest Ohio, Inc. .....Toledo, OH
APA.....American Planning Association.....National Org.
APTA.....American Public Transportation Association.....National Org.
AQ .....Air Quality .....Term
AQC .....Air Quality Committee ..... TMACOG
AQI .....Air Quality Index .....Term
ARRA .....American Recovery and Reinvestment Act.....Federal Law
AWP.....Annual Work Program ..... TMACOG
AWQMP .....Areawide Water Quality Management Plan (208 Plan) ..... TMACOG
BGSU .....Bowling Green State University ..... Bowling Green, OH
BMPs .....Best Management Practices .....Term
BSBO.....Black Swamp Bird Observatory.....Oak Harbor, OH
BTS .....Bureau of Transportation Statistics ..... Federal Agency
CAAA .....Clean Air Act Amendments of 1990.....Federal Law
CAFOs .....Concentrated Animal Feeding Operations .....Term
CBO .....Congressional Budget Office..... Federal Agency
CCT .....Coalition for Community Transportation..... Local Org.
CDBG .....Community Development Block Grant .....Local
CFR .....Code of Federal Regulations .....Term
CMAQ.....Congestion Mitigation and Air Quality .....Term
CMP.....Congestion Management Process .....Term
COE.....Corps of Engineers (also known as ACOE) ..... National
COG .....Council of Governments .....Term
CPTHSTP .....Coordinated Public Transit/Human Services Transportation Plan .....Term
CRD.....Center for Regional Development ..... BGSU program
CRS .....Congressional Research Service..... Federal Agency
CTAA.....Community Transportation Association of America.....National Org.
CTPP .....Census Transportation Planning Package.....Term
CY .....Calendar Year.....Term
CWA .....Clean Water Act .....Federal Law

DBE	Disadvantaged Business Enterprise	Term
DOT	Department of Transportation	State/Federal Agency
DRIC	Detroit River International Crossing	Detroit, MI
EDA	Economic Development Administration	Federal Agency
EDC	Economic Development Corporation	Term
EDD	Economic Development District	Term
EEOC	Equal Employment Opportunity Commission	Federal Agency
EIS	Environmental Impact Statement	Term
EJ	Environmental Justice	Term
EMBCOC	Eastern Maumee Bay Chamber of Commerce	Oregon, OH
EPA	Environmental Protection Agency	Federal Agency
ERAC	Environmental Review Appeals Commission	State Agency
FAA	Federal Aviation Administration	Federal Agency
FCC	Federal Communications Commission	Federal Agency
FEMA	Federal Emergency Management Agency	Federal Agency
FHWA	Federal Highway Administration	Federal Agency
FR	Federal Register	Term
FRA	Federal Railroad Administration	Federal Agency
FTA	Federal Transit Administration	Federal Agency
FY	Fiscal Year	Term
GAO	General Accounting Office	Federal Agency
GCTRP	Gas Cap Testing & Replacement Program	City of Toledo
GIS	Geographic Information System	Term
GLNPO	Great Lakes National Program Office	US EPA Region Five
GPO	Government Printing Office	Federal Agency
HAP	Hazardous Air Pollutant	Term
HATS	Hancock Area Transportation Services	Findlay, OH
HBAGT	Home Builders Association of Greater Toledo	Toledo, OH
HCCC	Henry County Chamber of Commerce	Napoleon, OH
HHS	Department of Health and Human Services	Federal Agency
HOF	Highway Operating Fund	Term
HOV	High Occupancy Vehicle	Term
HPMS	Highway Performance Monitoring System	Term
HSIP	Highway Safety Improvement Program	Federal
HUD	Department of Housing and Urban Development	Federal Agency
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991	Federal Law
ITS	Intelligent Transportation System	Term
JARC	Job Access Reverse Commute	Federal Grant
JEDD	Joint Economic Development District	Term
JEDZ	Joint Economic Development Zone	Term
JFS	Jobs and Family Services	State/Local Agency
LCTA	Lucas County Township Association	Regional Org.
LEPF	Lake Erie Protection Fund	State Agency
LET	Lake Erie Transit	Monroe, MI
LGAC	Local Government Advisory Committee	USEPA/OEPA
LGF	Local Government Fund (Ohio general purpose revenue sharing funds)	Term
LMHA	Lucas Metropolitan Housing Authority	Lucas County, OH
LRP	Long Range Plan	Term
LRT	Light Rail Transit	Term

LTC.....Lenawee Transportation Committee..... Adrian, MI
LWV.....League of Women Voters .....National Org.
MAP-21 .....Moving Ahead for Progress in the 21st Century.....Federal Law
MBT.....Monroe Bank & Trust.....Monroe, MI
MCCC.....Monroe County Community College .....Monroe, MI
MCCOC.....Monroe County Chamber of Commerce .....Monroe, MI
MDEQ.....Michigan Department of Environmental Quality ..... State Agency
MDOT .....Michigan Department of Transportation..... State Agency
MPA.....Metropolitan Planning Area .....Term
MPO .....Metropolitan Planning Organization .....Term
MSA.....Metropolitan Statistical Area.....Term
MTA.....Michigan Township Association..... State Org.
NADO .....National Org. of Development Organizations.....National Org.
NARC .....National Org. of Regional Councils .....National Org.
NECA .....National Electrical Contractors Association.....National Org.
NEPA.....National Environmental Policy Act .....Federal Law
NFP .....New Freedom Program .....Federal Grant
NHPP .....National Highway Performance Program (part of MAP-21)..... Federal Program
NHS.....National Highway System .....Term
NAAQS.....National Ambient Air Quality Standard .....Term
NOAA.....National Oceanic and Atmospheric Administration ..... Federal Agency
NOMMA .....Northwest Ohio Mayors and Managers Association ..... Regional Org.
NOPRA.....Northwest Ohio Passenger Rail Association ..... Regional Org.
NORED.....Northwest Ohio Regional Economic Development ..... Regional Org.
NORTA .....Northwestern Ohio Rails-to-Trails Association, Inc. ..... Regional Org.
NPDES.....National Pollutant Discharge Elimination System (water).....Term
NRAC .....Natural Resources Assistance Council (NRAC) ..... State Agency
NRC.....Nuclear Regulatory Commission..... Federal Agency
NRCS.....Natural Resources Conservation Service ..... Federal Agency
NWDO .....Northwest District Office (Ohio EPA)..... State Agency
NWSCC .....Northwest State Community College ..... Archbold, OH
NWWSD .....Northwestern Water & Sewer District..... Bowling Green, OH
OARC .....Ohio Association of Regional Councils..... State Org.
OBES.....Ohio Bureau of Employment Services ..... State Agency
OBM .....Ohio Budget and Management ..... State Agency
OCC.....Owens Community College.....Perrysburg, OH
OCF.....Ohio Conference on Freight..... TMACOG
OCTA .....Ottawa County Transit Authority.....Port Clinton, OH
ODNR .....Ohio Department of Natural Resources ..... State Agency
ODOT .....Ohio Department of Transportation..... State Agency
ODPS .....Ohio Department of Public Safety ..... State Agency
ODSA .....Ohio Development Services Agency ..... State Agency
ODUC .....Ohio Data Users Center ..... State Agency
OEDA .....Ohio Economic Development Association..... State Org.
OEPA .....Ohio Environmental Protection Agency ..... State Agency
OLEC.....Ohio Lake Erie Commission..... State Agency
OMB .....Office of Management and Budget ..... Federal Agency
OPERS.....Ohio Public Employee Retirement System ..... State Agency
OPWC.....Ohio Public Works Commission ..... State Agency

ORC .....Ohio Revised Code ..... State Law
ORDC .....Ohio Rail Development Commission ..... State Agency
OTA.....Office of Technology Assessment ..... Federal Agency
OTA.....Ohio Township Association..... State Organization
OTEC.....Ohio Transportation Engineering Conference ..... ODOT
OTC.....Ohio Turnpike Commission..... State Agency
OWDA .....Ohio Water Development Authority ..... State Agency
OWF .....Ohio Works First ..... State Agency
PBTs.....Persistent Bio accumulative Toxic Pollutants .....Term
PCBs.....Polychlorinated Biphenyls .....Term
PE .....Professional Engineer .....Term
PM 2.5 .....Particulate Matter.....Term
PRBC.....Portage River Basin Council ..... TMACOG
PRC .....Prevention Retention Contingency..... State Agency
PS.....Professional Surveyor .....Term
PUCO .....Public Utilities Commission of Ohio..... State Agency
RAP .....Remedial Action Plan .....Term
RCAP.....Rural Community Assistance Program..... Nation Org.
RGP.....Regional Growth Partnership .....Toledo, OH
ROW .....Right-of-Way .....Term
RPDO .....Regional Planning and Development Organization .....Term
RTDP.....Rural Transit Development Plan .....Term
RTP .....Regional Transportation Plan ..... TMACOG
RWAB .....Regional Water Advisory Board ..... Local Org.
SAFETEA-LU ..... Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (replace TEA-21) .....Federal Law
SAJRD .....Sylvania Area Joint Recreation District .....Sylvania, OH
SAR .....Share-A-Ride ..... TMACOG
SBA .....Small Business Administration..... Federal Agency
SCAT .....Seneca County Area Transportation.....Tiffin, OH
SCD .....Soil & Conservation District .....Michigan Agencies
SCEIG .....Small Community Environmental Infrastructure Group..... State Agency
SCNWO.....Safety Council of Northwest Ohio .....Perrysburg, OH
SDP .....Service Development Plan .....Term
SERB .....State Employment Relations Board ..... State Agency
SHPO .....State Historic Preservation Office..... State Agency
SIP.....State Implementation Plan (air quality)..... State Agency
SLSDC.....St. Lawrence Seaway Development Corporation ..... Federal Agency
SMART.....Suburban Mobility for Regional Transportation..... Detroit, MI
SOV.....Single Occupancy Vehicle .....Term
SPAM.....System Performance Monitoring Committee ..... TMACOG
SRP .....Short-Range Plan .....Term
SRWC.....Sandusky River Watershed Coalition.....Regional Organization
STB .....Surface Transportation Board..... Federal Agency
STIP.....State Transportation Improvement Program ..... ODOT
STP.....Surface Transportation Program ..... Federal Program
STS.....Sandusky Transit System .....Sandusky, OH
SWAG .....Stormwater Action Group..... TMACOG
SWC.....Stormwater Coalition..... TMACOG

SWCD .....Soil and Water Conservation District .....Term
SWMD .....Stormwater Management District.....Term
SWW.....Student Watershed Watch ..... TMACOG
TAGNO .....Transportation Advocacy Group of Northwest Ohio..... Regional Org.
TANF.....Temporary Assistance for Needy Families..... Federal/State Program
TARPS .....Toledo Area Regional Paratransit System.....Toledo, OH
TARTA.....Toledo Area Regional Transit Authority.....Toledo, OH
TEA-21 .....Transportation Equity Act for the 21st Century (to replace ISTEA).....Federal Law
TEA-3 .....Unofficial name of legislation to replace TEA-21.....Federal Law
TIGER.....Transportation Investment Generating Economic Recovery .....Federal Grant
TIP .....Transportation Improvement Program ..... TMACOG
TLCHD.....Toledo-Lucas County Health Department .....Toledo, OH
TLCPA .....Toledo-Lucas County Port Authority.....Toledo, OH
TLCPC .....Toledo-Lucas County Plan Commissions.....Local
TLCPL.....Toledo-Lucas County Public Library.....Toledo, OH
TLCSC.....Toledo-Lucas County Sustainability Commission .....Toledo, OH
TMA.....Transportation Management Area (MPO with over 200,000 in population).....Term
TMACOG .....Toledo Metropolitan Area Council of Governments .....Toledo, OH
TMDL.....Total Maximum Daily Load .....Term
TMM.....Toledo Metropolitan Mission .....Toledo, OH
TOD .....Transportation Opportunity District.....Term
TPS.....Toledo Public School District .....Toledo, OH
TRAC.....Transportation Review Advisory Council..... ODOT
TRCOC .....Toledo Regional Chamber of Commerce.....Toledo, OH
TRIPS .....Transportation Resources for Independent People of Sandusky County..... Fremont, OH
TSCC .....Terra State Community College..... Fremont, OH
TTA .....Toledo Trucking Association .....Toledo, OH
USC.....United States Code .....Term
USCG .....United States Coast Guard..... Federal Agency
USDA .....United States Department of Agriculture..... Federal Agency
USDHHS.....United States Department of Health & Human Services..... Federal Agency
USDOT .....United States Department of Transportation..... Federal Agency
USEPA.....United States Environmental Protection Agency ..... Federal Agency
USFWS.....United States Fish & Wildlife Service..... Federal Agency
USGS.....United States Geological Survey..... Federal Agency
UT.....University of Toledo.....Toledo, OH
UTC.....University Transportation Center .....Term
UT-ITI.....University of Toledo Intermodal Transportation Institute .....Toledo, OH
UT-UTC .....University of Toledo / University Transportation Center .....Toledo, OH
UZA.....Urbanized Area .....Term
VHT.....Vehicle Hours Traveled .....Term
VOCs.....Volatile Organic Compounds .....Term
WCESC.....Wood County Educational Service Center..... Bowling Green, OH
WCPD .....Wood County Park District .....Perrysburg, OH
WCTA.....Wood County Township Association ..... Regional Org.
WCCCC .....Wabash Cannonball Corridor Coordinating Committee..... TMACOG
WCTA.....Wood County Township Association ..... Regional Org.
WIA.....Workforce Investment Act.....Federal Law
WIB.....Workforce Investment Board .....Local

WQ .....Water Quality.....Term
WSOS.....Wood-Sandusky-Ottawa-Seneca Community Action Commission, Inc..... Fremont, OH

Regional Councils and Transportation Study Areas*

(Regional agencies devoted to just transportation planning are noted with an asterisk. The other agencies fit into the broader category of "regional council." Some of those, like TMACOG include transportation study areas, are designated as Metropolitan Planning Organizations and as Regional Planning and Development Organizations.)

Abb./Acr .....Definition .....Location
AMATS.....Akron Metropolitan Area Transportation Study*..... Akron, OH
BHHVRDD.....Buckeye Hills Hocking Valley Regional Development District .....Marietta, OH
BHJMPC.....Brooke-Hancock-Jefferson Metropolitan Planning Commission..... Steubenville, OH
BELOMAR .....Bel-O-Mar Regional Council & Interstate Planning Commission..... Wheeling, WV
CCSTCC .....Clark County- Springfield Transportation Coordinating Committee .....Springfield, OH
ERCOG .....Eastgate Regional Council of Governments..... Youngstown, OH
ERPC .....Erie Regional Planning Commission & MPO .....Sandusky, OH
KYOVA .....Kentucky-Ohio- West Virginia Interstate Planning Commission .....Huntington, WV
LACRPC.....Lima-Allen County Regional Planning Commission ..... Lima, OH
LCATS.....Licking County Valley Planning Commission.....Newark, OH
LUCPC.....Logan-Union-Champaign Regional Planning Commission ..... East Liberty, OH
MARC .....Mid-America Regional Council..... Kansas City, MO
MOJPC.....Midwestern Ohio Joint Planning Council.....Delphos, OH
MORPC.....Mid-Ohio Regional Planning Commission.....Columbus, OH
MOVRC.....Mid-Ohio Valley Regional Council.....Parkersburg, OH
MVPO .....Maumee Valley Planning Organization.....Defiance, OH
MVRPC .....Miami Valley Regional Planning Commission ..... Dayton, OH
NCORCOG.....North Central Ohio Regional Council of Governments.....Tiffin, OH
NEFCO .....Northeast Ohio Four-County Regional Planning and Development OrganizationAkron, OH
NEIRCC .....Northeast Indiana Regional Coordinating Council.....Fort Wayne, IN
NOACA .....Northeast Ohio Areawide Coordinating Agency..... Cleveland, OH
OKI.....Ohio-Kentucky-Indiana Regional Council of Governments .....Cincinnati, OH
OMEGA.....Ohio Mid-Eastern Governments Association.....Cambridge, OH
OVRDC.....Ohio Valley Regional Development Commission.....Waverly, OH
RCRPC.....Richland County Regional Planning Commission..... Mansfield, OH
SCRPC .....Stark County Regional Planning Council ..... Canton, OH
SEMCOG.....Southeast Michigan Council of Governments ..... Detroit, MI
TMACOG .....Toledo Metropolitan Area Council of Governments .....Toledo, OH
WWWIPC.....Wood-Washington-Wirt Interstate Planning Commission .....Huntington, WV

Appendix B: Federal Requirements

Federal Rules for Metropolitan Transportation Plan (implementing the requirements of SAFETEA-LU)

Excerpts from:

UNITED STATES
DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION
23 CFR PARTS 450 AND 500

FEDERAL TRANSIT ADMINISTRATION
49 CFR PART 613

Statewide Transportation Planning and
Metropolitan Transportation Planning

FINAL RULE
As published in the *Federal Register*
Volume 72, Number 30
Pages 7223-7286
February 14, 2007 — Effective March 16, 2007
Source: 81 FR 34135, May 27, 2016, unless otherwise noted.

Sec. **450**.306 Scope of the metropolitan transportation planning process.

(a) The metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following factors:

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

(2) Increase the safety of the transportation system for motorized and non-motorized users;

(3) Increase the security of the transportation system for motorized and non-motorized users;

(4) Increase accessibility and mobility of people and freight;

(5) Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

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

(7) Promote efficient system management and operation; and

(8) Emphasize the preservation of the existing transportation system.

. . . . .

§450.324 Development and content of the metropolitan transportation plan.

(a) The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon as of the effective date. In formulating the transportation plan, the MPO shall consider factors described in §450.306 as the factors relate to a minimum 20-year forecast period. In nonattainment and maintenance areas, the effective date of the

transportation plan shall be the date of a conformity determination issued by the FHWA and the FTA. In attainment areas, the effective date of the transportation plan shall be its date of adoption by the MPO.

(b) The transportation plan shall include both long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.

(c) The MPO shall review and update the transportation plan at least every 4 years in air quality nonattainment and maintenance areas and at least every 5 years in attainment areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon. In addition, the MPO may revise the transportation plan at any time using the procedures in this section without a requirement to extend the horizon year. The MPO shall approve the transportation plan (and any revisions) and submit it for information purposes to the Governor. Copies of any updated or revised transportation plans must be provided to the FHWA and the FTA.

(d) In metropolitan areas that are in nonattainment for ozone or carbon monoxide, the MPO shall coordinate the development of the metropolitan transportation plan with the process for developing transportation control measures (TCMs) in a State Implementation Plan (SIP).

(e) The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update.

(f) The metropolitan transportation plan shall, at a minimum, include:

(1) The current and projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan;

(2) Existing and proposed transportation facilities (including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, nonmotorized transportation facilities (e.g., pedestrian walkways and bicycle facilities), and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan.

(3) A description of the performance measures and performance targets used in assessing the performance of the transportation system in accordance with §450.306(d).

(4) A system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in §450.306(d), including—

(i) Progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data; and

(ii) For metropolitan planning organizations that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.

(5) Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods;

(6) Consideration of the results of the congestion management process in TMAs that meet the requirements of this subpart, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide.

(7) Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters. The metropolitan transportation plan may consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the metropolitan area's transportation system.

(8) Transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus systems, including systems that are privately owned and operated, and including transportation alternatives, as defined in 23 U.S.C. 101(a), and associated transit improvements, as described in 49 U.S.C. 5302(a), as appropriate;

(9) Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of funding source, in nonattainment and maintenance areas for conformity determinations under the EPA's transportation conformity regulations (40 CFR part 93, subpart A). In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates;

(10) A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The MPO shall develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;

(11) A financial plan that demonstrates how the adopted transportation plan can be implemented.

(i) For purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain the Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).

(ii) For the purpose of developing the metropolitan transportation plan, the MPO(s), public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under §450.314(a).

All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.

(iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new funding sources, strategies for ensuring their availability shall be identified. The financial plan may include an assessment of the appropriateness of innovative finance techniques (for example, tolling, pricing, bonding, public private partnerships, or other strategies) as revenue sources for projects in the plan.

(iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S.C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect "year of expenditure dollars," based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).

(v) For the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.

(vi) For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.

(vii) For illustrative purposes, the financial plan may include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.

(viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced (i.e., by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.

(12) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g).

(g) The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate:

(1) Comparison of transportation plans with State conservation plans or maps, if available; or

(2) Comparison of transportation plans to inventories of natural or historic resources, if available.

(h) The metropolitan transportation plan should integrate the priorities, goals, countermeasures, strategies, or projects for the metropolitan planning area contained in the HSIP, including the SHSP required under 23 U.S.C. 148, the Public Transportation Agency Safety Plan required under 49 U.S.C. 5329(d), or an Interim Agency Safety Plan in accordance with 49 CFR part 659, as in effect until completion of the Public Transportation Agency Safety Plan, and may incorporate or reference applicable emergency relief and disaster preparedness plans and strategies and policies that support

homeland security, as appropriate, to safeguard the personal security of all motorized and non-motorized users.

(i) An MPO may, while fitting the needs and complexity of its community, voluntarily elect to develop multiple scenarios for consideration as part of the development of the metropolitan transportation plan.

(1) An MPO that chooses to develop multiple scenarios under this paragraph (i) is encouraged to consider:

(i) Potential regional investment strategies for the planning horizon;

(ii) Assumed distribution of population and employment;

(iii) A scenario that, to the maximum extent practicable, maintains baseline conditions for the performance areas identified in §450.306(d) and measures established under 23 CFR part 490;

(iv) A scenario that improves the baseline conditions for as many of the performance measures identified in §450.306(d) as possible;

(v) Revenue constrained scenarios based on the total revenues expected to be available over the forecast period of the plan; and

(vi) Estimated costs and potential revenues available to support each scenario.

(2) In addition to the performance areas identified in 23 U.S.C. 150(c), 49 U.S.C. 5326(c), and 5329(d), and the measures established under 23 CFR part 490, MPOs may evaluate scenarios developed under this paragraph using locally developed measures.

(j) The MPO shall provide individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cashout program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under §450.316(a).

(k) The MPO shall publish or otherwise make readily available the metropolitan transportation plan for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.

(l) A State or MPO is not required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(11) of this section.

(m) In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the EPA transportation conformity regulations (40 CFR part 93, subpart A). A 12-month conformity lapse grace period will be implemented when an area misses an applicable deadline, in accordance with the Clean Air Act and the transportation

conformity regulations (40 CFR part 93, subpart A). At the end of this 12-month grace period, the existing conformity determination will lapse. During a conformity lapse, MPOs can prepare an interim metropolitan transportation plan as a basis for advancing projects that are eligible to proceed under a conformity lapse. An interim metropolitan transportation plan consisting of eligible projects from, or consistent with, the most recent conforming transportation plan and TIP may proceed immediately without revisiting the requirements of this section, subject to interagency consultation defined in 40 CFR part 93, subpart A. An interim metropolitan transportation plan containing eligible projects that are not from, or consistent with, the most recent conforming transportation plan and TIP must meet all the requirements of this section.

[81 FR 34135, May 27, 2016, as amended at 81 FR 93473, Dec. 20, 2016; 82 FR 56544, Nov. 29, 2017]

Security Planning in the TMACOG Region

Agency Responsible	Plan	Purpose	Relationship to Transportation	Opportunities for Coordination with Transportation Planning and Other Security Planning
Amtrak	Security Threat Level Response Plan and related activities (see Security Planning –Additional Information section 1. below)	Security of national passenger rail system	Toledo is the busiest passenger station in Ohio with 4 intercity trains/day east-west and bus link to Detroit.	Do 2 training exercises per year with local responders on train emergencies. Opportunity for coordination between station manager and local Emergency Management Agency.
Lucas County Emergency Management Agency (EMA)	Emergency Operations Plan (EOP)	Preparedness for all disasters: natural, intentional, accidental. Provides structure for planning and operations; addresses mitigation, response and recovery.	Transportation is essential to response and evacuation; rely on state/local public sector to maintain systems.	EMA sees need for risk assessment of rail and highways and completion of outer belt to route trucks around city. ITS warning system needed for I-280 Skyway. (See section 2. below)
	Emergency Evacuation Plan (EOP Annex I)	Guidance on methods of conducting evacuations of homes, businesses, communities or the metropolitan region. Establishes primary and inter-city evacuation routes	Street evacuation routes must take into account capacity and avoid choke points like bridges and construction areas. Plan includes use of mass transit.	Coordination with EMA in developing ITS freeway management system and traffic signal coordination. Road construction information sharing.
	Radiological Emergency Plan (EOP component)	Response to emergency at Davis Besse Nuclear Power Plant	Evacuation of population in eastern Lucas County	Coordination on road improvements and information.
Lucas County Emergency Planning Committee	Lucas County Hazardous Materials (HAZMAT) Plan (EOP Annex)	Reduce impacts of hazardous chemical releases by establishing roles and procedures for response. Includes assignment of responsibilities, emergency communications, public notification, and location of medical facilities.	Covers response to fixed site and mobile (transportation) spills. For fixed sites (where materials are made, stored or used), potential evacuation routes from the site are listed.	Development of hazardous freight flow data. Identification of road deficiencies and traffic management strategies for evacuation of major manufacturing plants. Use of ITS capabilities in response to evacuation and highway spills.
Toledo Area Regional Transit Authority (TARTA)	Various improvements (Formal plan in development) – see section 3. below	To improve security and safety in building (facilities), on vehicles, and for staff and passengers	Public transportation for general population and disabled citizens (paratransit)	Use of buses for evacuation. Use of GPS-generated data for planning purposes.

Agency Responsible	Plan	Purpose	Relationship to Transportation	Opportunities for Coordination with Transportation Planning and Other Security Planning
Toledo Express Airport	Airport Security Program	To protect the airport facility, planes and passengers against security threats. Includes HAZMAT and hijack/bomb threat response, and disaster planning (aircraft crash, explosion, airport incidents).	The airport serves passenger transport and is a major air freight hub. Evacuation plans use area roads.	Inclusion of improved surface transportation serving airport in the regional plan. Continue airport's existing coordination with state, county and local emergency response agencies (meet monthly).
U.S. Coast Guard and port operators	Seaport security planning	To protect the Maumee Bay and River harbor and Lake Erie from external (homeland security) and other threats. Port operators develop security plans under auspices of Coast Guard. (See section 4. below.)	The seaport is an international and national freight shipping hub. Personal transportation (boating) and proposed passenger ferry service are also served.	Inclusion of transportation infrastructure (to improve road and rail access to port) in regional transportation plan. Coordination with Emergency Management Agency and railroads serving port.
Wood County Emergency Management Agency	All Hazards Emergency Operations Plan	Preparedness for all disasters. Includes annexes for specific emergencies, e.g. evacuation, air transportation disasters, weapons of mass destruction terrorist incidents, flooding, etc.	Use of highways for evacuation; monitoring of road conditions in severe weather emergencies; restoring flood-damaged roads; short and long-term road detours; response to HAZMAT incidents on highways (most frequently ruptured fuel tanks) and for rail cars carrying radioactive materials and other substances.	ITS monitoring of road conditions. Evaluating capacity of roadways for evacuations and detours. Developing freight flow data that includes HAZMAT transportation information. Coordination between emergency and highway personnel.

Security Planning—Additional Information

1. Amtrak Passenger Rail: excerpt from testimony

10/20/05 - Testimony of William Crosbie before the Senate Committee on Commerce, Science and Transportation

October 20, 2005

Mr. Chairman and Members of the Senate Commerce, Science and Transportation Committee, I would like to thank this Committee for the opportunity to testify on passenger rail security and the steps Amtrak has taken to enhance security and safety for our passengers. Today, let me briefly outline for you what we have learned from previous terrorist events both here and abroad, the steps we have taken to address the knowledge learned from these events, and what we have planned to do in the near future.

Amtrak Reactions to Events at Home and Abroad

After the terrorist attacks of September 11, 2001, followed by the Moscow, Madrid, and London tragedies, the landscape of Amtrak's law enforcement responsibilities and duties changed markedly. **Amtrak Police** now have to ensure that thorough terrorism-based vulnerability and threat assessments are conducted, that emergency response and evacuation plans have been formulated, implemented and tested, and that Amtrak develops security measures that address not only vandalism and other forms of street crime, but the potential for Madrid and London type attacks on our passengers and on our property.

Since September 11, the Amtrak Police and Security Department has established and reinforced the following **security improvements:**

- Instituted Passenger ID procedure for purchase of most tickets.
- Improved baggage weight restriction policies for carry-on and checked baggage.
- Created a baggage tagging requirement.
- Developed and instituted a Security Threat Level Response Plan that is tied to the Homeland Security Advisory System and requires a series of security measures be undertaken at each alert level.
- Added 12 explosive detection canine teams.
- Created a Security Information Center in which bulletins, updates and security messages are disseminated to employees.
- Purchased and deployed radiological gamma/neutron pagers at Amtrak's major stations to address radiological threats and coordinated alerts with local police agencies.
- Coordinated security counter-measure issues with transit and freight railroad counterparts.
- Commissioned blast vulnerability studies of the New York tunnels and major stations.
- Revised the five-year Capital Plan to include numerous security upgrades, including high security fencing, yard security improvements, and access control upgrades.

After the Madrid bombings, Amtrak again **increased uniform patrols** at stations and on platforms and checked baggage rooms in greater frequency as well as critical infrastructure. It also:

- Issued Security Handbooks to all employees.
- Made technological improvements to the Railphone system on trains so that 911 could be dialed and individuals directly connected to a 911 Operator.
- Created security focus groups made up of employees and passengers to ascertain if security measures and objectives were being properly performed.
- Obtained assistance from freight law enforcement agencies who patrolled some Amtrak stations.
- Held system-wide security conference calls for managers and directed them to engage employees on their role in security matters.

As Amtrak continued to review its security needs and vulnerabilities, it recognized the need to create a security consciousness for all employees at all levels and to have a clear chain of command. Last year the corporation **created an executive-level position, the Vice President of Security.** Alfred J. Broadbent, a former Metropolitan Police Department Assistant Chief, was appointed to this position on August 2, 2004. All police and security functions now report to Mr. Broadbent, who reports to me. An Executive Security Committee was also established and meets weekly with him to discuss security policy, procedures, operational and capital security planning as well as terrorist threat and intelligence information.

One of the first efforts undertaken by the Vice President of Security was the re-engineering of Amtrak's primary terrorist security plan, the **Security Threat Level Response Plan**. This plan now contains more meaningful and measurable countermeasures and it is closely coordinated with recently created Security Coordinating Committees that consist of management level officials across Amtrak's operating departments. Each Amtrak operating division has a **Security Coordinating Committee** that meets regularly with Police and Security Managers to ensure that basic security practices and steps are undertaken and completed.

The countermeasures contained in the Threat Level Response Plan provide a coordination of efforts directed to specific threats and attempt to create some basis for a layered security system that would improve deterrence capabilities. Some of the countermeasures that would be drilled down and enforced by Amtrak Police personnel and the Security Coordinating Committees would be assurance that only necessary access points are kept open, that gates, doors and other barriers are locked and secured, and that rolling stock and locomotives are locked and secured while this equipment is in a yard and/or standing at a station. Since August of 2004, the Amtrak Police and Security Department has also developed and implemented the following programs:

- Tactical Intensive Patrols (TIPS) - Sworn Amtrak personnel patrol specific station areas and conduct checks of baggage with passengers, provide security tip information and establish uniform presence.
- Train Riding Patrols - Sworn Amtrak personnel have been riding trains in a greater degree of frequency, mostly on the busy NEC.
- Counter-terrorism training conducted by the Federal Law Enforcement Training Center (FLETC) has been scheduled for all sworn personnel and was completed in FY05.
- Amtrak Management, DHS and National Transit Institute developed a Security Awareness Training Program for all employees. This training is underway and is scheduled for completion in December 2005.
- Amtrak Police and Security coordinate its security concerns and initiatives with its federal

partners: DHS, TSA, DOT, and FRA.

Access to Resources

For Amtrak, one of the more significant recent occurrences has been our ability to receive federal funding for rail security improvements through the FY05 DHS Appropriations bill under the Intercity Passenger Rail Security Grant Program. Prior to FY05, the Corporation did not qualify for such grant programs because it did not meet the eligibility requirements of being a state or local transit agency. In addition to having a Risk Assessment of Amtrak's NEC and Chicago hub area performed by a DHS contracted corporation, Amtrak will use $6.3 million in funds to increase security at Amtrak by:

- Adding explosive detection canine teams.
- Purchasing new explosive resistant trash cans.
- Deploying PROTECT (chemical detection equipment) systems at major stations.
- Conducting Pilot Program with Transportation Security Working Group and DHS on next generation CCTV systems.
- Adding radiological detection and verification pagers and portals.
- Increasing tunnel protection.
- Implementing new passenger awareness program.
- Conducting a major exercise in Washington, DC.

We have also been involved in numerous initiatives with the agencies that are geared toward improving security within the rail industry. Highlighted below are some of these interactions:

- Improved intelligence gathering capabilities by working closely with federal and state agencies and industry partners. Agencies include: DHS, TSA (Transportation Security Operations Center-TSOC), DOT (Office of Intelligence and Security-OIS), FRA (Surface Transportation-Information Sharing and Analysis Center- ST/ISAC), and the industry AAR (Railway Alert Network-RAN).
- Continued assignment of an Amtrak investigator to work with the FBI in the New York Joint Terrorism Task Force. Other investigators will be assigned to the National Capital Region, Chicago, and Long Beach, CA JTTFs in the near future.
- DHS/TSA sponsored two emergency response drills in which multiple federal state and local agencies participated. Drills were based on terrorist act scenarios.
- DHS/TSA has worked with Amtrak as a venue location for the Transportation Workers Identification Card (TWIC) program.
- DHS/TSA and ICE has worked with Amtrak and upgraded the delivery of international traveler information for border inspection travel improvements and counter-terrorism purposes.
- FRA/TSA has partnered with Amtrak and used "airport type" screening at Amtrak stations during National Security Sensitive Events (RNC and Inaugural Event).
- TSA is also doing clearances and working closely with Amtrak in improving passenger manifest information and in coordinating Amtrak's industrial security clearance program.

In addition to Amtrak's security programs with the above agencies, Amtrak has also received the expertise and help of the State of New York's National Guard. It has provided additional resources in the form of National Guard personnel to support uniform forces at Penn Station, New York.

Next Steps

Today, Amtrak Police and Security continue its efforts to improve the safety and security of Amtrak passengers, employees and patrons. In February of this year, it participated in a special meeting and debriefing with leaders of Spain's law enforcement and military agencies and Renfre, the Spanish

Commuter line involved in the Madrid bombings. Police and Security managers attended a special briefing last week in relation to the London bombings and plan to have a meeting with British Transport Police later this year to receive a similar briefing and "lessons learned" update on these terrorist tragedies. The Department is also in the midst of a reorganization that will channel and deploy resources in a more effective manner to address the security realities of today's rail systems.
From a planning perspective, Amtrak has recently modified its Security Investment Plan and has identified $156 million in critical funding needs.

- **Dispatch and Control Centers** - Amtrak maintains several control centers that need to have redundancy and to have a secure location for these vital communication and control operations. This project would consolidate Amtrak's CETC (Centralized Electrified Traffic Control Center), CNOC (Consolidated National Operations Center) and the NCC (Police Department Radio Center) into one building. This location would be constructed so that access is restricted and basic CPTED (Crime Prevention Through Environmental Design) concepts employed. I cannot emphasize enough how crucial this element of our plan is to the entire package of security proposals.
- **Securing Amtrak's Largest Stations** - Amtrak needs to upgrade security at the largest stations which typically handle hundreds of thousands of people per day. In addition to CCTV and physical security improvements, explosive detection devices and additional radiological devices/pagers would be disseminated to sworn personnel for use in major stations and other strategic stations along the NEC.
- **Amtrak Train Tracking, Communications and Critical Incident Response** - Amtrak effectively tracks train movement over the tracks that the Corporation owns, mainly over the electrified NEC. Throughout the rest of the country, however, the chief means of communications with trains is through radio and cell phone telecommunication systems. Such systems do not adequately address reliable train tracking, emergency response efforts and have failed during critical incidents. For example, Amtrak's radio system cannot be used where it does not own track and, therefore, Amtrak radio train communications is dependent upon the host railroad network. Cell phone technology can be limiting and is often dependent upon the footprint of the cell phone provider. Amtrak has also identified the need to significantly upgrade its existing, antiquated GPS system (over 8 years old). The GPS system needs to be integrated with Amtrak's central computer system and CNOC to provide the exact location for each train on a minute-by-minute basis. Thus, additional funding in this area is critical and badly needed. Such upgrades and the introduction of satellite telephone communication systems would provide uninterrupted communications.

Fire / Life Safety

Lastly, with regard to our ongoing fire/life safety program, there are numerous infrastructure projects funded by the existing $100 million tunnel life safety grant provided in the FY02 Department of Defense and Emergency Supplemental Appropriations for Recovery and Response to terrorists attacks on the United States (P.L.107-117) of which $71 million has been expended. This work is ongoing and significant progress has been made.

Funding is being used to improve radio coverage, wayside communication and tunnel portal security. Other components of this element are to secure all tunnel access points and improve security for trains traveling through this area of the NEC. The nature of improvements consists of physical and technology based security improvements, such as CCTV, event activated alarm systems, high security fencing and lighting, and the strategic placement of vehicle barriers. In addition, this tunnel security portion of the

plan would also include similar upgrades at the Washington, DC First Street Tunnel and the Baltimore tunnels. Fencing improvements in the area of the Baltimore tunnels have already begun through the capital plan and fencing improvements are scheduled throughout Amtrak's five-year capital plan.
I hope that this overview has provided you with a better understanding of what Amtrak has done, and continues to do, to enhance safety for our employees and passengers. I will gladly respond to any follow up questions that you may have on rail security.

Source: Amtrak website (Press and Media / Voices)
http://www.amtrak.com/servlet/ContentServer?pagename=Amtrak/am2Copy/Simple_Copy_Page&c=am2Copy&cid=1093554024258&ssid=172

2. **Lucas County Emergency Planning** (Notes from meeting with EMA staff)

- Emergency Operations Plan provides a structure for all elements of emergency response to be able to integrate planning and operations. It addresses mitigation, preparedness, response and recovery. Types of disasters are manmade (purposeful), technological (accidental) and natural (weather, geological).
- In the National Response Plan (NRP), transportation is listed as the number one support function. It is essential to resource support, urban search and rescue, firefighting and other functions. An on-line course on NRP is available through the Federal Emergency Management Agency (FEMA). Lucas County EMA staff recommend that TMACOG staff take this course. (There is also a course on the National Infrastructure Protection Plan.)
- Evacuation: local and state government are largely responsible for maintaining the transportation network needed for evacuation. School and transit buses are to be used as needed; the Lucas County Plan includes an inventory of the number of buses and drivers likely to be available from TARTA and school districts, and the resulting capacity to transport citizens. Other public sector and private sector vehicles will be used as needed in addition. For example, if a bridge were lost, the EMA could call on private watercraft. A worst-case evacuation is expected to be around 100,000 people based on an air release of a toxic substance from one of several companies in the urban area (for example, North Toledo).

Opportunities for future cooperation in the region between EMA's, TMACOG and governments include:

- Hazardous materials planning. Hazardous chemicals enter the region via rail and highway, with no restrictions placed on travel through the most densely populated areas. Columbus restricts HAZMAT trucks to the outer freeway loop. For our area to do that we need to complete the loop with a new highway connector from I-280 to I-75. Also needed is a risk assessment of rail infrastructure—structural integrity of rails and rail bed, speed issues, the automated system for train control—and the materials the railroads transport (recognizing, of course, that rail is a relatively safe mode of travel) to insure the quality of the system. EMA staff perceive difficulties in communications with the railroads. They also perceive the need for more communication between emergency planners and transportation planners at the local level. A formal risk assessment is needed for highways as well, with goals and objectives then set for improvement. (This is an opportunity for the Lucas County EMA to participate in TMACOG safety planning.)
- Lucas County's plan notes that this region is a transportation hub, with potential risks to transportation infrastructure that include floods and tornadoes and a minor risk (every 100-200 years) from earthquakes. Bridges, foot bridges across highways, and roads could be at risk if earth tremors did occur; EMA staff perceives our region does not construct to the same standards as quake-prone areas.

- A recent emergency training exercise raised the issue of the need for an ITS system to warn drivers of potentially dangerous conditions on the new I-280 bridge and other major bridges (heavy fog, ice, traffic backups). As a result, ODOT will place temporary changeable message signs at approaches to the Skyway, and EMA staff encourage similar measures for other bridges allowing adequate opportunity for driver diversion.
- Another ITS-related opportunity is to place signals or automated ramp gates at freeway entrance ramps to be activated when drivers should not enter. This would not only prevent additional traffic from adding to highway incident-related congestion; it would also allow use of the freeways for counterflow of traffic during evacuation (using all lanes for one-way travel). Counterflow would be impractical if all entrance ramps had to be manned or required placement of physical barricades. Note that ramp gates are a component proposed for the area in the TMACOG ITS plan.

3. Public Transit Security Measures (TARTA)

a. Facility
   - Installed pass card readers on exterior doors which require an employee ID for entry
   - Installed vehicle transponders to automatically open and close overhead garage doors
   - Increased number of security cameras in the interior and exterior of the facility

b. Vehicles
   - Installed GPS units to track movement of vehicles
   - Increased number of security cameras per vehicle, and number of vehicles with security cameras

c. Training
   - Provided mandatory training to all employees to heighten security awareness and how to respond to different situations

d. Other
   - Increased subcontracting to Toledo Police for patrolling downtown transit stations
   - Established partnership with the Transportation Security Administration (TSA) where TSA performs Visible Intermodal Prevention and Response (VIPR) engagements at TARTA's downtown facilities monthly utilizing Homeland Security Officers and Behavioral Observation Officers to do security sweeps at stations and on buses
   - TARTA is active member of Ohio Public Transit Association's Security Committee, which meets bi-monthly to discuss, inform and educate all public transit properties on security measures being implemented to combat security risks encountered in mass transit

4. Seaport Security

- The Toledo-Lucas County Port Authority is a landlord port, not an operating port. All Port Authority terminals are leased to private operators.
- Each terminal operator has implemented a terminal security plan specific to their facility and its operation.
- The majority of terminal operators in the Port of Toledo fall under the Maritime Transportation Security Act (MTSA) and have plans as required by 33 CFR Part 105. Each plan is reviewed annually by USCG Marina Safety Unit Toledo personnel. If the plan meets all the criteria required by the Statute, the plan is approved.
- The MTSA regulations require facilities to conduct quarterly drills of portions of their security plan and have one exercise on the plan annually. Documentation of these drills/exercises are

part of the annual Coast Guard inspection and ensure that terminal security plans are updated and cover a wide scope of security issues.

- Seaport security is built upon the layering of security plans and activities—another layer of security is provided by local, regional and state law enforcement agencies (where those assets are supported), a number of which conduct marine patrols. (note: ODNR Division of Watercraft and USCG Station Toledo conduct marina patrols in the Port of Toledo area, but at this time there are no active routine local police department marine patrols.)
- The Coast Guard has overall and principal responsibility for seaport security—in Toledo Harbor, the Coast Guard Station Toledo patrols the harbor, the Western Lake Erie Basin and significant waters running into Lake Erie out to the International Border.
- Both the USCG Marina Safety Unit Toledo and Station Toledo are part of the Sector Detroit Area of Responsibility.
- The Coast Guard is actively supplemented by its fellow Homeland Security agencies including the FBI, Customs and Border Protection, U.S. Border Patrol, and the Transportation Security Administration.
- Another security measure of importance is the requirement for all ships carrying cargos from overseas to have given notice of all cargos being carried—no ship may enter U.S. waters without having been previously cleared.
- The St. Lawrence Seaway systems also present significant opportunities for inspections of cargos and the checking of ships crews—a unique security advantage that is not available to coastal ports.
- All the Port's terminals have installed security fencing and gates, and the key terminals employ gate guards during operating hours. The Port Authority has erected up-to-date security fencing and gates at both the Shipyard and the General Cargo Facility.

There are currently two advisory systems respecting terrorism alerts—one is a generalized system that elevates the level of alertness required nationally through the Department of Homeland Security and the other is a more specific system called MARSEC that, when applicable, can be implemented by the Coast Guard Captain of the Port/Federal On-Scene Coordinator in concert with Coast Guard Headquarters. MARSEC levels can be raised nationally or based on local intelligence for a specific reason. The terminal security plans reflect how each facility will respond to changes in MARSEC levels as delineated in 33 CFR Part 105.255.

Appendix C: Public Involvement Process

On the Move

2045 Transportation Plan • Update 2020






What do you think about TRANSPORTATION?
Problems today? Ideas for the future?

Do the survey at your public library or at
www.tmacog.org/onthemove

Complete the survey for a chance to win a $25 gas card or bus pass.

Come to a meeting!

Dates on reverse side and at
www.tmacog.org

Questions? Need more information?
phone: 419.241.9155
e-mail: OnTheMove@tmacog.org

TMACOG
Toledo Metropolitan Area Council of Governments
300 Martin Luther King Jr. Drive
Toledo OH 43604

TMACOG

On the Move

2045 Transportation Plan • Update 2020

2019 Public Meetings

February

March

April

Come to a meeting!

Make a difference

All are welcome!

Light refreshments provided.

For more information:
419.241.9155 ext. 1117

Date/Time	Location
Monday, February 25 **6:30 - 8 p.m.**	**Wood County District Public Library** 251 N Main St Bowling Green OH 43402 Meeting Room
Wednesday, February 27 **6:30 - 8 p.m.**	**Waterville Branch Library** 800 Michigan Ave Waterville OH 43566 Meeting Room A
Monday, March 4 **6:30 - 8 p.m.**	**King Road Branch Library** 3900 King Rd Toledo OH 43617 Make U Studio A&B
Friday, March 8 **Noon - 1:30 p.m.**	**United Way of Greater Toledo** 424 Jackson St Toledo OH 43604 Conference Room
Tuesday, March 12 **6:30 - 8 p.m.**	**Oregon Branch Library** 3340 Dustin Rd Oregon OH 43616 Meeting Room A
Thursday, March 14 **Noon-1:30 p.m.**	**Wood County District Public Library** 251 N Main St Bowling Green OH 43402 Meeting Room
Thursday, March 14 **6 - 8 p.m.**	**Dr. Martin Luther King Jr. Plaza** 300 MLK Jr Dr Toledo OH 43604 Grand Lobby
Wednesday, March 20 **6 - 8 p.m.**	**Bedford Branch Library** 8575 Jackman Rd Temperance MI 48182 Community Room
Monday, April 1 **6:30 - 8 p.m.**	**Sanger Branch Library** 3030 Central Ave Toledo OH 43606 Meeting Room A
Thursday, April 4 **6 - 8 p.m.**	**Way Public Library** 101 E Indiana Ave Perrysburg OH 43551 Meeting Rooms A, B, C, and D
Thursday, April 11 **6:30 - 8 p.m.**	**Adelante** 520 Broadway St., Toledo, Ohio 43604 Los hispanoablante están invitados

On the Move

2045 Transportation Plan • Update 2020

ANUNCIO DE REUNIÓN PÚBLICA

Fechas y lugares en el lado reverso.

RK ? AME está actualizando el plan de transporte regional y necesitamos sus opiniones.

Visite el sitio web On the Move **www.tmacog.org/onthemove** o usa el código **QR** para rellenar la encuesta.

Completa la encuesta para una oportunidad de ganar una tarjeta de gas o pase de autobús de $25.

¿Preguntas? ¿Nesecita más información?

llama: 419.241.9155

email: OnTheMove@tmacog.org

TMACOG

Toledo Metropolitan Area Council of Governments

300 Martin Luther King Jr. Drive Toledo OH 43604

TMACOG

On the Move

2045 Transportation Plan • Update 2020

2019

Reuniónes Publicas

febrero
marzo
abril

¡Ven a una reunión Haz una diferencia

Bienvenido a todos

Se ofrecen refrescos

Para más información:
419.241.9155

Fecha/Hora	Lugares
lunes, el 25 de febrero **6:30 - 8 p.m.**	**Wood County District Public Library** 251 N Main St Bowling Green OH 43402 Meeting Room
miércoles, el 27 de febrero **6:30 - 8 p.m.**	**Waterville Branch Library** 800 Michigan Ave Waterville OH 43566 Meeting Room A
lunes, el 4 de marzo **6:30 - 8 p.m.**	**King Road Branch Library** 3900 King Rd Toledo OH 43617 Make U Studio A&B
viernes, el 8 de marzo **mediodía - 1:30 p.m.**	**United Way of Greater Toledo** 424 Jackson St Toledo OH 43604 Conference Room
martes, el 12 de marzo **6:30 - 8 p.m.**	**Oregon Branch Library** 3340 Dustin Rd Oregon OH 43616 Meeting Room A
jueves, el 14 de marzo **mediodía-1:30 p.m.**	**Wood County District Public Library** 251 N Main St Bowling Green OH 43402 Meeting Room
jueves, el 14 de marzo **6 - 8 p.m.**	**Dr. Martin Luther King Jr. Plaza** 300 MLK Jr Dr Toledo OH 43604 Grand Lobby
miércoles, el 20 de marzo **6 -8 p.m.**	**Bedford Branch Library** 8575 Jackman Rd Temperance MI 48182 Community Room
lunes, el primero de abril **6:30 - 8 p.m.**	**Sanger Branch Library** 3030 Central Ave Toledo OH 43606 Meeting Room A
jueves, el 4 de abril **6 - 8 p.m.**	**Way Public Library** 101 E Indiana Ave Perrysburg OH 43551 Meeting Rooms A, B, C, and D
jueves, el 11 de abril **6:30 - 8 p.m.**	**Adelante** 520 Broadway St Toledo, OH 43604 Los hispanoablante están invitados

Toledo Metropolitan Area Council of Governments (TMACOG)

Transportation Needs Survey

Thank you for completing this important survey. The Toledo Metropolitan Area Council of Governments (TMACOG) will use your responses to prepare the region's transportation plan, "2045 On the Move – 2020 Update". This plan is required to maintain federal funding for our region.

There are ***22 QUESTIONS*** and the survey should take ***LESS THAN 10 MINUTES*** to complete.

Upon completing the survey, you may enter to win either a $25 gas card or bus pass! Four lucky winners will be selected.

Please answer the following questions as they relate to your experiences traveling throughout Lucas County, Wood County, and the southern portion of Monroe County (see map to the right). The term "REGION" used throughout the survey refers to the region outlined in red on the map.

All of your answers will remain confidential.

TRANSPORTATION QUESTIONS

1. Please select up to THREE modes of transportation which you take most frequently:

____ Drive alone ____ Motorcycle ____ Bike
____ Carpool / Vanpool / Rideshare ____ Public transportation ____ Walk
____ Other (please specify): _____

2. Select up to THREE transportation issues that affect you the most:

____ Traffic **congestion**
____ **Poor pavement** and infrastructure conditions
____ Getting stuck at **railroad crossings**
____ There aren't enough **carpooling/vanpooling/ridesharing** options for me
____ **Public transportation** availability
____ There aren't enough **bike paths/lanes** for me
____ **Sidewalks** are either nonexistent or in poor condition and are difficult to traverse
____ There aren't enough **flight destinations** at Toledo Express Airport
____ There aren't enough **passenger rail destinations** at the Amtrak Station
____ I am unable to **access recreational facilities** near me (e.g. hiking trails, boat ramps, playgrounds, etc.)
____ Other (please specify):

3. **If you have a transportation issue at a specific location, please use the QR code to access a webpage to input your issue in our mapping database, or describe what issue you are having and where in the comment box below:**

4. **Mark each regional transportation network either as one which we should:**
   $ MAINTAIN – *keep as is (e.g. crack sealing, pothole patches, maintenance only)*
   $$ IMPROVE – *upgrade existing infrastructure (e.g. improve roadway condition, paving and resurfacing)*
   $$$ EXPAND – *add capacity to (e.g. add lanes to roadways)*

	$ MAINTAIN	$$ IMPROVE	$$$ EXPAND
Expressway Network	☐	☐	☐
Main and Major Streets (non-expressway)	☐	☐	☐
Residential Streets (neighborhoods)	☐	☐	☐
Bicycle/Pedestrian Network	☐	☐	☐
Public Transportation Network	☐	☐	☐
Rail Crossing Locations	☐	☐	☐
Passenger Rail Network	☐	☐	☐
ADA Accessibility (e.g. wheelchair ramps)	☐	☐	☐

5. **Please select up to TWO areas we should invest in for the future:**

____ Green infrastructure, better air quality, and better water quality
____ Keeping roads in good repair
____ Public transportation
____ Transportation education (e.g. driver improvement courses, bicyclist safety education, boating safety)
____ Other (please specify):
____ Smart infrastructure (e.g. self-driving cars, connected vehicles, electronic message boards)
____ Carpool / Vanpool / Ridesharing
____ Improved bicycle network
____ ADA accessibility (e.g. wheelchair ramps)

6. **Which level of improvements to the region's transportation system do you think are needed to positively impact the region's economy?**

____ **No improvements** – the transportation network supports the region's economy just fine
____ **Minor improvements** – there are minor issues which impede economic growth
____ **Major improvements** – there are major issues which hurt the region's economy

Add any comments here:

7. **Do you think the level of funding for transportation should increase or decrease over the next 10 years?**

____Significantly increase
____Slightly increase
____Stay the same
____Slightly decrease
____Significantly decrease

Add any comments here:

8. **Are you in support of any of these additional ways to increase funding for transportation to fix our transportation network?**

For more information on transportation funding, see http://fixourroadsohio.com/case-statement/

____Gas tax
____Usage fee (e.g. vehicle miles of travel)
____Registration fee
____I am not in support of increasing funding
____Not sure

Add any comments or suggestions here:

9. **If a new job was available further than you can walk or bike, would you be able to take the job based on your current transportation situation?**

____I would **drive myself**
____I would **carpool** or have someone take me
____Don't know/not applicable (you are retired or not seeking work)
____I would use **public transportation**
____I would **not have transportation** and could not take the job

10. Please select no more than THREE transportation goals which are the most important to your community:

____**Congestion Reduction**: Reduce congestion on all major roads
____**Environmental Sustainability**: Protect and enhance the community and natural environments
____**Freight Movement**: Strengthen freight access to national and international trade markets to support economic development
____**Infrastructure Condition**: Maintain and improve the transportation system to a state of good repair
____**Personal Mobility**: Improve the quality, accessibility, and efficiency of multimodal/public transportation options
____**Project Delivery**: Expedite construction to maximize effective use of public funds
____**Safety**: Reduce traffic-related fatalities and serious injuries across all modes
____**System Reliability**: Improve the efficiency of the surface transportation system

11. Are you open to using a self-driving, privately owned car?

____ Yes ____ No ____ Not Sure

12. Are you open to riding in a self-driving, public transit shuttle?

____ Yes ____ No ____ Not Sure

13. Please rank the following self-driving vehicle concerns from 1 to 5, ONE being your BIGGEST concern, FIVE being your SMALLEST concern. If you have no concerns, select "No concerns" and do not rank:

____ **User cost** (e.g. buying, leasing, user fees, fares)
____ **Safety** (e.g. accidents caused by vehicle not detecting other vehicles/people)
____ **Hacking** (e.g. cybersecurity issues, stolen data)
____ **Updating existing roads** (e.g. cost and time in making our transportation system compatible with self-driving vehicles)
____ **I don't want to give up driving** (you like driving too much or don't want to give up control)
____ **No concerns**

14. Do you have any other concerns/comments about self-driving technology?

15. Which of the following best describes how often you have used public transportation (such as TARTA, TARPS, BG Transit, Bedford Dial-A-Ride, Perrysburg Transit) **during the past year:**

____ Almost every day ____ A few times a week ____ A few times a month
____ A few times a year ____ Never

Are there any impediments that affect your ability to take public transportation?

DEMOGRAPHIC QUESTIONS

The following demographic questions will help us better understand the needs of the people in our region. Your individual responses will remain confidential.

16. In which county do you live and what is your ZIP code?

____ Lucas ____ Wood ____ Monroe ____ Other

Zip Code: ___ ___ ___ ___ ___

17. What is your age?

____Under 18 ____18 to 24 ____25 to 34 ____35 to 44
____45 to 54 ____55 to 64 ____65+ ____Prefer not to say

18. Which of the following best describes the highest level of education that you have completed?

____Less than high school graduate
____High school graduate (includes equivalency)
____Some college or associate's degree
____Bachelor's degree
____Graduate or professional degree
____Prefer not to say

19. What is your gender?

____Male ____Female ____Other ____Prefer not to say

20. Which of the following best describes your annual household income?

____Under $15,000
____Between $15,000 and $29,999
____Between $30,000 and $49,999
____Between $50,000 and $74,999
____Between $75,000 and $99,999
____Between $100,000 and $150,000
____Over $150,000
____Prefer not to say

21. Do you currently have a disability which affects your transportation options?

____Yes ____No ____Prefer not to say

22. Please enter your name and preferred contact information for a chance to win a $25 gas card or bus pass! Four lucky winners will be selected. This information will not be shared.

Name: _____

Email, phone number, or address: _____

Toledo Metropolitan Area Council of Governments (TMACOG)

Public Feedback Survey

TMACOG is updating the regional long range transportation plan, "On the Move: 2045 Transportation Plan - Update 2020." TMACOG is the Metropolitan Planning Organization serving Lucas and Wood counties, in Ohio and southern Monroe County, Michigan. The 2045 plan is required in order for our region to continue to receive federal funds, which are used to improve the regional transportation system. The 2045 plan helps us set regional goals and priorities and helps us stay focused in our transportation planning efforts.

The plan consists of financially constrained project lists. *Priority* projects are projects that we expect to fund by 2045 but are currently unfunded. *Committed* projects consist of projects that currently have either federal, state, or local funding and are planned to occur in the near future.

We want your feedback on the Priority Project list and Initiatives since these have been determined to be regional priorities and will help guide transportation planning for the next 20 years. The survey should only take 5 minutes of your time.

TRANSPORTATION QUESTIONS

1. **Initiatives are an important component of the plan. Initiatives consist of studies and other collaborative actions that will assist in improving transportation in the region. The plan currently has 30 initiatives. To view a list of plan initiatives please follow this link** www.tmacog.org/onthemove **or contact** bechstein@tmacog.org **to request a copy.**

   After reviewing the initiatives, do you feel the initiatives support regional transportation goals?

   ____ Yes, they support regional priorities
   ____ No, they do not support regional priorities
   ____ Other comments (if commenting on a specific initiative please provide the initiative number)

2. **To view a complete list of priority projects and project maps, please visit www.tmacog.org/onthemove.**

   The priority project list is broken down as follows:
   - 44% roadway projects
   - 40% non-motorized (bike & pedestrian) projects
   - 6% transit projects
   - 5% marine projects
   - 3% rail projects
   - 2% aviation projects

In your opinion do you feel the priority list consists of projects that achieve the regional transportation goals?

____ Yes, I feel this is a good representation of regional priorities
____ No, I do not feel that this is a good representation of regional priorities
____ Other (please specify)

3. **The priority projects in the plan are financially constrained. This means that the plan must show that the projects included can reasonably be funded by the year 2045. Currently the priority project list contains over $2.4 billion of regional projects.**

The breakdown of the priority project funding is below:

- 48% of the funds ($1.2 billion) will be used for roadway projects
- 24% of the funds ($600 million) will be used for rail projects
- 15% of the funds ($350 million) will be used for non-motorized projects
- 9% of the funds ($220 million) will be used for transit projects
- 3% of the funds ($79 million) will be used for marine projects
- 1% of the funds ($35 million) will be used for aviation projects

Based on these breakdowns, do you feel the plan is allocating resources appropriately across all modes of transportation?

____ Yes
____ No
____ Other (please specify)

4. The following question looks at the top 20 priority projects. The top 20 priority projects are listed below:

1. Access Management on Navarre Ave. from Isaac St. to Lallendorf Rd.

2. Improve I-75/US 20 interchange in Perrysburg to more efficiently handle truck traffic moving to/from US 20.

3. Widen I-475 to 6 lanes from US 23 interchange east to Douglas Rd.

4. Holland-Sylvania corridor improvements from Airport Hwy. to Central Ave: Access management and intersection improvements (Angola, Hill, Dorr, and Bancroft).

5. Widen I-475 to 6 lanes (including Maumee River bridge) from US 24 to I-75 interchange in Wood County, Including safety improvements at interchange.

6. Widen US 23 to 6 lanes from I-475 to the Monroe Street Interchange.

7. Reconstruct Sylvania Ave. from Secor Rd. to Douglas Rd. to improve safety.

8. Build Douglas/Laskey/Tremainsville intersection improvements.

9. Widen SR 795 to 4 lanes between Lemoyne Rd. and I-280 Interchange; widen the I-280 overpass bridge; build a grade separation at the CSX rail crossing.

10. Replace TARTA bus fleet (2 cycles of replacement).

11. Construct rail grade separation at Phillips Ave. and Norfolk Southern railroad to improve access to the Phillips I-75 interchange.

12. Replace the existing signalized intersection at SR-105 (Wooster St.) & Dunbridge Rd. with a roundabout.

13. Implement Lucas County-wide public transit.

14. Upgrade most frequently used transit stops to make them user friendly and handicapped accessible.

15. Find a solution to truck traffic using Nebraska Ave to connect from Norfolk Southern Rail Terminal to I-75 Collingwood interchange - possible new connector route.

16. Widen Corey Rd. from I-475 to Alexis Rd., with complete streets improvements.

17. Improvements to the intersection of Sylvania/Jackman/Tremainsville.

18. Build Detroit/Telegraph/Laskey intersection improvements.

19. Construct the downtown Riverwalk/Nautical Mile.

20. Construct Chessie Circle Trail (multi-use trail), from Laskey Rd. to W.W. Knight Preserve in Wood County (excludes three separate projects, path from river to Glanzman, path from Jackman to University Hills Blvd., and new Maumee River bridge).

Do the top 20 projects accurately represent regional transportation priorities?

____ Yes, these projects accurately represent regional priorities
____ No, these projects do not accurately represent regional priorities
____ No opinion
____ Other comments (if commenting on a specific project please provide the project number in your response)

5. **If you would like to provide comments on a specific priority project, please use the QR code to access a web page to view an interactive map and provide comments or use the comment box below.**

6. **Please provide any additional comments regarding the projects, initiatives, or transportation plan in general. For more information of any questions/concerns please contact onthemove@tmacog.org or 419-241-9155**

DEMOGRAPHIC QUESTIONS

The following demographic questions will help us better understand the needs of the people in our region. Your individual responses will remain confidential.

1. **In which county do you live and what is your ZIP code?**

   ____ Lucas ____ Wood ____ Monroe ____ Other

   Zip Code: ___ ___ ___ ___ ___

2. **What is your primary mode of transportation?**

   ____ Drive Alone
   ____ Carpool
   ____ Public Transportation
   ____ Bike
   ____ Walk
   ____ Other (please specify) _____

3. **What is your age?**

   ____Under 18 ____18 to 24 ____25 to 34 ____35 to 44
   ____45 to 54 ____55 to 64 ____65+ ____Prefer not to say

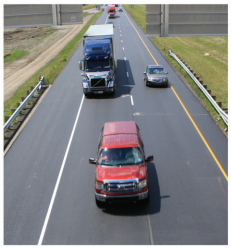
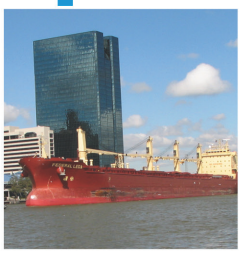
4. **Which of the following best describes your annual household income?**

   ____Under $15,000
   ____Between $15,000 and $29,999
   ____Between $30,000 and $49,999
   ____Between $50,000 and $74,999
   ____Between $75,000 and $99,999
   ____Between $100,000 and $150,000
   ____Over $150,000
   ____Prefer not to say

On the Move

2045 Transportation Plan • Update 2020




Tell us what you want to see in the transportation system of the future.

Do the survey at www.tmacog.org/onthemove

Come to a meeting at these locations!

King Road Branch Library
Monday, February 3, 6-8 p.m.
3900 King Rd., Toledo OH 43617

Main Library (downtown)
Tuesday, February 4, noon – 2 p.m.
325 Michigan St., Toledo OH 43604

Sanger Branch Library
ALSO FACEBOOK LIVE
Thursday, February 6, 6-8 p.m.
3030 Central Ave., Toledo OH 43606

Way Public Library
Monday, February 10, 6-8 p.m.
101 E. Indiana Ave., Perrysburg OH 43551

Wood County District Public Library
Tuesday, February 11, noon – 2 p.m.
251 N. Main St., Bowling Green OH 43402

Oregon Library
Tuesday February 11, 6-8 p.m.
3340 Dustin Rd., Oregon OH 43616

Erie Township Hall
Wednesday February 12, 6-8 p.m.
2065 Erie Rd., Erie MI 48133

Questions? Want to know more?
phone: 419.241.9155 | e-mail: OnTheMove@tmacog.org

TMACOG

Toledo Metropolitan Area Council of Governments
www.tmacog.org

On the Move 2015-2045 Transportation Plan	**Toledo Metropolitan Area Council of Governments** **Local Government Transportation Questionnaire** **May 2019**

We need your input to complete the Plan!

It covers Lucas, Wood, and southern Monroe Counties. The Plan will address all modes of transportation (walking, cycling, cars/trucks/highways, public transit, rail, water, and air) as well as impacts on quality of life, safety, environment, and economic health of the region. More information is available at www.tmacog.org/onthemove/

1. What is the name of your organization/jurisdiction?

2. Which type **of personal mobility** needs does your organization/jurisdiction?

-Transportation for your employees
-Transportation for those you serve (customers, patients, students, constituents, ect.)

3. Which of the following would help your organization/jurisdiction's **personal mobility** needs?

-Public transit access
-Bicycle routes
-Improved/added sidewalks
-Vanpool/carpool/rideshare
-Multimodal Improvements

Other (please specify)

4. What **freight transportation or economic development** needs apply to your organization/jurisdiction?

-Highway Access
-Rail access or grade separation
-Air freight access or more air freight options
-Port access
- Multimodal connectors

Other (please specify)

5. What are your organization/jurisdiction's **TOP THREE** concerns relating to transportation?

-**Safety** (traffic crashes and injuries)

-**Infrastructure condition** (potholes, uneven sidewalks, etc.)

-**Travel delays** (commuters, delivery issues)

-**Connectivity** (customers, employees or constituents have issues getting where they need to go?

-**Funding/cost of transportation** (road repair expenses, freight expenses)

-Concerns about development impacts on **air and water quality**

-Wanting to **develop/redevelop** areas with existing infrastructure

Other/comments:

6. Has your organization/jurisdiction ever constructed a transportation project that incorporated **Smart City concepts IN THE PAST?**

Examples include dynamic message boards, smart parking systems, adaptive traffic signals, signal priority for emergency responders, electric vehicle charging stations, vehicle to infrastructure communications equipment, autonomous shuttles, and other technologies applied to transportation.

-Yes
-No

If "yes", please describe the project(s) here:

7. Does your organization/jurisdiction have an interest in implementing transportation projects that include **Smart City concepts IN THE FUTURE?**

Examples include dynamic message boards, smart parking systems, adaptive traffic signals, signal priority for emergency responders, electric vehicle charging stations, vehicle to infrastructure communications equipment, autonomous shuttles, and other technologies applied to transportation.

-Yes
-No

If "yes", please describe the project(s) here:

8.Please provide your contact information.

Name _____

Title _____

Address _____

City/Town _____

State/Province_____

Zip/Postal Code _____

Email Address _____

Phone Number _____

In this section, we are looking for information on any upcoming transportation-related projects, policies, or initiatives your jurisdiction/organization has planned out to year 2045.

Please upload a document (per question) that include project name, description, cost, year, and sponsor (Ex. Capital Improvement Program/Capital Budget).

If you do not have this documentation already, contact Jodi Cole at 419-241-9155 ext 1120 or cole@tmacog.org for a fillable template.

*Please note - only one file can be uploaded per question. *

1. What long term transportation-related PROJECTS and INITIATIVES are important for your organization/jurisdiction (5 years to 25 years out)?

Examples include but are not limited to:
-Transportation projects (Street, highway, transit, rail, bikeway, air, water, multimodal) to expand, preserve, or better operate our transportation system.
-Initiatives, such as joint projects, special studies, research, and educational initiatives.

2. What regional POLICIES are important to your organization/jurisdiction?

Examples include but are not limited to:
-preserving rail corridors for public use
-expansion of public transportation
-support creation of Joint Economic Development Zones

3. Do you have any other comments about transportation you'd like to see incorporated into the 2045 Transportation Plan?

Public Comment Form

On the Move 2045: Transportation Plan -Update 2020

Please provide comments related to the projects, initiatives, or the plan in general below (if referring to a specific project please provide the project name or number)

Optional

Name: _____

Email: _____

Zip code: _____

On the Move

2045 Transportation Plan • Update 2020

TMACOG

Toledo Metropolitan Area Council of Governments

TMACOG

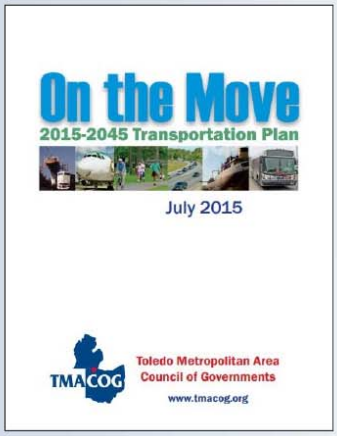
TMACOG

Toledo Metropolitan Area Council of Governments

- MPO for Lucas and Wood Counties in Ohio & Southern Monroe County in Michigan
- Responsibilities include transportation and water quality planning
- Work with local jurisdictions and stakeholders

TMACOG

TMACOG



- Transportation
  - Projects
  - Policies
  - Initiatives
- All Modes
- Federal Funding
- Starting Point

TMACOG

Veterans' Glass City Skyway

TMACOG


NO
MOTOR
VEHICLES
Chessie
Circle Trail
TRAIL
HEAD


2045 Task Force
TOLEDO | LUCAS COUNTY
PORT AUTHORITY
LUCAS COUNTY
STATE OF OHIO
PROMEDICA
WELL CONNECTED.
SEAL · OF · THE · CITY · OF · TOLEDO
LABORARE · EST · ORARE
JANUARY · 7 · 1837
ADELANTE
THE LATINO & COMMUNITY RESOURCE CENTER
TMACOG

The 2045 Plan Goals

1. Safety
2. Infrastructure condition
3. Congestion reduction
4. System reliability
5. Freight movement
6. Environmental sustainability
7. Project delivery
8. Personal mobility

Safety

Reduce traffic-related fatalities and serious injuries across all modes.

Infrastructure Condition

Maintain and improve the transportation system to a state of good repair.

Congestion Reduction

Reduce congestion on the National Highway System.

System Reliability

Improve the efficiency of the surface transportation system.

Freight Movement

Strengthen freight access to national and international trade markets to support economic development.

Environmental Sustainability

Protect and enhance the community and natural environments.

Project Delivery

Expedite project delivery to maximize effective use of public funds.

Personal Mobility

Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

2020 Plan Update

- Assess trends, drivers of change, opportunities
- Evaluate long term investment priorities and align policies, strategies
- Keeping up with what YOU want

On the Move 2045
2020 Update Timeline

Stations

- Safety
- Freight
- System Performance
- Public Transit & Passenger Rail
- Transportation Alternatives

Take Our Survey!

- Available Online:
  http://www.tmacog.org/onthemove/
- Available at some Libraries
- Available Here!

FOR OHIO

FIX OUR ROADS OHIO

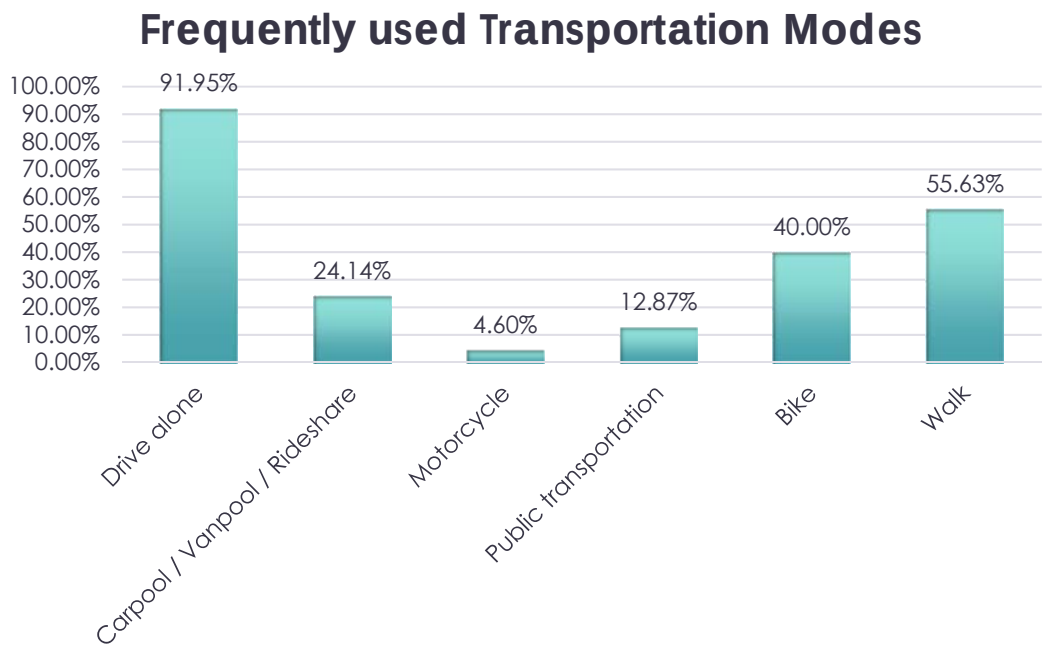
Better Transportation for Working and Living

https://fixourroadsohio.com

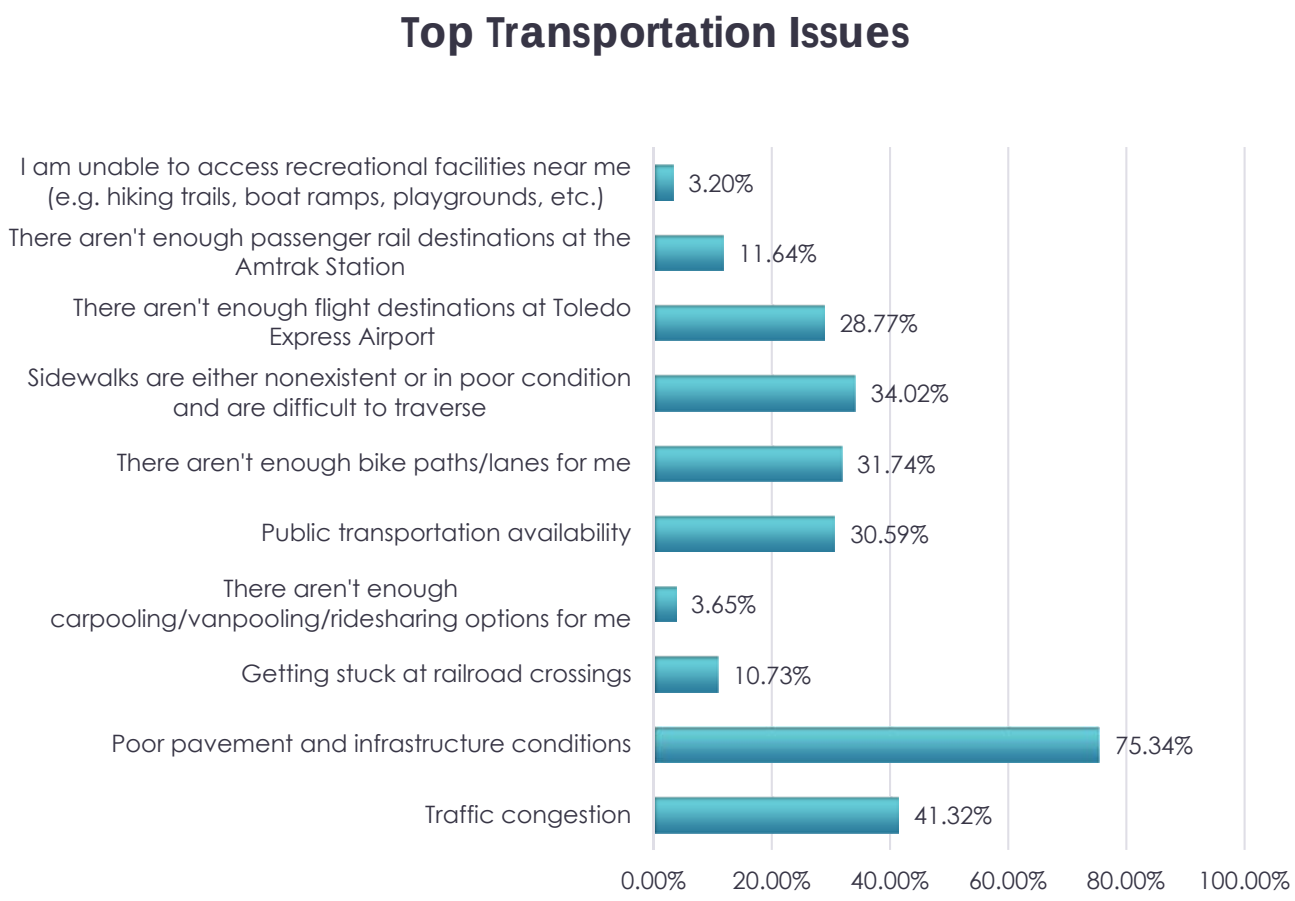
Appendix D: Public Input Documentation

In the Spring of 2019, a public survey was conducted for the 2020 Long Rang Plan update. The survey was distributed in several different ways and ultimately received 442 responses. The results from the survey can be found on the following pages. For responses on locations specifically identified by the public, please visit the online map portal.

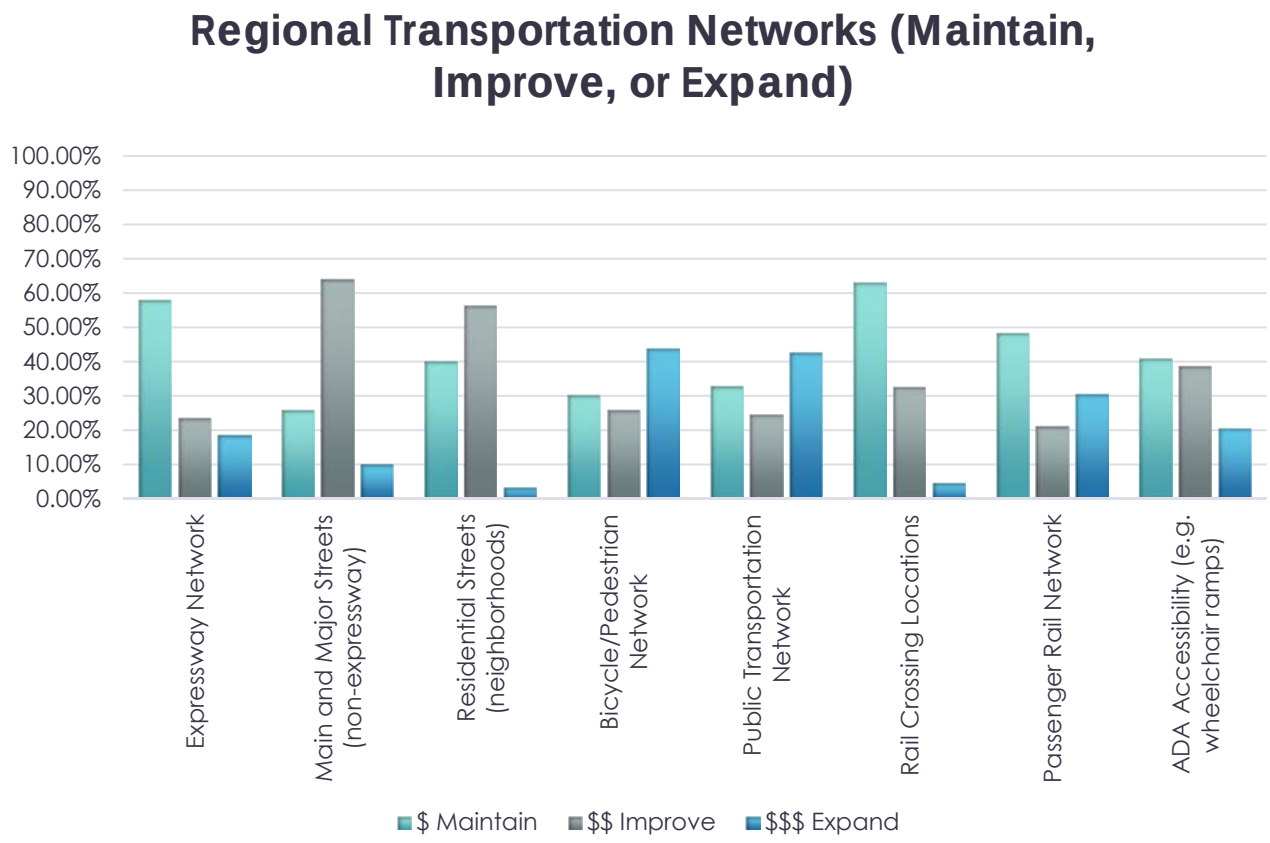
Question 1:



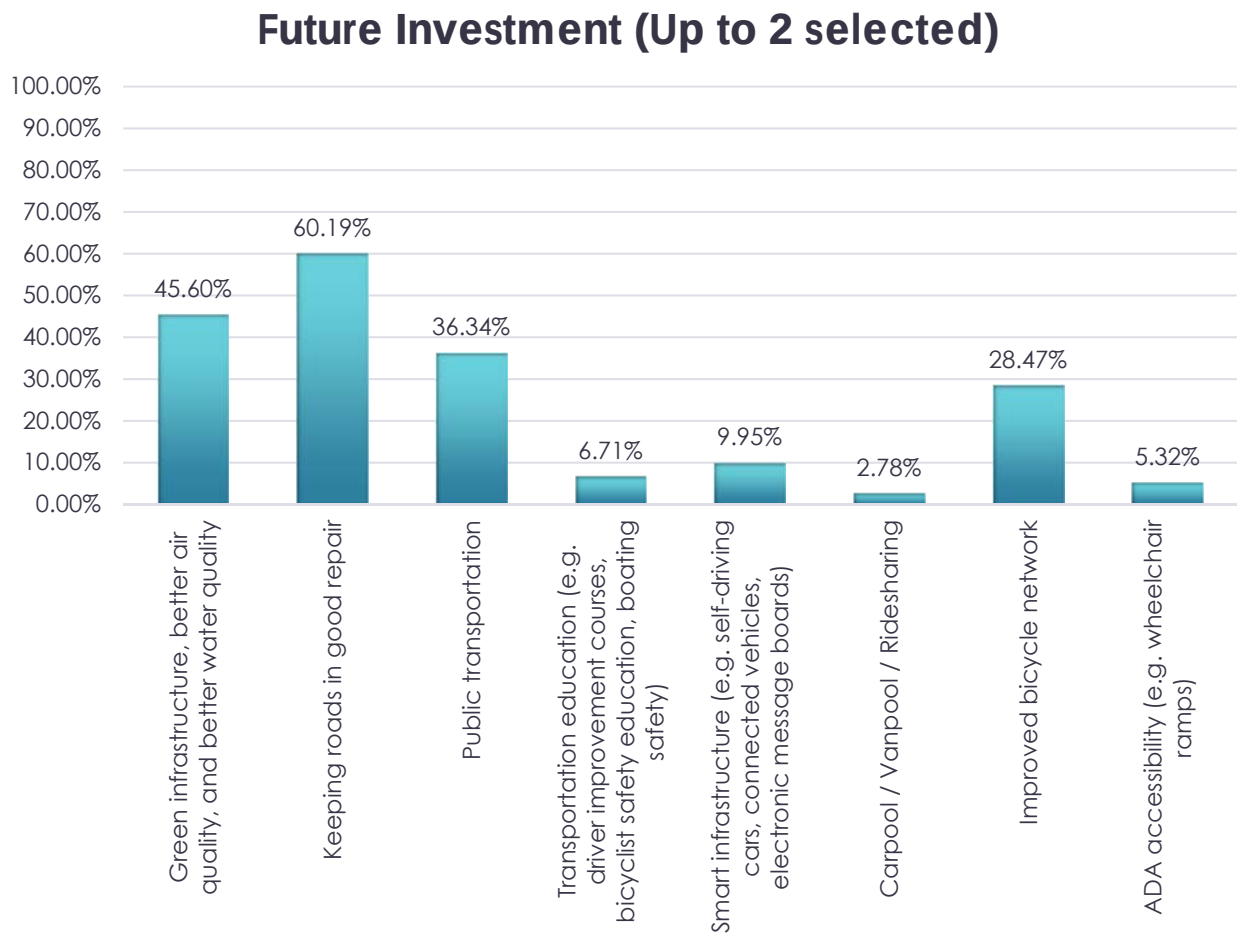
Question 2:


Top Transportation Issues
I am unable to access recreational facilities near me (e.g. hiking trails, boat ramps, playgrounds, etc.)
3.20%
There aren't enough passenger rail destinations at the Amtrak Station
11.64%
There aren't enough flight destinations at Toledo Express Airport
28.77%
Sidewalks are either nonexistent or in poor condition and are difficult to traverse
34.02%
There aren't enough bike paths/lanes for me
31.74%
Public transportation availability
30.59%
There aren't enough carpooling/vanpooling/ridesharing options for me
3.65%
Getting stuck at railroad crossings
10.73%
Poor pavement and infrastructure conditions
75.34%
Traffic congestion
41.32%
0.00%
20.00%
40.00%
60.00%
80.00%
100.00%

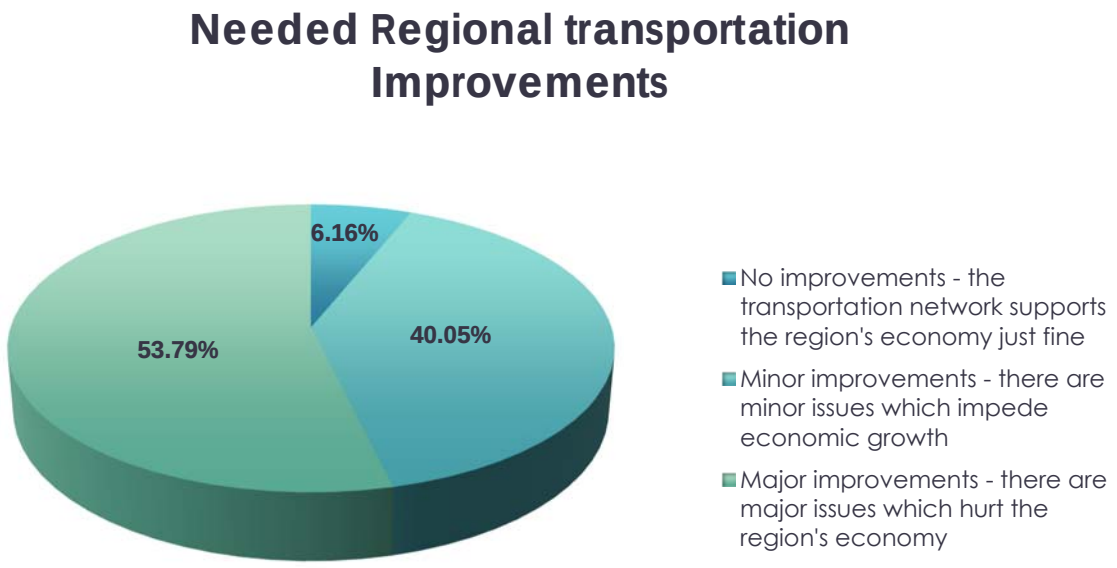
Question 3:


Regional Transportation Networks (Maintain, Improve, or Expand)
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Expressway Network
Main and Major Streets (non-expressway)
Residential Streets (neighborhoods)
Bicycle/Pedestrian Network
Public Transportation Network
Rail Crossing Locations
Passenger Rail Network
ADA Accessibility (e.g. wheelchair ramps)
$ Maintain
$$ Improve
$$$ Expand

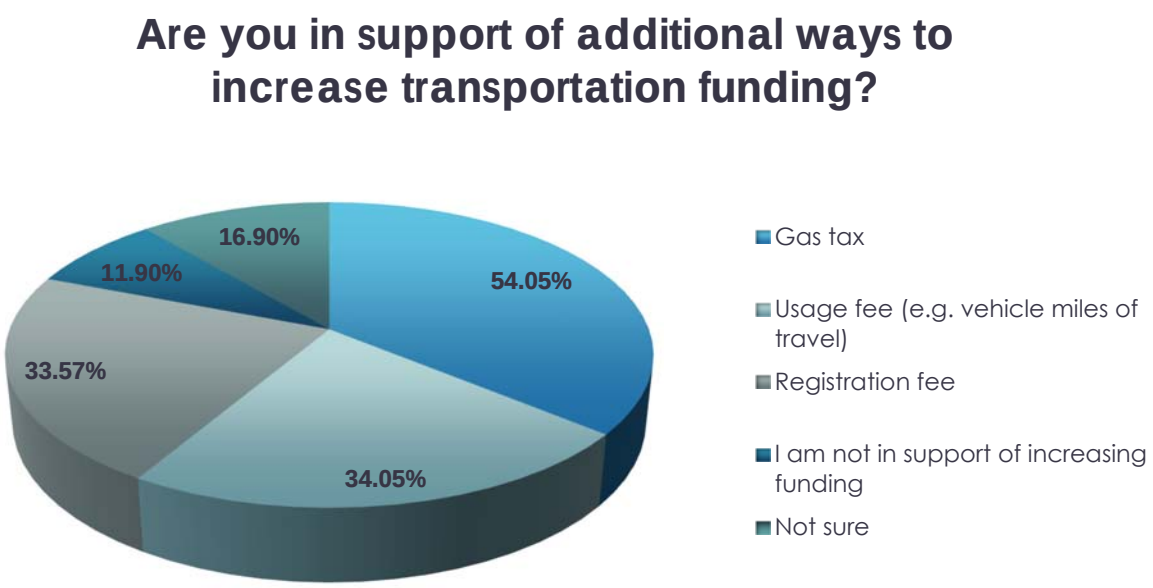
Question 4:


Future Investment (Up to 2 selected)
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
45.60%
60.19%
36.34%
6.71%
9.95%
2.78%
28.47%
5.32%
Green infrastructure, better air quality, and better water quality
Keeping roads in good repair
Public transportation
Transportation education (e.g. driver improvement courses, bicyclist safety education, boating safety)
Smart infrastructure (e.g. self-driving cars, connected vehicles, electronic message boards)
Carpool / Vanpool / Ridesharing
Improved bicycle network
ADA accessibility (e.g. wheelchair ramps)

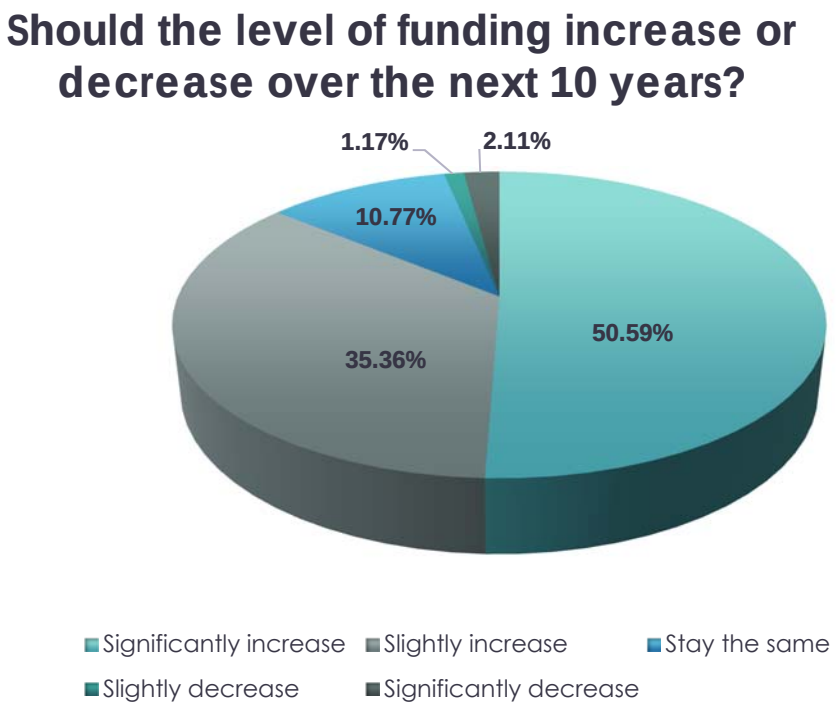
Question 5:



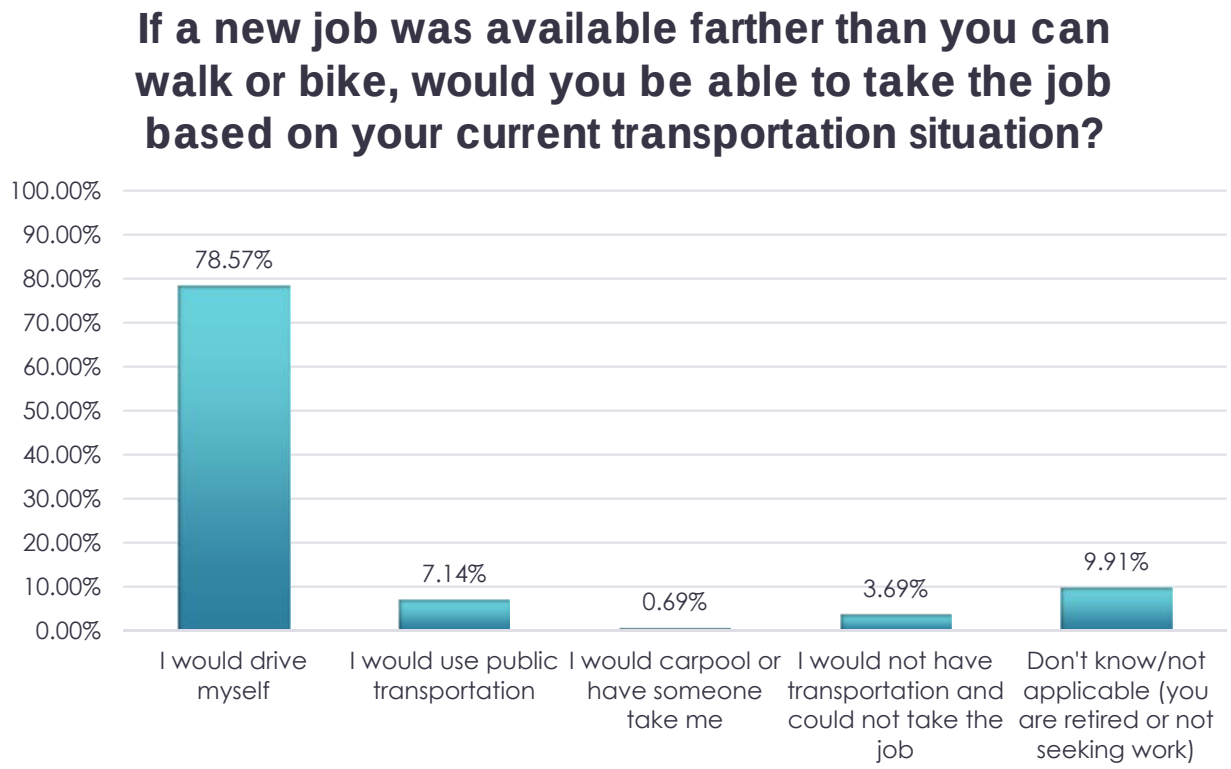
Question 6:



Question 7:


Should the level of funding increase or decrease over the next 10 years?
1.17%
2.11%
10.77%
50.59%
35.36%
Significantly increase
Slightly increase
Stay the same
Slightly decrease
Significantly decrease

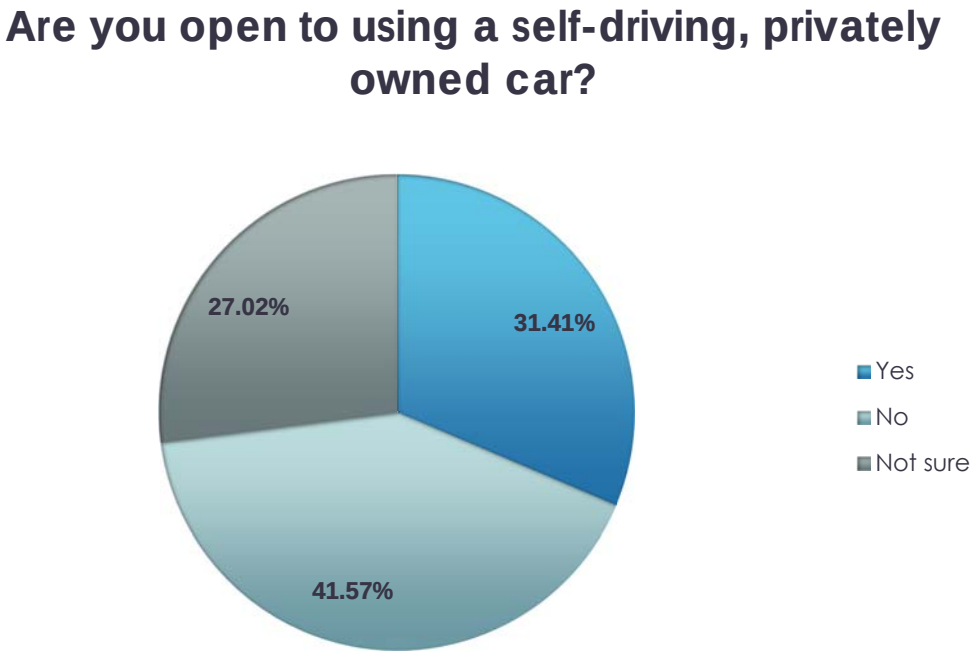
Question 8:



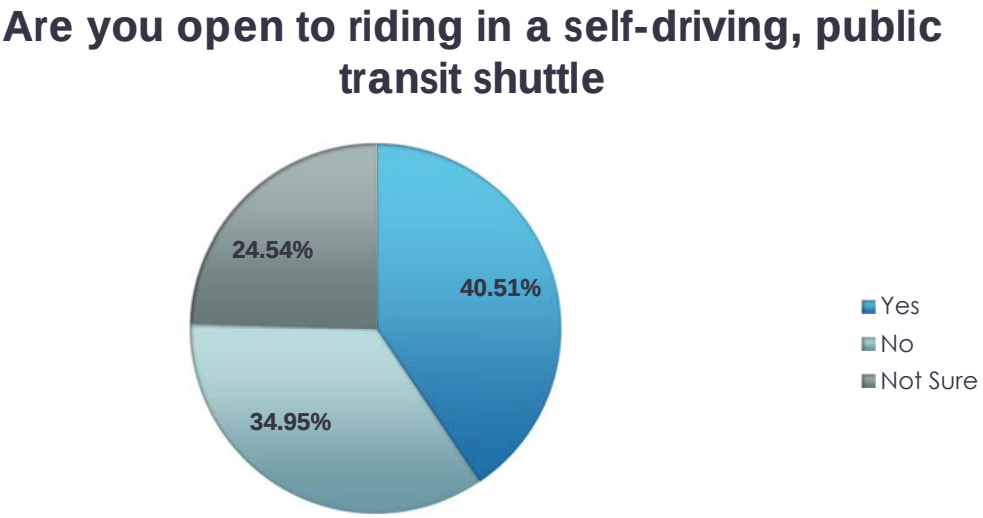
Question 9:

What plan goals are most important to you? (Select up to three)	Percent of Responses
Congestion Reduction: Reduce congestion on all major roads	31.87%
Environmental Sustainability: Protect and enhance the community and natural environments	43.42%
Freight Movement: Strengthen freight access to national and international trade markets to support economic development	11.55%
Infrastructure Condition: Maintain and improve the transportation system to a state of good repair	67.67%
Personal Mobility: Improve the quality, accessibility, and efficiency of multimodal/public transportation options	38.34%
Project Delivery: Expedite construction to maximize effective use of public funds	17.09%
Safety: Reduce traffic-related fatalities and serious injuries across all modes	43.88%
System Reliability: Improve the efficiency of the surface transportation system	24.94%

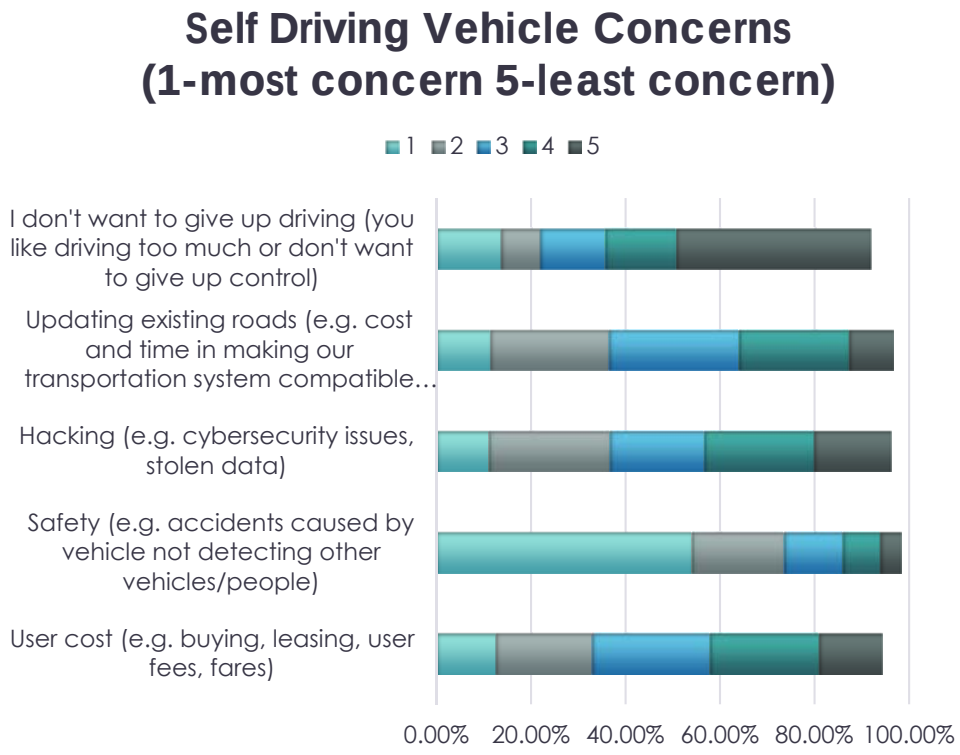
Question 10:



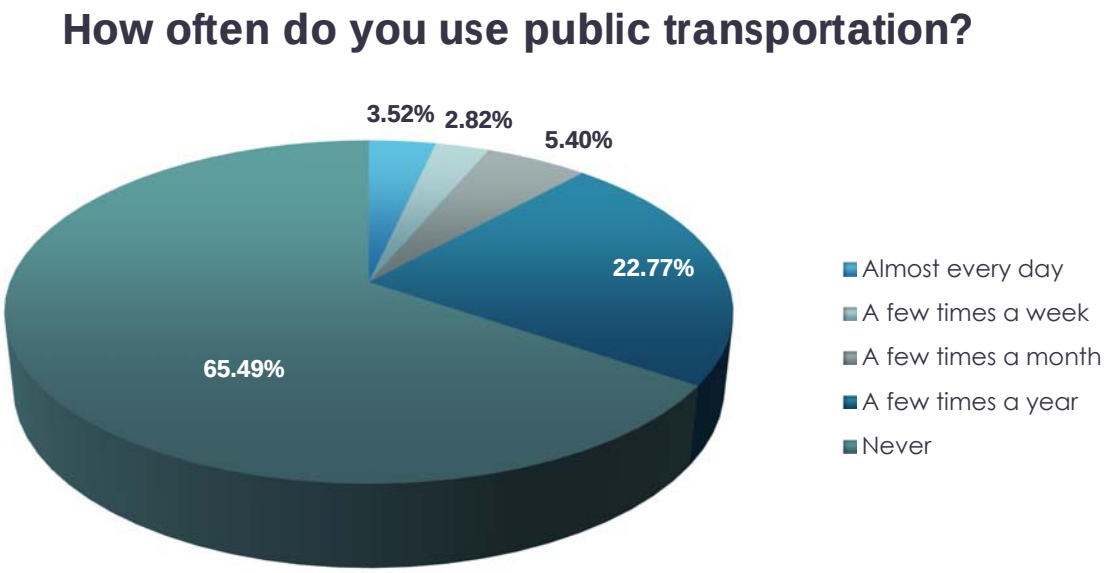
Question 11:



Question 12:



Question 13:



Spring 2019 Public Meeting Summary

- **Wood County Public Library: 3/14/2019 Noon – 1:30 p.m.**
  - 9 people in attendance
- **Sanger Branch Library 4/1/2019 6:30 p.m. – 8:00 p.m.**
  - 16 people in attendance
- **Bedford Branch library 3/20/2019 6:00 p.m. – 8:00 p.m.**
  - 6 people in attendance
- **Way Public Library 4/4/2019 6:00 p.m. – 8:00 p.m.**
  - 7 people in attendance
- **Oregon Branch Library 3/12/2019 6:30 p.m. – 8:00 p.m.**
  - 2 people in attendance
- **United Way of Greater Toledo 3/8/2019 Noon – 1:30 p.m.**
  - 4 people in attendance
- **King Road Branch Library 3/4/2019 6:30 p.m. – 8:00 p.m.**
  - 13 people in attendance
- **Waterville Branch Library 2/27/2019 6:30 p.m.- 8:00 p.m.**
  - 11 people in attendance
- **Adelante 4/11/2019 6:30 p.m. – 8:00 p.m.**
  - 2 people in attendance

Zero Attendance meetings

Wood County Library – evening meeting
Dr. Martin Luther King Jr. Plaza 3/14/2019 6:00 p.m. – 8:00 p.m.

Public Meeting Comments Summarized

The following summarized the predominant concerns and comments at the 10 early input public meetings held in Spring 2014. The concerns or "themes" are organized by 2045 plan goal.

Personal Mobility Goals

- We need a Riverwalk with our waterways in the Toledo area!
- Use and implementation concerns. How many will utilize a passenger rail system compared to its routes and destinations in relation to already existing infrastructure
- Bus routes get blocked by trains
- Bus routes on Summit get blocked by trains and make buses late
- More intercity passenger rail options
- Need more passenger rail options
- Need intercity options
- Buses do not travel near work

System Reliability Goal

- Central Avenue interchange needs reflectors
- Riverwalk plan

- Gateway
- Downtown parking
- Southern gateway to downtown Toledo along Broadway/Summit corridor. Middlegrounds committees have envisioned a large roundabout at this location. This area has the potential to be a statement gateway and would create a sense of place while beautifying the area.
- Potholes are terrible, busses are late because of flat tires
- Possible interchange at SR65 and I-475
- Crashes
- Traffic Jams
- Getting across the Maumee/need additional river crossings
- Need intersection improvements

Bicycle and Pedestrian Goals

- Roads leading into parks should have better signage, drivers' cross white lines and drift into shoulders were ped/cyclists are (Sylvania)
- Mitchaw road from Brint to Erie/Metamora doesn't have shoulder, should have shoulders
- More riverwalks

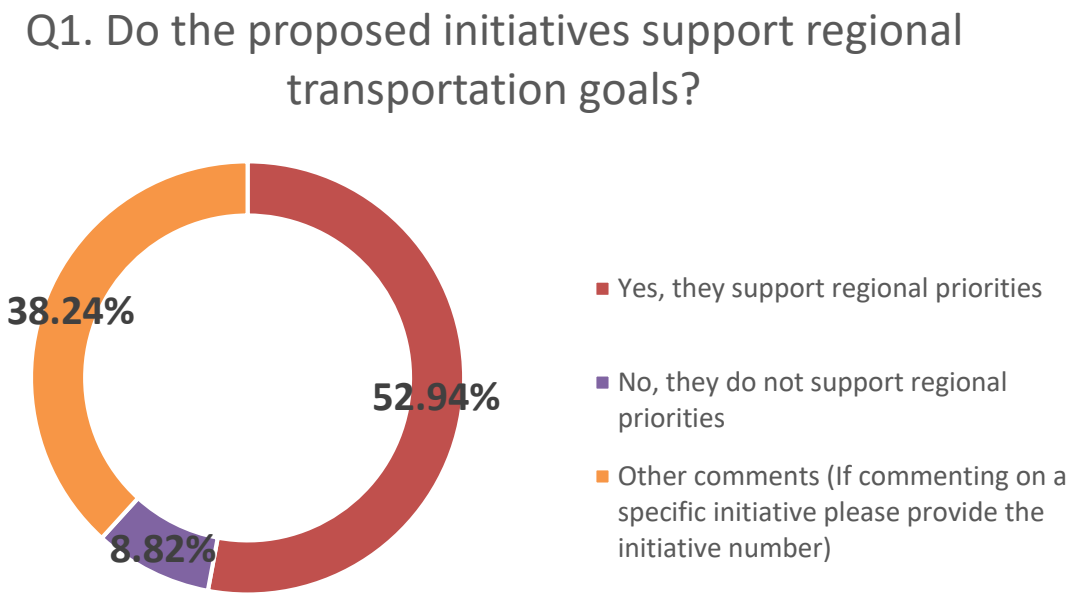
Safety Goals

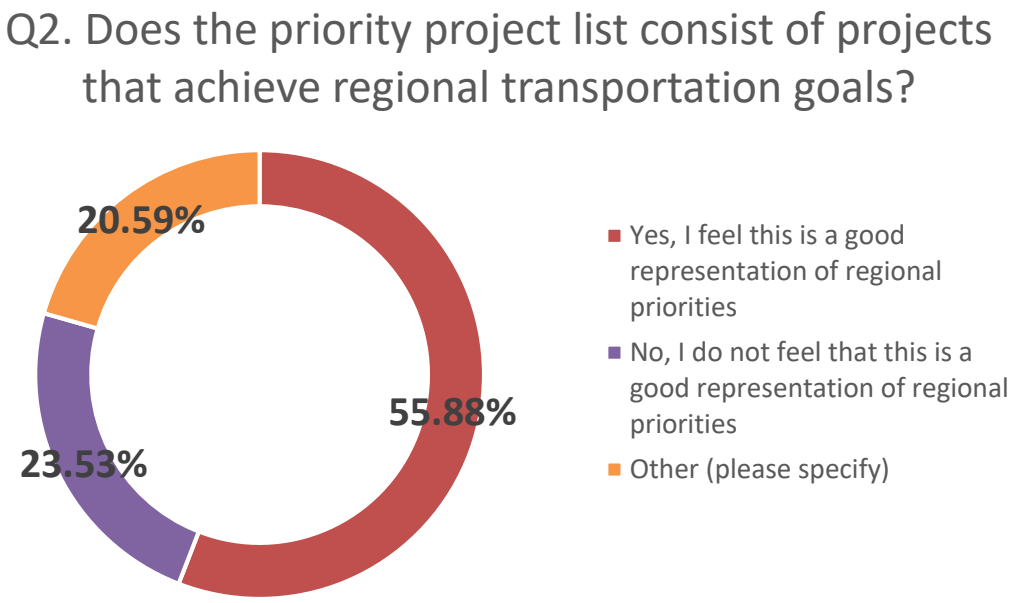
- Bancroft and Secor need better pedestrian facilities
- Centennial, Brint, and Sylvania Ave. – speed limits are too high, should be 45 mph and should have bike/ped signage
- Pacesetter entrance crosswalk should have a pedestrian push button with red
- Sylvan prairie crosswalk into fossil park should have a flasher
- Traffic at Brint and Centennial isn't good for peds NE/SW should have wider should and cleared trees.

Freight Transportation Goals

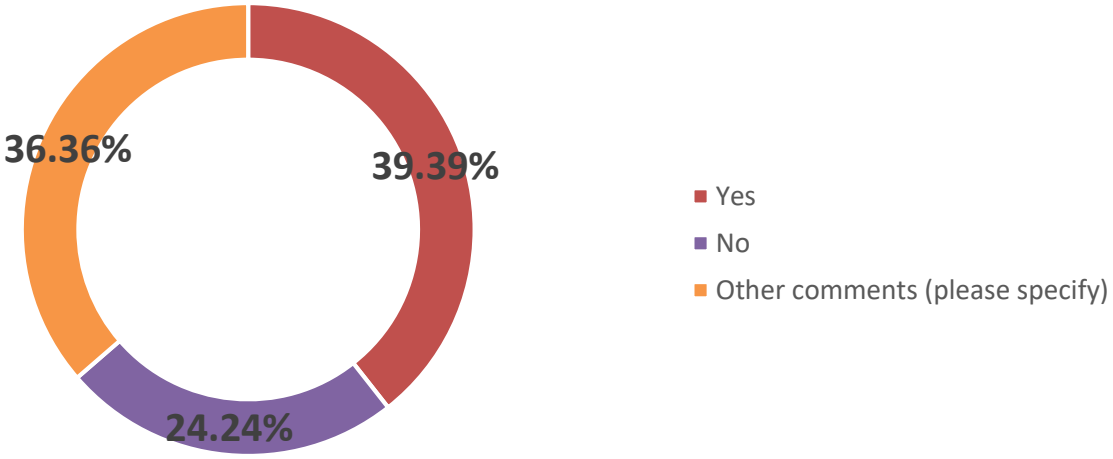
Interchange at Ohio State Route 65 and I-475

Public comment on the draft project and initiative lists was requested during January and February of 2020. A public survey as distributed and promoted in addition to seven public meetings. 34 survey responses were received. The task force reviewed the comments received during the task force meeting on February 18, 2020. Based on the responses received, the task force determined that no action was required to amend the project and initiative lists. Below is a summary of the survey results and a summary of the public meetings.

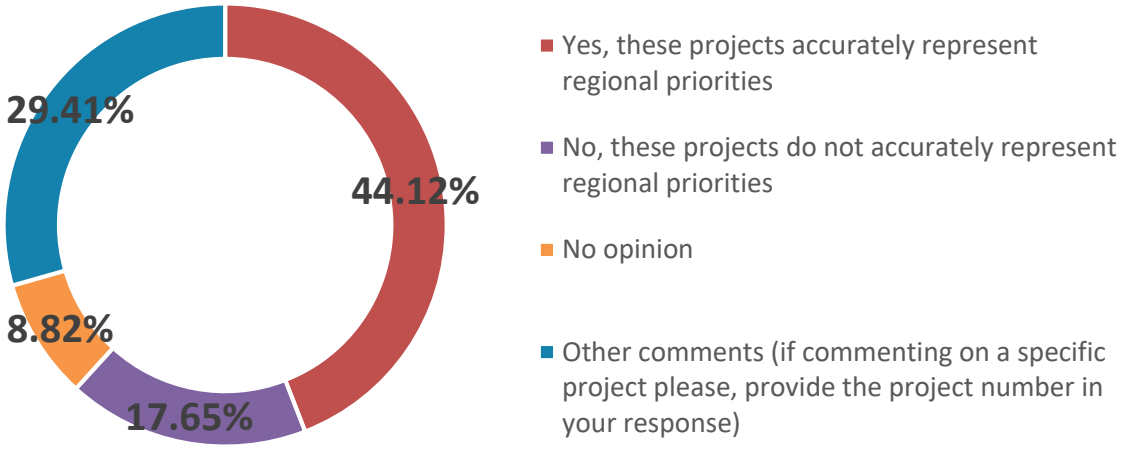




Q3. Based on the cost breakdowns do you feel the plan is allocating resources appropriately across modes of transportation?



Do the top 20 projects represent regional priorities?



Winter 2020 Public Meeting Summary

King road library 2/3/2020 6pm-8pm: 8 people in attendance

Main Library 2/4/2020 12pm-2pm: 12 people in attendance

Sanger Library 2/6/2020 6pm-8pm: 11 people in attendance

Way Public Library 2/10/2020 6pm-8pm: 11 people in attendance

Wood County Library 2/11/2020 12pm-2pm: 9 people in attendance

Oregon Library 2/11/2020 6pm-8pm: 7 people in attendance

Erie Township 2/12/2020 6pm-8pm: 3 people in attendance


GCAS
PLAN

Appendix E: Environmental Consultation and Mitigation

Environmental consultation began on December 19, 2019 – emails were sent out to a variety of environmental stakeholders. Responses were due on January 31, 2020 and two reminder emails were sent as a follow up. Two responses were received, and a summary of the responses are below. In addition to the consultation, environmental maps were created to show potential concerns.

Environmental Comment Summary

2045 Transportation Plan – 2020 Update Environmental Consultation Responses		
Agency	**Response Summary***	**Do Comments Suggest Any Changes to Projects?**
U.S. Fish and Wildlife Service	Lindsey Korfel from the US Fish and Wildlife Service provided comments on project. Comments are as followed: all projects should be evaluated for the potential impact to Federally Listed Species. Project in Lucas County could potentially affect the Indiana Bat, Northern Long Eared Back, Kirtland's Warbler, Red Knot, Piping Plover, Eastern Massasauga, Karner Blue Butterfly, and Eastern Prairie Fringed Orchid. Projects in Monroe Co. could potentially affect the Indiana Bat and Northern Long Eared Bat. Projects in Wood Co. Could potentially affect the Indiana Bat and the Northern Long Eared Bat.	No
Ohio Department of Agriculture, Office of Farmland Preservation	Be sure to check proposed path of expressway and roadway projects against ODA database of preserved farms. Bottom line is when ready, ask for ODA GIS files on the location of farms with agricultural easements in place and compare them to the projects you are planning. Landowners with easements do not have the authority to sign any kind of easement impacting the surface without ODA approval.	No

* Complete responses are on file at TMACOG.

Environmental Stakeholder List

First name	Last name	Title	Company
Rob	Krain	Executive Director	Black Swamp Conservancy
Jeanette	Ball	Administrator	City of Toledo
Joey	Sink-Oiler	District Manager	Lucas Soil & Water Conservation District
Richard	Kudner	President	Maumee Valley Heritage Corridor, Inc.
Clark Lynn	Army	District Manager	Maumee Watershed Conservancy District
Dave	Zenk	Executive Director	Metroparks of the Toledo Area
Emily	Ziegler	Chief of planning and Capital Projects	Metroparks of the Toledo Area
Rory	Robinson	Outdoor Recreation Planner	National Park Service
Rebecca	Duncan	District Conservationist	Natural Resources Conservation Service
Kelli	Krueger	Oak Openings Outreach Coordinator	Nature Conservancy
Terry	Seidel	Director of Protection	Nature Conservancy
Amy	Brennan	Lake Erie Conservation Director	Nature Conservancy
Douglas	Pearsall	East Michigan Science & Planning Director	Nature Conservancy in Michigan
Janet	Traub	President	Oak Openings Regional Conservancy
Sarah	Huffman	Executive Director	Ohio Department of Agriculture (ODA)
	Daniels	Executive Director	Ohio Department of Agriculture (ODA)
Mike	Bailey	Chief	Ohio Department of Natural Resources (ODNR)
Christina	Kuchle	NW Scenic River Coordinator	Ohio Department of Natural Resources (ODNR)
Scudder	Mackey	Chief	Ohio Department of Natural Resources (ODNR)
Jeff	Tyson	Supervisor	Ohio Department of Natural Resources (ODNR)
Mary	Metz	Executive Director	Ohio Department of Natural Resources (ODNR)
Shannon	Nabors	District Chief	Ohio Environmental Protection Agency (OEPA)
Mark	Epstein	Review and Compliance Officer	Ohio State Historic Preservation Office
Joy	Mulinex	Executive Director	Ohio Lake Erie Commission
Kari	Gerwin	Director of Water Quality	TMACOG
Brian	Swartz	Monitoring & Enforcement Section	U.S. Army Corps of Engineers
David	Schulenberg	Program Manager, Western Lake Erie Basin	U.S. Army Corps of Engineers
Jason	Lewis	Refuge Manager	U.S. Fish & Wildlife Service
Scott	Hicks	Field Office Supervisor	U.S. Fish & Wildlife-Michigan Ecological Services
Lindsey	Korfel	Fish & Wildlife Biologist	U.S. Fish & Wildlife-Ohio Ecological Services
Karen	Hallberg	Fish & Wildlife Biologist, Transportation Liaison	U.S. Fish & Wildlife-Ohio Ecological Services
Neil	Munger	Director	Wood County Park District
Jim	Carter	District Administrator/Engineering & Technical	Wood Soil & Water Conservation District

On the Move 2015–2045 Transportation Plan	Toledo Metropolitan Area Council of Governments **Environmental Consultation Response Form** January 2020

Background: The 2045 Transportation Plan sets regional priorities for the Toledo metropolitan area (Lucas, Wood and southern Monroe counties). The plan addresses all modes of transportation as well as impacts on quality of life, safety, and economic health of the region. The 2020 Update must be approved by June 2020 to maintain the region's eligibility for federal highway dollars. More information, including project lists and environmental resources mapping, is available at http://www.tmacog.org/onthemove/.

Question: In the draft committed and priority project lists (see website), do you see individual items or groups/patterns of projects that raise concerns about potential impacts on the natural or manmade environment?

☐ I/We have reviewed the draft 2045 Plan project lists, and at present do not have comments about the potential natural or community environmental impacts at the general conceptual level of these projects.

☐ I/We have reviewed the draft 2045 Plan project lists and have the following comments:

General comments / concerns
Expressway projects Widening of expressways; adding or expanding interchanges: Other expressway projects:
Roadway projects New roads: Widening of roads or expanding the footprint of intersections: Other road projects:
Bridge projects New, replacement, or rehab of bridges (road, rail, or bikeway) over waterways: New railroad grade separation bridges (road over or under rail tracks): Other bridges:
Public transportation & passenger rail projects Public transit projects that modify roadways: Passenger rail projects that add tracks: Other:

Bicycle and pedestrian projects New bike paths or bike lanes: Other:
Other comments:

Specific comments/ concerns	
Project number and short name	**What is your comment or concern?**

Contact person 1:

Name	Title	Agency	E-mail address	
Address	City	State	ZIP	Phone

Contact person 2:

Name	Title	Agency	E-mail address	
Address	City	State	ZIP	Phone

Return by Friday, January 31, 2020 to:

TMACOG, attn. Marissa Bechstein
300 Martin Luther King Jr. Drive
Toledo OH 43604
FAX: 419.241.9116
E-mail onthemove@tmacog.org
Questions: 419.241.9155 ext. 1117 or David Gedeon, ext. 1125

Environmental Mitigation

When improving and expanding transportation infrastructure in the TMACOG region, the goal is to protect and sustain manmade and natural environments at the same time, for maximum community benefit. The following guidelines are provided as a resource.

Most of the projects in the "On the Move: 2015-2045: Transportation Plan – Update 2020" will use federal transportation funding and thus be subject to federal environmental requirements. These projects will be managed by—or completed by a local jurisdiction under the supervision of—the Ohio Department of Transportation (or, in Michigan, the Michigan Department of Transportation).

The text on overall guidelines (planning/design; construction/maintenance) has been developed by the Southeast Michigan Council of Governments (SEMCOG). Additional information and data can be found on the SEMCOG website at www.semcog.org/TranPlan/Environment/index.htm. This excellent resource page is entitled "Integrating Environmental Issues in the Transportation Planning Process: Guidelines for Road and Transit Agencies."

The text on specific types of mitigation (streams and wetlands, threatened and endangered species, etc.) has been provided by ODOT, and in some cases refers specifically to ODOT projects. However, the environmental rules and practices that are described will apply to most of the TMACOG transportation plan projects, and in some cases in the text below, the reader should understand "ODOT" to include MDOT and also the local governments managing projects under state department of transportation supervision. It should be further noted that the same kinds of rules apply to other federally funded projects, such as airport runway projects funded through the Federal Aviation Administration.

1. Overall Guidelines (*source: Southeast Michigan Council of Governments***)**

1.1 Planning/design guidelines Employ context sensitive solutions (CSS) principles from the earliest point possible in project development. CSS is an approach to transportation design that considers the total context within which a transportation improvement will exist. It is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. Essential to CSS is involvement of the public, community officials, and others affected by the project early and often.

- Identify the area of potential impact related to the transportation project, including the immediate project area, anticipated borrow/fill areas, haul roads, prep sites, and other contractor areas, as well as other related project development areas.
- Conduct an inventory to determine if any environmentally sensitive resources could be impacted by the project. (Note: Data conducive to the regional analysis defined in this report were not available for endangered/threatened species, archeological sites, and contaminated sites. However, additional information on how to obtain these data can be found under the "More information" section below.)
- Determine if a County Hazard Mitigation Plan exists and if impacted resources are addressed in the plan; if so, coordinate with hazard mitigation planners and remain consistent with the plan. (A County Hazard Mitigation Plan is required for a county to be eligible for federal Hazard Mitigation Grant funds. The Michigan State Police Management and Homeland Security Division is working to

establish a plan in every Michigan county. The plans are designed to protect communities from hazards and to plan to reduce future hazards, including to the natural environment.)

- Conduct a pre-construction meeting with local community officials, contractors, and subcontractors to discuss environmental protection. Communicate agreed-upon preservation goals to everyone working on the project. Discuss with the local community any special requirements (e.g., ordinances, site plan review).
- If possible, avoid impacts to environmental resources by limiting the project scope or redesigning the project (e.g., alignment, design speed, retaining walls, cross-section narrowing, etc.).
- Where impacts cannot be avoided, mitigate them as much as possible. Where required, coordinate the evaluation of possible impacts, exploration of alternatives, and development of mitigation strategies with appropriate federal, state, and local authorities.
- Integrate stormwater management into the design of the site. If appropriate, utilize low-impact development practices that infiltrate stormwater into the ground (e.g., swales, rain gardens, native plantings).

Construction/maintenance guidelines

- Insert special requirements addressing sensitivity of environmental resources into plans, specifications, and estimates provided to construction contractors. Note the kinds of activities that are not allowed in sensitive areas (e.g., stockpiling, clearing, construction equipment, etc.).
- Confine construction and staging areas to the smallest necessary and clearly mark area boundaries. Confine all construction activity and storage of materials to designated areas.
- Use the least obtrusive construction techniques and materials.
- Install construction flagging or fencing around environmental resources to prevent encroachment.
- Minimize and, where possible, avoid site disturbance. As appropriate:
    - protect existing vegetation and sensitive habitat;
    - implement erosion and sediment control;
    - protect water quality;
    - protect cultural resources;
    - minimize noise and vibrations; and
    - provide for solid waste disposal and worksite sanitation.
- Sequence construction activities to minimize land disturbance at all times, but especially during the rainy or winter season for natural resource protection and during the high-use season for resources open to the public.
- When utilizing heavy equipment, pay close attention to the potential of uncovering archeological remains.
- Before site disturbance occurs, implement erosion control best management practices to capture sediments and control runoff.
    - Minimize the extent and duration of exposed bare ground to prevent erosion.
    - Establish permanent vegetative cover immediately after grading is complete.

    - Do not stockpile materials within sensitive areas.
    - Employ erosion control techniques.
    - Prevent tracking of sediment onto paved surfaces.
- Incorporate stormwater management into the construction phase.
    - Prevent the direct runoff of water containing sediment into waterways. All runoff from the work area should drain through sedimentation control devices prior to entering a water body.
    - During and after construction activities, sweep the streets to reduce sediment entering the storm drainage system.
    - Block or add best management practices to storm drains in areas where construction debris, sediment, or runoff could pollute waterways.
- Do not dispose of spoil material in or near natural or cultural resources.
- Properly handle, store, and dispose of hazardous materials (e.g., paint, solvents, epoxy) and utilize less hazardous materials when possible. Implement spill control and clean up practices for leaks and spills of fuel, oil, or hazardous materials. Utilize dry cleanup methods (e.g., absorbents) if possible. Never allow a spill to enter the storm drain system or waterways.
- Keep equipment in good working condition and free of leaks. Avoid equipment maintenance or fueling near sensitive areas. If mobile fueling is required, keep a spill kit on the fueling truck. Avoid hosing down construction equipment at the site, unless the water is contained and does not get into the storm drain system or waterways.
- Identify and implement salt management techniques to reduce the impacts of salt on area waterways.
- Utilize integrated pest management techniques if using pesticides during maintenance operations.
- Conduct on-site monitoring during and immediately after construction to ensure environmental resources are protected as planned.

Sources

AASHTO Center for Environmental Excellence. *Environmental Stewardship Practices, Procedures, and Policies for Highway Construction and Maintenance*. www.environment.transportation.org/environmental_issues/construct_maint_prac/compendium/manual/.
SEMCOG. *Land Use Tools and Techniques*. 2003.

2. Streams and Wetlands—General Discussion

Waterways in the TMACOG region include the Maumee River, the Ottawa River, Swan Creek, and the Portage River. These streams and their tributaries are key environmental resources that provide recreation (fishing, boating), drinking water, and natural beauty. The Maumee River and bay have freight shipping channels. There are wetlands throughout the region, including significant wetlands in the Oak Openings ecological region.

ODOT—and the local jurisdictions in the TMACOG region that complete federally funded projects under ODOT supervision—strive to avoid, to the fullest extent practicable, any activity that adversely impacts

streams or wetlands during the design, construction, or maintenance of the state transportation system. ODOT and local government partners take appropriate action throughout the project development process to avoid, minimize, and mitigate impacts as required by federal, state, and local law. In the event that impacts to streams and wetlands are unavoidable, ODOT considers a wide variety of mitigation strategies, which always begins with evaluation of on-site opportunities (e.g., natural channel design techniques, bankfull culverts, wetland creation, etc.) within the project work area. Once the on-site (within the project area) resources are exhausted, the search for mitigation opportunities may shift to off-site, within one mile of the project area, followed by a search within a specific 8-Digit Hydrological Unit Code (HUC) watershed. Mitigation opportunities may include mitigation banking, stream and wetland creation, restoration, and/or preservation, and possibly even preservation of upland buffer adjacent to stream and wetland resources.

Impact analysis and mitigation are integral parts of the project development process. Early review and analysis of project alternatives by regulatory and resource agencies combined with effective inter-office coordination are required to develop successful transportation projects.

ODOT follows guidelines for the development of mitigation as required by the U.S. Army Corps of Engineers (USACE) and Ohio Environmental Protection Agency (OEPA). Information is available from the Office of Environmental Services at ODOT Central Office in Columbus. Information is also available on the Environmental Services/Waterway Permits page of the ODOT website (www.dot.state.oh.us), which states: "A compensatory mitigation plan for unavoidable impacts to aquatic resources is often a required component of a permit application. The WPU [Waterway Permits Unit] is responsible for evaluating possible mitigation opportunities and ensuring that an acceptable mitigation plan accompanies the waterway permit applications. The WPU works with the Ecological Unit, the Central Office-Office of Real Estate, and the ODOT Districts to develop, design, implement and monitor stream and wetland mitigation."

3. Stream and Wetlands—Development of Mitigation Projects

ODOT's general procedure for securing required mitigation for stream and wetland impacts includes:

A. Determination of mitigation needs. The Ecological Survey Report (ESR) documents these potential project impacts.

B. Analyze potential mitigation opportunities within the project area and/or close proximity (one mile) or within a specific 8-Digit Hydrological Unit Code (HUC) watershed where the impacts are anticipated to occur. This may require a partnership between ODOT and various organizations or individuals such as watershed groups, conservation groups, local park districts, the Ohio Department of Natural Resources, or even private landowners to secure appropriate mitigation.

C. Develop preferred plan of action for mitigation.

- Select mitigation site(s): on-site, off-site, or mitigation banks
- Provide funds to partnering organization for mitigation projects
- Pursue conservation easements

D. Develop conceptual mitigation plan/report.

E. Coordinate conceptual mitigation plan/report with resource and regulatory agencies.

F. Submit approved conceptual mitigation plan/report with waterway permit applications.

G. Develop final mitigation plan, for submission to agencies prior to permit authorization.
   - Develop construction plans
   - Procure conservation easements
   - Provide funds to partnering agencies
   - Procure credits at mitigation banks

H. Construct mitigation project.

I. Monitor mitigation project. ODOT performs post-construction monitoring on all mitigation sites for a minimum of five years to assure successful development and to meet waterway permit conditions.

ODOT Office of Environmental Services in cooperation with ODOT Districts, the ODOT Office of Real Estate, the ODOT Office of Aerial Engineering, and project consultants coordinate to develop all stream and wetland mitigation projects.

4. Threatened & Endangered Species Consultation & Mitigation

All state (and state-supervised) transportation projects are planned and designed to comply with the National Environmental Policy Act (NEPA), Endangered Species Act, Clean Water Act, and Ohio Revised Code to name a few. The Endangered Species Act and Ohio Revised Code are the specific federal and state legislation that provide for the protection and conservation of plants and animals within Ohio. The rules and regulations associated with these laws dictate that ODOT will build and operate their roadway projects with no, or minimal, impacts to protected species and their habitats (including potentially unoccupied habitat).

Statewide, Ohio harbors a great diversity of wildlife and plant communities. Many species receiving federal or state protection are tied closely to their habitats. Land-use change has been the most common cause for decline in species range and diversity. Contamination and degradation of natural waters has also contributed to loss of habitat. Loss of wetlands and forests has contributed largely to the federal and/or state listing of over 500 plants and animals within Ohio, including a variety of mammals, birds, reptiles and amphibians, mollusks, insects, fishes, and plants. Of those species, there are fewer than 10 mammals including bobcat, black bear, and the Indiana bat.

In northwest Ohio, a key environmental concern is related to the loss and fragmentation of the globally rare habitat within the Oak Openings region of northwest Ohio. According to comment provided by The Nature Conservancy and other environmental organizations in the region, the Oak Openings region used to be part of an extensive patchwork of oak savannas that at one point covered 30 million acres and represented a unique meeting of the Western prairies and dense Eastern forests. The Oak Openings region is one of the last examples of these savannas, which are comprised of Black and White Oaks that live side by side with a mixture of grasses, sedges, wildflowers and shrubs. Some very specialized animals are also part of the area, including the rare Lark Sparrow and several species of butterflies such as the Frosted Elfin, Persius Dusky Wing and the federally endangered Karner Blue butterfly. Currently, residential and commercial growth in the Toledo area threatens to eliminate what remains of the Oak Openings ecosystem. Significant private and public funds are being invested to preserve and restore the rare wetland and savanna habitats that are unique to the Oak Openings region, including The Nature Conservancy's investment at the 700+ acre Kitty Todd Preserve and the Toledo Area Metropark's investment in the Oak Openings Preserve Metropark. Many conservation partners, including the Toledo-

Lucas County Port Authority / Toledo Express Airport, have been working here to provide for a connecting corridor of habitat that will benefit rare species such as the federally endangered Karner Blue Butterfly that are dependent on Oak Openings habitats.

During project development ODOT coordinates with numerous regulatory agencies to determine if protected species are likely to be encountered within the project area. If a threatened or endangered species is suspected of existing within the project area a specific survey is often undertaken to determine presence.

There are a variety of commitments and mitigation techniques that ODOT utilizes on projects to protect listed species. These differ depending on the habitat and the species that are to be protected. The more common commitments and mitigation ODOT makes regarding protecting federal and state listed species include:

- Restricting the clearing of trees to the period between September 15 and April 15 to avoid potential impacts to roosting Indiana bats.
- Relocation of listed mussel and plant species out of construction areas.
- Prevention of disturbance of Indiana bats from blasting activities near sensitive subterranean areas (primarily in southeastern Ohio).
- Timely removal of carcasses from roadways to minimize the potential of vehicles striking scavenging bald eagles.
- Measures to allow terrestrial species such as bobcat, black bear, timber rattlesnake, etc. to pass unharmed through construction areas.
- Measures to ensure that all equipment is in proper working order to minimize construction noise and reduce the risk of equipment spills and leaks.
- Construction and post-construction plan notes are included requiring strict adherence to ODOT's Construction and Material Specifications for Sedimentation and Erosion Control.

5. Section 4(f) Mitigation—Overview

Section 4(f) of the Department of Transportation Act requires that special effort be made to preserve public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) specifies that federally funded transportation projects requiring the use of land from a public park, recreation area, wildlife and waterfowl refuge or land of significant historic site can only occur if there is no feasible and prudent alternative. Using Section 4(f) land requires all possible planning to minimize harm.

The TMACOG region has numerous parks, wildlife and waterfowl refuges and national registrar historic sites. These include the Maumee Bay State Park, the Metroparks of the Toledo Area parks and preserves, the Olander Park system, the Wood County Park District parks and preserves, wildlife refuges along the Lake Erie shore, and many municipal parks. These sites are important to our communities and heritage. However, at times, transportation projects impact Section 4(f) resources and require specific measures to minimize harm or mitigate the impacts. These activities involve close coordination with the officials that have jurisdiction of the specific resources.

Investigation of Section 4(f) resources and investigation of potential impacts occur throughout ODOT's project development process for individual projects. The intent of evaluating project resources throughout the process helps to guide projects toward practical solutions while minimizing impacts when no feasible and prudent alternative exists. The availability of detail during the PDP on the preferred alternative allows for closer examination of the potential for Section 4(f) impacts and a clearer determination of how impacts should be processed. Once this is known, project sponsors and officials that own the resources can follow a process for mitigation.

Often times, transportation officials are aware of and account for regional Section 4(f) resources that are important for preservation and community cohesion. Other resources may not be as well known, but are afforded the same protection under Section 4(f). Long range planning should account for well known Section 4(f) resources throughout the region that would pose a significant loss if impacted. It is however, premature to analyze individual projects' Section 4(f) impacts this early in the process.

6. Section 4(f) Mitigation—Measures to Minimize Harm and Mitigation

In cases where projects do have Section 4(f) impacts and there is no feasible and prudent alternative to avoid use of the resource, the project approval process requires the consideration of "all possible planning to minimize harm." Minimization of harm may entail both alternative design modifications that lessen the impact on 4(f) resources and mitigation measures that compensate for residual impacts. Minimization and mitigation measures should be determined through consultation with the official or the agency owning or administering the resource. Neither the Section 4(f) statute nor regulation requires the replacement of 4(f) resources used for highway projects, but this option is appropriate as a mitigation measure for direct project impacts.

Mitigation measures involving public parks, recreation areas, or wildlife and waterfowl refuges may involve a replacement of land and/or facilities of comparable value and function, or monetary compensation, which could be used to enhance the remaining land. Mitigation of historic sites usually consists of those measures necessary to preserve the historic integrity of the site and agreed by FHWA. In any case, the cost of mitigation should be a reasonable public expenditure in light of the severity of the impact on the Section 4(f) resource in accordance with Federal requirements. Mitigation for common Section 4(f) resource impacts may be:

- Improving access or expansion/pavement of parking area
- Landscape or screening of resource
- Installation of beautification enhancements such as park benches, trash receptacles, signage, etc.
- Maintenance of traffic accommodation or rerouting of traffic
- Minimizing construction noise or limiting construction to specific times
- Direct compensation for improvements to on-site resources
- Design refinements

7. Cultural Resources Mitigation

Cultural resources in the TMACOG area include several historic districts in central City of Toledo, such as the Old West End and Vistula districts. There are a number of individual historic buildings in the region, with noticeable clusters centered in older downtowns (Toledo, Maumee, Perrysburg, Waterville, and Bowling Green). Older transportation structures, such as canals and railroad and highway bridges, are also part of the history of the region.

Cultural resource reviews for all ODOT projects are planned and designed to comply with the National Environmental Policy Act, the National Historic Preservation Act, the Department of Transportation Act, the Ohio Revised Code and 36 CFR Part 800 (the implementing regulations for Section 106 of the National Historic Preservation Act). All of these require that cultural resources be considered during the development of all highway projects in Ohio. An element of that consideration involves consulting with various entities, including the Federal Highway Administration (FHWA), the State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), City Historic Preservation Offices, local public officials, local organizations, and the public.

Mitigation measures developed through the Section 106 Memorandum Of Agreement consultation process provide ways to avoid, minimize, or mitigate adverse effects to historic properties (i.e., those listed in or eligible for listing in the National Register of Historic Places, NRHP) impacted by projects. These mitigation measures are carried through as environmental document commitments and must be completed and accounted for with SHPO and FHWA. Furthermore, the MOA is not closed until all stipulations are fulfilled. A failure to meet all stipulations can potentially jeopardize a project sponsor's funding or other agreements or projects.

A plan for mitigating an adverse effect is site/property specific and requires a separate research design or approach for each historic property impacted by the project. It should be based on the context development and refinement through the preceding Phase I and Phase II work.

Mitigation measures may involve a variety of methods including, but not limited to, aesthetic treatments, avoidance, archaeological data recovery, creative mitigation, salvage and re-use of historic materials, informing/educating the public, and Historic American Buildings Survey (HABS)/ Historic American Engineering Record (HAER) documentation. Approaches vary widely depending on the type of historic property, the qualities that enable the property to meet the National Register of Historic Places (NRHP) Criteria of Eligibility, the location of the historic property with respect to the project, etc. Mitigation plans are developed in consultation with ODOT, SHPO, FHWA, consulting parties (i.e., local officials, organizations, public), Federally recognized Native American Indian tribes, and on occasion, the ACHP.

8. Cultural Resources Mitigation—HABS/HAER Recordation

HABS/HAER recordation documents buildings and engineering structures (e.g., bridges), respectively, that are listed in or eligible for listing in the NRHP. In Ohio, the SHPO requires Level 2 documentation for HABS/HAER recordation. Level 2 archival documentation consists of large-format (4'x5') black-and-white negatives and prints, a written historical report, and photographs or photographic reproductions of selected existing drawings.

Documentation must follow the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation:

- HABS/HAER Standards (U.S. Department of the Interior 1993)
- HABS Historical Reports (U.S. Department of the Interior 2000)
- Recording Historic Structures & Sites for the Historic American Engineering Record (U.S. Department of the Interior 1996).

All are available online at http://www.cr.nps.gov/habshaer.

9. Cultural Resources Mitigation—Archaeological Data Recovery

Known sites of archeological significance in the Toledo metropolitan area include the Fallen Timbers Battlefield in Maumee.

Phase III archaeological data recovery investigations are intended to mitigate the adverse effect to archaeological sites listed in or eligible for listing in the NRHP. Mitigation is achieved through intensive large scale excavations and through detailed analysis of the resultant cultural remains which were encountered during these excavations. Archaeological data recovery plans are developed in consultation with ODOT's Office of Environmental Services and the SHPO. The results of all data recovery investigations are summarized as a technical report that are reviewed and approved by ODOT-OES and the SHPO. Completion of the fieldwork and the final report of findings are considered an environmental document commitment. Approval of the final report generally fulfills the agency's responsibility for the commitment.

Data recovery plans are developed on a project-by-project basis and are designed to recover appropriate types of pertinent information related to the context that makes the sites significant. Field investigations and analyses are problem oriented and are designed to answer specific questions regarding the site and its context. Data recovery plans specifically outline the site context and formulate hypotheses how site research can address these hypotheses. The plans also outline field procedures and propose methods needed to record a site's physical context and any structural elements related to the resource. Each plan should also outline approaches to better recover data and devise analytical methods to best describe associated artifacts that may be recovered.

The final data recovery mitigation report should include a summary of the approach from the data recovery plan along with the findings of the excavation in order to address how the recovered assemblage relates to the site's historic context. Ways to publicly disseminate the results of data recovery investigations are also considered to be an important part of any mitigation plan.

10. Environmental Justice (EJ)—Definition

The U.S. Environmental Protection Agency (EPA) Office of Environmental Justice (EJ) defines EJ as:

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

EJ applies to all programs and activities of federal-aid recipients, whether specific programs and activities are federally funded or not. This means that any agency that receives federal funds must:

- make a meaningful effort to involve low income and minority populations in the processes established to make decisions regarding its programs and activities, and
- evaluate the nature, extent, and incidence of probable and adverse human health or environmental impacts of its programs and activities upon minority or low income populations.

The principles of EJ are derived from Title VI of the Civil Rights Act of 1964 and previous civil rights legislation. EJ is simply a matter of increased awareness of the effects and impacts of transportation decisions on the human environment. There are three fundamental EJ principles:

- to avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low income populations,
- to ensure the full and fair participation by all potentially affected communities in the transportation decision making process, and
- to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low income populations.

11. Why Do ODOT And MPO's Need To Address EJ?

The Ohio and Michigan Departments of Transportation and Metropolitan (transportation) Planning Organizations (MPOs) such as TMACOG receive federal funding to support many of their programs and activities. Therefore, both ODOT and the MPOs must address the federal EJ requirements as a condition to receiving those funds. Local governments, serving as Local Public Agency (LPA) project coordinators must also comply.

On February 11, 1994 President Clinton signed Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations. However, the need to consider EJ was already embodied in many laws, regulations and policies such as Title VI of the Civil Rights Act of 1964 as previously mentioned, the National Environmental Policy Act of 1969 (NEPA), Title 23 of the United States Code (USC) Section 109 (h), and the Uniform Relocation and Real Property Acquisitions Policy Act of 1970, long before Executive Order 12898.

Title VI of the 1964 Civil Rights Act states that, "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI prohibits intentional discrimination as well as disparate impact discrimination (i.e., a neutral policy or practice that has a disparate impact on low income and minority groups).

The 1994 Environmental Justice (EJ) Executive Order amplifies Title VI by providing that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as

appropriate, disproportionately high and adverse human health or environmental effects of its programs policies and activities on minority and low income populations."

While Title VI and EJ concerns have most often been raised during project development, it is important to recognize that the law also applies equally to the processes and products of planning and environmental analysis. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are to ensure compliance with Title VI in the planning process during their planning certification reviews conducted for Transportation Management Areas (TMAs) and through the statewide planning finding rendered at approval of the Statewide Transportation Improvement Program (STIP).

12. Sources of Environmental Justice-related Data

A variety of data sources and statistics are available relative to low income and minority populations. The Ohio Department of Transportation recommends the use of the U.S. Bureau of the Census as the primary source of data to identify low income and minority populations. Census data lists specific definitions of minority groups that can be useful to determine minority populations, especially in urban areas. The percentage of non-white population at the census block level is also available. Program, project and study sponsors should also consult reliable local data sources such as township assessors, social service agencies, local health organizations, local public agencies, and community action agencies. As an additional step, ask participants during the public involvement process if all known low income and minority populations have been identified and included.

For regional planning purposes, TMACOG has developed a map of environmental justice target areas. This Geographic Information System (GIS) map depicts data from the U.S. Census. Specifically, TMACOG EJ areas encompass the following:

- Areas of minority concentration: areas where the percent of the minority residents is equal to or greater 17.8 percent, which is the average minority concentration for our region in the year 2000.
- Low income areas: areas where median household income is equal to or less than the 2000 poverty level for a family of four ($17,050).

TMACOG long range plans and Transportation Improvement Programs (four-year project funding program for federally funded projects in the region) are evaluated against EJ target areas to insure fair distribution of both benefits and negative impacts.

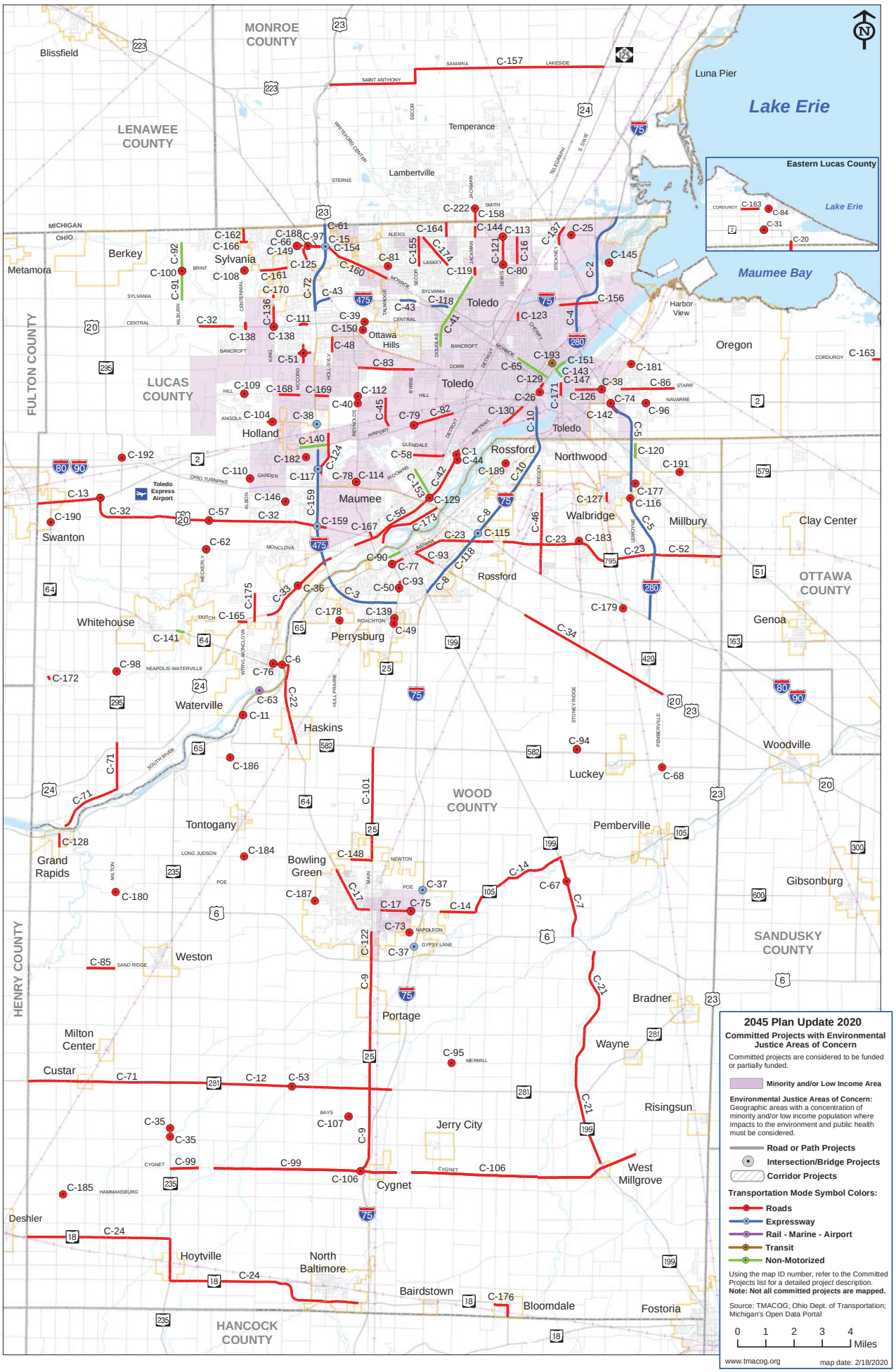
13. Environmental Justice Mitigation

As a department policy, ODOT through planning and environmental alternatives selection, attempts to avoid impacts to EJ neighborhoods. ODOT considers mitigation options through design refinements and community enhancements when avoidance is not possible. Public involvement activities also play a role in keeping stakeholders informed of special needs and interests of the community and its citizens. Public involvement events are advertised and held in locations easily accessible for EJ populations. ODOT actively reaches out and engages EJ populations during the transportation decision-making process. In addition, the offices of Local Programs and Transit fund projects to improve the quality of life for Ohio's citizens.

TMACOG 2045 Plan Update 2020 - Committed Projects

Environmental Justice Areas of Concern

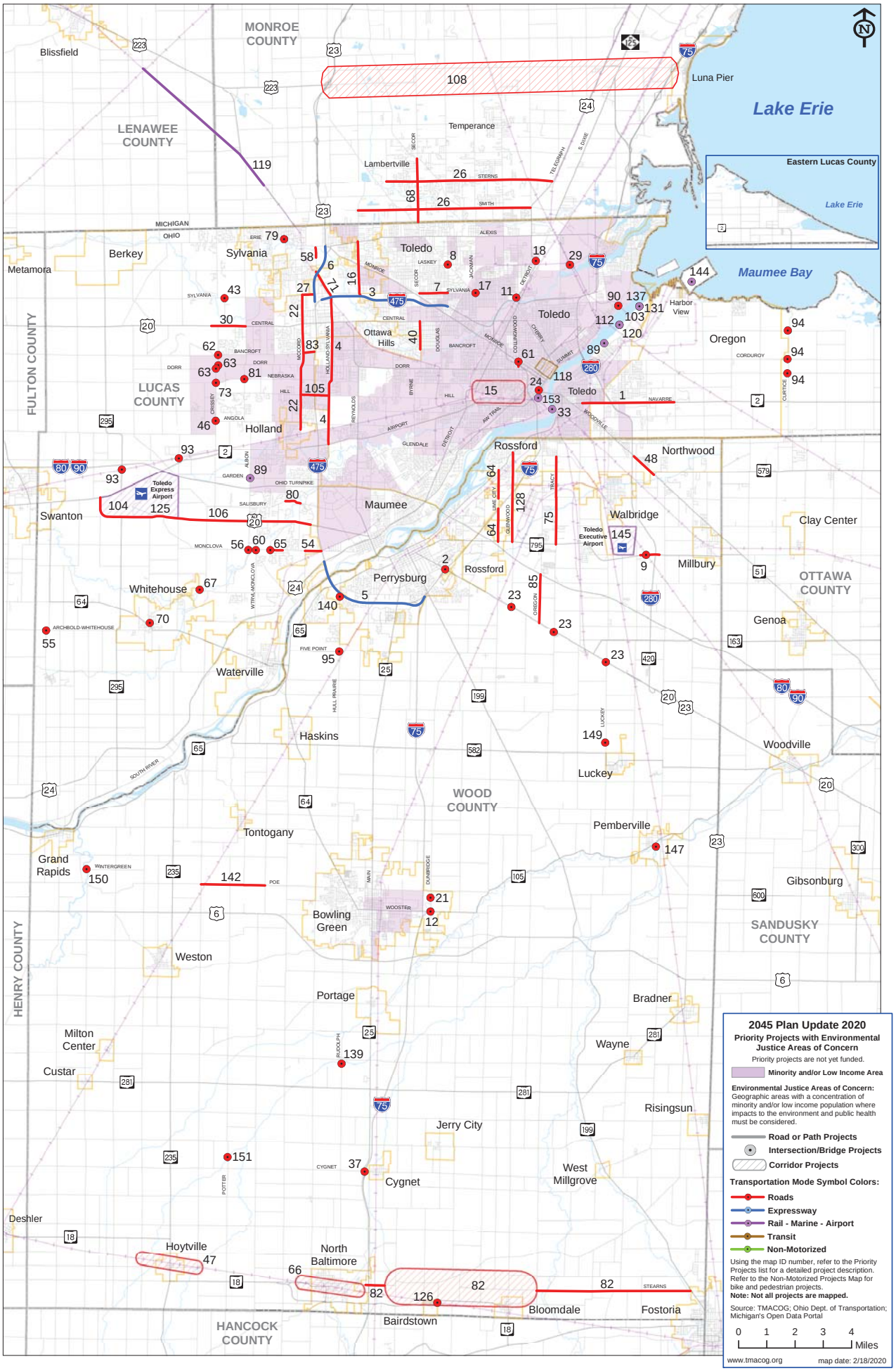
Toledo Metropolitan Area Council of Governments



TMACOG 2045 Plan Update 2020 - Priority Projects

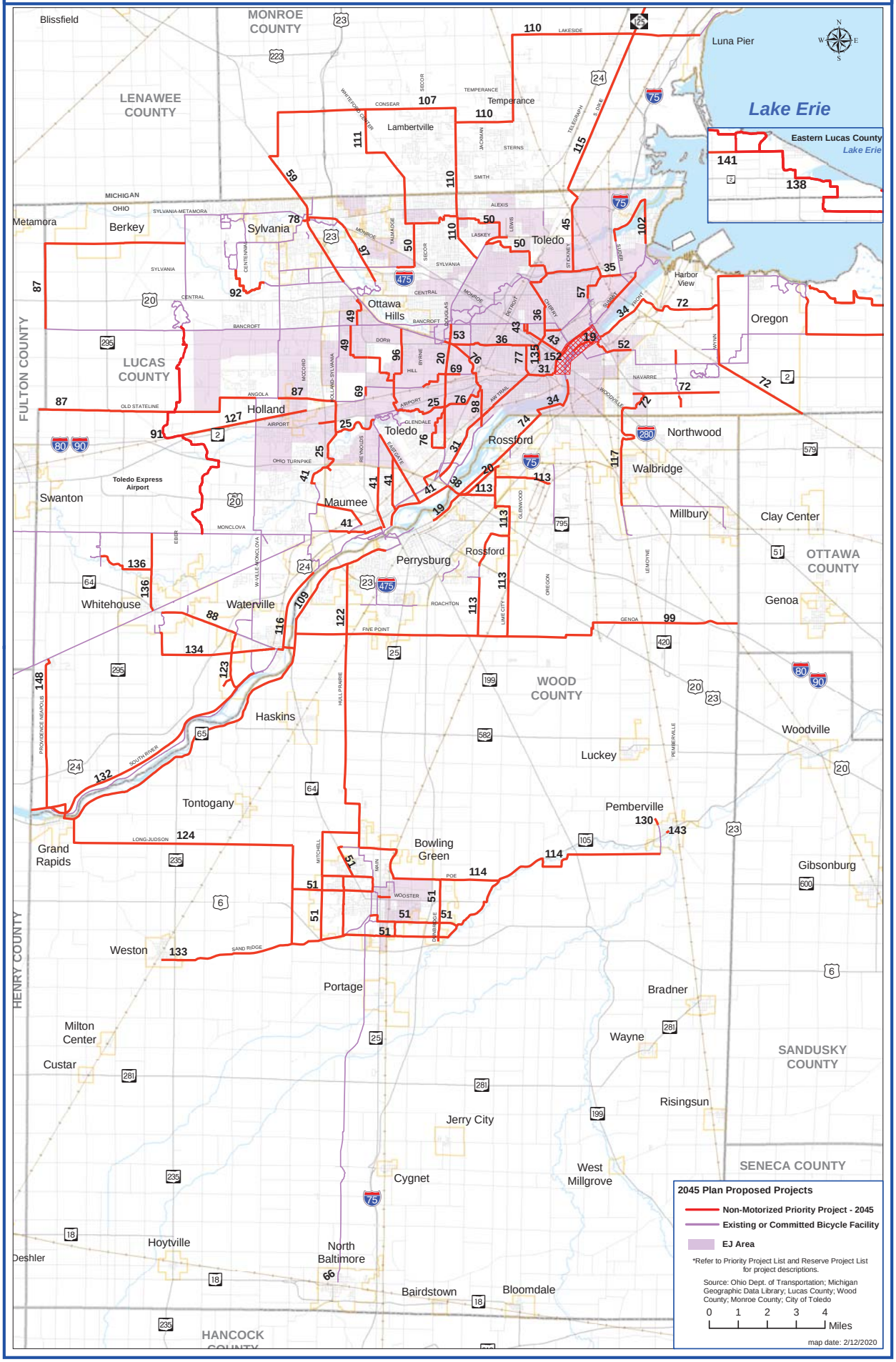
Environmental Justice Areas of Concern

Toledo Metropolitan Area Council of Governments



2045 On the Move Update 2020
Proposed Non-Motorized Projects

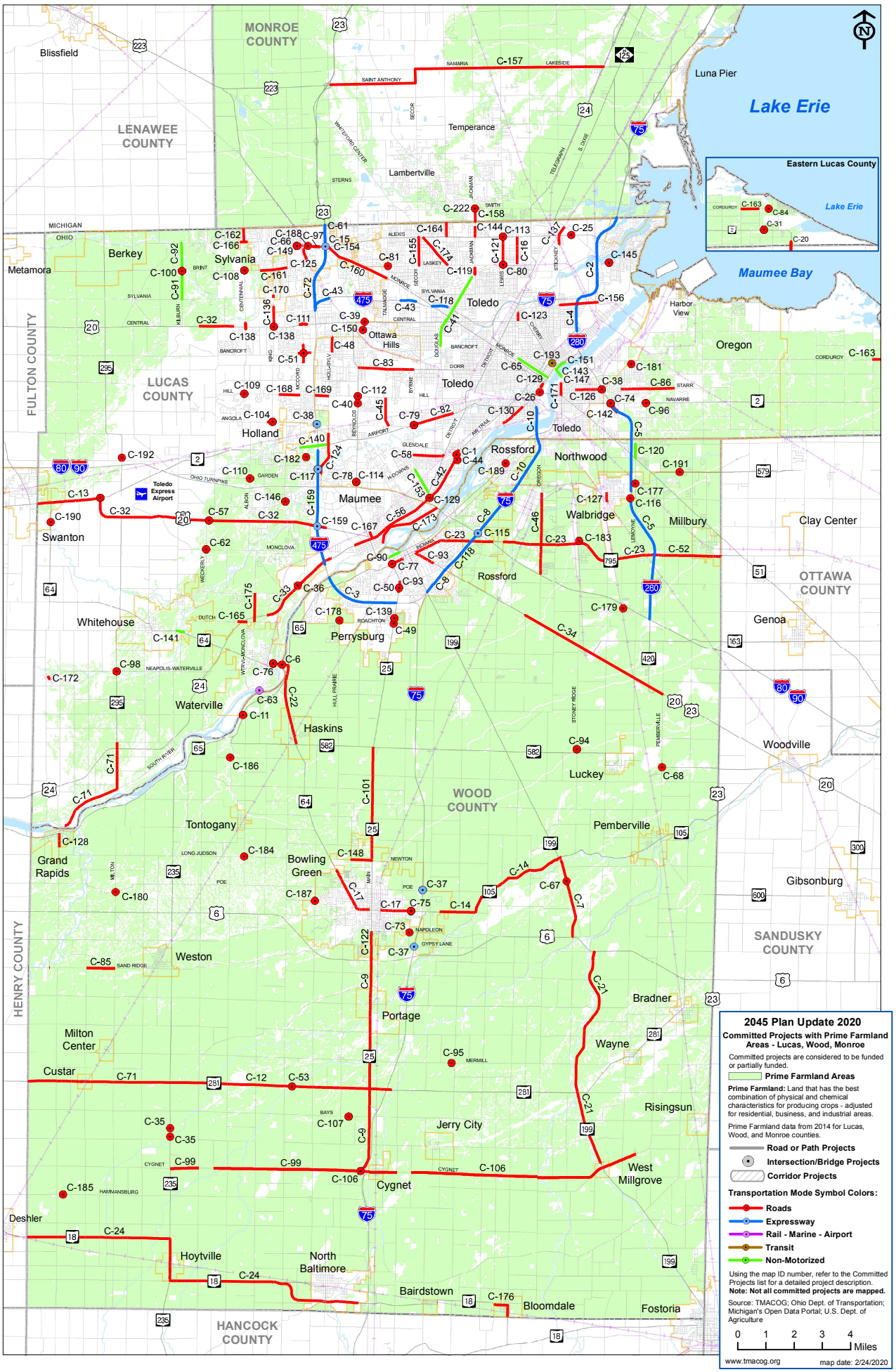
Toledo Metropolitan Area Council of Governments
300 Martin Luther King, Jr. Drive
Suite 300, Toledo, Ohio 43604
419-241-9155 www.tmacog.org



TMACOG 2045 Plan Update 2020 - Committed Projects

Prime Farmland Areas

Toledo Metropolitan Area Council of Governments



2045 Plan Update 2020

Committed Projects with Prime Farmland Areas - Lucas, Wood, Monroe

Committed projects are considered to be funded or partially funded.

Prime Farmland Areas

Prime Farmland: Land that has the best combination of physical and chemical characteristics for producing crops - adjusted for residential, business, and industrial areas.

Prime Farmland data from 2014 for Lucas, Wood, and Monroe counties.

Road or Path Projects

Intersection/Bridge Projects

Corridor Projects

Transportation Mode Symbol Colors:

- **Roads**
- **Expressway**
- **Rail - Marine - Airport**
- **Transit**
- **Non-Motorized**

Using the map ID number, refer to the Committed Projects list for a detailed project description.
Note: Not all committed projects are mapped.

Source: TMACOG; Ohio Dept. of Transportation; Michigan's Open Data Portal; U.S. Dept. of Agriculture

0 1 2 3 4 Miles

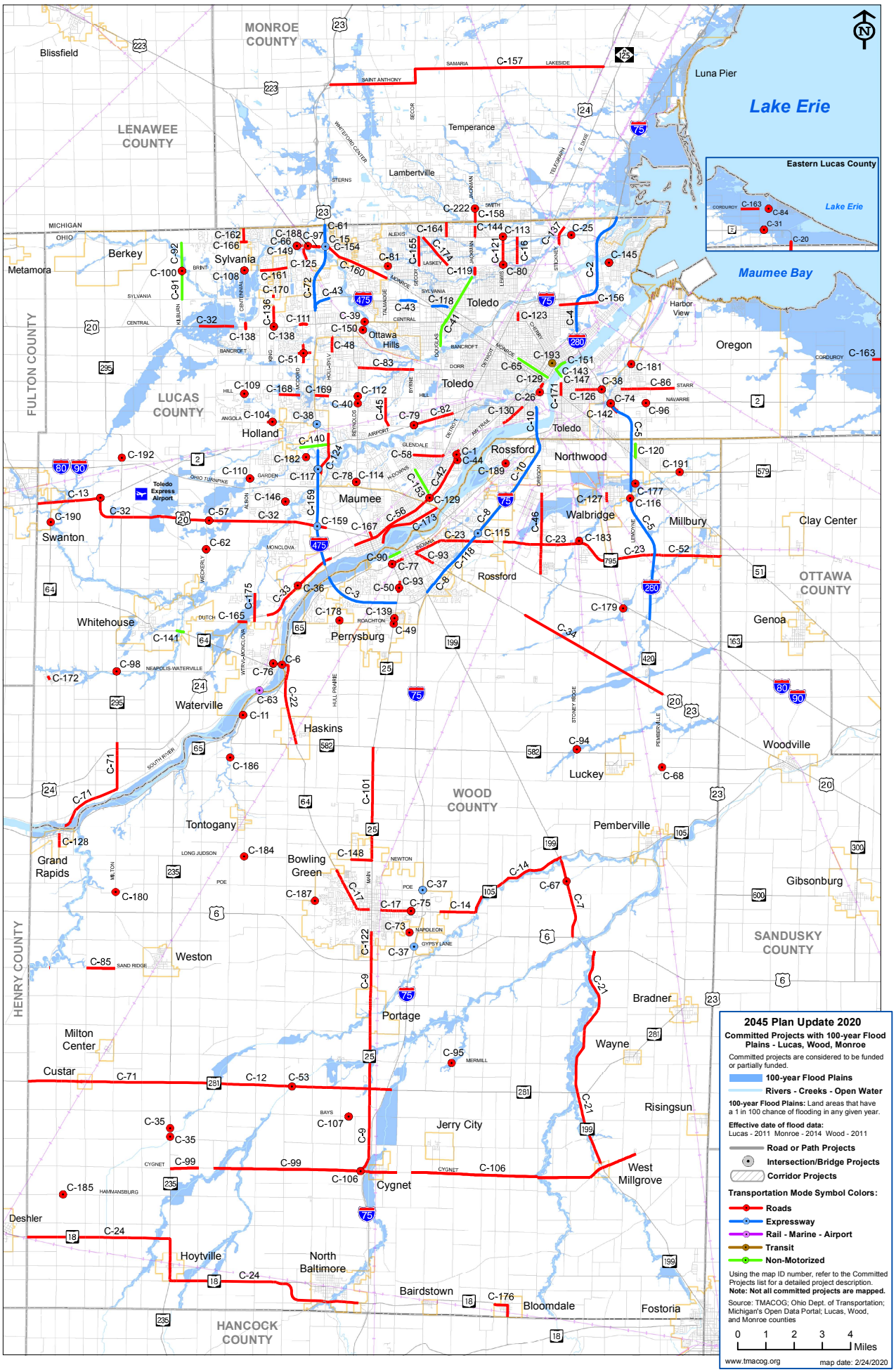
www.tmacog.org

map date: 2/24/2020

TMACOG 2045 Plan Update 2020 - Committed Projects

100-year Flood Plains

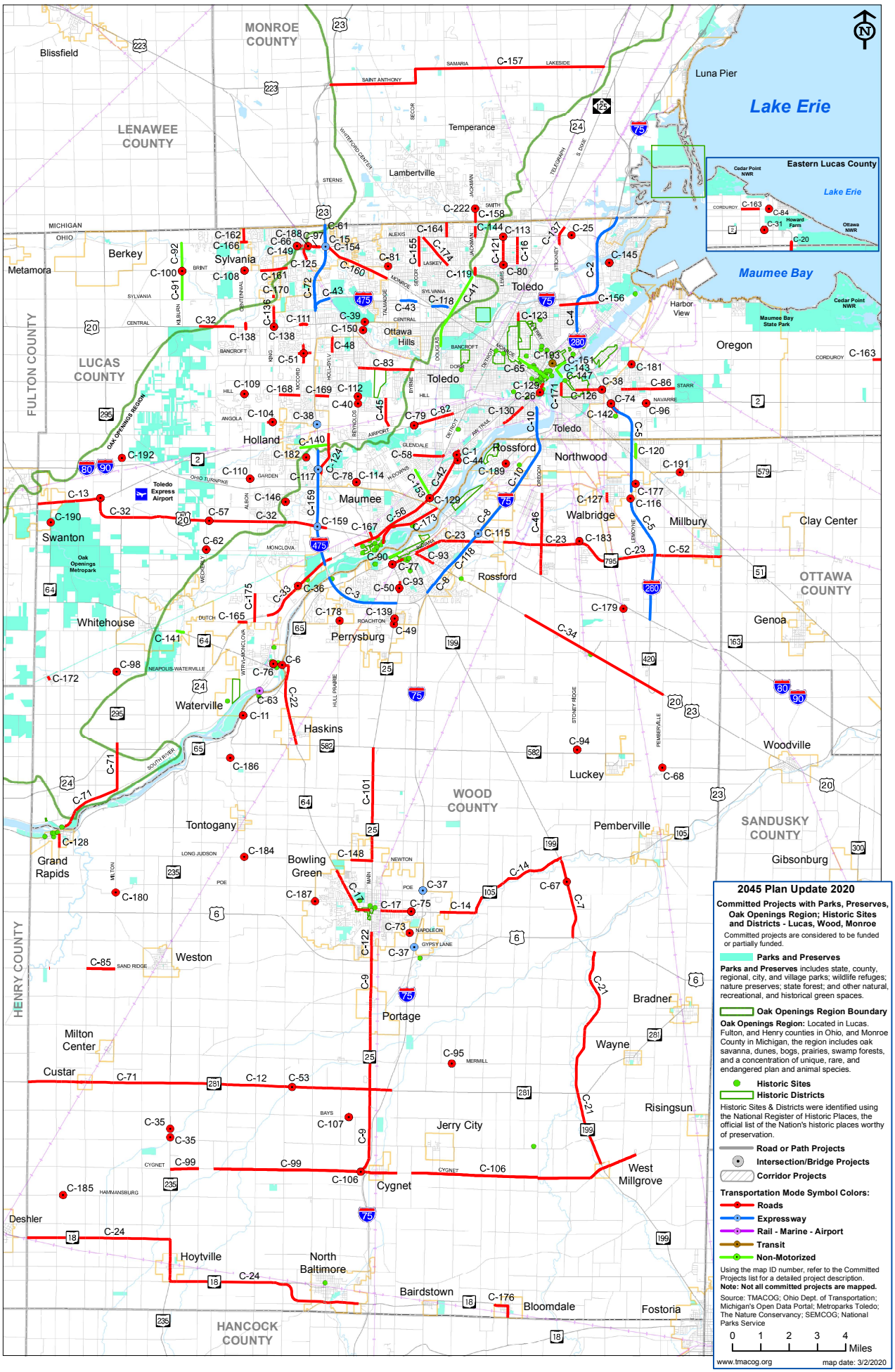
Toledo Metropolitan Area Council of Governments



TMACOG 2045 Plan Update 2020 - Committed Projects

Parks, Preserves, Oak Openings Region; Historic Sites and Districts

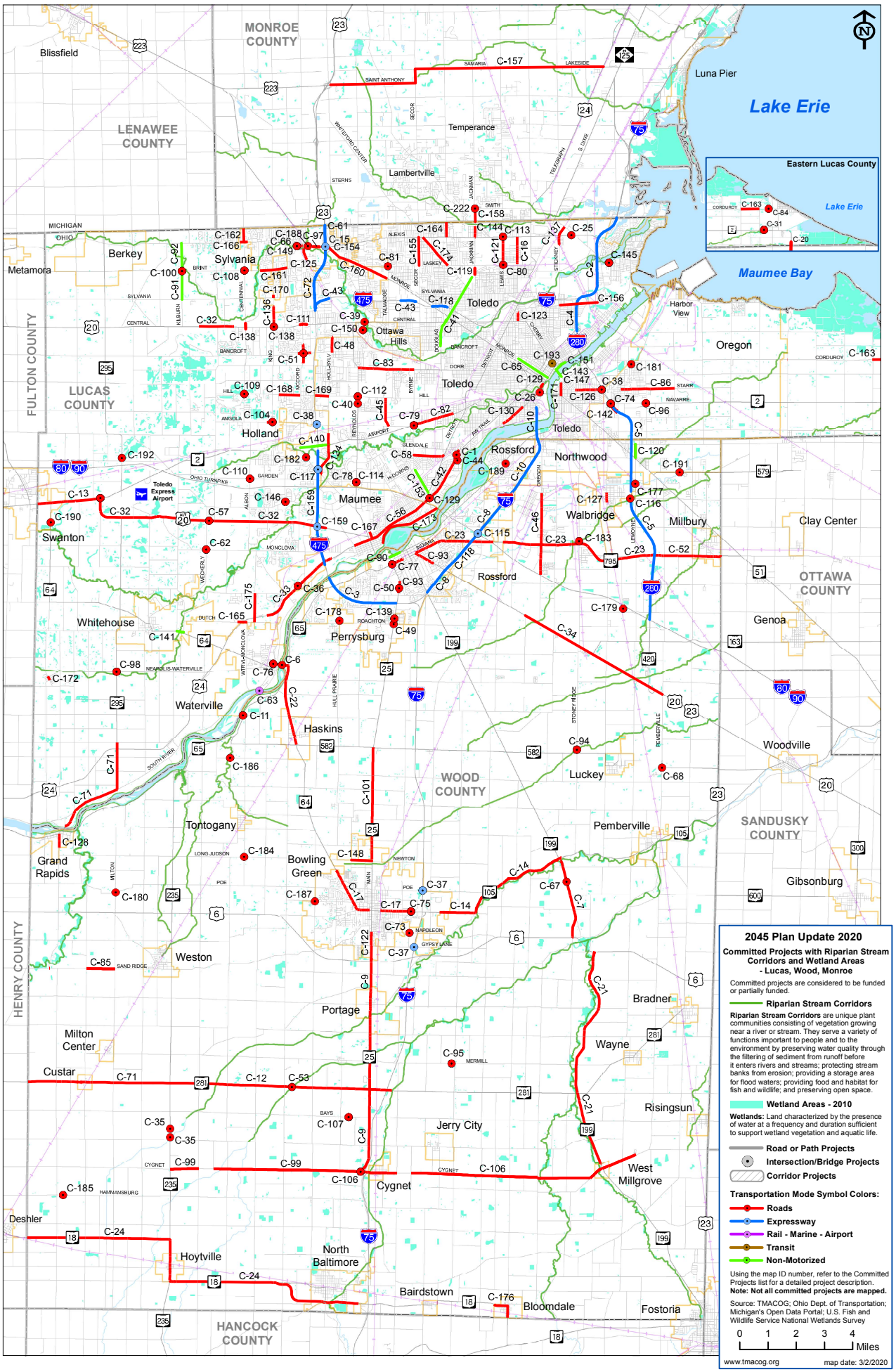
Toledo Metropolitan Area Council of Governments



TMACOG 2045 Plan Update 2020 - Committed Projects

Riparian Stream Corridors and Wetland Areas

Toledo Metropolitan Area Council of Governments



2045 Plan Update 2020

Committed Projects with Riparian Stream Corridors and Wetland Areas - Lucas, Wood, Monroe

Committed projects are considered to be funded or partially funded.

Riparian Stream Corridors

Riparian Stream Corridors are unique plant communities consisting of vegetation growing near a river or stream. They serve a variety of functions important to people and to the environment by preserving water quality through the filtering of sediment from runoff before it enters rivers and streams; protecting stream banks from erosion; providing a storage area for flood waters; providing food and habitat for fish and wildlife; and preserving open space.

Wetland Areas - 2010

Wetlands: Land characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation and aquatic life.

Road or Path Projects

Intersection/Bridge Projects

Corridor Projects

Transportation Mode Symbol Colors:

- **Roads**
- **Expressway**
- **Rail - Marine - Airport**
- **Transit**
- **Non-Motorized**

Using the map ID number, refer to the Committed Projects list for a detailed project description.
Note: Not all committed projects are mapped.

Source: TMACOG; Ohio Dept. of Transportation; Michigan's Open Data Portal; U.S. Fish and Wildlife Service National Wetlands Survey

0 1 2 3 4 Miles

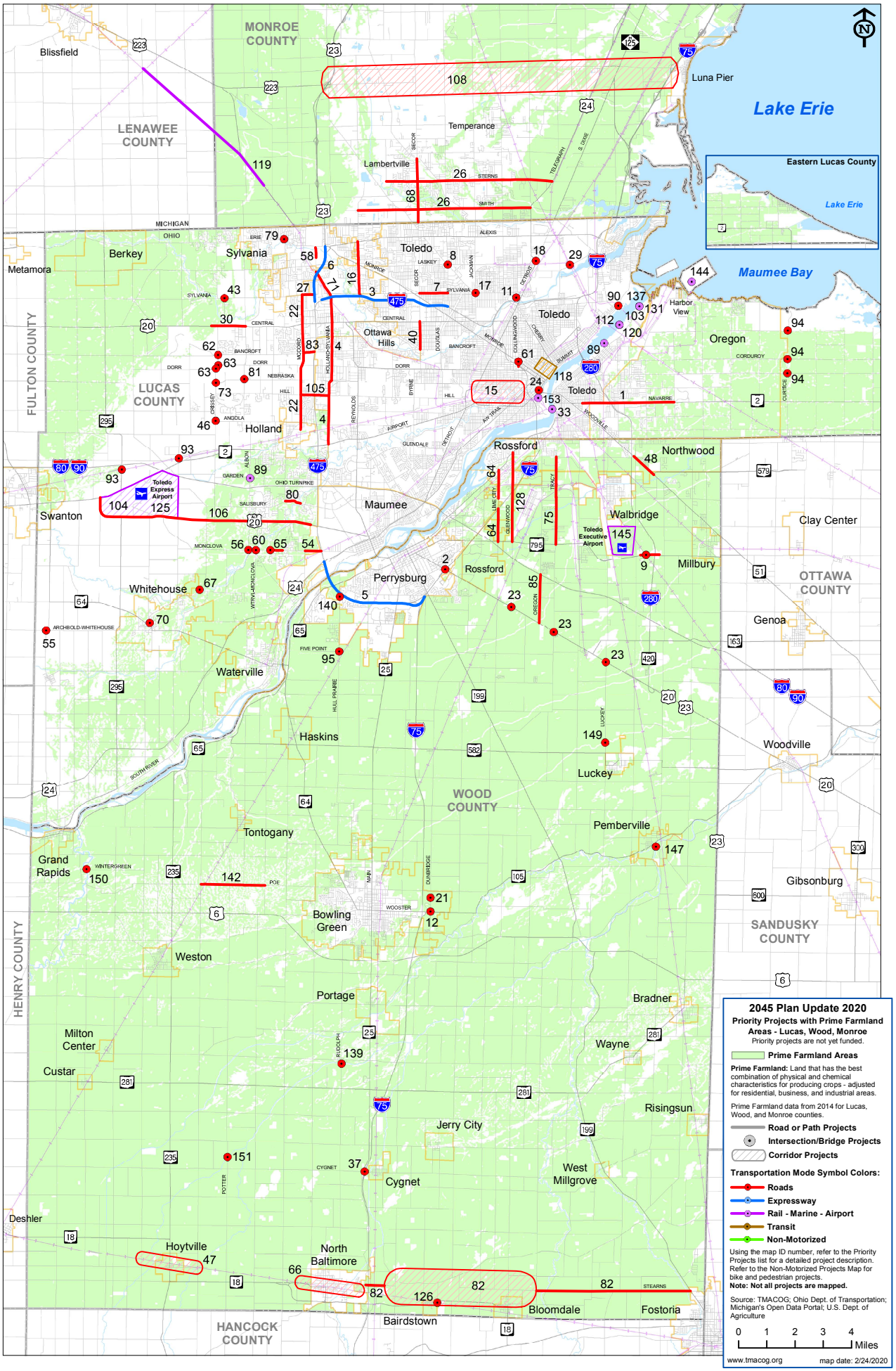
www.tmacog.org

map date: 3/2/2020

TMACOG 2045 Plan Update 2020 - Priority Projects

Prime Farmland Areas

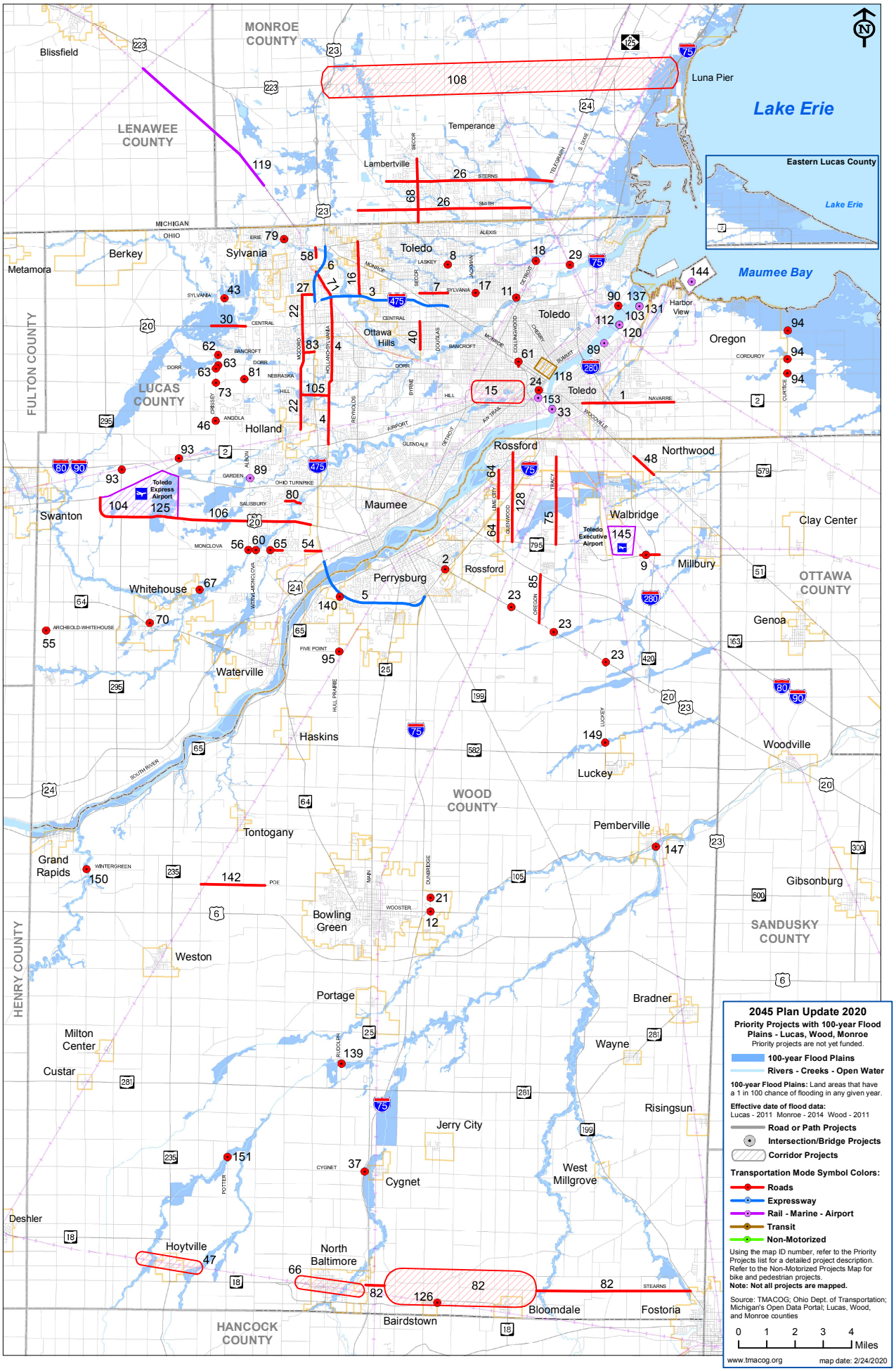
Toledo Metropolitan Area Council of Governments



TMACOG 2045 Plan Update 2020 - Priority Projects

100-year Flood Plains

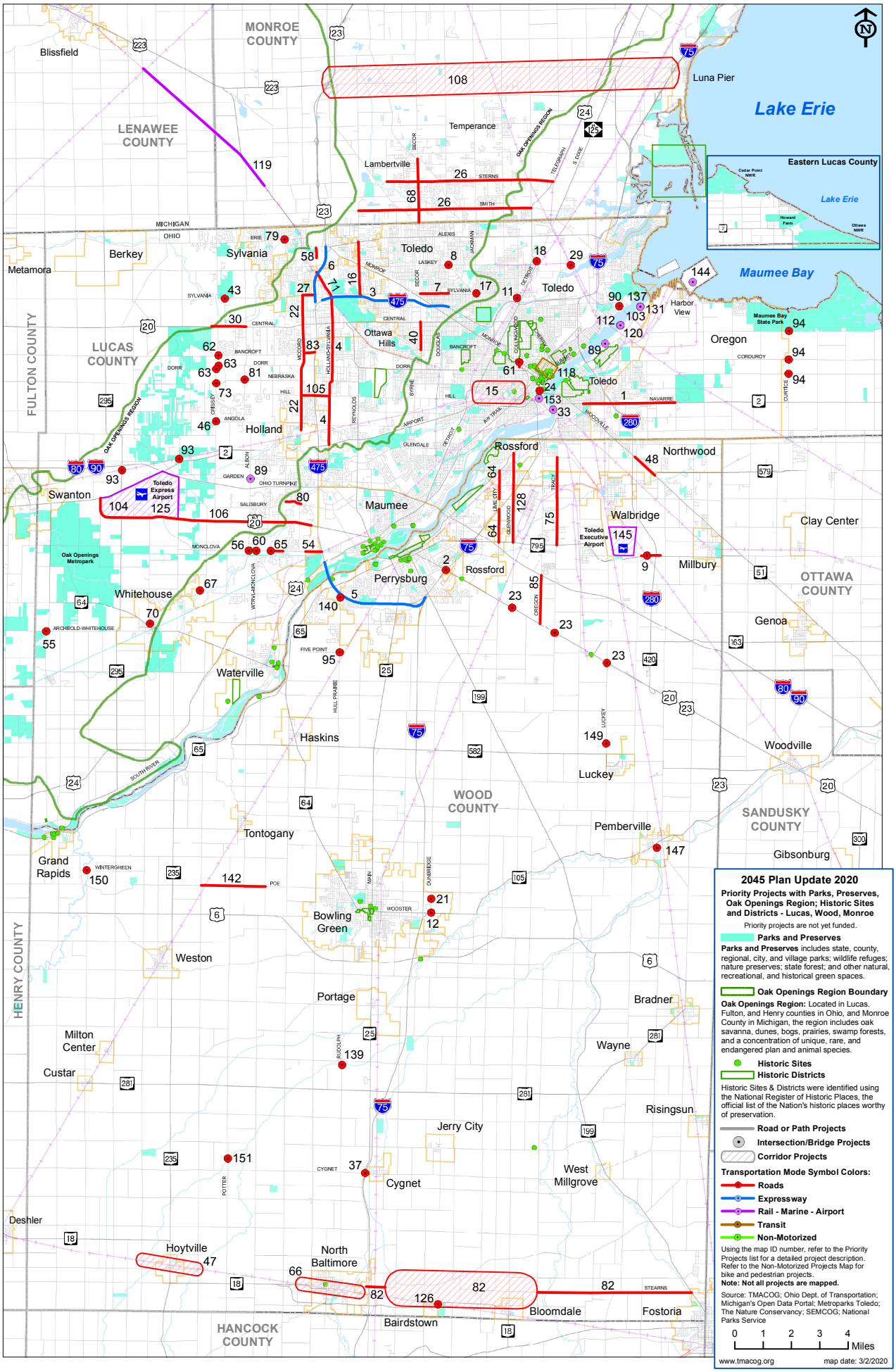
Toledo Metropolitan Area Council of Governments



TMACOG 2045 Plan Update 2020 - Priority Projects

Parks, Preserves, Oak Openings Region; Historic Sites and Districts

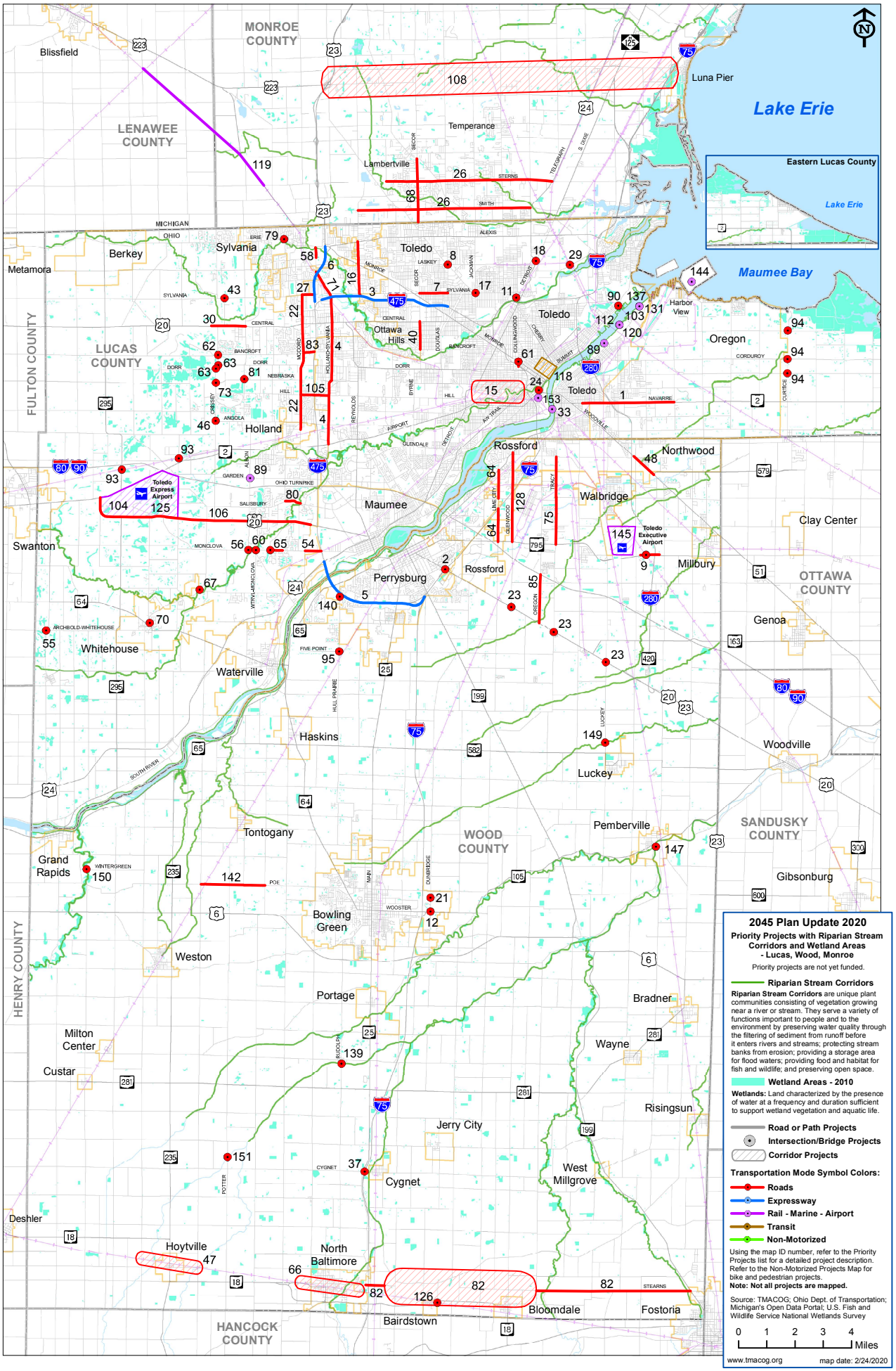
Toledo Metropolitan Area Council of Governments



TMACOG 2045 Plan Update 2020 - Priority Projects

Riparian Stream Corridors and Wetland Areas

Toledo Metropolitan Area Council of Governments



2045 Plan Update 2020

Priority Projects with Riparian Stream Corridors and Wetland Areas - Lucas, Wood, Monroe

Priority projects are not yet funded.

Riparian Stream Corridors

Riparian Stream Corridors are unique plant communities consisting of vegetation growing near a river or stream. They serve a variety of functions important to people and to the environment by preserving water quality through the filtering of sediment from runoff before it enters rivers and streams; protecting stream banks from erosion; providing a storage area for flood waters; providing food and habitat for fish and wildlife; and preserving open space.

Wetland Areas - 2010

Wetlands: Land characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation and aquatic life.

Road or Path Projects

Intersection/Bridge Projects

Corridor Projects

Transportation Mode Symbol Colors:

- **Roads**
- **Expressway**
- **Rail - Marine - Airport**
- **Transit**
- **Non-Motorized**

Using the map ID number, refer to the Priority Projects list for a detailed project description. Refer to the Non-Motorized Projects Map for bike and pedestrian projects.

Note: Not all projects are mapped.

Source: TMACOG; Ohio Dept. of Transportation; Michigan's Open Data Portal; U.S. Fish and Wildlife Service National Wetlands Survey

0 1 2 3 4 Miles

www.tmacog.org

map date: 2/24/2020

Appendix F: System Performance Report

TOLEDO METROPOLITAN AREA COUNCIL OF GOVERNMENTS (TMACOG)

SYSTEM PERFORMANCE REPORT 2020

The preparation of this report was financed jointly by the counties of Lucas and Wood, Ohio; Monroe County, Michigan; the cities of Bowling Green, Maumee, Northwood, Oregon, Perrysburg, Rossford, Sylvania, Waterville, and Toledo, Ohio; the Toledo-Lucas County Port Authority; the Ohio Department of Transportation; and the U.S. Department of Transportation, Federal Highway Administration, and the Federal Transit Administration.

TABLE OF CONTENTS

INTRODUCTION

TMACOG is the Metropolitan Planning Organization (MPO) for Lucas and Wood Counties in Ohio and Southern Monroe County Michigan. TMACOG is required to develop and maintain a Regional Transportation Plan that has a horizon year of at least 20 years. In addition to the long-range plan, TMACOG is also responsible for managing the region's Transportation Improvement Program (TIP). Both the long-range plan and the TIP are developed around established performance measures and targets. The system performance report is a requirement for TMACOG's long range plan and the TIP. The system performance report will include the methodology to the system performance process and the designated performance measures set by TMACOG

Moving Ahead for Progress in the 21st Century (MAP-21) called on states and metropolitan areas to set measurable targets that align with transportation goals and are to be achieved during the lifetime of the plan. The current transportation legislation, Fixing America's Surface Transportation (FAST) Act continues to support performance-based planning. This performance-based approach to planning aims to ensure that investments are made where needed. Targets must address national goals. Their development, at the metropolitan/regional level, is to be coordinated with state and public transit targets and objectives. The targets are to be used to track progress on a region's desired critical outcomes.

The national performance goals for the Federal highway (surface transportation) programs are as followed

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair.
- **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System.
- **System Reliability** - To improve the efficiency of the surface transportation system.
- **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

TMACOG has adopted the performance measures and targets set by the Ohio Department of Transportation (ODOT) and the Michigan Department of Transportation (MDOT). The performance measures have been approved by TMACOG Boards and Committees. The timeline for performance measure adoption is below.

- PM1 – Safety
    - Ohio and Michigan Targets approved on
        - CY 2018
            - November 28, 2017 (Ohio) and February 21, 2018 (Michigan)
        - CY 2019
            - February 20, 2019 (Ohio and Michigan)
        - CY 2020
            - October 16, 2019 (Ohio and Michigan)
- PM2 – NHS Pavement and Bridge Conditions
    - Ohio and Michigan Targets approved on November 14, 2018
- PM3 – Travel Time Reliability and Freight Performance
    - Ohio and Michigan Targets approved on November 14, 2018
- Transit Performance Management Targets
    - Ohio Targets approved on September 19, 2018

TMACOG'S PERFORMANCE MEASURES AND TARGETS

Safety Performance

The Highway Safety Improvement Program (HSIP) final rule (23 CRF Part 490) requires that States and MPO's establish safety targets as five-year rolling averages on all public roads for: (1) The number of fatalities (2) The rate of fatalities per 100 million vehicle miles traveled (VMT) (3) The number of serious injuries (4) The rate of serious injuries per 100 million VMT (5) The number of non-motorized fatalities and non-motorized serious injuries.

Work towards achieving safety targets at the local level include updating the safety report every three years, working with local jurisdictions on safety studies, and considering safety as a factor for project ranking in the long range plan and in STBG, CMAQ, and TAP applications.

Table 1.1 - CY 2018 Safety Targets

	Ohio – TMACOG Region			**MDOT**		
Safety Performance Measures	Baseline 2012-2016	2018 targets	2018 Actual	Baseline 2012-2016	2018 targets (2014-2018)	2018 Actual
Number of fatalities	55.60	55.00	53	963.0	1,003.2	974
Rate of fatalities per 100 million Vehicle Miles Traveled (VMT)	0.960	0.950	0.89	1.00	1.02	0.94
Number of Serious Injuries	570.8	565.1	398	5,273.4	5,136.4	5,181
Rate of Serious Injuries per 100 million VMT	9.857	9.758	6.65	5.47	5.23	5.41
Number of non-motorized fatalities and serious injuries	55.0	54.5	50	721.8	743.6	739

Table 1.2 -CY 2019 Safety Targets

	Ohio -TMACOG Region		MDOT	
Safety Performance Measures	Baseline 2013-2017	2019 targets	Baseline 2013-2017	2019 targets
Number of fatalities	57.20	56.60	981.4	1,023.2
Rate of fatalities per 100 million Vehicle Miles Traveled (VMT)	0.984	0.974	1.00	1.02
Number of Serious Injuries	535.0	529.7	5,355.0	5,406.8
Rate of Serious Injuries per 100 million VMT	9.20	9.108	5.47	5.41
Number of non-motorized fatalities and serious injuries	53.8	53.3	743.6	759.8

Table 1.3 - CY 2020 Safety Targets

	Ohio -TMACOG Region		MDOT	
Safety Performance Measures	Baseline 2014-2018	2020 targets	Baseline 2014-2018	2020 targets
Number of fatalities	57.0	55.9	987.4	999.4
Rate of fatalities per 100 million Vehicle Miles Traveled (VMT)	0.974	0.954	0.99	0.97
Number of Serious Injuries	493.0	483.2	5,415.6	5,520.4
Rate of Serious Injuries per 100 million VMT	8.422	8.255	5.41	5.34
Number of non-motorized fatalities and serious injuries	51.8	50.8	742.4	735.8

Bridge and Pavement Performance

Maintaining the system in a state of good repair is essential in every transportation system. Bridge and pavement conditions are tracked by TMACOG through the maintenance of the system preservation list, which is included in the long range plan. This list identifies a current back log of segments that have pavement in fair to very poor condition or bridges that are in poor condition. Additionally, ODOT provides updates on pavement ratings and bridge conditions that TMACOG utilizes to track performance targets.

TMACOG adopted the state's targets in November of 2018. TMACOG will continue to closely monitor performance measures and targets and will report on the status by the end of calendar year 2020.

Table 2.1 - Current Bridge and Pavement targets (Ohio)

Pavements -Ohio	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of Interstate Pavements in Good Condition	N/A	N/A	50%
Percentage of Interstate Pavements in Poor Condition	N/A	N/A	1%
Percentage of Non-Interstate NHS Pavements in Good Condition	59.10%	35%	35%
Percentage of Non-Interstate NHS Pavements in Poor Condition	13.00%	3%	3%
Bridge -Ohio	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of NHS Bridges in Good Condition	59.00%	50%	50%
Percentage of NHS Bridges in Poor Condition	1.60%	5%	5%

Table 2.2 - Current Bridge and Pavement Targets (Michigan)

Pavements -Michigan	Baseline	2 Yr. Target	4 Yr. Target
Percentage of Interstate Pavements in Good Condition	56.8%	N/A	47.8%
Percentage of Interstate Pavements in Poor Condition	5.2%	N/A	10%
Percentage of Non-Interstate NHS Pavements in Good Condition	49.7%	46.7%	43.7%
Percentage of Non-Interstate NHS Pavements in Poor Condition	18.6%	21.9%	24.9%
Bridge -Michigan	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Percentage of NHS Bridges in Good Condition	32.7%	27%	26%
Percentage of NHS Bridges in Poor Condition	9.8%	7%	7%

System Performance

System performance refers to the management of congestion in the region. At this time, TMACOG is not required to adopt CMAQ (air quality) performance measures and targets. The Level of Travel Time Reliability (LOTTR) is defined as the ratio of longer travel times (80th percentile) to a "normal" travel time (50th percentile) for a given roadway segment. The measure is the percentage of person-miles (vehicle miles multiplied by occupancy) traveled on the NHS where this ratio is less than 1.5, which is considered reliable. Using person miles rather than vehicle-miles gives equal weight to all individuals using the roads. Non-interstate travel is generally more reliable than interstate travel for several reasons. Reasonable alternative routes are more often available for trips on non-interstates and lower volumes and speeds mean that incidents on non-interstates typically have a smaller impact.

TMACOG's efforts to mitigate congestion include updating the Congestion Management Process (CMP) every few years. Additionally, projects in the long range plan overall provide facilities that are intended to move people and goods more efficiently in the region. Ongoing monitoring of TIP and plan projects occur to ensure projects are increasing reliability and decreasing congestion in the region.

TMACOG adopted the state's system performance targets in November of 2018. TMACOG will continue to monitor performance measures and targets and will report on the status of the 2-year targets by the end of calendar year 2020.

Table 3.1 Current System Performance Targets (Ohio)

Travel Time Reliability - Ohio	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Interstate Travel Time Reliability	90.80%	85%	85%
Non-Interstate NHS Travel Time Reliability	N/A	N/A	80%
Truck Travel Time Reliability	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Interstate Truck Travel Time Reliability Index	1.33	1.50	1.50

Table 3.2 - Current System Performance Targets (Michigan)

Travel Time Reliability - Michigan	Baseline	2 Yr. Target	4 Yr. Target
Interstate Travel Time Reliability	85.1%	75%	75%
Non-Interstate NHS Travel Time Reliability	85.5%	N/A	70%
Truck Travel Time Reliability	**Baseline**	**2 Yr. Target**	**4 Yr. Target**
Interstate Truck Travel Time Reliability Index	1.38	1.75	1.75

Transit Asset Management

TMACOG provides support to local transit agencies regarding maintenance of current vehicle fleets by confirming that revenue vehicles, equipment, and facilities are not exceeding their useful life and are in a state of good repair. Numerous public transit project has been identified as regional priorities in TMACOG's long range transportation plan. One of the highest priorities for the upcoming years is to replace existing the public transit fleet and the continuing renovation of the new downtown hub. The Toledo Area Regional Transit Authority (TARTA) is the largest public transportation provider in the TMACOG region. TARTA receives TMACOG managed CMAQ money that is designated for the replacement of vehicles. TARTA will be completing a Transit Asset Management plan. Once complete, TMACOG will include the results in the System Performance report.

Table 4.1 Revenue Vehicle Targets

Asset Class (NTD)	**Asset Class (ODOT)**	**Baseline % Past Useful Life**	**Performance Target**
Automobile	Automobile (AO)	30.43%	30% older than 8 years
Bus	Heavy Duty Bus (B30-HD, B35-HD, B40-HD, B60-HD); Medium Duty Bus (B30-D, B35-MD); Light Duty Bus (B30-LD)	21.05%	21% older than 14 years
Cutaway Bus	LTL/LTN, LTV, LTV-FS, LTV-HC, LTV-N, LTV-S	1.48%	2% older than 10 years
Van	Accessible Van (AV); (BSV); Converted Vans (CV); Modified Mini Van (MMV); (MV-1); Mini Van (SMV)	9.60%	10% older than 8 years

Table 4.2 - Transit Equipment Targets

Asset Class (NTD)	**Asset Class (ODOT)**	**Performance Target**
Non- Revenue Vehicle	Service Vehicles	100% less than 10 years old
Equipment	Mobile Vehicle Lift	100% less than 14 years old
Equipment	Generator	100% less than 10 years old

Table 4.3 - Transit Facility Targets

Asset Class (NTD)	**Baseline % Below "3" on TERM Scale**	**Performance Target***
Passenger Facilities	0.00%	0% below at 3
Maintenance Facilities	22.22%	22% below a 3
Administrative Facilities	37.50%	38% below a 3

CONCLUSION

The new performance-based planning requirement requires that the MPO's support and work toward the State's performance measures and targets. By using performance-based planning and tracking, TMACOG will be able to focus planning efforts in a way that is benefiting not only the regional transportation system, but also the statewide system. Measures and targets will continue to be tracked will be reported in all future long range plans, TIP's and other updates.

Appendix G: Air Quality Conformity

Transportation Conformity Determination Report for the 1997 ozone NAAQS

Toledo Metropolitan Area Council of Governments

On the Move 2045 – Update 2020 (MTP) and FY 2021-2024 Transportation Improvement Program (TIP)

June 2020

TABLE OF CONTENTS

Appendices

TMACOG TRANSPORTATION STAFF

David Gedeon, AICP, Vice President of Transportation Transportation Council Transportation Legislative Agenda Transportation Summit	Ext. 1125 gedeon@tmacog.org
Marissa Bechstein, Transportation Planner Planning Committee Public Transit Planning Specialized Transportation Planning	Ext. 1117 bechstein@tmacog.org
Jodi Cole, Transportation Administrative Assistant	Ext. 1120 cole@tmacog.org
Lance Dasher, AICP, Transportation Planner Pedestrian and Bikeways Planning Transportation Improvement Program (TIP)	Ext. 1115 dasher@tmacog.org
Michael Fuller, Transportation Planner Land Use/Socioeconomic Data Forecasting/Growth Trends Share A Ride	Ext. 1116 fuller@tmacog.org
Lisa Householder, Transportation Database Analyst/Planner Integrated Transportation Database Systems Performance and Monitoring Traffic Demand Modeling	Ext. 1124 householder@tmacog.org
Roger Streiffert, Transportation Planner Freight Planning Passenger Rail Planning Transportation Service	Ext. 1122 streiffert@tmacog.org
Marc VonDeylen, Transportation Technician Air Quality Coordination Traffic Counting Transportation Safety Coordination Transportation Website	Ext. 1136 vondeylen@tmacog.org

TMACOG OFFICERS

Mark W. Stahl – Chair Commissioner, Ottawa County	
Kay E. Reiter – Vice Chair Commissioner, Sandusky County	
TMACOG STAFF	
Tim W. Brown President	
Jennifer Allen Executive Administrative Assistant	Barbie Kalta Water Quality Associate
Marissa Bechstein Transportation Planner	Mary Pat McCarthy Marketing and Public Information Manager
William Best Vice President of Finance & Administration	Joy Minarcin Water Quality Administrative Assistant
Jodi Cole Transportation Administrative Assistant	Gilda Mitchell Director of Membership and Outreach
Lance Dasher, AICP Transportation Planner	Ann Nair Administrative Assistant/Receptionist
Michael Fuller Transportation Planner	Nate Reiter Accountant
David Gedeon, AICP Vice President of Transportation	Roger Streiffert Transportation Planner
Kari Gerwin Director of Water Quality Planning	Mike Tippett Digital Communications Manager
Sara Guiher Water Quality Planner	Marc VonDeylen Transportation Technician
Lisa Householder Transportation Planner/Data Analyst	

Acknowledgements

This Transportation Conformity Report for the On the Move 2045 – Update 2020 Metropolitan Transportation Plan (MTP) and FY 2021-2024 Transportation Improvement Program (TIP) was prepared by the Toledo Metropolitan Area Council of Governments (TMACOG). Individuals from the following agencies contributed their efforts towards the completion of the Transportation Conformity Determination Report. They include:

- Federal Highway Administration (FHWA)
- Federal Transit Agency (FTA)
- Ohio Environmental Protection Agency (OEPA)
- Ohio Department of Transportation (ODOT)
- United State Environmental Protection Agency (US EPA)

Executive Summary

As part of its transportation planning process, TMACOG completed the transportation conformity process for the "On the Move 2045: Transportation Plan - Update 2020" (2045 Plan) and the FY 2021-2024 TIP. This report documents that the 2045 Plan and 2021-2024 TIP meet the federal transportation conformity requirements in 40 CFR Part 93.

Clean Air Act (CAA) section 176(c) (42 U.S.C. 7506(c)) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones. 42 U.S.C. 7506(c)(1). EPA's transportation conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans, transportation improvement programs (TIPs), and federally supported highway and transit projects conform to the SIP. 40 CFR Parts 51.390 and 93.

On February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in South Coast Air Quality Mgmt. District v. EPA ("South Coast II," 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were either nonattainment or maintenance for the 1997 ozone national ambient air quality standard (NAAQS) and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked. These conformity determinations are required in these areas after February 16, 2019. The TMACOG region, Lucas and Wood counties, were designated as maintenance at the time of the 1997 ozone NAAQS revocation on April 6, 2015 and was also designated attainment for the 2008 ozone NAAQS on May 21, 2012. Therefore, per the South Coast II decision, this conformity determination is being made for the 1997 ozone NAAQS on the MTP and TIP.

This conformity determination was completed consistent with CAA requirements, existing associated regulations at 40 CFR Parts 51.390 and 93, and the South Coast II decision, according to EPA's Transportation Conformity Guidance for the South Coast II Court Decision issued on November 29, 2018.

1 BACKGROUND

1.1 TRANSPORTATION CONFORMITY PROCESS

The concept of transportation conformity was introduced in the Clean Air Act (CAA) of 1977, which included a provision to ensure that transportation investments conform to a state implementation plan (SIP) for meeting the federal air quality standards. Conformity requirements were made substantially more rigorous in the CAA Amendments of 1990. The transportation conformity regulations that detail implementation of the CAA requirements were first issued in November 1993, and have been amended several times. The regulations establish the criteria and procedures for transportation agencies to demonstrate that air pollutant emissions from metropolitan transportation plans, transportation improvement programs and projects are consistent with ("conform to") the state's air quality goals in the SIP. This document has been prepared for state and local officials who are involved in decision making on transportation investments.

Transportation conformity is required under CAA Section 176(c) to ensure that federally supported transportation activities are consistent with ("conform to") the purpose of a State's SIP. Transportation conformity establishes the framework for improving air quality to protect public health and the environment. Conformity to the purpose of the SIP means Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that will not cause new air quality violations, worsen existing air quality violations, or delay timely attainment of the relevant air quality standard, or any interim milestone.

1.2 TMACOG'S DESIGNATION

In 1997, the U.S. EPA revised the air quality standards for ozone replacing the 1979 one-hour standard with an eight-hour ozone standard set at 0.08 parts per million (ppm). The standard was challenged legally and upheld by the U.S. Supreme Court in February of 2001. On April 30, 2004, U.S. EPA designated 134 nonattainment areas for the eight-hour ozone standard. Lucas and Wood counties received a basic non-attainment designation.

Since the time of the redesignation, monitored data showed and modeled results indicated that the region is in attainment of the eight-hour standard. The Ohio Environmental Protection Agency began the process to redesignate Lucas and Wood counties once again as a "maintenance" area meeting the eight-hour ozone standard. The documentation was submitted to U.S. EPA Region V in December 2006 and the formal redesignation was received August 9, 2007. On April 6, 2015 the 1997 eight-hour ozone standard was revoked, and Lucas and Wood counties were designated as attainment under the 2008 ozone standard. However, the D.C. Circuit for the U.S. Court of Appeals issued a decision in South Coast Air Quality Management District v. EPA that struck down portions of the 2008 Ozone NAAQS SIP Requirements Rule and again required conformity determinations for areas that previously were designated as maintenance under the 1997 ozone standard and designated as attainment for the 2008 ozone standard.

The CAAA designated Lucas and Wood counties as non-attainment in 1990. The area was designated as a transitional area pending the full approval of the redesignation request submitted to U.S. EPA on May

24, 1993. The approval was published in the Federal Register and comments that were received were answered. Final redesignation became effective in August 1995. Therefore, the Lucas-Wood non-attainment area became known officially as a "maintenance" area.

On April 30, 2004, U.S. EPA designated Lucas and Wood counties as a basic non-attainment area for the eight-hour ozone standard. In December 2006, OEPA submitted a redesignation request to U.S. EPA Region V for the Lucas-Wood non-attainment area to be redesignated again as a "maintenance" area. That redesignation was received on August 9, 2007. Currently, Lucas and Wood counties are designated as attainment under both the 2008 ozone standard and the 2015 standard.

2 ON THE MOVE 2045 – 2020 UPDATE (METROPOLITAN TRANSPORTATION PLAN)

Concurrent with the statewide agencies' work on SIP issues, the Ohio MPOs began responding to the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU), the Moving Ahead for Progress in the 21st Century (MAP-21) and most recently the Fixing America's Surface Transportation Act (FAST), to update urbanized area transportation plans and programs. A key consideration in the transportation planning process used to update these plans and programs was the linkage between air quality and transportation mobile source emissions.

The purpose of the "On the Move 2045: Transportation Plan – Update 2020" (2045 Plan) is to provide a program of transportation projects, initiatives, and policies that will guide more than $3.8 billion of public investments over the next 25 years. The plan takes a multimodal view as all transportation modes are included, and there is a focus on integrating improvements to further develop an intermodal transportation system. The plan is structured around eight goals, which were used to evaluate and rank proposed projects and initiatives based on impacts to the region and its transportation system:

1. **Safety:** Reduce traffic-related fatalities and serious injuries across all modes.
2. **Infrastructure condition:** Maintain and improve the transportation system to a state of good repair.
3. **Congestion reduction:** Reduce congestion on the National Highway System (NHS) .
4. **System reliability:** Improve the efficiency of the surface transportation system.
5. **Freight movement:** Strengthen freight access to national and international trade markets to support economic development.
6. **Environmental sustainability:** Protect and enhance the community and natural environments.
7. **Project delivery:** Expedite project delivery to maximize effective use of public funds.
8. **Personal mobility:** Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

The 2045 plan is developed through collaboration with local governments, economic development and planning agencies, institution and services agencies, businesses, and citizens. The Transportation conformity report will be included in the 2020 update of the plan.

3 2021-2024 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

The Transportation Improvement Program (TIP) is a coordination and funding program developed by state and local governments and authorities in the TMACOG Transportation Planning Area. TMACOG receives a direct allocation of funds from the Surface Transportation Block Grant Program (STBG) and the Transportation Alternatives Program (TAP). The agency had previously received a direct allocation of funds from the Congestion Mitigation/Air Quality (CMAQ) program that were administered in Lucas and Wood counties as well. In 2013, CMAQ was consolidated into a statewide program comprised of the eight large MPO's in Ohio (Cleveland, Columbus, Cincinnati, Toledo, Youngstown, Akron, Canton, and Dayton) and funding is allocated through a statewide process.

The Transportation Improvement Program is a detailed, fiscally constrained four-year program of capital projects, updated every two years, intended to implement the plans set forth in the 2045 Plan and the plans of individual local jurisdictions. The TIP lists all specific transportation projects and improvements that will use federal and state transportation funding over the next four state fiscal years. The TIP is designed to provide one comprehensive year-by-year listing of all spending on significant transportation projects to allow coordination between the various agencies with jurisdiction over portions of the transportation system in our area.

Projects identified within the TIP are programmed by fiscal year and closely monitored. TMACOG, ODOT and project sponsors regularly meet to discuss project development with the aim of constructing projects in the year they are programmed. Every effort is made to expedite projects when resources are available and minimize the impacts of inflation. The Transportation conformity report will be included in the new 2021-2024 TIP.

4 TRANSPORTATION CONFORMITY DETERMINATION: GENERAL PROCESS

Per the court's decision in South Coast II, beginning February 16, 2019, a transportation conformity determination for the 1997 ozone NAAQS will be needed in 1997 ozone NAAQS nonattainment and maintenance areas identified by EPA for certain transportation activities, including updated or amended metropolitan MTPs and TIPs. Once U.S. DOT makes its 1997 ozone NAAQS conformity determination for the 2045 Plan and 2021-2024 TIP, conformity will be required no less frequently than every four years. This conformity determination report will address transportation conformity for the 2045 Plan and 2021-2024 TIP.

5 TRANSPORTATION CONFORMITY REQUIREMENTS

5.1 OVERVIEW

On November 29, 2018, EPA issued Transportation Conformity Guidance for the South Coast II Court Decision (EPA-420-B-18-050, November 2018) that addresses how transportation conformity determinations can be made in areas that were nonattainment or maintenance for the 1997 ozone NAAQS when the 1997 ozone NAAQS was revoked, but were designated attainment for the 2008 ozone NAAQS in EPA's original designations for this NAAQS (May 21, 2012).

The transportation conformity regulation at 40 CFR 93.109 sets forth the criteria and procedures for determining conformity. The conformity criteria for MTPs and TIPs include: latest planning assumptions (93.110), latest emissions model (93.111), consultation (93.112), transportation control measures (93.113(b) and (c), and emissions budget and/or interim emissions (93.118 and/or 93.119).

For the 1997 ozone NAAQS areas, transportation conformity for MTPs and TIPs for the 1997 ozone NAAQS can be demonstrated without a regional emissions analysis, per 40 CFR 93.109(c). This provision states that the regional emissions analysis requirement applies one year after the effective date of EPA's nonattainment designation for a NAAQS and until the effective date of revocation of such NAAQS for an area. The 1997 ozone NAAQS revocation was effective on April 6, 2015, and the South Coast II court upheld the revocation. As no regional emission analysis is required for this conformity determination, there is no requirement to use the latest emissions model, or budget or interim emissions tests.

Therefore, transportation conformity for the 1997 ozone NAAQS for the 2045 Transportation Plan and 2021-2024 TIP can be demonstrated by showing the remaining requirements in Table 1 in 40 CFR 93.109 have been met. These requirements, which are laid out in Section 2.4 of EPA's guidance and addressed below, include:

- Latest planning assumptions (93.110)
- Consultation (93.112)
- Transportation Control Measures (93.113)
- Fiscal constraint (93.108)

5.2 Latest Planning Assumptions

The use of latest planning assumptions in 40 CFR 93.110 of the conformity rule generally apply to regional emissions analysis. In the 1997 ozone NAAQS areas, the use of latest planning assumptions requirement applies to assumptions about transportation control measures (TCMs) in an approved SIP.

The Ohio SIP does not include any TCMs, see also Section 5.4.

The implementation of Transportation Control Measures (TCM) was not included for any condition that was tested. While the 2045 Plan and FY 2021-2024 TIP include projects that could be designated as TCMs, none are so designated. The necessity for including TCMs in the future will be monitored.

5.3 Consultation Requirements

The consultation requirements in 40 CFR 93.112 were addressed both for interagency consultation and public consultation.

Interagency consultation was conducted with ODOT, FHWA, FTA, OEPA and EPA. For details regarding the interagency consultation process please see Appendix A. Interagency consultation was conducted consistent with the Ohio Conformity SIP.

Public consultation was conducted consistent with planning rule requirements in 23 CFR 450. Both the 2045 Plan and 2021-2024 TIP will have a public comment period. The 2045 Plan public comment period will be from March 4, 2020 to April 17, 2020. The 2021-2024 TIP public comment period will be from

March 3, 2020 to April 10, 2020. Public notices will be sent out informing the public of the comment periods and comment forms will be available on the TMACOG website. Appendix B contains copies of the notices and public comments received.

5.4 Timely Implementation of TCMs

The Ohio SIP does not include any TCMs.

5.5 Fiscal Constraint

Transportation conformity requirements in 40 CFR 93.108 state that transportation plans and TIPs must be fiscally constrained consistent with DOT's metropolitan planning regulations at 23 CFR part 450. The 2045 Plan and 2021-2024 TIP are fiscally constrained, as demonstrated in Chapter 6.1 of the 2045 Plan and Chapter 3, table 3.3 of the 2021-2024 TIP.

6 Conclusion

The conformity determination process completed for the 2045 Plan and 2021-2024 TIP demonstrates that these planning documents meet the Clean Air Act and Transportation Conformity rule requirements for the 1997 ozone NAAQS

Appendix A:
Interagency Consultation Documents

Ohio MPO 2021 – 2024 Transportation Improvement Programs
1997 Ozone Standard "Orphan" Areas
Conformity Analysis Summary

Overview:

Seven Ohio MPOs located within US EPA designated 1997 Ozone Standard "Orphan" Areas are developing new 2021 – 2024 Transportation Improvement Programs (TIP). One of the MPOs, the Toledo Metropolitan Area Council of Governments (TMACOG), is also concurrently developing a 2045 Transportation Plan Update.

As a 1997 Ozone Standard "orphan areas" and consistent with US EPA's November 29, 2018 guidance resulting from the South Coast II Court Case, the MPOs will advance qualitative Transportation Plan and new 2021 – 2024 TIP transportation conformity determinations.

Affected MPO/Air Quality Areas:

		New Conformity Determination	
MPO	**1997 Ozone Standard Geography**	**Transportation Plan Update**	**2021-2024 TIP**
Toledo / TMACOG	Lucas & Wood Cos., OH	Yes	Yes
Lima / LACRPC	Allen County, OH		Yes
Dayton / MVRPC	Clark, Greene, Miami, & Montgomery Cos., OH		Yes
Springfield / SCC-TCC			Yes
Youngstown / Eastgate	Mahoning & Trumbull Cos., OH		Yes
Wheeling / Bel-O-Mar	Belmont Co., OH Marshall & Ohio Cos., WV		Yes
Parkersburg / WWW	Washington Co., OH Wood Co., WV		Yes

Qualitative Conformity Determination Criteria – 40 CFR 93.109:

- Latest planning assumptions – Each MPO maintains current travel demand model socio-economic variables and highway/transit networks used to develop the MPOs' Transportation Plans.
- Latest emission model – Should a future quantitative emission analyses be needed, the MPOs and ODOT will use US EPA's MOVES2014a emissions software
- TCMs – The Ohio SIP does not include any TCMs
- Conformity process schedule
    - Each MPOs will conduct a public review of its 2021 - 2024 TIP and 1997 Ozone Standard "Orphan" area conformity determination information consistent with its adopted Public Involvement Process. The MPO TIP public involvement processes will be coordinated

with ODOT's STIP public involvement period, as recorded below.

MPO	ODOT STIP Public Involvement Period	MPO TIP Public Involvement Period	MPO Policy Board TIP Approval & Conformity Determination Resolution Date
Toledo / TMACOG	March 30, 2020 – April 10, 2020	3/30/20 – 4/10/20	4/15/20
Lima / LACRPC		3/30/20 – 4/10/20	4/23/20
Dayton / MVRPC		3/11/20 - 4/13/20	5/7/20
Springfield / SCC-TCC		3/30/20 – 4/10/20	5/8/20
Youngstown / Eastgate		3/30/20 – 4/10/20	4/27/20
Wheeling / Bel-O-Mar		3/26/20 – 4/10/20	4/30/20
Parkersburg / WWW		3/30/20 – 4/10/20	5/20/20

- MPO Conformity Tests
    - 1997 Standard Ozone "Orphan Area" qualitative conformity determination

Outcomes:

- ODOT and the MPOs listed above request Ohio's Transportation Conformity Interagency Consultation Partners review the information above and provide written concurrence/comments that the documentation herein meets the requirements for advancing **qualitative** 1997 Ozone Standard "Orphan" Area Transportation Plan and 2021 – 2024 TIP conformity determinations. All partners responded concurrence via e-mail on the following dates.

FHWA: Noel Mehlo (12/30/2019) and Chandra Inglis-Smith (1/2/2020)
FTA: Mark Kane (1/2/2020)
U.S. EPA: Anthony Maietta (1/2/2020)
OEPA: Paul Brown (1/6/2020)

Good morning,

Sorry this is late, I've been on vacation. I had a chance to review the approach and OEPA does not have any issues.

Thanks

Paul

Paul J. Braun, P.E.
Air Quality Evaluation and Planning (AQE&P)
Ohio EPA Division of Air Pollution Control
614-644-3734

From: Maietta, Anthony <maietta.anthony@epa.gov>
Sent: Thursday, January 2, 2020 2:35 PM
To: Kane, Mark (FTA) <Mark.Kane@dot.gov>; Inglis-Smith, Chandra (FHWA) <chandra.inglis-smith@dot.gov>; Mehlo, Noel <noel.mehlo@dot.gov>; Moore, David <Dave.Moore1@dot.ohio.gov>; Braun, Paul <paul.braun@epa.ohio.gov>; Burkett, Frank <frank.burkett@dot.gov>; Johns, Andy (FHWA) <Andy.Johns@dot.gov>; Stemen, Carmen (FHWA) <carmen.stemen@dot.gov>
Cc: Dave Gedeon <gedeon@tmacog.org>; Lance Dasher <dasher@tmacog.org>; 'M Schumaker' <mschumaker@lacrpc.com>; 'Ken Sympson' <ksympson@eastgatecog.org>; rsharma@belomar.org; randy.durst movrc.org <randy.durst@movrc.org>; Shepler, Andrew <Andrew.Shepler@dot.ohio.gov>; Hill, Anthony <ANTHONY.HILL@dot.ohio.gov>; Brugler, Nathaniel <Nathaniel.Brugler@dot.ohio.gov>; aramirez@mvrpc.org; sschmid@clarkcountyohio.gov
Subject: RE: Ohio 2021 - 2024 TIP Conformity - Interagency Consultation

EPA is good with this approach.

Thanks!

-Tony

Anthony Maietta

EPA Region 5

(312) 353-8777

maietta.anthony@epa.gov

From: Kane, Mark (FTA) <Mark.Kane@dot.gov>
Sent: Thursday, January 02, 2020 1:30 PM
To: Inglis-Smith, Chandra (FHWA) <chandra.inglis-smith@dot.gov>; Mehlo, Noel (FHWA) <Noel.Mehlo@dot.gov>; Dave.Moore1@dot.ohio.gov; Maietta, Anthony <maietta.anthony@epa.gov>; paul.braun@epa.ohio.gov; Burkett, Frank (FHWA) <Frank.Burkett@dot.gov>; Johns, Andy (FHWA) <Andy.Johns@dot.gov>; Stemen, Carmen (FHWA) <carmen.stemen@dot.gov>
Cc: Dave Gedeon <gedeon@tmacog.org>; Lance Dasher <dasher@tmacog.org>; 'M Schumaker' <mschumaker@lacrpc.com>; 'Ken Sympson' <ksympson@eastgatecog.org>; rsharma@belomar.org; randy.durst movrc.org <randy.durst@movrc.org>; andrew.shepler dot.ohio.gov <andrew.shepler@dot.ohio.gov>; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Brugler@dot.ohio.gov; aramirez@mvrpc.org; sschmid@clarkcountyohio.gov
Subject: RE: Ohio 2021 - 2024 TIP Conformity - Interagency Consultation

Hi everyone,

FTA Region V is also good with this approach.

Thanks.

Mark

Mark Kane

Community Planner

Federal Transit Administration

200 West Adams Street, Suite 320

Chicago, IL 60606

312.353.1552

From: Inglis-Smith, Chandra (FHWA)
Sent: Thursday, January 2, 2020 12:50 PM
To: Mehlo, Noel (FHWA) <Noel.Mehlo@dot.gov>; Dave.Moore1@dot.ohio.gov; Anthony Maietta (Maietta.Anthony@epamail.epa.gov) <Maietta.Anthony@epamail.epa.gov>; paul.braun@epa.ohio.gov; Kane, Mark (FTA) <Mark.Kane@dot.gov>; Burkett, Frank (FHWA) <Frank.Burkett@dot.gov>; Johns, Andy (FHWA) <Andy.Johns@dot.gov>; Stemen, Carmen (FHWA) <carmen.stemen@dot.gov>
Cc: Dave Gedeon <gedeon@tmacog.org>; Lance Dasher <dasher@tmacog.org>; 'M Schumaker' <mschumaker@lacrpc.com>; 'Ken Sympson' <ksympson@eastgatecog.org>; rsharma@belomar.org;

randy.durst movrc.org <randy.durst@movrc.org>; andrew.shepler dot.ohio.gov <andrew.shepler@dot.ohio.gov>; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Brugler@dot.ohio.gov; aramirez@mvrpc.org; sschmid@clarkcountyohio.gov
Subject: RE: Ohio 2021 - 2024 TIP Conformity - Interagency Consultation

Thanks Noel. This all looks good to me. I appreciate ODOT's work on this.

- Chandra

304-347-5329

From: Mehlo, Noel (FHWA)
Sent: Monday, December 30, 2019 2:12 PM
To: Dave.Moore1@dot.ohio.gov; Anthony Maietta (Maietta.Anthony@epamail.epa.gov) <Maietta.Anthony@epamail.epa.gov>; paul.braun@epa.ohio.gov; Kane, Mark (FTA) <Mark.Kane@dot.gov>; Burkett, Frank (FHWA) <Frank.Burkett@dot.gov>; Johns, Andy (FHWA) <Andy.Johns@dot.gov>; Stemen, Carmen (FHWA) <carmen.stemen@dot.gov>; Inglis-Smith, Chandra (FHWA) <chandra.inglis-smith@dot.gov>
Cc: Dave Gedeon <gedeon@tmacog.org>; Lance Dasher <dasher@tmacog.org>; 'M Schumaker' <mschumaker@lacrpc.com>; 'Ken Sympson' <ksympson@eastgatecog.org>; rsharma@belomar.org; randy.durst movrc.org <randy.durst@movrc.org>; andrew.shepler dot.ohio.gov <andrew.shepler@dot.ohio.gov>; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Brugler@dot.ohio.gov; aramirez@mvrpc.org; sschmid@clarkcountyohio.gov
Subject: RE: Ohio 2021 - 2024 TIP Conformity - Interagency Consultation

Interagency Partners,

FHWA supports ODOT in this. Dave and I coordinated on the attached approaches and they are sound. Let's set this up as soon as possible if a call is needed or desired. If any of our MPO partners have any questions, please let me know and I will involve my fellow FHWA Planners as appropriate.

Noel F. Mehlo, Jr.

Planning & Environmental Specialist

FHWA Ohio Division Office; HPD-OH

200 North High Street, Room 328

Columbus, Ohio 43215-2408

(614) 280-6841 (Office)

(614) 259-3407 (Telework: M, W & F)

(614) 280-6876 (fax)

From: Dave.Moore1@dot.ohio.gov [mailto:Dave.Moore1@dot.ohio.gov]
Sent: Wednesday, December 18, 2019 9:34 AM
To: Mehlo, Noel (FHWA) <Noel.Mehlo@dot.gov>; Anthony Maietta (Maietta.Anthony@epamail.epa.gov) <Maietta.Anthony@epamail.epa.gov>; paul.braun@epa.ohio.gov; Kane, Mark (FTA) <Mark.Kane@dot.gov>; Burkett, Frank (FHWA) <Frank.Burkett@dot.gov>
Cc: Dave Gedeon <gedeon@tmacog.org>; Lance Dasher <dasher@tmacog.org>; 'M Schumaker' <mschumaker@lacrpc.com>; 'Ken Sympson' <ksympson@eastgatecog.org>; rsharma@belomar.org; randy.durst movrc.org <randy.durst@movrc.org>; andrew.shepler dot.ohio.gov <andrew.shepler@dot.ohio.gov>; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Brugler@dot.ohio.gov; aramirez@mvrpc.org; sschmid@clarkcountyohio.gov
Subject: Ohio 2021 - 2024 TIP Conformity - Interagency Consultation

Ohio AQ Interagency Consultation Partners,

ODOT and our MPO partners are initiating transportation conformity interagency consultation for the Ohio 2021 – 2024 S/TIP. Interagency consultation will be accomplished via a series of email streams and conference calls. This initial effort will focus on the Ohio MPOs/Air Quality Areas that are solely designated as 1997 Ozone Standard "Orphan" Areas. There are seven such Ohio MPO areas. Pursuant to US EPA November 2018 Transportation Conformity Guidance for the *South Coast II* Court Decision < https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100VQME.pdf > these MPOs will be advancing qualitative conformity determinations.

Attached is a 2021 – 2024 TIP conformity summary for these seven 1997 Ozone "Orphan" Area MPOs. The summary identifies the MPOs, their respective air quality area geographies, the 40 CFR 93.109 conformity criteria, and identifies the S/TIP public involvement periods for ODOT and the MPOs. Each MPO's public involvement effort will include information on the region's air quality conformity determination process.

Note, six MPOs will be advancing conformity determinations for their existing Transportation Plans and new 2021 – 2024 TIPs. The Toledo MPO (TMACOG) will be advancing a conformity determination for a new 2045 Transportation Plan and new 2021 – 2024 TIP.

Also attached is a word version of US DOT's 1997 Ozone Area Conformity Documentation Template. US DOT has suggested MPOs can edit this template to record the results of their T-Pan/TIP conformity processes.

ODOT and the affected MPOs request interagency consultation email review of the attached 1997 Ozone Orphan Area Conformity Summary. Please respond with questions, comments, or confirmation that seven 1997 Ozone Standard MPOs can advance qualitative T-Plan/2021 -2024 TIP conformity determinations.

A conference call can be scheduled, as needed.

Thanks

Dave Moore

ODOT Statewide Planning Manager

Appendix B:
Public Involvement Documents

Transportation Improvement Program – Public Comment Period

The Toledo Metropolitan Area Council of Governments is inviting public review and comment on the 2021-2024 Transportation Improvement Program (the TIP) for Lucas and Wood counties in Ohio. The fiscal year 2021-2024 TIP will include approximately $429 million in programmed projects from all sources: $308 million in federal dollars, $58 million in state, and $63 million local. Comments will be accepted through April 10, 2020.

Public meetings were cancelled because of the CORVID-19 health emergency, but documents are available for review and comment at http://www.tmacog.org/TIP_home.htm.

On that webpage, see three links: the link for the **complete document**, a link to an **interactive map** showing all the projects where anyone may leave comments about specific projects or locations, and a link to a **comment form**. TMACOG will respond to comments if contact information is provided. Public input and comments may also be mailed to TMACOG, PO Box 9508, Toledo OH 43698-9508, emailed to dasher@tmacog.org, or left as a voice message at 419.241.9155, ext. 1115.

People requiring special accommodations for language or mobility disabilities may request assistance: 419.241.9155 ext. 1107 or **allen@tmacog.org**.

#570545

PROOF OF AD

03/26/20

THE BLADE

541 N. Superior • Toledo, Ohio • 43660 • 419-724-6000

This is a final proof.
If any information is incorrect, please contact your sales representative prior to the deadline of the first insertion. Otherwise your order is accepted as having been approved.

Ad ID:	**570545**
Account:	**100171**
Name:	
Company:	**TMACOG**
Address:	**PO BOX 9508** **TOLEDO, OH 43602**
Telephone:	**(419) 241-9155**

Description:	**Transportation Improvement Program P**
Run Dates:	**03/29/20 to 03/29/20**
Class:	**10**
Orig User:	**KMCDANIEL**
Taken On:	**03/25/20**
Placed By:	**MARY PAT MCCARTHY**
Lines:	**41**
Col x Depth:	**1 x 3.694**
Ad Cost:	**$244.40**

For any questions concerning your ad please contact:
Lisa at **lberg@toledoblade.com**

or Call **(419) 724-6419**

THE BLADE

541 N. Superior Street, Toledo, OH ,43660

Classified: 419-724-6500
Fax: 419-724-6438
General: 419-724-6000

AFFIDAVIT OF PUBLICATION
STATE OF OHIO, LUCAS COUNTY}SS.

TMACOG
Account: 100171
Classification 10 - Legal Notices
Width: 1 x Depth: 3.5
Ad # 568204
Price: $173.28

RECEIVED MAR 09 2020

Regional Transportation Plan – Public Comment Requested

The Toledo Metropolitan Area Council of Governments (TMACOG) is inviting public review and comments on the "On the Move: 2045 Transportation Plan – Update 2020."

The purpose of the "On the Move: 2015-2045 Transportation Plan – Update 2020" is to provide a blueprint of transportation projects, initiatives, and policies that will guide more than $3.8 billion of public investment over 25 years to enhance our regional transportation system. This plan addresses all transportation modes including roads, rail, air, water, transit, and non-motorized (bikes and pedestrians). There is a focus on integrating improvements to further develop a multi-modal transportation system moving both people and goods.

The public comment period is March 4, 2020 through April 17, 2020. Comments can be submitted to TMACOG by mail (PO Box 9508, Toledo, OH 43697-9508), by phone (419.241.9155 ext. 1117), or by e-mail to bechstein@tmacog.org The draft of the 2045 Plan can be reviewed at the TMACOG office, 300 Martin Luther King Jr. Drive, Ste. 300 Toledo, Ohio 43604 or online at www.tmacog.org/onthemove during the plan comment period.
#568204

PUB	START	STOP	TOTAL # OF INSERTS
The Blade	03/04/20	03/04/20	1
Digital	03/04/20	03/04/20	1

I, Lisa Berger being first duly sworn, make oath and say that I am an Advertising Clerk in the employ of The TOLEDO BLADE CO., the publishers of THE BLADE, that I personally know the facts herein stated, that said BLADE is a daily newspaper printed, and of general circulation in excess of 15,000, in said County, and in said State, and that the notice of which the below is a true copy of the text, was published in said Daily BLADE according to the above run schedule.

Subscribed in my presence and sworn to before me this 6th day of March, A.D. 2020.

Connie Paul
Notary Public, State of Ohio

NOTARY PUBLIC STATE OF OHIO

CONNIE J. PAUL
Notary Public, State of Ohio
My Commission Expires 02-26-2022

Appendix C:
MPO Resolution

Appendix H: Plan Ranking – Analysis

2045 Project Ranking with Goal Scores

Rank	Project Description	Infrastructure	Personal Mobility	Safety	Freight	Congestion	Environmental	Economic Development	Total Score
1	Access Management to Navarre Ave between Isaac St. to Lallendorf Rd.	6	5	10	6	10	4.5	0	41.5
2	Improve I-75/US 20 interchange in Perrysburg to more efficiently handle truck traffic moving to/from US 20.	5	0	3.5	9	10	3	3	33.5
3	Widen I-475 to 6 lanes from US 23 interchange east to Douglas Rd.	6	0	5.5	8.5	10	0.5	0.5	31
4	Holland-Sylvania corridor improvements from Airport Hwy to Central Ave. - Access management and intersection improvements (Angola, Hill, Door, and Bancroft).	7	0	9	6	5.5	3.5	0	31
5	Widen I-475 to 6 lanes(including Maumee River bridge) from US 24 to I-75 interchange in Wood Co. Including safety improvements at interchange.	6	0	5.5	8.5	10	0	0.5	30.5
6	Widen US 23 to 6 lanes from I-475 to the Monroe Street Interchange.	6	0	3.5	10	10	1	0	30.5
7	Reconstruct Sylvania Ave. from Secor to Douglas Rds. to improve safety.	7	0	8	3	8.5	3	0	29.5
8	Build Douglas/Laskey/Tremainsville roads intersection improvements.	7	0	4.5	5.5	8.5	3	0	28.5
9	Widen SR 795 to 4 lanes between Lemoyne Rd and I-280 Interchange; widen the I-280 overpass bridge; build a grade separation at the CSX rail crossing.	6	0	5.5	7.5	7	1.5	1	28.5
10	Replace TARTA bus fleet (2 cycles of replacement).	10	10	1	0	0	5.5	1	27.5
11	Construct rail grade separation at Phillips Ave. and Norfolk Southern railroad to improve access to the Phillips I-75 interchange.	7	0	4.5	5.5	5.5	3.5	1.5	27.5
12	The proposed project consists of replacing the existing signalized intersection at SR-105 (Wooster St) & Dunbridge Rd with a roundabout.	5.5	0	6	4.5	7	4.5	0	27.5
13	Implement Lucas County-wide public transit.	0	10	1	0	3	10	3	27
14	Upgrade most frequently-used transit stops to make them user friendly and handicapped accessible.	10	10	1	0	0	5.5	0	26.5
15	Find a solution to truck traffic using Nebraska Ave to connect from NS Rail Terminal to I-75 Collingwood interchange - possible new connector route.	3	0	7	6	4.5	4.5	1	26
16	I-475 to Alexis Rd widening with complete streets improvements	6	2	7	1.5	5.5	3.5	0	25.5
17	Improvements to the intersection of Sylvania/Jackman/Tremainsville.	5	0	6.5	3	7	3.5	0	25
18	Build Detroit/Telegraph/Laskey roads intersection improvements.	6	0	5.5	7	4.5	2	0	25
19	Construct the downtown Riverwalk/Nautical Mile.	0	9	3.5	0	3	6.5	3	25
20	Construct Chessie Circle Trail (rail-trail), from Laskey Rd. to W.W. Knight Preserve in Wood Co. (excludes three separate projects, path from river to Glanzman, path from Jackman to University Hills Blvd, and new Maumee River bridge).	0	10	3.5	0	3	6	2	24.5
21	The proposed project consists of replacing the existing T intersection entrance to Woodbridge Industrial Park at Woodbridge Blvd & Dunbridge Rd with a roundabout.	4.5	0	4.5	3	8.5	3.5	0.5	24.5
22	McCord Rd. corridor improvements from Kipling Dr. to Sylvania Ave. - access management and intersection improvements (Angola, Hill, Dorr, and Bancroft).	6	0	9	3	1.5	4.5	0	24
23	Add left and/ or right turn lanes on US 20/23 at Glenwood Rd., Oregon Rd., Tracy Rd., and Luckey Rd. to improve safety and traffic flow.	4	0	4.5	5.5	5.5	2	2	23.5
24	Intersection improvements at Summit and Clayton; possible roundabout.	4.5	2	9	1.5	1.5	4.5	0.5	23.5
25	Swan Creek Trail: Construct a bike facility from Manley to Garden to Holland-Sylvania Rd.into Swan Creek Metropark to connect to Byrne Rd. to Arlington Ave., then to the Chessie Circle Trail.	0	9	3.5	0	3	6	1.5	23
26	Add center turn lanes to Sterns (Adler Rd. to Telegraph/US 24) and Smith Rds. (Whiteford to Telegraph) in Monroe Co.	7	0	6.5	5.5	4.5	-0.5	0	23
27	Sylvania Avenue capacity and safety improvements, McCord Road to US-23, additional lanes and / or roundabout project.	4	0	8	1.5	5.5	3	0	22
28	Safe Routes to School - Toledo: Complete facilities outlined in approved Toledo Public Schools travel plan.	0	9	3.5	0	1.5	8	0	22
29	Eliminate rail/highway conflicts on Matzinger Rd at the Ann Arbor and CSX rail crossings - possible grade separation.	3	0	2	8.5	4.5	3.5	0.5	22
30	Widen US 20 (Central Ave) from Centennial to west of Crissey Rd (increase to 5 lanes).	5	0	3.5	5.5	7	0.5	0	21.5
31	Riverside Trail: Construct a multi-use path from Cullen Park south along Summit St., to Water St., along the riverfront to Owens Corning Pkwy, to bike lanes on Ottawa St. and Emerald Ave. and connect to the committed sidepath along the Anthony Wayne Trail	0	10	3.5	0	1.5	6	0.5	21.5
32	Re-establish Toledo to Detroit passenger rail service	0	9	0	0	3	7	2.5	21.5
33	New Maumee River passenger and freight rail bridge at the Middle Grounds	5	2	0	6	3	3.5	1.5	21
34	Riverside Trail East: Construct a path from Hollywood Casino north along the Maumee River to Miami St. at Oakdale Ave.; continue north along Miami St. International Park.	0	9	2	0	3	6	0.5	20.5
35	Overland Trail: Construct a sidepath from Expressway Dr. and Stickney Ave to Manhattan Ave to existing facilities on Summit St.	0	9	2	0	3	6	0.5	20.5
36	Cherry-University Trail: Construct a sidepath along Dorr St. from Douglas Rd. to 17th St. where the trail would turn north into bike lanes to Franklin Ave. and continue as bike lanes until Cherry St. where it would turn northwest into a sidepath to meet the Overland Trail	0	9	2	0	1.5	8	0	20.5
37	Upgrade the interchange at I-75 and Cygnet Rd in Cygnet.	4	0	2	5.5	7	1.5	0	20
38	Construct Chessie Circle Trail Bridge over the Maumee River	0	5	3.5	0	3	6.5	2	20
39	Support added mechanisms for transit expansion within Wood County	0	10	0	0	3	7	0	20
40	Secor Rd Improvements from Bancroft St. to Central Ave. (lane widening, access management)	6.5	0	6.5	1.5	3	2	0	19.5
41	Maumee City Bicycle Network: Provide a group of facilities to create a bicycle network connecting to and through City of Maumee	0	9	1	0	3	6.5	0	19.5
42	Safe Routes to School: Complete facilities outlined in approved school travel plans (excluding Toledo Public Schools, listed as separate project)	0	8	3.5	0	1.5	6.5	0	19.5
43	Build Sylvania Ave / Herr Rd. roundabout, includes sidewalks and accommodation for bikes	4	0	5	1.5	4.5	4.5	0	19.5
44	Implement a transit connection between Toledo and Bowling Green	0	7	0	0	3	8	1	19
45	Erie Township and Overland Trail Connector: Provide a bike facility from Stickney Ave. at Manhattan Ave., north to Benore Rd. to Dixie Hwy	0	5	1	0	7	6	0	19
46	Build Crissey Rd./Angola Rd. (E) roundabout, includes sidewalk and accommodation for bikes	3	1	6	1.5	4.5	3	0	19
47	Find a solution to blocked rail crossing at SR 235/SR 18 and CSX RR in Hoytville - possible grade separation or highway bypass.	4	0	2	6	5.5	1	0.5	19

2045 Project Ranking with Goal Scores

Rank	Project Description	Infrastructure	Personal Mobility	Safety	Freight	Congestion	Environmental	Economic Development	Total Score
48	Woodville Road corridor safety improvements from Wheeling Street to Williston Road (SR579). Project includes signal upgrades, and roundabout at SR51 & Lemoyne Road, sidewalk improvements, and a road diet on SR579.	3.5	0	5.5	0	5.5	4.5	0	19
49	Greenhouse Trail: Construct a bike facility from the University/ Parks Trail at Reynolds Rd. to Elmer Dr., then south through Toledo Botanical Gardens to Bancroft St.; via various streets to a path through Keil Farm; then via various streets to existing sidepath to Eastgate and Cass Rd. facilities to Turnpike	0	9	2	0	1.5	6	0.5	19
50	Trilby-Washington Trail: Construct a bike facility on Sylvania Ave. from Talmadge to Harvest Ln., then bike lanes north to McGregor Ln., then east via various streets to Jackman Park, to the Chessie Circle Trail, and through various streets to Lagrange St. to the Overland Trail	0	9	1	0	3	5.5	0	18.5
51	Bowling Green City Bicycle Network: Provide a group of facilities to create a bicycle network in the city and connecting to surrounding Wood County communities.	0	8	1	0	3	6	0.5	18.5
52	Oregon Trail: Construct a path/sidepath to connect Craig St. Bridge path and Seaman Rd., to connect Cities of Toledo and Oregon	0	7	3.5	0	1.5	6.5	0	18.5
53	Construct a pedestrian bridge over Douglas Rd. (Chessie Circle Trail and Marwood Ave. to University of Toledo)	0	5	3.5	0	3	7	0	18.5
54	Monclova Rd. 3 lane with bike lanes east of N. Jerome Rd to I-475	4	2	2	1.5	5.5	3.5	0	18.5
55	Build Providence-Neapolis-Swanton Road / Archbold-Whitehouse Rd. roundabout, includes sidewalks and accommodation for bikes	3.5	0	5	0	5.5	4.5	0	18.5
56	Albon and Monclova Roads roundabout, includes paved shoulders for bikes on the approaches and new sidewalks for peds within the roundabout.	3	2	4.5	0	5.5	3	0	18
57	Buckeye Basin Trail: Construct a facility to provide connection to Uptown District with a trail starting at f Woodruff/Franklin Aves., then following the existing Greenbelt Pkwy trail to the Overland Trail via Buckeye St.	0	7	1	0	1.5	8.5	0	18
58	Intersection Improvements at Flower Hospital Driveway (Harroun Rd). Potential light or roundabout	4.5	0.5	4.5	0	8.5	0	0	18
59	University/Parks Trail Extension North: Construct a multi-use rail-with-trail or rail-to-trail (right-of-way acquisition needed) adjacent to Memorial Hwy starting at U/P Trail, north to Sterns Rd. in Monroe County	0	7	3.5	0	3	4	0.5	18
60	Build Monclova Road/Waterville-Monclova Rd. roundabout, includes sidewalks and accommodation for bikes	3	0	5	0	5.5	4.5	0	18
61	Collingwood, Monroe to I-75 – Reconstruct Collingwood with roundabout at Monroe. Realign local street access to Toledo Museum of Art and enhance gateway area.	5.5	0	3.5	0	4.5	3.5	0.5	17.5
62	Bancroft Street and Crissey Road roundabout, includes paved shoulders for bikes on the approaches and new sidewalks for peds within the roundabout.	3	2	4.5	0	4.5	3.5	0	17.5
63	Crissey Road and Dorr Street, two roundabouts, includes paved shoulders for bikes on the approaches and new sidewalks for peds within the roundabout.	3	1	4.5	0	5.5	3.5	0	17.5
64	Widen Lime City Rd in the City of Rossford (SR 65-Buck Rd) ; and widen in Wood County (I-75 to SR 795).	6	0	3.5	4	3	1	0	17.5
65	Monclova Road, roundabout at Coder Road, and widen to 3 lanes, Coder to Waterside; includes paved shoulders for bikes, and elimination of gaps in sidewalks for peds.	6	2	2	0	5.5	2	0	17.5
66	Find a solution to blocked CSX rail crossings in North Baltimore - possible grade separation/pedestrian bridge/advance warning signals.	2	2	4.5	5.5	1.5	2	0	17.5
67	Build Weckerly Rd. / Stitt Road roundabout, includes sidewalks and accommodation for bikes	4	0	4.5	0	4.5	4.5	0	17.5
68	Secor Rd reconstruction & widening & intersection improvements, Ohio state line to Summerfield Rd.	7	0	5	1.5	3	0.5	0	17
69	Angola-Scott Park Trail: Construct a facility to provide connection to UT Scott Park campus, starting at Angola Rd. on Reynolds Rd. north to South Ave., continuing on Arco Dr. north to Hill Ave., then east to campus	0	7	1	0	3	6	0	17
70	The proposed project consists of replacing two existing intersections (Shepler and Providence) that are located only 200' apart along SR64 with a new five leg roundabout.	2	0	4.5	0	7	3.5	0	17
71	Holland-Sylvania corridor improvements from Central Ave. to Harroun Road - access management and intersection improvements.	5.5	0	3.5	0	4.5	3.5	0	17
72	Complete the Oregon bike network	0	6	2	0	3	5.5	0	16.5
73	Build Frankfort Rd./Crissey Rd. roundabout, includes sidewalks and accommodation for bikes	3	1	4.5	0	4.5	3.5	0	16.5
74	Provide bicycle lanes on SR 65 in Rossford from the Lucas/Wood County line through the Rossford downtown area	0	6	3.5	0	1.5	5.5	0	16.5
75	Improve Tracy Rd between SR 795 and Wales Rd to accommodate truck traffic - increase weight limit; minor widening; improve guardraild; add sidewalks	5	0	2	4.5	3	1	1	16.5
76	Chessie Circle Trail Alternate Routes: provide bike facilities to bypass the active rail section (Dorr St. to Glanzman Rd.)	0	7	1	0	1.5	6	0.5	16
77	Cherry-University Trail to Riverside Trail connector: Construct a bike lane on City Park Ave. between Dorr St. and Anthony Wayne Trail at Emerald Ave., to connect Cherry University Trail with Riverside Trail and the proposed facility on Emerald Ave.	0	6	1	0	2	7	0	16
78	Complete Sylvania River Trail Phases 3: provide a path to connect to existing facilities and to cross US 23	0	4	3.5	0	3	4.5	1	16
79	Intersection improvements at Monroe Street and Erie Street. Single lane roundabout installation	4.5	0	5	0	3	3.5	0	16
80	Sailsbury rd from Holloway Road to Strayer Road geometric improvements	5	0	2	1.5	5.5	2	0	16
81	Build Nebraska Ave./Centennial Rd. roundabout, includes sidewalks and accommodation for bikes	3	0.5	4.5	1.5	3	3	0	15.5
82	Improve an existing route to serve as a safe and efficient truck connection between I-75 and the City of Fostoria.	4	0	2	6	3	-1.5	2	15.5
83	Bancroft Street improvements McCord Rd to I-475	5.5	0	3.5	0	4.5	2	0	15.5
84	Fill in the gaps of sidewalks and provide ADA curb ramps and crosswalks at public roadway intersections along the Angola Rd corridor from Holland-Sylvania to Crissey Road	0	6	3.5	0	1.5	4.5	0	15.5
85	Replace pavement on Oregon Rd. from US 20 to the Ohio Turnpike	8	0	1	0	4.5	1.5	0	15
86	Implement a one-call/one-click transit information center for Toledo metro area	0	8	0	0	0	7	0	15

2045 Project Ranking with Goal Scores

Rank	Project Description	Infrastructure	Personal Mobility	Safety	Freight	Congestion	Environmental	Economic Development	Total Score
87	Western Lucas County bike connections: Provide a facility along Fulton-Lucas County line from Bancroft St. to Brint Rd., and on Brint from the county line to Kilburn Rd. Provide a facility along Old State Line Rd. from the county line to Crissey Rd., then on Crissey to Angola Rd., then along Angola to Holland-Sylvania Ave.	0	6	1	0	1.5	6.5	0	15
88	Add a sidepath along SR 64 (Waterville-Swanton Rd.) from Whitehouse to Waterville	0	4	4.5	0	1.5	5	0	15
89	Improve infrastructure at the Toledo Shipyard facility at the Port of Toledo - repair dry dock gates/dredging.	5	0	1	4.5	0	3	1.5	15
90	Find solution to blocked rail crossing on Summit St at CSX impeding access to Point Place - possible grade separation.	6	0	2	4	1.5	1.5	0	15
91	Corridor Trail: Construct multiuse path from Wiregarass Lake to the Wabash Cannonball Trail North Fork.	0	6	3.5	0	3	2	0.5	15
92	University/Parks Trail Extension: Extend the University/Parks Trail from Silica Rd to Sylvan Prairie.	0	4	3.5	0	3	4	0.5	15
93	Construct a railroad grade separation over Norfolk-Southern in Lucas County, at either SR 295 or Eber Road.	2	0	3.5	5.5	1.5	2	0	14.5
94	North Curtice Road roundabouts (3) at Seaman, Corduroy, and Cedar Point roads, main entrance to Maumee Bay State Park off of State Route 2, includes paved shoulders for bikes on the approaches, and new sidewalks for peds.	4	1	4.5	0	3	2	0	14.5
95	Construct a roundabout at Hull Prairie and Five Point Rds	2.5	0	5.5	1.5	3	2	0	14.5
96	Richards Rd. connector: Construct a bike facility from University Parks Trail south on Richards Rd., west on Hill Ave., and south on Wenz Rd. to connect to Greenhouse Trail facility.	0	6	1	0	1.5	6	0	14.5
97	Sylvania-Wildwood connector: Provide a facility along Monroe St. in the City of Sylvania from Alexis Rd. to Corey Rd. and continuing south on Corey to Wildwood Metropark	0	6	2	0	1.5	5	0	14.5
98	Harvard Blvd. and Woodsdale Ave. connector: Add a bike facility from Highland Park to the existing facility on Broadway St. along Woodsdale and Harvard	0	5	1	0	1.5	6.5	0	14
99	Wabash-Cannonball Trail and North Coast Inland Trail Connector: Provide a facility along SR 163 (Genoa Rd.) west of Genoa to East Broadway St. to Five Point Rd., west to River Rd., then cross the Maumee River in Waterville	0	5	1	0	3	4.5	0.5	14
100	Construct a Regional Central Traffic Control System including adaptive traffic control for major arterial corridors	0	0	2	4	1.5	6	0	13.5
101	Provide signal prioritization for transit and emergency vehicles, extending green light as they approach intersection	0	5	2	0	0	6.5	0	13.5
102	Point Place Connector: Add a facility from existing Suder Ave. bike lanes north to Shoreland Dr., east to Summit St., then south to Riverside Trail facility at Cullen Park	0	6	1	0	1.5	5	0	13.5
103	Dock wall replacement at Port Facility 1 (General Cargo Facility).	5	0	0	6	0	2	0.5	13.5
104	Toledo Express Airport facility improvements - taxiways; approaches; boarding bridge; perimeter roads; fences.	5	0	1	6	0	1	0.5	13.5
105	Hill Ave. improvements McCord Rd to Holland Sylvania	4	0	4.5	0	3	2	0	13.5
106	US 20A from SR-2 to Briarfield Blvd.	5	0	4.5	0	1.5	1	1.5	13.5
107	Southern Monroe County East-West Connector: Provide a facility from proposed University/Parks Trail North extension at Sterns Rd., north along Head-O-Lake Rd., east on Consear Rd., south on Douglas Rd.; and south from Consear Rd. on Whiteford Rd. to Sterns Rd. and Whiteford Stoneco Park	0	6	1	0	1.5	4.5	0	13
108	Improve an existing route to serve as a safe and efficient truck connection between US 23 and I-75 in Monroe Co.	3	0	5.5	3	0	1	0.5	13
109	Add paved berms to SR 65 (Village of Grand Rapids to City of Rossford)	0	8	1	0	1.5	2	0	12.5
110	Governor's Showcase and Chessie Circle Connection: Provide a bike facility from Luna Pier on Luna Pier Rd., crossing the Governor's Showcase Trail west along Samaria Rd. to Lewis Ave., then south through Temperance, then west on Dean Rd., then south on Douglas Rd. to Tremainsville Rd., then southeast to Chessie Circle Trail	0	8	1	0	1.5	2	0	12.5
111	Whiteford Township to Trilby-Washington Trail Connector: Provide a bike facility starting on McGregor Ln. then north on Clover Ln., crossing the state line to Clover Rd., and then northwest on Whiteford Center Rd. to connect to Sterns Rd. near Whiteford Stoneco Park	0	5	1	0	1.5	5	0	12.5
112	Build second vessel berth at Port of Toledo Ironville Terminal.	0	0	0	6	0	4.5	2	12.5
113	North Coast Inland and Wabash Cannonball connector: Provide a facility along Thompson Rd. from Five Point Rd. to existing sidepath, and provide a sidepath along Crossroads Pkwy., to Bass Pro Blvd. with a sidepath along Bass Pro Blvd. to Lime City Rd. Provide a facility along Lime City Rd. between Mandell and Five Point Rds. Provide facilities along Buck, Ford, and Bates Rds.	0	4	1	0	3	4	0	12
114	Bowling Green-Pemberville Connector: Add bike facilities from the Bowling Green network at Gypsy Lane, Napoleon, and Poe Rds. heading northeast to connect to SR 105, then south on Silverwood Rd., then east on Alexander Rd. to Pemberville	0	4	1	0	1.5	5.5	0	12
115	Governor's Showcase Trail: Provide a facility in Erie Township along M-125 (Dixie Hwy) from Ohio-Michigan state line north toward Detroit. Potential US Bike Route 25 and/or 30 facility	0	5	1	0	1.5	4.5	0	12
116	River Road Towpath Connector: Provide a connection between Towpath Trail and Sidecut Metropark as well as the Wabash-Cannonball Trail	0	3	1	0	3	5	0	12
117	North Coast Inland Trail-Oregon Connector: Add a facility on Drouillard Rd. north from Ayers Rd. through Walbridge and Northwood to connect to the Oregon bike network	0	4	1	0	3	4	0	12
118	TARTA facilities improvements Future TARTA Transit Hub phsaes 2-4+	0	6	0	0	0	5.5	0	11.5
119	Build an eight mile extension of the Adrian & Blissfield Railroad to connect with Norfolk Sothern near Ottawa Lake, Michigan	0	0	0	6	3	0.5	2	11.5
120	Improve Port of Toledo Ironville Terminal by adding secondary bulk products stacker, additional rail car storage, and access trackage.	0	0	0	6	0	4.5	1	11.5

2045 Project Ranking with Goal Scores

Rank	Project Description	Infrastructure	Personal Mobility	Safety	Freight	Congestion	Environmental	Economic Development	Total Score
121	Purchase of an Autonomous Shuttle Bus	0	5	1.5	0	0	4.5	0.5	11.5
122	Bowling Green-Perrysburg Connector: Add a facility along Hull Prairie Rd. from River Rd. south to Hannah Rd., then east to Brim Rd., then south to the Bowling Green bike network	0	4	1	0	1.5	4.5	0	11
123	Pray Blvd. connector: Construct a mulit-use path from SR 64 to Towpath Trail	0	2	2	0	3	4	0	11
124	Bowling Green-Grand Rapids connector: Add a facility from Grand Rapids to Bowling Green from Sycamore Rd. south to Long Judson Rd., then heading east until Liberty Hi Rd., south to Gorrill/Conneaut Ave. into existing BG bike network	0	3	1	0	1.5	5.5	0	11
125	Design and construct Toledo Express Airport drainage improvements.	4	0	0	6	0	1	0	11
126	Find a solution to blocked rail crossing at SR 18 and CSX RR in Bairdstown - possible grade separation or highway bypass.	2	0	2	4	1.5	1	0.5	11
127	East-west shared use path in Springfield Township. The path will connect Township parks to the Toledo Metroparks from McCord Road to Eber Road.	0	4	3.5	0	1.5	2	0	11
128	Widen Glenwood Rd to 3 lanes, bridge replacements/upgrades, & signal upgrades (SR 65 to SR 795).	5	0	3.5	1.5	0	0.5	0	10.5
129	Implement a good wayfinding system (how to walk to destinations). Place signs at main locations, such as train station, bike trails, gateways to cities	0	5	0	0	0	5.5	0	10.5
130	Extend walking/bike trail .25 miles (from College Ave./Rees Rd.) north along abandoned railroad into recently acquired parkland (Pemberville)	0	1	3.5	0	1.5	4.5	0	10.5
131	Construct bulk material warehouse and liquid bulk transfer facility at Port Facility 1 (General Cargo Facility).	0	0	0	6	0	3.5	1	10.5
132	Provide a share-the-road signed route along S. River Rd. from Fulton-Lucas County Line to Waterville	0	3	1	0	1.5	4.5	0	10
133	Bowling Green-Weston connector: Add a facility from Weston to Bowling Green along Sand Ridge Rd. and connecting to BG bike network	0	3	1	0	1.5	4.5	0	10
134	Neapolis-Waterville Rd. facility: Provide a bicycle facility along Neapolis-Waterville Rd. from Michigan Ave., west to Schadel Rd. where it connects with the Blue Creek Conservation Area and the Village of Whitehouse	0	4	1	0	1.5	3.5	0	10
135	Multi-use Path between Door and Nebraska	0	4	3.5	0	1.5	1	0	10
136	Oak Openings-Blue Creek Connectors: Provide a facility along Whitehouse-Spencer Rd. from the Wabash Cannonball Trail-North Fork south through Whitehouse to Blue Creek; and provide an east-west link on Obee Rd.	0	2	1	0	3	3.5	0	9.5
137	Obtain two mobile harbor cranes for Port Facility 1 (General Cargo Facility).	0	0	1	6	0	2	0.5	9.5
138	Maumee Bay State Park to Ottawa National Wildlife Refuge Trail.	0	2	3.5	0	3	1	0	9.5
139	Replace Rudolph Rd./ Middle Branch Portage River bridge	3	0	1	0	3	2	0	9
140	Replace bridge on Hull Prairie Road over Ditch 2090	5	1	1	0	0	2	0	9
141	Maumee Bay and Metroparks Connector: Provide a connection between Maumee Bay State Park and east Lucas County Metroparks' land	0	1	1	0	1.5	5.5	0	9
142	Improve/widen Poe Road (Green Rd to Range Line Rd); realignment at railroad crossing; bridge replacement.	4	0	1	1.5	1.5	0.5	0	8.5
143	Implement Pemberville downtown street enhancements to improve pedestrian safety	0	1	2	0	1.5	4	0	8.5
144	Confined Disposal Facility 3 improvements - add material capacity and pursue re-use opportunities for dredge material.	0	0	0	4.5	0	3.5	0.5	8.5
145	Toledo Executive Airport facility improvements - runway rehabilitation; runway crack seal; wildlife fencing.	5	0	1	0	0	2	0.5	8.5
146	Install clean air-alternative fueling stations for TARTA vehicles and public use	2	0	0	0	0	6	0	8
147	Replace bridge on Bridge St .over Middle Branch Portage River	2	0	1	0	3	2	0	8
148	Providence Neapolis Swanton Road facility: Provide a bicycle facility along Providence Neapolis Swanton Rd. from Wabash-Cannonball-South Fork south to South River Rd. to meet the Towpath Trail	0	1	1	0	1.5	4.5	0	8
149	Replace bridge on Luckey Road over Toussaint Creek	4	0	1	0	1.5	1	0	7.5
150	Replace bridge on Wintergreen Road over Beaver Creek	2	0	1	0	1.5	1.5	0	6
151	Replace bridge on Potter Road over Middle Branch Portage River	2	0	1	0	0	1	1	5
152	Swan Creek Bridge: Pedestrian bridge connecting Lafayette Street between Summit and Ottawa Street.	0	0	2	0	1.5	1	0	4.5
153	Upgrade Dr. Martin Luther King, Jr. Plaza infrastructure including renovations to the B&B storage and maintenance building.	3	0	0	0	0	0	0.5	3.5

Appendix I: On the Move: 2015-2045 Transportation Plan – Update 2020 Task Force Members

On the Move 2045: Transportation Plan - 2020 Update Task Force

MEMBERS		
Myers	Ron	Lucas County Engineers
Cousino	Kris	City of Toledo
Avila	Edgar	AAA
Bartlett	Stephanie	City of Toledo
Cappel	Joe	Toledo-Lucas County Port Authority
Chou	Eddie	University of Toledo
Cordes	Ben	ODOT District 2
Crandall	John	Sylvania Township
Etchie	Patrick	The Mannik & Smith Group Inc.
Fallows	Kenneth	Toledo Plan Commission
Gallant	Allen	Toledo Metroparks
Hampton	Mike	Springfield Township
Harbert	Bill	Toledo Planning Commission
Huber	Raymond	Freight Advisory Committee
Hunt-Thomas	Katie	The Ability Center
Jay	Mike	Regional Growth Partnership
Kerr	Cindy	ConnecToledo
Kissinger	Dave	City of Maumee
Kovacik	Tom	TAGNO
Luk	Raymond	The Mannik & Smith Group Inc.
Novak	Valerie	The Ability Center
Parrish	Doug	Lucas County Engineers
Porter	Tim	NOPRA
Russell	James	Ability Center
Schneider	Tim	Toledo Chamber of Commerce
Serratos	Sabina	Adelante
Shaw	Joe	City of Sylvania
Simmons	Ryan	Monroe County Planning
Smith	Sean	TARTA
Stookey	Gary	City of Toledo
Stormer	Mike	Lucas County Engineers
Webb	Keith	We Are Traffic
Whitney	Robin	ProMedica

Appendix J: MPO Approval Letter