



July 2015



Toledo Metropolitan Area Council of Governments

www.tmacog.org

On the Move: 2015-2045 Transportation Plan

TOLEDO METROPOLITAN AREA COUNCIL OF GOVERNMENTS

JULY 2015



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, 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.

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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."

The purpose of the "On the Move: 2015-2045 Transportation Plan" (2045 Plan) is to provide a program of transportation projects, initiatives, and policies that will guide more than \$3.3 billion of public investment over 30 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.

There was also a focus throughout plan development on full participation by local governments, businesses, and citizens. The 2045 Plan 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 more than two years, the task force worked with staff to make decisions on plan content and direction and 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 full task force and special working subcommittees (called goal groups) 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.

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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 Moving Ahead for Progress in the 21st Century Act (MAP-21). The 2045 Plan is fully compliant with 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 insure compliance with federal requirements. The "On the Move: 2015-2045 Transportation Plan" is fiscally constrained based on expected federal, state, and local resources. A fiscal balance analysis table in Chapter 6 shows anticipated transportation revenue against future project needs.

At the heart of the plan are the 176 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 \$600 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 course of the plan.

In addition to projects, the plan encompasses 15 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" Final 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 Plan is derived from two years of work, a 35-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 30 years and more.

"On the Move: 2015-2045 Transportation Plan" (2045 Plan) complies with 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, the 2045 Plan will be updated every five years, with the next update in 2020.

Projects

The list of projects we plan to accomplish in the region by 2045 is 297 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 297 projects, 176 are committed and 121 are priority. Committed projects are ordered by cost and priority projects are ranked by priority. The plan projects were developed and selected based on the eight plan goals. To read about how projects were evaluated and ranked, see Chapter 5 and www.tmacog.org/onthemove.

Initiatives

There are many valuable transportation projects that don't involve construction. The 2045 Plan includes 16 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

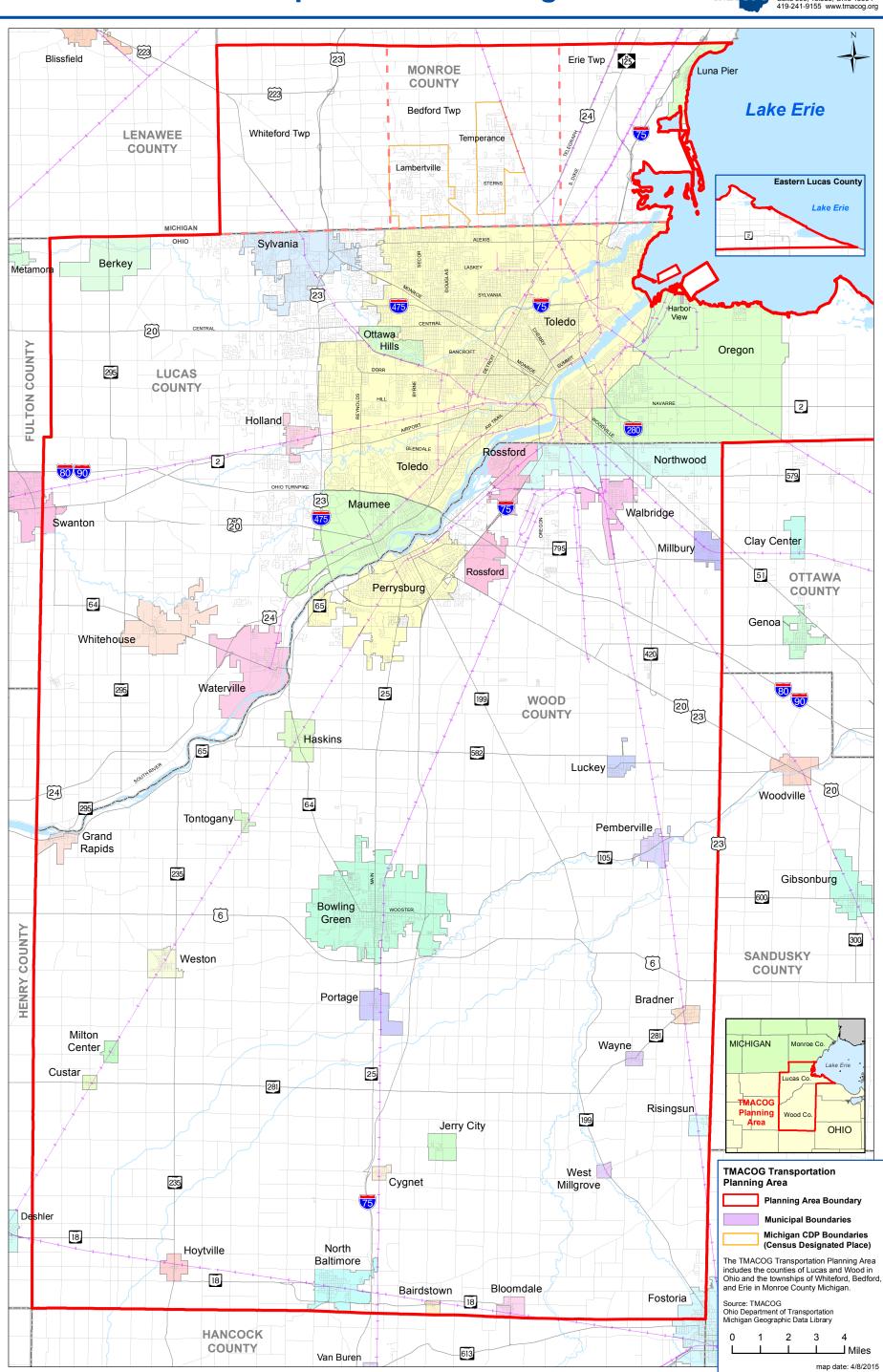
The policies established in the 2045 Plan will guide future actions in the region. These are 26 very specific positions, reflecting the task force consensus on significant challenges facing the region. From support for roundabout intersections to recommending complete streets, these policies establish a foundation for transportation-related work for the 30 next 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" 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.

TMACOG Transportation Planning Area



2 WHAT DO WE 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 percent 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, birth rates 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. **Figures 2.5 and 2.6** show the median age by census block group for the transportation planning area in 2000 and 2010. These figures illustrate the aging 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

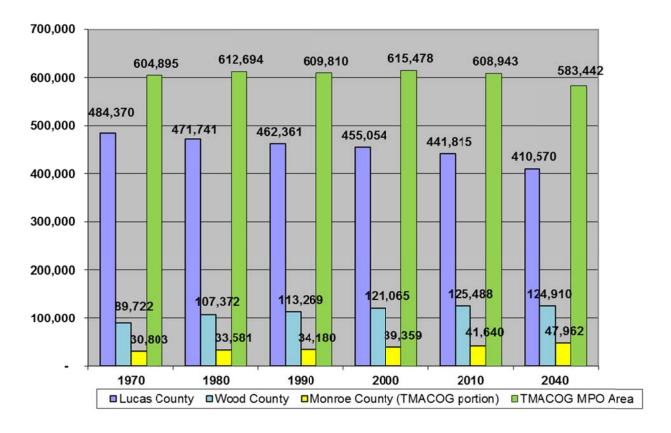


Table 2.1: Lucas County Population Projections

<u>Jurisdiction</u>	2010	<u>2020</u>	2030	2040	<u>2045</u>
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

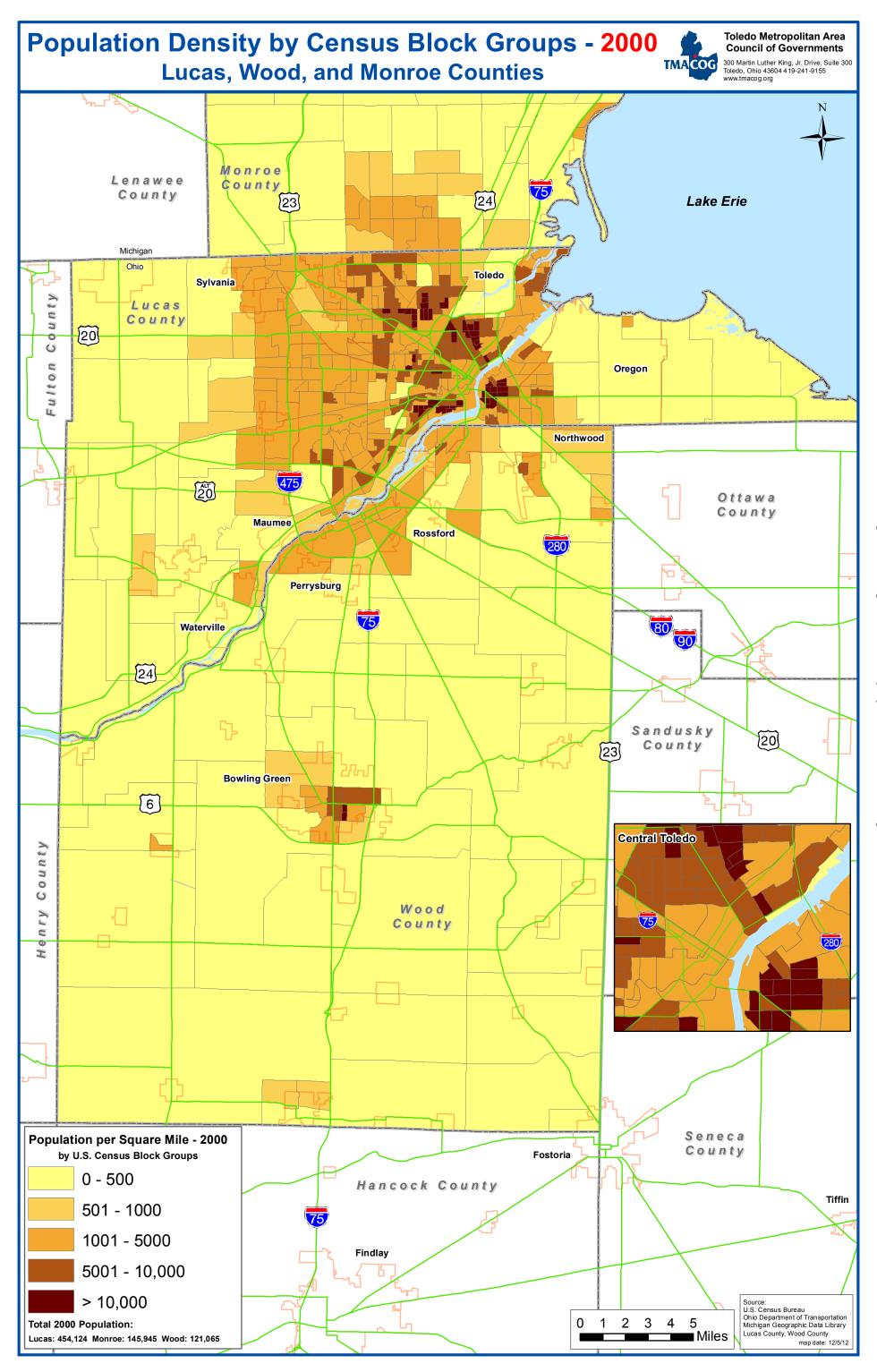
<u>Jurisdiction</u>	2010	2020	<u>2030</u>	2040	<u>2045</u>
Bairdstown Village	130	131	132	129	129
Bloom Township	1,003	1,011	1,019	997	996
Bloomdale Village	678	684	690	676	676
Bowling Green City	30,028	30,279	30,539	29,894	29,882
Bradner Village	985	993	1,001	980	979
Center Township	1,206	1,216	1,226	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

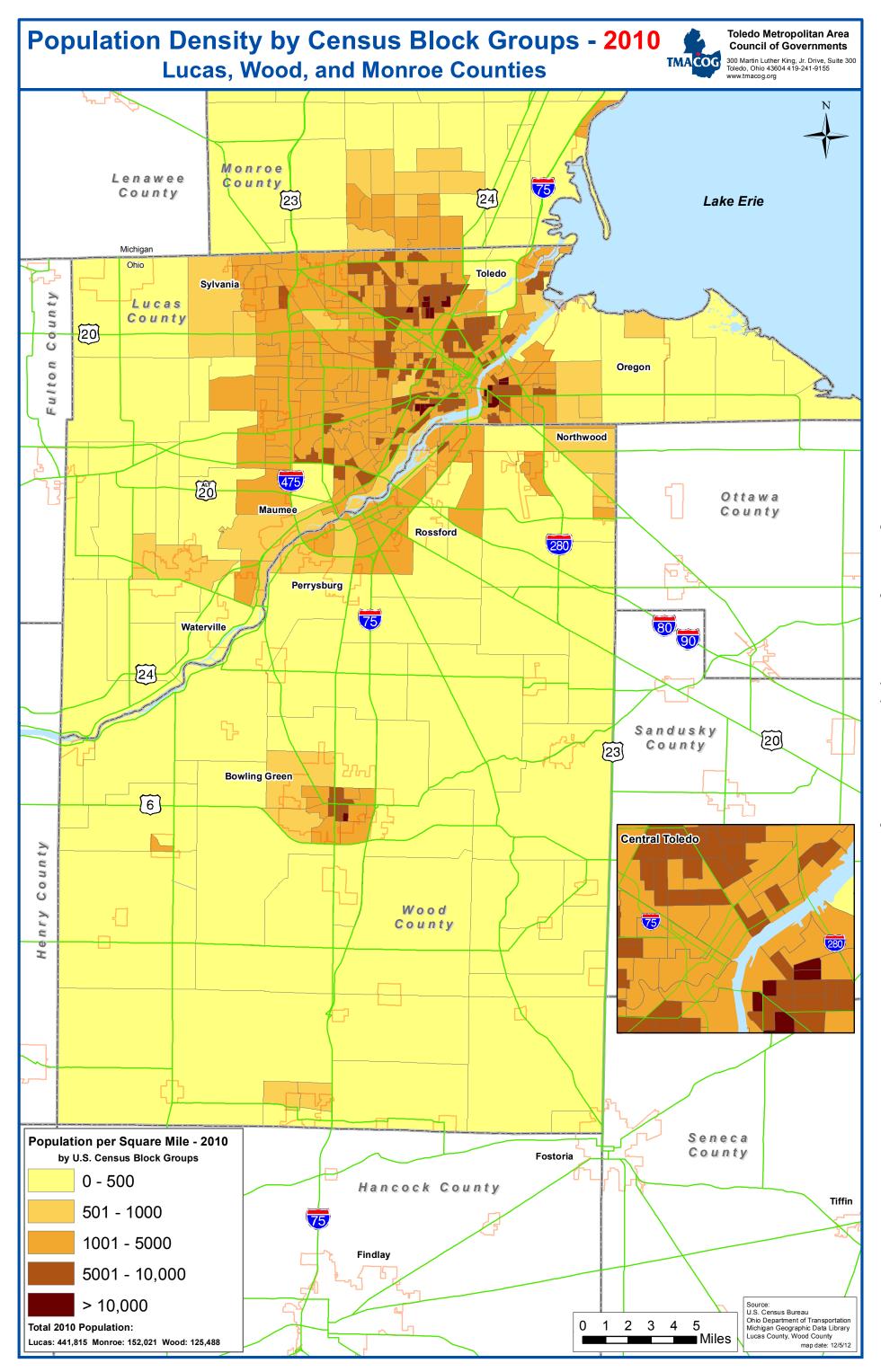
Table 2.2 Continued: Wood County Population Projections

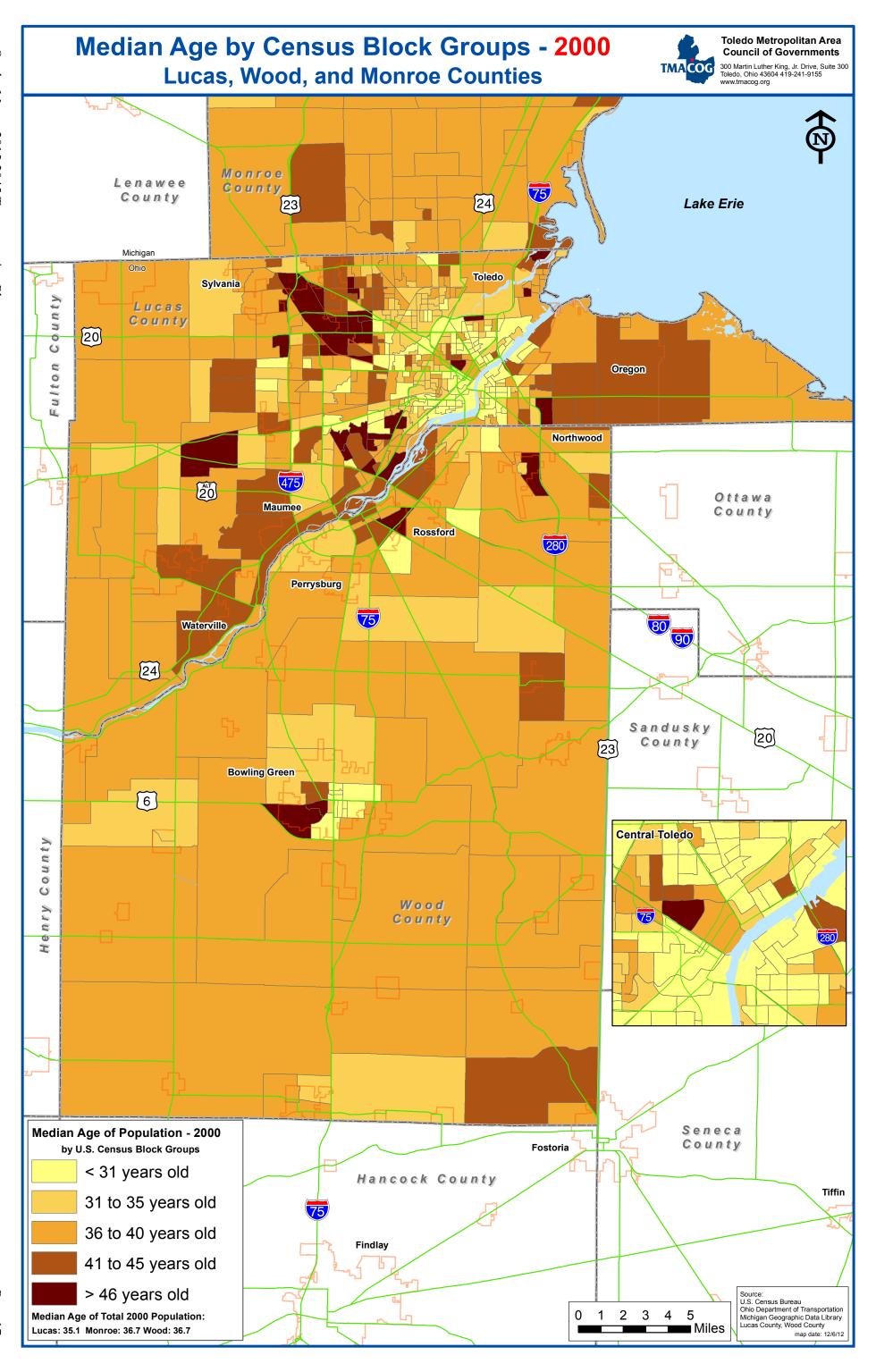
<u>Jurisdiction</u>	2010	<u>2020</u>	<u>2030</u>	<u>2040</u>	<u>2045</u>
Tontogany Village	367	370	373	365	365
Troy Township	2,867	2,892	2,916	2,855	2,855
Walbridge Village	3,019	3,044	3,069	3,004	3,003
Washington Township	1,474	1,486	1,498	1,466	1,465
Wayne Village	887	895	902	883	883
Webster Township	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)

<u>Jurisdiction</u>	2010	<u>2020</u>	2030	2040	<u>2045</u>
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







2.1.2 Housing

Similar to the population data, housing information in the 2045 Plan 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% percent increase in total housing units. **Table 2.4** highlights this data.

Conversely, 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 actually 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 such as the Standart Lofts.

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 percent, followed by Wood County at 12.4% and Lucas County at 3.2%.

Table 2.4: 2000-2010 Housing Comparison

	2010 Census 2000 Census		0/ CI	0/ (()		
	Total	Vacant	Total	Vacant	% Change in	% Change in
	Housing	Housing	Housing	Housing	Units from	Vacant Units
	Units	Units	Units	Units	2000-2010	from 2000-2010
Bedford township, Monroe County	12500	615	10659		17.3%	85.2%
Erie township, Monroe County	1969	188	1917	128	2.7%	46.9%
Luna Pier city, Monroe County	702	94	661	69	6.2%	36.2%
Whiteford township, Monroe County	1857	100	1654	72	12.3%	38.9%
Monroe County Total	17028	997	14891	601	14.4%	65.9%
Harbor View village, Lucas County	57	9	41	4	39.0%	125.0%
Harding township, Lucas County	292	17	279	13	4.7%	30.8%
Jerusalem township, Lucas County	1309	140	1198	85	9.3%	64.7%
Maumee city, Lucas County	6435	398	6613	273	-2.7%	45.8%
Monclova township, Lucas County	4808	227	2494	134	92.8%	69.4%
Oregon city, Lucas County	8759	563	8025	317	9.1%	77.6%
Ottawa Hills village, Lucas County	1850	110	1786	90	3.6%	22.2%
Providence township, Lucas County	1327	83	1251	45	6.1%	84.4%
Richfield township, Lucas County	649	37	583	21	11.3%	76.2%
Spencer township, Lucas County	737	43	659	57	11.8%	-24.6%
Springfield township, Lucas County	11446	878	9982	529	14.7%	66.0%
Swanton township, Lucas County	1247	79	1267	63	-1.6%	25.4%
Sylvania township, Lucas County	19950	1194	17297	657	15.3%	81.7%
Toledo city, Lucas County	138039	18309	139871	10946	-1.3%	67.3%
Washington township, Lucas County	1365	96	1387	47	-1.6%	104.3%
Waterville township, Lucas County	4360	180	3526	131	23.7%	37.4%
Lucas County Total	202630	22363	196259	13412	3.2%	66.7%
Bloom township, Wood County	1004	75	957	43	4.9%	74.4%
Bowling Green city, Wood County	12301	1013	10667	401	15.3%	152.6%
Center township, Wood County	455	26	419	20	8.6%	30.0%
Fostoria city, Wood County	589	81	444	39	32.7%	107.7%
Freedom township, Wood County	1099	75	1049	36	4.8%	108.3%
Grand Rapids township, Wood County	705	63	670	38	5.2%	65.8%
Henry township, Wood County	1763	168	1626	98	8.4%	71.4%
Jackson township, Wood County	290	17	276	18	5.1%	-5.6%
Lake township, Wood County	4916	395	4365	196	12.6%	101.5%
Liberty township, Wood County	715	71	710	39	0.7%	82.1%
Middleton township, Wood County	1663	92	1008	52	65.0%	76.9%
Milton township, Wood County	426	42	447	24	-4.7%	75.0%
Montgomery township, Wood County	1779	158	1750	64	1.7%	146.9%
Northwood city, Wood County	2135	110	2121	97	0.7%	13.4%
Perry township, Wood County	701	43	787		-10.9%	65.4%
Perrysburg city, Wood County	8845	599	6964	372	27.0%	61.0%
Perrysburg township, Wood County	5926	651	5504	343	7.7%	89.8%
Plain township, Wood County	684	54	662	46	3.3%	17.4%
Portage township, Wood County	635	46	596		6.5%	43.8%
Rossford city, Wood County	2800	232	2736		2.3%	84.1%
Troy township, Wood County	1678	123	1710	94	-1.9%	30.9%
Washington township, Wood County	758	57	653	41	16.1%	39.0%
Webster township, Wood County	497	33	448		10.9%	135.7%
Weston township, Wood County	1012	109	899		12.6%	194.6%
Wood County Total	53376		47468		12.4%	88.7%
MPO AREA TOTAL	273034	27693	258618	16309	5.6%	69.8%

Note: Some township figures include cities and villages within the township

2.1.3 Environmental Justice

Environmental Justice requires the consideration of a number of 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 2.7 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 Springfield Township, Sylvania Township, Oregon, Walbridge and Rossford.

Figure 2.8 shows the percentage of population with disabilities by census block group. There appear to be significant concentrations of persons with disabilities in the older portions of Toledo, especially in the central, northern, and eastern portions of the City.

Figure 2.9 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 southwest Toledo.

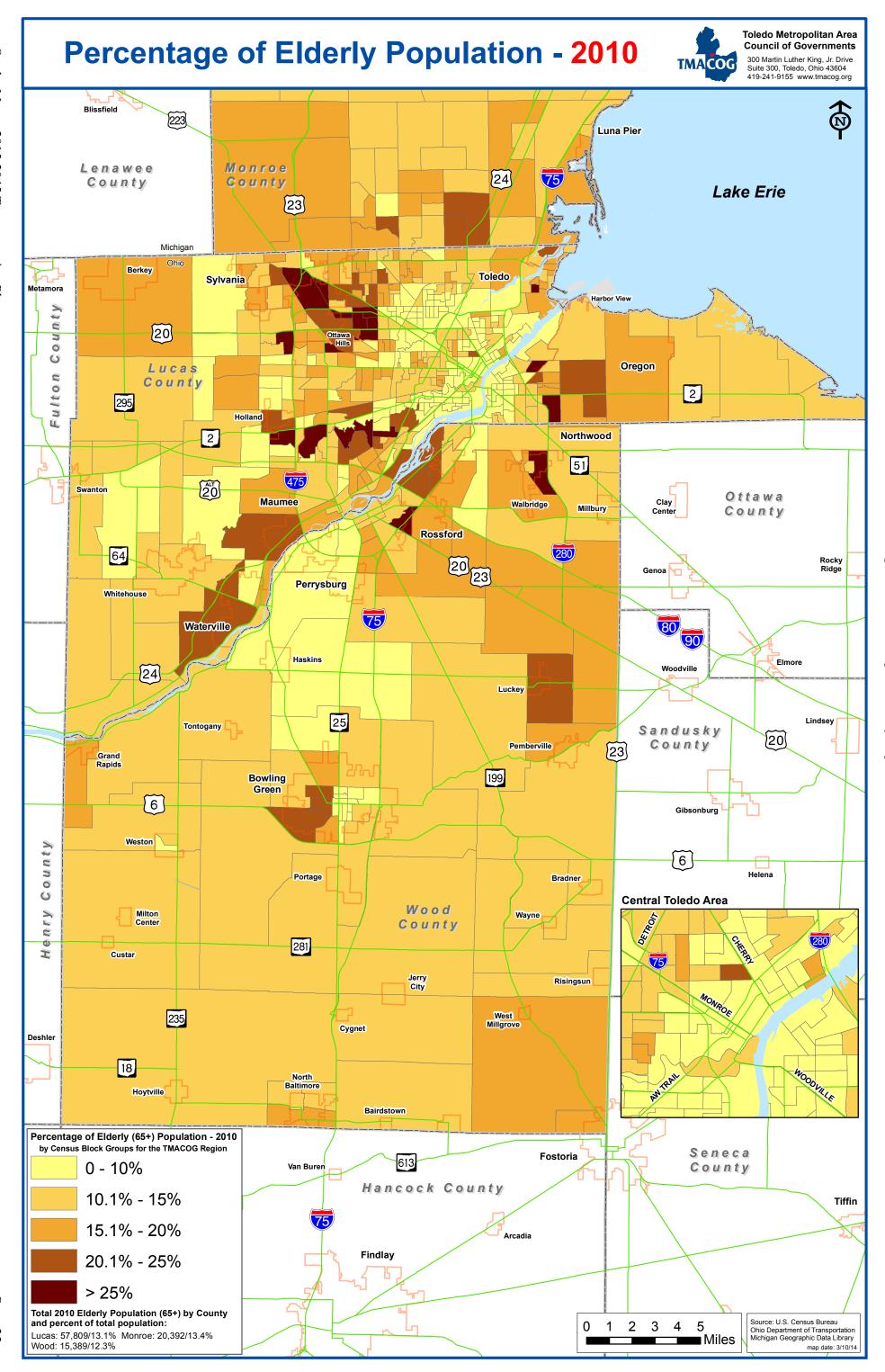
Figures 2.10 and 2.11 show the median household income by census block group for the transportation planning area for 2000 and 2010. The census block groups with the lowest median household income are clustered in the central portions of Toledo, along with an area adjacent to Bowling Green State University that is home to a large student population. Comparing 2000 to 2010, the number of low income census block groups has expanded to include a larger portion of central Toledo and a larger portion of the east side of Toledo. 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 2000 and 2010.

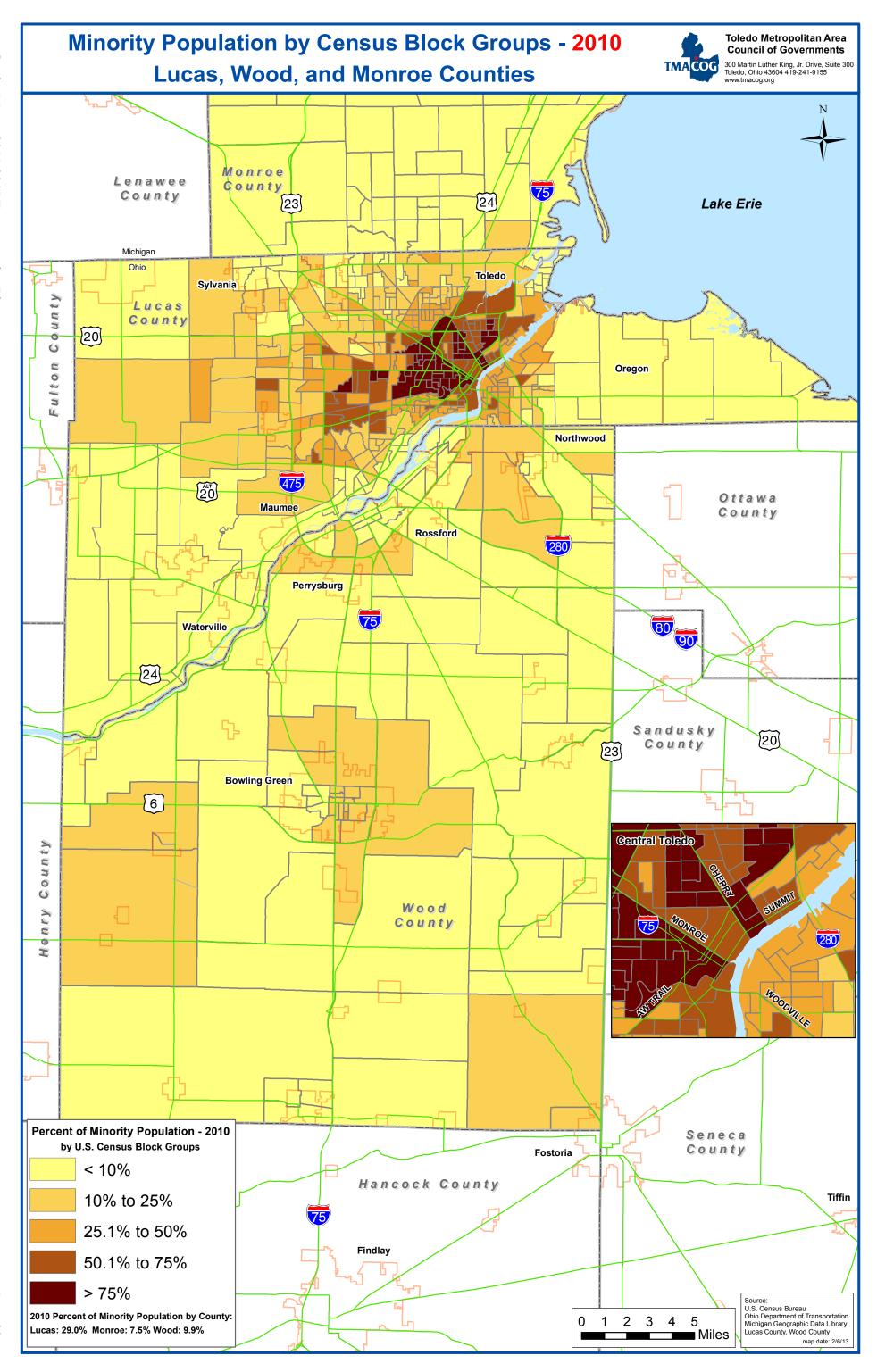
Figure 2.12 shows the percentage of occupied housing units with no vehicles. The census block groups with the highest percentage of housing units with no vehicles are found in downtown Toledo and the areas immediately to the west and north of downtown Toledo. Census block groups with the next highest percentage of housing units with no vehicles extend outward from the central portion of Toledo.

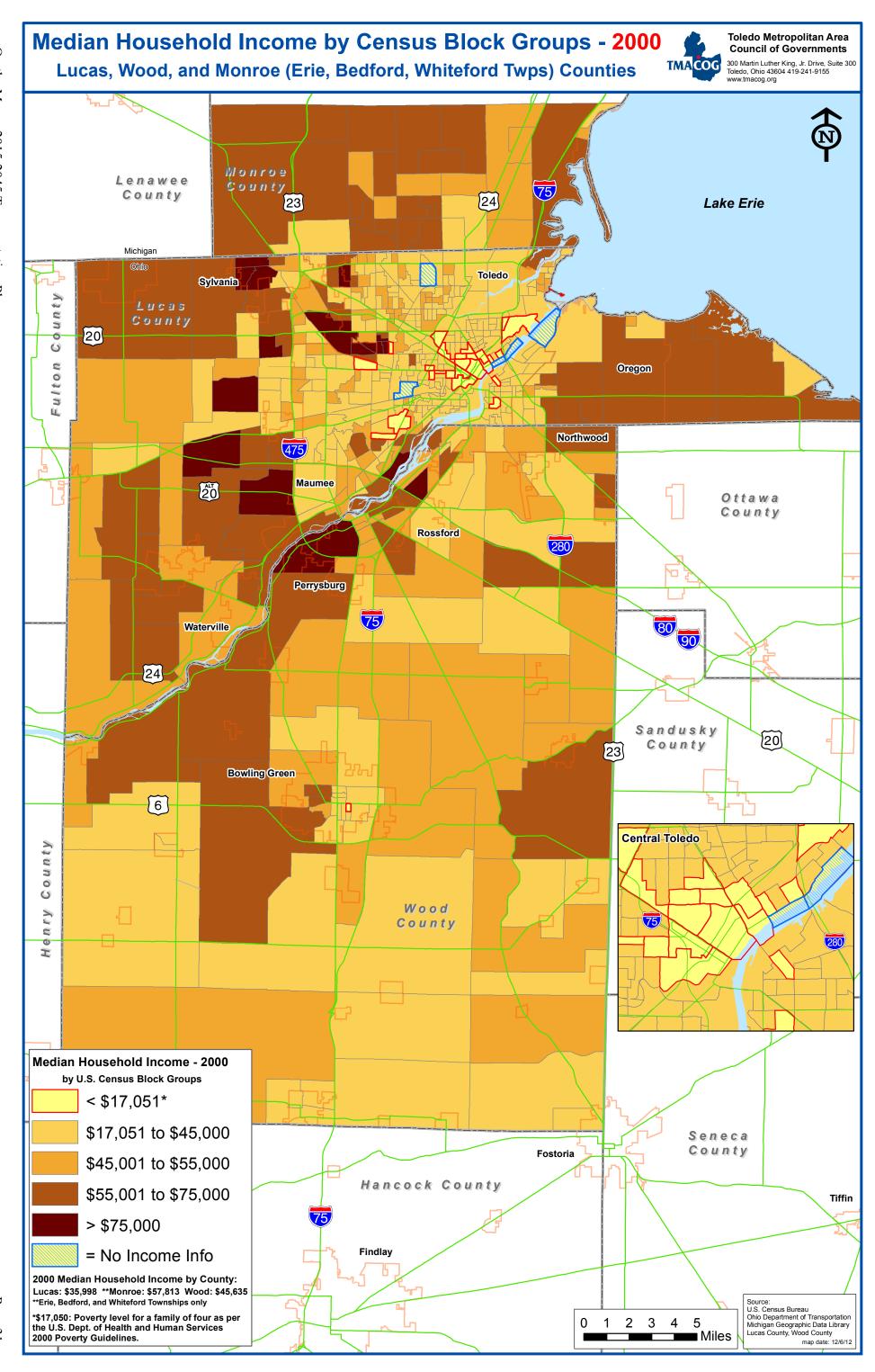
Figure 2.13 shows the percentage of the population speaking English less than very well. Census tracts with a relatively high percentage (greater than 5%) are fairly dispersed, including portions of south and east Toledo along with outlying portions of northwest Toledo and a portion of Sylvania Township.

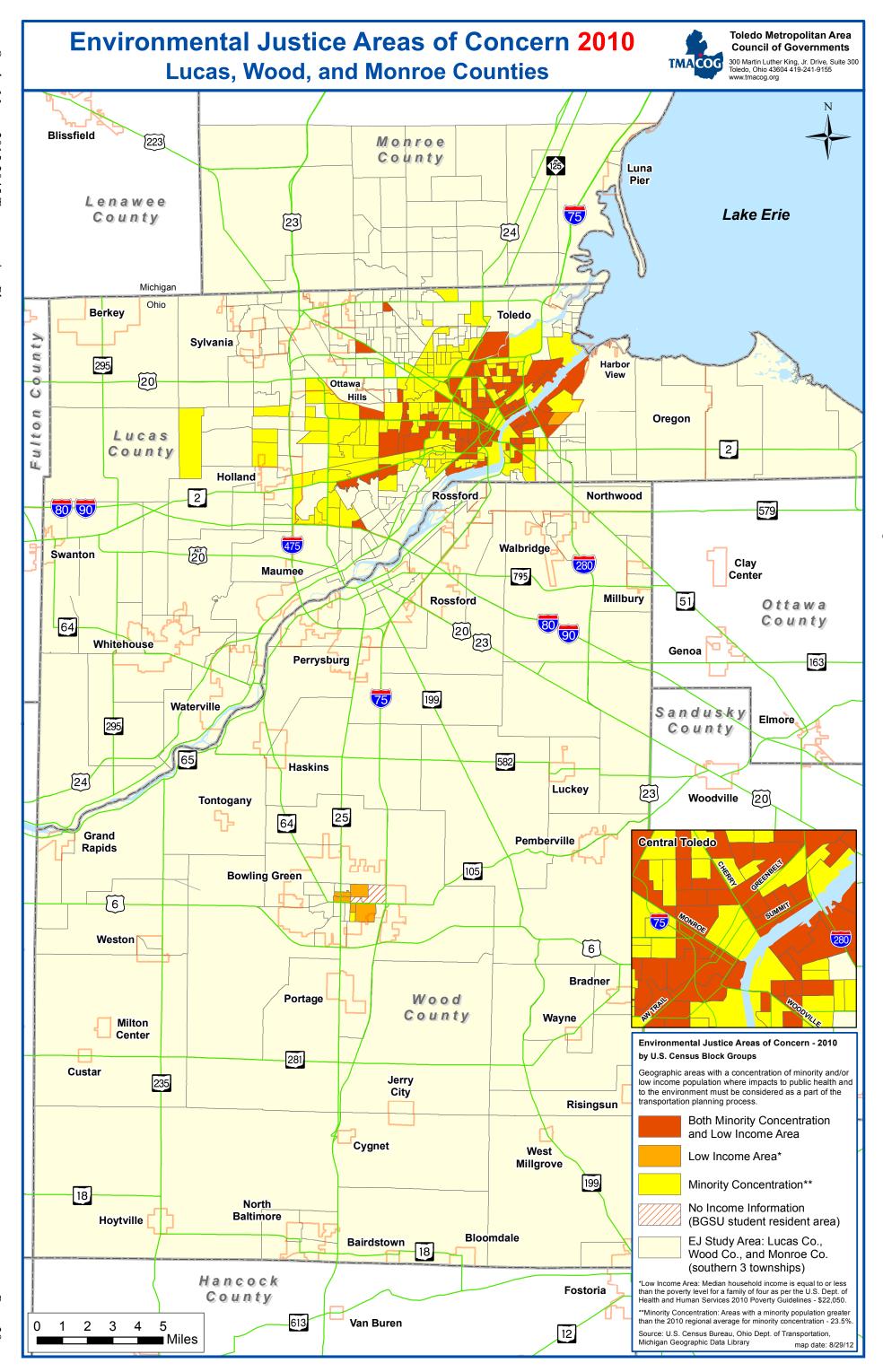
The above indicators point to geographic areas that may be experiencing environmental justice issues. Considering specifically minority concentration and income, **Figure 2.14** identifies census block groups that are particular areas of concern due to a high concentration of minority and/or low-income population. Environmental justice areas of concern based on 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. 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. Impacts to public health and to the environment in these areas of concern must be explicitly considered and addressed in the transportation planning process.









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 2.15 shows the employees per square mile by Traffic Analysis Zone in 2010. 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.

Major employers in the transportation planning area are shown in **Table 2.5** compiled by the Regional Growth Partnership. 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 310,000 in 2010 to 335,100 in 2020 as shown in **Table 2.6**. This is a projected increase in employment of 25,100, or 8.1 %, over this time period. While the Toledo MSA boundaries do not correspond precisely with the transportation planning area boundaries (the Toledo MSA includes Fulton and Ottawa counties, which are 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 Spring/Summer 2014

Employer	Nature of Activity	2014 Total Employees
ProMedica Health Systems	Medical Facilities	15,000
University of Toledo	University and Hospital	8,929
Mercy Health Partners	Hospitals	7,052
Bowling Green State University	University	6,175
Fiat Chrysler Toledo Complex	Automotive Manufacturing	5,137
Toledo Public Schools	Education	3,665
Lucas County	Government	3,511
Kroger, Inc.	Retail Grocery	2,924
City of Toledo	Government	2,775
Wal-Mart	Retail Sales	2,375
The State of Ohio	Government	2,083
General Motors/Power Train	Automotive Manufacturing	1,845
Andersons (HQ)	Grain Storage/Process/Retail	1,672
Meijer, Inc.	Retail Sales	1,608
United Parcel Service	Mail Service	1,597
U.S. Postal Service	Postal/Government	1,587
Toledo Molding and Die, Inc.	Injection and molded components	1,570
Owens Community College	Education	1,484
HCR Manor Care (HQ)	Health Care Services	1,463
Libbey, Inc. (HQ)	Glass manufacturing	1,318
YMCA of Greater Toledo	Organization	1,313
Norplas, Inc.	Assemblies Manufacturing	1,230
Owens-Corning (HQ)	Glass Manufacturing	1,229
Lott Industries	Packaging Services	1,200
Toledo Edison/First Energy	Public Utility	1,200
Wood County	Government	1,166
Fiat Chrysler Toledo Machining	Automotive Manufacturing	1,054
Toledo Clinic, Inc.	Medical Clinic	1,040
Johnson Controls	Batteries and Auto Parts	1,026
First Solar LLC	Solar Cell Manufacturing	1,000
Hollywood Casino	Casino	944
Washington Local Schools	Education	860
Bennett Enterprises	Restaurants/Hotels	800
Walgreen's Distribution Center	Distribution	N.A.
Owens-Illinois, Inc. (HQ)	Glass Manufacturing	775
Buckeye CableSystem	Cable Television	723
Wood County Hospital	Medical Facility	711
Dana Holding Corporation (HQ)	Automotive Parts	700
Total employment includes salaried, hou		

Source: Regional Growth Partnership

Table 2.6: Toledo Industry Employment Projection Report 2010-2020

		Emplo	Employment		Change
NAICS		2010	2020	in Emplo	yment
CODE	Description	Annual	Projected	2010-2020 F	_
	TOTAL	310,000	335,100		8.1%
	Goods Producing	52,400	54,400	2,000	3.8%
	Natural Resources, incl. Agriculture and Mining	4,100	4,000	-100	-2.4%
	Agriculture, Forestry, Fishing and Hunting	3,900	3,700	-200	-5.1%
	Construction	10,600	12,800	2,200	20.8%
236	Construction of buildings	2,600	3,200	600	23.1%
237	Heavy and civil engineering construction	1,400	1,700	300	21.4%
238	Specialty trade contractors	6,600	8,000	1,400	21.2%
	Manufacturing	37,700	37,600	-100	-0.3%
322	Paper manufacturing	800	600	-200	-25.0%
324	Petroleum and coal products manufacturing	1,200	1,000	-200	-16.7%
325	Chemical manufacturing	1,800	1,700	-100	-5.6%
326	Plastics and rubber products manufacturing	2,700	2,800	100	3.7%
327	Nonmetallic mineral product manufacturing	4,900	5,300	400	8.2%
332	Fabricated metal product manufacturing	4,000	4,300	300	7.5%
333	Machinery manufacturing	2,500	2,300	-200	-8.0%
	Service-Providing	239,100	261,900	22,800	9.5%
	Trade and Transportation and Utilities	56,400	59,900	3,500	6.2%
	Warehouse Trade	10,100	10,900	800	7.9%
423	Merchant wholesalers, durable goods	5,900	6,100	200	3.4%
	Retail Trade	33,100	34,700	1,600	4.8%
441	Motor vehicle and parts dealers	4,100	4,600	500	12.2%
442	Furniture and home furnishings stores	700	800	100	14.3%
444	Building material and garden equipment and supplies dealers	2,600	3,100	500	19.2%
445	Food and beverage stores	5,600	5,800	200	3.6%
447	Gasoline stations	2,100	2,000	-100	-4.8%
448	Clothing and clothing accessories stores	2,400	2,600	200	8.3%
451	Sporting goods, hobby, book, and music stores	1,900	1,800	-100	-5.3%
453	Miscellaneous store retailers	1,800	1,700	-100	-5.6%
	Transportation and Warehousing	11,600	1,290	1,300	11.2%
484	Truck transportation	3,800	4,600	800	21.1%
	Utilities	1,600	1,300	-300	-18.8%
	Information	3,200	3,200	0	0.0%
515	Broadcasting (except internet)	600	700	100	16.7%
	Financial Activities	10,200	10,600	400	3.9%
	Finance and Insurance	7,200	7,600	400	5.6%
522	Credit intermediation and related activities	3,100	3,200	100	3.2%
	Securities, commodity contracts, and other financial investments				
523	and related activities	600	700	100	16.7%

Table 2.6 Continued: Toledo Industry Employment Projection Report 2010-2020

		Employment		Projected Change	
NAICS		2010	2020	in Employment	
CODE	Description	Annual	Projected	2010-2020	Percent
	Real Estate and Rental and Leasing	3,000	3,000	0	0.0%
531	Real estate	2,000	2,000	0	0.0%
	Professional and Business Services	30,900	35,100	4,200	13.6%
5411	Legal services	1,800	1,900	100	5.6%
5412	Accounting, tax preparation, bookkeeping, and payroll services	1,700	1,700	0	0.0%
5413	Architectural, engineering, and related services	2,700	2,900	200	7.4%
5415	Computer systems design and related services	800	1,100	300	37.5%
5416	Management, scientific, and technical consulting services	900	1,400	500	55.6%
5419	Other professional and technical services	2,100	2,200	100	4.8%
	Administrative Waste Services	15,400	17,900	2,500	16.2%
5616	Investigation and security services	1,500	1,600	100	6.7%
5617	Services to buildings and dwellings	3,400	3,700	300	8.8%
5619	Other support services	500	600	100	20.0%
	Education and Health Services	76,700	89,100	12,400	16.2%
621	Ambulatory health care services	15,500	20,900	5,400	34.8%
622	Hospitals	18,200	20,700	2,500	13.7%
	Leisure and Hospitality	31,300	33,100	1,800	5.8%
	Arts, Entertainment, and Recreation	4,500	5,300	800	17.8%
711	Performing arts, spectator sports, and related industries	500	600	100	20.0%
712	Museums, historical sites, and similar institution	1,200	1,400	200	16.7%
713	Amusement, gambling, and recreation industries	2,700	3,300	600	22.2%
	Accommodation and Food Services	26,900	27,800	900	3.3%
721	Accommodation	2,300	2,500	200	8.7%
722	Food services and drinking places	24,600	25,300	700	2.8%
	Other Services	12,800	13,500	700	5.5%
811	Repair and maintenance	2,600	2,800	200	7.7%
812	Personal and laundry services	3,100	3,300	200	6.5%
813	Membership associations and organizations	6,900	7,300	400	5.8%
	Government	17,600	17,300	-300	-1.7%
	Federal Government	2,500	2,000	-500	-20.0%
	Postal Service	1,400	1,000	-400	-28.6%
	Federal government, except postal service	1,000	900	-100	-10.0%
	State Government	2,600	2,500	-100	-3.8%
	Local Government	12,500	12,800	300	2.4%
	Self Employed & Unpaid Family Workers	18,500	18,900	400	2.2%
Source: (Ohio Department of Job and Family Services, Bureau of Labor Market Information				

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

2.1.5 Land Use

Existing Land Use

Figure 2.16 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 in the vicinity of 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 and the Levis Commons area and Route 20 area in Wood County. Office commercial development will likely remain concentrated in business parks such as Arrowhead, but the planned ProMedica development in downtown Toledo will serve as a catalyst for additional investment in the downtown area, primarily involving the renovation and re-purposing of existing buildings.

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. 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 developed on the former Jeep site on Jeep Parkway and the land acquired by the City of Toledo for industrial purposes near the Fiat Chrysler Complex in North Toledo present additional opportunities for industrial growth.

2.1.6 Trends Affecting Regional Transportation

Funding

The simple fact is transportation infrastructure is woefully underfunded. A burgeoning 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 level, a partial solution involves raising the gas tax and indexing it to inflation. 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 twelve 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.

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 percent of transit trips are work related, while in rural areas 60 percent 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 all of the 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 acquisition is ongoing for the planned 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. Here, an inventory of the existing transportation system is detailed for each aspect of the goals. Then, our region's current needs are identified using this inventory.

2.2.2 Infrastructure Condition Goal

Goal 2 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 take 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 2.17** 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.

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

Table 2.7: Functional Classifications

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. Both rural minor collectors and all local roads are ineligible 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 2.18** following shows a map of the location and condition of our major roadway system based on 2013 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 2013 on pavement conditions 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 232 lane miles of roadway rated in poor condition and 138 lane miles in very 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 2.19 is a map of Proposed System Preservation Projects. Based on the same 2013 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 sufficiency rating lower than 70% in Lucas and Wood counties, based on 2013 data. A bridge with a condition below 70% sufficiency is recommended for reconstruction. There are currently 75 bridges that fall below this rating. A complete list of these bridges can be found in Appendix F.

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Date: 2014.7.28

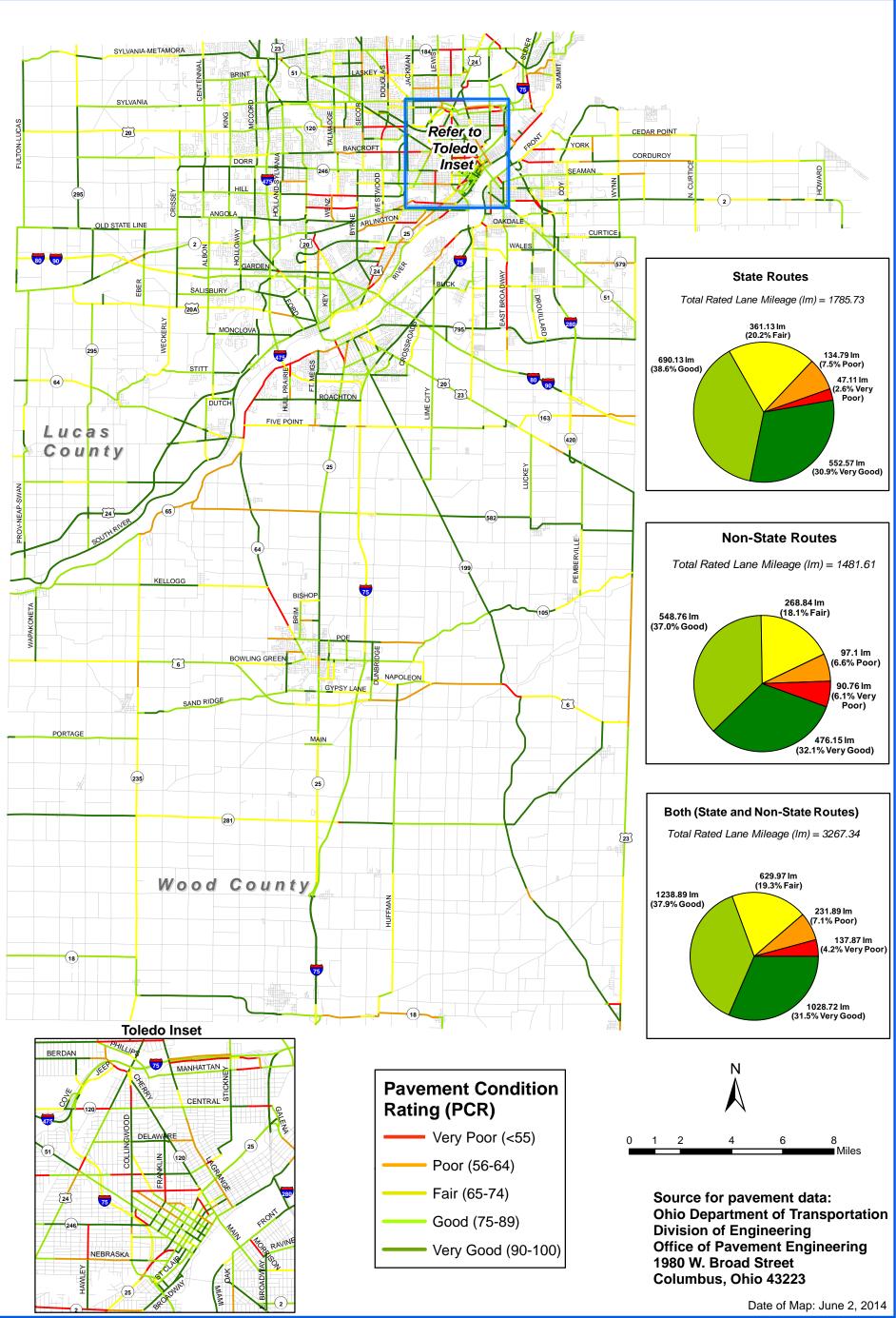
Functional Classification System TMACOG Area - Year 2010* 1 2 6 ■ Miles Data Source: 23 - Michigan Department of Transportation - Ohio Department of Transportation - Toledo Metropolitan Area Council of **MICHIGAN** Governments SYLVANIA METAMORA OHIO (295) County 20 Fulton Lucas County NAVARRE i4) 20-A CR 1-1 MOLINE MARTIN CR 1-2 (295) 80 90 CR D GENOA CLAY CENTER (163) 20 23 (420) NEAPOLIS WATERVILLI CR A MOHLER (199) [24] NEOWASH (105) ELMORE EASTERN (25) (64) **Federal Aid Eligible Facilities** SUGAR RIDGE Rural routes^ Interstate: 01 (235) (105) Other Freeway: 02 **Principal Arterial: 03** BOWLING GREEN W 6 Minor Arterial: 04 Collector: 05 Urban routes^ GREENSBURG Wood County Interstate: 01 (25) (199) Other Freeway: 02 DEFIANCI (281) (235) **Principal Arterial: 03** VOOD CO LINE Minor Arterial: 04 Collector: 05 75 **Minor Collector: 06** Non Federal Aid Eligible Facilities Minor Collector (Rural): 06 STEARNS HANCOCK W DOWNTOWN Toledo Inset Local (Urban & Rural): 07 ^ Urban and rural routes are based on 2010 Census **County Boundary** urban area boundaries. **Urban Area** * The 2010 Functional Classification network Toledo Metropolitan Area Council is pending FHWA of Governments 300 Martin Luther King Drive, Suite 300 approval in Ohio and Toledo, Ohio 43602

Michigan.

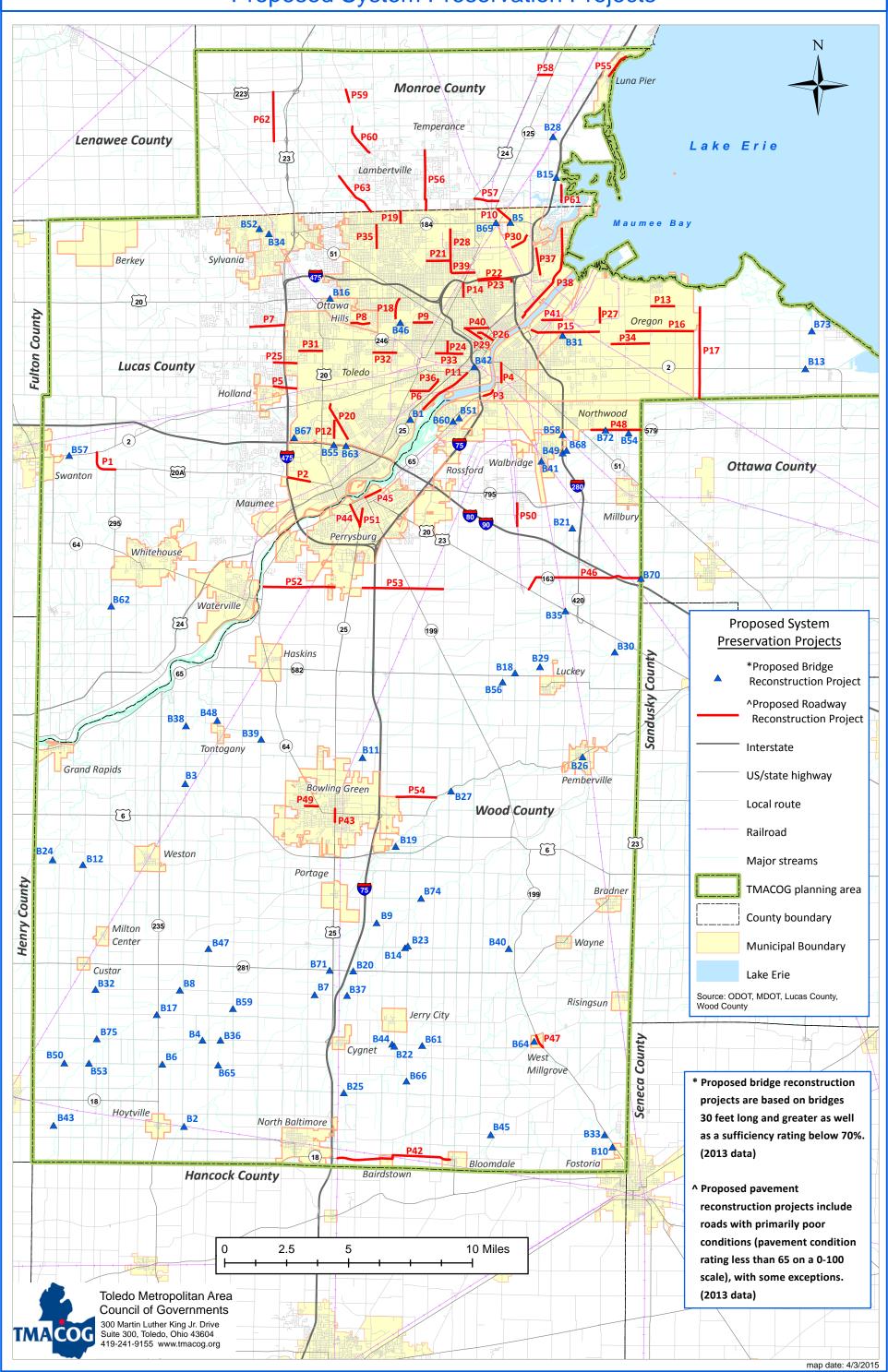
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Pavement Condition on Federally Eligible Roads 2013





2045 Transportation Plan 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. Goal one 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 police reports available from the latest three-year period, 2009-2011.

Vehicular Safety Hot Spots

Figures 2.20 and 2.21 show the top vehicle crash sections 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 2.20** 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. In the map, the segments are divided into locations with Toledo and locations outside of Toledo. The top crash section in Toledo is a .95 mile stretch on Secor Rd. from Central Ave. to Monroe St., with 315 crashes. This segment was reconstructed prior to the development of this plan. The next highest crash sections are on Laskey Rd. from Douglas Rd. to Jackman Rd. (135 crashes) and on Sylvania Ave. from Secor Rd. to Douglas Rd. (113 crashes). McCord Rd. from Airport Hwy to Angola Rd. is the top crash section outside of the city of Toledo with 78 crashes, followed by Sterns Rd. from Adler Rd. to Secor Rd. (68 crashes). As shown in the table in the bottom of the map, each location is ranked and scored by number of crashes.

Figure 2.21 is the map of the top crash intersections in the TMACOG planning area. Similar to the map of top crash sections, there is a list of locations in both Toledo and outside of Toledo in a table in the bottom right corner of the map. In Toledo, there is a concentration of top crash intersections in West Toledo and along Byrne Rd. Outside of Toledo, concentrations of top crash intersections exist along McCord Rd., Sylvania Ave., and Salisbury Rd. 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., and corridor improvements to McCord Rd.

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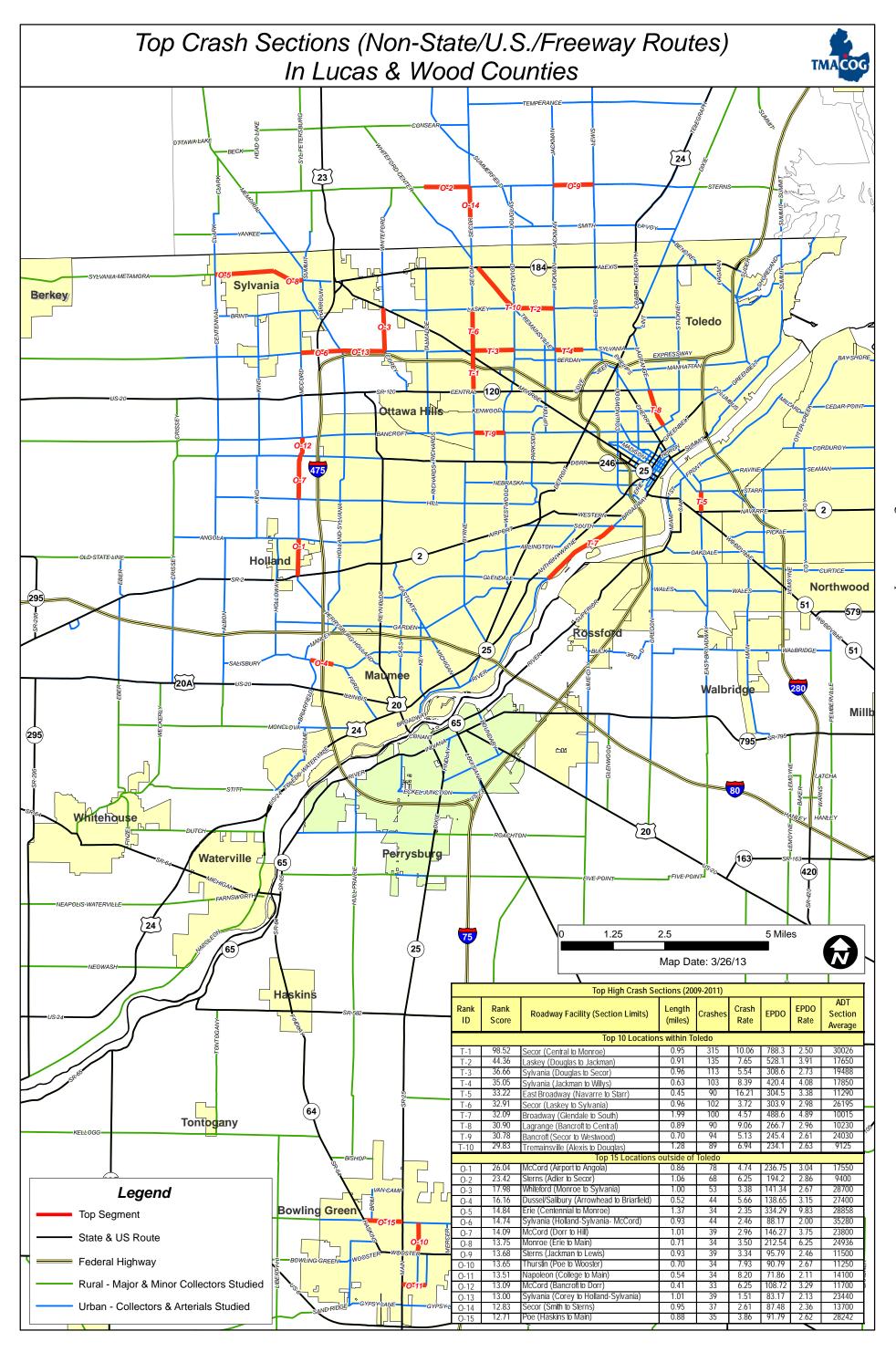
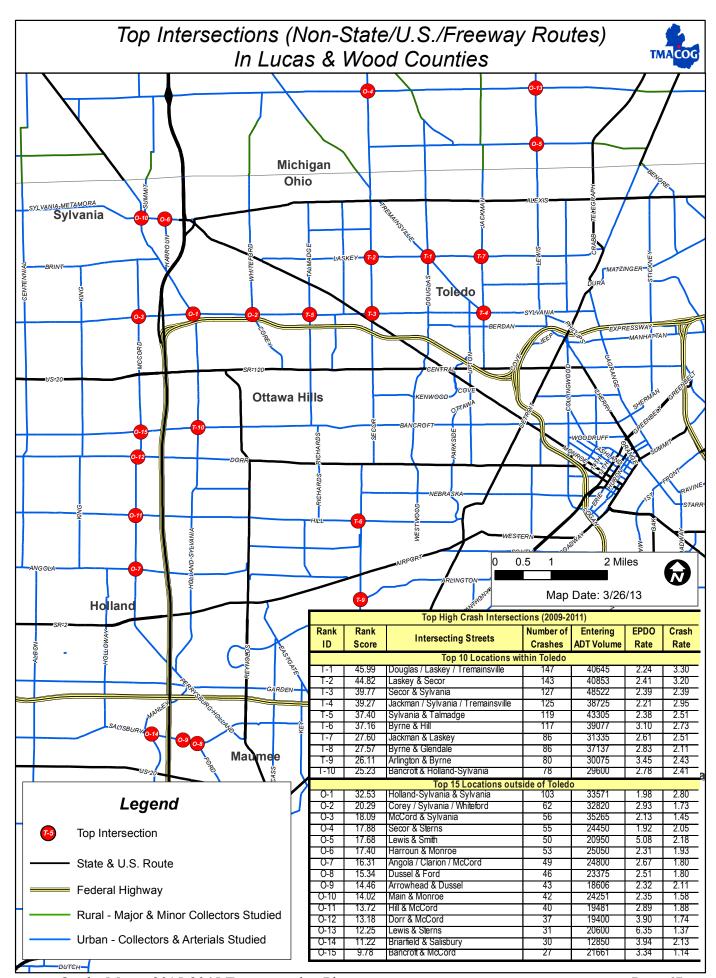


Figure 2.21: TMACOG Transportation Planning Area

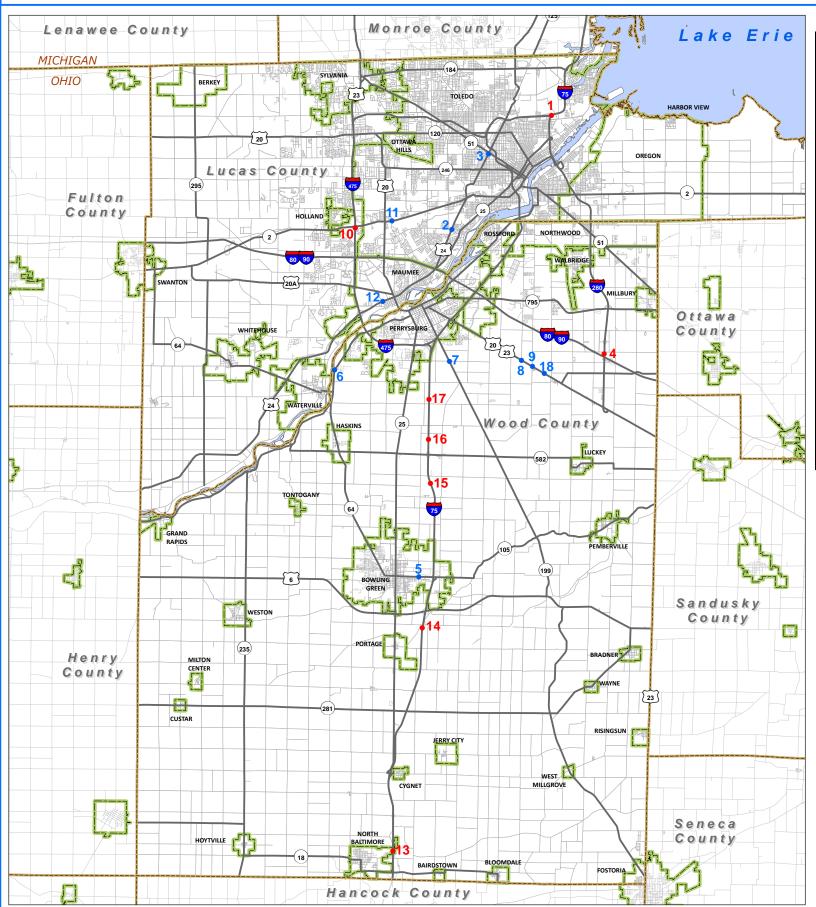


ODOT Safety Work Program

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.

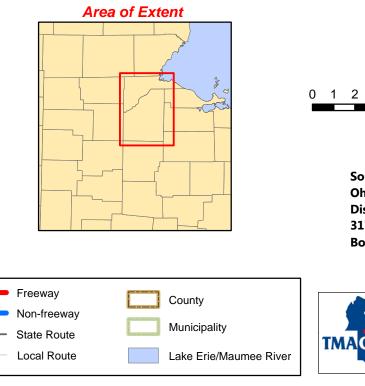
Figure 2.22 shows a map and a table of ODOT's Safety Work Program in the TMACOG planning area. There are both road segments and intersections located on both freeway and non-freeway state routes, U.S. routes, and interstates. ODOT's computer program determined these locations fit the criteria for further study on methods to improve their safety conditions. There were 18 total locations by this system identified within the TMACOG region, beginning with I-75 at the I-280 interchange. There are also several locations along U.S. Routes 20 and 24, as well as 5 locations along I-75 south of Toledo all identified for further study.

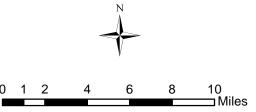
ODOT District 2 Safety Work Program in the TMACOG Planning Area Fiscal Year 2014



<u>ID</u> I	<u>Route</u>	<u>From Extent</u>	<u>Location</u> <u>Type</u>	Freeway/Non- Freeway	<u>Juris diction</u>
1	I-75	@ I-280 interchange	Segment	Freeway	Toledo
2 (US 24	@ Glendale	Intersection	Non-Freeway	Toledo
3 (US 24	@ Bancroft	Intersection	Non-Freeway	Toledo
4 I	I-280	I-80 to 0.3 mi N of I-80	Segment	Freeway	Lake Township
5 9	SR 64	0.14 mi W of Campbell Hill to State	Segment	Non-Freeway	Bowling Green
6 9	SR 65	0.36 mi N of Five Point to River View	Segment	Non-Freeway	Middleton Township
7 9	SR 199	@ Roachton	Intersection	Non-Freeway	Perrysburg Township
8 (US 20	@ Oregon	Intersection	Non-Freeway	Perrysburg Township
9 l	US 20	@ Tracy	Intersection	Non-Freeway	Lake/Perrysburg Township
10 I	I-475	between SR 2 ramps	Segment	Freeway	Springfield Township
11 9	SR 2	@ Eastgate	Intersection	Non-Freeway	Toledo
12 l	US 24	@ Ford	Intersection	Non-Freeway	Maumee
13 I	I-75	between NB off ramp to Grant and Quarry	Segment	Freeway	North Baltimore/Bloom Township
14 I	I-75	0.3 mi S of Kramer to Kramer	Segment	Freeway	Portage Township
15 I	I-75	0.5 mi N of Sugar Ridge to 0.2 mi S of Devils Hole	Segment	Freeway	Middleton Township
16 I	I-75	0.55 mi N of SR 582 to 0.5 mi S of Dowling	Segment	Freeway	Middleton Township
17 I	I-75	0.15 mi N of Reitz to 0.74 mi S of Five Point	Segment	Freeway	Perrysburg Township
18 l	US 20	0.6 mi E of Tracy to 0.28 mi W of Stony Ridge	Segment	Non-Freeway	Troy Township

Note: There are 6 additional locations within the District 2 planning area not appearing on this map. The locations reside along SR 2 and US 20A in Fulton County; SR 105 and SR 163 in Ottawa County; and US 20A in Williams County.





Source:
Ohio Department of Transportation
District 2 office
317 E. Poe Rd.
Bowling Green, OH 43402-1330



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

Date of Map: August 27, 2013

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Bicycle Safety Hot Spots

Figure 2.23 is a map of the safety hot spots for bicycle crashes from the latest data. The map breaks down the crashes into those where somebody under the age of 18 was involved and those where those involved were above the age of 18. The crashes are further broken 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 2.24** and **Figure 2.25** show bicycle crashes by hour of day and by severity. There were 436 total crashes from 2009-2011. Of all bicycle crashes, 6 (1.4%) were fatal. The majority of crashes were injury crashes, making up 341 (78.2%). Nearly half (46.3%) of the bicycle related crashes involved people under the age of 18.

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.

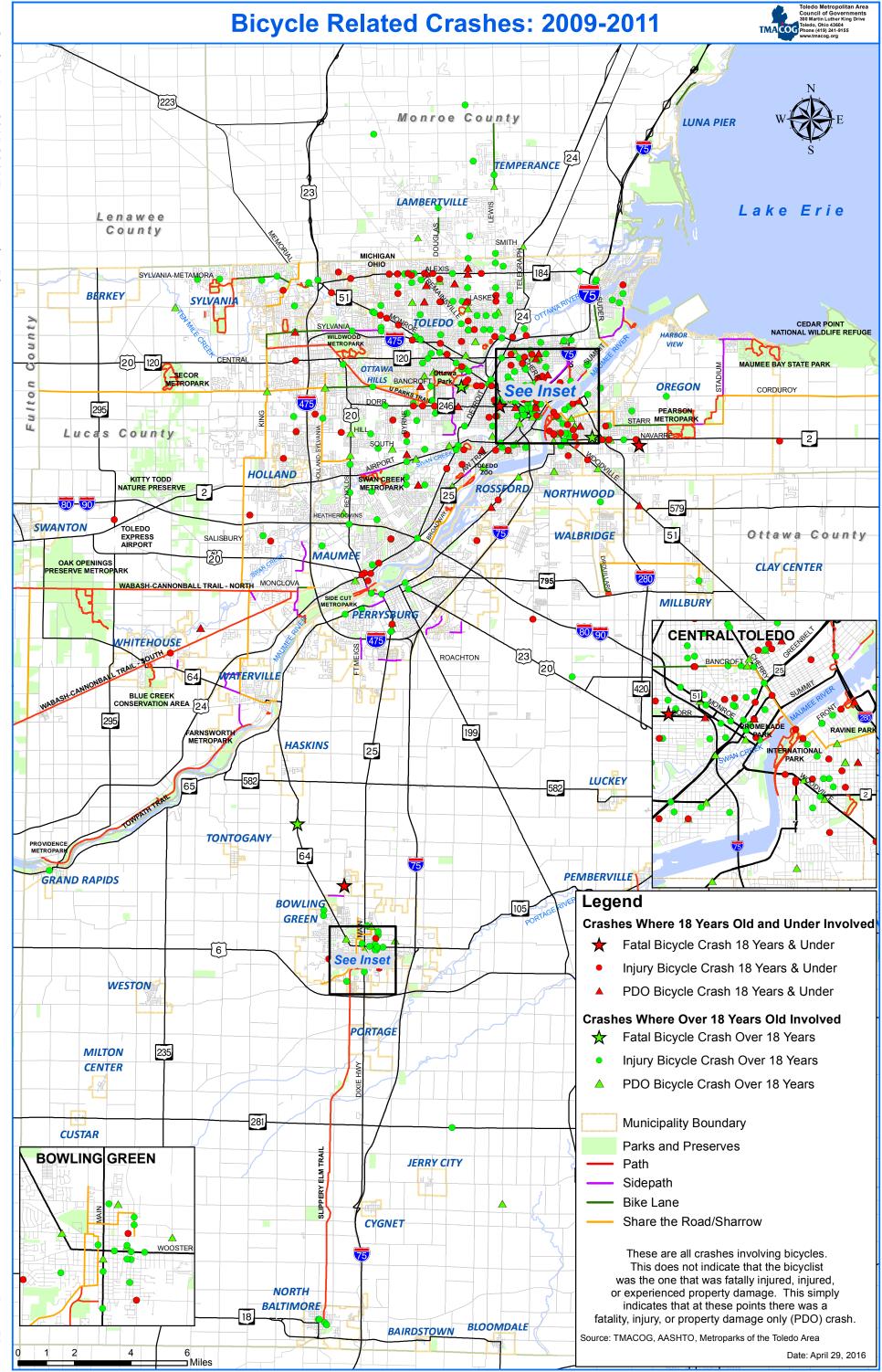


Table 2.8: Bicycle-Related Crashes Data

Crash Severity			Age 18 and Unde	er	
Fatal Crash	6	1.4%	18	28	
Injury Crash	341	78.2%	17	26	
PDO Crash	89		16	23	
Total	436		15	25	
			14	20	
Day of Week	47	10.00/	13	23	
Sunday	47	10.8%	12	14	
Monday	80		11	9	
Tuesday Wednesday	77	17.7%	10	8	
	65		9	5	
Thursday	64	14.7%	8	11	
Friday	54	12.4%	7	4	
Saturday Total	49 436	11.2% 100.0%	6	5	
10tai	430	100.0%	5	0	
Hour of Day			4	1	
12:00 - 12:59 AM	6	1.4%	3	0	
1:00 - 1:59 AM	1	0.2%	2	0	
2:00 - 2:59 AM	2	0.5%	Sub Total	202	40
3:00 - 3:59 AM	3	0.7%	Total	436	100
4:00 - 4:59 AM	3	0.7%	Weether Conditi		
5:00 - 5:59 AM	2	0.5%	Weather Conditi		_
6:00 - 6:59 AM	4	0.9%	Clear	320	7
7:00 - 7:59 AM	19	4.4%	Cloudy	86	1
8:00 - 8:59 AM	15	3.4%	Rain	20	
9:00 - 9:59 AM	5	1.1%	Snow	2	
10:00 - 10:59 AM	16	3.7%	Fog	0	
11:00 -11:59 AM	21	4.8%	Sleet/Hail	0	
12:00 - 12:59 PM	20	4.6%	Other/Unknown	8 436	100
1:00 - 1:59 PM	27	6.2%	Total	430	100
2:00 - 2:59 PM	38	8.7%	Road Condition		
3:00 - 3:59 PM	54	12.4%	Dry	386	8
4:00 - 4:59 PM	40	9.2%	Wet	38	
5:00 - 5:59 PM	51	11.7%	Snow	3	
6:00 - 6:59 PM	31	7.1%	Ice	2	
7:00 - 7:59 PM	27	6.2%	Not Stated	7	
8:00 - 8:59 PM	17	3.9%	Total	436	100
9:00 - 9:59 PM	17	3.9%	Light Condition		
10:00 - 10:59 PM	10	2.3%	Daylight	338	7
11:00 - 11:59 PM	7	1.6%	Daylight Dark-Lighted	54	1
Total	436	100.0%	Dark-Lighted Dark-No Lights	18	1
Crashes By Year			Dark-No Lights Dusk	15	
2009	145	33.3%	Dawn	6	
2009	152			5	
2010	139		Not Stated Other	0	
Total	436		Total	436	100
าบเลเ	430	100.070	Total	430	10

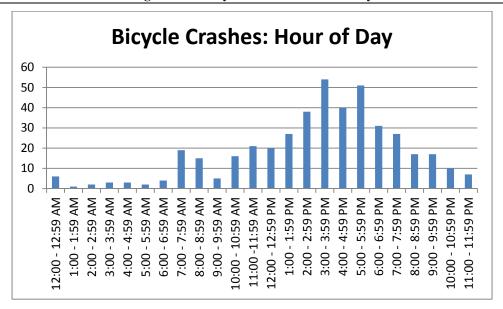
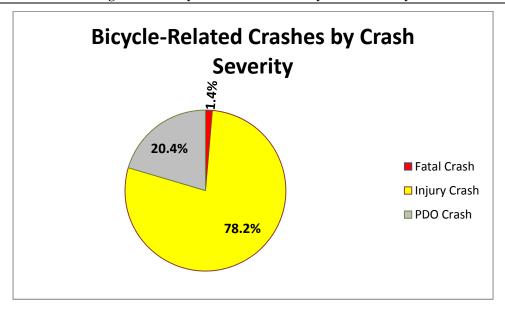


Figure 2.25: Bicycle Related Crashes by Crash Severity

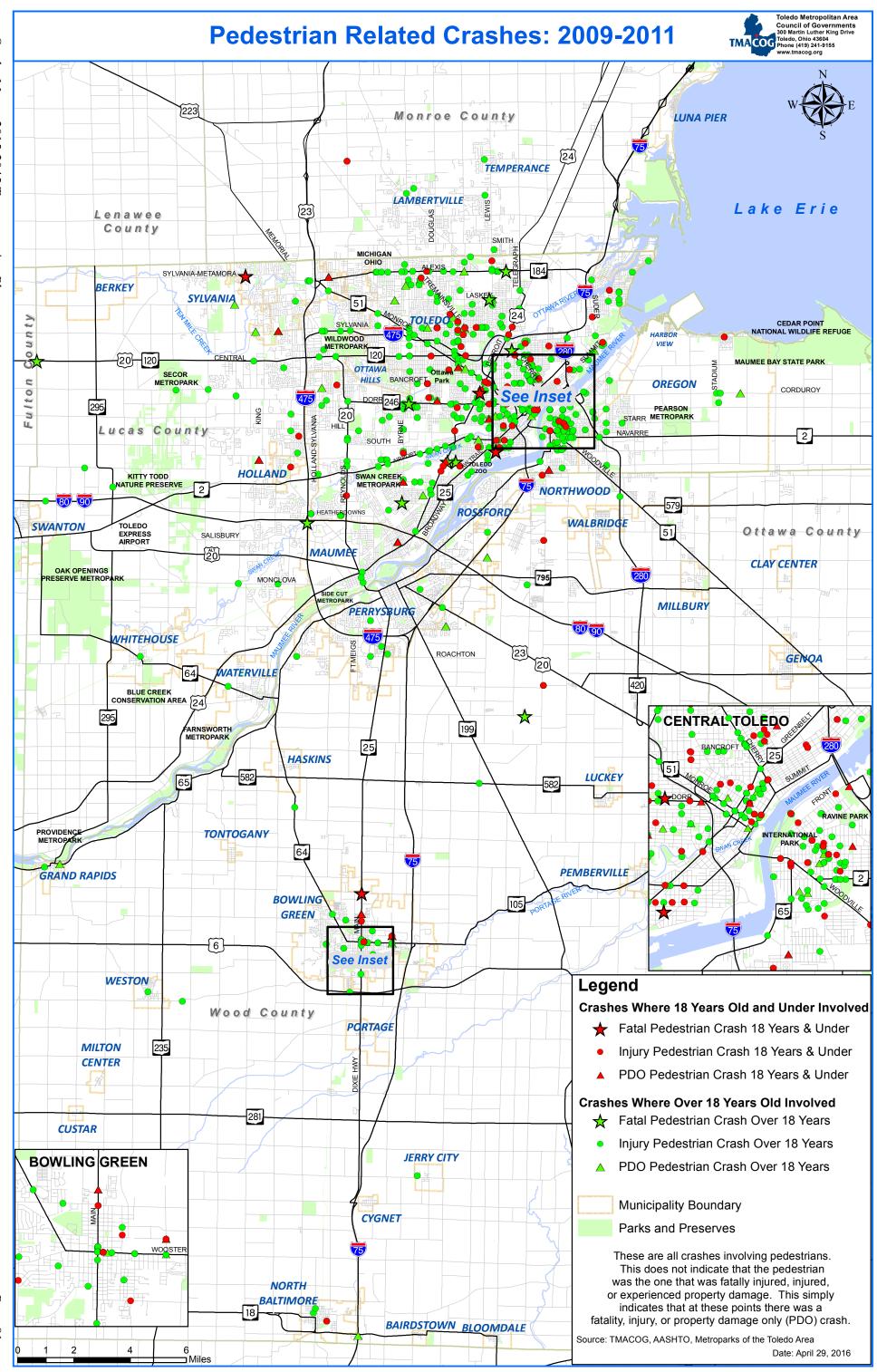


Pedestrian Safety Hot Spots

Figure 2.26 is the map of pedestrian-related crashes from 2009-2011. The data in the map is categorized in the same manner to the bicycle-related crashes, including by age category and 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 14 pedestrian related fatalities during this time period. This represents 2.6% 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. Roughly a third (34.1%) of pedestrian related crashes involved people under the age of 18. **Figures 2.27** and **Figure 2.28** 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.



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Crash Severity		
Fatal Crash	14	2.6%
Injury Crash	475	87.5%
PDO Crash	54	
Total	543	100.0%
Day of Week		
Sunday	73	13.4%
Monday	72	13.3%
Tuesday	85	15.7%
Wednesday	76	14.0%
Thursday	80	14.7%
Friday	84	15.5%
Saturday	73	13.4%
Total	543	100.0%
Hour of Day		
12:00 - 12:59 AM	20	3.7%
1:00 - 1:59 AM	12	2.2%
2:00 - 2:59 AM	17	3.1%
3:00 - 3:59 AM	5	0.9%
4:00 - 4:59 AM	5	0.9%
5:00 - 5:59 AM	2	0.4%
6:00 - 6:59 AM	5	0.9%
7:00 - 7:59 AM	27	5.0%
8:00 - 8:59 AM	19	3.5%
9:00 - 9:59 AM	13	2.4%
10:00 - 10:59 AM	12	2.2%
11:00 -11:59 AM	20	3.7%
12:00 - 12:59 PM	15	2.8%
1:00 - 1:59 PM	13	2.4%
2:00 - 2:59 PM	37	6.8%
3:00 - 3:59 PM	53	9.8%
4:00 - 4:59 PM	27	5.0%
5:00 - 5:59 PM	36	6.6%
6:00 - 6:59 PM	53	9.8%
7:00 - 7:59 PM 8:00 - 8:59 PM	33 38	6.1% 7.0%
9:00 - 9:59 PM	36	6.6%
10:00 - 10:59 PM	26	4.8%
11:00 - 11:59 PM	19	3.5%
Total	543	100.0%
Crashes By Year 2009	163	30.0%
2010	185	34.1%
2010	195	35.9%
Total	543	100.0%
Total	J -1 J	100.0 /0

18			
17	Age 18 and Under		
16 19 3.5% 15 19 3.5% 14 11 2.0% 13 18 3.3% 12 10 1.8% 11 8 1.5% 10 6 1.1% 9 5 0.9% 8 10 1.8% 7 7 1.3% 6 11 2.0% 5 6 1.1% 4 6 1.1% 3 0 0.0% 2 2 0.4% Sub Total 185 34.1% Total 543 100.0% Weather Condition Cloudy 119 21.9% Rain 58 10.7% Snow 16 2.9% Fog 3 0.6% Sleet/Hail 2 0.4% Other/Unknown 6 1.1% Total 543 100.0% Road Condit	18	29	5.3%
15	17	18	3.3%
14 11 2.0% 13 18 3.3% 12 10 1.8% 11 8 1.5% 10 6 1.1% 9 5 0.9% 8 10 1.8% 7 7 1.3% 6 11 2.0% 5 6 1.1% 4 6 1.1% 3 0 0.0% 2 2 0.4% Sub Total 185 34.1% Total 543 100.0% Weather Condition Clear 339 62.4% Cloudy 119 21.9% Rain 58 10.7% Snow 16 2.9% Fog 3 0.6% Sleet/Hail 2 0.4% Other/Unknown 6 1.1% Total 543 100.0% Road Condition Dry 415 76.4% Wet	16	19	3.5%
13	15	19	3.5%
12	14	11	2.0%
11	13	18	3.3%
10	12	10	1.8%
9 5 0.9% 8 10 1.8% 7 7 1.3% 6 11 2.0% 5 6 1.1% 4 6 1.1% 3 0 0.0% 2 2 0.4% Sub Total 185 34.1% Total 543 100.0% Weather Condition Clear 339 62.4% Cloudy 119 21.9% Rain 58 10.7% Snow 16 2.9% Fog 3 0.6% Sleet/Hail 2 0.4% Other/Unknown 6 1.1% Total 543 100.0% Road Condition Dry 415 76.4% Wet 98 18.0% Snow 18 3.3% Ice 8 1.5% Not Stated 4 0.7% Total 543 100.0% Light Condition Daylight 300 55.2% Dark-Lighted 170 31.3% Dark-No Lights 49 9.0% Dawn 5 0.9% Not Stated 4 0.7% Dawn 5 0.9% Not Stated 4 9.0% Dawn 5 0.9% Not Stated 4 9.0%	11	8	1.5%
8 10 1.8% 7 7 1.3% 6 11 2.0% 5 6 1.1% 4 6 1.1% 3 0 0.0% 2 2 0.4% Sub Total 185 34.1% Total 543 100.0% Weather Condition Clear 339 62.4% Cloudy 119 21.9% Rain 58 10.7% Snow 16 2.9% Fog 3 0.6% Sleet/Hail 2 0.4% Other/Unknown 6 1.1% Total 543 100.0% Road Condition Dry 415 76.4% Wet 98 18.0% Snow 18 3.3% Ice 8 1.5% Not Stated 4 0.7% Dark-Lighted 170 31.3% Dark-No Lights 49 9.0%	10	6	1.1%
7 1.3% 6 11 2.0% 5 6 1.1% 4 6 1.1% 3 0 0.0% 2 2 0.4% Sub Total 185 34.1% Total 543 100.0% Weather Condition Cloudy 119 21.9% Rain 58 10.7% Snow 16 2.9% Fog 3 0.6% Sleet/Hail 2 0.4% Other/Unknown 6 1.1% Total 543 100.0% Road Condition Dry 415 76.4% Wet 98 18.0% Snow 18 3.3% Ice 8 1.5% Not Stated 4 0.7% Dark-Lighted 170 31.3% Dark-No Lights 49 9.0% Dawn 5 0.9% Not Stated 4 0.7%	9	5	0.9%
6 11 2.0% 5 6 1.1% 4 6 1.1% 3 0 0.0% 2 2 0.4% Sub Total 185 34.1% Total 543 100.0% Weather Condition Cloudy 119 21.9% Rain 58 10.7% Snow 16 2.9% Fog 3 0.6% Sleet/Hail 2 0.4% Other/Unknown 6 1.1% Total 543 100.0% Road Condition Dry 415 76.4% Wet 98 18.0% Snow 18 3.3% Ice 8 1.5% Not Stated 4 0.7% Total 543 100.0% Light Condition 0 543 100.0% Light Condition 0 55.2% Dark-Lighted 170 31.3% Dark-No Lights	8	10	1.8%
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T	Dawn	5	0.9%
T	Not Stated		0.7%
	Other	1	0.2%
Total 543 100.0%	0 1		

Figure 2.27: Pedestrian Crashes: Hour of Day

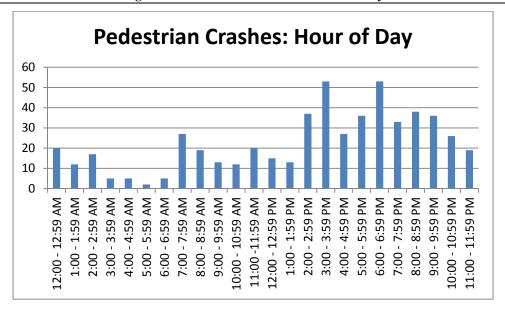
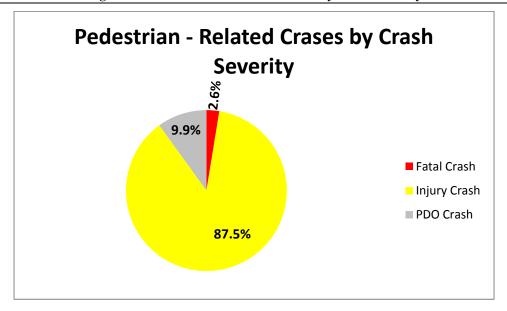


Figure 2.28: Pedestrian Related Crashes by Crash Severity



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 2.29** shows the modal conflict locations in the TMACOG planning region by type of conflict. The map identifies locations at bridge locations on the Maumee River up to the end of the shipping channel at the Norfolk Southern crossing, and at street locations where the roadway volume is over 4,000 vehicles per day and the rail volume is over 35 trains per day. The bicycle conflicts include multiple locations along the 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. Based on these criteria, 27 locations are identified. **Table 2.10** shows each location, type of conflict, and the corresponding traffic volumes.

Transportation Modal Conflicts Sylvania Ave Type of Modal Conflict Norfolk Souther Bikepath/Railroad Ottawa Park/ Greenbelt Pkwv/ Bikepath/Street Highway Bridge/Water University Parks Trail Railroad/Street Railroad/Water Holland-Sylvania Rd. Consaul St. 1-280 Holloway Rd. Oakdale Ave. Wabash-Cannonball Trail North Fork Slippery Elm State Route 18 Wabash-Cannonball Trail South Fork Southern Wood County *Conflicts included in this map have railroad Toledo Metropolitan Are

4.5

■ Miles

0 0.75 1.5

Figure 2.29: Modal Conflict Locations

On the Move: 2015-2045 Transportation Plan

traffic greater than 35 trains per day and vehicle

traffic greater than 4,000 perday.

Map Date: July 2015

Council of Governments

Phone (419) 241-9155

		Average Daily	Average Trains
Name	Туре	Vehicular Traffic	per Day
Bancroft	Bikepath/Street	9,434	
Bancroft	Bikepath/Street	10,550	
Consaul	Railroad/Street	7,307	
CSX	Railroad/Water		15
Dorr	Bikepath/Street	16,070	
Finzel	Bikepath/Street	4,750	
Greenbelt	Bikepath/Street	9,630	
Gypsy Lane	Bikepath/Street	4,900	
Holland Sylvania	Railroad/Street	14,368	100
Holland Sylvania	Bikepath/Street	17,380	
Holloway	Railroad/Street	4,250	100
I-280	Highway Bridge/Water	29,816	
Lagrange	Bikepath/Street	6,400	
Martin Luther King, Jr.	Highway Bridge/Water	18,250	
McCord	Bikepath/Street	15,150	
Monroe	Bikepath/Street	17,290	
Nebraska	Bikepath/Street	4,271	
Norfolk Southern (north)	Railroad/Water		4
Norfolk Southern (south)	Railroad/Water		100
Oakdale	Railroad/Street	5,000	
Parkside	Bikepath/Railroad	7,486	
Richards	Bikepath/Street	6,900	
State Route 18	Railroad/Street	11,250	100
Summit	Bikepath/Street	7,720	
Sylvania	Bikepath/Street	17,500	
Upton	Bikepath/Street	8,050	
Upton	Bikepath/Street	8,050	
Waterville Swanton	Bikepath/Street	4,390	

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, and Anthony Wayne Trail and S. Detroit 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 (HNS) 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 twoway 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-theminute 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 2012 Urban Mobility Report gives a detailed description of congestion conditions in all of America's 498 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. 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 2.30.** The Toledo metropolitan area is in the medium population group having an urbanized area of 500,000 to one million people.

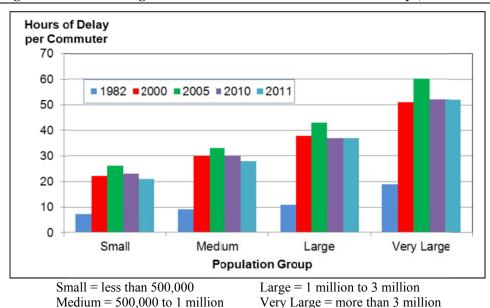


Figure 2.30: USA Average Annual Hours of Peak Period Traveler Delay (Source: TTI)

According to the TTI, congestion in 2011 caused Americans to travel 5.52 billion hours more and purchase an extra 2.88 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 2011 was \$121 billion compared to \$24.4 billion in 1982 (in 2011 dollars).

The number of annual hours wasted per vehicle due to congestion is shown in **Table 2.11**.

Table 2.11: Average Annual Hours of Delay (Source: TTI)

Group	Hours of Delay 1982	Hours of Delay 2006	Hours of Delay 2011
National Average	15	43	38
Medium Size Urban Areas	9	34	29
Toledo	4	37	26

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.

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.

Regional daily travel characteristics for 2010 are presented in **Table 2.12**. Delay in vehicle and person hours is calculated to identify the severity of congestion. Delay quantifies the amount of time drivers spend in traffic beyond what they ordinarily would in free-flowing conditions and is typically measured in hours per day. In 2010, more than 330,000 vehicle hours of travel (VHT) were spent on non-local roadways in the region each day, resulting in 422 hours of daily delay on freeways and expressways and 15,812 hours of daily delay on arterials and collectors. Thus, the model results show the vast majority of congestion in the Toledo metropolitan area occurs on arterials and collectors.

Table 2.12: Regional Daily Travel Characteristics

	2010 Existing Congestion			
	Freeway/Expressway	Arterial/Collector	Total	
Lane Miles	733	3,259	3,992	
Daily VMT (in 1000s)	6,810	7,374	14,184	
Daily VHT	108,514	221,687	330,201	
Daily Vehicle Delay (hrs)	422	15,812	16,234	
Weekday Cost of Delay	\$11,384	\$345,201	\$356,585	

Note: Local roads are not included in the calculations. The model of record is not all inclusive of locally classified roadways.

The estimated cost of delay is a reflection of total personal delay and the value that motorists place on their time. In 2010, the Texas Transportation Institute (TTI) examined urban areas throughout the nation and determined that the average cost of time was \$16.30 for personal vehicles and \$88.12 for trucks. Based on these values, congestion cost the TMACOG region \$356,585 of daily delay in 2010.

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 lots of "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.

Reliability of the transportation system begins to decrease as roadway congestion grows to absorb longer periods of time and more stretches of highway. Additional buffer time must be committed in order to arrive at a destination on-time, reducing market access and competitiveness. To remain competitive, businesses may choose to re-locate away from congested urban corridors to avoid the need to buffer time. This can have a direct impact on center city decline, creating urban sprawl and suburban roadway congestion.

Level of Service and Volume-to-Capacity Ratio

Level of Service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream and perception of conditions by motorists. Volume-to-capacity (V/C) ratio is a measure of the traffic volume on a road compared to the capacity of the road. The capacity of a road depends on its physical and operational characteristics and varies by functional class. A higher V/C ratio indicates that the traffic volume of the road is nearing its capacity and is becoming congested.

The analyses presented in this section are based on determinations of LOS and V/C derived from the TMACOG Travel Demand Model. The model incorporates roadway specifications, traffic volumes, demographic and socioeconomic data, and employment figures to calculate the loading on area roadways.

LOS is broken down into six levels (A through F), with significant traveler delay and recurring congestion occurring at LOS E and F. **Figure 2.31** illustrates level of service on a typical section of highway. The corresponding volume-to-capacity ratios for each LOS level are defined below:

- LOS A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The level of comfort and convenience provided to the motorist is excellent.
- LOS B is in the range of stable flow but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is slight decrease in the freedom to maneuver compared to LOS A.
- LOS C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others. The level of comfort and convenience declines noticeably at this level.
- LOS D represents high density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform, value. Freedom to maneuver within the traffic stream is extremely difficult. Comfort and convenience levels are extremely poor, and driver frustration is generally high.
- LOS F is used to define forced or breakdown flow. Queues are formed very often. Operations within the queue are characterized by stop-and-go waves, and flow is extremely unstable.

Figure 2.31: Level of Service Illustrations



Level of Service A



Level of Service C



Level of Service E



Level of Service B



Level of Service D

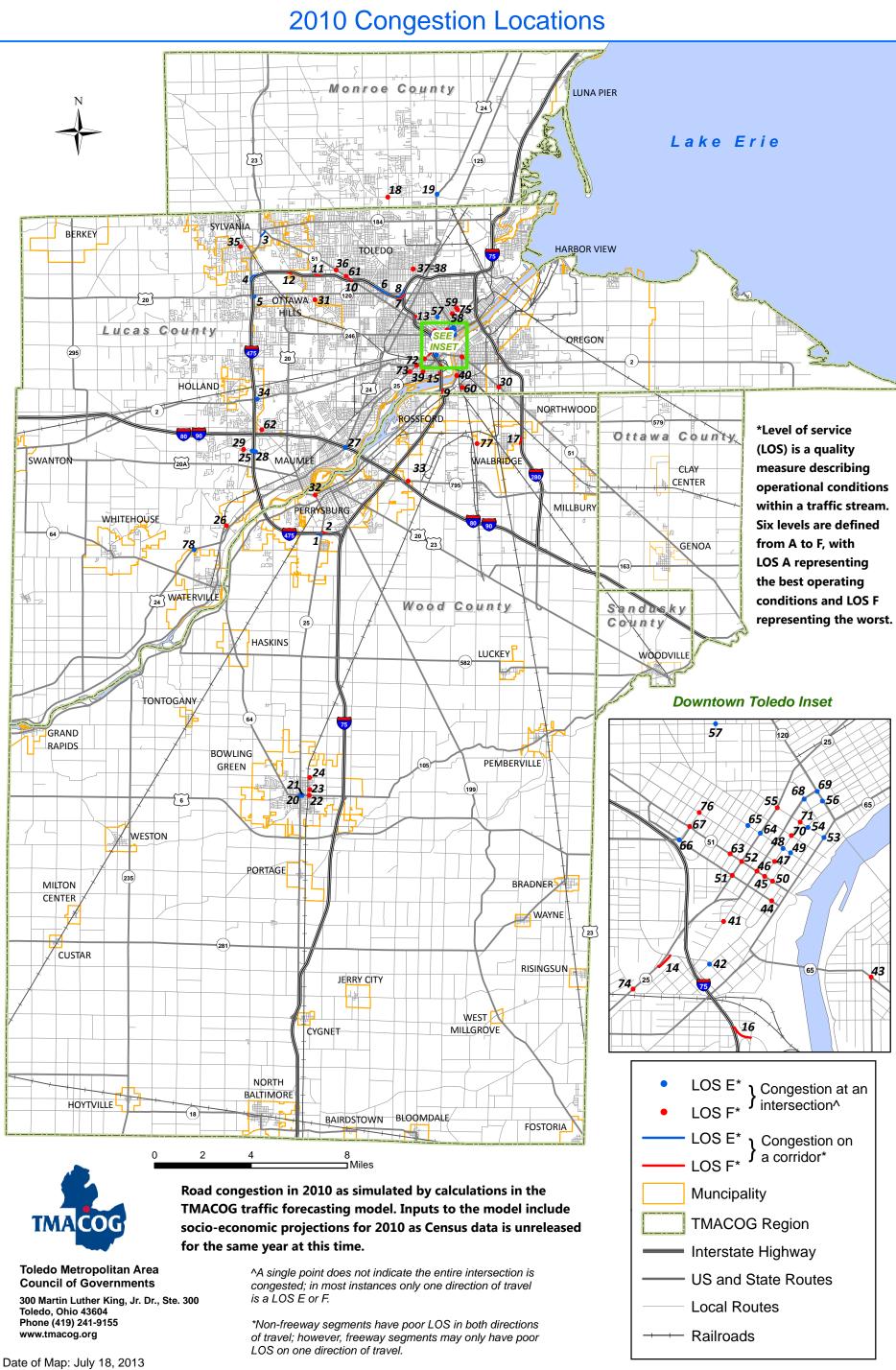


Level of Service F

LOS as determined by the traffic demand model was used to identify specific locations of congestion in the 2010 Base Year, the 2010 Base Year network. For this scenario, the congestion points and corridors experiencing Levels of Service E and F on freeways, expressways, arterials, and collectors are shown in **Figure 2.32** and **Table 2.13** below.

It is important to note that the 2010 Model of Record used was developed using the 2009 roadway network. Thus, where improvements have been made to increase capacity on roadways not reflected in the 2009 roadway network, locations where the demand model indicated LOS E or F for the 2010 Base Year were not included in **Figure 2.32**. Also, local roads were not used in the calculations since the Model of Record does not include all locally classified roads. Rather, many of the local roads used to develop the model were stub links to connect traffic generators, such as key destinations, to the higher volume roadway network.

2010 model results indicate that the roadways experiencing the most congestion in the TMACOG area are arterials and collectors. As shown on the 2010 Base Year model run, **Figure 2.32**, the limited freeway congestion that does occur is on a short segment of I-475 and the I-75/I-475 systems interchange. A two-phase project is now underway to upgrade the I-75/I-475 interchange which is expected to remedy existing congestion at this location. The areas of greatest concern having LOS F occur largely at certain freeway interchanges and the busiest freeway ramps connecting to arterials. Other arterial congestion locations occur primarily in the downtown Toledo area along with scattered locations throughout the Toledo urbanized area and within the city of Bowling Green.



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Table 2.13: 2010 Base Year Congestion Locations

Map				
ID	Road Name	Jurisdiction	LOS	Direction
1	I-475 EB off-ramp to SR 25	Perrysburg	Е	EB
2	I-475 WB off-ramp to SR 25	Perrysburg	F	WB
3	US 23 NB off-ramp to Monroe	Sylvania	Е	NB
4	I-475 WB at the US 23 split	Sylvania Twp.	Е	WB
5	Central on-ramp to I-475 NB	Sylvania Twp.	Е	NB
6	I-475 EB: ProMedica to Jackman	Toledo	Е	EB
7	I-475 EB to I-75 NB (Jeep split)	Toledo	F	EB
8	I-75 SB to I-475 WB (Jeep split)	Toledo	Е	SB
9	I-75 NB off-ramp to Miami (SR 65)	Toledo	F	NB
10	Monroe on-ramp to I-475 EB	Toledo	F	EB
11	I-475 WB off-ramp to Talmadge	Toledo	F	WB
12	I-475 EB off-ramp to Corey	Toledo	F	EB
13	I-75 NB off-ramp to Bancroft	Toledo	F	NB
14	SR 25 NB (AWT) off-ramp to Collingwood	Toledo	F	NB
15	South on-ramp to I-75 SB	Toledo	F	SB
16	South on-ramp to I-75 NB	Toledo	F	NB
17	I-280 SB off-ramp to Walbridge	Walbridge	F	SB
18	Jackman at Smith	Bedford Twp.	F	SB
19	Crabb at Telegraph (US 24)	Bedford Twp.	Е	SB
20	Main at Wooster	Bowling Green	Е	WB
21	Wooster at Prospect	Bowling Green	Е	WB
22	Manville at Wooster	Bowling Green	F	NB
23	Thurstin at Ridge	Bowling Green	F	NB
24	Thurstin at Poe	Bowling Green	F	NB
25	Dussel at the I-475 NB ramps	Maumee	Е	WB
26	Russel at Stitt	Maumee	F	SB
27	Anthony Wayne at Detroit	Maumee	Е	EB
28	Salisbury at the I-475 SB ramps	Monclova Twp.	Е	EB
29	Manley at Salisbury	Monclova Twp.	F	SB
30	Oakdale and Brown at Woodville	Oregon	F	EB/WB
31	Talmadge at Indian	Ottawa Hills	F	NB/SB
32	Maumee-Perrysburg Bridge at Front/W Boundary	Perrysburg	F	ЕВ
33	Lime City at SR 795	Perrysburg Twp.	F	NB
34	Airport at I-475 NB ramps	Springfield Twp.	Е	WB
35	Brint at McCord	Sylvania	F	WB
36	Monroe at Sylvania	Toledo	F	SB
37	Lewis at Phillips/Sylvania	Toledo	F	SB
38	Phillips at Lewis/Sylvania	Toledo	F	NB
39	South at Broadway	Toledo	F	EB
40	Fassett at Miami	Toledo	F	WB

Table 2.13 Continued: 2010 Base Year Congestion Locations

Map				
ID	Road Name	Jurisdiction	LOS	Direction
41	Erie at Nebraska	Toledo	F	NB
42	St. Clair at Newton	Toledo	Е	SB
43	Oak at Woodville	Toledo	F	EB
44	Washington at St. Clair	Toledo	F	NB
45	Huron at Monroe	Toledo	F	SB
46	Monroe at Erie	Toledo	F	WB
47	Huron at Jefferson	Toledo	F	NB/SB
48	Madison at Huron	Toledo	Е	WB
49	Madison at Superior	Toledo	Е	WB
50	Superior at Monroe	Toledo	F	SB
51	Michigan at Washington	Toledo	F	EB/SB
52	Monroe at Michigan	Toledo	F	EB
53	Summit at Jackson	Toledo	Е	NB
54	Superior at Jackson	Toledo	Е	NB
55	Spielbusch at Jackson	Toledo	F	SB
56	Cherry at Huron	Toledo	Е	SB
57	Franklin at Bancroft	Toledo	Е	SB
58	Lagrange at Bancroft	Toledo	F	NB
59	Mulberry at Sherman	Toledo	F	NB
60	Oakdale at Oak	Toledo	F	EB
61	Monroe at Rohr	Toledo	F	SB
62	Manley at Garden	Toledo	F	NB
63	11th at Monroe	Toledo	F	NB
64	Madison at Michigan	Toledo	Е	EB
65	Madison at 11th	Toledo	Е	WB
66	17th at Washington	Toledo	Е	SB
67	17th at Monroe	Toledo	F	NB/SB
68	Erie at Orange	Toledo	Е	NB
69	Erie at Cherry	Toledo	Е	EB
70	Adams at Huron	Toledo	F	SB
71	Huron at Jackson	Toledo	F	SB
72	Anthony Wayne at Western	Toledo	F	NB
73	Anthony Wayne at South	Toledo	F	NB
74	Anthony Wayne at City Park/Emerald	Toledo	F	NB
75	Bancroft at Mulberry	Toledo	F	EB
76	17th at Jefferson	Toledo	F	NB
77	Walbridge at East Broadway	Walbridge	F	WB
78	Dutch at Waterville-Monclova	Waterville	Е	WB

Note: Where improvements have recently been completed or are under construction that will remedy congestion identified in the demand model, the locations affected are highlighted in green.

Congestion Management Strategies

In 2013, 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.

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)
- Access Management
- Pedestrian and Bikeway Planning
- Share A Ride and Van Pooling
- I-475 Strategic Plan
- Freeway Entrance Ramp Metering
- Freeway Incident Management Programs

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:

- The I-75/I-475 split, Navarre Avenue near I-280, River Road in Perrysburg, SR 25 on both sides of I-475, and Central Avenue west of I-475 were noted as congested locations
- North Baltimore and the Manhattan/Summit/Suder area were noted as areas with significant rail related congestion issues
- The new SR 24 has changed traffic patterns and increased traffic on county and township roads
- Truck traffic has increased
- Concern with congestion related to construction of additional lanes on I-75 south of Perrysburg and with length of some construction detours
- Access management improvements have worked

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 2.14**, 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.

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

Table 2.14: Average Trip Distance

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 percent. Approximately 8 percent of the population uses a carpool to get to work with walking ranking third in the list at 2.68 percent. **Figure 2.33** and **Table 2.15** show the commuting to work mode split comparisons in the TMACOG region.

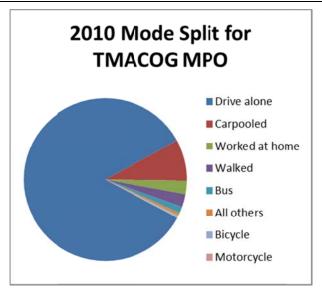


Figure 2.33: Regional Commuting to Work Mode Split

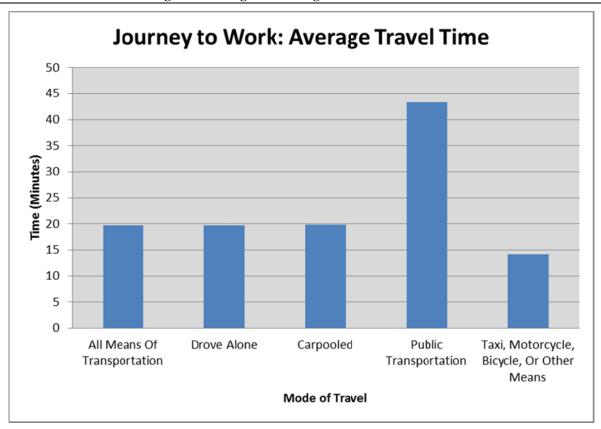
Overwhelmingly, the data shows that people prefer to use their car over mass transit options or alternative modes such as walking or biking. There are a variety of reasons for an individual's mode choice including time, availability of other options, and cost, as well as personal freedom.

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 percent to 1.25 percent, which was an 83.8 percent increase.

Table 2.15: 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 2.34: 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 2.34** and **Table 2.16**.

Table 2.16: 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 Express Airport, Erie Aerodrome, Toledo Suburban Airport, Bradner Airport, and the Seagate Helistop. The largest of these is Toledo Express Airport which saw 98,941 total enplanements in the year of 2014.

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 2.35: 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 by the Ohio Rail Development Commission (ORDC) that would link Toledo with numerous other destinations via higher speed rail, **Figure 2.35**.

In developing the Ohio Hub plan, the ORDC and the Ohio Department of Transportation (ODOT) examined the financial and economic feasibility of developing a system serving several intercity travel corridors. The four primary corridors:

- Cleveland Columbus Dayton Cincinnati
- Cleveland Toledo Detroit
- Cleveland Pittsburgh
- Cleveland Buffalo Niagara Falls Toronto

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 2.17** below.

	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
	\$1,242.1	\$525.5	\$615.5	\$941.7	\$3,324.8

Table 2.17: Ohio Hub System Capital Costs

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, and it is vital that non-motorized transportation needs be addressed in the overall transportation picture. Under state law, bicycles are vehicles and 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 2.36**. 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 exist 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 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.

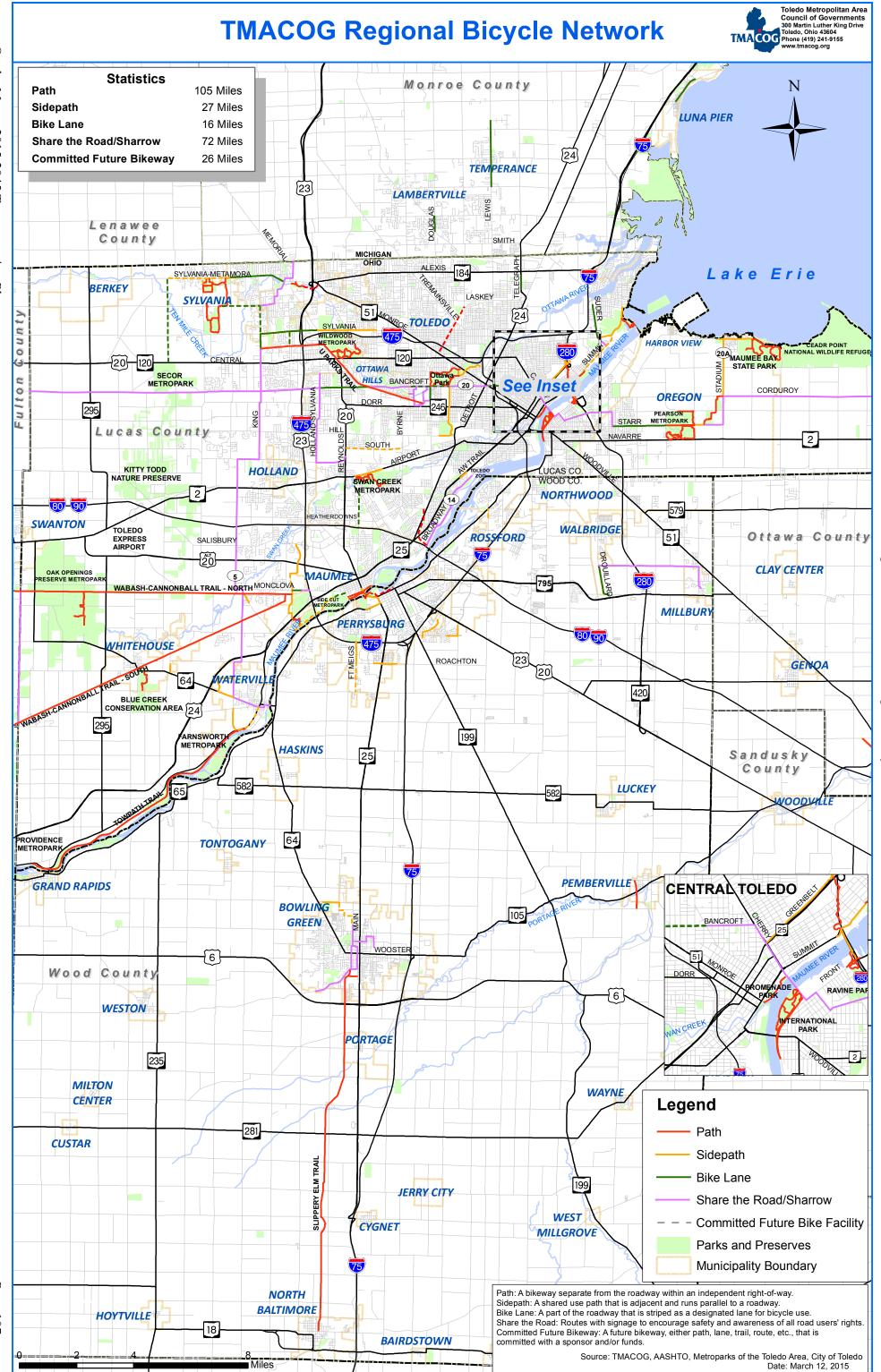
A bike path or trail is usually 10-12 feet wide, paved or unpaved. It is separate from the road, has an independent right-of-way, and is usually designed for two-way travel. All in our region are multi-purpose trails for non-motorized uses (biking, walking, rollerblading, etc.). The more rural trails 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.



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 2.37**. The University of Toledo, 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 40 fixed routes and services, including Call-a-Ride flex route services in five suburban communities plus shuttles to downtown baseball and hockey games. TARTA serves these member jurisdictions: the cities of Toledo, Sylvania, Maumee, Perrysburg, and Rossford; the villages of Ottawa Hills and Waterville; and Sylvania townships. TARTA provides 3 to 4 million rides per year.

TARTA operates the door-to-door, on-demand Toledo Area Regional Paratransit Service (TARPS) providing 220,000 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 2003, they provided 86,000 rides), in part because of increasing numbers of elderly no longer able to drive.

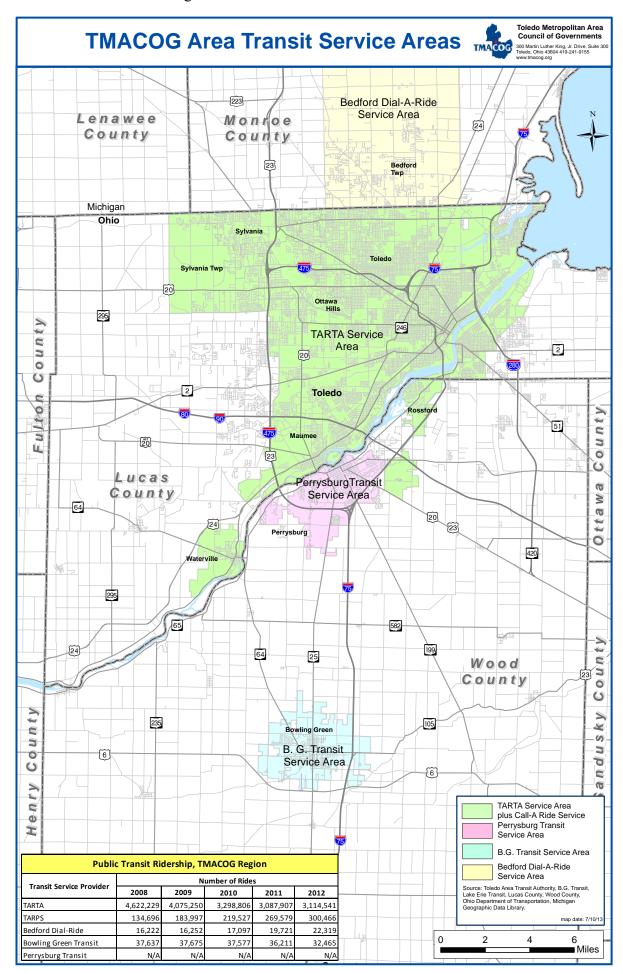
The Bedford Dial-a-Ride provides 17,000 rides per year of curb-to-curb service for Bedford Township (Michigan) residents, for trips within the township, nearby locations in adjacent Erie and Whiteford Townships, and connections to TARTA at transfer points in Toledo. Bedford Dial-a-Ride is a route deviation 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 2.18** outlines the RTS's recommended objectives related to key concerns.

Table 2.18: 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.)

Figure 2.37: TMACOG Transit Service Areas



A total of 4 different service plan change scenarios were analyzed in TARTA's COA. **Table 2.19** 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 2.19: TARTA's COA Preferred Service Plan and Other Recommendations

Preferred Service Plan:

- Funded by a county-wide sales tax, including Perrysburg and 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

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, ½ mile of the transit route.

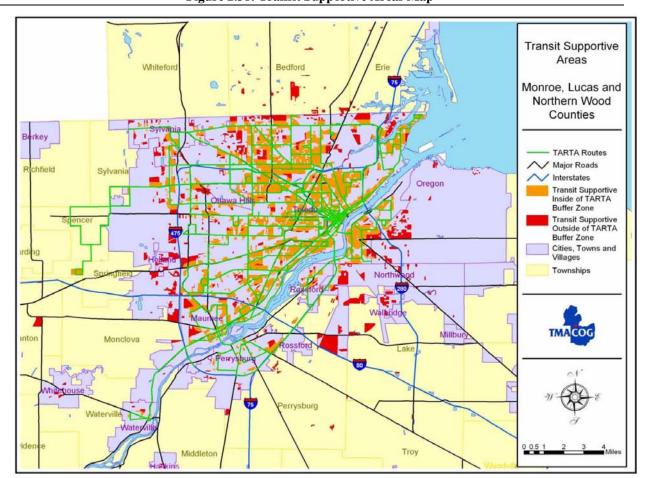


Figure 2.38: Transit Supportive Areas Map

Figure 2.38 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
- Lack of transportation services for seniors and disabled
- 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.

How—and how well—do we move goods in, through, to and from the TMACOG region?

The Toledo region has played a significant role in the movement of goods around the world. We enjoy a strategic location at a national crossroads of four railroads and two transcontinental highways. Forty-three percent of the U.S. industrial market and 47 percent 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 carry 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 page, 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 68 percent of the freight compared with 28 percent for rail and 4 percent for water.
- Ohio is a major crossroads for freight movement: 43 percent of the freight tonnage passes through the state, compared to 27 percent 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 percent 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 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 reexported 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.

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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).

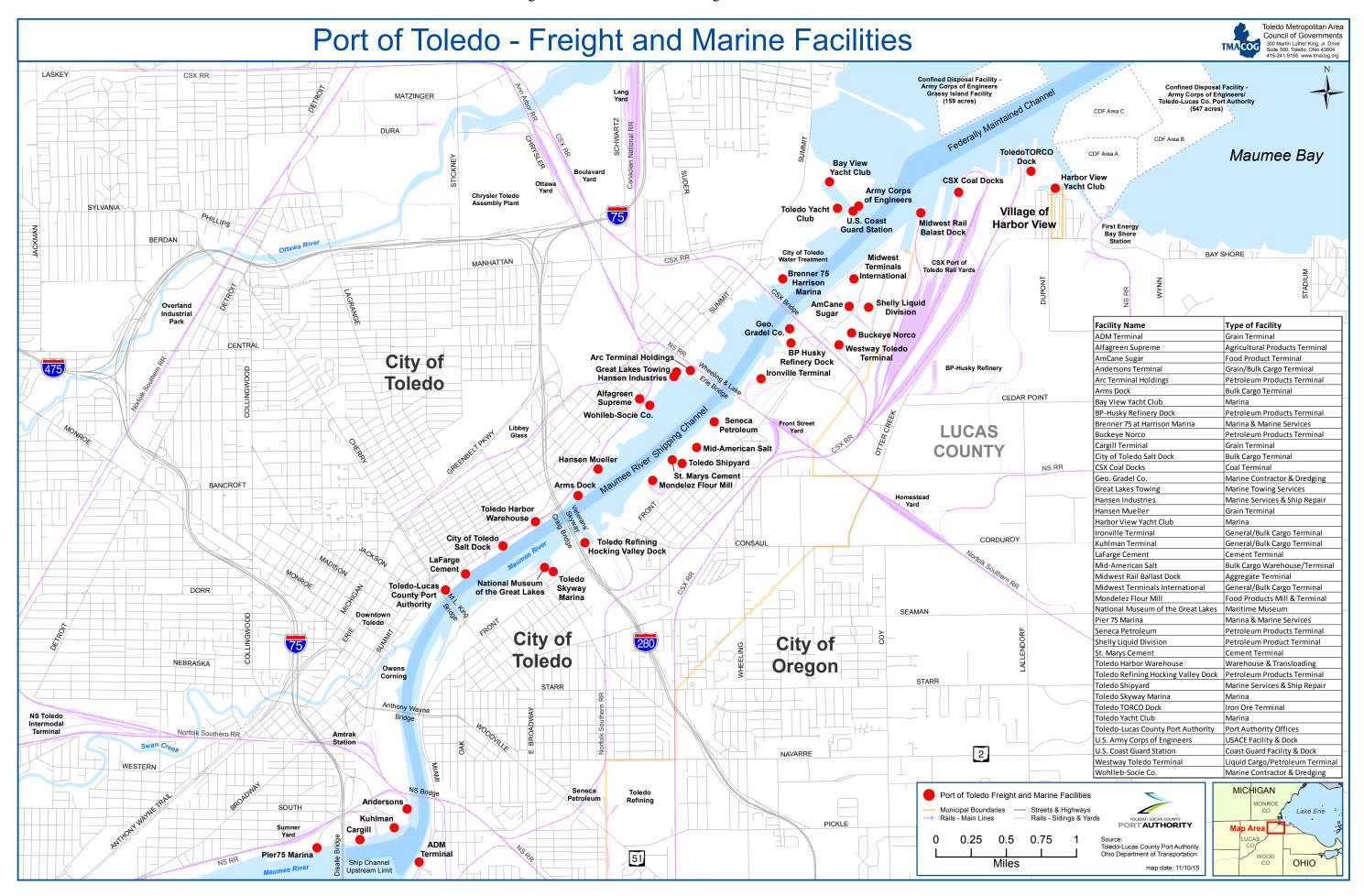
Water Freight

Figure 2.39 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.

In 2013 the port handled 473 vessel calls and 9.75 million short tons of cargo (as compared to 600 vessels and 11 million short tons in 2008). 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.



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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 2.40** 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 2.20**:

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

Table 2.20: Miles of Active Rail Lines in TMACOG Area (2010)

Note: Main lines only; not including spurs, sidings or yards. Double tracks count as two lines. 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 a large number of rail lines means having a large number of at-grade rail crossings. The Ohio Rail Development Commission reports that Lucas and Wood counties have approximately 250 at-grade crossings each. This creates a large number of conflict points between trains and cars, trucks, bicycles, and pedestrians. In 2013 the Ohio Department of Public Safety identified 317 train-motor vehicle crashes statewide, including eight crashes with fatalities and 57 crashes with injuries. While the total number of train-related crashes has declined in Ohio in recent years, the number of fatal crashes has not. **Table 2.21** shows the crash distribution and type for 2010-2013.

Table 2.21 Railway Grade Crossing Crashes, Ohio

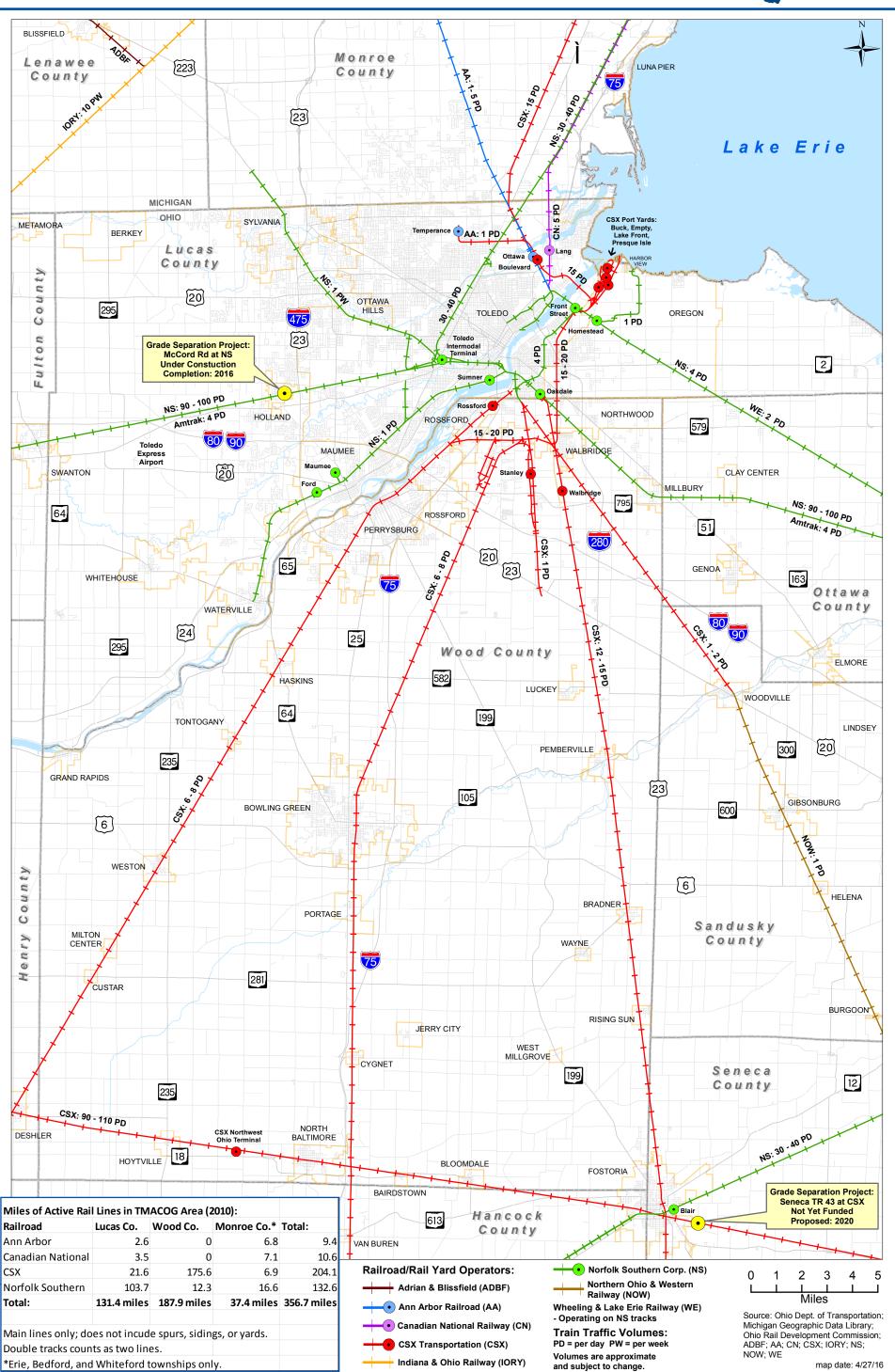
Year	Fatal Crashes	Injury Crashes	Property Damage Crashes	Unknown	Total
2013	8	57	252		317
2012	8	81	316		405
2011	2	90	306		398
2010	6	76	354	5	441

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

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Railroads, Rail Yards, and Grade Separation Projects





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 percent made by trucks. **Figure 2.41** shows a map of commercial vehicle volumes on interstate, U.S. routes, and state highways within the region. **Figure 2.42** 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 2.22**.

Table 2.22: Average Daily Commercial Vehicle Miles Traveled

County	Average Truck VMT per day		
Lucas	561,929		
Wood	609,058		
Monroe*	683,362		
Total	1,854,349		

*Entire county

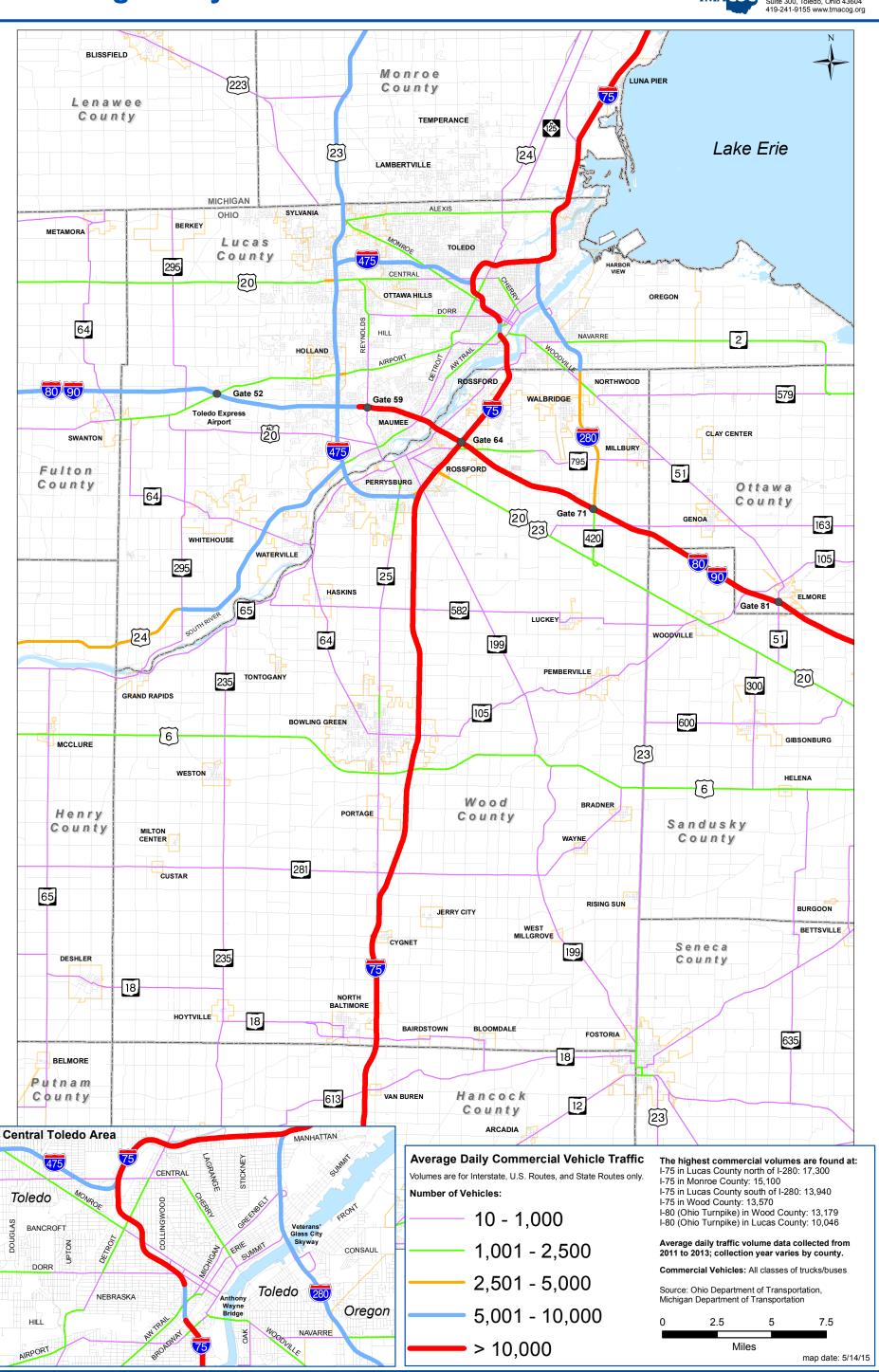
Source: ODOT and MDOT

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.

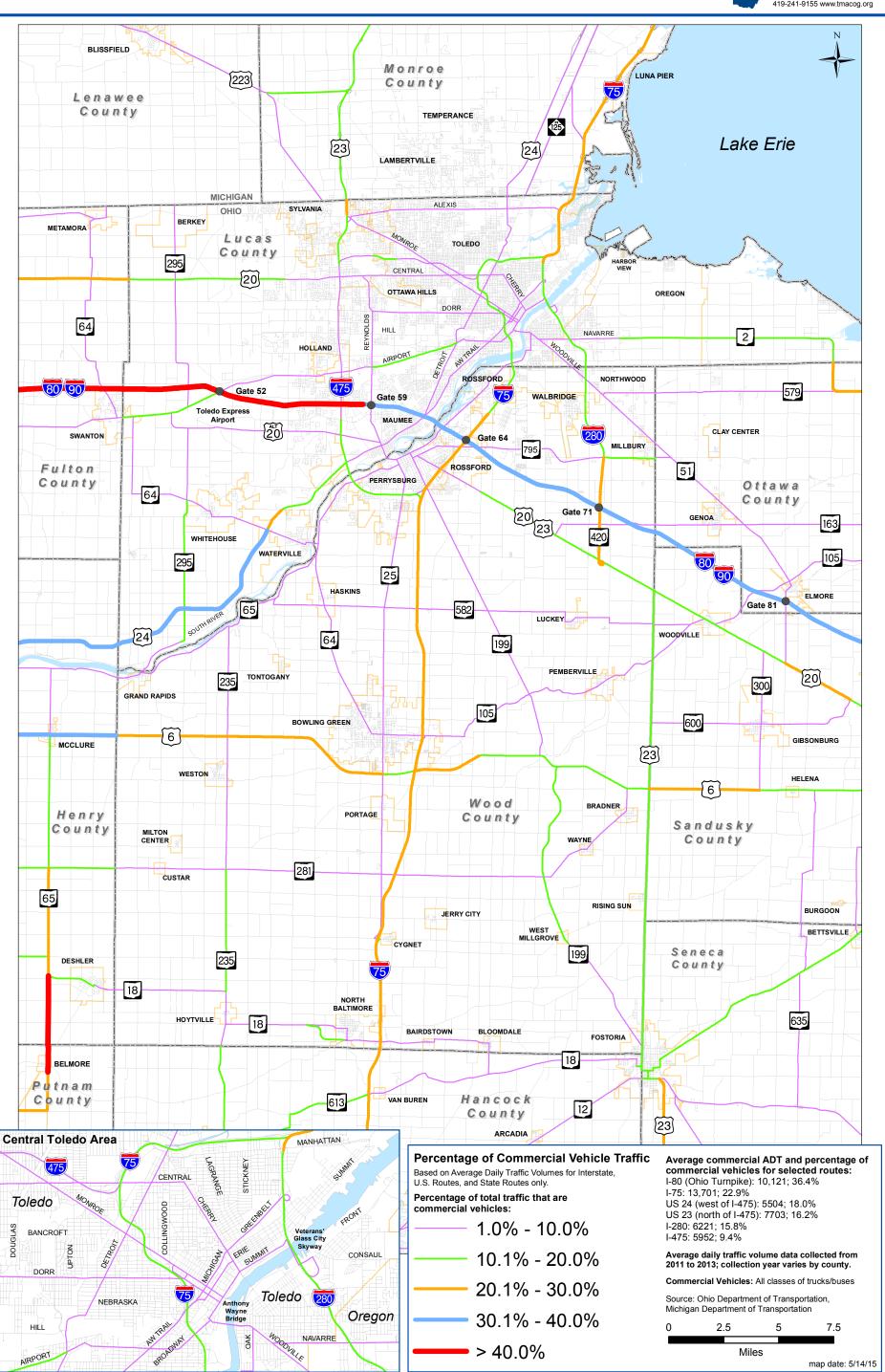
Truck traffic through the region occurs mostly on the interstates and on larger arterial roads. The roads with the highest daily volume of truck traffic are I-75, I-80 (the Ohio Turnpike); I-280; I-475; US 23 north of I-475; and US 24 west of I-475 The map in **Figure 2.43** shows the Michigan Weight Designated Permit Routes throughout northwest Ohio.

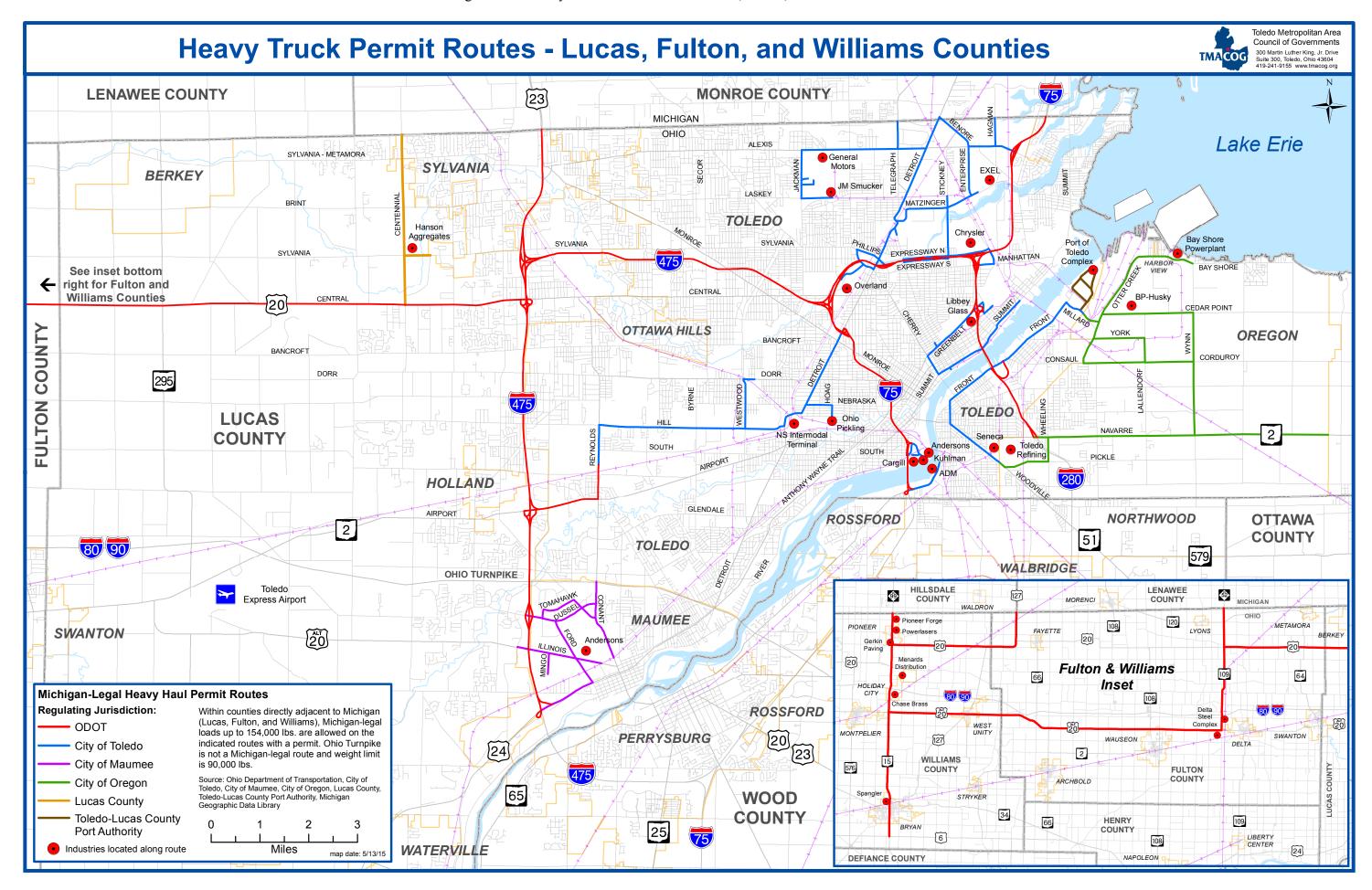
Based on FHWA data, projected truck volumes will increase substantially across the region, especially on I-75, I-280, US 6, US 20, US 24, and SR 51.

Average Daily Commercial Vehicle Volumes



Percentage of Daily Commercial Vehicle Traffic





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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 2.44** shows major freight hub and distribution center locations in the region.

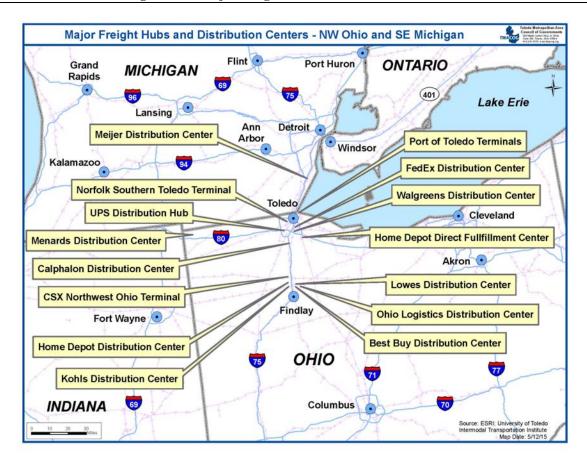


Figure 2.44: Major Freight Hubs and Distribution Centers

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 Metroparks of the Toledo Area 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 Metroparks of the Toledo Area, 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. Generally speaking, 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 2.23** lists the consumption advisories in the planning area.

Table 2.23: Consumption Advisories

Water Body	Fish Species	Consumption Advisory	Contaminants
	Brown Bullhead	Limit to one meal/month	Mercury
r 1 P:	Common Carp 27" and larger	Limit to one meal/two months	PCBs
Lake Erie	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	Freshwater Drum, Smallmouth Bass	Limit to one meal/month	PCBs
(Indiana State line	Smallmouth Buffalo	Limit to one meal/month	PCBs, mercury
to Waterville)	Common Carp, Flathead Catfish	Limit to one meal/month	Mercury
	Channel Catfish	Limit to one meal/two months	PCBs
Maumee River	Freshwater Drum, Smallmouth Bass	Limit to one meal/month	PCBs
(Waterville to	Smallmouth Buffalo	Limit to one meal/month	PCBs, mercury
mouth)	Common Carp, Flathead Catfish	Limit to one meal/month	Mercury
	Snapping Turtles	Limit to one meal/week	Mercury

Table 2.23 Continued: Consumption Advisories

Water Body	Fish Species	Consumption Advisory	Contaminants
Ottawa River (Secor to Auburn)	Common Carp	Do not eat	PCBs
Ottawa River (Main St., Sylvania to Secor)	Common Carp	Limit to one meal/month	PCBs
Ottawa River (All Waters)	Snapping Turtles	Do not eat	
Ottawa National Wildlife Refuge (All waters)	Snapping Turtles	Limit to one meal/week	Lead
Portage River (Ohio Turnpike to Lake Erie)	Channel Catfish, Common Carp	Limit to one meal/two months	PCBs
Portage River- North Branch	Common Carp	Limit to one meal/two months	PCBs
Portage River- South Branch	Common Carp	Limit to one meal/month	PCBs
Sandusky River, Bucyrus to Fremont	Largemouth Bass, Channel Catfish 16" and larger	Limit to one meal/month	PCBs, mercury
Sandusky River, Bucyrus to Fremont	Common and Smallmouth Buffalo Carp	Limit to one meal/month	PCBs
Sandusky River Fremont to mouth	Largemouth Bass, Channel Catfish 16" and larger	Limit to one meal/month	PCBs, mercury
Swan Creek	Common Carp	Limit to one meal/month	PCBs
(Whitehouse to mouth)	Northern Pike	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 (as of June 2015):

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

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3 WHERE DO WE WANT TO GO

It is tough to get somewhere if you don't first decide where you 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 statements they adopted. These include a vision of what TMACOG is about (regional collaboration to solve problems); 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:

Transportation Vision Statement:

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." 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

MAP-21, the federal surface transportation act, calls on states and metropolitan areas to go a step farther: to set measurable targets that are to be achieved. This performance-based approach to planning aims to insure 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 MAP-21 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) is in the process of setting 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 will set their targets to be achieved. In other words, the FHWA is working collectively with state and local agencies across the country to achieve the national goals established by MAP-21.

3.3.2 TMACOG Regional Targets

During 2014-2015, when TMACOG was developing the "On the Move 2015-2045 Plan," national and state targets were still under development. Since TMACOG's targets are to reflect the state and national targets, this made it difficult to fully engage in performance-based planning as outlined in MAP-21. However, as advised by the Ohio Department of Transportation, TMACOG made a best effort in setting preliminary targets. These will need to be updated and modified in the future to add specifics where missing and to coordinate with state and federal performance targets.

Preliminary Transportation Performance Targets for the TMACOG Region

Targets = what we aim to achieve in our region. Should include a target date and how we will quantify success. Targets set to be achieved "by 2045" will also need interim year targets.

Infrastructure Condition

Goal: Maintain and improve the transportation system to a state of good repair.

Targets:

- 1. Bridge Ratings: achieve greater than 70% sufficiency rating on bridges
- 2. Road Ratings: Maintain a steady state of road condition
 - a. Average weighted Pavement Condition Rating (PCR) greater than 80 on priority system (functional class 1-3), and average weighted PCR greater than 75 on general system (functional class 4-6 urban and 4-5 rural)
- 3. Ride-ability: good ride-ability is desired; no specific target set

Personal Mobility

Goal: Improve the quality, accessibility, and efficiency of the multimodal personal transportation system.

Targets:

- 1. Increase access to public transit: By 2045, increase percent of population within transit-served areas by 10%
- 2. Increase access to ped/bike transportation: Increase percent of population served by bikeways by 30% by 2045
- 3. Increase connectivity of personal mobility transportation modes: Reduce miles of gaps in bike network by 20% by 2045
- 4. Increase *per capita* transit ridership by 2.25% by 2045
- 5. Increase bike ridership by 10% by 2045*

^{*}Once a counting system is in place

Safety

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

Targets:

- 1. Reduce number and rate of fatalities by 20% by 2045
- 2. Reduce number and rate of serious injuries by 20% by 2045

Freight movement

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

Targets:

- 1. Improve connectivity between freight generators and major highways ("5 to 55")
- 2. Increase freight transportation capacity
- 3. Improve connectivity between freight modes

Congestion reduction

Goal: Reduce congestion on the National Highway System (NHS)

Targets:

- 1. Major highway traffic moves at posted speed 88% of the time. (This is ODOT's Travel Time Reliability Index target)
- 2. Reduce congestion as measured by V/C (volume/capacity) on the NHS (National Highway System) by 5% by 2045
- 3. Reduce intersection delay by 5% by 2045
- 4. Reduce vehicle miles travelled by 5% by 2045*

Environmental Sustainability

Goal: Protect and enhance the community and natural environments.

Targets:

- 1. Improve, protect and mitigate impacts to environmentally sensitive areas (prime farmland, wetlands, etc.)
- 2. Air quality: reduce transportation-related greenhouse gas and other air pollutant emissions
- 3. Use transportation investments to incentivize infill in, and redevelopment of, existing communities and brownfields
- 4. Reduce pollution from stormwater runoff
- 5. EJ area impacts:
 - a. Distribute transportation investment benefits equitably to Environmental Justice areas (low income, minority & other transportation-challenged populations);
 - b. Prevent disproportionate negative impacts on EJ areas.

^{*}Strategies include increased non-motorized transportation use and reducing number of single-occupant vehicle trips

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

The "On the Move: 2015-2045 Transportation Plan" (2045 Plan) 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 5.

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 buildable projects, while others focus on collaborative research and development of strategies for positive change.

The following six slides in **Figure 4.1** summarize the key components of the plan. These were developed for the public meetings held in spring 2015 for review of the draft plan.

How will the 2045 Plan improve PERSONAL MOBILITY?

Make public transit improvements:



- Lucas County-wide transit system
- Connect from Toledo to Bowling Green
- · Bus rapid transit
- One-call center
- Mobility managers to help coordinate

Add passenger rail service -- more trains connecting to more cities







Figure 4.1 Continued: 2045 Plan Summary Presentation

How will 2045 Plan improve INFRASTRUCTURE CONDITION?

Calls for System Preservation funding;

- \$250 million to rebuild roads and bridges in bad shape right now
- \$300 million for future reconstruction



Includes 100+ Priority Projects that fix or upgrade bridges and roads



Calls on our region to:

- Enforce sidewalk laws
- · Maintain bike paths and lanes
- Use management systems







Figure 4.1 Continued: 2045 Plan Summary Presentation

How will the 2045 Plan reduce CONGESTION?

Promotes alternative modes of travel to reduce vehicle miles driven





Projects that add capacity and reduce physical bottlenecks

Reduces delay with projects that improve efficiency and free-flow movement







What will the Plan do to improve FREIGHT movement?

Improve traffic flow on major freight routes:

- · Widen I-75 and I-475 to six lanes
- Improve pavement condition

Improve the efficiency of connections from freight facilities to major freight routes:

- Better Interstate access
- · Improve connecting roads
- Access to future freight facilities
- Railroad overpasses & bridges









Figure 4.1 Continued: 2045 Plan Summary Presentation

How will the 2045 Plan improve our ENVIRONMENT?

Green infrastructure to reduce pollution from stormwater





Will improve traffic flow to protect air quality

Better public transit, pedestrian & bicycle transportation

Urges us to **grow smarter**: build in existing towns, mixed use, greater density



Invests in existing communities:

\$550 million for System Preservation





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 4.2**) shows locations for major committed projects, those with construction costs of \$2 million or more. The projects are listed and numbered in cost order.

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. 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.

Project ID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Cost in Millions	Primary Mode
C-1	I-75 Disalle Bridge and Ramp Improvements to I-75 (Glenwood Rd to South Ave)	Reconstruct pavement; rehabilitate bridges; widen the Disalle Bridge; improve ramp connections for South Ave and Miami St.	ODOT	2018	292.0	Express-way
C-2	I-75 Reconstruct from South to Dorr	A multi-Lane & Major Bridge funded project (project # 2) to reconstruct the existing pavement and to rehabilitate/widen/replace existing bridges.	ODOT	2017	284	Express-way
C-3	Widen I-475 (US 24 to US 20)	Widen I-475 to 6 lanes from US 24 (Anthony Wayne Trail) to US 20 (Central Ave).	ODOT	2018	60.0	Express-way
C-4	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; perform necessary related work. Improvement of intersection of SR-64/River Rd is funded with MPO CMAQ funds	ODOT	2018	23.6	Roadway
C-5	High Level Bridge Paint	A Major Bridge funded project to paint the structural steel of the high level bridge over the Maumee River in Toledo.	ODOT	2016	16.5	Roadway
C-6	I-75 Major Rehab from Cecilia Ave to Michigan St Line	Resurface I-75 by milling & filling 3.75" on new pavement & widened lanes.	ODOT	2019	13.7	Express-way
C-7	I-475 Bridge Redeck over Hill and Dorr	A district funded project to widen and redeck the main line I-475 bridges (L & R) over Hill Ave and Dorr St.	ODOT	2017	13.3	Express-way
C-8	Rebuild Anthony Wayne Trail/SR 25 Bridge over NS Railroad	Rebuild Anthony Wayne Trail (SR-25) bridge over NS Railroad (at City Park/Emerald) to increase vertical/horizontal clearance over tracks.	ODOT	2018	10	Roadway
C-9	Upgrade the I-475/SR 25 Interchange	I-475 at SR 25 interchange upgrades, including install diverging diamond interchange (DDI); add ped/bike facilities; address weave on I-475 between SR 25 and I-75 (I-75/I-475 system interchange).	ODOT/City of Perrysburg	2018	9.9	Express-way
C-10	Bancroft St Secor to Parkside	Improvements (access management, roundabouts, complete streets) to Bancroft St. from Secor to Parkside	City of Toledo	2017	8.4	Roadway
C-11	I-475 Resurface from Monclova Rd to Central Ave	A district allocation funded project to resurface I-475 from Monclova Rd to Central Ave overhead.	ODOT	2017	7.7	Express-way
C-12	I-475 Bridge Redeck and Widen over Monclova Rd and NS RR	Redeck and widen the I-475 bridge over Monclova Road and NS RR.	ODOT	2016	7.4	Express-way
C-13	I-280 Preventative Maintenance from Turnpike to Navarre	Perform preventive maintenance on I-280 from the Turnpike in Wood County to Navarre Ave (SR-2) in the City of Oregon.	ODOT	2019	6.8	Express-way
C-14	I-475 Bridge Redeck Monroe St, Bowen Rd, and Rushland Ave	A district allocation funded project to redeck and paint the structural steel of 3 bridges over I-475 in the City of Toledo.	ODOT	2017	5.9	Roadway
C-15	TARTA ADA Service	ADA Service	TARTA	2017	5.4	Transit
C-16	I-280 Rehab	Candidate Major Rehabilitation Project from Major Rehabilitation Candidate List	ODOT	2018	5.2	Express-way
C-17	I-475 Resurface from Central to Douglas	A project to resurface I-475 from Central Ave to Douglas Rd; perform necessary related work.	ODOT	2016	5.2	Express-way
	South Ave Reynolds Rd to Byrne Rd	Reconstruct South Ave. from Reynolds to Byrne including a sidepath bicycle facility	City of Toledo	2018	5.2	Roadway
C-19	I-280 Resurface from Navarre to I-75	Resurface I-280 in Lucas county from Navarre Ave (SR-2) to I-75.	ODOT	2017	5	Express-way
C-20 C-21	TARTA ADA Service TARTA ADA Service	ADA Service ADA Service	TARTA TARTA	2016 2018	4.8 4.8	Transit Transit
	SR 25 Resurface from SR 582 to Perrysburg City Limits	A district allocation funded project to resurface SR-25 from SR-582 to Perrysburg Corp Line.	ODOT	2019	4.4	Roadway
C-23	Buck Rd/Lime City Rd	Upgrade Buck Rd./Lime City Road intersection area, with roundabout and turn lanes	Wood County	2018	4.2	Roadway
C-24	SR 25 (AWT) Reconstruct from I-75 to Erie	A TMACOG funded project to perform full depth reconstruction of existing roadway and intersection improvements at Erie St.	Toledo	2017	4.2	Roadway
C-25	US 20 Resurface from Fulton County Line to King Rd	A district allocation funded program to resurface US-20 from Fulton County Line to near King Rd.	ODOT	2016	4.0	Roadway
C-26	Douglas Rd Reconstruct from Sylvania to Laskey	A TMACOG funded project to widen & reconstruct Douglas Rd from Sylvania Ave to Laskey Rd in the City of Toledo.	Toledo	2017	4	Roadway
C-27	Front St. (I-280 to Millard)	Reconstruct Front St from I-280 to Millard.	Toledo	2020	3.8	Roadway
C-28	SR 582 Resurface from Sandusky County Line to SR 25	A district allocation funded project to resurface SR-582 from SR-25 to Sandusky County Line.	ODOT	2018	3.7	Roadway

Project ID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Cost in Millions	Primary Mode
C-29	TMACOG SIB Loan	Phase II rehabilitation of the MLK bridge	TMACOG	2016-2019	3.6	Roadway
C-30	Detroit Ave from Copeland to SR 25	Road diet to a 3-lane road with bike lanes from the AWT to Byrne Rd with a roundabout at Byrne. Continue north of Byrne to Copland with 2 driving lanes and bike lanes	Toledo	2019	3.6	Roadway
C-31	US 20 Resurface from Lime City Rd to Lemoyne	A district allocation funded project to resurface from near Lime City Rd to Lemoyne Access and to replace 2 bridges at SLM 5.67 and @ SLM 7.61.	ODOT	2016	3.5	Roadway
C-32	Wood County Bridges in Various Locations	A CEAO funded project to repair/replace various bridges in Wood County	Wood County	2016-2020	3.4	Roadway
C-33	I-475 Resurface from Douglas to I-75/I-475 Split	A district allocation funded project to resurface I-475 from Douglas Rd to I-75/I-475 split near old Jeep plant; perform necessary related work.	ODOT	2019	3.3	Express-way
C-34	I-75 Resurface from Central to Cecelia	A district allocation funded project to resurface I-75 in Lucas County from about Central Ave bridge to Cecelia.	ODOT	2019	3.3	Express-way
C-35	SR 51 Bridge Redeck over US 23	Redeck bridge over US23/SR51 SB; perform necessary related work. Work will include: parapets, vandal fence, light pedestals, and sidewalks.	ODOT	2019	3.3	Roadway
C-36	SR-2 resurface from Turnpike to Holloway	A multi-lane district allocation funded project to resurface SR-2 in Lucas County from near the Turnpike to near Holloway.	ODOT	2016	3.3	Roadway
C-37	SR 420 Resurface from US 20 to Ohio Libbey	A district allocation funded project to mill & fill SR-420 in Wood County from US-20 to Libbey.	ODOT	2018	3.2	Roadway
C-38	Wood County Bridges in Various Locations	An OBPP funded project to repair/replace various bridges in Wood County.	Wood County	2016	6.2	Roadway
C-39	Resurface Fearing Blvd/Detroit Ave (Arlington Ave to I-75)	Resurface Fearing Blvd/Detroit Ave from Arlington to I-75 interchange.	City of Toledo	2016	3.1	Roadway
C-40	Former CSX Bridge Removal and Build Chessie Circle Trail	Remove former CSX RR Bridge over Maumee River near the Turnpike Bridge and build bike/hike trail from River Rd to Glanzman Rd	Wood County Port Authority and Metroparks	2016	3.1	Non- motorized
C-41	Sylvania Ave Centennial to McCord	Improvements to Sylvania Ave. from Centennial to McCord	Lucas County	2019	2.8	Roadway
C-42	Alexis Rd Resurface from Telegraph to I-75	An urban paving project on SR-184 (Alexis Rd) from Telegraph to I-75.	Toledo	2017	2.8	Roadway
C-43	Douglas Rd Reconstruct from Alexis to Laskey	Reconstruct Douglas Rd from Laskey to Alexis in the City of Toledo.	Toledo	2019	2.7	Roadway
C-44	SR 295 Bridge Rehab Over Maumee River	Rehabilitate the existing SR-295 (formerly SR-578) bridge over the Maumee River in Grand Rapids.	ODOT	2019	2.7	Roadway
C-45	US 6 Resurface from Henry County Line to SR 235	Resurface US-6 in Wood County from Henry County Line to SR-235.	ODOT	2016	2.7	Roadway
C-46	Bancroft Bridge Redeck over I-75	A project to redeck the Bancroft St bridge over I-75 in the City of Toledo.	ODOT	2016	2.6	Roadway
C-47	Anthony Wayne Trail in Waterville	Convert former US 24 through Waterville to local street, widen to 3 lanes, add bike/ped path	City of Waterville	2017	2.5	Roadway
C-48	Bennett Rd from Laskey to Alexis	Reconstruct Bennett Rd from Laskey to Alexis	City of Toledo	2019	2.5	Roadway
C-49	Lagrange St Utica St to Oakland St	Reconstruct Lagrange from Utica to Oakland.	City of Toledo	2020	2.5	Roadway
C-50	Wenz Rd Angola Rd to Hill Ave	Reconstruct Wenz Rd. from Angola to Hill	City of Toledo	2020	2.5	Roadway
C-51	SR 235 Resurface from SR 18 to Maplewood	A 2-lane district allocation funded project to resurface SR-235.	ODOT	2016	2.5	Roadway
C-52	SR 2 Resurface from N Curtice Rd to Ottawa Co Line	A 2-lane district allocation funded project to resurface SR-2 in eastern Lucas County from N. Curtice Rd to near Ottawa County Line.	ODOT	2016	2.3	Roadway
C-53	TARTA Buses	Five 35' buses being replaced	TARTA	2019	2.3	Transit
C-54	Central Ave Resurface from Secor to Upton	An Urban Paving funded project to resurface Central Ave from Secor Rd to Upton Ave in the City of Toledo.	Toledo	2016	2.2	Roadway
C-55	Maumee Ave Bridge Replacement over NS RR	A Municipal bridge funded project to replace the Maumee Ave bridge over NS RR in Toledo.	Toledo	2017	2.1	Roadway
C-56	Central Ave Resurface from Secor to Toledo City Limits	An Urban Paving funded project to resurface Central Ave (SR-120) from Toledo City Limits to Secor Rd.	Toledo	2018	2.1	Roadway
C-57	SR 281 Resurface from SR 235 to TR 118	A 2-lane district allocation funded project to resurface SR-281 from SR-235 to TR-118 in Wood County.	ODOT	2017	2	Roadway
C-58	SR 51 Bridge Replacement over Crane, Ayers, Little Cedar, and Dry Creeks	A district allocation funded project to replace 4 existing structures. Investigate prefabricated structure with safety grading.	ODOT	2016	2	Roadway
C-59	5339 Toledo Urbanized Area	Bus & bus facilities for the Toledo urbanized area	ODOT	2016	1.9	Transit
C-60	Complete bike facilities on Sylvania-Metamora Rd/Kilburn Rd	Complete Sylvania-Metamora Rd. (Erie St.) bike path west of Centennial Park, and bike lanes south on Kilburn Rd. to Central Ave. Access to Secor Metropark.	Lucas County, Richfield Township	2017-2020	1.9	Non- motorized

Project ID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Cost in Millions	Primary Mode					
C-61	Ft Meigs Rd Widening from Five Point to High School Dr	A TMACOG-funded project to widen Fort Meigs Road, in the City of Perrysburg, from a narrow 2 lane to a standard 2 lane, from Five Point Rd to High School Drive.	Perrysburg	2016	1.9	Roadway					
C-62	York St Reconstruction from Front to Toledo City Limits	Reconstruct York St from the Toledo city limits to Front St.	Toledo	2020	1.9	Roadway					
C-63	Central Ave Resurface from Upton to Cherry	An urban paving project to resurface Central Ave (SR-120) from Upton Ave to Cherry St in the City of Toledo.	Toledo	2017	1.9	Roadway					
C-64	Reynolds Rd Resurface from Angola Rd to Glendale	An urban paving project to resurface US-20 (Reynolds Rd) from Angola Rd to Glendale.	Toledo	2019	2019	2019	2019	2019	2019	1.9	Roadway
C-65	SR 25 Resurface from Lafayette to Greenbelt	An urban paving project funded project to resurface Erie (NB)/Cherry (SR-25) from Lafayette to Greenbelt Prkwy and Michigan/Spielbusch (SB) (SR-25D) from Greenbelt to Madison.	Toledo	2018	1.9	Roadway					
C-66	SR 2 I-280 to Isaac Dr	Various intersection safety improvements on SR 2 in Lucas County from I- 280/Dearborn to Isaac Drive in the City of Oregon.	Oregon	2016	1.8	Roadway					
C-67	SR 51 Resurface from Lafayette to Collingwood	An urban paving project to resurface Monroe/Summit (SR-51) from Lafayette to Collingwood.	Toledo	2018	1.8	Roadway					
C-68	Monroe St Bridge over I-75	A district allocation funded project to replace existing deck of Monroe St bridge over I-75 in Toledo.	ODOT	2016	1.7	Roadway					
C-69	Central and Talmadge Intersection Improvements	Widen intersection and add turn lanes.	Toledo	2018	1.5	Roadway					
C-70	Complete South Airfield Rd	Complete the construction of South Airfield Road at Toledo Express Airport.	TLC Port Authority	2016	1.4	Roadway					
C-71	Monroe St Resurface from Secor Rd to Talmadge Rd	An urban paving project to resurface SR-51 (Monroe St) from Secor Rd to Talmadge.	Toledo	2019	1.4	Roadway					
C-72	SR 105 Resurface from Bowling Green to SR 199	A district allocation funded project to resurface SR-105 from Bowling Green to SR-199.	ODOT	2019	1.4	Roadway					
C-73	SR 18 Resurface from Henry County Line to SR 235	A district allocation funded project to resurface SR-18 from Henry County Line to SR-235.	ODOT	2019	1.4	Roadway					
C-74	SR 281 Bridge Redeck over I-75	Redeck SR-281 bridge in Wood County over I-75.	ODOT	2019	1.4	Roadway					
C-75	Douglas/Dorr Intersection Improvement	Intersection improvements to the Douglas/Dorr intersection including turn lanes	Toledo	2017	2017	1.4	Roadway				
C-76	Delaware Ave Bridge Redeck over I-75	A district allocation funded project to redeck existing 2 span steel girder bridge with sidewalks and vandal fences on each side of the bridge; patch substructure.	ODOT	2016	1.3	Roadway					
C-77	East Circle Ln Bridge over the Ottawa River	A municipal bridge program funded project to address the East Circle Lane bridge over Ottawa River by replacing its superstructure, rehabilitating its substructure, painting structural steel, and reconstructing approaches.	Toledo	2016	1.3	Roadway					
C-78	SR 25 Resurface from Jerry City Rd to Main St in Portage	A district allocation funded project to resurface SR-25 from near Jerry City to Main St in Portage.	ODOT	2017	1.3	Roadway					
C-79	US 23 Resurface from Carey to Cygnet	A district allocation funded project to resurface US-23 from Carey to Cygnet/Seneca County line.	ODOT	2017	1.3	Roadway					
C-80	Central Ave Resurface from Brigham to Buckeye	Resurface Central Ave from Brigham St to Buckeye St	Toledo	2020	1.3	Roadway					
C-81	Summit St Resurface from Lafayette to Lagrange	An urban paving project to resurface Summit St from Lafayette to Lagrange.	Toledo	2018	1.3	Roadway					
C-82	SR 281 Resurface from SR 199 to CR 82	A district allocation funded project to resurface SR-281 from CR-82 to SR-199.	ODOT	2019	1.2	Roadway					
C-83	TARTA Capitalized Maintenance	Capitalized Maintenance	TARTA	2016	1.2	Transit					
C-84	TARTA Capitalized Maintenance	Capitalized Maintenance	TARTA	2017	1.2	Transit					
C-85	TARTA Capitalized Maintenance	Capitalized Maintenance	TARTA	2018	1.2	Transit					
C-86	Construct access road within Overland Industrial Park	Construct access road within Overland Industrial Park on the east side near NS railroad.	TLC Port Authority	2016	1.1	Roadway					
C-87	SR 2 Resurface from Holloway to Holland-Sylvania	A district allocation funded project to resurface SR-2 from Holloway to Holland- Sylvania.	ODOT	2019	1.1	Roadway					
C-88	SR 25 Bridge Replacement over Delaware Creek	Replace structure under 50 feet of fill.	ODOT	2018	1.1	Roadway					
C-89	Woodruff Ave Resurface from Collingwood to Cherry	Mill and resurface existing asphalt pavement including full depth pavement repairs, minor walk upgrades, minor drainage improvements, and curb repairs as needed.	Toledo	2019	1.1	Roadway					

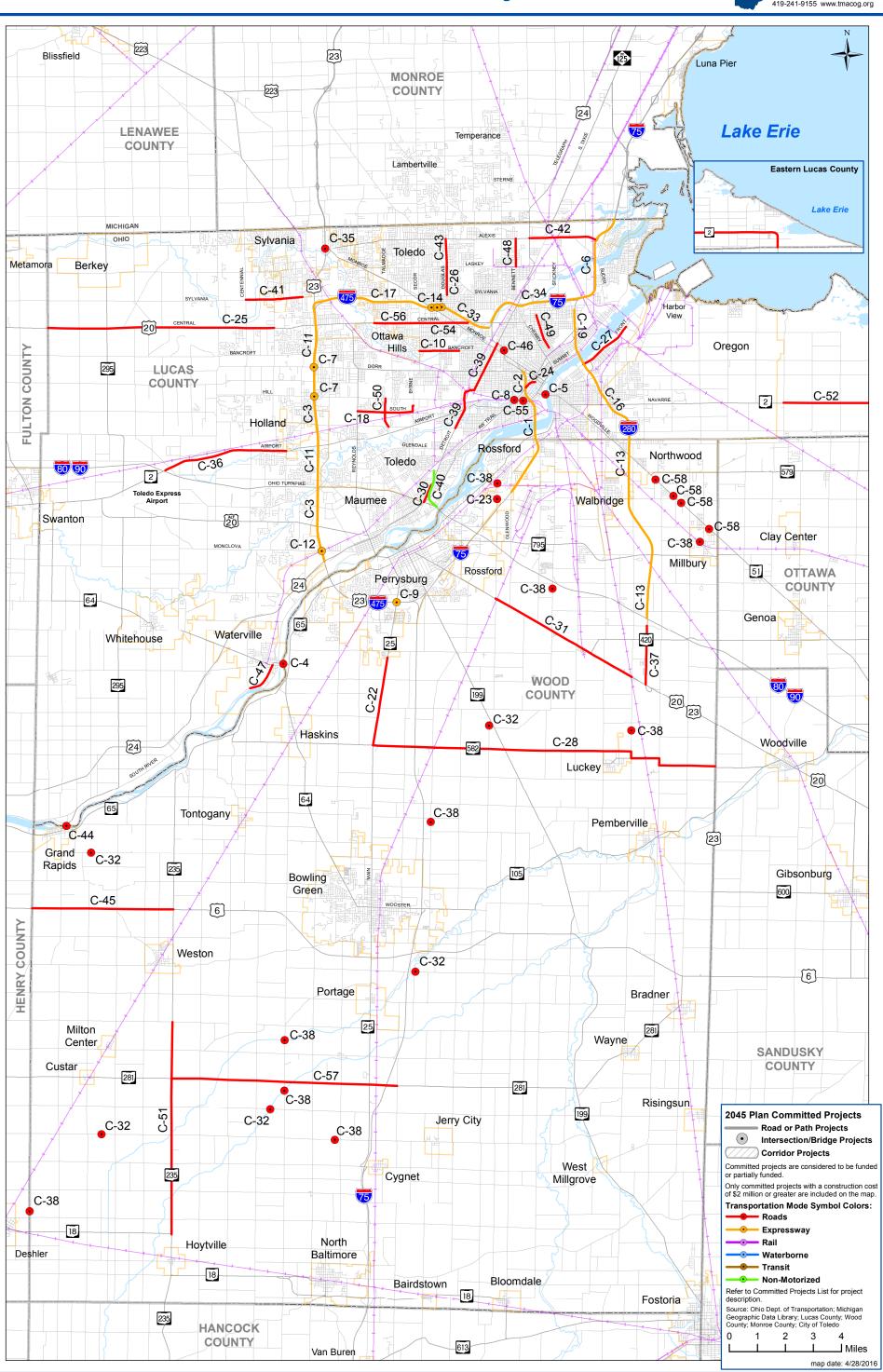
Project ID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Cost in Millions	Primary Mode
C-90	Jerry City Rd Bridge Replacement over Jackson Cut-off	Replace Jerry City Road bridge over Jackson Cut-off located at the border between Milton & Jackson townships.	Wood County	2017	1.1	Roadway
C-91	Long Judson Bridge over Beaver Creek	Replace Long Judson Road bridge over Beaver Creek located in Grand Rapids Township in Wood County.	Wood County	2017	1.1	Roadway
C-92	SR 51 Resurface from Ottawa County Line to Northwood	A district allocation funded project to resurface SR-51 from Ottawa County Line to Northwood.	ODOT	2019	1	Roadway
C-93	TARTA Capital Assistance	Capital Assistance - Flex fund transfer for the Urban Transit Program	TARTA	2017	1	Transit
C-94	TARTA Enhanced Mobility for S&D	Enhanced Mobility for Seniors and Individuals with Disabilities	TARTA	2017	1	Transit
C-95	Woodley Rd Bridge Redeck over I-475	A district allocation funded project to redeck the existing 4 span steel bridge with sidewalks and vandal fences on each side of the bridge.	ODOT	2016	1	Roadway
C-96	Kramer Rd Bridge Replacement	Bridge replacement on Kramer Rd over the North Branch of the Portage River.	Wood County	2020	1	Roadway
C-97	SR 25 & SR 64 Intersection Rehab	Rehabilitation of Main St (SR-25) and Wooster St (SR-64) in downtown the City of Bowling Green.	Bowling Green	2019	1	Roadway
C-98	Indiana Ave Resurface from I-75 to Washington	MACOG-funded "small project" to reconstruct Indiana Ave from I-75 to Shington St.	Toledo	2016	1	Roadway
C-99	Reynolds Rd Resurface from Glendale to Toledo City Limits	An Urban Paving funded project to resurface Reynolds Rd from Glendale to Toledo City Limits.	Toledo	2016	1	Roadway
C-100	Bays Rd Bridge	Bridge replacement on Bays Rd over the Middle Branch of the Portage River	Wood County	2019	0.9	Roadway
C-101	Hull Prairie SR 65 to Roachton	Widen and reconstruct Hull Prairie Rd from SR 65 and Roachton Rd	Perrysburg	2017	0.9	Roadway
C-102	SR 579 Bridge Replacement over Cedar Creek	A district allocation funded project to replace the existing bridge over Cedar Creek.	ODOT	2016	0.9	Roadway
C-103	SR 64/I-75 Interchange Turn Lanes	A safety project to install EB right turn lane to SB IR-75, a continuous SB right turn lane from IR-75, restripe bridge over IR-75 for pedestrians on north side, & update traffic & pedestrian signals; perform necessary related work.	ODOT	2019	0.9	Express-way
C-104	Miami/Front Realignment	Miami/Front realignment; perform necessary related work.	Toledo	2018	0.9	Roadway
C-105	SR 25/Gypsy Ln Intersection Improvements	A TMACOG funded project to realign intersection of S. Main St (SR25) and Gypsy Lane and add a left turn lane for WB Gypsy Lane traffic in the City of Bowling Green, perform necessary related work.	Bowling Green	2016	0.9	Roadway
C-106	Improvements to Lime City Rd and SR 65 intersection & Lime City Rd bike path	Improvements to intersection of Lime City and SR 65, improve turning movements, minor alignment change, signal upgrade, and Lime City Rd. bike path SR 65 to Buck Rd	Rossford	2017	0.9	Roadway
C-107	Maumee River Multi-Use Path	Maumee River Multi-Use Path: Construct a multi-use path in the City of Perrysburg that connects Orleans Park to Hood Park and Downtown Perrysburg.	Perrysburg	2019	0.9	Non- motorized
C-108	McCord Resurface from Angola to Hancock	Mill existing pavement, perform spot full depth repairs; reconstruct failed catch basins; place 2 course asphalt overlay; sidewalk repair/addition; perform necessary related work.	Lucas County	2018	0.9	Roadway
C-109	Sylvania/Centennial Roundabout	Construct a modern roundabout at the intersection of Sylvania Ave and Centennial Rd; perform necessary related work.	Lucas County	2016	0.9	Roadway
C-110	Monroe St Cheltenham to Nantucket	Corridor improvements by adding adaptive signals.	Toledo	2020	0.8	Roadway
C-111	TARTA <30' Buses	< 30' Buses	TARTA	2017	0.8	Transit
C-112	Summit St Enhancement Lagrange to Chestnut	Summit St enhancement; perform necessary related work.	Toledo	2019	0.8	Roadway
C-113	Crabb Rd Bridge Rehab over Shantee Creek	An OBPP-funded project to replace/rehab bridge on Crabb Rd over Shantee Creek in Toledo	Toledo	2016	0.7	Roadway
C-114	Monclova & Weckerly Roundabout	Intersection improvement at Monclova Rd & Weckerly Rd to upgrade to a roundabout	Lucas County	2020	0.7	Roadway
C-115	Providence Neapolis Swanton Bridge	Replace bridge on PNS just south of Neowash Rd.	Lucas County	2020	0.7	Roadway
C-116	SR 579 Resurface from SR 51 to Ottawa County Line	Resurface SR-579; perform necessary related work.	ODOT	2017	0.7	Roadway
C-117	SR 64 Bridge Rehab over Swan Creek	Rehab 2 bridges, one over Swan Creek and the other over Neiss Ditch 157; perform necessary related work. Works include repair deck edges, overlay, railing and approach slabs.	ODOT	2019	0.7	Roadway

Project ID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Cost in Millions	Primary Mode
C-118	SR 64 Bridge Resurface over I-75	Replace wearing surface and approach slabs of WOO-64 bridge over I-75; perform necessary related work	ODOT	2019	0.7	Roadway
C-119	Jackson Blvd Transit Center Ped/Bike Improvements	A TMACOG-funded project to renovate the Jackson Blvd Transit Center; perform necessary related work	Toledo	2017	0.7	Non- motorized
C-120	McCord Resurface from Dorr to Hancock	Mill existing pavement, perform spot full depth repairs; reconstruct failed catch basins; place 2 course asphalt overlay; sidewalk repair/addition; perform necessary related work.	Lucas County	2020	0.7	Roadway
C-121	Ottawa River Rd Resurface from Suder to 290th	Resurface Ottawa River Rd in the City of Toledo; perform necessary related work; small project designated by TMACOG.	Toledo	2018	0.7	Roadway
C-122	Napoleon Rd Resurface from Main to South College	A TMACOG-funded "small project" to resurface Napoleon Rd, in the City of Bowling Green, from South Main St to South College Dr.; perform necessary related work.	Bowling Green	2017	0.7	Roadway
C-123	Anderson Rd Bridge Replacement	Replace bridge on Anderson Rd over Two Root Creek	Wood County	2020	0.6	Roadway
C-124	I-280 Median Inlets from Curtice to Navarre	Replace 18 median inlets on I-280 between Curtice Rd and Navarre Ave; perform necessary related work.	ODOT	2016	0.6	Express-way
C-125	I-75 Noisewall Maint from I-280 to Michigan State Line	A project to patch and paint noisewall on I-75 from I-280 to the state line; perform necessary related work.	ODOT	2016	0.6	Express-way
C-126	I-75 Slide	Repair a slide at LUC-75-8.51 NB; perform necessary related work.	ODOT	2017	0.6	Express-way
C-127	TARTA Bus & Bus Facilities	Pedestrian Access	TARTA	2016	0.6	Transit
C-128	TARTA Capital Assistance	UTP Cap Asst	TARTA	2018	0.6	Transit
C-129	TARTA OTPPP Biodiesel Fuel	Capital Assistance - Flex fund transfer for the Urban Transit Program	TARTA	2016	0.6	Transit
C-130	Toledo Lighthouse	A TMACOG-funded phase 1 project to address exterior cleaning and stabilization of the masonry walls and structure of the Toledo Harbor lighthouse; Also, new replacement windows and shutters will be included in Phase 1.	Lucas County	2019	0.6	Maritime
C-131	Manville Rd Resurface from Wooster to Napoleon	TMACOG-funded small project to resurface Manville Ave; perform necessary related work.	Bowling Green	2018	0.6	Roadway
C-132	Wheeling St Resurface from Randall to Hollydale	A TMACOG-funded "small project" to resurface Wheeling St in the City of Oregon; perform necessary related work.	Oregon	2018	0.6	Roadway
C-133	Repave SR 65 (in City of Rossford)and traffic signal upgrade	Repave SR 65 (in City of Rossford) and traffic signal upgrade	Rossford	2017	0.6	Roadway
C-134	Pemberville Rail Crossings	Pavement rehab at CSX rail crossings at SR 105 and at Pemberville Rd in Pemberville	CSX	2016	0.6	Rail/Roadway
C-135	Summit St Bike Path	Sidepath along Summit St from Galena to Manhattan	Toledo	2018	0.5	Non- motorized
C-136	North Baltimore Downtown Enhancement	Downtown North Baltimore enhancement; perform necessary related work.	North Baltimore	2019	0.5	Roadway
C-137	SR 295 Resurface from Sylvania to Michigan State Line	A 2-lane District Allocation-funded project to resurface SR-295 in Lucas County from Sylvania Ave to Michigan State Line; perform necessary related work.	ODOT	2016	0.5	Roadway
C-138	TARTA Enhanced Mobility	Enhanced Mobility for Seniors and Individuals with Disabilities	TARTA	2016	0.5	Transit
C-139	US 20 Bridge Replacement	Bridge over Hill Ditch	ODOT	2017	0.5	Roadway
C-140	Fort Meigs Road Sidepath	Fort Meigs Road Sidepath: Provide a facility between Roachton Rd and Five Point Rd.	Perrysburg, Perrysburg Township	2016	0.4	Non- motorized
C-141	Jerome Road Sidepath	Jerome Road Sidepath: Add a facility between Technology Dr. and Monclova Rd.	Lucas County		0.4	Non- motorized
C-142	NS Bridge over I-475 Painting	Paint the RR bridge over I-475 near Holland-Sylvania Ave; perform necessary related work	ODOT	2019	0.4	Rail
C-143	Glendale Resurface from AWT to Broadway	Mill and resurface existing asphalt pavement including full depth pavement repairs; perform necessary related work.	Toledo	2019	0.4	Roadway
C-144	SR 65 Downtown Signal Upgrade	Eagle Pt., Bacon, Glenwood	Rossford	2017	0.3	Roadway
C-145	TARTA ADP Hardware/Software	Advanced ADP Hardware/Software	TARTA	2016	0.3	Transit
C-146	TARTA ADP Hardware/Software	Advanced ADP Hardware/Software	TARTA	2017	0.3	Transit
C-147	TARTA Advanced ADP Hardware/Software	Advanced ADP Hardware/Software	TARTA	2018	0.3	Transit

Project ID	Project Name	Project Description	Project Sponsor	Estimated Construction Year	Cost in Millions	Primary Mode
C-148	Toledo Shipyard Access Rd	A TMACOG-funded "small project" to resurface Wheeling St in the City of Oregon; perform necessary related work.	TLC Port Authority	2018	0.3	Roadway
C-149	Eckel Junction/ Carronade Intersection Improvement	A TMACOG-funded project to improve the intersection of Eckel Junction and Carronade in the City of Perrysburg by constructing a roundabout; perform necessary related work.	Perrysburg	2016	0.3	Roadway
C-150	Front St. Improvements	A TMACOG-funded project to improve Front St in the Marina District area; perform necessary related work.	Toledo	2017	0.3	Roadway
C-151	Erie Rd from Strasburg to US 24	Microsurface	Monroe County	2016	0.2	Roadway
C-152	Erie Rd from US 24 to I-75	Microsurface	Monroe County	2016	0.2	Roadway
C-153	I-280 Culvert Replacement over Dry Creek	Replace culvert only. I-280 Bridge overlaying is now deleted from project. Bridge is to be designed in-house. Original bridge scope was to redeck and widening.	ODOT	2016	0.2	Express-way
C-154	Rossford SRTS Sidewalks and Signage	Install sidewalks, signage, school zone and crosswalk upgrades at various locations in the City of Rossford; perform necessary related work.	Rossford	2017	0.2	Non- motorized
C-155	SR 65 Culvert near King Rd	A District Allocation-funded project to replace stone slab culvert on SR-65 near King Rd in Wood County; perform necessary related work.	ODOT	2017	0.2	Roadway
C-156	SR 65 Culvert near Roachton Rd	Replace existing culvert; perform necessary related work.	ODOT	2016	0.2	Roadway
C-157	Indiana Bridge Redeck over I-75	A District Allocation-funded project to redeck the Indiana Ave bridge over I-75 in downtown Toledo; perform necessary related work. Project should be coordinated with the addition of a third lane to I-75.	ODOT	2016	0.1	Roadway
C-158	TMACOG Air Quality	TMACOG FY 17 Air Quality Program	TMACOG	2016	0.1	
C-159	TMACOG FY 18 AQ Program	TMACOG FY 18 Air Quality Program	TMACOG	2017	0.1	
C-160	TMACOG FY 18 Rideshare	TMACOG FY 18 Rideshare Program	TMACOG	2017	0.1	
C-161	TMACOG FY 19 AQ Program	TMACOG FY 19 Air Quality Program	TMACOG	2018	0.1	
C-162	TMACOG FY 19 Rideshare	TMACOG FY 19 Rideshare Program	TMACOG	2018	0.1	
C-163	TMACOG FY 20 AQ Program	TMACOG FY 20 Air Quality Program	TMACOG	2019	0.1	
C-164	TMACOG FY 20 Rideshare	TMACOG FY 20 Rideshare Program	TMACOG	2019	0.1	
C-165	TMACOG Rideshare	TMACOG Rideshare	TMACOG	2016	0.1	
C-166	TMACOG Rideshare	TMACOG FY 17 Rideshare Program`	TMACOG	2016	0.1	
C-167	Sterns from Quail Hollow to Whiteford Center	Replace Culvert & Overlay	Monroe County	2016	0.07	Roadway
	Strasburg from Erie to Lakeside	Microsurface	Monroe County	2016	0.07	Roadway
	TMACOG Air Quality	TMACOG Air Quality	TMACOG	2016	0.07	į
C-170	Dean from Secor to Lewis	Single Chip Seal	Monroe County	2016	0.06	Roadway
C-171	TARTA State of Good Repair	State of Good Repair	TARTA	2016	0.06	Transit
C-172	TARTA Transit Improvements	Associated Transit Improvements	TARTA	2016	0.06	Transit
C-173	TARTA Transit Improvements	Associated Transit Improvements	TARTA	2017	0.06	Transit
C-174	TARTA Transit Improvements	Transit Improvements	TARTA	2018	0.06	Transit
C-175	Clark from State Line to Yankee	Single Chip Seal	Monroe County	2016	0.02	Roadway
C-176	Consear from Adler to Secor	Single Chip Seal	Monroe County	2016	0.02	Roadway

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2045 Plan Committed Projects



4.1.2 Priority Projects

Priority projects are those that are not yet funded. They were ranked as important for meeting the 2045 Plan goals. **Table 4.2** lists the plan's Priority projects. Based on the estimate of resources available between now and the year 2045, these projects should be able to be funded. 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 1.5 percent. 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 \$1.755 billion. The breakdown by mode is shown in the following graph in **Figure 4.3**. "Non-motorized" refers to pedestrian and bikeway projects; "Rail" includes rail-highway grade separations (over- or underpasses) and passenger rail projects.

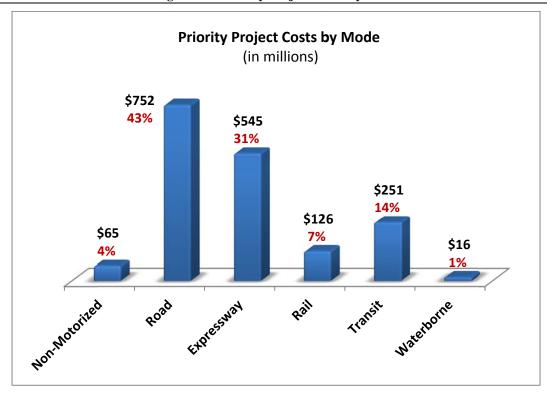


Figure 4.3: Priority Project Costs by Mode

		Estimated	Estimated Project Cost	
Rank	Project	Construction	in millions	Primary Mode
	g	Year	(2015 dollars)	,
1	Reconstruct Anthony Wayne Trail (Detroit Ave. to South Ave.); add bike path along the road	2016-2025	55	Road
2	Access management and ped improvements to Navarre Ave. (White St. to Lallendorf Rd.) to improve safety	2021-2025	10	Road
3	Add downtown Toledo transit center on Jackson Blvd.; eliminate transit loop	2017	17	Transit
4	Add turn lanes to US 20 (City of Rossford to SR 420) where needed	2016-2035	10	Road
5	Improve I-75/US 20 interchange in Perrysburg to better handle truck traffic	2026-2035	25	Road
6	Provide Airport Hwy ped/bike facilities from (Holland-Sylvania Rd., across I-475, to McCord Rd.)	2021-2025	5.4	Road
7	Widen I-475 (US 23 to Talmadge Rd.)	2036-2045	100	Express-way
8	Upgrade US 23/SR 51 (Monroe St.) interchange in Sylvania; plus Monroe St. and pedestrian improvements	2026-2035	40	Express-way
0	Upgrade interchange at I-75 / SR 64 (Wooster St.) in Bowling Green to add roundabouts and pedestrian path across I-75	2020-2033	5.4	Road
10	Upgrade NHS Connector (truck route) from I-75 to River Terminals (South Ave., Kuhlman and Edwin Drives including bridge)	2021-2025	5.4	Road
10		2016-2025	<u> </u>	
11	Build a new NHS Connector (truck route) between the NS rail terminal (Airline Yard) and I-75		30	Road
12	Implement Lucas County-wide public transit	2020	20	Transit
13	Resurface Anthony Wayne Trail from Monclova Rd. to Detroit Ave.; add a dedicated left turn signal at W. Wayne St.	2020	4	Road
14	Improve Douglas/ Laskey/ Tremainsville intersection	2025	7	Road
15	Improve EB and WB US 24 (Anthony Wayne Trail) at I-475 interchange where on-ramp and off-ramp traffic share the same merging lane.	2036-2045	80	Road
16	Build rail grade separation bridge at Matzinger Rd./AA & CSX crossing to eliminate rail/highway conflict in N. Toledo industrial area; provide access to "Iron Triangle" and Jeep plant.	2016-2025	28	Rail
17	Improve I-75 NB off-ramp to Collingwood Blvd. to better handle trucks separate Logan St. from ramp, divert Logan into S. St Clair, make Newton two way	2016-2025	2.5	Road
18	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. to Riverside Dr. to Front St. where the trail would turn into a bike lane north to Millard Rd.	2016-2025	1.1	Non-Motorized
10	Add paved berms to SR 65 (Village of Grand Rapids to City of Rossford)	2021-2030	5	Non-Motorized
13	Add paved bernis to six os (village of drand kapids to city of kossiord)	2021-2030	J	NOTI-IVIOLOTIZEG
20	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	2016-2025	6	Non-Motorized
21	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	2016-2025	5.7	Non-Motorized
22	Widen US 20/Central Ave. (Centennial to west of Crissey Rd.) to 5 lanes	2021-2030	10	Road
23	Construct Chessie Circle Trail Bridge over the Maumee River	2021-2030	8.3	Non-Motorized
24	Overland Trail: Construct a multi-use path from the Chessie Circle Trail at Ottawa Park through Jermain Park, to the Overland Industrial Park, to Manhattan Ave. bike lanes, then a sidepath from Expressway Dr. via various streets to existing facilities on Summit St.	2016-2025	7	Non-Motorized
25	Widen I-475 (Talmadge to Douglas Rd.)	2026-2035	130	Express-way
26	Reconstruct I-75 in Monroe County (Ohio state line to Otter Creek Rd.)	2016-2025	130	Express-way
27	Construct a Regional Central Traffic Control System including adaptive traffic control for major arterial corridors	2016-2025	3.5	Road
	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.	2010 2023	3.3	Nodu
28	where it would turn northwest into a sidepath to meet the Overland Trail	2016-2025	1.21	Non-Motorized
29	Construct Chessie Circle Trail (rail-trail), from Laskey Rd. to WW Knight Preserve in Wood Co. (excludes two separate projects, path from river to Glanzman and new Maumee River bridge)	2016-2025	5.7	Non-Motorized
30	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 planned a path along the Anthony Wayne Trail	2016-2025	2	Non-Motorized
31	Build new interchange on I-475 connecting to US 20A (Maumee-Western Rd.)	2016-2025	24	Expressway
32	Increase passenger train service to 5 round trips/day, Toledo to Cleveland; add new Toledo-Detroit service; and upgrade stations	2021-2030	300	Rail
33	Chessie Circle Trail Alternate Routes: provide bike facilities to bypass the active rail section (Dorr St. to Glanzman Rd.)	2016-2025	1.5	Non-Motorized
34	Greenhouse Trail: Construct a bike facility from the University/ Parks Trail at Reynolds Rd. to Elmer Dr., then south through Toledo Botanical Garden 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	2016-2025	2.1	Non-Motorized
32	Add Maumee River passenger and freight rail bridge (2 tracks) with cantilevered ped/bike path, adjoining NS mainline bridge in central Toledo	2026-2035	250	Rail
25	Add interchange on I-475 at Dorr St. (SR 246); address potential capacity issues between McCord and Holland-Sylvania.	2026-2033		_
27			12	Expressway
3/	McCord Rd. corridor improvements from Angola Rd. to Bancroft St access management, and intersection improvements (Hill Ave., Dorr St., and Bancroft St.)	2025	10	Road
38	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.	2016-2025	2.1	Non-Motorized
39	Buckeye Basin Trail: Construct a facility to provide connection to Uptown District with a trail starting at Woodruff/Franklin Aves., then following the existing Greenbelt Pkwy. trail to the Overland Trail via Buckeye St.	2016-2025	0.2	Non-Motorized
40	Maumee City Bicycle Network: Provide a group of facilities to create a bicycle network conneting to and through City of Maumee	2016-2025	1.2	Non-Motorized

		Estimated	Estimated Project Cost	
Rank	Project	Construction	in millions	Primary Mode
	· · · · · · · · · · · · · · · · · · ·	Year	(2015 dollars)	•
41	Improvements to Sylvania/ Jackman/ Tremainsville intersection	2026-2035	5.5	Road
42	Build Detroit/Telegraph/Laskey roads intersection improvements, possibly a roundabout	2025	5	Road
43	Downtown Toledo Facilities: Add a sidepath on Jefferson Ave. and connect to existing facilities on Bancroft St. via share-the-road facilities in the Old West End	2016-2025	0.4	Non-Motorized
44	Complete the Oregon bike network	2016-2025	1.7	Non-Motorized
45	Add turn lanes to US 6 corridor (City of Bowling Green bypass) where needed	2026-2045	2	Road
46	Implement fixed guideway public transit using advanced technology in one or more heavily travelled corridors, replacing standard bus with bus rapid transit, light rail, etc.	2045	300	Transit
47	Construct rail grade separation of Phillips Ave. and NSRR to improve access to the Phillips/I-75 interchange	2026-2035	22	Rail
48	Oregon Trail: Construct a path/sidepath to connect Craig St. Bridge path and Seaman Rd., to connect cities of Toledo and Oregon	2016-2025	0.6	Non-Motorized
49	Build efficient truck connection between I-75 Exit 168 (Eagleville Rd.) and Stearns Rd. west of City of Fostoria; improve Stearns Rd. to handle truck traffic where needed	2036-2045	60	Road
50	Build US 20A roundabouts at Whitehouse-Spencer Rd. and at SR 295 intersection (with a connector to S. Airfield Rd.)	2016-2025	3	Road
51	Implement a transit connection between Toledo and Bowling Green	2035	5	Transit
52	Replace pavement on Oregon Rd. (US 20 to Northwood); one bridge replacement	2016-2025	2.25	Road
53	Improve Secor Rd. (widen lanes, access management) from Bancroft to Central Ave. Possible roundabouts at Bancroft/Kenwood Blvd. and Bancroft/Indian Rd.	2026-2035	15	Road
54	Improve Tracy Rd (SR 795 to Walbridge Rd.) to accommodate truck traffic (increase weight limit; minor widening; improve guardrails). Add sidewalks.	2016-2025	2	Road
55	Improve Tracy Rd./Wales Rd. intersection to better accommodate trucks (widen turning radius; possible left turn lanes, and traffic signal)	2016-2025	1.2	Road
56	Widen and managed access, US 20A (I-475 to Toledo Express Airport)	2026-2035	26.9	Road
57	Implement a Wood County Rural Transit System	2025	4	Transit
58	Erie Township and Overland Trail Connector: Provide a bike facility from Stickney Ave. at Manhattan Ave., north to Benore Rd. to Dixie Hwy	2016-2025	0.6	Non-Motorized
59	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.	2016-2025	0.4	Non-Motorized
60	Safe Routes to School - Toledo: Complete facilities outlined in approved Toledo Public Schools travel plan	2016-2025	5.2	Non-Motorized
61	Upgrade I-75/Cygnet Rd. interchange	2021-2030	25	Express-way
62	Improvements to Perrysburg-Holland Rd. from Ohio Turnpike to I-475, including the Heatherdowns/ Garden/ Manley intersection	2021-2030	8	Road
63	Widen SR 795 to 4 lanes (Lemoyne Rd. to I-280 interchange), including I-280 overpass bridge widening	2025	15	Road
64	Upgrade most frequently used transit stops to make them user friendly and handicapped accessible	2020	5	Transit
65	Build Ohio Hub high speed passenger rail system	2035	300	Rail
66	Reconstruct Sylvania Ave. (Secor to Douglas Rd.)	2016-2025	5	Road
67	Sylvania Ave. capacity and safety improvements (McCord Rd. to I-475), additional lanes and/or roundabout (determine with a safety study)	2023	2	Road
68	Albon Rd./NS RR grade separation, includes paved shoulders for bikes on the approaches and new sidewalks for pedestrians	2040	20	Road
69	Safe Routes to School: Complete facilities outlined in approved school travel plans (excluding Toledo Public Schools, listed as separate project)	2016-2025	2.5	Non-Motorized
70	Construct a pedestrian bridge over Douglas Rd. (Chessie Circle Trail and Marwood Ave. to University of Toledo)	2016-2025	5.37	Non-Motorized
71	Implement north-south passenger train service, Toledo to Bowling Green to Lima/Columbus	2026-2035	300	Rail
72	Implement a one-call/one-click transit informtation center for Toledo metro area	2016	0.2	Transit
73	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.	2016-2025	0.2	Non-Motorized
74	Add center turn lanes to Sterns (Adler Rd. to Telegraph/US 24) and Smith Rds. (Whiteford to Telegraph) in Monroe Co.	2021-2030	30	Road
75	Replace TARTA bus fleet (2 cycles of replacement).	2016-2025	140	Transit
76	Reconstruct Collingwood Blvd., Monroe St. to I-75, with roundabout at Monroe. Realign local street access to Toledo Museum of Art and enhance gateway area.	2021-2025	5.5	Road
77	Construct a railroad grade separation in Lucas County (at SR 295 or Eber Rd)	2026-2035	20	Road
78	Secor Rd. reconstruction & widening & intersection improvements, Ohio state line to Summerfield Rd.	2021-2030	2.8	Road
79	North Curtice Rd. roundabouts at Seaman, Corduroy, and Cedar Point roads	2030	3	Road
80	Upgrade Toledo Amtrak station infrastructure and provide or improve passenger access to multiple rail lines, local & intercity transit, and taxis	2016-2020	1.1	Rail
81	Build Albon/Monclova Rds. roundabout, includes paved shoulders for bikes on the approaches and new sidewalks for pedestrians within the roundabout.	2022	1	Road
82	Build Bancroft St./Crissey Rd. roundabout, includes sidewalks and accommodation for bikes	2035	1	Road
83	Build Frankfort Rd./Crissey Rd. roundabout, includes sidewalks and accommodation for bikes	2045	1	Road
84	Build Brint/Centennial Rds. roundabout, includes sidewalks and accommodation for bikes	2025	1	Road
85	Realign Wales Rd and build grade separation (Tracy Rd. to E. Broadway St.)	2036-2045	13	Road
86	Provide signal prioritization for transit and emergency vehicles, extending green light as they approach intersection	2020	2	Transit
87	Build two Crissey Rd./Dorr St. roundabouts, includes sidewalk and accommodation for bikes	2030	2	Road
88	Build Crissey Rd./Angola Rd. (E) roundabout, includes sidewalk and accommodation for bikes	2030	1	Road
00	pund crissey national native (L) roundabout, includes sidewaik and acconfinituation for bikes	2023	1	Nuau

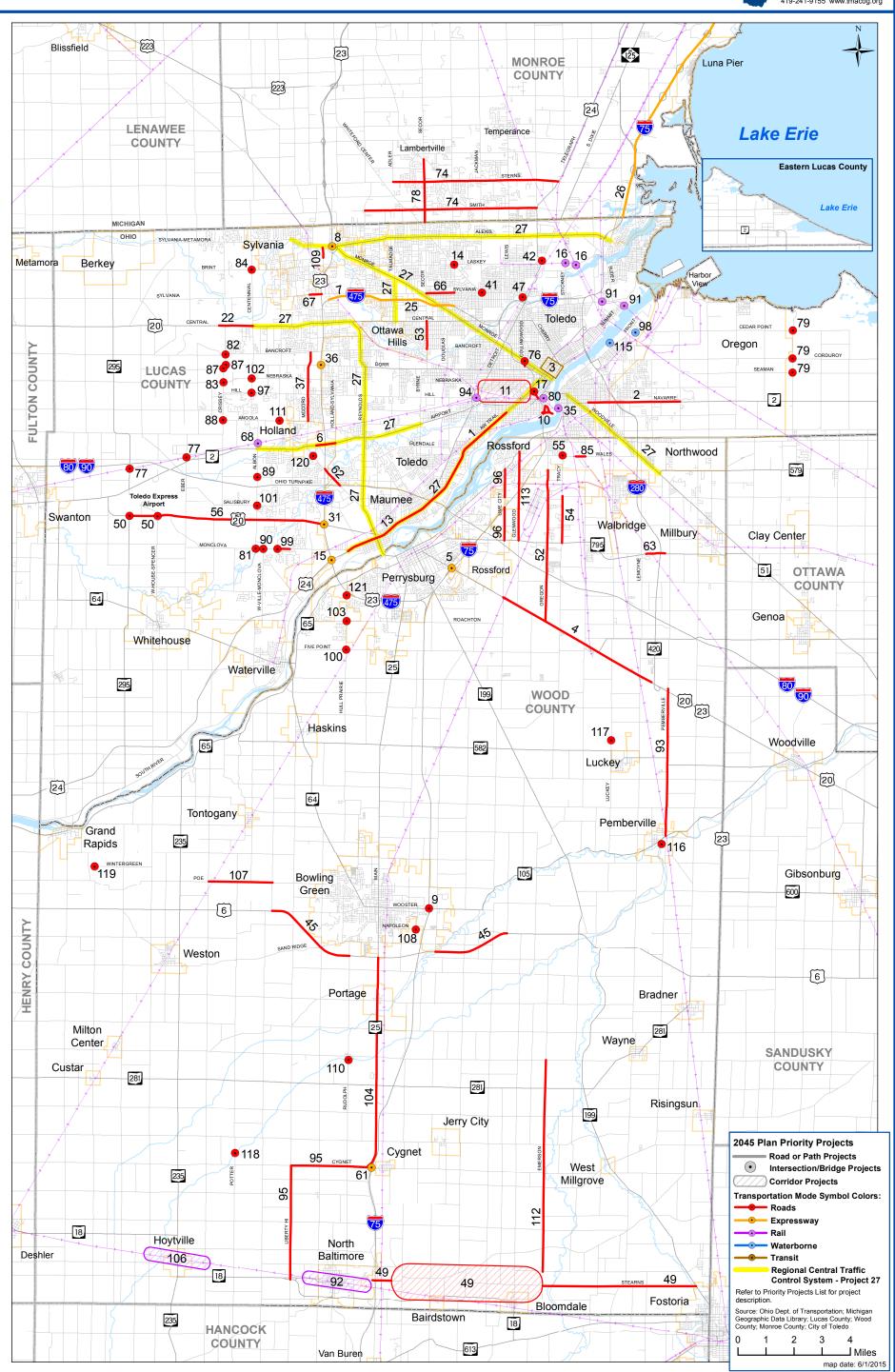
Rank		Estimated Construction Year	Estimated Project Cost in millions (2015 dollars)	Primary Mode
89	Albon and Garden Roads intersection improvements, includes constructing turn lanes and paved shoulders (for bikes) on the approaches	2030	1	Road
90	Waterville-Monclova Rd./Monclova Rd. intersection improvement, includes sidewalk and accommodation for bikes	2022	1.5	Road
91	Find solution to blocked rail crossing at Summit St./CSX, impeding access to Point Place (possible grade separation at Manhattan or Summit)	2026-2035	15	Rail
92	Find a solution to blocked CSX rail crossings in Village of North Baltimore - possible grade separation and/or pedestrian bridge; or advance warning signals for blocked crossings (if alternate route exists)	2016-2025	17	Rail
93	Resurface Pemberville Rd. from US 20/23 (Fremont Pike) to Village of Pemberville. High traffic section will serve heavy truck traffic to/from Home Depot facility. Includes improvements to CSX rail crossing	2016-2025	4	Road
94	Expand the Norfolk Southern Toledo Intermodal Terminal (Airline Yard); build new terminal access road from Westwood Ave. (Private funding or possible public-private partnership)	2016-2020	20	Rail
95	Reconstruct pavement, Liberty Hi Rd. (SR 18 to Cygnet Rd.) and Cygnet Rd. (Liberty Hi Rd. to I-75); replace two bridges	2026-2035	4.2	Road
96	Widen Lime City Rd. in Rossford and in Wood County (I-75 to SR 795)	2021-2030	2.5	Road
97	Build Centennial Rd./Hill Ave. roundabout; includes sidewalk and accommodation for bikes	2030	1	Road
98	Improve infrastructure at the Port of Toledo by developing Ironville Terminal south of Front St. for potential industry (possible rail spur and/or access road)	2016-2035	50	Water-borne
99	Build Monclova Rd./Coder Rd. roundabout, and widen Monclova to 3 lanes, Coder to Waterside Blvd.; add paved shoulders for bikes, and close gaps in sidewalks	2025	1.6	Road
100	Build roundabout at Five Point and Hull Prairie Rds.	2021-2025	2	Road
101	Construct a roundabout at intersection of Salisbury and Albon Rds.	2026-2030	1	Road
102	Build Nebraska Ave./Centennial Rd. roundabout, includes sidewalks and accommodation for bikes	2025	1	Road
103	Install roundabout at Roachton and Hull Prairie roads	2016-2020	1.2	Road
104	Reconstruct pavement on SR 25 (Bowling Green to Cygnet)	2021-2030	35	Road
105	TARTA facilities improvements (increase capacity and maintain TARTA building as warranted)	2018	7	Transit
106	Find a solution to blocked rail crossing at SR 235/SR 18 and CSX in Village of Hoytville (possible grade separation and/or highway bypass).	2026-2035	12	Rail
107	Improve Poe Rd (Green to Range Line Rd); realign at railroad crossing; bridge replacement	2016-2030	1.25	Road
108	Install roundabout at Napoleon and Campbell Hill roads	2021-2025	0.8	Road
109	Widen Harroun Rd (Kroger driveway to Flower Hospital)	2036-2045	2	Road
110	Replace Rudolph Rd./ Middle Branch Portage River bridge	2016-2030	0.6	Road
111	Improvements to Angola Road near King Road, including widening to three lanes and a roundabout	2021-2025	3.2	Road
112	Widen and improve shoulders, Emerson Rd. (Pelton to Mermill Rd.)	2016-2030	2	Road
113	Widen Glenwood Rd to 3 lanes, bridge replacements/ upgrades, and signal upgrades (SR 65 to SR 795)	2026-2035	11.7	Road
114	Install clean air-alternative fueling stations for TARTA vehicles and public use	2020	10	Transit
115	Improve infrastructure at the Toledo Shipyard facility at the Port of Toledo (dry dock and gate improvements)	2016-2035	4	Water-borne
116	Replace bridge on Bridge St. over Middle Branch Portage River	2016-2030	1	Road
	Replace bridge on Luckey Road over Toussaint Creek	2016-2030	0.7	Road
118	Replace bridge on Potter Road over Middle Branch Portage River	2016-2030	0.5	Road
	Replace bridge on Wintergreen Road over Beaver Creek	2016-2030	0.9	Road
	Replace Perrysburg-Holland Bridge #616 over Cairl Creek, south of Airport Hwy	2024	1	Road
121	Replace bridge on Hull Prairie Road over Ditch 2089	2016-2030	0.9	Road

Figure 4.4 and Figure 4.5 show the location of the Priority projects:

- The Priority map depicts "motorized" project modes.
- The Non-Motorized map includes the location of pedestrian and bikeway Priority projects.

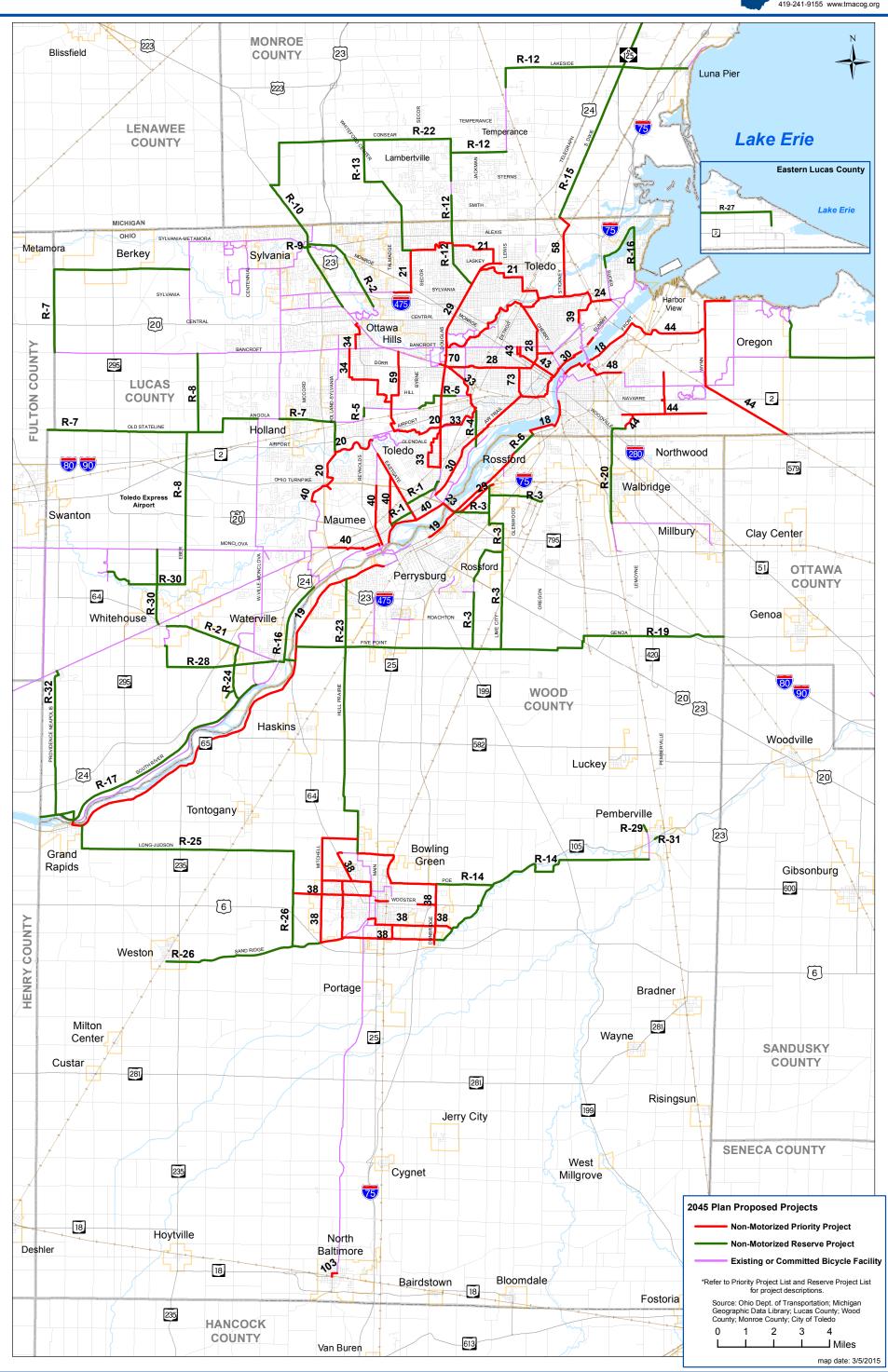
2045 Plan Priority Projects





2045 Plan Proposed Projects - Non-Motorized





4.1.3 Reserve Projects

A total of 154 projects representing all transportation modes were evaluated and ranked for possible inclusion as Priority projects. Note that the "Rank" column in the Priority project table is missing some project numbers. This is because non-motorized (pedestrian and bikeway) projects that ranked 74 or lower were moved to the Reserve project list, **Table 4.3**. They are equally important; however, less funding is expected for ped-bike projects.

Reserve Projects are considered to be of regional significance and can proceed if additional funding is obtained, above the amount anticipated for 2045 Plan implementation. The 2045 Plan must be fiscally constrained. The Reserve Projects are included on the non-motorized map on the previous page, **Figure 4.5**. They represent over \$50 million dollars in unmet need.

Rank	Project Name	Project	Primary Mode	Estimated Construction Year	Estimated Project Cost in millions (2015 dollars)
R-1	Maumee-Chessie Circle Trail Connector	Maumee-Chessie Circle Trail Connector: Construct a sidepath along the Anthony Wayne Trail from Key St. to Michigan Ave.; then follow signed route north on Birch Ave., east on Crystal Ave./ Devonshire Rd., north on S. Detroit Ave., and east on Copeland Ave. to the Chessie Circle Trail	Non-Motorized	2016-2025	0.2
R-2	Sylvania-Wildwood Connector	Sylvania-Wildwood connector: Provide a facility along Monroe St. in City of Sylvania from Alexis Rd. to Corey Rd. and continuing south on Corey to Wildwood Metropark	Non-Motorized	2016-2025	1
R-3	North Coast Inland and Wabash Cannonball Connector	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.	Non-Motorized	2016-2025	3.3
R-4	Harvard Blvd. and Woodsdale Ave. Connector	Harvard Blvd. and Woodsdale Ave. connector: Add a bike facility from Highland Park to the existing facility on Broadway St. along Woodsdale and Harvard	Non-Motorized	2016-2025	0.3
R-5	Angola-Scott Park Trail	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	Non-Motorized	2016-2025	0.5
R-6	SR 65 Bike Lanes	Provide bicycle lanes on SR 65 in Rossford from the Lucas/Wood County line through the Rossford downtown area	Non-Motorized	2016-2025	0.5
R-7	Western Lucas County Bike Connections	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.	Non-Motorized	2016-2025	0.5
R-8	Secor Park-Oak Openings Preserve Connector	Secor Park-Oak Openings Preserve Connector: Provide a bike facility along Irwin, Old State Line, and Eber Rds. to the Wabash Cannonball Trail-North Fork	Non-Motorized	2016-2025	2
R-9	Complete Sylvania River Trail System	Complete Sylvania River Trail Phases 2 and 3: provide a path to connect to existing facilities and to cross US 23	Non-Motorized	2020	4
R-10	University/Parks Trail Extension North	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	Non-Motorized	2021-2030	2.5
R-11	Implement a Wayfinding System	Implement a good wayfinding system (how to walk to destinations). Place signs at main locations, such as train station, bike trails, gateways to cities	Non-Motorized	2016-2020	0.5
R-12	Governor's Showcase Trail and Chessie Circle Connection	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	Non-Motorized	2016-2025	2.9
R-13	Whiteford Twp. to Trilby-Washington Trail Connector	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	Non-Motorized	2016-2025	0.6
R-14	Bowling Green-Pemberville Connector	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	Non-Motorized	2016-2025	0.3
R-15	Governor's Showcase Trail	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	Non-Motorized	2016-2025	7
R-16	Point Place Connector	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	Non-Motorized	2016-2025	0.9
R-17	River Road Towpath Connector	River Road Towpath Connector: Provide a connection between Towpath Trail and Sidecut Metropark as well as the Wabash-Cannonball Trail	Non-Motorized	2016-2025	0.8
R-18	South River Rd. Share the Road	Provide a share-the-road signed route along S. River Rd. from Fulton-Lucas County Line to Waterville	Non-Motorized	2016-2025	0.3
R-19	Wabash-Cannonball Trail and North Coast Inland Trail Connector	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	Non-Motorized	2016-2025	3.9
R-20	North Coast Inland Trail-Oregon Connector	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	Non-Motorized	2016-2025	3.9
R-21	SR 64 Sidepath	Add a sidepath along SR 64 (Waterville-Swanton Rd.) from Whitehouse to Waterville	Non-Motorized	2021-2025	1.3
R-22	Southern Monroe County East-West Connector	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	Non-Motorized	2016-2025	3.3
R-23	Bowling Green-Perrysburg Connector	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	Non-Motorized	2016-2025	2.5

R-24	Pray Blvd. Connector	Pray Blvd. connector: Construct a mulit-use path from SR 64 to Towpath Trail	Non-Motorized	2016-2025	1.2
R-25	Bowling Green-Grand Rapids Connector	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	Non-Motorized	2016-2025	0.3
R-26	Bowling Green-Weston Connector	Bowling Green-Weston connector: Add a facility from Weston to Bowling Green along Sand Ridge Rd. and connecting to BG bike network	Non-Motorized	2016-2025	0.2
R-27	Maumee Bay and Metroparks Connector	Maumee Bay and Metroparks Connector: Provide a connection between Maumee Bay State Park and east Lucas County Metroparks' land	Non-Motorized	2016-2025	1.8
R-28	Neapolis-Waterville Rd. Facility	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	Non-Motorized	2016-2025	1.1
R-29	Extend walking/bike trail into Recently Acquired Parkland (Pemberville)	Extend walking/bike trail .25 miles (from College Ave./Rees Rd.) north along abandoned railroad into recently acquired parkland (Pemberville)	Non-Motorized	2016-2020	0.2
R-30	Oak Openings-Blue Creek Connectors	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.	Non-Motorized	2016-2025	0.15
R-31	Pemberville Downtown Street Enhancement	Implement Pemberville downtown street enhancements to improve pedestrian safety	Non-Motorized	2016-2025	0.4
R-32	Providence Neapolis Swanton Rd. Facility	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	Non-Motorized	2016-2025	1.5

4.1.4 Bikeway Network

The TMACOG bikeway network is depicted on the Non-motorized projects map, **Figure 4.5**. 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 three categories of projects: priority, reserve, and existing or committed bicycle facilities. The facility types range from sharrows/share-the-road signage, to specially marked bicycle lanes, to separate paths; and in many cases, a particular project includes a combination of facility types.

4.1.5 System Preservation Projects

The 2045 Plan designates \$243,934,000 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 63 major road corridors with predominantly poor to very poor pavement condition were identified, based on the ODOT pavement condition rating data. These are listed in **Table 4.4**. The estimated total cost is \$203.6 million.

Also included in the plan are 75 recommended bridge replacement and rehabilitation projects. These were selected based on ODOT bridge sufficiency ratings, **Table 4.5**. They have an estimated cost of over \$40 million. A location map shows both the pavement and bridge projects.

The plan anticipates that once these "catch-up" projects are completed, there will be a need for an additional \$303 million for federal aid-eligible road rehab and federal or state-eligible bridge repair or replacement. Thus a total of \$546,934,000 specifically for system preservation is included in the financial plan.

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.

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Table 4.4: System Preservation Projects

Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
P1	US 20A	Airport to LaPlante	Lucas	1.3	1.3	2	2.60	\$2.86	67	EB/WB	4	3700	2013
P2	US 20A	I-475 to Ford	Lucas	0.91	0.91	4	3.64	\$4.00	59	EB/WB	4	9280	2013
Р3	SR 65	Oregon to Tadmore	Lucas	0.09	0.46	4	0.36	\$2.02	58	NB/SB	4	20,660	2013
13	SK 03	Tadmore to Oakdale	Lucas	0.37	0.40	4	1.48	\$2.02	72	NB/SB	4	16,530-20,660	2013
P4	SR 65	Fassett to Earl	Lucas	0.21	0.79	4	0.84	\$2.20	46	NB/SB	4	7180	2013
1 4	SK 03	Earl to Woodville	Lucas	0.58	0.79	2	1.16	\$2.20	61	NB/SB	4	7180	2013
P5	ANGOLA*	McCord to Holland- Sylvania	Lucas	1.01	1.01	2	2.02	\$0.40	90	EB/WB	5	9250	2013
P6	ARLINGTON	Detroit to Spencer	Lucas	0.8	0.8	2	1.60	\$1.76	49	EB/WB	6	12,230-9100	2002-2008
P7	BANCROFT*	King to E of King	Lucas	0.11	1.44	2	0.22	\$0.40	86	EB/WB	5	7250	2011
Γ/	BANCKOIT	E of King to I-475	Lucas	1.33	1.44	2	2.66	φ0. 4 0	73	EB/WB	4&5	7250-11,450	2011
P8	BANCROFT	Talmadge to Brookside	Lucas	0.82	0.82	2	1.64	\$1.80	62	EB/WB	4	7100-9700	2010
P9	BANCROFT	Parkside to Auburn	Lucas	0.81	0.81	4	3.24	\$3.56	53	EB/WB	4	9650-28,200	2002-2014
P10	BENORE	Alexis to Michigan line	Lucas	0.82	0.9	2	1.64	\$1.98	50	NB/SB	5	3500-4250	2011
F 10	BENORE	Ohio line to M125 (Dixie)	Monroe	0.08	0.9	2	0.16	\$1.96	6	NB/SB	5	3500	2011
		Glendale to Salem		0.88		2	1.76		70	NB/SB	4	7800	2009
		Salem to Hawley		0.44		2	0.88		61	NB/SB	4	7800	2009
P11	BROADWAY	Hawley to Stebbins	Lucas	0.16	2.39	2	0.32	\$6.08	87	NB/SB	4	12,230	2002
		Stebbins to South		0.54		2	1.08		50	NB/SB	4	12,230	2002
		South to Western		0.37		4	1.48		71	NB/SB	4	11,450	2010
P12	CASS	Heatherdowns to Glendale	Lucas	0.77	0.77	2	1.54	\$1.69	64	NB/SB	5	4650	2013
P13	CEDAR POINT	Stadium to Norden	Lucas	1	1	2	2.00	\$2.20	62	EB/WB	4	984	2013
P14	COLLINGWOOD	Central to Hackett	Lucas	0.35	0.35	4	1.40	\$1.54	46	NB/SB	4	5480	2004
		Front to Yarrow		1.34		2	2.68		55	EB/WB	5	4250-7300	2003-2012
		Yarrow to Otter Creek		0.26		2	0.52		67	EB/WB	5	4250	2012
P15	CONSAUL/ CORDUROY	Otter Creek to E of Lallendorf	Lucas	0.7	2.85	2	1.40	\$6.27	69	EB/WB	4	2350-3900	2013
		E of Lallendorf to Lallendorf		0.55		2	1.10		64	EB/WB	4	2350	2013
P16	CORDUROY	Wynn to E of North Curtice	Lucas	2.81	2.81	2	5.62	\$6.18	60	EB/WB	4	1700-2100	2011-2013
		Ottawa Co. line to Suzanne		1.08		2	2.16		71	NB/SB	5	3150	2010
P17	N. CURTICE*	Suzanne to SR 2 (Navarre)	Lucas	0.16	3.75	2	0.32	\$1.40	76	NB/SB	5	3150	2010
		SR 2 (Navarre) to Cedar Point		2.51		2	5.02		83	NB/SB	4	1500-2100	2013
P18	DOUGLAS	University Hills to Kenwood	Lucas	0.38	0.9	4	1.52	\$3.96	69	NB/SB	4	19,100	2013
		Kenwood to Central		0.52		4	2.08		51	NB/SB	4	26,275	2004

Table 4.4: System Preservation Projects

Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
P19	DOUGLAS	Alexis to Michigan line	Lucas	0.54	0.54	2	1.08	\$1.19	60	NB/SB	4	7800	2010
P20	EASTGATE	Heatherdowns to Glendale	Lucas	1.01	1.69	2	2.02	\$3.72	72	NB/SB	5	3850-7500	2011
		Glendale to S of Airport		0.68		2	1.36		55	NB/SB	5	7420-8150	2009-2014
P21	ELEANOR	Jackman to Lewis	Lucas	1	1	2	2.00	\$2.20	64	EB/WB	5	7450-9200	2002-2013
P22	N. EXPRESSWAY	Lagrange to Stickney	Lucas	0.94	0.94	2	1.88	\$2.07	64	EB/WB	5	3860-14,700	2003-2009
		Lagrange to Stickney		0.91		2	1.82		50	EB/WB	5	3280-8450	2003-2009
		Stickney to Doyle		0.15		2	0.30		74	EB/WB	5	350	2013
P23	S. EXPRESSWAY	Doyle to N of Manhattan	Lucas	0.27	1.51	2	0.54	\$3.32	46	EB/WB	5	350	2013
		N of Manhattan to Manhattan		0.18		2	0.36		64	EB/WB	5	350	2013
P24	HAWLEY	Nebraska to Dorr	Lucas	0.51	0.51	2	1.02	\$1.12	52	NB/SB	5	3000	2013
P25	HILL*	McCord to I-475	Lugge	0.5	1	2	1.00	\$0.40	89	EB/WB	4	7900	2010
P23	HILL*	I-475 to Holland-Sylvania	Lucas	0.5	1	2	1.00	\$0.40	74	EB/WB	4	7950	2013
		Summit to Erie		0.25		2	0.50		61	NB	5	890	2014
P26	JACKSON	Summit to Erie	Lucas	0.25	0.76	2	0.50	\$3.34	74	SB	5	1070	2014
F20	JACKSON	Erie to 11th	Lucas	0.22	0.76	4	0.88	\$5.54	66	NB/SB	5	1400-2500	2009-2013
		11th to Adams		0.29		4	1.16		63	NB/SB	5	500-3600	2004-2013
P27	LALLENDORF	Parkway to Cedar Point	Lucas	0.68	0.68	2	1.36	\$1.50	62	NB/SB	5	950	2013
P28	LEWIS	Sylvania to Laskey	Lugge	0.99	1.70	2	1.98	\$3.94	64	NB/SB	3	11,450-12,250	2009-2011
P28	LEWIS	Laskey to S of Alexis	Lucas	0.8	1.79	2	1.60	\$3.94	65	NB/SB	3	14,600	2009
P29	MADISON	10th to Woodruff	Lucas	0.77	0.77	2	1.54	\$1.69	58	NB/SB	5	725-3350	2003-2014
		Enterprise to S of Matzinger		0.52		2	1.04		71	EB/WB	5	2650	2012
P30	MATZINGER	S of Matzinger to Matzinger	Lucas	0.08	0.87	4	0.32	\$2.68	56	EB/WB	5	2650	2012
		Matzinger to Benore		0.27		4	1.08		59	EB/WB	5	3150	2012
P31	NEBRASKA	Holland-Sylvania to Reynolds	Lucas	0.98	0.98	2	1.96	\$2.16	61	EB/WB	5	2400	2011
P32	NEBRASKA	Byrne to Westwood	Lucas	1	1	2	2.00	\$2.20	69	EB/WB	5	6400	2010
D22	NICDD A CIZ A	Junction to Hawley	T	0.51	1 14	2	1.02	¢2.51	56	EB/WB	4	7250-10,850	2003-2009
P33	NEBRASKA	Hawley to Collingwood	Lucas	0.63	1.14	2	1.26	\$2.51	57	EB/WB	4	8000-10,900	2003-2004
D2.4	CEANANI	Lallendorf to Wynn	T	0.62	1.61	2	1.24	¢2.54	68	EB/WB	5	3750	2012
P34	SEAMAN	Wynn to Stadium	Lucas	0.99	1.61	2	1.98	\$3.54	63	EB/WB	5	2850	2012
P35	SECOR	Laskey to Alexis	Lucas	1	1	4	4.00	\$4.40	61	NB/SB	3	20,200	2009
P36	SPENCER	Arlington to South	Lucas	0.65	0.65	2	1.30	\$1.43	59	NB/SB	6	3200	2010
P37	SUDER	Willow Brook to Ottawa River	Lucas	1.11	1.11	2	2.22	\$2.44	48	NB/SB	4	3800-8520	2004-2009
		Buckeye to Galena		0.25		4	1.00		62	NB/SB	4	7040	2002
P38	SUMMIT	Galena to S of Lasalle	Lucas	1.6	4.27	4	6.40	\$18.79	52	NB/SB	4	4400-9050	2004-2012
		S of Lasalle to 131st		2.42		4	9.68		73	NB/SB	4	4450-11,700	2004-2013

Table 4.4: System Preservation Projects

Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
P39	SYLVANIA	Lewis/Phillips to Lagrange	Lucas	0.99	0.99	2	1.98	\$2.18	45	EB/WB	5	2800-7820	2009-2014
P40	WOODRUFF	Collingwood to Cherry	Lucas	1.02	1.02	2	2.04	\$2.24	54	EB/WB	5	1200-4800	2002-2012
P41	YORK	Front to Penoyer	Lucas	0.9	0.9	2	1.80	\$1.98	53	EB/WB	6	1200	2011
		Dixie to W of Bairdstown		1.56		2	3.12		60	EB/WB	5	1510-1830	2012
P42	SR 18	W of Bairdstown to Frazier	Wood	0.49	4.71	2	0.98	\$10.36	68	EB/WB	5	1510	2012
		Frazier to E of Cloverdale		2.16		2	4.32		58	EB/WB	5	850	2012
		E of Cloverdale to Lincoln		0.5		2	1.00		64	EB/WB	5	850	2012
P43	SR 25	Ordway to N of Oak	Wood	0.53	0.53	4	2.12	\$2.33	64	NB/SB	4	11,400-13,750	2012
		Findlay to Eighth		0.33		2	0.66		49	NB	3	7110	2012
P44	SR 25	Findlay to Eighth	Wood	0.33	0.97	2	0.66	\$3.88	50	SB	3	7110	2012
		Eighth to Front		0.64		4	2.56		52	NB/SB	3	18,420	2012
P45	SR 65	Louisiana to East Boundary	Wood	0.68	0.68	2	1.36	\$1.50	65	NB/SB	4	9810-11,390	2012
D46	GD 162	US 20 to SR 420	XX7 1	2.3	4.04	2	4.60	Φ10.6F	65	EB/WB	5	3380	2012
P46	SR 163	SR 420 to Fostoria	Wood	2.54	4.84	2	5.08	\$10.65	61	EB/WB	5	3380	2012
P47	SR 199	West Millgrove to Elm	Wood	0.57	0.57	2	1.14	\$1.25	64	NB/SB	5	2910	2012
P48	SR 579	E of East Plaza to Fostoria	Wood	2.01	2.01	2	4.02	\$4.42	63	EB/WB	5	6170	2012
P49	CONNEAUT	Wintergarden to Haskins	Wood	0.6	0.6	2	1.20	\$1.32	56	EB/WB	5	3650	2011
D50	EACT DDO ADWAY	Latcha to Keller	Wood	0.5	1	2	1.00	¢2.20	72	NB/SB	5	900	2010
P50	EAST BROADWAY	Keller to Moline-Martin	wood	0.5	1	2	1.00	\$2.20	57	NB/SB	5	900	2010
P51	FINDLAY	W Boundary to Lober	Wood	0.13	0.78	2	0.26	\$1.72	58	NB/SB	5	3250	2011
P31	FINDLAY	Lober to 5th	wood	0.65	0.78	2	1.30	\$1.72	57	NB/SB	5	2650	2012
		River to Pargillis		2.48		2	4.96		67	EB/WB	5	950	2009
P52	FIVE POINT	Pargillis to Fort Meigs	Wood	0.28	2.93	2	0.56	\$6.45	62	EB/WB	5	950	2009
F 32	FIVE FOINT	Fort Meigs to Rivers Edge	wood	0.17	2.93	2	0.34	\$0.43	56	EB/WB	5	1850	2009
		W of Frusher to Frusher		0.34		2	0.68		74	EB/WB	5	600	2009
D52	EIVE DOINT	Frusher to W of Scheider	Wood	0.38	2 21	2	0.76	\$7.20	56	EB/WB	5	600	2009
P53	FIVE POINT	W of Scheider to SR 199	wood	1.23	3.31	2	2.46	\$7.28	73	EB/WB	5	350	2010
		SR 199 to Lime City		1.36		2	2.72		70	EB/WB	5	1350	2009
P54	POE	E of Dunbridge to Scotch Ridge	Wood	1.68	1.68	2	3.36	\$3.70	64	EB/WB	5	933	2014
		Luna Pier to Erie		0.06		2	0.12		4	NB/SB	7	N/A	N/A
P55	HAROLD	Erie to Ann	Monroe	0.49	1.06	2	0.98	\$2.33	3	NB/SB	7	N/A	N/A
		Ann to Gaynier		0.51		2	1.02	1	4	NB/SB	7	N/A	N/A
Das	TA CVZ FA SVIII	Ohio line to State Line Rd.	3.6	0.04	2.4	2	0.08	45.20	4	NB/SB	16	7200	2009
P56	JACKMAN*	*State Line Rd. to Smith	Monroe	0.38	2.4	2	0.76	\$5.28	7	NB/SB	16	7200	2009
		Smith to Dean		1.98		2	3.96		6	NB/SB	16&17	4425	2011

Table 4.4: System Preservation Projects

Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
P57	LAVOY	US 24 to M125	Monroe	0.97	0.97	2	1.94	\$2.13	5	EB/WB	17	2350	2008
P58	LUNA PIER	US 24 to M125	Monroe	0.55	0.55	2	1.10	\$1.21	4	EB/WB	6	5400	2006
P59	SUMMERFIELD	St. Anthony to Erie	Monroe	0.52	0.52	2	1.04	\$1.14	3	NB/SB	16	2900	2007
P60	SUMMERFIELD	Temperance to Consear	Monroe	0.55	1.31	2	1.10	\$2.88	3	NB/SB	16	3550	2007
1 00	SOWINERITEED	Consear to Freeman	Monoe	0.76	1.31	2	1.52	Ψ2.88	4	NB/SB	16	4050	2007
P61	SUMMIT	Morin Point to Algonquin	Monroe	0.7	0.7	2	1.40	\$1.54	4	NB/SB	16	3250	2009
P62	SYLVANIA PETERSBURG	Consear to Temperance	Monroe	0.52	1.99	2	1.04	\$4.38	4	NB/SB	N/A	650	2006
F 02	STLVANIA FETERSBURG	Temperance to US 223	Monroe	1.47	1.99	2	2.94	ψ4.36	3	NB/SB	N/A	1300	2006
P63	WHITEFORD CENTER	Sterns to Judy	Monroe	1.49	1.95	2	2.98	\$4.29	5	NB/SB	7&17	4575	2009
F 03	WITTEFORD CENTER	Judy to Ohio line	Monroe	0.46	1.93	2	0.92	φ4.29	4	NB/SB	17	3150	2009

TOTAL: \$203,600,000

2013 pavement condition rating (PCR) data obtained from the Ohio Department of Transportation - Division of Engineering, Office of Pavement Engineering.

Pavement Condition Rating (PCR) Code Color: Red = Very Poor; Orange = Poor; Yellow = Fair; Green = Good/Very Good

² Functional Classification - <u>Lucas & Wood counties</u>: 3 = Principal Arterial; 4 = Minor Arterial; 5 = Collector; 6 = Minor Collector ~ <u>Monroe County</u>: 6 = Rural Minor Arterial; 7 = Rural Major Collector; 16 = Urban

³ Average Annual Daily Traffic (AADT) = Average number of vehicles in a 24 hour period

^{*} The Sponsor specifically requested this segment be included on this list; Lucas County submitted their own cost (instead of using \$1.1M per lane mile)

Table 4.5: List of Bridges with Sufficiency Rating

Map ID 81 B2 B3 B4 B5	SFN (ID#)			vith Sufficiency Rating* < 7					
B1 B2 B3 B4		County	Route	Intersecting Feature	Width	Area	Length	Sufficiency Rating	Cost (170/ft ²)
B3 B4	4861035	LUCAS	MARENGO	RAVINE TO DELAWARE CREEK	20.2	5360	175	20.3	\$911,200
B3 B4	8751528	WOOD	HOYTVILLE	RADER DITCH	16	753	47	21.2	\$128,010
В4	8741670	WOOD	RANGE LINE	DITCH 2311	24	1841	75	33	\$312,970
	8730601	WOOD	CYGNET	DITCH 2200	24	2379	90	34.5	\$404,430
	4805143	LUCAS	SR 184	SHANTEE & SILVER CREEKS	66	7007	96	34.6	\$1,191,190
В6	8737150	WOOD	HAMMANSBURG	MID BRANCH PORTAGE RIVER	24	2099	85	35	\$356,830
B7	8743266	WOOD	BAYS	DITCH 2441	19.7	775	34	36.9	\$131,750
B8	8743096	WOOD	BAYS	NORTH BRANCH PORTAGE RIVER	18	1012	46	38.4	\$172,040
B9	8733317	WOOD	GREENSBURG	MID BRANCH PORTAGE RIVER	28	4618	151	40	\$785,060
B10	8739900	WOOD	STEARNS	EAST BRANCH PORTAGE RIVER	24	1755	73	40.7	\$298,350
B11	8747601	WOOD	MERCER	TOUSSAINT CREEK	23.8	1292	54	40.8	\$219,640
B12	8731934	WOOD	SAND RIDGE	JACKSON CUTOFF DITCH	24	2217	82	42.4	\$376,890
B13	4800451	LUCAS	SR 2	CEDAR CREEK	42.5	3950	93	43.5	\$671,500
B14	8738955	WOOD	MERMILL	BULL CREEK	24	1615	57	43.8	\$274,550
B15	7175	MONROE	STERNS	I-75	13.2	925	70	44.2	\$157,250
B16	4804929	LUCAS	SR 120	OTTAWA RIVER	54	8493	128	44.6	\$1,443,810
B17	8736324	WOOD	JERRY CITY	NORTH BRANCH PORTAGE RIVER	23.7	1776	73	45.2	\$301,920
B18	8732582	WOOD	STONY RIDGE	DITCH 1873	24	1787	68	45.4	\$303,790
B19	8758638	WOOD	GYPSY LANE	NORTH BRANCH PORTAGE RIVER	28	2659	95	45.6	\$452,030
B20	8706212	WOOD	SR 281	ROCKY FORD CREEK	32	2142	67	46.2	\$364,140
B21	8744351	WOOD	LATCHA	HENRY DITCH	26	1270	49	46.7	\$215,900
B22	8750858	WOOD	MEARS	BULL CREEK	19.9	1518	74	46.7	\$258,060
B23	8746354	WOOD	HUFFMAN	BULL CREEK	24	1615	57	46.8	\$274,550
B24	8753660	WOOD	WAPAKONETA	BEAVER CREEK	24	1862	76	48.7	\$316,540
B25	8737819	WOOD	OIL CENTER	ROCKY FORD CREEK	24	2540	94	49.8	\$431,800
B26	8755876	WOOD	WATER	NORTH BRANCH PORTAGE RIVER	28	2573	92	49.8	\$437,410
B27	8755310	WOOD	CHAMBERLAIN	NORTH BRANCH PORTAGE RIVER	24	2530	95	51	\$430,100
B28	7154	MONROE	SUMMIT	CONRAIL & GTW RR	16.5	1508	91	51.3	\$256,360
B29	8732914	WOOD	LUCKEY	DITCH 1873	24	2228	80	51.7	\$378,760
B30	8734674	WOOD	BRADNER	TOUSSAINT CREEK	24	1787	73	52.4	\$378,700
B31	4863143	LUCAS	YARROW	OTTER CREEK	25	904	32	54.4	\$153,680
B32	8743045	WOOD	BAYS	JACKSON CUTOFF DITCH	28	3584	114	55	\$609,280
B33	8746842	WOOD	PELTON	EAST BRANCH PORTAGE RIVER	23.7	1679	71	55.3	\$285,430
B34	4862473	LUCAS	SILICA	TENMILE CREEK	29.5	2583	77	55.6	\$439,110
B35	8750130	WOOD	LEMOYNE	TWO ROOT CREEK	24	904	36	56.3	\$153,680
B36	8730679	WOOD	CYGNET	DITCH 2200	32	2982	85	57.4	\$506,940
B37	8743312	WOOD	BAYS	ROCKY FORD CREEK	19.5	1238	62	58.6	\$210,460
B38	8741786	WOOD	RANGE LINE	WEST BRANCH TONTOGANY CREEK	24	743	31	59.4	\$126,310
B39	8742812	WOOD	LIBERTY HI	DITCH 2426	22	689	30	59.7	\$120,310
B40	8739250	WOOD	MERMILL	SOUTH BRANCH PORTAGE RIVER	28	3477	124	60.3	\$591,090
B41	8733198	WOOD	DROUILLARD	CEDAR CREEK	28.8	1668	55	60.8	\$283,560
B42	4800249	LUCAS	SR 2	NORFOLK SOUTHERN & EMERALD	54	19063	278	61	\$3,240,710
B42	8751358	WOOD	HOYTVILLE	YELLOW CREEK	22	1184	54	61.3	\$3,240,710
B43	8730946	WOOD	CYGNET	BULL CREEK	27.5	2174	75	61.4	\$369,580
B44	8746672	WOOD	PELTON	SOUTH BRANCH PORTAGE RIVER					
-					23.3	1496	101	61.5	\$254,320
B46	4860373	LUCAS	BANCROFT	OTTAWA RIVER	48	6060	101	61.9	\$1,030,200
B47	8742111	WOOD	POTTER	NORTH BRANCH PORTAGE RIVER	28	2691	96	62.1	\$457,470
B48 B49	8754934 8705887	WOOD	TONTOGANY CREEK	TONTOGANY CREEK CEDAR CREEK	20 140	904	45 34	62.2 62.3	\$153,680 \$1,039,380

Table 4.5: List of Bridges with Sufficiency Rating

			List of Bridges v	vith Sufficiency Rating* <	70% (20)13 Ra	tings)		
Мар								Sufficiency	Cost
ID.	SFN (ID#)	County	Route	Intersecting Feature	Width	Area	Length	Rating	(170/ft ²)
B50	8736987	WOOD	HAMMANSBURG	BRUSH CREEK	24	1216	44	62.4	\$206,720
B51	8749965	WOOD	GLENWOOD	GRASSY CREEK	28	2045	73	62.7	\$347,650
B52	4862562	LUCAS	OLD POST	TENMILE CREEK	25	3014	86	62.8	\$512,380
B53	8737045	WOOD	HAMMANSBURG	YELLOW CREEK	28	2939	105	62.8	\$499,630
B54	8758174	WOOD	MILLBURY	CEDAR CREEK	27.8	2034	70	63.6	\$345,780
B55	4829751	LUCAS	CASS	1-80	26	7804	195	63.7	\$1,326,680
B56	8756309	WOOD	LAYMAN	TOUSSAINT CREEK	20	883	42	63.7	\$150,110
B57	4800966	LUCAS	US 20A	AI CREEK	54	5673	93	63.8	\$964,410
B58	8705941	WOOD	I-280	NORFOLK SOUTHERN RR	58.1	14478	237	64	\$2,461,260
B59	8742278	WOOD	WINGSTON	MID BRANCH PORTAGE RIVER	24	2228	93	64.2	\$378,760
B60	8702853	WOOD	SR 65	GRASSY CREEK	30.6	1905	37	64.3	\$323,850
B61	8731004	WOOD	CYGNET	DITCH 2435	28	1367	49	64.3	\$232,390
B62	4806549	LUCAS	SR 295	BLUE CREEK	36	2626	73	64.4	\$446,420
B63	4829808	LUCAS	KEY	I-80	46	10764	203	64.5	\$1,829,880
B64	8731160	WOOD	CYGNET	EAST BRANCH PORTAGE RIVER	24	2680	87	65.7	\$455,600
B65	8737207	WOOD	HAMMANSBURG	RADER CREEK	24.2	1991	75	66.2	\$338,470
B66	8746281	WOOD	HUFFMAN	BULL CREEK	28	1119	40	66.2	\$190,230
B67	4860438	LUCAS	HEATHERDOWNS	SWAN CREEK	44	6243	142	67.6	\$1,061,310
B68	8750351	WOOD	LEMOYNE	CEDAR CREEK	24	915	33	67.9	\$155,550
B69	4805119	LUCAS	SR 184	ANN ARBOR RR	54	16781	232	68	\$2,852,770
B70	8705070	WOOD	SR 163	PACKER CREEK	28	3068	96	68	\$521,560
B71	8706158	WOOD	SR 281	CREPS DITCH	32	1722	54	68.4	\$292,740
B72	8706875	WOOD	SR 579	DRY CREEK	36	2411	67	68.6	\$409,870
B73	4830628	LUCAS	CORDUROY	RENO SIDE CUT	35.8	1690	44	69.4	\$287,300
B74	8735727	WOOD	PORTAGE	MID BRANCH PORTAGE RIVER	24	3627	131	69.7	\$616,590
B75	8730490	WOOD	CYGNET	JACKSON CUTOFF DITCH	22.2	2013	83	69.9	\$342,210

\$40,334,030

*Sufficiency Rating: "A method of evaluating highway bridge data by calculating four separate factors (1. structural adequacy and safety; 2. serviceability and functional obsolescence; 3. essentiality for public use; and 4. special reductions) to obtain a numeric value which is indicative of bridge sufficiency to remain in service. The result of this method is a percentage in which 100 percent would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge." - U.S. Department of Transportation, Federal Highway Administration. Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. Washington: Government Printing Office, 1995. http://www.fhwa.dot.gov/bridge/mtguide.pdf

4.2 Initiatives and Safety Studies

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, \$7.4 million is set aside over the 30 years of the plan, or an average of \$250,000 per year, to accomplish initiatives.

The 15 initiatives selected for the plan are described in **Table 4.7**. 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.

4.2.1 Safety Studies

Initiative 103, Safety Report, calls on TMACOG to do three-year updates to the Safety Locations and Measures Report. This report analyzes current crash data in the region for major roads that are the responsibility of local governments. As part of this analysis, road corridors and intersections are ranked to identify the top crash locations.

Initiative 104, Safety Studies, will build on this ongoing work at TMACOG. As part of developing recommendations for the 2045 Plan, the Planning Committees' safety goal group reviewed the TMACOG safety report and identified several needed projects. In addition, they pinpointed 15 high priority corridors that needed further analysis in order to identify specific countermeasure: **Table 4.6**. Initiative 104 proposes \$428,000 to complete the studies of these corridors plus \$500,000 for additional corridors to be identified from future safety reports.

Table 4.6: Potential Safety Studies for TMACOG Region

Safety Studies:	
Laskey Road – Secor to Bennett (Toledo)	\$25,000
Broadway Street – Glendale to I-75 (Toledo)	\$25,000
Central Avenue – Fulton-Lucas to Talmadge (Lucas County)	\$25,000
Airport Highway – US 20 to Broadway (Toledo)	\$25,000
Sterns Road (Monroe County)	\$25,000
Secor Road (Monroe County)	\$25,000
Lewis Road (Monroe County)	\$25,000
Smith Road (Monroe County)	\$25,000
Lewis Road at Smith Road (Monroe County)	\$8,000
Lewis Road at Sterns Road (Monroe County)	\$8,000
Jackman/Sylvania/Tremainsville (Toledo)	\$12,000

Table 4.6 Continued: Potential Safety Studies for TMACOG Region

Safety and Complete Streets Studies (corridors where crash pedestrians and cyclists):	nes involved a significant numbers of
Alexis Road (Sylvania, Toledo)	\$50,000
Monroe Street (Toledo)	\$50,000
Byrne Road (Toledo)	\$50,000
Tracy Road (Wood County)	\$50,000
TOTAL	\$428,000

A funding source for safety studies is the Ohio Department of Transportation Highway Safety Program. Local jurisdictions can apply for funds through the District 2 office in northwest Ohio.

Under the ODOT Highway Safety Program, ODOT identifies priority safety locations on interstate, U.S., and State Routes and uses program funding to analyze and address safety issues on these highways. Countermeasures include short-term low-cost improvements as well as more extensive projects.

Init #	County	Abbv. Project Name	Project Description	Potential Sponsor	Purpose/Need	Cost - millions	Cost from fiscal constraint*	Mode	Notes
101	All	Bike Counting Program	Institute a regional bicycle counting program to document bike traffic volumes at selected locations	TMACOG, various jurisdictions	Use data to plan for needed transportation facilities; document success in achieving 2045 Plan targets	\$1.00	\$1.00	Bicycle	
102	Lucas & Wood	Transportation Plan	Conduct (and update) a ped-bike plan for the TMACOG region to identify existing facilities, develop feasible linkages, and prioritize projects	TMACOG, Lucas County, Wood County	Plan for needed non-motorized transportation facilities	\$0.60	\$0.60	Ped/Bike	Relate this plan to non-motorized plans in Michigan
103	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	\$0.75	Roadway; Ped/bike	Cost: \$75,000 every 3 years
104	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 15 road corridors identified using the 2013 TMACOG Safety Locations and Measures Report and on additional corridors to be identified	\$0.93	\$0.93	Roadway	\$.428 million for 15 identified corridors; additional \$.5 for future corridors
105	All		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 driveways/conflict points	\$0.00	\$0.00	Roadway	Some jurisdictions have access management policies, others don't. Encourage consistency in addressing this issue in the region
106	Lucas	High Canacity 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	Increase ridership, benefit current riders, as well as attract choice ridership with faster, frequent service Ph 1: Identify corridors with BRT or light rail potential	\$0.15	\$0.15	Transit	Identify high capacity corridors, including data & market analysis, public involvement, and implementation/funding plan; determine whether origin-destination (OD) study is needed or if STOPS can be used (see OD study initiative).
			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	\$0.50	\$0.50	Transit	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)
107	All		Transit OD 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 demographics of current transit riders	\$0.50	\$0.50	Transit	First make sure model is up-to-date and ready to accept the data. \$100-200,000, plus cost to prepare the model. (Low cost alternative: use FTA's STOPS ride estimating tool model for things like BRT)
108	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	\$0.50	Transit	
109	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	Engage underserved communities in transportation decisions that affect them	\$0.10	\$0.10	Transit	
110	Lucas	TARTA Sales Tax	Implement a sales tax (1/4 cent) for TARTA to support a regional transit system	TARTA	Provide transportation options to a greater percentage of the regional population	\$0.25	\$0.25	Transit	TARTA requests that TMACOG play a supporting role with this initiative. A regional tax base, such as a county-wide sales tax, is one strategy that could provide a more regional transit system
111	All	Transit Promotion	Work with area transit service providers to promote transit as a viable mode to get where you are going	TMACOG	Promote public transit as a means of transportation for all; improve air quality and reduce congestion by reducing the number of single-occupant vehicles on the roadways	\$0.50	\$0.50	Transit	

Init #	County	Abbv. Project Name	Project Description	Potential Sponsor	Purpose/Need	Cost - millions	Cost from fiscal constraint*	Mode	Notes
112	All	i ravei i raining	Increase area travel training (how to use public transit)	Various	Improve the mobility of senior citizens and individuals with disabilities	\$0.60	\$0.60	Transit	
113	Lucas & Wood	Mobility Management	Provide mobility management for Lucas and Wood counties including funding a mobility manager for each to coordinate resources to address gaps in public and human services transportation	Lucas & Wood	Improve transportation for citizens, especially nondrivers; implement recommendation of public transit-human services transportation coordination plans. Use primaily federal S. 5310 funds (separate funding source)	\$8.25	\$0.50	Transit	Lucas \$175,000/year times 30 years; Wood \$100,000/year times 30 years
114	Wood		Implement a Volunteer Driver Program to provide transportation for residents of rural areas		Assist rural residents with access to jobs, medical appointments and shopping; provide mobility options in Wood County.	\$3.00	\$0.50	Transit	Rural areas in Wood County are difficult to reach with traditional transit. A volunteer driver program could fill the gaps. (Estimate: \$100,000/year X 30 years = \$3 million.) Use primaily federal S. 5310 funds (separate funding source).
115	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		Determine appropriate funding mechanism for public transit	0.06	0.05	Transit	

* Cost from Fiscal Constraint: amount expected to be drawn from federal/ state transportation road and transit funds available to the region (not including S. 5310 funds for elderly and disabled transportation). The balance of the cost would need to come from other sources.

4.3 Policies

Policies are not asphalt and steel, but they can be powerful tools for regional action.

The policy statements developed for the "On the Move: 2015-2045 Transportation Plan" 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:

TMACOG 2045 Plan Policies

A. 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.
- **B.** <u>Personal mobility goal</u>: 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. Establish a 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, parking lots, and expanded bike storage facilities.
 - 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.

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, taxi cab 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.

Policy 11: We will support **modernizing and expanding intercity passenger rail** through these actions:

- 1. Continue to partner with other regions to push for new or improved service in the Cleveland-Toledo-Detroit and Toledo-Bowling Green-Columbus corridors.
- 2. Support the long-term goal of implementing of the Ohio Hub and the Midwest Regional Rail (Chicago Hub) high-speed rail plans for fast, frequent rail service.
- **C.** 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.

D. <u>Freight Goal</u>: 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 region's 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: It is essential to our role as a multimodal freight hub to improve highway access and capacity for truck freight.

- 1. Support efforts to improve highway infrastructure, reduce bottlenecks and modal conflicts, implement truck-friendly design elements, provide adequate truck parking, and address weather-related delays in a timely manner.
- 2. Provide efficient and reliable highway connections for industry by maintaining or improving the condition of first and last mile connectors.
- 3. Support managed access along important freight routes to preserve highway capacity and efficient freight flow.
- 4. 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.

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

- 1. Support efforts to improve rail access to industry and improve highway connections to freight rail terminals.
- 2. Support the development of satellite industries near major rail terminals.
- 3. Find solutions to the impacts that increased rail traffic could have on the region, including rail/highway conflicts.

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 as needed at the Port of Toledo.
- 2. Work to improve highway and rail access to existing and proposed Port facilities.
- 3. Ensure routine dredging of the Toledo Harbor shipping channel to maintain safe and commercially viable navigation; develop a plan to dispose of dredged material in an environmentally acceptable and financially feasible manner.
- 4. Support the continued operation and potential expansion of current air freight service and encourage the development of new service in the region.
- 5. Work to increase airport capacity and efficiency with infrastructure improvements as needed
- 6. Support the development of the South Cargo Development Area at Toledo Express by improving highway access to and within the facility.
- 7. 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.

E. <u>Infrastructure condition goal</u>: 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 walks.
- 2. Jurisdictions enforce snow removal laws for private property owners, and include in their snow/ice removal plans a policy concerning publicly owned walks 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.

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

Policy 21: Our region will work to insure 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.

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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 busy 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 percent 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

Creating a transportation plan for the TMACOG region is a big job. 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 MAP-21 federal surface transportation 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 good representation across the region and across the various interests and stakeholders.

The expanded committee served as the 2045 Plan Task Force throughout the process. Their first tasks included drafting the plan goals and the plan development 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 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 Land Use Work Group

Transportation needs are closely related to patterns of development in a region: where people live, where jobs are located, and how the footprint of development changes over time. Staff used current land use data from the county auditors' records to create an existing land use map. A land use work group was convened, consisting mostly of county and city planning department staff. They reviewed and modified the current land use map and identified areas likely to change in the future.

The land use work group also listed transportation/land use-related issues of concern and possible actions to address the concerns. A core issue was how to reduce the need for additional

roads and other infrastructure. For example, this could be accomplished through use of "smart growth" strategies, such as focusing new development on areas with existing roads and sewers, increasing density of development, and a mixture of uses to allow for more walkability. **Table 5.1** is a display of the issues discussed by the Land Use Work Group.

Table 5.1: Land Use Steering Committee - 2013

Issues	Strategies and comments				
Access Management: Lack of consistent AM rules	All jurisdictions adopt same Access Management rules (e.g. Lucas County Engineer's)				
Smarter growth: overcome NIMBYism (public opposition)	Info/Education*				
Need for zoning code changes	Info/Education*				
Officials not well educated (for example, regarding benefits of greater density and mixed uses)	Info/Education*				
Bank financing policy – influences what and where you can build	Info/Education*				
Developers build what they think is marketable (example, large-lot green field development)	Info/Education*				
Need denser commercial with adjoining residential	Target development based on what's around it				
Developer responsibility for costs of new infrastructure	Perrysburg does well at this; only local community can make this happen, particularly if there is high demand for land. Encourage repurposing of existing infrastructure				
Higher tech / sophisticated workforce = more urban demand	Relates to educational attainment. Young adults attracted to downtowns; probably move when raising kids. Note "new urban" atmosphere in Waterville.				
Transportation: Need to plan for and build bikeways, sidewalks	As we build more bikeways, property values go up. Need to implement regional sidewalk policy and bike plan. Integrate bikeways into land use and land development plans. Support Safe Routes to School plans and projects. Encourage bike/ped facilities through TIP ranking process.				
Greater future need for transit	Need apps for real time arrival; bus stop signs in suburbia. However, challenging market since very easy to drive.				
Need to expand / contract existing roads as land use changes	Traffic impact studies needed				
Schools: families & builders favor certain suburban schools (avoid Toledo district)	Agreed; only about 3 school districts attract. With Lucas County Land Bank, have looked at cities where neighborhoods have turned around. Create healthy mixed-use neighborhoods, and schools will follow. Emphasize walkable neighborhoods. Ohio hasn't changed its educational system since '50s. Look at NYC model.				
Many platted lots not yet built	Do not expect a lot of new plats in near future				
*Information/Education/Training to change perception of all players:					
change perceptions	Engage opinion leaders				
-Workshops or seminars -Engage media					

5.1.4 Early Public Input

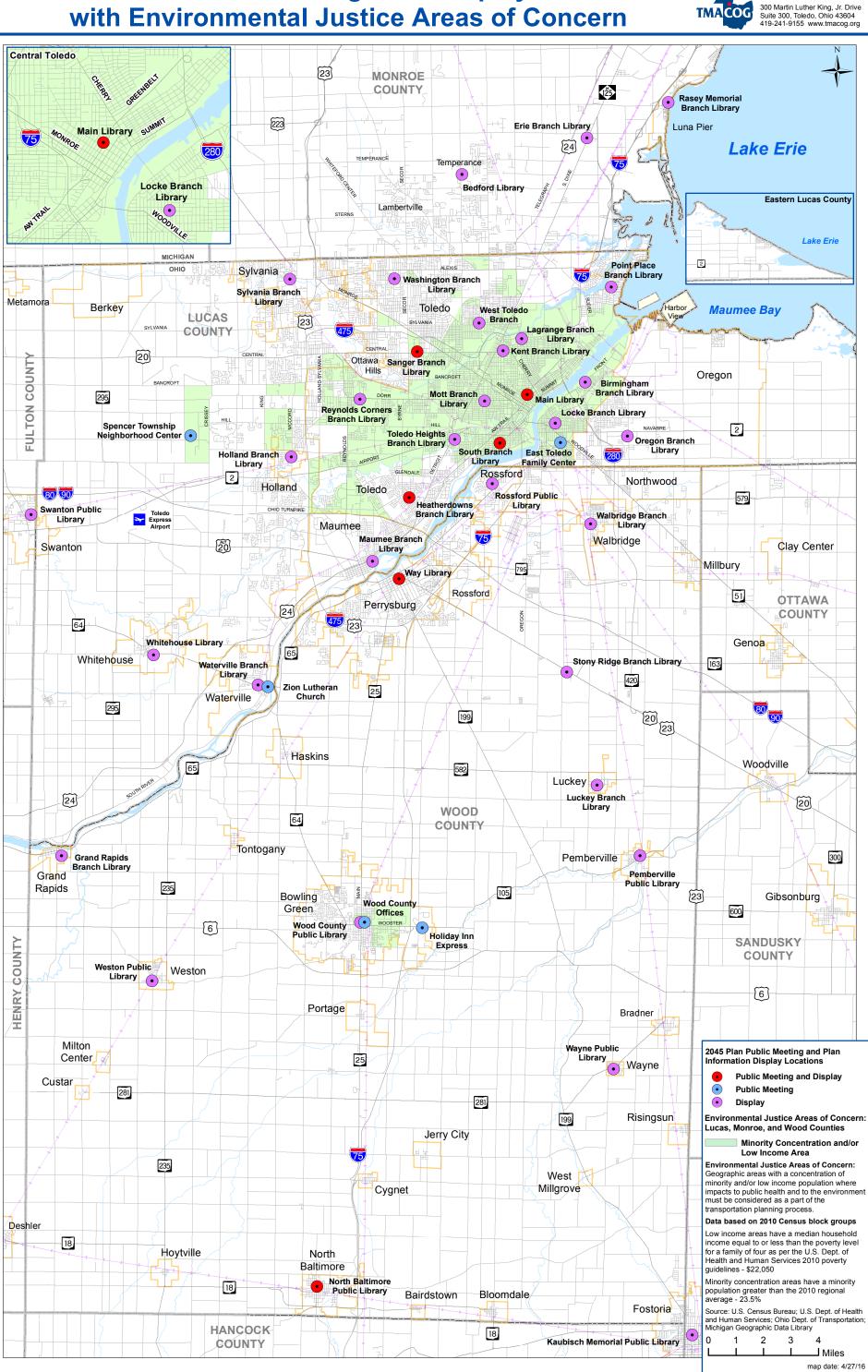
TMACOG plan updates begin with many opportunities for the general public to weigh in on transportation needs. The 2045 Plan was a model of early and regular public participation.

In spring of 2014, informational displays and fliers were distributed to the 36 public libraries across the region, announcing a survey, public meetings, and the 2045 Plan web page. See Appendix C for the flier. Ten public meetings followed, held at six 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**. The surveys were available at the public meetings and on the TMACOG website.

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Toledo Metropolitan Area **Council of Governments**

2045 Plan - Public Meetings and Display Locations with Environmental Justice Areas of Concern



Bowling Green State University (BGSU) students organized the early public input for the City of Bowling Green and surrounding areas of Wood County. Dr. Russell Mills coordinated with TMACOG staff to have his master of public administration seminar students take on this project. The students created a survey, held a well-attended public forum, and hosted four focus group discussions (senior citizens, students, cyclists, and business and industry). Their efforts provided a wealth of valuable input to the plan process.

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 South Toledo library at the heart of a major Hispanic neighborhood.

The TMACOG annual Transportation Summit included an interactive presentation on transportation needs. The 200 stakeholders in attendance participated in a specially-adapted version of the needs questionnaire by using "clickers" to instantly register their responses to survey questions.

The results from the 2014 TMACOG and BGSU surveys 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.

5.1.5 Consultation with Key Stakeholders

TMACOG sent local government entities (including park districts, port authorities, and transit agencies) a questionnaire in May 2014, 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.

5.1.6 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 5.2** shows public involvement steps in developing the plan.

Table 5.2: Public Involvement in the 2045 Plan Development

Step in Plan Process	Main Public Involvement Components	Notes
Develop plan process	Created plan task force and public outreach subcommittee Created plan logo and Web page (on TMACOG website)	Broad-based, representing wide spectrum of public and private stakeholders.
2. Set plan vision and goals	Input at annual transportation summit; draft goals set by task force; draft goals revisited after "needs meetings"; goals reaffirmed for Update 2011	About 100-150 summit attendees include public and private transportation stakeholders and community leaders.
3. Predict future conditions (population and land use for 2035)	Two regional meetings on current development and future growth. Invitees represented economic development, business and planning agencies Consultation with local governments and local government planning departments on population and employment projections – direct mailing Display 1 and informational bookmarks in local libraries, with survey form asking for comments on expected patterns of growth	Comments received were considered, and projections modified as appropriate.
4. Identify current and future transportation needs and opportunities	12 public meetings co-sponsored by community organizations (3 for Update 2011), plus presentations to civic groups Display 2 in public libraries with survey form on transportation needs, and public meeting fliers Input from TMACOG transportation committees Survey form posted on-line Student surveys on needs completed at University of Toledo, Bowling Green State University, and Bowling Green High School Needs surveys mailed to major institutions Held needs input session at annual transportation summit	Prepared needs input summary. Produced popular summary on needs, "Building the Case" (distributed to public libraries)
	Reviewed technical analysis on needs with task force	Task force identified additional analysis needed

Table 5.2 Continued: Public Involvement in the 2045 Plan Development

Step in Plan Process	Main Public Involvement Components	Notes
5. Develop and prioritize	Mailing to local governments requesting project suggestions	
solutions to needs statements	"Goal groups" (task force members plus additional experts) brainstormed and prioritized solutions (projects, initiatives, and policies)	Concluded with a goals group summit—groups presented recommendations and caucused to resolve differences
	Technical analysis and ranking of projects; ranking of initiatives and policies (staff and task force)	
6. Public comment on draft plan	6 public meetings (3 for Update 2011) Display 3 at public libraries, with draft plan and comment form Comment form and draft plan posted on website Direct mailing (comment form, draft plan) to units of local government	Task force review of comments and modification of plan
	Direct mailing (comment form, draft plan) to environmental agencies, in fulfillment of environmental consultation requirements	

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 (MAP-21 at the time of 2045 Plan development) 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 2015-2045. 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 \$3.3 billion dollars would be available to the region to implement the 30-year plan, or approximately \$110 million dollars per year. For the details on how this estimate was developed and used, see the financial plan in Chapter 6.

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5.2.2 Draft Project Lists: Goal Groups and TMACOG Committees

Following the early input and technical analysis phases, several groups set to work to develop lists of proposed projects. The Plan goals were used to structure this effort. **Table 5.3** shows the committees and subcommittees responsible for each plan goal.

Table 5.3: TMACOG Committees/Subcommittees

Plan Goal	Committee	Subcommittee	
Personal mobility	Public Transit & Passenger Rail Committee		
1 Cisonal mounty	Pedestrian & Bikeway Committee		
Freight transportation	Freight Advisory		
Safety	Planning Committee	Safety goal group	
Infrastructure	Planning Committee	Infrastructure goal group	
condition	System Performance & Monitoring		
Congestion goal	Planning Committee	Congestion goal group	
Environmental goal	Planning Committee	Environmental goal group	

Goal Groups

The goal groups (working subcommittees of the Planning Committee/2045 Plan task force) were asked to complete work sheets, answering these questions in regard to their assigned Plan goal:

- 1. What do we know? Review maps & data about our region. List three key findings.
- **2.** What is the public concerned about? Review input from public meetings and surveys. List three or more key findings.
- 3. What do we want to accomplish? Propose four measures or targets.
- **4.** What *kinds* of projects (and initiatives) will work to achieve success? List types, not specific projects.
- **5.** What *specific* projects (and initiatives) will work to achieve success? Include relevant projects from the previous 2035 Plan and from questionnaires submitted by local governments, ODOT, and other key stakeholders.

By following this sequential process, the goal groups produced project and initiative recommendations intended to meet the 2045 Plan goals. They also reviewed and proposed updates to the regional plan policies, which are position statements intended to guide future actions in the region.

TMACOG Public Transit & Passenger Rail Committee

This committee followed a process similar to the goal group process. Several of their recommendations fell 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 develop a major update to the proposed regional bikeway network. Stakeholders were asked to provide input about barriers and gaps in the existing network. Safety issues were reviewed through an analysis of bicycle crash data. A review of the National AASHTO US Bike Route System, ODOT's primary bike route system, and regional trails was conducted as well. The network was divided into more than 60 segments which were proposed as individual projects. The committee also proposed a set of objectives and strategies that were incorporated into the draft Plan policies.

TMACOG Freight Advisory Committee

This committee took a very structured approach to creating a list of possible projects, initiatives, and policies for the 2045 Transportation Plan. To guide the committee through the process, they started with a *Plan for Committee Input* that was divided into four sections.

The first section listed possible information sources for project ideas. Sources included regional shippers, trucking companies, industry, railroads, ports, governmental offices, universities, and economic development organizations. Other sources included various studies and reports such as the Ohio Statewide Freight Study, the Michigan Freight Plan, the MAP-21 freight provisions, and the TMACOG Legislative Agenda, Congestion Management Process Report, and Safety Locations Report. The committee looked at available freight flow data, truck and rail volumes, and current freight transportation assets. The committee also considered freight issues that were currently in local or statewide news.

The second section listed possible freight transportation issues to look for, such as deficient infrastructure; bottlenecks; safety and traffic flow issues; highway design problems; first/last mile connection deficiencies; truck weight issues; various marine, railroad, and air freight issues; and many others.

The third section of the *Plan for Committee Input* was related to reviewing the previous 2035 Plan to look for uncompleted projects that should be included in the new plan. The last section was a list of things to consider as the committee developed a list of projects such as supporting the project with good data, achieving a measurable goal, and looking for short and long range projects as well as projects that would get good results from a minimal investment.

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. One factor considered was the concept of "5 to 55": it is important for shippers to be able to access a 55 mph highway within 5 minutes from their facility.

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 and also reviewed and suggested revisions to the goal group project lists.

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 goal group and 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 added bonus economic development measures and points.

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 *G*.

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Figure 5.2: Scoring Matrix

Total PLAN	1		Category	
Points GOA		Metric	Point Total	Scoring Legend
	ty: Reduce traffic-related fatalities and serious injuries acr			
	Crash characteristics		6 /	\
	Crashes	Total crashes	4	>
	Crash rate	Crashes per traffic volume (Million VMT)		
	Fatalities	Total fatalities		
	Fatality rate	Fatalities per MVMT	-	
	Bicycle fatalities	Total bicycle fatalities		scale
	Serious injuries	Total serious injuries		
	Serious injury rate	Serious injuries per MVMT	 	
	Bicycle serious injuries	Total bicycle serious injuries		7
	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 Infra	structure condition: Maintain and improve the transporta	tion 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)	11	0 na; very good
				1 good
				2 fair
				3 poor
				4 very poor
	Bridge condition	Bridge sufficiency rating		0 na; over 70%
	bridge condition	bridge sufficiency racing		1 70% or below
	Wear usage factors		3	1 70% Of Below
	Traffic volume	Appual avorago daily traffic (AADT)	3	^ 0 no data
	Traffic volume	Annual average daily traffic (AADT)	ADT)	1 less than 2,500 and less than 250
		and Truck annual average daily traffic (TA	(ADI)	
				2 2,501-10,000 and 251-1,000
12 2		a . (husa)		3 over 10,000 and over 1,000
10 Cong	restion reduction: Reduce congestion on the National High		_	
	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	Current level of service (LOS) rating	3	0 A/B
				1 C
				2 D
				3 E/F
	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 Freig	ht movement: Strengthen freight access to national and in	nternational trade markets to support econo	omic development	
	Improves freight capacity		3	
	Highway capacity		-	
	ing.may capacity	Truck annual average daily traffic (AADT)	^	0 under 5000
		rradical are age daily traine (78 B 1)	1 [1 5,000-9,999
				2 greater than or equal to 10,000
		Share of truck traffic to total traffic		0 Under 10%
		Share of track traine to total traine		1 between 10% and 20%
				2 over 20%
	Congostion	Current level of consider ration		
	Congestion	Current level of service rating		0 A/B
				1 C
				2 D
				3 E/F
	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		1	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 4	7
	Truck crashes	Total truck crashes	1	0 under 10,000
				1 between 10,000 and 20,000
				2 over 20,000
I		Truck crash rate per million VMT		0 less than 0.5%
1		mack crash rate per million vivii		
	Dadwass madel conflict	Number of coefficients		1 greater than or equal to .5%
	Reduces modal conflict	Number of conflicting moves/mode		0 no reduction
	B. R. J. B.			1 some modal conflict reduction
<u></u>	Reliability	Improves travel time reliability	1.5	1 Y/N

Figure 5.2: Scoring Matrix

Total PLAN			Category	
Points GOAL		Metric ce the community and natural environments.	Point Total	Scoring Legend
10 Ellvii	Impact on sensitive areas	te the community and natural environments.	-1, 0, 1	
	Areas impacted		-1, 0, 1	
	Areas impacted	100 year flood		-1 3 or more heavy impacts or new right-of-
		Historic sites and districts		way
		Parks and preserves		0 2 or more minimal impacts, or 1-2 heavy
		Oak Openings		impacts or new right-of-way
		Prime farmland		1 0-1 minimal impacts, and 0 heavy impacts
		Riparian stream zones		or new right-of-way
	-	Wetlands		
	Impacts on air quality		-1, 0, 1, 2	^
	Current congestion level		ĺ	1-2 level of service improvement to D from F
	Reduce congestion and/or delays, impro-	ve 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 efficie	ent mode		0.5 very short route
	Sime to normotorized of more fact emen	en mode		1 route
				1.5 mixed route
				2 mostly lane/path or town network
	Induce more motorized traffic		l	■ _{Y/N}
	Support redevelopment of existing brownf	ields and developed areas	2	
	Number of brownfields and urban sites v	vith 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 pa	vement		-1 12 plus miles
				-0.5 7-11.9 miles
				0 2-6.9 miles
				0.5 .1 - 1.9 miles or unsure
	Impact EJ areas		-1, 0, 1, 2	1 not applicable
	impact Li aleas		-1, 0, 1, 2	-1 negative
				0 neutral
				1 positive
				2 very positive
	Consistent with Complete Streets Policy		1	1 Y/N
10 Perso	onal mobility: Improve the quality, accessibil	lity, and efficiency of the multimodal personal trai	nsportation system	
	Improves personal mobility connectivity			
	On bike network			
	Connects alternate modes			
	Connects jurisdictions			1 Y/N
	Serves key destinations			0 No
				1 1 destination
	Paradation and all 5 th 66 th			2 multiple destinations
1	Populations served with .5 mile of facility	Number of accordance	5	0 5 500 or loss
	Danislation	Number of people total		0 5,500 or less
	Population	ramber of people total		1 5 501 13 500
				1 5,501-12,500
	Population Proximity to schools	Number of schools		2 over 12,500
				2 over 12,500 0 0
				2 over 12,500 0 0 1 1-5
	Proximity to schools			2 over 12,500 0 0 1 1-5 2 over 6
3 Non-	Proximity to schools Environmental justice area			2 over 12,500 0 0 1 1-5
3 Non-	Proximity to schools		2	2 over 12,500 0 0 1 1-5 2 over 6
3 Non-į	Proximity to schools Environmental justice area goal related scoring factor		2	2 over 12,500 0 0 1 1-5 2 over 6
3 Non- ₁	Proximity to schools Environmental justice area goal related scoring factor Economic Development		2	2 over 12,500 0 0 1 1-5 2 over 6 1 Y/N
3 Non-	Proximity to schools Environmental justice area goal related scoring factor Economic Development Significant economic driver		2	2 over 12,500 0 0 1 1-5 2 over 6 1 Y/N
3 Non- _l	Proximity to schools Environmental justice area goal related scoring factor Economic Development Significant economic driver Economic development benefits		2	2 over 12,500 0 0 1 1-5 2 over 6 1 Y/N
3 Non- ₁	Proximity to schools Environmental justice area goal related scoring factor Economic Development Significant economic driver Economic development benefits Attract/retain characteristics			2 over 12,500 0 0 1 1-5 2 over 6 1 Y/N

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.

5.3 Finalizing the Plan

By the beginning of calendar year 2015, 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 5.4**; see Chapter 6 for details.

Table 5.4: 2045 Plan Proposed Expenditures

Steps	Numeric Result
Estimated resources	\$3.3 Billion
Subtract System Preservation project costs	\$550 Million
Subtract Committed project costs	\$1 Billion
Subtract Initiatives costs	\$7 Million
Subtract Priority project costs	\$1.75 Billion
Final Balance	\$156,936

The adopted expenditures table included funding all the "motorized" priority projects. Since more limited funding was expected for "non-motorized" (pedestrian and bikeway) projects, that category was capped at \$ 65.1 million. Several of those projects (the ones that didn't score as high during the ranking process) were omitted from the Priority list. Instead, they were listed as Reserve projects, meaning they were unlikely to be completed during the 30-year life of the plan unless special additional funding were obtained. The costs for the plan's Priority projects, displayed by mode, are illustrated in the graph in **Figure 5.3.**

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. All local governments were sent an invitation to the public meetings. Five public meetings were held across the region. An additional meeting was focused on the Hispanic community. See Appendix C for meeting fliers and a newspaper article.

Presentations and displays at the forums used easily-understood visual images to communicate the main components of the draft plan. An example of this "visualization" strategy is included in this chapter: **Figure 5.4** is of two slides that show how the safety goal was depicted. To see the complete slide presentation, along with photos from the public meetings, see Appendix C.

Questionnaires for comment on the draft plan were provided at the public meetings and online. Fliers announcing the meetings and requesting completion of the survey were distributed to all 36 public libraries. In addition, TMACOG sent notices via an extensive e-mail list to members and stakeholders. For a summary of survey responses and a table with response to significant comments, see Appendix D.

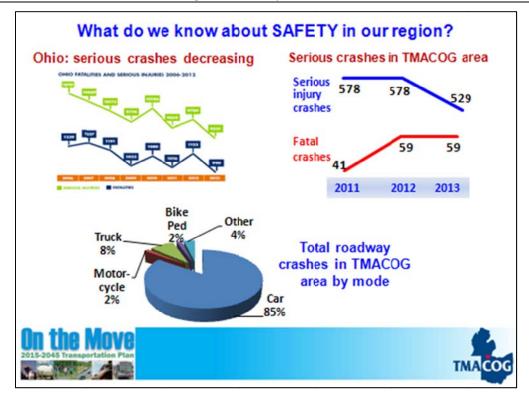


Figure 5.4 Continued: Safety Goal Slides



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 nine resources maps: wetlands, parks and preserves (and the Oak Openings region), significant stream habitats, wooded areas, prime farmland, 100-year flood plains, historic sites, brownfields, and Environmental Justice target areas (low income and minority neighborhoods). environmental maps are on the On the Move website at www.tmacog.org/onthemove environmental.htm.

In addition, 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 actually heading for construction.

Environmental agency responses are noted in Appendix E. In summary, many plan projects adjoin 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. Maps displaying plan projects in relation to environmental considerations can be found on TMACOG's website.

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. The table in Appendix B of this 2045 Plan report includes a summary of how target EJ populations were included in the public involvement process for the regional transportation plan. Also see the map of public meeting locations earlier in this chapter in **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 5.5.**

Table 5.5: Project Evaluation Measures Related to Environmental Justice

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

Once projects were selected for the draft plan, they were mapped against low-income and minority areas. A table was prepared summarizing the potential environmental impacts of projects in the EJ target areas. 50 out of the 174 committed projects are located in EJ areas (28.7%). Of the 154 priority projects, 45 are planned in EJ areas (29%). Out of the 138 proposed system preservation projects for roads and bridges, 31 are planned in EJ areas (22%). Of all the combined projects, approximately 27% of them are planned in EJ areas. All but 13 projects, or 89.7% 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 F for the EJ project environmental impact table and 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

5.3.5 Travel Demand Model Process

As the 2045 Plan was being finalized, the Ohio Department of Transportation was completing a major overhaul of the traffic forecasting model used by TMACOG and the other regions across Ohio. 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.

Preliminary results showed the proposed 2045 Plan projects would reduce congestion in the TMACOG region. However, ODOT still needed to check and verify these preliminary results. If, following plan adoption, the final congestion analysis predicts significant increases in congestion as a result of 2045 Plan projects, the plan may be revised.

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. Conformity involves an analysis of the total estimated emissions from the transportation system, including projects in the Transportation Plan, and requires that they are less than the allowable emission amount (called the budget) established in the State Implementation Plan (SIP) for air quality.

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 not subject to air quality conformity requirements.

5.3.7 TMACOG Approvals

In May 2015, 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 resolution.	2015, the	TMACOG	Board of	Trustees	approved	the 2045	Plan via T	ГМАСОG

6 HOW WILL WE MAKE IT HAPPEN

6.1 TMACOG 2045 Financial Plan

The Moving Ahead for Progress in the 21st Century Act (MAP-21), P.L. 112-141, 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.

The plan needs to 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 Plan revenue assumptions.

Methodology:

- 1. Capture 2000-2013 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. ARRA projects and emergency projects are removed from the yearly totals for this calculation.
- 3. Establish FY 2016-2045 Transportation Plan funding level projections.
 - a. Federal Consistent with the 2014-2015 ODOT Business Plan projections, apply a 1% growth rate for FY 2014 and 0% for FY 2015-2045, to the \$48,225,179 average base year amount.
 - b. State Consistent with the 2014-2015 ODOT Business Plan projections, apply state funding level growth rates of 1% for FY 2014-2015 and 0% for FY 2016-2045 to the \$53,103,562 average base year amount.
 - c. Local Consistent with the above methodology for projecting federal and state funding levels, apply a growth rate of 0% for FY 2016-2045 average base year \$2,401,236.

Table 6.1 shows the history of funding levels at TMACOG for FY 2000-2013, broken down by source, and **Table 6.2** shows the average of these historic numbers.

Table 6.1: Encumbrance History for all Revenue Sources

					Federal	
SFY	Federal	State	Local	State Bonds	Bonds	Total
2000	\$36,738,390	\$9,710,110	\$1,135,778	\$4,013,920	\$0	\$51,598,198
2001	\$87,652,712	\$31,354,340	\$3,629,174	\$4,363,401	\$0	\$126,999,627
2002	\$36,303,827	\$57,881,574	\$2,288,572	\$131,540,769	\$0	\$228,014,741
2003	\$55,047,039	\$22,712,482	\$2,581,572	\$15,638,982	\$0	\$95,980,076
2004	\$53,339,692	\$21,290,988	\$4,174,139	\$9,595,879	\$0	\$88,400,698
2005	\$38,111,688	\$12,429,853	\$1,276,819	\$48,434,597	\$0	\$100,252,957
2006	\$49,984,960	\$15,379,804	\$1,654,123	\$318,695	\$0	\$67,337,581
2007	\$25,488,908	\$18,395,846	\$330,394	\$20,592,182	\$0	\$64,807,332
2008	\$25,257,858	\$21,014,912	\$4,710,279	\$18,298,520	\$0	\$69,281,569
2009	\$59,275,737	\$18,225,378	\$3,023,140	\$77,359,423	\$0	\$157,883,679
2010	\$49,470,306	\$11,645,842	\$2,901,080	\$29,864,608	\$0	\$93,881,836
2011	\$38,828,246	\$8,352,929	\$3,434,078	\$7,088,994	\$0	\$57,704,246
2012	\$66,315,759	\$16,217,806	\$1,806,145	\$15,532,498	\$0	\$99,872,208
2013	\$53,337,378	\$42,643,916	\$672,017	\$53,551,614	\$0	\$150,204,926
Total	\$675,152,501	\$307,225,780	\$33,617,310	\$436,194,083	\$0	\$1,452,219,673

Table 6.2: SFY 2000-2013 Funding Totals and Averages

	Federal	State	Local	Total
Total Revenue	\$675,152,201	\$743,449,862	\$33,617,310	\$1,452,219,673
Annual Average	\$ 48,225,179	\$ 53,103,562	\$ 2,401,236	\$ 103,729,977

A 1% growth rate is applied to 2014 funding levels and no growth rate is applied to 2015 funding levels, resulting in baseline annual federal and state revenue projections, shown in **Table 6.3**. The growth factors are based on the ODOT 2014-2015 Business Plan. The Business Plan projects federal revenue to increase 1% per annum in FYs 2014 and 2015 and 0% per year thereafter. State revenues projections increased by 1% for both FY's 2014 and 2015. The projections are based on an assumption of a continuation of the federal and state gas tax at current levels.

Table 6.3: SFY 2014 - 2015 Revenue Projections

Year	Federal \$	Growth Factor	State \$	Growth Factor	Total
2014	\$48,707,430	1%	\$53,634,597	1%	\$102,342,028
2015	\$48,707,430	0%	\$54,170,943	1%	\$102,878,374

Using the baseline values in **Table 6.3**, the total federal, state, and local revenues projected over the 3-year life of the plan are detailed in **Table 6.4**.

Table 6.4: SFY 2016 - 2045 Revenue Projections

Year	Federal \$	Growth Factor	State \$	Growth Factor	Total
2016	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2017	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2018	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2019	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2020	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2021	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2022	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2023	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2024	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2025	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2026	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2027	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2028	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2029	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2030	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2031	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2032	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2033	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2034	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2035	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2036	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2037	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2038	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2039	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2040	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2041	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2042	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2043	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2044	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
2045	\$48,707,430	0%	\$54,170,943	0%	\$102,878,374
Total	\$1,461,222,913	-	\$1,625,128,296	-	\$3,086,351,208

Finally, **Table 6.5** then totals the projected revenue for the duration of the 30-year plan, including expected funds from SEMCOG for improvements in southeastern Michigan.

Table 6.5: SFY 2016 – 2045 Revenue Projections

Federal	State	SEMCOG \$	Local	Total
\$1,461,222,913	\$1,625,128,296	\$150,000,000	\$73,485,037	\$3,309,836,246

To gain an understanding of how the expected revenue was divvied up and expenditures for each set of projects were derived, refer to **Table 6.6**. The table begins with the total of estimated resources for the 30 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 the funding level at step 4, or \$2,762,902,246. Of these

remaining funds, \$1,000,100,000 is set aside for committed projects in the 2045 Plan. Then, \$7,428,000 is set aside for plan initiatives, as shown in steps 7 and 8. Finally, of the remainder, approximately \$1.7 billion is set aside for plan priority projects. After this fiscally constrained planning, a balance of \$136,936 left over, shown in step 9.

Table 6.6: 2045 Plan Expenditures Derivation

Steps	Description	Amount
1. Estimated Total Resources	An estimate of all resources for transportation in the region for 2015-2045	\$3,309,836,246
2. Backlog of system preservation of roadways and bridges	Current backlog of reconstruction/replacement of deficient roadways and bridges	\$243,934,000
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	\$303,000,000
4. Subtotal available for new	improvements after system preservation projects	\$2,762,902,246
5. Committed projects	The projects included in the 2045 Plan for which funding is secured and/or expected	\$1,000,100,000
6. Subtotal available after con	nmitted projects	\$1,762,802,246
7. Initiatives	2045 Plan specified research, education, and collaborative efforts supported from transportation funds	\$7,428,000
8. Subtotal available for prior	ity projects after initiatives	\$1,755,374,246
9. Priority projects	2045 Plan designated priority projects, for which funding is not secured but likely	\$1,755,237,310
Final Balance		\$136,936

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 \$80-\$90 million each year to maintain 185 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 \$90 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** This is a new construction initiative designed to reduce the excess of deficient county and city bridges. The program provides \$100 million for counties and \$10 million for cities from SFY 2015-2017. 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 seventeen 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 Program (STP) funding and approximately of \$750,000 of Transportation Alternative Program (TAP) funding each year. STP funds are eligible for financing a wide variety of multi-modal

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 multi-modal 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 \$8 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 50 for replacement.
- 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. 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 \$100 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 six-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 \$150 million throughout the course of the 30-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 2 to 10 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 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 5 to 20 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 \$3.5 million each fiscal year to finance TIDs. The total amount of funding provided for each project is limited to 10% 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.
- 4. **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 \$6,145,009 allocated to the Toledo urbanized area for federal FY 2014, 5.6% of the total or \$344,339 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 \$40,002 in FY2014.
- 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 \$668,827 in FY 2014.
- 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 percent of the net cost of the project. For operating expenses, the federal share may not exceed 50 percent 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 percent 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 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."

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.

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. MAP-21 established a framework for setting deadlines for decision making in the environmental review process, with a process for issue resolution and referral, and penalties for agencies that fail to make a decision. Projects stalled in the environmental review process can get technical assistance to speed completion within four years.

One area in particular that MAP-21 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, MAP-21 expanded the usage of CEs to a variety of other types of projects, including multi-modal 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 Program (STP) and the Transportation Alternatives (TA) program. 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

Moving Ahead for Progress in the 21st Century (MAP-21) is the transportation funding and authorization legislation that currently (as of the writing of this report) governs federal surface transportation policy. The funding level authorized by MAP-21 does not fill the growing gap

between financial resources and infrastructure investment needs. The bill expired at the end of September, 2014 and was extended until May 31, 2015. A long-term, multi-year bill with adequate funding is necessary to avoid the uncertainty and inefficiency created by repeated short term extensions.

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 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. We need new solutions to fill this investment gap and pay for priority projects that will make our transportation network safer, smarter, reduce congestion and pollutants, and support international competitiveness.

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 percent 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. Ohio's per gallon state tax rate is 28 cents for both regular and diesel fuel. When combined with other taxes and fees, Ohioans pay less tax per gallon for regular gasoline than surrounding states, and pay the second lowest rate for diesel fuel. Like the federal gas tax, Ohio's state tax is not indexed to inflation. Ohio's transit

funding has fallen by 85 percent between 2000 and 2013. Dependence on 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 percent 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. All 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 mileagebased 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 a number of 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, 2015-2016

6.4 Importance of Tracking Plan Implementation

MAP-21 calls upon states and metropolitan areas to set measurable targets that are to be achieved. This performance-based approach to planning aims to insure 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 developed targets based on national goals. National and state targets were still under development and could not be incorporated into the plan. TMACOG's targets are to reflect the state and national targets which made incorporating planning targets difficult at the MPO level. TMACOG, as advised by the Ohio Department of Transportation, set preliminary targets and will update and modify them in the future to fully coordinate with federal and state performance targets.

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 MAP-21 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 will be included in the 2045 Plan Update.

A	ppendix A	A: Glossa	ry – List	of Acron	yms – Teri	ms

2045 PlanRegional Transportation Plan	TMACOG
208 PlanAreawide Water Quality Management Plan	
319Grants for non-point source water pollution	
5310Specialized Transportation Program	
AADTAnnual Average Daily Traffic	
AASHTOAmerican Association of State Highway & National	
Agency Transportation Officials	National Org.
ABCAbility Center of Greater Toledo	
ACGTAbility Center of Greater Toledo	
ACIRAdvisory Commission on Intergovernmental Relations	
ACOEArmy Corps of Engineers (also known as COE)	
ACSAmerican Community Survey (census)	
ACTAssociation of Commuter Transit	
ADAAmericans with Disabilities Act	<u> </u>
AGCNWOAssociated General Contractors of Northwest Ohio	Regional Org.
AICPAmerican Institute of Certified Planners	
AMPOAssociation of Metropolitan Planning Organizations	E
AoAAdministration on Aging	
AOCArea of Concern	
AOoAArea Office on Aging of Northwest Ohio, Inc.	
APAAmerican Planning Association	
APTAAmerican Public Transportation Association	<u> </u>
AQAir Quality	
AQCAir Quality Committee	
AQIAir Quality Index	
ARRAAmerican Recovery and Reinvestment Act	
AWPAnnual Work Program	
AWQMPAreawide Water Quality Management Plan (208 Plan)	
BGSUBowling Green State University	
BMPsBest Management Practices	
BSBOBlack Swamp Bird Observatory	
BTSBureau of Transportation Statistics	· · · · · · · · · · · · · · · · · · ·
CAAAClean Air Act Amendments of 1990	
CAFOsConcentrated Animal Feeding Operations	Term
CBOCongressional Budget Office	
CCTCoalition for Community Transportation	
CDBGCommunity Development Block Grant	
CFRCode of Federal Regulations	
CMAQCongestion Mitigation and Air Quality	
CMPCongestion Management Process	
COECorps of Engineers (also known as ACOE)	
COGCouncil of Governments	Term
CPTHSTPCoordinated Public Transit/Human Services	
Transportation Plan	Term
CRDCenter for Regional Development	
CRSCongressional Research Service	
CTAACommunity Transportation Association of America	<u> </u>
CTPPCensus Transportation Planning Package	
CYCalendar Year	

CWA	Clean Water Act	Federal Law
DBE	Disadvantaged Business Enterprise	Term
	Department of Transportation	
	Detroit River International Crossing	
	Economic Development Administration	
	Economic Development Corporation	
	Economic Development District	
	Equal Employment Opportunity Commission	
	Environmental Impact Statement	
	Environmental Justice	
	Eastern Maumee Bay Chamber of Commerce	
	Environmental Protection Agency	O 7
	Environmental Review Appeals Commission	
	Federal Aviation Administration	
	Federal Communications Commission	
	Federal Emergency Management Agency	
	Federal Highway Administration	
	Federal Register	
	Federal Railroad Administration.	
	Federal Transit Administration	
	Fiscal Year	0 1
	General Accounting Office	
	Gas Cap Testing & Replacement Program	0 1
	Geographic Information System	
	Great Lakes National Program Office	
	Government Printing Office	
	Hazardous Air Pollutant	
	Hancock Area Transportation Services	
	Home Builders Association of Greater Toledo	
	Henry County Chamber of Commerce	
	Department of Health and Human Services	
	Highway Operating Fund	
	High Occupancy Vehicle	
	Highway Performance Monitoring System Highway Safety Improvement Program	
	Department of Housing and Urban Development	
	Intermodal Surface Transportation Efficiency Act of 1991.	
	Intelligent Transportation System	
	Job Access Reverse Commute	
	Joint Economic Development District	
	Joint Economic Development Zone	
	Jobs and Family Services	
	Lucas County Township Association	
	Lake Erie Protection Fund	0 2
	Lake Erie Transit	
	Local Government Advisory Committee	USEPA/OEPA
LGF	Local Government Fund	T D
LMHA	(Ohio general purpose revenue sharing funds)Lucas Metropolitan Housing Authority	
	2 wow 112 or opon win 110 doing 11 dutoffly	Lacas County, OII

LRP	Long Range Plan	Term
LRT	Light Rail Transit	Term
LTC	Lenawee Transportation Committee	Adrian, MI
	League of Women Voters	
MAP-21	Moving Ahead for Progress in the 21st Century	Federal Law
	Monroe Bank & Trust	
	Monroe County Community College	
	Monroe County Chamber of Commerce	
	Michigan Department of Environmental Quality	
	Michigan Department of Transportation	
	Metropolitan Planning Area	
	Metropolitan Planning Organization	
	Metropolitan Statistical Area	
	Michigan Township Association	
	National Org. of Development Organizations	
	National Org. of Regional Councils	
	National Electrical Contractors Association	
	National Environmental Policy Act	2
	New Freedom Program	
	National Highway Performance Program (part of MAP-21)	
	National Highway System	
	National Ambient Air Quality Standard	
-	National Oceanic and Atmospheric Administration	
	Northwest Ohio Mayors and Managers Association	0 1
	Northwest Ohio Passenger Rail Association	
	Northwest Ohio Regional Economic Development	
	Northwestern Ohio Rails-to-Trails Association, Inc.	
	National Pollutant Discharge Elimination System (water)	
	Natural Resources Assistance Council (NRAC)	
	Nuclear Regulatory Commission	
	Natural Resources Conservation Service	
	Northwest District Office (Ohio EPA)	<u> </u>
	Northwest State Community College	C ,
	Northwestern Water & Sewer District	
	Ohio Association of Regional Councils	
	Ohio Bureau of Employment Services	
	± *	0 1
	Ohio Budget and Management	
	Owens Community College	
	Ohio Conference on Freight	
	Ottawa County Transit Authority	
	Ohio Department of Natural Resources	C ,
	Ohio Department of Transportation	
	Ohio Department of Public Safety	
	Ohio Development Services Agency	
	Ohio Data Users Center	
	Ohio Economic Development Association	
OLEC	Ohio Environmental Protection Agency	State Agency
	Ohio Lake Erie Commission	
OMB	Office of Management and Budget	rederal Agency

OPERS	Ohio Public Employee Retirement System	State Agency
	Ohio Public Works Commission	
	Ohio Revised Code	
	Ohio Rail Development Commission	
	Office of Technology Assessment	
	Ohio Township Association	
	Ohio Transportation Engineering Conference	
	Ohio Turnpike Commission	
	Ohio Water Development Authority	<u> </u>
	Ohio Works First	
	Persistent Bioaccumulative Toxic Pollutants	
PCBs	Polychlorinated Biphenyls	Term
	Professional Engineer	
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
	Remedial Action Plan	
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
	Rural Transit Development Plan	
RTP	Regional Transportation Plan	TMACOG
RWAB	Regional Water Advisory Board	Local Org.
SAFETEA-I	LUSafe, Accountable, Flexible, Efficient Transportation	
	Equity Act: A Legacy for Users (replace TEA-21)	Federal Law
SAJRD	Sylvania Area Joint Recreation District	Sylvania, OH
	Share-A-Ride	
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
	Safety Council of Northwest Ohio	
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
	System Performance Monitoring Committee	
	Short-Range Plan	
	Sandusky River Watershed Coalition	
	Surface Transportation Board	
	State Transportation Improvement Program	
	Surface Transportation Program	•
STS	Sandusky Transit System	Sandusky, OH

SWAG	Stormwater Action Group	TMACOG
	Stormwater Coalition	
	Soil and Water Conservation District	
	Stormwater Management District	
	Student Watershed Watch	
	Transportation Advocacy Group of Northwest Ohio	
	Temporary Assistance for Needy FamiliesF	
	Toledo Area Regional Paratransit System	_
	Toledo Area Regional Transit Authority	
	Transportation Equity Act for the 21st Century (to replace IS	
	Unofficial name of legislation to replace TEA-21	
	Transportation Investment Generating Economic Recovery	
	Transportation Improvement Program	
	Toledo-Lucas County Health Department	
	Toledo-Lucas County Port Authority	
TI CPC	Toledo-Lucas County Plan Commissions	Local
	Toledo-Lucas County Public Library	
	Toledo-Lucas County Sustainability Commission	
	Transportation Management Area (MPO with over 200,000 in	
	Toledo Metropolitan Area Council of Governments	
	Total Maximum Daily Load	
	Toledo Metropolitan Mission	
	Transportation Opportunity District	
TDC	Talisportation Opportunity District	Tolado OH
	Transportation Review Advisory Council	· ·
	Toledo Regional Chamber of Commerce	
	Transportation Resources for Independent People of	101 cu 0, 011
1 KH 5	Sandusky County	Fremont OH
TSCC	Terra State Community College	
	Toledo Trucking Association	
	United States Code	
	United States Coast Guard	
	United States Department of Agriculture	
	United States Department of Health & Human Services	
	United States Department of Treath & Human Services	
	United States Environmental Protection Agency	0 2
	United States Fish & Wildlife Service	
	United States Geological Survey	0 2
	University of Toledo	
	University Transportation Center	
	University of Toledo Intermodal Transportation Institute	
	University of Toledo Intermodal Transportation Institute	· · · · · · · · · · · · · · · · · · ·
	Urbanized Area	
	Vehicle Hours Traveled	
	Volatile Organic Compounds	
	Wood County Educational Service Center	
	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	Wood County Park District	
	Wabash Cannonball Corridor Coordinating Committee	
WCCCC	w avasii Caimonvan Confidor Coordinating Committee	TWIACUG

WCTAWood County Township Association	Regional Org.
WIAWorkforce Investment Act	Federal Law
WIBWorkforce Investment Board	Local
WQWater Quality	Term
WSOSWood-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./AcrDefinition	
AMATSAkron Metropolitan Area Transportation Study*	Akron, OH
BHHVRDDBuckeye Hills Hocking Valley Regional Development District	Marietta, OH
BHJMPCBrooke-Hancock-Jefferson Metropolitan Planning Commission	Steubenville, OH
BELOMARBel-O-Mar Regional Council & Interstate Planning Commissio	n Wheeling, WV
CCSTCCClark County- Springfield Transportation	
Coordinating Committee	Springfield, OH
ERCOG Eastgate Regional Council of Governments	. Youngstown, OH
ERPCErie Regional Planning Commission & MPO	
KYOVAKentucky-Ohio- West Virginia Interstate Planning Commission	Huntington, WV
LACRPCLima-Allen County Regional Planning Commission	
LCATSLicking County Valley Planning Commission	Newark, OH
LUCPCLogan-Union-Champaign Regional Planning Commission	East Liberty, OH
MARCMid-America Regional Council	
MOJPCMidwestern Ohio Joint Planning Council	Delphos, OH
MORPCMid-Ohio Regional Planning Commission	Columbus, OH
MOVRCMid-Ohio Valley Regional Council	Parkersburg, OH
MVPOMaumee Valley Planning Organization	Defiance, OH
MVRPCMiami Valley Regional Planning Commission	Dayton, OH
NCORCOGNorth Central Ohio Regional Council of Governments	Tiffin, OH
NEFCONortheast Ohio Four-County Regional Planning	
and Development Organization	Akron, OH
NEIRCCNortheast Indiana Regional Coordinating Council	Fort Wayne, IN
NOACANortheast Ohio Areawide Coordinating Agency	Cleveland, OH
OKIOhio-Kentucky-Indiana Regional Council of Governments	Cincinnati, OH
OMEGAOhio Mid-Eastern Governments Association	Cambridge, OH
OVRDCOhio Valley Regional Development Commission	Waverly, OH
RCRPCRichland County Regional Planning Commission	Mansfield, OH
SCRPCStark County Regional Planning Council	Canton, OH
SEMCOGSoutheast Michigan Council of Governments	Detroit, MI
TMACOGToledo Metropolitan Area Council of Governments	
WWWIPCWood-Washington-Wirt Interstate Planning Commission	Huntington, WV

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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

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.

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Sec. 450.322 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 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 lead to the development of an integrated multimodal transportation system 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 four years in air quality nonattainment and maintenance areas and at least every five 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 transportation plan (and any revisions) shall be approved by the MPO and submitted 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 utilized 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 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, transit, multimodal and intermodal facilities, 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. In addition, the locally preferred alternative selected from an Alternatives Analysis under the FTA's Capital Investment Grant program (49 U.S.C. 5309 and 49 **CFR** part 611) needs to be adopted as part of the metropolitan transportation plan as a condition for funding under 49 U.S.C. 5309;
- (3) 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;
- (4) 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:
- (5) Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation

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infrastructure and provide for multimodal capacity increases based on regional priorities and needs. 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;

- (6) 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 rule (40 **CFR** part 93). In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates:
- (7) 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 discussion shall be developed in

consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;

- (8) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g);
- (9) Transportation and transit enhancement activities, as appropriate; and
- (10) 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 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, 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 Sec. **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.
- (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. Starting December 11, 2007, 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 (but is not required to) 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.
- (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 include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects for the MPA contained in the Strategic Highway Safety Plan required under **23** U.S.C. 148, as well as (as appropriate) emergency relief and disaster preparedness plans and strategies and policies that support homeland security (as appropriate) and safeguard the personal security of all motorized and non-motorized users.
- (i) The MPO shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, 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 Sec. **450**.316(a).

- (j) The metropolitan transportation plan shall be published or otherwise made readily available by the MPO for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.
- (k) A State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(10) of this section.
- (l) 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). 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. An interim metropolitan transportation

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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.

Security Planning in the TMACOG Region

Agency Responsible	Plan	Purpose	Relationship to Transportation	Opportunities for Coordination with Transportation Planning and Other Security Planning Do 2 training exercises per year with local responders on train emergencies. Opportunity for coordination between station manager and local Emergency Management Agency.		
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.			
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 outerbelt 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.		

Security Planning in the TMACOG Region Continued

Security Planning in the TMACOG Region Continued							
Agency Responsible	Plan	Purpose	Relationship to Transportation	Opportunities for Coordination with Transportation Planning and Other Security Planning			
Toledo Area Regional Transit Authority (TARTA)	Various improvements (no formal plan) – 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.			
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.
- 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

C-2



Coming Soon:

A new transportation plan for our region!

You are invited to review and comment on the projects and policies for the draft plan.

Visit www.tmacog.org/OnTheMove

Come to a public meeting (light refreshments provided)

Evening meetings: 6:30-8 p.m. (doors open 6 p.m.)

Tuesday, March 3

Spencer Township Neighborhood Center, 330 Oak Terrace Blvd., Holland

Thursday, March 5
Sanger Branch Library, 3030 West Central Ave., Toledo

Tuesday, March 10
Way Library, 101 E. Indiana Ave., Perrysburg

Thursday, March 12 Wood County Office Building, 5th Floor, One Courthouse Square, Bowling Green

Daytime meeting: noon-1 p.m. (doors open 11:30 a.m.)

Friday, March 13
Main Library, 325 Michigan St.

Main Library, 325 Michigan St., Toledo

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Toledo Metropolitan Area Council of Governments 300 Martin Luther King Jr. Drive, Toledo OH 43604 419.241.9155 **OnTheMove@tmacog.org**



2015-2045 Transportation Plan



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



2014 Public Meetings

Date/Time

Monday, Feb. 24 7-9 p.m. Doors open 6:30 p.m

Friday, Mar. 14 noon-1 p.m. Doors open 11:30 a.m.

Monday, Mar. 17 6:30-8 p.m. Doors open 6 p.m.

Wednesday, Mar. 19 6:30-8 p.m. Doors open 6 p.m.

Thursday, Mar. 20 12:30-1:30 p.m. (Lunch can be purchased at noon, reservations required, call Jodi, 419.691.1429)

Thursday, Mar. 20 7–8:30 p.m. Doors open 6:30 p.m.

Monday, Mar. 24 6:30-8 p.m. Doors open 6 p.m.

Wednesday, Mar. 26 6:30-8 p.m. Doors open 6 p.m.

Thursday, Apr. 3 7-8:30 p.m. Doors open 6:30 p.m.

Thursday, Apr. 29 6:30-8 p.m. Doors open 6 p.m. Location

Holiday Inn Express 2150 E. Wooster St., Bowling Green

Main Library, Toledo-Lucas County Public Library 325 Michigan St., downtown Toledo

Spencer Township
Neighborhood Center
330 Oak Terrace Blvd.,
Holland (off Angola Rd.
between Crissey and Irwin Rds.)

Heatherdowns Branch Library 3265 Glanzman Rd., Toledo

East Toledo Senior Activities Center 1001 White Street, Toledo

North Baltimore Public Library 230 N. Main St., North Baltimore

Way Library 101 E. Indiana, Perrysburg

Sanger Branch Library 3030 West Central Ave., Toledo

Zion Church22 North Second St., Waterville

South Branch Library (**Biblioteca**) 1736 Broadway St. Toledo, OH

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Administration Program

Downtown Toledo Development Corp. UpTown Association United North

Spencer Township Spencer Township Neighborhood Center Springfield Township

Beverly Elementary PTO Maumee Chamber of Commerce Walbridge Park Association

Hosted by the East Toledo Club Sponsor, Neighborhood Housing Services of Toledo

Village of North Baltimore Henry Township

City of Perrysburg Township of Perrysburg Perrysburg Community Center Perrysburg Chamber of Commerce

Monroe Street Neighborhood Center United Neighborhood Residential Association West Toledo Rotary

City of Waterville Village of Whitehouse

Nuestra Gente Community Projects Inc. Adelante Northwest Ohio Hispanic Chamber of Commerce



Toledo Metropolitan Area Council of Governments

Local Government Transportation Questionnaire

May 2014

Background: On the Move is a process for setting regional priorities for transportation projects, initiatives and policies for the metropolitan area (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.

The plan must be completed by spring 2015 to maintain the region's eligibility for federal transportation dollars. More information is available at www.tmacog.org/onthemove.htm.

1. Needs: What are transportation-related needs, issues, and opportunities affecting your jurisdiction? (*Please check, add comments.*)

januarion, (ricado encony alaa commento),	
Personal mobility issues:	
Transportation for senior citizens or people with disabilities:	
Access to jobs:	
Public transit issues:	-
Pedestrian/bicycle issues:	-
Other:	-
Freight transportation or economic development issues:	
Need for better truck access:	
Need for better rail access:	-
Other:	-
General issues:	
Safety:	
Infrastructure condition:	
Travel delays:	-
Other:	-
Community impact issues:	
Cost of maintaining road miles	

Desire for denser or mixed-use development to reduce infrastructure costs:	
Concern about new development impacts on water quality or natural areas:	
Desire to develop/ redevelop areas that have existing infrastructure:	
Other:	

- **2. Projects and initiatives, short-medium term:** What major transportation-related projects and initiatives are important for your jurisdiction or the region within the next 5-15 years? You may include:
 - Street, highway, transit, rail, bikeway, air, water, multi-modal, or other transportation modes.
 - Projects to expand, preserve, or better operate our transportation system.
 - Initiatives, such as joint projects, special studies, research, strategy development processes, regional forums, educational initiatives, or other efforts to improve transportation that are not necessarily capital projects.

Project or Initiative	Why is this needed?	Estimated cost*	Lead agencies

^{*} Usually projects included in the plan are \$2 million or more for street, highway, rail, or bridge projects, and \$500,000 or more for bikeway, transit, or other types. Cost of initiatives can vary.

- **3. Projects and initiatives, long term:** What major transportation-related projects would you like to see for your jurisdiction or the region within the next 15-30 years? You may include:
 - Any transportation mode, multiple modes, or projects/initiatives that better integrate transportation and land use.
 - Transformative projects or initiatives that significantly change our region or our region's transportation.

Project or Initiative	Why is this needed?	Estimated cost*	Probable lead agencies

^{*} Usually projects included in the plan are \$2 million or more for street, highway, rail, or bridge projects, and \$500,000 or more for bikeway, transit, or other types. Cost of initiatives can vary.

Policies: What regional polices are important to you for guiding future action in our region? (Example: preserve rail corridors for public use.)

Policy	Why is this needed?

safety concern I (street/highway	4. Safety Poll: One plan goal is improved safety. To supplement our data, please list your top safety concern locations (example, high-crash areas). Include any transportation mode (street/highway corridor or intersection, rail corridor or crossing, pedestrian or bicycle "danger" site, etc.). Location of safety concern What is the problem? Suggested solutions									
Location of safety co	ncern W	hat is the problem?	Su	ggested solutions						
,		·								
5. Other comments you have?	s: What other t	ransportation-related o	concerns or	general comments do						
Comment										
Contact person(s):	T									
Name	Title	Agency	Phone	E-mail address						
Return by Friday, Jui	ne 14, 2014 to:	TMACOG Attn: Jodi Raybu 300 Martin Lutho Toledo, OH 4360 FAX: 419-241-91 E-mail rayburg@ (Send message to	er King Jr. Dr 04 116 tmacog.org	•						
evans	Reamer-Evans @tmacog.org 41.9155 ext. 117									

On the MOVE 2015-2045 Transportation Plan



¿Qué piensas del TRANSPORTE? ¿Hay problemas hoy en día? ¿Tienes ideas para el futuro?

Haz la encuesta en tu biblioteca pública o por www.tmacog.org/onthemove.htm

¡Ven a la reunión!

Martes, 29 de abril

Tuesday, April 29

6:30-8 p.m.

Puertas abren 6 p.m

Doors open 6 p.m.

South Branch Library / Biblioteca 1736 Broadway St., Toledo Todos están bienvenidos! Habrá comida ligera.

¿Preguntas? ¿Necesitas direcciones o más información?

telefóno: 419.241.9155 ext. 117

Correo: OnTheMove@tmacog.org

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



¿Qué piensas del TRANSPORTE?

¿Hay problemas hoy en día? ¿Tienes ideas para el futuro?

Come to a meeting!

Martes, 29 de abril / Tues., April 29

Doors open 6 p.m. for displays & refreshments Meeting 6:30 p.m.

South Branch Library

1736 Broadway Street Toledo

All welcome!

Meeting sponsors: Northwest Ohio Hispanic Chamber of Commerce, Adelante, Nuestre Gente Community Projects, Inc.

Do a survey at www.tmacog.org/onthemove.htm

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

Questions? Comments?

phone: 419.241.9155 e-mail: OnTheMove@tmacog.org

website: www.tmacog.org



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SAO, Latins United Get Look at Transportation Future

By Kevin Milliken, La Prensa Correspondent

What will Toledo look like years from now with all the orange barrels and highway construction going on? What else will go from dream to drawing board to reality in the next three decades?





Spanish-American Organization (SAO) and Latins United members attended a presentation from the Toledo Metropolitan Area Council of Governments (TMACOG) Thursday evening, March 12, 2015 at the Latins United meeting hall.

Diane Reamer-Evans, TMACOG transportation project manager, explained the agency gives local governments a voice in how federal transportation dollars are spent. She emphasized that such projects are not just highways or busy surface roads, but bike trails, railroads, and other alternative modes of transportation. She even pointed out some of those federal dollars have gone to buying buses.

Ms. Reamer-Evans cited two recent projects, the repaving of Collingwood Blvd. "from the ground up" and the reconstruction of the High-Level Bridge, which is closed for two years to replace the spans and other work.

"Our job is, that every four years, we get together with everybody in the community and say, 'OK, what are the big-ticket items we really ought to focus on for the next several years so that we can spend that money wisely," she said.

Ms. Reamer-Evans drew from the agency's "On the Move 2015-2045" plan in her remarks, a 30-year plan that lays out the transportation improvement priorities for the region. The plan was completed earlier this month and projects Northwest Ohio will receive an estimated \$3.3 billion to repair, maintain, and improve roads and bridges.

There is a list of 150 "priority projects" that have yet to receive funding that local and state government officials would like to see completed over the next several years. There would be \$1.75 billion set aside to work on those projects.

"What we do know about our personal mobility goal is that many people do rely on public transit to get to places they need to go, especially work," said Ms. Reamer-Evans. "But we lack a fully regional system where all parts of our region—Lucas OH, Wood OH, and Monroe MI counties—are truly connected by transit. Overall, you can't get anywhere in the region easily."

The plan proposes turning TARTA into a Lucas County-wide transit system with a connection to Bowling Green through a bus rapid transit system, similar to how a light-rail system would work between cities.

"They would be going fast and frequently with special stops where you can easily get on." explained Ms. Reamer-Evans.

Other improvements would be a one-call center where the public could dial one number for their varied transportation needs, such as Call-a-Ride or paratransit services, as well as hiring a "mobility manager" to ensure all of those services work correctly.

3/19/2015 La Prensa Articles

Under the plan, more passenger trains would pass through Toledo's Amtrak station on a daily basis and add service north to Detroit and south to Columbus.

Ms. Reamer-Evans pointed out the region has 105 miles of bike paths separated from roads, but 27 miles that run alongside roads and 16 miles of bike lanes. She stated there are a lot of projects proposed to improve bike safety as more people see it as a viable means of transportation or recreation in the future.

"The plan is to try and create a whole network of interconnected bike paths and bike lanes so that there would be a lot more places that you could travel by bicycle," she said.

TMACOG has identified 75 bridges across the region that are considered in poor condition and need immediate attention. But each bridge project would range in cost from \$100,000 to more than \$3 million.

About three of every ten lane-miles of roadway across the three counties is in fair to poor shape, but Ms. Reamer-Evans stated it costs \$1.1 million per lane-mile to reconstruct the pavement. The long-term transportation plan proposes to set aside \$550 million just for road and bridge repair projects.

While serious injury and fatal crashes have declined overall in Ohio between 2011 and 2013, Northwest Ohio bucked that trend. There were 41 fatal crashes in 2011, but the ensuing two years each saw 59 fatal traffic accidents.

"We need to try to reverse that trend," said Ms. Reamer-Evans.

The TMACOG transportation plan calls for traffic safety engineering studies at some of the worst intersections. Turn lanes and signal improvements would be proposed when necessary. But roundabouts are becoming a more popular option in Northwest Ohio.

"The modern roundabout where you have to slow down and merge into it-- that, statistically, has reduced fatalities and serious crashes," said Ms. Reamer-Evans. "That's because you have to slow down and you can't T-bone somebody."

There are at least three roundabouts already constructed by the Lucas County Engineer in Sylvania and Springfield townships, while the Perrysburg area could see three additional roundabouts built over the next few years.

While the transportation plan also seeks to address traffic congestion in the region, Ms. Reamer-Evans pointed out that drivers are most responsible for those traffic backups, because the vast majority of work-related motorists are one-person-in-one-car travelers. Car pooling only makes up a small percentage of the commuters in Northwest Ohio.

On the Ohio Turnpike, more that one-third of the vehicles (36 percent) are trucks, while one of every four vehicles on I-75 daily is a big rig. Northwest Ohio increasingly is seeing distribution centers built along its major highways. Home Depot will add a 300-employee distribution center later this summer in Wood County.

So the transportation plan calls for improving the efficiency of freight routes. Motorists will see orange barrels for at least the next two years on I-75, as work continues to improve the I-75/I-475 interchange and a new phase begins to improve the interchanges and rebuild the interstate north of the interchange.

Work also continues between Perrysburg and points south to add more lanes to I-75. The ultimate goal is to turn the interstate into a six-lane highway between Findlay and Toledo.

Ms. Reamer-Evans stated the 30-year transportation plan also calls for practices to improve the environment, particular to remove pollution from stormwater runoff.

"The water drains naturally, the pollutants get removed naturally, which is better for our water quality," she said.

TMACOG is in the public comment phase of its transportation plan, so Ms. Reamer-Evans encouraged the group to fill out cards or give input via its website, tmacog.org.

She emphasized that any action on the plan is up to local elected officials, particularly ODOT, Lucas County Commissioners, Toledo City Council, and township trustees.

3/19/2015 La Prensa Articles

TMACOG's transportation plan serves as a planning document to list priorities. Funding and action on it are up to other parties. She encouraged the group "to be the voice of the plan."

"To say, it is important to me to have countywide transit, it is important to me that the Westside corridor bike path get built-- because usually the ones that make the phone calls are the ones who get angry and don't want something to happen," said Ms. Reamer-Evans. "Then that's what the officials hear."

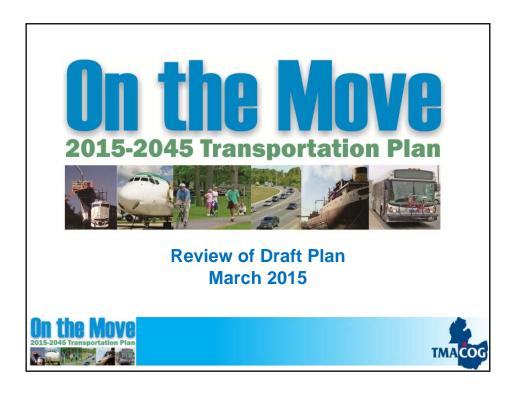
Ms. Reamer-Evans also put in a plug for the upcoming *National Train Day Toledo*, a celebration of all things railroad-related. The annual event will run 9 a.m. to 4 p.m. on Saturday, May 2, at the Toledo Amtrak station, 415 Emerald Ave. The celebration features model trains, historic locomotives, train trip drawings, and prize giveaways.

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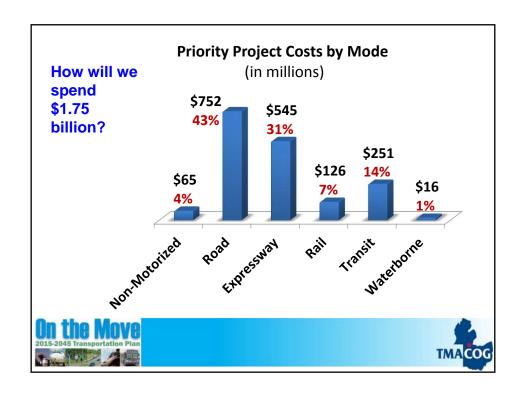


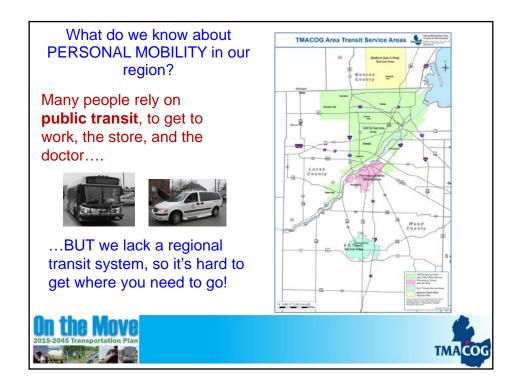


2045 Plan Expend	itures			
Steps	Numeric Result			
1. Estimated resources	\$3.3 BILLION			
2. & 3. System Preservation	\$550 Million			
5. Committed projects	\$1 BILLION			
7. Initiatives \$7 Million				
9. Priority Projects	\$1.75 BILLION			









How will the 2045 Plan improve PERSONAL MOBILITY?

Make public transit improvements:



- Lucas County-wide transit system
- Connect from Toledo to Bowling Green
- Bus rapid transit
- One-call center
- Mobility managers to help coordinate

Add passenger rail service -- more trains connecting to more cities







What do we know about PERSONAL MOBILITY?

Walking and biking are transportation -- being used every day.

Bikeway Statistics

Path 105 miles Sidepath 27 miles Bike Lane 16 miles Share the Road/Sharrow 72 miles Committed Bikeway 26 miles



We have bikeways and sidewalks... but need more complete systems

Juris. Name	Toledo	Maumee	Oregon	Ottawa Hills	Spring- field Twp	Sylv- ania	Sylv. Twp	Water- ville	Bowl. Green	Perrys- burg	Ross- ford
Percent Side- walks	65%	53%	30%	27%	37%	64%	39%	56%	54%	80%	40%

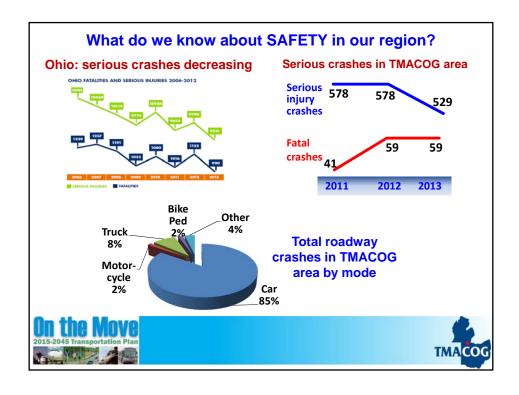




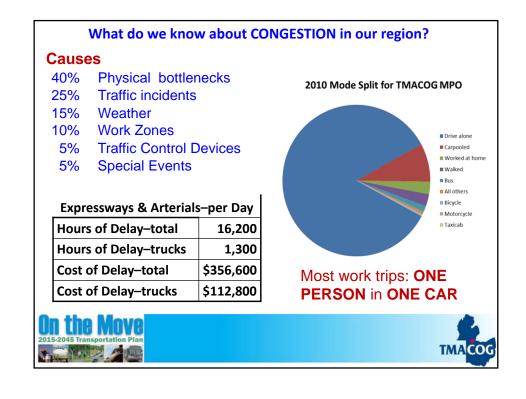




How will 2045 Plan improve INFRASTRUCTURE CONDITION? Calls for System Preservation funding; • \$250 million to rebuild roads and bridges in bad shape right now • \$300 million for future reconstruction Includes 100+ Priority Projects that fix or upgrade bridges and roads Calls on our region to: • Enforce sidewalk laws • Maintain bike paths and lanes • Use management systems







How will the 2045 Plan reduce CONGESTION?

Promotes alternative modes of travel to reduce vehicle miles driven





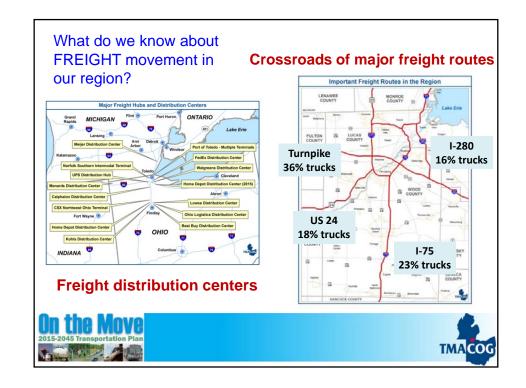
Projects that add capacity and reduce physical bottlenecks



Reduces delay with projects that improve efficiency and free-flow movement







What will the Plan do to improve FREIGHT movement? Improve traffic flow on major freight routes: • Widen I-75 and I-475 to six lanes • Improve pavement condition Improve the efficiency of connections from freight facilities to major freight routes: • Better Interstate access

- Improve connecting roads
- Access to future freight facilities
- Railroad overpasses & bridges











Stormwater runoff pollutes our streams. *Opportunity for green practices*

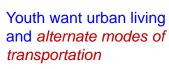




Public transit, bikeways, and sidewalks: *incomplete systems*



Population **not growing**; but we are sprawling: *losing farms & natural areas*.









How will the 2045 Plan improve our ENVIRONMENT?

Green infrastructure to reduce pollution from stormwater





Will improve traffic flow to **protect air quality**

Better public transit, pedestrian & bicycle transportation

Urges us to **grow smarter:** build in existing towns, mixed use, greater density



Invests in existing communities:

\$550 million for System Preservation







Your comments and questions?

Please fill out your questionnaire!

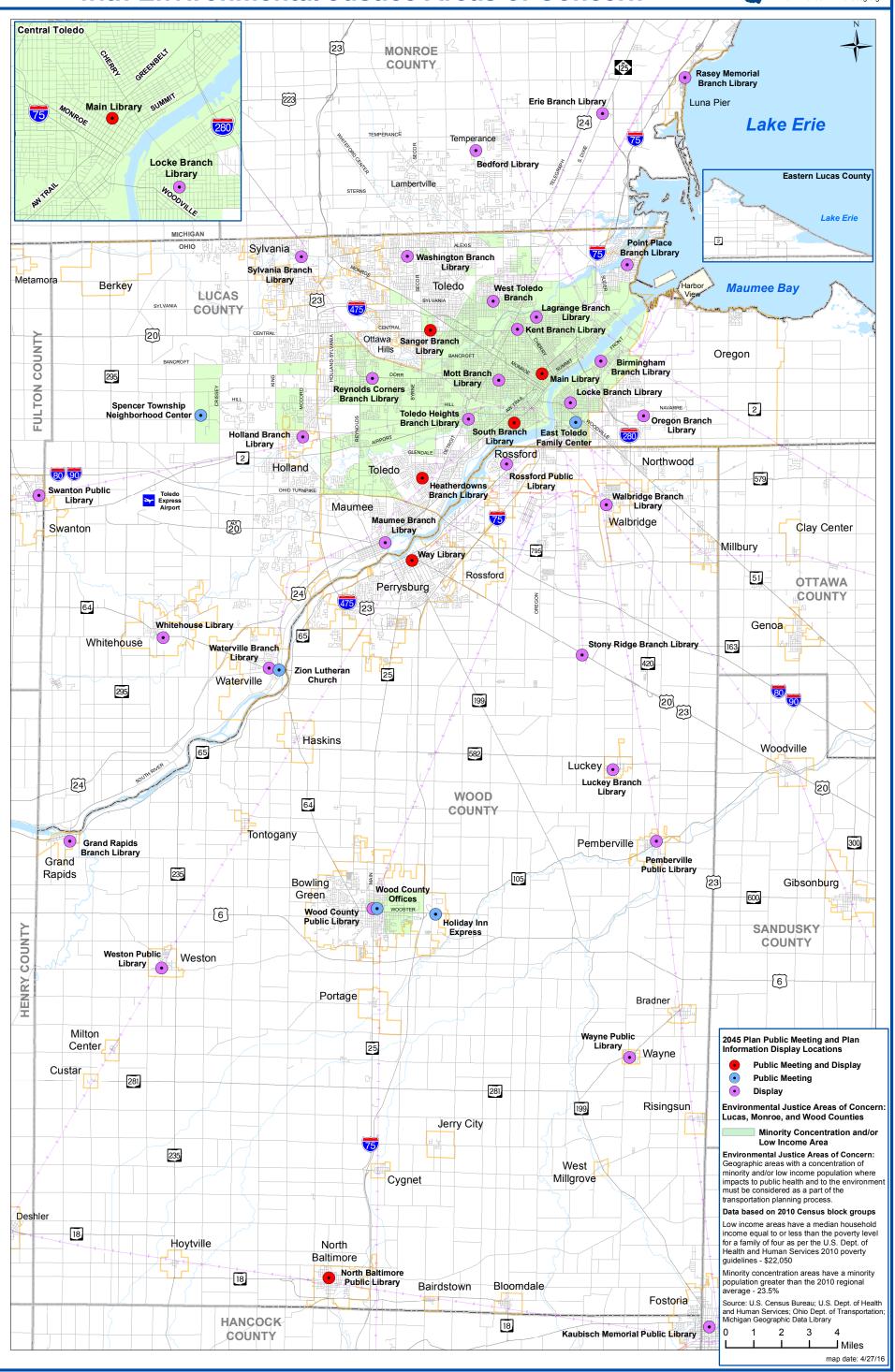
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2045 Plan - Public Meetings and Display Locations with Environmental Justice Areas of Concern





Appendix D: Public Input Documentation





"On the Move: 2015-2045 Transportation Plan"
Wood County Survey Assessment
Bowling Green State University
Master of Public Administration Program
conducted by
Alina Raulinaitis, Guang Yang, Sarah Tekle, Paul McKenzie
and Tess Newlove

April 15, 2014

On the MOVE 2015-2045 Transportation Plan



Introduction

The Toledo Metropolitan Area Council of Governments (TMACOG) is the agency responsible for transportation planning, utilizing the community to create broad-based ideas. Currently working on a transportation plan for 2015-2045, entitled "On the Move," TMACOG is responsible for allocating federal funding spanning over Lucas, Wood and southern Monroe counties. TMACOG determines resource allocation on the basis of the following transportation goals:

- 1. Improve safety measures; reduce fatalities and injuries
- 2. Improve the condition of existing infrastructure
- 3. Reduce congestion on National Highway System
- 4. Increase reliability and improve overall transportation efficiency
- 5. Increase access to trade markets to improve economic development by supporting freight movement
- 6. Increase environmental sustainability
- 7. Expedite project delivery
- 8. Improve multiple modes of personal mobility, including bicycle paths/lanes, sidewalks, public transit, and passenger rail

TMACOG developed a partnership with students in the Master of Public Administration Program at Bowling Green State University to conduct an assessment of transportation needs in Wood County as part of their POLS 6900: Public Administration Capstone course. Five students developed, administered and collected data to further evaluate the transportation needs unique to this region.

The survey group further elicited answers regarding the question: "What are the public's concerns?" as one step in in assessing the transportation needs of citizens in Wood County. The goal was to collect data concerning community-identified problems in an effort to help TMACOG prioritize and strategize goals for their long-term plan. The information collected furthers TMACOG's mission in targeting transportation efforts to the genuine opinions and experiences of community members.

Methodology

Constructing the Survey

As part of survey research, the student representatives for TMACOG transportation plan survey contacted point-person Diane Reamer-Evans to request previous survey data. This data was reviewed by all group members and were subsequently asked to draft three to four survey questions for the capstone version of the transportation needs survey. These questions were compiled and revised. Members of the survey group met to discuss survey questions in person; discussion resulted in the compilation of survey questions founded in the TMACOG goals for their current transportation plan.

Survey Distribution

Online Survey

In the past TMACOG utilized Survey Monkey to distribute surveys online. However, the group decided to use Qualtrics as the database for online survey completion. Qualtrics is research software that allows for data collection and analysis used for research and has features for evaluation accessible to BGSU students. While the public was able to easily access the survey,

this particular software allowed for the group to increase the quality and accuracy of the information obtained from completed survey questions.

Print Survey

The print survey debuted at the TMACOG Transportation Needs Public Forum that took place at the Holiday Inn Express on Monday, February 24. Further, during normal workplace hours, survey distribution occurred at the Bowling Green Community Center, Grounds for Thought, and the Department of Political Science hallway in Williams Hall on the Bowling Green State University Campus. In sum, the surveys were available to the public from February 24 – March 27, 2014. A total of 223 surveys were collected.

Survey Promotion

Flyers promoting distribution were put up at community locations (Appendix A), including a take-with-you strip with the survey link and contact information if they would like to print the survey. A QR code was also provided for persons with Smartphone technology for added convenience. Links and information regarding the survey also appeared in the Campus Update email to BGSU personnel. A general inbox was created for survey questions, comments, etc., but the group did not receive any messages.

Analytical Approach

The majority of responses to survey questions were aggregated and analyzed using Qualtrics analysis tools. For the open-ended questions, the group developed an inductive coding scheme (Appendix) to classify each open-ended response. Of the 223 surveys collected, 84 had open-ended responses. The group chose a sample of the open-ended surveys to generate the codes for content. These coding standards were used as a template to code all open-ended questions of all 223 surveys. The group entered the codes into Qualtrics in order to generate the number of each category to determine respondent's opinions about transportation weaknesses in Wood County.

Limitations of the Survey

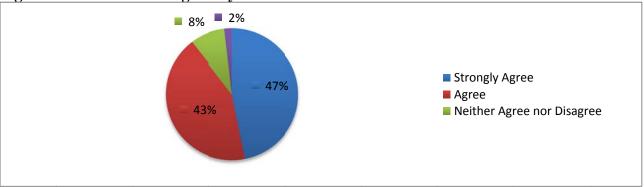
The overwhelming majority of respondents are college students, which may skew the results towards a focus on student transportation needs. Second, the survey's income question may be skewed as we did not include a category for an income level of \$0-\$15,000. Furthermore, despite respondents expressing economic development in infrastructure as a vital component to transportation in Wood County, the survey does not explore exactly what types of transportation improvements to consider.

Analysis of Results

Safety of Existing Transportation System

The results presented in Figure 1 illustrate that the majority of respondents who reside in or travel to Wood County via automobile feel city streets are safe. Forty-seven percent of respondents strongly agree city streets are safe. Forty-three percent of respondents simply agree city streets are safe. Ten percent of respondents neither agreed nor disagreed city streets were safe.

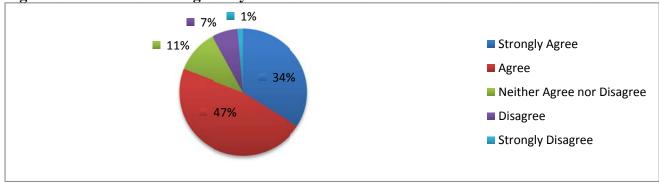
Figure 1: Perceived Driving Safety



n=220

Figure 2 illustrates that the majority of respondents also indicated that they feel safe while walking in their neighborhoods. Forty-seven percent feel safe while walking, and 34 percent feel very confident that they are safe while walking. Eleven percent of people neither agreed nor disagreed that streets were safe. Seven percent disagreed, and 1 percent strongly disagreed that streets were safe.

Figure 2: Perceived Walking Safety



n=215

A minority of survey respondents (8 total) expressed transportation concerns related to limited sidewalks and crosswalks, and issued complains concerning unsafe roads due to j-walkers, which may indicate the need for increased safety measures of existing structures.

Survey responses also indicate that Wood County residents are concerned with road maintenance, especially during the winter season. Not surprisingly, due to recent weather patterns, road maintenance is indicated as a safety concern.

Accessibility of Existing System

The lack of public transportation was identified as a significant transportation need in Wood County. As shown in Figure 3, 76 percent of respondents indicated they can "Easily," "Very Easily," or "Somewhat Easily" travel between Bowling Green and Toledo. Responses to whether or not individuals would use a bus service between Bowling Green and Toledo are more evenly distributed. Twelve percent of respondents indicated they could travel between Bowling Green and Toledo with "Some Difficulty," and 6 percent indicated they could travel between with "Great Difficulty." Six percent of respondents did not travel between Bowling Green and Toledo.

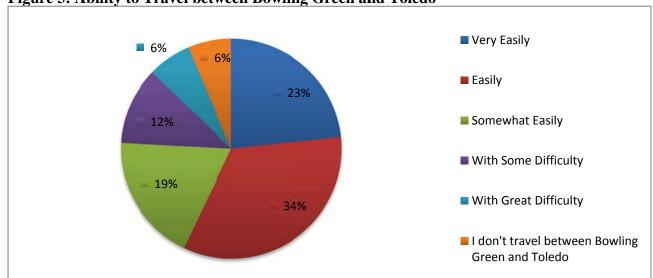


Figure 3: Ability to Travel between Bowling Green and Toledo

n=219

Existing Modal-Use

As demonstrated in Table 1, fifty-three percent of respondents stated they walk every day. A similar percentages of respondents indicated that they utilize an automobile for transportation every day. Sixty-nine percent of respondents also reported carpooling at least once a month. These figures confirm Wood County is very reliant on both personal cars and walking as primary forms of transportation.

Thirty-eight percent of respondents indicated that they use public transit once a month or more while another 57 percent indicate that they never use public transit. This information certainly tells us that there is a need for public transportation as it relates to buses (between Bowling Green and Toledo). Not only will this contribute to the reduction of congestion on the national highway system with fewer private cars on the road, but will also improve access to multiple modes of personal mobility – both of which are TMACOG's goals.

The results presented in Table 1 indicate that Wood County is automobile-dominant. Most survey respondents use automobiles as their primary mode of transportation. As a town compromised with many university students, the City of Bowling Green is also comprised of a high population of people who choose to use walking as their primary transportation mode.

Table 1: Transportation Mode Frequency of Use

How often do you use the following types of transportation?	Every Day	3 or 4 Times a Week	1or 2 Times a Week	1 or 2 Times a Month	Never	Total Responses
Car (Private)	115	37	29	18	19	218
Carpool	5	14	62	68	65	214
Bicycle	8	19	21	36	129	213
Rollerblade/Skateboard	1	1	0	11	199	212
Taxi (Private)	0	0	4	20	189	213
Public Transit	5	13	20	53	123	214
Walk	116	34	38	17	12	217

Infrastructure Improvements Needed

The results illustrated in Figure 4 suggest that over 68 percent of respondents stated Wood County's existing infrastructure needs improvements to increase economic development. Furthermore, 40 percent of respondents said the improvements need to be "major." This indicates economic development-related transportation improvements are a concern for citizens and priority in Wood County.

27%

Good As-Is

Minor

Major

None

I have no opinion

Figure 4: Perceived Infrastructure Improvements Needed to Improve Economic Growth

n=219

Further research needs to be conducted to study community needs in development-oriented infrastructure improvements, as respondents did not identify the specific types of economic development-related improvements that they would like to see implemented in Wood County.

The survey results indicate improving road maintenance is of high concern among respondents and a key investment in the contributing to economic growth to enhance access to trade markets and support freight movement. Open-ended survey responses also indicated levels of concern for

transportation aspects that contribute to overall economic growth, including easy access to airports, passenger rail, and the environment (air pollution).

Overall Assessment of Transportation Needs in Wood County

Table 2 presents the top transportation concerns identified by respondents. Survey respondents were asked to identify the level of concern in relation to a list of 14 categories. Survey respondents are most concerned about the cost of transportation (68 percent) and the availability of public transportation (63 percent). Respondents were also concerned about improving road maintenance (60 percent). Bicycle lanes on streets where also a concern (59 percent) as well as the lack of parking spaces (59 percent). Survey respondents are least concerned the adequacy of road signs (24 percent) and about transportation to regional airports by shuttle or other means (26 percent).

Table 2: Percentage of Concern toward Transportation Modes

Ü	Very Concerned	Concerned	Total % Concerned
Cost of Transportation (gas / service)	24%	43%	68%
Air pollution	14%	43%	57%
Traffic noise	6%	22%	28%
Availability of public transportation	31%	32%	63%
Availability of bicycle paths (off street)	26%	30%	57%
Bicycle lanes (on street)	28%	31%	59%
Inadequate road signs	6%	17%	24%
Parking spaces	22%	37%	59%
Improving road maintenance	15%	45%	60%
Traffic congestion	9%	29%	38%
Access to airports (Toledo Express)	10%	17%	26%
Access to information on freeway conditions	9%	28%	37%
Access to transportation for those with disabilities, low income earners and			
seniors	22%	32%	54%
Access to passenger rail	15%	25%	40%

Table 3: Ranking of Top Transportation Concerns

	Top 10 Transportation Concerns (when Ranked as "Highest" Priority)
1	Availability of Public Transportation
2	Cost of Transportation
3	Lack of Parking Spaces
4	Improving Road Maintenance
5	Availability of Bike Lanes (on street)
6	Availability of Bike Paths (off street)
7	Traffic Congestion
8	Air Pollution
9	Accessibility (ADA, Senior Citizens, Low Income Earners)
10	Access to passenger rail

Respondents were then asked to rank their top 4 concerns (Table 3). Here, the availability of public transporation was ranked as the highest priority concern by survey respondents. Additionally, respondents ranked the cost of transportation and the lack of parking spaces as priortity concerns. When combined, the availability of on street and off street bike paths were a najor concern of respondents.

Respondents were asked to identify the major transportation weaknesses through an open-ended survey question. The research team collapsed the responses into four categories (Coding Scheme in Appendix A).

• Accessibility

Responses in this category concerned the need for more public transportation (especially buses), more bike lanes, and need for walking paths for pedestrians.

• Cost of Transportation

Responses in this category concerned the need for reduced transportation costs both in terms of monetary costs but also environmental costs.

• Infrastructure Maintenance

Responses in this category focused on the need to fix roads, fill pot holes, clear ice and snow off road (particularly during the winter months).

• Congestion/Parking

Responses in this category centered on traffic congestion and parking problems both on and off campus (not enough parking spaces).

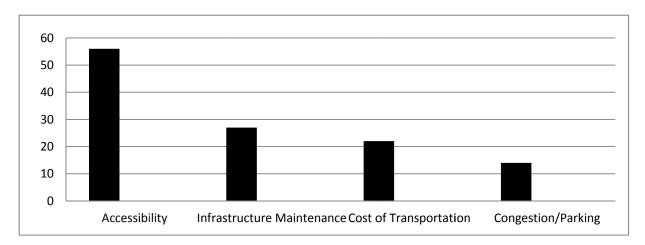


Figure 5: Perceived Weaknesses to Transportation System

Figure 5 illustrates that accessibility to additional modes of transportation through bike lanes or public transportation was identified as the major weakness of the current transportation system in Wood County (25 percent). Additionally, 12 percent of respondents indicated that the lack of maintenance on existing infrastructure is a weakness of the current transportation system.

Demographic Information

Information on the employment status of respondents is illustrated in Figure 6. Of the total 223 participants, 118 participants (52.9 percent) identified themselves as a student. Seventy-three participants (32.7 percent) identified themselves as full-time employees. Sixteen participants (7.2 percent) identified as part-time employees. Additionally, only 8 respondents identified themselves as retired while another 2 indicated that they are unemployed.

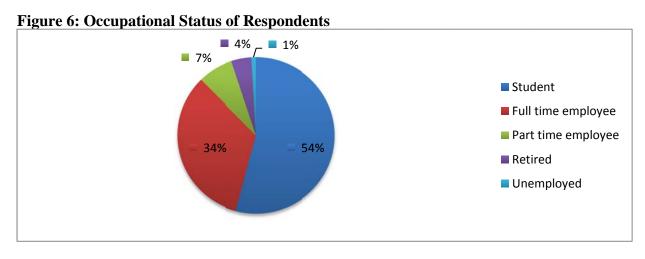
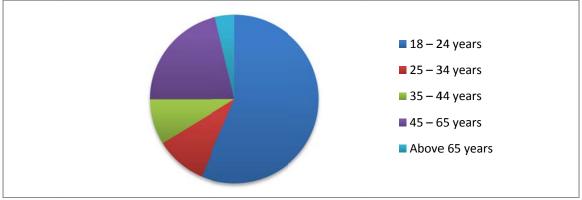


Figure 7 illustrates the age distribution of the survey respondents. Fifty-six percent of respondents were 18- 24 years old. The 45-64 age bracket represented 21 percent of respondents while ten percent were in the 25-34 age bracket. The age groups of 35-44 years old represented 9 percent, while the 65 plus population represented 4 percent of the survey data.

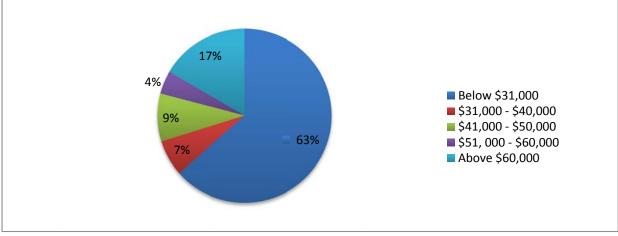




n=219

The data presented in Figure 8 shows that the majority of respondents (63 percent) have a yearly income of \$15,000-\$30,000. Seven percent of respondents reported a \$31,000-\$40,000 dollar income. Nine percent reported \$41,000-\$50,000. Four percent reported \$51,000-\$60,000. Thirty-five respondents (17 percent) reported receiving above a \$60,000 dollar yearly income.

Figure 8: Annual Income Level of Survey Respondents



n=219

Recommendations

Make major improvements to infrastructure.

Sixty-eight percent of survey respondents indicated that improvements needed to be made to infrastructure in order to support economic development in the next 5-10 years. Sixty percent of that same group of respondents indicated that those investments had to be "major." Furthermore, "Improving road maintenance" was ranked fourth highest concern among BG residents.

Invest in bicycling infrastructure.

The current number of frequent bicyclists in Bowling Green is low, with only about 39 percent of respondents stating that they bicycle once a month or more. This indicates that with the current state of bicycle infrastructure in BG, bicycling is not a feasible mode of transportation for most people. However, it is evident from the data in this report that a critical concern of BG residents is the lack of bicycle paths and bicycle lanes. This indicates that while bicycling is not currently a feasible option, more residents would bicycle if improvements were made. Since

many residents chose Bicycle paths as one of their top concerns, it can be assumed that the people of BG find increased bicycle infrastructure a transportation need in the community.

Increase availability and accessibility of public transit.

While many respondents indicated that they drive their own cars every day (53 percent) and can easily travel between Bowling Green and Toledo (76 percent), accessibility and availability of public transportation is still a key issue of concern for Bowling Green residents. Availability of public transportation was ranked the highest priority concern for survey respondents, and "access to transportation for those with disabilities, low income earners and seniors" was in the top ten concerns for residents. This indicates that while many residents are not in need of public transportation, they would use it if was more available. Also, most people know individuals that are disabled, senior citizens, or low-income earners. A sense of community responsibility for these individuals may also be behind the high concern for accessibility and availability of public transportation.

Conclusion

The results of the survey can be utilized in order to determine the strategy for the "On the Move: 2015-2045 Transportation Plan" to best meet the transportation needs of those specifically in Wood County. As part of TMACOG's transportation goals, the survey results will allow TMACOG to further enhance transportation in Wood County especially as they relate to improved safety measures and condition of existing infrastructure.

Appendix Table 1: Open Ended Question Coding Structure

App	behalf Table 1: Open Ended Question Coding Structure
"A"	Need for More Accessibility
A1	need more public transportation between cities (especially buses)
A2	need more trains/coach between cities
A3	need more bike lanes/bike paths, promote biking
A4	need more interchanges
A5	need more walking paths for pedestrians (for students, for disabled, for elderly)
A6	need more crossings over bridges/roads
"B"	Need for Sustainable Transportation
B 1	public transportation is costly/ there is no free public transportation
B2	too many private vehicles/ cause lots of pollution/ should promote electronic
	cars
"C"	' Need for Increased Maintenance
C1	fix road/ pot holes
C2	clear ice and snow off the road
C3	bridge maintenance
"D"	'Other
D1	traffic problems/ traffic jam
D2	parking problems (both in BGSU and other towns), no enough space for
	parking
D3	truck traffic
D4	need more U turns
"E"	means there is no response.
"F"	means fail to recognize the writing or incomplete answers.



You are invited to participate in a survey being conducted by Bowling Green State University (BGSU) in collaboration with The Toledo Metropolitan Area Council of Governments (TMACOG). The purpose of the survey is to better understand the transportation needs of those in the Wood County community in accordance with "On the Move: 2015-2045" plan. All of your answers will be kept confidential. Your participation in the survey is completely voluntary; however, your opinions are highly valued. By returning a completed questionnaire, you may be entered into a drawing for a chance to win a \$25.00 gift card to Amazon.com.

How would you respond to the following statements as it relates to movement and travel (via car/bus/walking or other) in Wood County?

1) Please indicate how you would rate your ability to get around Bowling Green.

		Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree
a)	It is easy to walk around Bowling Green.					
b)	My neighborhood is a good place for walking.					
c)	I feel safe while driving in Bowling Green.					
d)	Bowling Green roads are well maintained in the summer.					
e)	Bowling Green roads are well maintained in the winter.					

and the		A CONTRACTOR OF	* of weapons and	***	-		-	•
2)	I am able	to travel	between	Bowling	Green	and	Tole	do

77
Very easily
Easily
Somewhat easily
With some difficulty
With great difficulty
I don't travel between Bowling Green and Toledo

1

Distribution Locations

Distribution Locations Distribution Locations					
Flyer	Survey				
On-Campus Academic/Public Buildings	Bowling Green Community Center				
Bowling Green Community Center	Grounds for Thought				
Wood County District Public Library	Wood County District Public Library				
Grounds for Thought	Williams Hall - BGSU				
Panera Bread					
Woodland Mall					

Goal Themes Summarized from 2045 Public Meeting Input

The following summarizes 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. (For detailed meeting notes, see www.tmacog.org/onthemove.)

Infrastructure Condition Goal Themes

- Maintain what we have
- Need more funding for maintenance
- Bridge maintenance is a concern
- Rough roads and potholes are a major issue after this past winter
- Need to improve storm drainage on roadways
- Infrastructure condition also includes sidewalks and bike paths
- Need more research on better roadway materials
- RR crossings and signals need to be maintained in addition to roads
- Infrastructure maintenance is related to safety

Safety Goal Themes

- Safety at railroad crossings
- Locations noted as safety concerns
 - o US 23/I-475 interchange weave
 - o Miami St/I-75 interchange
 - US 20 east of I-75
 - Eckel Junction & 199 intersection
 - o SR 25/Levis Commons
 - o Angola & Crissey
 - o Dorr & Secor, Dorr & Byrne
 - o Anthony Wayne Trail & S. Detroit (traffic turning west onto AWT and merging)
 - o Salisbury interchange (not enough room/time to merge)
- Pedestrian and bicycle safety issues
 - Unsafe drainage grates catching tires
 - Unsafe crossings at RR tracks
 - o Driver/cyclist education
 - o Need more paths for bike safety
- More roundabouts to improve safety
- Wrong way drivers on roadways
- Walking and biking is not safe in many areas
- Need more driver/cyclist/pedestrian education
- Signage blocked by trees and other vegetation
- Safety issues/snow removal at bus stops

System Reliability Goal Themes

• Trains block roadways

- Make sure peoples' expectations are understood and met
- Want to be able to rely on people to fix system
- Improvements in access management have worked

Congestion Reduction Goal Themes

- Congested Locations
 - o Navarre from I-280 to Miami St
 - o Business park at SR 18 & 17
 - o River Rd in Perrysburg
 - SR25 & Eckel Junction
 - o Eckel Junction & 199 intersection
 - o SR25 @ Levis Commons
 - Eckel Junction to Churchill's
 - South to Maumee Bridge
 - o Exit @ W. River Rd and I-475
 - o RT20 (I-475 to Meijer)
 - o RT25 around cemetery
 - o Roundabout at Angola & Crissey
- Rail-related congestion issues
 - o Slow/stopped trains causing excessive delays and congestion
 - o Emergency vehicles getting blocked by stopped trains
 - o Rail-related congestion in N. Baltimore
 - o Backups at Manhattan/Summit/Suder
- Truck traffic has increased
- AM/PM congestion but usually OK
- Some detours are too long
- Single lane ramps cause congestion
- Congestion around schools after they let out.

Environmental Sustainability Goal Themes

- Urban centers emptying out businesses and people moving to suburbs
- Business and residential growth expected in N. Baltimore due to CSX facility
- Promote small neighborhoods, mixed uses, local businesses
- Connectivity lifts communities
- More destinations should be within walking distance
- Developers build what customers want
- Need to make urban areas more attractive to younger people
- Reduce the need to drive by creating high density development
- Farmland should be preserved
- Higher density development is better
- Offer people choices to reduce dependence on cars

Personal Mobility Goal Themes

- Public transit is very important, but it is limited
 - o Need to expand service area (all of Lucas County; Wood County transit circulator)
 - Need better connectivity between transit systems and communities
 - Need to expand hours of service
 - o Interest in streetcars and light rail
- Would like improved passenger air travel options (more local flights; transportation to airports)
- More and faster Amtrak service is needed; connections to more cities
- Need better transportation for students buses and more sidewalks
- Need more Maumee River bridges
- Need more bike paths and bike lanes; make streets more bike-friendly
- Transportation for elderly and disabled is needed
- Need better sidewalk snow removal
- More/better taxi service is needed
- Road improvements are needed: turning lanes, upgrade rural state routes, better cross-town route in Toledo, interstate improvements
- Concerns about roundabouts
- Need railroad grade separations in southern Wood County (trains block crossings)
- Need more personal transportation options

Freight Transportation Goal Themes

- We have all freight assets here (port, rail, highway, etc.) use to attract business
- Concern about highway truck traffic volumes, wear and tear on roads, and plans to increase truck weight limits
- Shift freight transport to rail; don't shut down rail corridors
- Trains blocking crossings; noise from trains in towns
- Use Toledo airport for air freight

Disposition of Significant Public Comment

Numerous comments were received during the public review of the draft 2045 Plan. The following were deemed of highest significance and were considered for possible modification of the draft plan. The issues raised and the TMACOG responses are summarized below

Project Number: Priority Project 23

Project Name: Construct Chessie Circle Trail Bridge over the Maumee River

Comment/Concern: One homeowner in Wood County objected due to a concern that the bridge would attract nuisance activities, such as drinking.

Action Taken: The comments were referred to the Chessie Circle Trail Coordinating Committee and the project was retained in the plan.

Project Number: Initiative 115

Project Name: Transit Economic Study

Comment/Concern: Several comments noted that regional support was needed for a study on the economic benefits of public transit and the potential impacts of changing from a property tax base to a Lucas County-wide sales tax to fund transit.

Action Taken: This was added as a new initiative, with the Ability Center, the University of Toledo, and others as potential sponsors.

Project Number: C-4 and C-44

Project Name: S.R. 64 Bridge Replacement over the Maumee River and S.R. 295 Bridge

Rehab Over Maumee River

Comment/Concern: Ohio Department of Natural Resources Northwest Scenic River Coordinator noted that the Scenic River Program has regulatory authority over publicly funded projects within 1,000 feet of the Maumee State Scenic and Recreational River, excluding municipal boundaries. Further review of the projects may be necessary.

Action Taken: The comments were referred to the TMACOG Planning Committee and the projects were retained in the plan.

Project Number: C-4 and C-44

Project Name: S.R. 64 Bridge Replacement over the Maumee River and S.R. 295 Bridge Rehab Over Maumee River

Comment/Concern: Metroparks of the Toledo Area noted that these projects should include a separated walkway for pedestrians and bicycles.

Action Taken: The comments were referred to the TMACOG Planning Committee and the projects were retained in the plan.

Project Number: Priority Project 56

Project Name: Widen and managed access U.S. 20A from I-475 to Toledo Express Airport

Comment/Concern: Metroparks of the Toledo Area noted this project should be designed in such a way that it accommodates an intersection for a north-south bicycle trail from the Wabash Cannonball North Fork to Secor Metropark somewhere between Weckerly Road and Crissey Road

Action Taken: The comments were referred to the TMACOG Planning Committee and the project was retained in the plan.

Project Number: C-3

Proiect Name: Widen I-475 from U.S. 24 to U.S. 20

Comments/Concern: Metroparks of the Toledo Area noted that this project needs a detailed review of any potential impacts to the Fallen Timbers Battlefield National Historic Site located at the intersection of I-475 and U.S. 24 (the Anthony Wayne Trail).

Action Taken: The comments were referred to the TMACOG Planning Committee and the project was retained in the plan.

Project Number: Priority Project 27

Project Name: Regional Central Traffic Control System

Comment/Concern: The Regional Central Traffic Control System should be a higher priority as it would help utilize existing infrastructure more effectively.

Action Taken: The comment was referred to the TMACOG Planning Committee and the project was retained in the plan.

Project Number: C-8, C-55, Priority Project 11 and Priority Project 106

Project Name: Rebuild Anthony Wayne Trail/S.R. 25 Bridge over NS Railroad, Maumee Avenue Bridge Replacement over NS Railroad, Build a New NHS Connector (truck route) between the NS rail terminal (Airline Yard) and I-75 and Expand the NS Toledo Intermodal Terminal (Airline Yard) to handle more truck/train transfers and build new terminal access road from Westwood Avenue

Comment/Concern: Projects C-8, C-55 and Priority Project 11 should be coordinated with Priority Project 106, expansion of the NS Toledo Intermodal Terminal, as economic development incentives to insure that the expansion takes place and is utilized to its fullest potential. C-8 and C-55, widening bridges over the NS railroad, would allow a third track to be added between the Toledo train station and the NS Intermodal Terminal. Building Priority Project 11, the NHS intermodal connection, would improve the flow of trucks in and out of the facility.

Action Taken: The comments were referred to the TMACOG Planning Committee and the projects were retained in the plan.

Comment/Concern: Multiple committed and priority projects were identified by the U.S. Fish and Wildlife Service, Ohio Ecological Services Office, as possibly impacting the habitat of endangered or threatened species. Further review of the projects may be necessary.

Action Taken: The comments were referred to the TMACOG Planning Committee and the projects were retained in the plan.

Comment/Concern: The 2045 Plan should eliminate all at-grade rail crossings along the NS Chicago Line in Lucas County, not just those in the plan. Rail grade separations are an important safety issue, help improve traffic flow, allow trains to travel at higher speeds and are essential for implementing high speed passenger rail service. Thus the plan should also include separations at Holland-Sylvania Road as well as any other road that currently crosses this line at grade in Lucas County.

Action Taken: The comments were referred to the TMACOG Planning Committee.

Comment/Concern: More progress is needed on improving conditions for cyclists. Every repaving should include a wide berm dedicated for cyclists, walkers and runners and more enforcement of laws prohibiting drivers from passing on the right on these berms. Bicycles should be allowed on the Greenbelt Parkway. Ohio should follow Florida's example and require bicycle accommodation on every project.

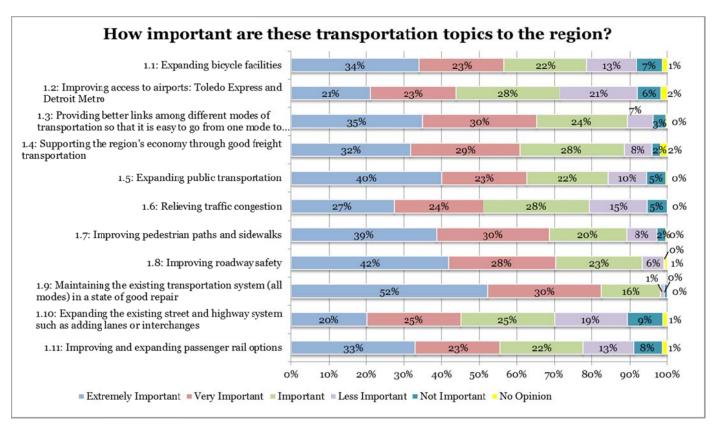
Action Taken: The comments were referred to the TMACOG Planning Committee.

Comment/Concern: More funding should be directed towards system preservation and alternate modes of transportation, with less funding for increasing capacity.

Action Taken: The comments were referred to the TMACOG Planning Committee.

Other comments received were determined to require no specific action. All comments were considered as the task force finalized the plan, and as appropriate were referred to a government jurisdiction or TMACOG committee for further consideration.

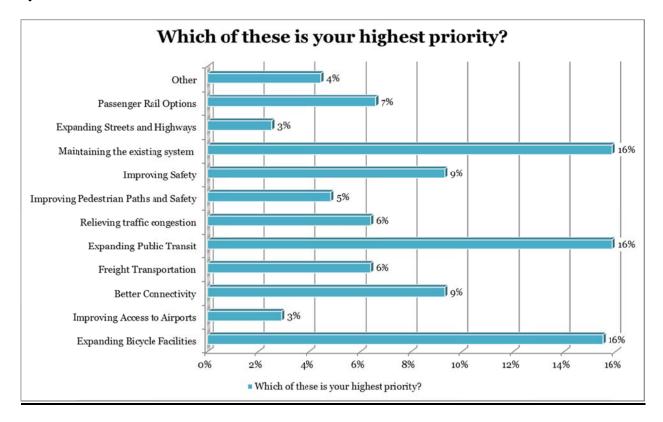
The total number of all surveys received was 749. Questions 1-3 were not used for first online survey version (64 responses), so that survey was not included in the "answered and skipped" tally and the total possible respondents was 685. Question 2 was not used for second online survey version: (124 responses), so for question 2, the "answered and skipped" tally was adjusted to only include a possible 561 surveys.



Question 1 Continued:

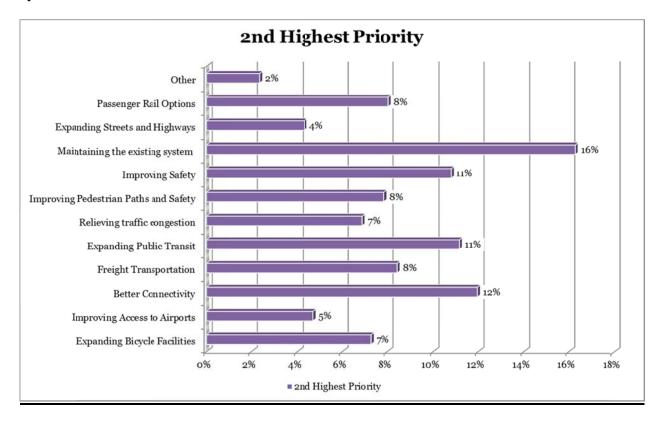
Question	Answered	Skipped
1.1	678	7
1.2	673	12
1.3	677	8
1.4	675	10
1.5	674	11
1.6	676	9
1.7	669	16
1.8	669	16
1.9	673	12
1.10	675	10
1.11	671	14

Question 2.1:

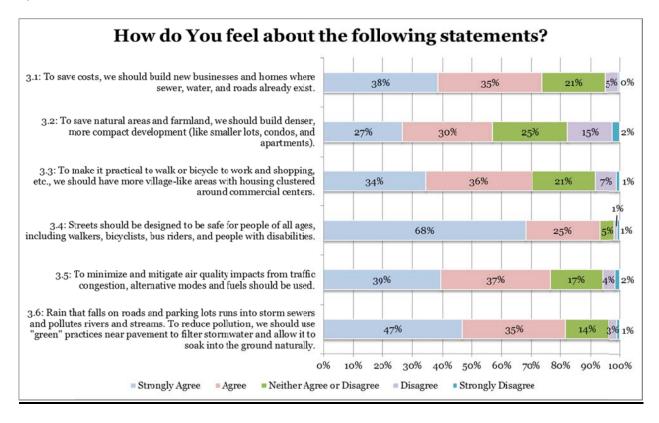


Answered: 516, Skipped: 45

Question 2.2:

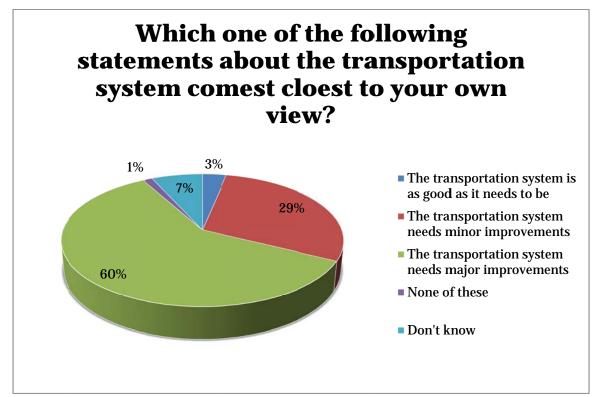


Answered: 510, Skipped:51

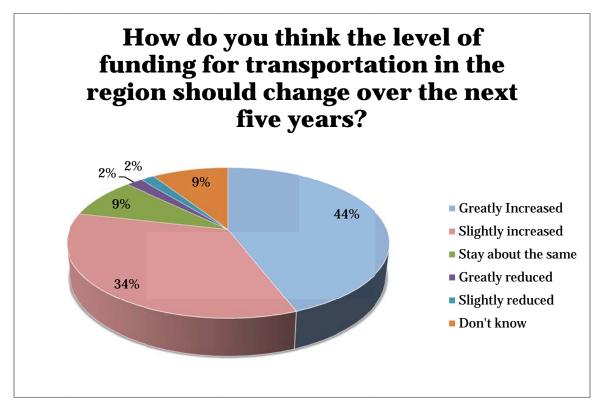


Question 3 continued

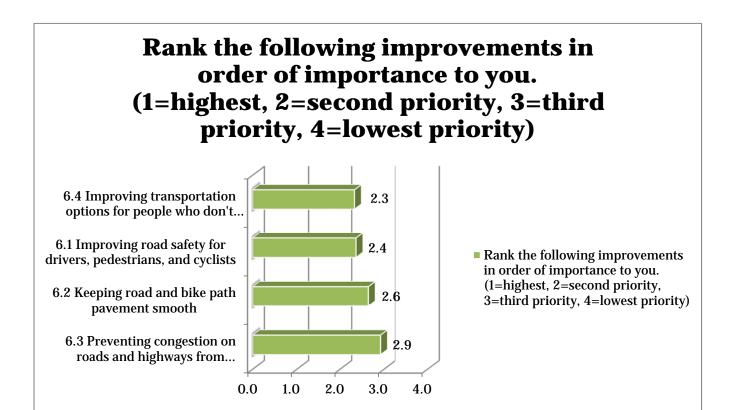
Question	Answered	Skipped
3.1	655	30
3.2	644	41
3.3	651	34
3.4	654	31
3.5	651	34
3.6	654	31



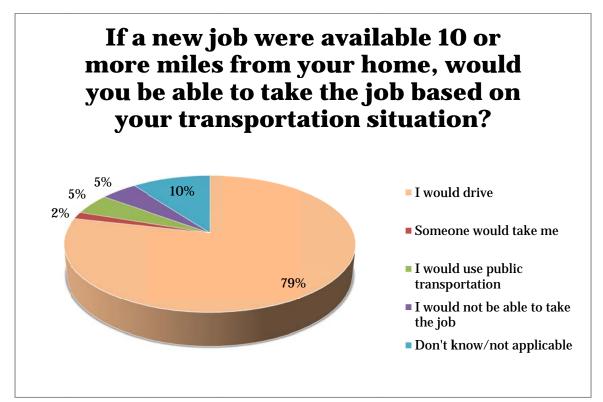
Answered: 711, Skipped: 38



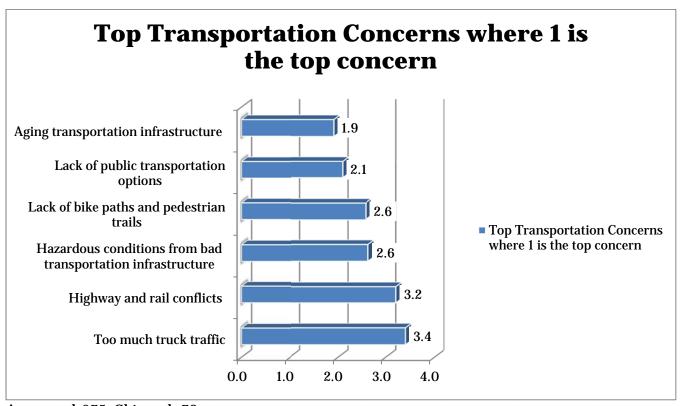
Answered: 714, Skipped: 35



		Rank the following improvements
		in order of importance to you.
		(1=highest, 2=second priority,
Improvements	Answered/Skipped	3=third priority,4=lowest priority)
	Answered: 693	
Improving Road Safety	Skipped: 56	AVERAGE RANK 2.4
	Answered: 655	
Keeping Pavement Smooth	Skipped: 94	AVERAGE RANK 2.6
Improving Transportation	Answered: 688	
Options	Skipped: 61	AVERAGE RANK 2.3
	Answered: 681	
Preventing Congestion	Skipped: 68	AVERAGE RANK 2.9



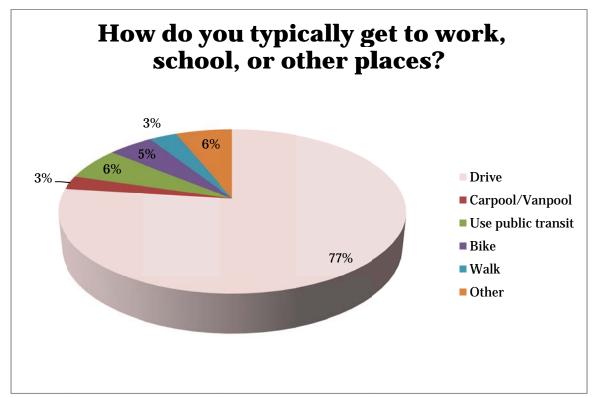
Answered: 678, Skipped: 71



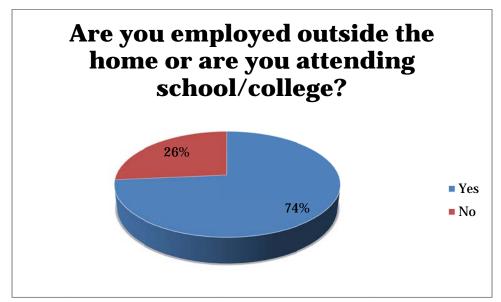
Answered: 675, Skipped: 72

Top Transportation Concerns

- 1. Aging transportation infrastructure
- 2. Lack of public transportation options
- 3. Lack of bike paths and pedestrian trails
- 4. Hazardous conditions from bad transportation infrastructure
- 5. Highway and rail conflicts
- 6. Too much truck traffic

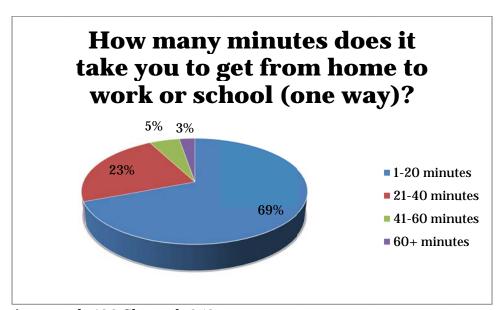


Answered: 669, Skipped: 80



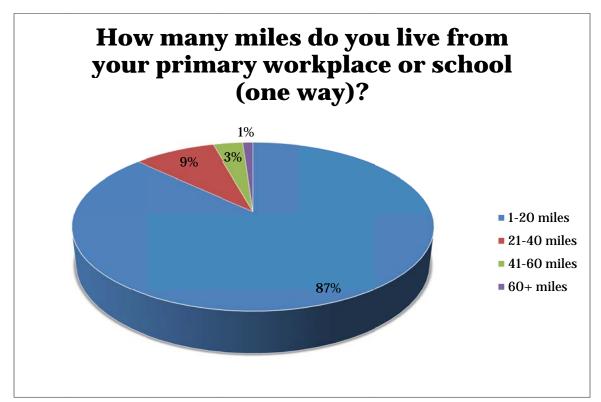
Answered: 688, Skipped: 61

Question 10.1

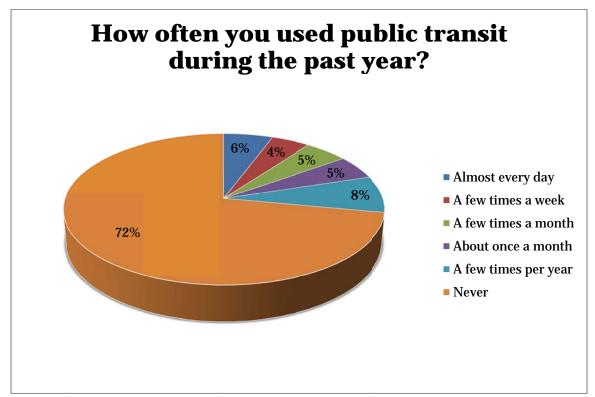


Answered: 490 Skipped: 259

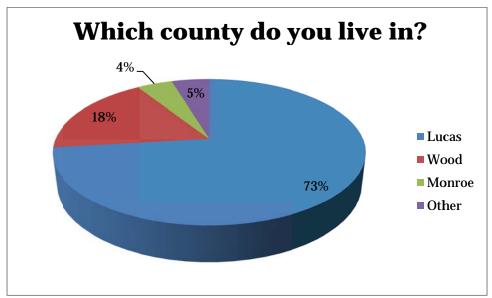
Question 10.2



Answered: 470 Skipped: 279

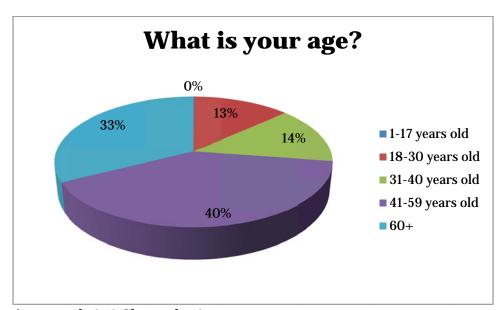


Answered: 675 Skipped 74

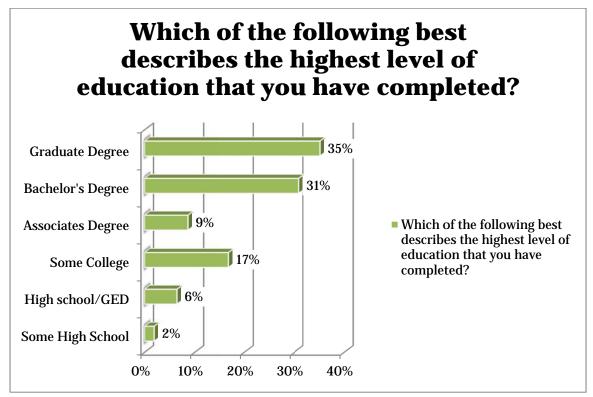


Answsered:688 Skipped:61

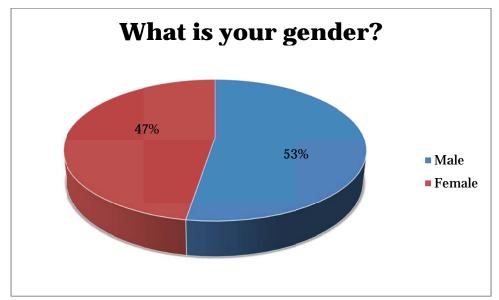
Question 13



Answered: 676 Skipped: 73

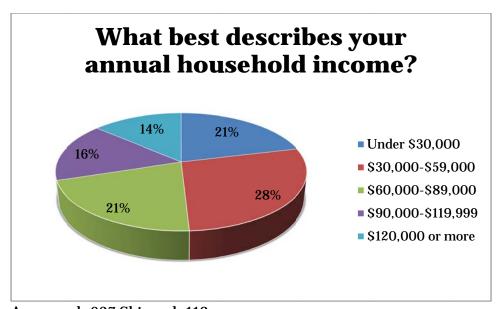


Answered: 682 Skipped: 67



Answered: 681 Skipped: 68

Question 16:



Answered: 637 Skipped: 112

2045 Plan Public Comment _Q 10 summary

Do you support the "On the Move" draft plan? (For more Plan details, see Question 12.) Please check one:

Ansv	ver Options	Response Percent
I sup	port the Plan – just as it is.	43.9%
chan		54.4%
I do r	not support the Plan. Here's why:	1.8%
No.	Comment Summary	Comments:
1	Need paved berms for cyclists and peds	I see some progress on improving conditions for cyclists, but it still is quite a ways away from what I've seen in other parts of the country. #1 on my wish list is that every repaving includes a wide berm dedicated for cyclists, walkers and runners and more enforcement of laws prohibiting drivers from passing on the right on these berms.
	Allow bikes on Greenbelt Parkway! Provide paved shoulders/bike lanes on roads, not sidepaths.	Why are bicycles prohibited on the Greenbelt Parkway? This is NOT a freeway and has wide paved shoulders, and is not heavily traveled. In Florida, bicycles are allowed on roads like that everywhere. Of course, Florida is 100 years ahead of Ohio in that they REQUIRE bicycle accommodation (5 foot wide paved shoulders/bike lanes) on every project, and not just give lip service! EXPERIENCED CYCLISTS DO NOT WANT TO RIDE ON A GLORIFIED SIDEWALK (often referred to as a "trail" or "sidepath") and having to dodge pedestrians constantly and stop at every side road! Also, these "trails" make motorists believe that cyclists should be riding on the sidewalk all the time.
	More transit and complete streets that are transit and ped/bike friendly.	Increase transit and incorporate bike lanes/sidewalks in part of roads/highways to make it more diverse in modal use not strictly for private vehicles (i.e. bus stops, bus pull off lane, bike lanes, sidewalks, pedestrian-friendly amenities). You have some roads around the region that are atrocious (i.e. Airport Highway, Central Avenue, Fremont Pike Road, etc.) and are anti-smart growth/anti-non private vehicle development.
	Great plan but need to develop broad regional buy-in.	I think that overall it is a great plan. However, I am concerned about getting "buy in" from those who would benefit most from the plan. Many of us will not be around for another 30 years, so I think communications with the public is of utmost importance. The meetings that are being conducted in the region and the documentation is excellent, but with just 20-30 people in attendance, we are just touching the general population and the major users of transportation in this area.
5	Wants discounted intercity bus and rail.	I would like to see a bus system/rail to surrounding towns like Detroit, Chicago, etc. at a discount rate.
6	Opposes commuter rail for our region.	Commuter rail a waste of money for toledo. Who in their right mind would park lets say Downtown Perrysburg to commute to Toledo. Heres why once you get off in Tol, you have to walk in the ghetto or wait for a bus (1) to take you to catch another bus(2) some places would require a 3rd bus. After work or shopping you then repeat the process. So yes you save 20 min car ride but then your out in weather waiting for buses in areas that aren't safe. Riding with questionable people or trying to carry and secure things. Vs getting in your car driving door to door in safety going where and when exactly at the times you need.
7	More transit projects needed!	75% of funding is going to highways and bridges, how is that supporting environmental sustainability? You did a survey last spring and expanding public transportation was the number 1 priority for 40% of respondents. But I only see two projects. Why?

No. Comment Summary	Comments:
8 1) Eliminate at-grade rail crossin	
chicago line in Lucas Co, for shigh speed rail. 2) Supports NS intermodal yard (Proj 106) and eelated projects to	important safety issue and help improve traffic flow, they also allow trains to travel at higher speeds and give the railroad more flexibility in operations. They are also essential for implementing high speed passenger rail service. Thus, the plan should also include separations for Holland-Sylvania Rd as well as any other road that currently crosses this line at grade in both eastern and western Lucas Co. Also, these projects should be prioritized so that they extend current grade separated zones. Doing so would allow trains to run at higher speeds and track improvements to be made in these areas. For example, an underpass should be built at Holland-Sylvania first as it is the last at-grade crossing between
economic development.	
3) Add 3rd NS track in Toledo 4) Supports Jeep area grade seg	Several committed and priority projects (C-8, C-55, #11) in the plan should be coordinated with #106, the expansion of the NS Toledo Intermodal Terminal, as economic development incentives to insure that the expansion takes place and it is utilized to its fullest potential. C-8 and C-55, widening bridges over the NS railroad in south Toledo, would allow a third track to be added between the Toledo train station and the NS intermodal terminal. Building the NHS intermodal connection (#11) would improve the flow of trucks in and out of the facility. Similarly, the Matzinger Road rail grade separation (#16) should be included as an economic incentive for the expansion of the Jeep Wrangler plant as that
(Proj 16)	would be the best hope of getting the state of Ohio to commit to the project.
5) Amtrak station upgrades & mu access (#83) and new railroad riv (#35): make higher priority 6) Miami St. rail overpass needs tracks to coord. with proposed by	Multimodal access at the train station would encourage even more people to use it, increasing the likelihood of more Amtrak trains and making additional passenger service more viable. Also, upgrading the station to allow for boarding on multiple platforms would reduce delays by giving Amtrak and NS more flexibility in how passenger trains approach the station. The Maumee River passenger/freight bridge should be a higher priority (#35 in the draft plan) given the age of the current bridge and the number of trains that currently cross it each day. However, this needs to be coordinated with the rebuilding of the Miami St overpass of the NS tracks in east Toledo, a project scheduled to begin this year. The current
7) BRT (#46): top transit priority Monroe St.I; coord. with other Mo	
projects)	Implementing Fixed guideway public transit (#46) should be the #1 public transit priority in the plan. Given the political considerations, expanding public transit throughout the county (#12), while highly desirable, is not practical for the foreseeable future. To focus on the most cost effective solution, this should be Bus Rapid Transit, not light rail. Ideally, this line would connect downtown Toledo to Sylvania via Monroe St, which would obviously include the Franklin Park Mall area. This route, which links residential areas to commercial
	entertainment and cultural areas would have the best opportunity for success. This route could easily be expanded to include Old Orchard, Westgate and UT. Projects related to Monroe St (#8, C-68, C-71) should be grouped into this project to make the rapid bus line an essential component of the corridor.
8) Regional Central Traffic Contr (#27) should be a higher priority	
9) Add projects: a. Connection, I-475 to the OH	reserve plan: Grade separation of the NS and CSX railroads at Vickers Crossing in east Toledo, which was once an important local infrastructure project, should be reconsidered. Although grade separation projects in Northwood have lessened the impact of stopped trains on road traffic, this intersection of two busy rail lines threatens the success of Toledo as a rail hub. As more trains - including time sensitive passenger and intermodal trains - travel east-west on the NS line, delays caused by slow CSX freight trains that are often barely
b. Vickers rail-rail grade separat	
c. Reconnect NS line between 0 and Riga, MI (7 mi. gap)	Ottawa Lake Although Lenawee County is not currently a TMACOG member, the draft plan should support the reconnection of the NS rail line between Ottawa Lake, MI and Riga, MI as the
d. Reconnect Napoleon, Defiand Western Railroad toToledo.	project would improve the area's logistics capabilities. It has been reported that some Toledo area freight users must route their shipments an additional 500 miles via Elkhart, Indiana to accommodate this broken connection. As this track would connect directly to the NS Intermodal Terminal in Toledo as well as the port of Toledo, rebuilding the missing seven miles of track could increase intermodal and port traffic. Similarly, TMACOG should establish a plan for someday reconnecting the Napoleon, Defiance and Western Railroad to Toledo. The new owner of this line has been making substantial improvements to its condition and working to build its customer base. Connecting the line to Toledo would be a rai complement to the new US 24 highway. Since the missing right-of-way is now the southern branch of the popular Wabash Cannonball trail, a new right-of-way would need to be established east from Liberty Center. Connecting to the Toledo, Lake Erie and Western Railroad that runs from Grand Rapids, OH to the Norfolk Southern Lines in Waterville would be the most cost effective solution.
9 Bikeways: sooner and to destina	bike tracks sooner and that go somewhere - like grade schools, retail, etc.
10 More on-road bikeways	more on roads
11 More on-road bikeways	less emphasis on bike trails and more on roads
12 Roads and bridges first	Fix roads and bridges first

No.	Comment Summary	Comments:
13	Fix worst streets first	more emphasis of fixing the worst streets first
14	Require use of safety/capacity upgrades	would like to see the plan specifically tie funding of projects to proven safety/capacity upgrades like DDI's, SPUI's, and roundabouts
15	More \$\$ for preservation & alternate modes	more funds for system preservation and alternate modes of transportation less funds for increasing capacity
	More bridge, bikeway, and run-off improvements	stress bridge and bikeway improvements, work on environmental run offs
17	Public transit to suburban jobs	public transit for inner city towards subareas, where jobs are found must be a priority
18	More \$\$ for preservation	move for infrastructure replacement/revewal
19	More bike lanes	more bike lanes
20	Pulic transit to S. Wood County	Improve public transportation south to southern Wood County
21	Need measurable targets	express the plan goals in terms of measurable, quantifiable results, e.g., reduce accidents/increase transit ridership by _%
		evidence of having read what shows up in every reputable study of bike safety done in the u.s. and surrounding in the last 40 years: separated and segregated infrastructure decrease safety.
23	More funds for freight transport	like to see top 25 broken down by \$ and % split for rail/freight - heavy trucks say over 15%
	Complete streets; don't put sidewalks right at road edge (ex. Dorr St.)	more emphasis on complete streets for better road building codes. we have new streets like door at UT with side walk directly at edge of road!
25	More improvement	more improvement
26	More public transit incl. Lucas County- wide	more emphasis on public transit and less on roads. more detail on Lucas County wide transit
27	Roundabout driver education	include education for driving through roundabouts
28	More mobilty in townships	more mobility for township residents
29	More transit / creative solutions	more investment in public transit, creative ways to address public transit efficiency
30	Prioritize projects / types	prioritization of projects/types of projects
31	Build roads to last!	Road projects need to be designed and built to last. Alternate bidding (concrete vs. asphalt) needs to be a requirement to better utilize taxpayer dollars.

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			TMACOG Draft 2015-2045 Transcription Draft Plan Projects with potential impacts on key environmental resource.				onthemove for re	esource ma	ps)					
Key Resource	Importance Level	Proj No.*	Project Description				Environment	tal areas ad	joining pr	oject			TMACOG Comments	Environmental Agency Comments
				100 Year Flood	Si	istoric ites & stricts	Oak Openings Region	Prime Farmland	Riparian Streams	Wetlands	Brown-fields - Lucas Co.**	EJ ***		
Oak Openings Region	High	C-3	Widen I-475 to 6 lanes from US 24 (Anthony Wayne Trail) to US 20 (Central Ave).	х		х	х	Х	Х	Х		х		
		C-7	I-475 Bridge: widen and redeck the main line I-475 bridges over Hill Ave. and Dorr St.	х			Х			Х		х		
			Resurface I-475 from Monclova Rd to Central Ave	х		х	х	х	х	х		х	Resurface existing expressway	
			I-475 - Resurface from Central Ave. to Douglas Rd.	х		х	х		х	х		х	Resurface existing expressway	
			US 20 - Resurface from Fulton County Line to King Rd	х		х	х	х					Resurface existing expressway	
		C-36	Resurface SR-2 in Lucas County from near the Turnpike to near Holloway Rd.	х		х	х	х	х	х			Resurface existing expressway	
		C-41	Improvements to Sylvania Ave. from Centennial to McCord Rd.	Х	-	X	X		Х	Х				
		22	Widen I-475 (US 23 to Talmadge Rd.) Widen US 20/Central Ave. (Centennial to west of Crissey Rd.) to 5 lanes	X	+	Х	X	X	Х	Х				
		22 34	Greenhouse Trail: Construct a bike facility from University/ Parks Trail at Reynolds Rd. to Elmer	Х	+		Х	Х		1			estimated 23% bike lane,	
		34	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	х		x x	х	x		x	х	x	estimated 23% blke lane, 33% sidepath, 26% path, 17% TBD	
		36	Add interchange on I-475 at Dorr St. (SR 246); address potential capacity issues between McCord and Holland-Sylvania.	х			х							
		37	McCord Rd. corridor improvements from Angola Rd. to Bancroft St access management, and intersection improvements (Hill Ave., Dorr St., and Bancroft St.)	х			х			х		х	Limited area of impact	
		50	Build US 20A roundabouts at Whitehouse-Spencer Rd. and at SR 295 intersection (with a connector to S. Airfield Rd.)	x			х						For previous 2035 Plan, environmental agencies expressed concerns about a related project to both widen and relocate parts of US 20A.	
		56	Widen and managed access, US 20A (I-475 to Toledo Express Airport)	x		х	х	х	х	х			For previous 2035 Plan, environmental agencies expressed concerns about a related project to both widen and relocate parts of US 20A.	
		67	Sylvania Ave. capacity and safety improvements (McCord Rd. to I-475), additional lanes and/or roundabout				х						Determine specifics with a safety study	
		68	Albon Rd./NS RR grade separation, includes paved shoulders for bikes on the approaches and new sidewalks for pedestrians				х							
		80	Construct a railroad grade separation in Lucas County (at SR 295 or Eber Rd)			Х	Х							
		89	Build Bancroft St./Crissey Road roundabout, includes sidewalks and accommodation for bikes				х							
		90	Build Frankfort Rd./Crissey Rd. roundabout, includes sidewalks and accommodation for bikes				х							
		97	Build two Crissey Rd./Dorr St. roundabouts, includes sidewalk and accommodation for bikes				х							
			Build Crissey Rd./Angola Rd. (E) roundabout, includes sidewalk and accommodation for bikes				х							
			Build Centennial Rd./Hill Ave. roundabout; includes sidewalk and accommodation for bikes Build Nebraska Ave./Centennial Rd. roundabout, includes sidewalks and accommodation for				х							
			bikes				Х							
Lake Erie/ Maumee Bay, and wildlife areas &	High	136 C-52	Improvements to Angola Rd near King Rd, including widening to 3 lanes and a roundabout SR 2 Resurface from N. Curtice Rd to Ottawa Co Line	х		х	Х	х	х	х		х	Resurface existing road	
preserves		44	Complete the Oregon bike network	х		х		х	х	х		x	Estimated 29% bike lane, 58% signed route, 9% path, 5% sidepath.	
		82	North Curtice Rd. roundabouts at Seaman, Corduroy, and Cedar Point roads	Х		х		Х						

Key Resource	Importance Level	Proj No.*	Project Description				Environmen	tal areas ac	ljoining pro	ject			TMACOG Comments	Environmental Agency Comments
				100 Year	Historic Sites & Districts	Parks &	Oak Openings Region		Riparian Streams	Wetlands	Brown-fields - Lucas Co.**	EJ ***		
Maumee River and iributaries	High	C-1	Widen/rehab I-75 DiSalle Bridge over Maumee River; reconstruct pavement; improve South Ave and Miami St. ramps		Districts				x	x	х	х	Construction of this and other projects adjoining Maumee River requires use of best management practices (BMPs).	,
		C-4	Replace Waterville bridge (SR-64) over the Maumee River with a wider bridge; improve intersection of SR-64/River Rd	х	х	х		х	х	х				
		C-5 C-19	High Level Bridge (SR 2/51/65) over Maumee River in Toledo: paint the structural steel Resurface I-280 in Lucas County from Navarre Ave (SR-2) to I-75	х	X X	X			X X	х	X X	x	Resurface existing expressway	
		C-27 C-32	Reconstruct Front St from I-280 to Millard Ave. Repair/replace various (5) bridges in Wood County	X	Х			X	X	x	х	Х	One of the bridges is over a Maumee River tributary	1
		C-40	Remove former CSX RR Bridge over Maumee River near the Turnpike Bridge and build bike/hik trail from River Rd. to Glanzman Rd.		x	х		^	x	X			near Grand Rapids Project 23 will replace the bridge	
		C-44	Rehab SR-295 (formerly SR-578) bridge over Maumee River in Grand Rapids	х	x	Х		х	х	Х			bridge	
			Resurface US-6 in Wood County from Henry County Line to SR-235 Convert former US 24 through Waterville to local street, widen to 3 lanes, add bike/ped path	x	×	X		X	x	X			Resurface existing road	
		23	Construct Chessie Circle Trail Bridge over the Maumee River	x	^	x		^	x	x			Existing railroad bridge is to be removed (Proj.C-40); a new ped/bike bridge will replace it.)
			Add Maumee River passenger and freight rail bridge (2 tracks) with cantilevered ped/bike path, adjoining NS mainline bridge in central Toledo	х					х	х	х	х		
			Improve infrastructure at the Toledo Shipyard facility at the Port of Toledo (dry dock and gate improvements)						х	х		х		
			Replace bridge on Wintergreen Road over Beaver Creek , Various proposed bike facilities parallel to Maumee River	X X	х	х		X X	x x	X X	x	х	Should have minimal impact	
Ottawa River and tributarie	es High	C-6	Resurface I-75 by milling & filling 3.75" on new pavement & widened lanes	x					x	x		x	General note: Ottawa River is a high prioity for remediation: much effort is being directed towards dealing with pollution from former landfills, etc. BMPs needed for adjoining construction.	
		C-10	Improvements (access management, roundabouts, complete streets) to Bancroft St. from Secondo Parkside	х	х	х			х	х		х		
			I-475 - Resurface from Central Ave. to Douglas Rd.	х		х	х		х	х		х	Resurface existing expressway	
			I-475 - Resurface from Douglas Rd. to I-75/I-475 split in central Toledo	х	х	х			х	х		х	Resurface existing expressway	
			Resurface I-75 in Lucas Co. from about Central Ave bridge to Cecilia Improvements to Sylvania Ave. from Centennial to McCord Rd.	X	х	,,	,		х	х	х	х	Resurface existing expressway	
		7	Widen I-475 (US 23 to Talmadge Rd.)	X		X	X	Х	X X	X X				
		24		x		x	^	^	x	x	х	х	Estimated 4% bike lane, 43% sidepath, 53% path	
			Widen Harroun Rd (Kroger driveway to Flower Hospital)	Х		Х			х	Х				
Swan Creek and tributarie	s High		I-75 - Reconstruct pavement and rehab/widen/replace bridges from South Ave. to Dorr St.	х	х	х			х		х	х		
		C-3 C-11	Widen I-475 to 6 lanes from US 24 (Anthony Wayne Trail) to US 20 (Central Ave). Resurface I-475 from Monclova Rd to Central Ave	x		x	x x	x	x x	x x		x	Resurface existing expressway	
			Resurface SR-2 in Lucas County from near the Turnpike to near Holloway Rd.	Х		х	Х	Х	Х	Х			Resurface existing road	
		C-39	Resurface Fearing Blvd/Detroit Ave. from Arlington to I-75 interchange Build a new NHS Connector (truck route) between the NS rail terminal (Airline Yard) and I-75	Х	х	х			х			Х	Resurface exisitng road	

Key Resource	Importance Level	Proj No.*	Project Description				Environment	al areas ad	ljoining pr	oject				Environmental Agency Comments
				100 Year Flood	Historic Sites 8 District	Parks &		Prime Farmland	Riparian Streams	Wetlands	Brown-fields - Lucas Co.**	EJ ***		
		20	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	х		x		х	х	x		х	17% signed, 20% sidepath, 63% path. Trail dev't would need to protect (using BMPs) and benefit stream corridor (plantings, appropriate bank stabilization). Coordinate with TMACOG's Swan Creek Balanced Growth Committee.	
		33	Chessie Circle Trail Alternate Routes: provide bike facilities to bypass the active rail section (Dorr St. to Glanzman Rd.)	х		х			х	х	х	х	Estimated 8% signed, 92% sidepath	
		56	Widen and managed access, US 20A (I-475 to Toledo Express Airport)	х		х	х	х	xX	х			For previous 2035 Plan, environmental agencies expressed concerns about a related project to both widen and relocate parts of US 20A.	
			Improvements to Perrysburg-Holland Rd. from Ohio Turnpike to I-475, including the Heatherdowns/ Garden/ Manley intersection	х				х	х			х		
			Build Albon/Monclova Rds. roundabout, includes paved shoulders for bikes on the approaches and new sidewalks for peds within the roundabout.	х				х						
			Waterville-Monclova Rd. /Monclova Rd. intersection improvement, includes sidewalk and accommodation for bikes					х						
Martine and a formal and a second about	LPb	_	Replace Perrysburg-Holland Bridge #616 over Cairl Creek, south of Airport Hwy	Х				Х						
Metroparks/ major municipal parks	High	C-10	Improvements (access management, roundabouts, complete streets) to Bancroft St. from Secor to Parkside	х	х	х			х	х		х		
			I-475 - Resurface from Central Ave. to Douglas Rd.	x		х	х		х	х		х	Resurface existing expressway	
		C-25	US 20 - Resurface from Fulton County Line to King Rd	Х		Х	Х	Х					Resurface existing road	
		C-47	Convert former US 24 through Waterville to local street, widen to 3 lanes, add bike/ped path	х	х	х		х	х					
		2	Access management and ped improvements to Navarre Ave. (White St. to Lallendorf Rd.) to improve safety	х		×		х			х	x	Should have minimal impact on metropark	
			Widen I-475 (US 23 to Talmadge Rd.)	Х		Х	Х	Х	Х	Х				
			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	x		x		x	x	x		х	17% signed, 20% sidepath, 63% path. Trail dev't would need to protect (using BMPs) and benefit stream corridor (plantings, appropriate bank stabilization). Coordinate with TMACOG's Swan Creek Balanced Growth Committee.	
			Overland Trail: Construct a multi-use path from the Chessie Circle Trail at Ottawa Park through Jermain Park, to the Overland Industrial Park, to Manhattan Ave. bike lanes, then a sidepath from Expressway Dr. via various streets to existing facilities on Summit St.	х		х			х	х	х	х	4% bike lane, 43% sidepath, 53% path	
			Construct Chessie Circle Trail (rail-trail), from Laskey Rd. to WW Knight Preserve in Wood Co.	х		x		x	х	х	x	x	Excludes C-40, path from river to Glanzman; and 23 new Maumee River bridge	
			North Curtice Rd. roundabouts at Seaman, Corduroy, and Cedar Point roads	Х		Х		Х						
Maumee State Forest	High	None			ļ				ļ					
Middle Branch Portage River and tributaries	Medhigh		Repair/replace various (5) bridges in Wood County	Х	1			Х	Х	Х			One is on Middle Branch	
and indutatios		C-38	Repair/replace various bridges (8) in Wood County	X	1			X	X	.,			One is on Middle Branch	
		C-57 103	Resurface SR-281 from SR-235 to TR-118 in Wood County Find a solution to blocked CSX rail crossings in Village of North Baltimore - possible grade separation and/or pedestrian bridge; or advance warning signals for blocked crossings (if alternate route exists)	x	x	х		x	x	x			Resurface existing road	
		135	Replace Rudolph Rd./ Middle Branch Portage River bridge	х				х	Х					

Key Resource	Importance Level	Proj No.*	Project Description		Environmental areas adjoining project						TMACOG Comments	Environmental Agency Comments		
				Year	Historic Sites & Districts	Parks &	Oak Openings Region	Prime Farmland	Riparian Streams	Wetlands	Brown-fields - Lucas Co.**	EJ ***		
		148	Replace bridge on Potter Road over Middle Branch Portage River	Х				Х						
Fallen Timbers Battlefield	Medium	C-12	Redeck and widen the I-475 bridge over Monclova Rd. and NS RR			Х		Х						
			Improve EB and WB US 24 (Anthony Wayne Trail) at I-475 interchange where on-ramp and off- ramp traffic share the same merging lane.											
Manhattan Marsh	Medium	C-19	Resurface I-280 in Lucas County from Navarre Ave (SR-2) to I-75	Х	Х	Х			Х	Х	х	Х		

^{*} C = Committed project (funded, or partly funded and expected to progress)

** Lucas County brownfields: no brownfields have been identified for Monroe or Wood counties

*** Environmental Justice = low income or minority concentration area

ENVIRONMENTAL COMMENT SUMMARY

h	COMMENT SUMMARY	
2045 Transportation Plan	Toledo Metropolitan Area Council of Governments Environmental Consultation Responses	Responses as of 4-30-2015
	Environmental concultation recoponece	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Agency		Do comments suggest any
	Complete responses are on file at TMACOG	changes to projects?
US Army Corps	Per Brian Swartz: Regarding your request for comments concerning approximately 328 proposed	No; but should follow
of Engineers	projects, authorization from the U.S. Army Corps of Engineers (USACE) would only be required for	_
	those projects that would result in impacts to a water of the United States (WOUS). A WOUS	permits related to
	includes lakes, rivers, streams, some ditches and freshwater wetlands. Under Section 10 of the	wetlands and other
	Rivers and Harbors Act of 1899, and Section 404 of the Clean Water Act, the USACE has regulatory	waterways as required.
	authority over construction, excavation, or deposition of materials in, over, or under navigable waters	
	of the United States. Under Section 404 of the Clean Water Act (CWA), the USACE regulates the	
	discharge of dredged or fill material into WOUS, including freshwater wetlands. Certain types of	
	activities, such as land clearing using mechanized equipment and/or side casting, in a jurisdictional	
	water would likely be regulated under Section 404 of the CWA.	
Ohio EPA	Per Shannon Nabors: It is difficult to give comments on the limited information provided on these	No
	projects. Can generally say that Ohio EPA will have involvement related to wetlands, stream	
	corridors, storm water impacts and if any construction projects will affect any known landfills or	
	dumps. It is advised to involve Ohio EPA in the early planning of the projects as they move forward	
	to assure schedules can be maintained and permitting process started early enough to align with	
	construction schedules.	
Ohio Department	Per Christina Kuchle: Expressway Projects and New Roads: Widening of expressways; adding or	Further review of
of Natural	expanding interchanges: Section 1547.82 of the Ohio Revised Code authorizes the Scenic River	projects noted may be
Resources, NW		necessary.
Scenic River	the Maumee State Scenic and Recreational River, excluding municipal boundaries. Bridge Projects:	
Coordinator	new, replacement, or rehab of bridges (road, rail of bikeway) over waterways: C-4 and C-44 General	
	Comments: Section 1547.82 of the Ohio Revised Code authorizes the Scenic Rivers Program to have	
	regulatory authority over publicly funded projects taking place within 1,000 feet of the Maumee State Scenic and Recreational River, excluding municipal boundaries.	
C'A CT 1 1		No
City of Toledo Division of	Per Patekka Bannister: Transportation projects may be required to have post-construction stormwater practices. The City of Toledo has a decision matrix that is used to determine the need	NO
Environmental	based on Ohio EPA requirements. Recommend use of green infrastructure practices whenever	
Services	feasible for all roadway, expressway and bridge projects.	
City of Toledo	Per Andy Stepnick: Transportation projects may be required to have post-construction stormwater	No
Division of	practices. Decision tree relevant to transportation projects provided.	110
Engineering	produces. Decision are relevant to transportation projects provided.	
Services		
Ohio Lake Erie	Per Sandra Kosek-Sills PhD: We appreciate seeing projects that are supportive of Balanced Growth	No
Commission	Best Local Land Use Practices. This includes attention to transit and bicycle opportunities as	
	previously identified by TMACOG. These types of projects support compact development practices.	
	This reduces the need for development of open space, which helps protect Lake Erie water quality.	
	We request that TMACOG ensure that projects in the Swan Creek watershed/Oak Openings area be	
	responsive to Priority Conservation and Priority Development Areas that were identified in the Swan	
	Creek Watershed Balanced Growth Plan	
Ohio Department	Per Steve Holland: Pursuant to the Coastal Zone Management Act of 1972, as amended, any	No
of Natural	projects requiring a Federal permit (i.e., U.S. Army Corps of Engineers 404/10 permit) within Ohio's	
Resources, Office	designated coastal zone may be subject to a Federal Consistency Review.	
of Coastal		
Management		
Ohio Department	Per Denise Franz King: Be sure to check proposed path of expressway and roadway projects against	No
of Agriculture,	ODA database of preserved farms. Also check with Black Swamp Conservancy. Bottom line is	
Office of	when ready, ask for ODA GIS files on the location of farms with agricultural easements in place and	
Farmland	compare them to the projects you are planning. Landowners with easements do not have the	
Preservation	authority to sign any kind of easement impacting the surface without ODA approval.	

2045 Transportation	Toledo Metropolitan Area Council of Governments	
Plan	Environmental Consultation Responses	Responses as of 4-30-2015
Agency	Response Summary Complete responses are on file at TMACOG	Do comments suggest any changes to projects?
U.S. Fish and Wildlife Service, Ohio Ecological Services		No
U.S. Fish and Wildlife Service, Ohio Ecological Services	office. In most cases, the Service recommends coordinating with our office on projects that may	
Metroparks of the Toledo Area	Per Emily Ziegler: -If project 56 (widening of U.S. 20A) moves forward, it should be designed in such a way that it accommodates an intersection for a north-south bicycle trail from the Wabash Cannonball North Fork to Secor Metropark somewhere between Weckerly and Crissey RoadsBridge Projects C-4 and C-44 should include a separated walkway for pedestrians and bicyclesProject C-3 (widen I-475 to six lanes from U.S. 24 Anthony Wayne Trail to U.S. 20 Central Avenue) needs a detailed review of any potential impacts to Fallen Timbers Battlefield National Historic Site located at the intersection of I-475 and the Anthony Wayne Trail.	Yes. Comments suggest bicycle and pedestrian enhancements to projects 56, C-4 and C-44.

Environmental Firstname_	Consultation List Lastname_	t for 2045 TMACOG Tran Title	sportation Plan Company_	Department_	City_	State
Rob	Krain	Executive Director	Black Swamp Conservancy	Department_	Perrysburg	OH
Jeanette	Ball	Acting Commissioner	City of Toledo	Dept. of Public Utilities	Toledo	ОН
		District Program	Lucas Soil & Water Conservation	Dept. of Fubile offitties		
Diane	DeYonker	Administrator	District Maumee Valley Heritage Corridor,		Maumee	OH
Richard	Kudner	President	Inc. Maumee Watershed Conservancy		Toledo	ОН
Clark Lynn	Army	District Manager	District		Defiance	ОН
Stephen	Madewell	Executive Director	Metroparks of the Toledo Area		Toledo	ОН
Emily	Ziegler	GIS Coordinator	Metroparks of the Toledo Area		Toledo	ОН
Rory	Robinson	Outdoor Recreation Planner	National Park Service	Rivers, Trails & Conservation Assistance	Peninsula	ОН
Kelly	Hardison	District Conservationist	Natural Resources Conservation Service		Bowling Green	ОН
Kelli	Krueger	Oak Openings Outreach Coordinator	Nature Conservancy	Oak Openings Project Office / Kitty Todd Reserve	Swanton	ОН
Terry	Seidel	Director of Protection	Nature Conservancy		Worthington	ОН
Amy	Brennan	Lake Erie Conservation Director	Nature Conservancy			
Douglas	Pearsall	East Michigan Science & Planning Director	Nature Conservancy in Michigan		Lansing	МІ
Janet	Traub	President	Oak Openings Regional Conservancy		Holland	ОН
Denise	Franz King	Executive Director	Ohio Department of Agriculture (ODA)	Office of Farmland Preservation	Reynoldsburg	ОН
David	Daniels	Executive Director	Ohio Department of Agriculture (ODA)	Office of Natural Resources	Reynoldsburg	ОН
Mike	Bailey	Chief	Ohio Department of Natural Resources (ODNR)	Div. of Soil & Water Resources	Columbus	ОН
Christina	Kuchle	NW Scenic River Coordinator	Ohio Department of Natural Resources (ODNR)	Div. of Watercraft	Findlay	ОН
Scudder	Mackey	Chief	Ohio Department of Natural Resources (ODNR)	Office of Coastal Management	Sandusky	ОН
Jeff	Tyson	Supervisor	Ohio Department of Natural Resources (ODNR)	Div. of Wildlife	Sandusky	ОН
James	Zehringer	Executive Director	Ohio Department of Natural Resources (ODNR)		Columbus	ОН
Shannon	Nabors	District Chief	Ohio Environmental Protection Agency (OEPA)	Northwest District Office (NWDO)	Bowling Green	ОН
Mark	Epstein	Review and Compliance Officer	Ohio State Historic Preservation Office	(IVVIDO)	Columbus	ОН
Gail	Hesse	Executive Director	Ohio Lake Erie Commission		Sandusky	ОН
Kari	Gerwin	Evironmental Planner I Monitoring &	U.S. Army Corps of Engineers	NW Ohio Regulatory Field	Toledo	OH
Brian	Swartz	Enforcement Section Program Manager,	, i 3	Office	Oak Harbor	ОН
Michael	Pniewski	Western Lake Erie Basin	U.S. Army Corps of Engineers	CELRB-PM-PM Ottawa National Wildlife	Toledo	OH
Jason	Lewis	Refuge Manager	U.S. Fish & Wildlife Service	Refuge	Oak Harbor	OH
Scott	Hicks	Field Office Supervisor	U.S. Fish & Wildlife-Michigan Ecological Services	East Lansing Office	East Lansing	MI
Marcy	Leininger	Fish & Wildlife Biologist	U.S. Fish & Wildlife-Ohio Ecological Services		Columbus	ОН
Karen	Hallberg	Fish & Wildlife Biologist, Transportation Liaison	U.S. Fish & Wildlife-Ohio Ecological Services		Columbus	ОН
Neil	Munger	Director	Wood County Park District		Bowling Green	ОН
Jim	Carter	District Administrator/ Engineering & Technical	Wood Soil & Water Conservation District		Bowling Green	ОН

On the Move

2015–2045 Transportation Plan

Toledo Metropolitan Area Council of Governments

Environmental Consultation Response Form

March 2015

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 new plan must be approved by June 2015 to maintain the region's eligibility for federal highway dollars. More information, including project lists and environmental resources mapping, is available at www.tmacog.org/onthemove.

is available at <u>www.tmacog.org/onthemove.</u>
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	Agency		E-mail address		
Address		City		State	ZIP	Phone		
Contact person 2:								
Name	Title	Agency			E-mail address			
Address	1	City	I	State	ZIP	Phone		

Return by Friday, April 17, 2015 to: TMACOG, attn. Diane Reamer-Evans

300 Martin Luther King Jr. Drive

Toledo OH 43604 FAX: 419.241.9116

E-mail onthemove@tmacog.org

Questions: 419.241.9155 ext. 117 or David Gedeon,

ext. 125

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" 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).

1.2 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:
 - o protect existing vegetation and sensitive habitat;
 - o implement erosion and sediment control;
 - o protect water quality;
 - o protect cultural resources;
 - o minimize noise and vibrations; and
 - o 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.
 - o Minimize the extent and duration of exposed bare ground to prevent erosion.
 - o Establish permanent vegetative cover immediately after grading is complete.
 - o Do not stockpile materials within sensitive areas.
 - o Employ erosion control techniques.
 - o 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.
 - O During and after construction activities, sweep the streets to reduce sediment entering the storm drainage system.
 - o 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 clean up 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.

1.1 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.

Appendix F: Supporting Maps and Information

Map ID 81 B2 B3 B4 B5	SFN (ID#)			vith Sufficiency Rating* < 7					
B1 B2 B3 B4		County	Route	Intersecting Feature	Width	Area	Length	Sufficiency Rating	Cost (170/ft ²)
B3 B4	4861035	LUCAS	MARENGO	RAVINE TO DELAWARE CREEK	20.2	5360	175	20.3	\$911,200
B3 B4	8751528	WOOD	HOYTVILLE	RADER DITCH	16	753	47	21.2	\$128,010
В4	8741670	WOOD	RANGE LINE	DITCH 2311	24	1841	75	33	\$312,970
	8730601	WOOD	CYGNET	DITCH 2200	24	2379	90	34.5	\$404,430
	4805143	LUCAS	SR 184	SHANTEE & SILVER CREEKS	66	7007	96	34.6	\$1,191,190
В6	8737150	WOOD	HAMMANSBURG	MID BRANCH PORTAGE RIVER	24	2099	85	35	\$356,830
B7	8743266	WOOD	BAYS	DITCH 2441	19.7	775	34	36.9	\$131,750
B8	8743096	WOOD	BAYS	NORTH BRANCH PORTAGE RIVER	18	1012	46	38.4	\$172,040
B9	8733317	WOOD	GREENSBURG	MID BRANCH PORTAGE RIVER	28	4618	151	40	\$785,060
B10	8739900	WOOD	STEARNS	EAST BRANCH PORTAGE RIVER	24	1755	73	40.7	\$298,350
B11	8747601	WOOD	MERCER	TOUSSAINT CREEK	23.8	1292	54	40.8	\$219,640
B12	8731934	WOOD	SAND RIDGE	JACKSON CUTOFF DITCH	24	2217	82	42.4	\$376,890
B13	4800451	LUCAS	SR 2	CEDAR CREEK	42.5	3950	93	43.5	\$671,500
B14	8738955	WOOD	MERMILL	BULL CREEK	24	1615	57	43.8	\$274,550
B15	7175	MONROE	STERNS	I-75	13.2	925	70	44.2	\$157,250
B16	4804929	LUCAS	SR 120	OTTAWA RIVER	54	8493	128	44.6	\$1,443,810
B17	8736324	WOOD	JERRY CITY	NORTH BRANCH PORTAGE RIVER	23.7	1776	73	45.2	\$301,920
B18	8732582	WOOD	STONY RIDGE	DITCH 1873	24	1787	68	45.4	\$303,790
B19	8758638	WOOD	GYPSY LANE	NORTH BRANCH PORTAGE RIVER	28	2659	95	45.6	\$452,030
B20	8706212	WOOD	SR 281	ROCKY FORD CREEK	32	2142	67	46.2	\$364,140
B21	8744351	WOOD	LATCHA	HENRY DITCH	26	1270	49	46.7	\$215,900
B22	8750858	WOOD	MEARS	BULL CREEK	19.9	1518	74	46.7	\$258,060
B23	8746354	WOOD	HUFFMAN	BULL CREEK	24	1615	57	46.8	\$274,550
B24	8753660	WOOD	WAPAKONETA	BEAVER CREEK	24	1862	76	48.7	\$316,540
B25	8737819	WOOD	OIL CENTER	ROCKY FORD CREEK	24	2540	94	49.8	\$431,800
B26	8755876	WOOD	WATER	NORTH BRANCH PORTAGE RIVER	28	2573	92	49.8	\$437,410
B27	8755310	WOOD	CHAMBERLAIN	NORTH BRANCH PORTAGE RIVER	24	2530	95	51	\$430,100
B28	7154	MONROE	SUMMIT	CONRAIL & GTW RR	16.5	1508	91	51.3	\$256,360
B29	8732914	WOOD	LUCKEY	DITCH 1873	24	2228	80	51.7	\$378,760
B30	8734674	WOOD	BRADNER	TOUSSAINT CREEK	24	1787	73	52.4	\$378,700
B31	4863143	LUCAS	YARROW	OTTER CREEK	25	904	32	54.4	\$153,680
B32	8743045	WOOD	BAYS	JACKSON CUTOFF DITCH	28	3584	114	55	\$609,280
B33	8746842	WOOD	PELTON	EAST BRANCH PORTAGE RIVER	23.7	1679	71	55.3	\$285,430
B34	4862473	LUCAS	SILICA	TENMILE CREEK	29.5	2583	77	55.6	\$439,110
B35	8750130	WOOD	LEMOYNE	TWO ROOT CREEK	24	904	36	56.3	\$153,680
B36	8730679	WOOD	CYGNET	DITCH 2200	32	2982	85	57.4	\$506,940
B37	8743312	WOOD	BAYS	ROCKY FORD CREEK	19.5	1238	62	58.6	\$210,460
B38	8741786	WOOD	RANGE LINE	WEST BRANCH TONTOGANY CREEK	24	743	31	59.4	\$126,310
B39	8742812	WOOD	LIBERTY HI	DITCH 2426	22	689	30	59.7	\$120,310
B40	8739250	WOOD	MERMILL	SOUTH BRANCH PORTAGE RIVER	28	3477	124	60.3	\$591,090
B41	8733198	WOOD	DROUILLARD	CEDAR CREEK	28.8	1668	55	60.8	\$283,560
B42	4800249	LUCAS	SR 2	NORFOLK SOUTHERN & EMERALD	54	19063	278	61	\$3,240,710
B42	8751358	WOOD	HOYTVILLE	YELLOW CREEK	22	1184	54	61.3	\$3,240,710
B43	8730946	WOOD	CYGNET	BULL CREEK	27.5	2174	75	61.4	\$369,580
B44	8746672	WOOD	PELTON	SOUTH BRANCH PORTAGE RIVER					
-					23.3	1496	101	61.5	\$254,320
B46	4860373	LUCAS	BANCROFT	OTTAWA RIVER	48	6060	101	61.9	\$1,030,200
B47	8742111	WOOD	POTTER	NORTH BRANCH PORTAGE RIVER	28	2691	96	62.1	\$457,470
B48 B49	8754934 8705887	WOOD	TONTOGANY CREEK	TONTOGANY CREEK CEDAR CREEK	20 140	904 6114	45 34	62.2 62.3	\$153,680 \$1,039,380

	List of Bridges with Sufficiency Rating* < 70% (2013 Ratings)											
Мар								Sufficiency	Cost			
ID.	SFN (ID#)	County	Route	Intersecting Feature	Width	Area	Length	Rating	(170/ft ²)			
B50	8736987	WOOD	HAMMANSBURG	BRUSH CREEK	24	1216	44	62.4	\$206,720			
B51	8749965	WOOD	GLENWOOD	GRASSY CREEK	28	2045	73	62.7	\$347,650			
B52	4862562	LUCAS	OLD POST	TENMILE CREEK	25	3014	86	62.8	\$512,380			
B53	8737045	WOOD	HAMMANSBURG	YELLOW CREEK	28	2939	105	62.8	\$499,630			
B54	8758174	WOOD	MILLBURY	CEDAR CREEK	27.8	2034	70	63.6	\$345,780			
B55	4829751	LUCAS	CASS	I-80	26	7804	195	63.7	\$1,326,680			
B56	8756309	WOOD	LAYMAN	TOUSSAINT CREEK	20	883	42	63.7	\$150,110			
B57	4800966	LUCAS	US 20A	AI CREEK	54	5673	93	63.8	\$964,410			
B58	8705941	WOOD	I-280	NORFOLK SOUTHERN RR	58.1	14478	237	64	\$2,461,260			
B59	8742278	WOOD	WINGSTON	MID BRANCH PORTAGE RIVER	24	2228	93	64.2	\$378,760			
B60	8702853	WOOD	SR 65	GRASSY CREEK	30.6	1905	37	64.3	\$323,850			
B61	8731004	WOOD	CYGNET	DITCH 2435	28	1367	49	64.3	\$232,390			
B62	4806549	LUCAS	SR 295	BLUE CREEK	36	2626	73	64.4	\$446,420			
B63	4829808	LUCAS	KEY	I-80	46	10764	203	64.5	\$1,829,880			
B64	8731160	WOOD	CYGNET	EAST BRANCH PORTAGE RIVER	24	2680	87	65.7	\$455,600			
B65	8737207	WOOD	HAMMANSBURG	RADER CREEK	24.2	1991	75	66.2	\$338,470			
B66	8746281	WOOD	HUFFMAN	BULL CREEK	28	1119	40	66.2	\$190,230			
B67	4860438	LUCAS	HEATHERDOWNS	SWAN CREEK	44	6243	142	67.6	\$1,061,310			
B68	8750351	WOOD	LEMOYNE	CEDAR CREEK	24	915	33	67.9	\$155,550			
B69	4805119	LUCAS	SR 184	ANN ARBOR RR	54	16781	232	68	\$2,852,770			
B70	8705070	WOOD	SR 163	PACKER CREEK	28	3068	96	68	\$521,560			
B71	8706158	WOOD	SR 281	CREPS DITCH	32	1722	54	68.4	\$292,740			
B72	8706875	WOOD	SR 579	DRY CREEK	36	2411	67	68.6	\$409,870			
B73	4830628	LUCAS	CORDUROY	RENO SIDE CUT	35.8	1690	44	69.4	\$287,300			
B74	8735727	WOOD	PORTAGE	MID BRANCH PORTAGE RIVER	24	3627	131	69.7	\$616,590			
B75	8730490	WOOD	CYGNET	JACKSON CUTOFF DITCH	22.2	2013	83	69.9	\$342,210			

\$40,334,030

*Sufficiency Rating: "A method of evaluating highway bridge data by calculating four separate factors (1. structural adequacy and safety; 2. serviceability and functional obsolescence; 3. essentiality for public use; and 4. special reductions) to obtain a numeric value which is indicative of bridge sufficiency to remain in service. The result of this method is a percentage in which 100 percent would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge." - U.S. Department of Transportation, Federal Highway Administration. Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. Washington: Government Printing Office, 1995. http://www.fhwa.dot.gov/bridge/mtguide.pdf

		System Preservat	ion Projec	cts for TM	1ACOG 2	045 Lo	ng Ran	ge Plan (201	3 pave	ment data	a)		
Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
P1	US 20A	Airport to LaPlante	Lucas	1.3	1.3	2	2.60	\$2.86	67	EB/WB	4	3700	2013
P2	US 20A	I-475 to Ford	Lucas	0.91	0.91	4	3.64	\$4.00	59	EB/WB	4	9280	2013
Р3	SR 65	Oregon to Tadmore	Lucas	0.09	0.46	4	0.36	\$2.02	58	NB/SB	4	20,660	2013
гэ	3K 03	Tadmore to Oakdale	Lucas	0.37	0.40	4	1.48	\$2.02	72	NB/SB	4	16,530-20,660	2013
P4	SR 65	Fassett to Earl	Lucas	0.21	0.79	4	0.84	\$2.20	46	NB/SB	4	7180	2013
P4	20 NG	Earl to Woodville	Lucas	0.58	0.79	2	1.16	\$2.20	61	NB/SB	4	7180	2013
P5	ANGOLA*	McCord to Holland-Sylvania	Lucas	1.01	1.01	2	2.02	\$0.40	90	EB/WB	5	9250	2013
P6	ARLINGTON	Detroit to Spencer	Lucas	0.8	0.8	2	1.60	\$1.76	49	EB/WB	6	12,230-9100	2002-2008
P7	BANCROFT*	King to E of King	Lucas	0.11	1.44	2	0.22	\$0.40	86	EB/WB	5	7250	2011
Ρ/	BANCRUFT	E of King to I-475	Lucas	1.33	1.44	2	2.66	\$0.40	73	EB/WB	4&5	7250-11,450	2011
P8	BANCROFT	Talmadge to Brookside	Lucas	0.82	0.82	2	1.64	\$1.80	62	EB/WB	4	7100-9700	2010
P9	BANCROFT	Parkside to Auburn	Lucas	0.81	0.81	4	3.24	\$3.56	53	EB/WB	4	9650-28,200	2002-2014
P10	BENORE	Alexis to Michigan line	Lucas	0.82	0.9	2	1.64	\$1.98	50	NB/SB	5	3500-4250	2011
P10	BENORE	Ohio line to M125 (Dixie)	Monroe	0.08	0.9	2	0.16	\$1.98	6	NB/SB	5	3500	2011
		Glendale to Salem		0.88		2	1.76		70	NB/SB	4	7800	2009
		Salem to Hawley		0.44		2	0.88	1	61	NB/SB	4	7800	2009
P11	BROADWAY	Hawley to Stebbins	Lucas	0.16	2.39	2	0.32	\$6.08	87	NB/SB	4	12,230	2002
		Stebbins to South		0.54		2	1.08	1	50	NB/SB	4	12,230	2002
		South to Western		0.37		4	1.48	1	71	NB/SB	4	11,450	2010
P12	CASS	Heatherdowns to Glendale	Lucas	0.77	0.77	2	1.54	\$1.69	64	NB/SB	5	4650	2013
P13	CEDAR POINT	Stadium to Norden	Lucas	1	1	2	2.00	\$2.20	62	EB/WB	4	984	2013
P14	COLLINGWOOD	Central to Hackett	Lucas	0.35	0.35	4	1.40	\$1.54	46	NB/SB	4	5480	2004
		Front to Yarrow		1.34		2	2.68		55	EB/WB	5	4250-7300	2003-2012
P15	CONSAUL/	Yarrow to Otter Creek	Lucas	0.26	2.85	2	0.52	\$6.27	67	EB/WB	5	4250	2012
P15	CORDUROY	Otter Creek to E of Lallendorf	Lucas	0.7	2.85	2	1.40	\$6.27	69	EB/WB	4	2350-3900	2013
		E of Lallendorf to Lallendorf		0.55		2	1.10		64	EB/WB	4	2350	2013
P16	CORDUROY	Wynn to E of North Curtice	Lucas	2.81	2.81	2	5.62	\$6.18	60	EB/WB	4	1700-2100	2011-2013
		Ottawa Co. line to Suzanne		1.08		2	2.16		71	NB/SB	5	3150	2010
P17	N. CURTICE*	Suzanne to SR 2 (Navarre)	Lucas	0.16	3.75	2	0.32		76	NB/SB	5	3150	2010
	Ī	SR 2 (Navarre) to Cedar Point	1	2.51	1	2	5.02	1	83	NB/SB	4	1500-2100	2013

¹Pavement Condition Rating (PCR) Code Color: Red = Very Poor; Orange = Poor; Yellow = Fair; Green = Good/Very Good

Functional Classification - <u>Lucas & Wood counties</u>: 3 = Principal Arterial; 4 = Minor Arterial; 5 = Collector; 6 = Minor Collector ~ <u>Monroe County</u>: 6 = Rural Minor Arterial; 7 = Rural Major Collector; 16 = Urban Minor Collector; 17 = Urban Collector

³ Average Annual Daily Traffic (AADT) = Average number of vehicles in a 24 hour period

^{*} The Sponsor specifically requested this segment be included on this list; Lucas County submitted their own cost (instead of using \$1.1M per lane mile)

Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Yea
P18	DOUGLAS	University Hills to Kenwood	Lucas	0.38	0.9	4	1.52	\$3.96	69	NB/SB	4	19,100	2013
110	DOUGLAS	Kenwood to Central	Lucas	0.52	0.5	4	2.08	\$5.50	51	NB/SB	4	26,275	2004
P19	DOUGLAS	Alexis to Michigan line	Lucas	0.54	0.54	2	1.08	\$1.19	60	NB/SB	4	7800	2010
P20	EASTGATE	Heatherdowns to Glendale	Lucas	1.01	1.69	2	2.02	\$3.72	72	NB/SB	5	3850-7500	2011
120	LASTOATE	Glendale to S of Airport	Lucas	0.68	1.09	2	1.36	Ş3.7Z	55	NB/SB	5	7420-8150	2009-2014
P21	ELEANOR	Jackman to Lewis	Lucas	1	1	2	2.00	\$2.20	64	EB/WB	5	7450-9200	2002-2013
P22	N. EXPRESSWAY	Lagrange to Stickney	Lucas	0.94	0.94	2	1.88	\$2.07	64	EB/WB	5	3860-14,700	2003-2009
		Lagrange to Stickney		0.91		2	1.82		50	EB/WB	5	3280-8450	2003-2009
		Stickney to Doyle		0.15		2	0.30		74	EB/WB	5	350	2013
P23	S. EXPRESSWAY	Doyle to N of Manhattan	Lucas	0.27	1.51	2	0.54	\$3.32	46	EB/WB	5	350	2013
		N of Manhattan to Manhattan		0.18		2	0.36		64	EB/WB	5	350	2013
P24	HAWLEY	Nebraska to Dorr	Lucas	0.51	0.51	2	1.02	\$1.12	52	NB/SB	5	3000	2013
Dar	*	McCord to I-475	1	0.5	4	2	1.00	¢0.40	89	EB/WB	4	7900	2010
P25	HILL*	I-475 to Holland-Sylvania	Lucas	0.5	1	2	1.00	\$0.40	74	EB/WB	4	7950	2013
		Summit to Erie		0.25		2	0.50		61	NB	5	890	2014
P26	JACKSON	Summit to Erie	Lucas	0.25	0.76	2	0.50	\$3.34	74	SB	5	1070	2014
P26	JACKSON	Erie to 11th	Lucas	0.22	0.76	4	0.88	\$3.34	66	NB/SB	5	1400-2500	2009-2013
		11th to Adams		0.29		4	1.16		63	NB/SB	5	500-3600	2004-2013
P27	LALLENDORF	Parkway to Cedar Point	Lucas	0.68	0.68	2	1.36	\$1.50	62	NB/SB	5	950	2013
פבם	LEWIS	Sylvania to Laskey	Lucac	0.99	1 70	2	1.98	\$2.04	64	NB/SB	3	11,450-12,250	2009-2011
P28	LEVVI3	Laskey to S of Alexis	Lucas	0.8	1.79	2	1.60	\$3.94	65	NB/SB	3	14,600	2009
P29	MADISON	10th to Woodruff	Lucas	0.77	0.77	2	1.54	\$1.69	58	NB/SB	5	725-3350	2003-2014
		Enterprise to S of Matzinger		0.52		2	1.04		71	EB/WB	5	2650	2012
P30	MATZINGER	S of Matzinger to Matzinger	Lucas	0.08	0.87	4	0.32	\$2.68	56	EB/WB	5	2650	2012
		Matzinger to Benore		0.27		4	1.08		59	EB/WB	5	3150	2012
P31	NEBRASKA	Holland-Sylvania to Reynolds	Lucas	0.98	0.98	2	1.96	\$2.16	61	EB/WB	5	2400	2011
P32	NEBRASKA	Byrne to Westwood	Lucas	1	1	2	2.00	\$2.20	69	EB/WB	5	6400	2010
ממ	NEBRASKA	Junction to Hawley	Lucas	0.51	1 1 1	2	1.02	¢2.51	56	EB/WB	4	7250-10,850	2003-2009
P33	NEBRASKA	Hawley to Collingwood	Lucas	0.63	1.14	2	1.26	\$2.51	57	EB/WB	4	8000-10,900	2003-2004

Pavement Condition Rating (PCR) Code Color: Red = Very Poor; Orange = Poor; Yellow = Fair; Green = Good/Very Good

² Functional Classification - <u>Lucas & Wood counties</u>: 3 = Principal Arterial; 4 = Minor Arterial; 5 = Collector; 6 = Minor Collector ~ <u>Monroe County</u>: 6 = Rural Minor Arterial; 7 = Rural Major Collector; 16 = Urban Minor Collector; 17 = Urban Collector

³ Average Annual Daily Traffic (AADT) = Average number of vehicles in a 24 hour period

^{*} The Sponsor specifically requested this segment be included on this list; Lucas County submitted their own cost (instead of using \$1.1M per lane mile)

		System Preservat	ion Projec	cts for TM	IACOG 2	.045 Lo	ng Ran	ge Plan (201	.3 pave	ment data	a)		
Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
P34	SEAMAN	Lallendorf to Wynn	Lucas	0.62	1.61	2	1.24	\$3.54	68	EB/WB	5	3750	2012
F34	JLAIVIAIN	Wynn to Stadium	Lucas	0.99	1.01	2	1.98	Ş3.3 4	63	EB/WB	5	2850	2012
P35	SECOR	Laskey to Alexis	Lucas	1	1	4	4.00	\$4.40	61	NB/SB	3	20,200	2009
P36	SPENCER	Arlington to South	Lucas	0.65	0.65	2	1.30	\$1.43	59	NB/SB	6	3200	2010
P37	SUDER	Willow Brook to Ottawa River	Lucas	1.11	1.11	2	2.22	\$2.44	48	NB/SB	4	3800-8520	2004-2009
		Buckeye to Galena		0.25		4	1.00		62	NB/SB	4	7040	2002
P38	SUMMIT	Galena to S of Lasalle	Lucas	1.6	4.27	4	6.40	\$18.79	52	NB/SB	4	4400-9050	2004-2012
		S of Lasalle to 131st		2.42		4	9.68		73	NB/SB	4	4450-11,700	2004-2013
P39	SYLVANIA	Lewis/Phillips to Lagrange	Lucas	0.99	0.99	2	1.98	\$2.18	45	EB/WB	5	2800-7820	2009-2014
P40	WOODRUFF	Collingwood to Cherry	Lucas	1.02	1.02	2	2.04	\$2.24	54	EB/WB	5	1200-4800	2002-2012
P41	YORK	Front to Penoyer	Lucas	0.9	0.9	2	1.80	\$1.98	53	EB/WB	6	1200	2011
		Dixie to W of Bairdstown		1.56		2	3.12		60	EB/WB	5	1510-1830	2012
		W of Bairdstown to Frazier		0.49		2	0.98	4.000	68	EB/WB	5	1510	2012
P42	SR 18	Frazier to E of Cloverdale	Wood	2.16	4.71	2	4.32	\$10.36	58	EB/WB	5	850	2012
		E of Cloverdale to Lincoln		0.5		2	1.00		64	EB/WB	5	850	2012
P43	SR 25	Ordway to N of Oak	Wood	0.53	0.53	4	2.12	\$2.33	64	NB/SB	4	11,400-13,750	2012
		Findlay to Eighth		0.33		2	0.66	·	49	NB	3	7110	2012
P44	SR 25	Findlay to Eighth	Wood	0.33	0.97	2	0.66	\$3.88	50	SB	3	7110	2012
		Eighth to Front		0.64		4	2.56		52	NB/SB	3	18,420	2012
P45	SR 65	Louisiana to East Boundary	Wood	0.68	0.68	2	1.36	\$1.50	65	NB/SB	4	9810-11,390	2012
		US 20 to SR 420		2.3		2	4.60	4	65	EB/WB	5	3380	2012
P46	SR 163	SR 420 to Fostoria	Wood	2.54	4.84	2	5.08	\$10.65	61	EB/WB	5	3380	2012
P47	SR 199	West Millgrove to Elm	Wood	0.57	0.57	2	1.14	\$1.25	64	NB/SB	5	2910	2012
P48	SR 579	E of East Plaza to Fostoria	Wood	2.01	2.01	2	4.02	\$4.42	63	EB/WB	5	6170	2012
P49	CONNEAUT	Wintergarden to Haskins	Wood	0.6	0.6	2	1.20	\$1.32	56	EB/WB	5	3650	2011
		Latcha to Keller		0.5		2	1.00	·	72	NB/SB	5	900	2010
P50	EAST BROADWAY	Keller to Moline-Martin	Wood	0.5	1	2	1.00	\$2.20	57	NB/SB	5	900	2010
		W Boundary to Lober		0.13		2	0.26	4	58	NB/SB	5	3250	2011
P51	FINDLAY	Lober to 5th	Wood	0.65	0.78	2	1.30	\$1.72	57	NB/SB	5	2650	2012

Pavement Condition Rating (PCR) Code Color: Red = Very Poor; Orange = Poor; Yellow = Fair; Green = Good/Very Good

² Functional Classification - <u>Lucas & Wood counties</u>: 3 = Principal Arterial; 4 = Minor Arterial; 5 = Collector; 6 = Minor Collector ~ <u>Monroe County</u>: 6 = Rural Minor Arterial; 7 = Rural Major Collector; 16 = Urban Minor Collector; 17 = Urban Collector

³ Average Annual Daily Traffic (AADT) = Average number of vehicles in a 24 hour period

^{*} The Sponsor specifically requested this segment be included on this list; Lucas County submitted their own cost (instead of using \$1.1M per lane mile)

		System Preservat	ion Projec	ts for TM	ACOG 2	045 Lo	ng Ran	ge Plan (201	.3 pave	ment data	a)		
Map ID	Route	Extent	County	Segment Length (miles)	Total Length (miles)	# Lanes	Lane Mile	Cost (\$1.1m per lane mile)	PCR ¹	Direction	Functional Class ²	AADT ³	AADT Year
		River to Pargillis		2.48		2	4.96		67	EB/WB	5	950	2009
P52	FIVE POINT	Pargillis to Fort Meigs	Wood	0.28	2.93	2	0.56	\$6.45	62	EB/WB	5	950	2009
		Fort Meigs to Rivers Edge		0.17		2	0.34		56	EB/WB	5	1850	2009
		W of Frusher to Frusher		0.34		2	0.68		74	EB/WB	5	600	2009
P53	FIVE POINT	Frusher to W of Scheider	Wood	0.38	3.31	2	0.76	\$7.28	56	EB/WB	5	600	2009
P33	FIVE POINT	W of Scheider to SR 199	vvoou	1.23	5.51	2	2.46	\$7.20	73	EB/WB	5	350	2010
		SR 199 to Lime City		1.36		2	2.72		70	EB/WB	5	1350	2009
P54	POE	E of Dunbridge to Scotch Ridge	Wood	1.68	1.68	2	3.36	\$3.70	64	EB/WB	5	933	2014
		Luna Pier to Erie		0.06		2	0.12		4	NB/SB	7	N/A	N/A
P55	HAROLD	Erie to Ann	Monroe	0.49	1.06	2	0.98	\$2.33	3	NB/SB	7	N/A	N/A
		Ann to Gaynier		0.51		2	1.02		4	NB/SB	7	N/A	N/A
		Ohio line to State Line Rd.		0.04		2	0.08		4	NB/SB	16	7200	2009
P56	JACKMAN*	*State Line Rd. to Smith	Monroe	0.38	2.4	2	0.76	\$5.28	7	NB/SB	16	7200	2009
		Smith to Dean		1.98		2	3.96		6	NB/SB	16&17	4425	2011
P57	LAVOY	US 24 to M125	Monroe	0.97	0.97	2	1.94	\$2.13	5	EB/WB	17	2350	2008
P58	LUNA PIER	US 24 to M125	Monroe	0.55	0.55	2	1.10	\$1.21	4	EB/WB	6	5400	2006
P59	SUMMERFIELD	St. Anthony to Erie	Monroe	0.52	0.52	2	1.04	\$1.14	3	NB/SB	16	2900	2007
P60	SUMMERFIELD	Temperance to Consear	Monroe	0.55	1.31	2	1.10	\$2.88	3	NB/SB	16	3550	2007
P60	SUMMERFIELD	Consear to Freeman	Monroe	0.76	1.31	2	1.52	\$2.88	4	NB/SB	16	4050	2007
P61	SUMMIT	Morin Point to Algonquin	Monroe	0.7	0.7	2	1.40	\$1.54	4	NB/SB	16	3250	2009
P62	SYLVANIA	Consear to Temperance	Monroe	0.52	1.99	2	1.04	\$4.38	4	NB/SB	N/A	650	2006
P02	PETERSBURG	Temperance to US 223	Monroe	1.47	1.99	2	2.94	34.38	3	NB/SB	N/A	1300	2006
P63	WHITEFORD	Sterns to Judy	Monroe	1.49	1.95	2	2.98	\$4.29	5	NB/SB	7&17	4575	2009
P03	CENTER	Judy to Ohio line	ivionitoe	0.46	1.95	2	0.92	34.29	4	NB/SB	17	3150	2009

TOTAL: \$203,600,000

¹ Pavement Condition Rating (PCR) Code Color: Red = Very Poor; Orange = Poor; Yellow = Fair; Green = Good/Very Good

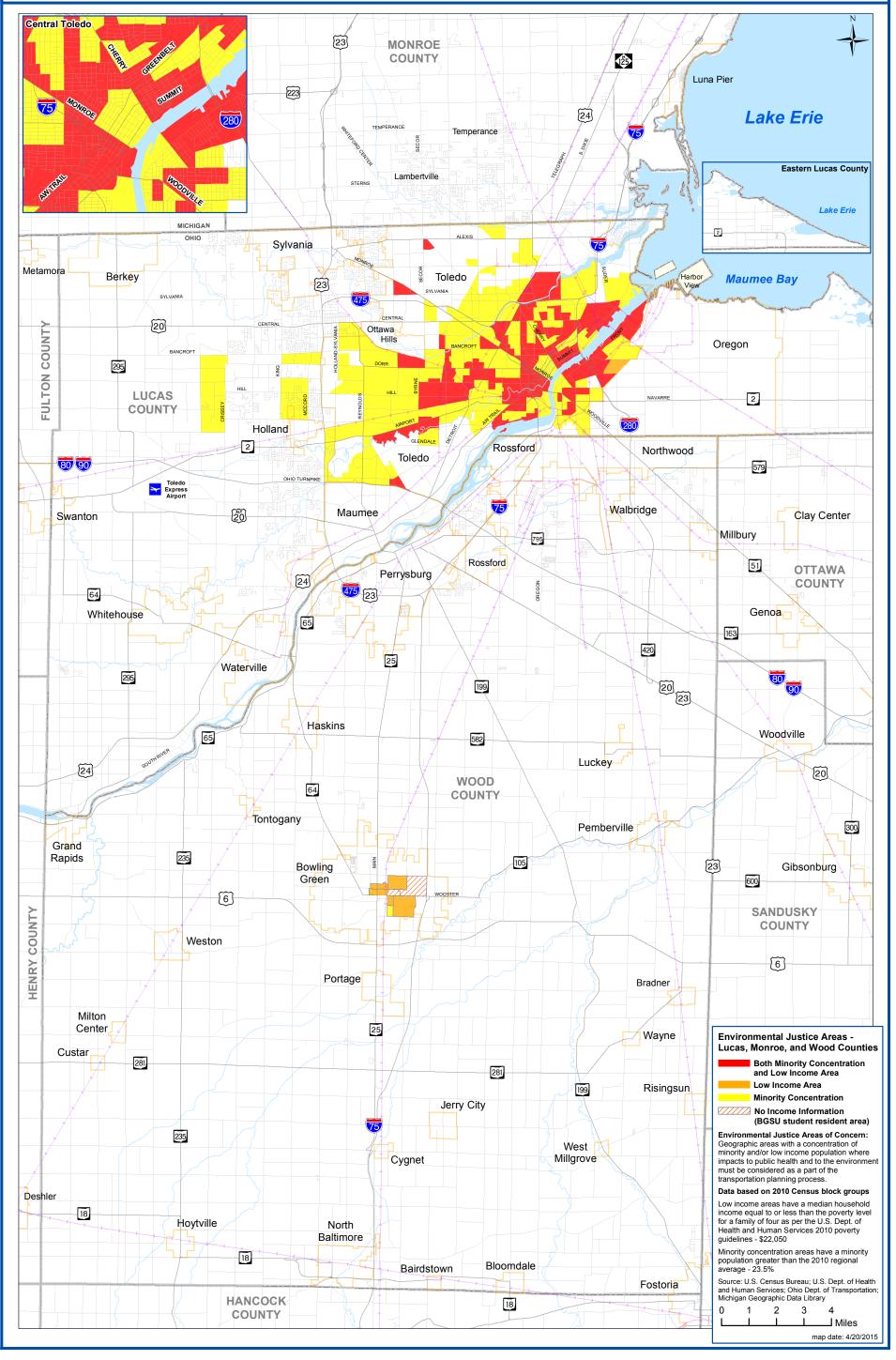
² Functional Classification - <u>Lucas & Wood counties</u>: 3 = Principal Arterial; 4 = Minor Arterial; 5 = Collector; 6 = Minor Collector ~ <u>Monroe County</u>: 6 = Rural Minor Arterial; 7 = Rural Major Collector; 16 = Urban Minor Collector; 17 = Urban Collector

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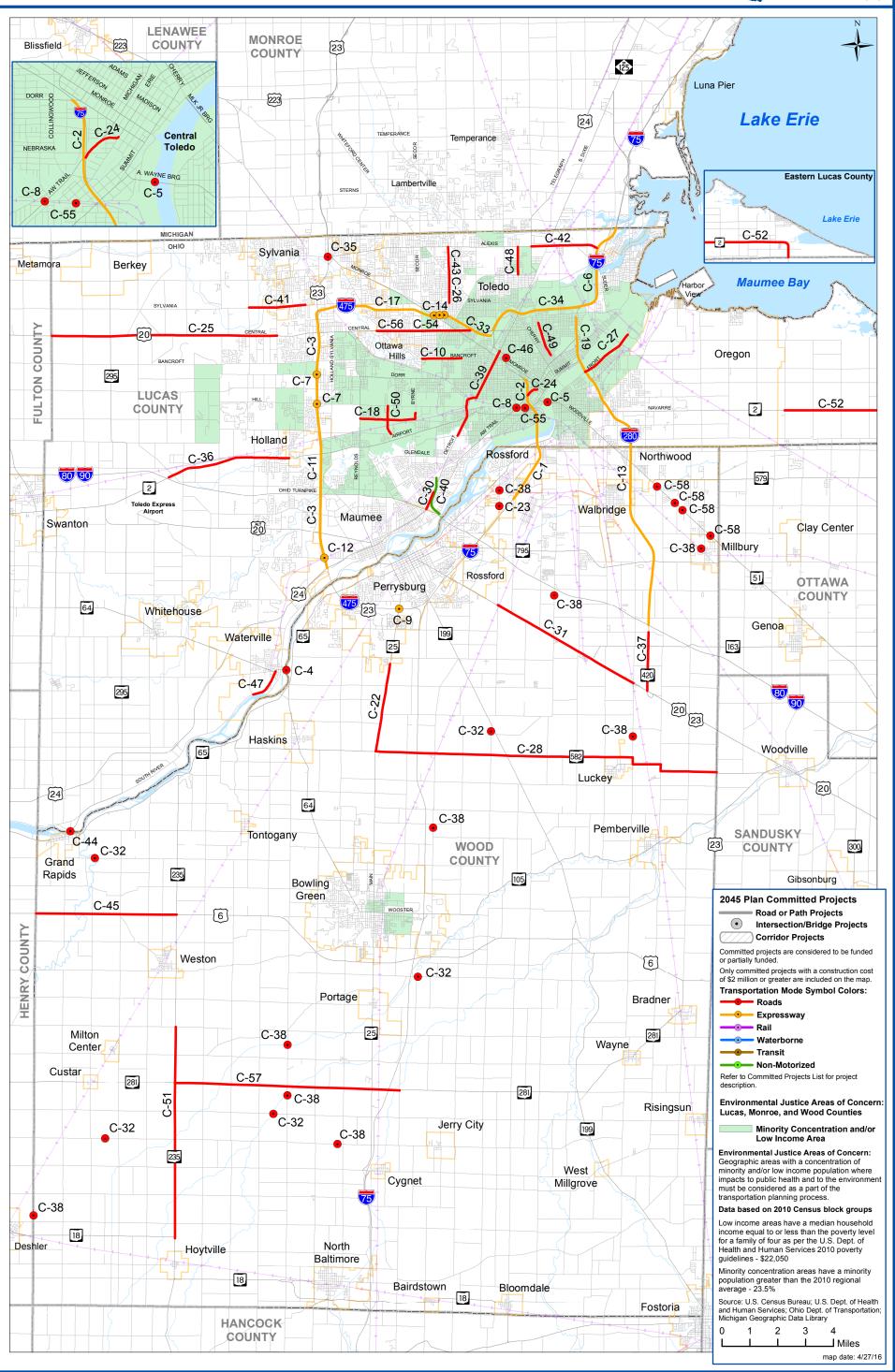
TMACOG 2045 Plan Environmental Justice Areas of Concern





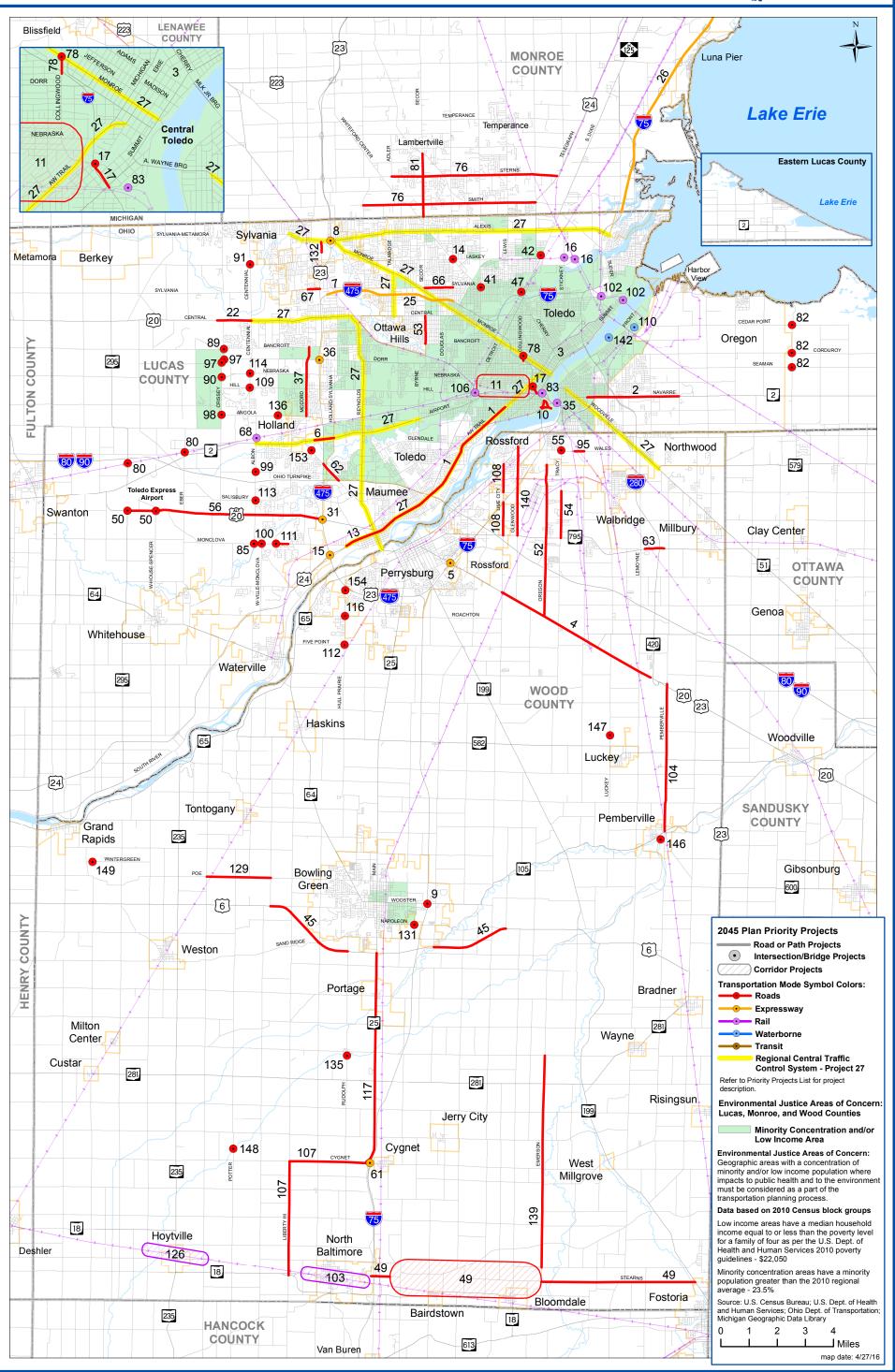
Committed Projects Environmental Justice Areas of Concern





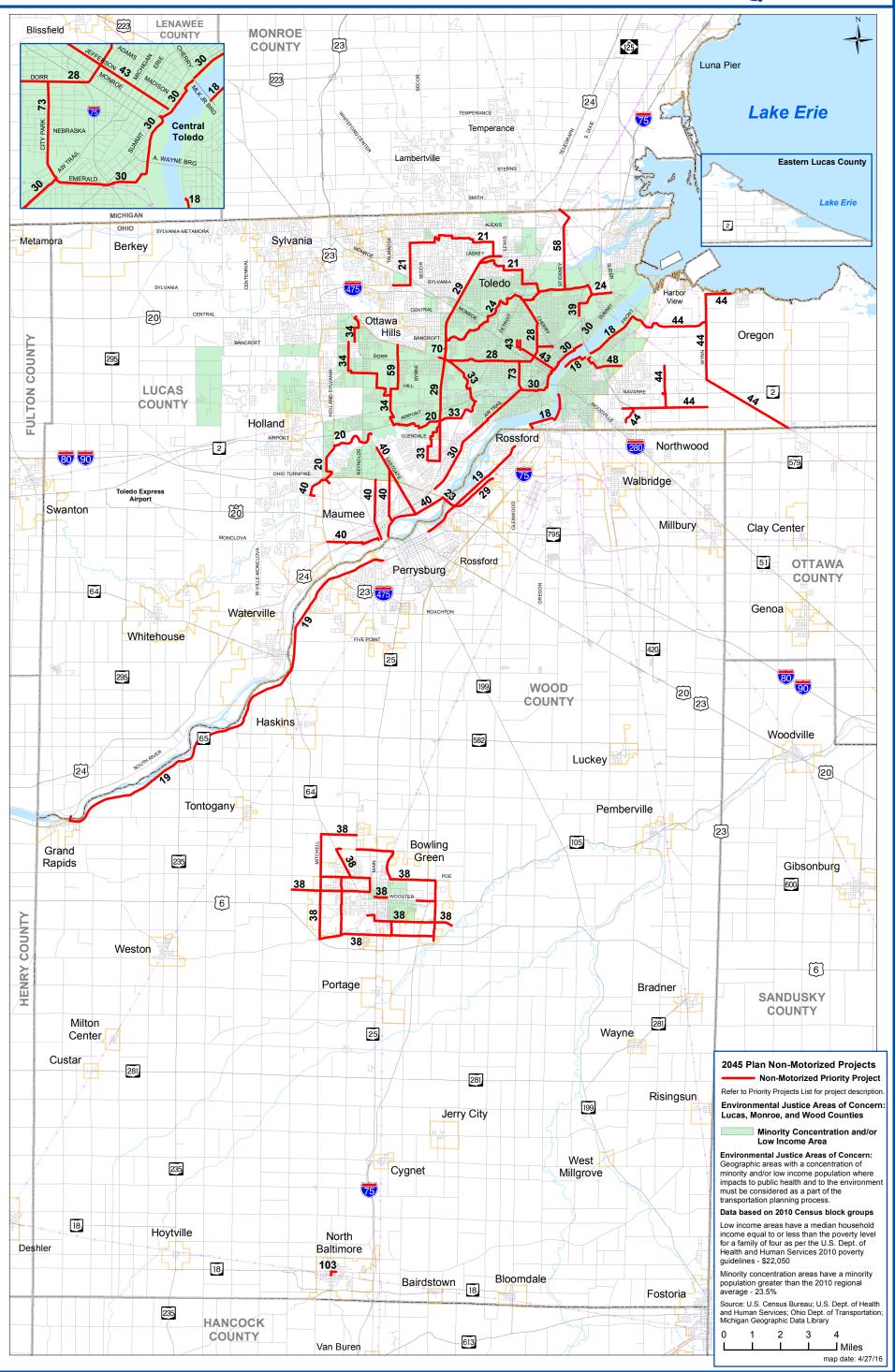
Priority Projects Environmental Justice Areas of Concern

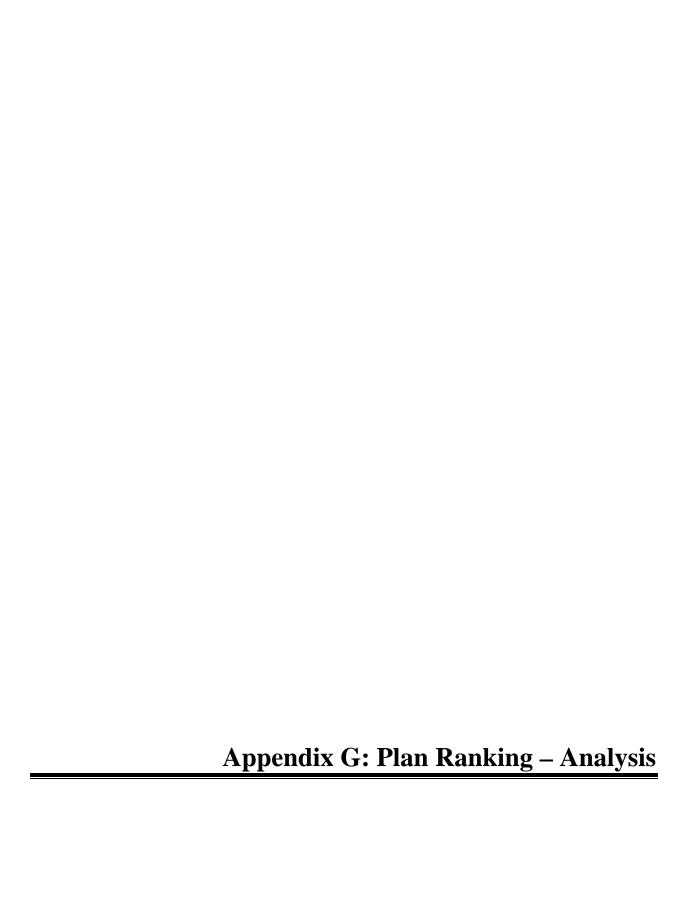




Non-Motorized Projects Environmental Justice Areas of Concern







	2045 Project Ranking by Score											
Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points	
590	Lucas County	Reconstruct Anthony Wayne Trail (Detroit Ave to Erie St)	10.0	10.0	4.5	2.5	5.0	6.0	38.0	0.5	38.5	
614	Lucas County	Access management and ped improvements to Navarre Ave , White to Lallendorf	5.0	6.0	9.5	2.5	5.0	4.0	32.0	0.0	32.0	
607	Wood County	Improvements to I- 75/US 20 interchange in Perrysburg	6.0	0.0	8.5	6.5	6.0	2.5	29.5	0.0	29.5	
596	Lucas County	Provide ped/bike facilities on Airport Hwy (Holland- Sylvania Rd to McCord Rd)	4.0	7.0	6.5	0.0	4.0	7.0	28.5	0.0	28.5	
631	Wood County	Add turn lanes to US 20 corridor (City of Perrysburg to SR 420)	5.0	0.0	8.0	8.0	6.0	1.5	28.5	0.0	28.5	
591	Wood County	Upgrade I-75/SR 64 Interchange and add pedestrian facilities	4.0	6.0	6.5	0.0	6.0	4.5	27.0	0.0	27.0	
582	Lucas County	Widen I-475 (US 23 to Talmadge Rd)	7.0	0.0	3.0	7.5	7.0	0.5	25.0	0.0	25.0	
615	Lucas County	Build a new NHS intermodal connector from NS Toledo Intermodal Terminal to I-75	3.0	0.0	0.0	8.0	6.0	5.5	22.5	2.5	25.0	
601	Lucas County	Improvements to Douglas/Laskey/Tr emainsville intersection	6.0	0.0	6.5	4.5	5.0	2.5	24.5	0.0	24.5	
606	Lucas County	Improvements to I- 475/US 24 interchange	6.0	0.0	5.0	5.5	6.0	2.0	24.5	0.0	24.5	
598	Lucas County	Resurface Anthony Wayne Trail (Monclova Rd to Detroit Ave)	5.5	0.0	6.5	4.0	6.0	2.0	24.0	0.0	24.0	
545	Lucas County	Riverside Trail East	0.0	10.0	2.5	0.0	5.0	5.5	23.0	0.5	23.5	
553	Lucas County	Swan Creek Trail	0.0	9.0	3.0	0.0	5.0	5.5	22.5	1.0	23.5	
556	Lucas County	Trilby-Washington Trail	0.0	9.0	4.5	0.0	5.0	5.0	23.5	0.0	23.5	
611	Lucas County	Improvements to Logan St, I-75 to Collingwood Blvd	5.0	0.0	4.0	6.5	5.0	3.0	23.5	0.0	23.5	
516	Lucas and Wood	Construct a bridge over the Maumee River on the Chessie Circle Trail	1.0	10.0	2.0	0.0	2.0	6.0	21.0	2.0	23.0	
535	Lucas County	Overland Trail	0.0	9.0	2.5	0.0	5.0	5.5	22.0	1.0	23.0	
599	Lucas County	Widen Central Ave/US 20 corridor (Centennial to west of Crissey Rd.)	7.0	0.0	4.0	4.5	7.0	0.5	23.0	0.0	23.0	
608	Lucas County	Improvements to Lewis/Sylvania/Phill ips intersection	6.0	0.0	2.5	4.0	8.0	2.5	23.0	0.0	23.0	
618	Lucas County	Construct a Regional Central Traffic Control System	0.0	0.0	5.0	4.5	8.0	5.5	23.0	0.0	23.0	

Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points
513	Lucas County	Cherry-University Trail	0.0	9.0	3.5	0.0	3.0	7.0	22.5	0.0	22.5
515	Lucas and Wood	Construct Chessie Circle Trail	1.0	10.0	2.0	0.0	2.0	5.5	20.5	2.0	22.5
544	Lucas	Riverside Trail	0.0	10.0	3.0	0.0	3.0	5.5	21.5	1.0	22.5
552	Wood County	Add paved berms to SR 65 (Village of Grand Rapids to City of Rossford)	7.0	9.0	3.5	0.0	1.0	2.0	22.5	0.0	22.5
585	Monroe County, MI	Reconstruct I-75 in Monroe County, Ohio state line to Otter Creek Rd.	8.0	0.0	3.0	5.5	4.0	1.5	22.0	0.0	22.0
517	Lucas County	Chessie Circle Trail Alternative Routes	0.0	9.0	3.0	0.0	2.0	5.5	19.5	2.0	21.5
522	Lucas County	Greenhouse Trail	0.0	10.0	2.0	0.0	4.0	5.5	21.5	0.0	21.5
568	Lucas and Wood Counties	Add Maumee River passenger/ freight rail bridge with bike path, adjoining NS bridge	0.0	5.0	0.0	5.5	5.0	5.0	20.5	1.0	21.5
581	Lucas County	Widen I-475 (Talmadge Rd to Douglas Rd)	8.0	0.0	2.5	6.0	5.0	0.0	21.5	0.0	21.5
563	Lucas County	Build rail grade separation at Matzinger Rd./AA & CSX crossing.	0.0	0.0	2.0	8.0	4.0	5.0	19.0	2.0	21.0
622	Lucas County	Improvements to South Ave (near Kuhlman/I-75)	4.0	0.0	2.0	6.5	5.0	3.5	21.0	0.0	21.0
506	Wood County	Bowling Green City Bicycle Network	0.0	9.0	5.0	0.0	0.0	5.5	19.5	1.0	20.5
512	Lucas County	Buckeye Basin Trail	0.0	7.0	2.0	0.0	4.0	7.5	20.5	0.0	20.5
525	Lucas County	Maumee City Bicycle Network	0.0	10.0	2.5	0.0	2.0	6.0	20.5	0.0	20.5
533	Wood County	Complete Oregon bike network	0.0	7.0	3.5	0.0	5.0	5.0	20.5	0.0	20.5
586		Upgrade US 23 interchange at Monroe Street, and improvements to Monroe St corridor in vicinity of US 23	4.5	0.0	2.0	1.5	8.0	4.5	20.5	0.0	20.5
613	Lucas County	Improvements to McCord Rd corridor (Angola Rd to Bancroft St)	6.0	2.0	8.5	0.0	2.0	2.0	20.5	0.0	20.5
628	Lucas County	Improvements to Sylvania/Jackman/ Tremainsville intersection	5.0	0.0	8.0	1.5	3.0	3.0	20.5	0.0	20.5
518	Lucas County	Downtown Toledo Bicycle facilities	0.0	7.0	3.0	0.0	3.0	7.0	20.0	0.0	20.0
600	Lucas County	Improvements to Detroit/Telegraph/L askey intersection	5.0	0.0	4.5	4.5	4.0	2.0	20.0	0.0	20.0
648	Lucas County	Implement Lucas County-wide transit	0.0	10.0	0.0	0.0	2.0	7.0	19.0	1.0	20.0
634	Wood County	Add turn lanes to US 6 corridor (City of Bowling Green bypass)	6.0	0.0	3.5	3.5	6.0	0.5	19.5	0.0	19.5
534	Lucas County	Oregon Trail	0.0	6.0	2.0	0.0	5.0	6.0	19.0	0.0	19.0
633	Lucas County	Construct US 20A roundabouts	5.0	0.0	3.5	5.5	4.0	1.0	19.0	0.0	19.0

Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points
584	Lucas County	Add US 20A braided interchange on I-475	5.5	0.0	0.5	5.5	2.0	2.5	16.0	2.5	18.5
588	Wood County	Replace pavement on Oregon Road (from US 20 to Northwood corporation line); one bridge replacement.	7.0	0.0	4.0	4.0	2.0	1.5	18.5	0.0	18.5
621	Lucas County	Improvements to Secor Rd corridor (Bancroft to Central)	6.0	0.0	7.5	0.0	3.0	2.0	18.5	0.0	18.5
630	Wood County	Improvements to Tracy Rd/Wales Rd intersection	5.0	0.0	2.0	6.5	3.0	2.0	18.5	0.0	18.5
643	Wood County	Implement a Wood County Rural Transit System	0.0	10.0	0.0	0.0	2.0	6.5	18.5	0.0	18.5
519	Lucas and Monroe	Erie Township and Overland Trail Connector	0.0	6.0	2.5	0.0	4.0	5.5	18.0	0.0	18.0
542	Lucas County	Richards Rd. connector	0.0	6.0	2.5	0.0	4.0	5.5	18.0	0.0	18.0
546	All	Safe Routes to School - Toledo	0.0	6.0	3.0	0.0	2.0	7.0	18.0	0.0	18.0
583	Lucas County	Add Dorr St. interchange on I-	4.5	1.0	0.0	4.5	5.0	1.0	16.0	2.0	18.0
625	Wood County	Widen SR 795 (Lemoyne Rd to I- 280)	4.0	0.0	3.0	5.5	4.0	1.5	18.0	0.0	18.0
626	Monroe County, MI	Add left turn lanes to Sterns (US 23 to Telegraph) and Smith Roads (Whiteford to Telegraph) in Monroe Co.	7.0	0.0	9.0	1.5	1.0	-0.5	18.0	0.0	18.0
632	Lucas County	Widen and managed access, US 20A (I-475 to Toledo Express Airport)	7.0	0.0	2.5	5.5	2.0	-1.0	16.0	2.0	18.0
570	Lucas County	Ohio Hub high speed passenger rail implementation	0.0	7.0	0.0	0.0	2.0	7.0	16.0	1.5	17.5
627	Lucas County	Improvements to Sylvania Ave (Secor Rd to Douglas Rd)	6.0	0.0	8.5	0.0	0.0	2.5	17.0	0.0	17.0
561	Lucas County	Construct a pedestrian bridge over Douglas Road, connecting the Chessie Circle Trail and Marwood Ave to University of Toledo campus at Savage Hall.	0.0	6.0	2.0	0.0	2.0	6.5	16.5	0.0	16.5
580	Wood County	Upgrade I- 75/Cygnet Rd interchange	3.0	0.0	1.5	5.5	5.0	1.5	16.5	0.0	16.5
641	Lucas and Wood Counties	Implement a transit connection between Toledo, Perrysburg and Bowling Green	0.0	8.0	0.0	0.0	2.0	6.5	16.5	0.0	16.5
514	Lucas County	Cherry-University Trail to Riverside Trail Connector	0.0	5.0	2.5	0.0	2.0	6.5	16.0	0.0	16.0
526	Lucas County	Maumee-Chessie Circle Trail Connector	0.0	5.0	1.5	0.0	4.0	5.5	16.0	0.0	16.0

Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points
555	Lucas County	Sylvania-Wildwood connector	0.0	7.0	4.5	0.0	0.0	4.5	16.0	0.0	16.0
603	Wood County	Build an efficient truck connection from City of Fostoria to I-75	6.0	0.0	0.0	6.5	3.0	-1.5	14.0	2.0	16.0
530	Wood County	North Coast Inland and Wabash Cannonball connector	0.0	5.0	2.0	0.0	5.0	3.5	15.5	0.0	15.5
572	Lucas and Wood Counties, Ohio and Monroe County, MI	Implement north- south train service- Toledo to Bowling Green to Lima/Columbus	0.0	7.0	0.0	0.0	2.0	6.5	15.5	0.0	15.5
612	Lucas County	Construct a railroad grade separation in Lucas County (at SR 295 or Eber Rd)	3.0	0.0	3.0	4.5	3.0	2.0	15.5	0.0	15.5
617	Lucas County	Improvements to Perrysburg-Holland Rd (Ohio Turnpike to I-475)	6.0	0.0	4.0	1.5	2.0	2.0	15.5	0.0	15.5
629	Wood County	Improvements to Tracy Rd (SR 795 to Walbridge Rd)	4.0	0.0	3.0	5.5	2.0	1.0	15.5	0.0	15.5
571	Lucas County	Increase passenger train service to Toledo, east-west and to Michigan	0.0	0.0	0.0	5.5	2.0	6.5	14.0	1.0	15.0
511	Lucas County	Brint Road Bike Lanes and McCord Road Share the Road	0.0	7.0	1.5	0.0	2.0	4.0	14.5	0.0	14.5
523	Lucas County	Harvard BI. and Woodsdale Ave. connector	0.0	5.0	1.5	0.0	2.0	6.0	14.5	0.0	14.5
504	Lucas County	Angola-Scott Park Trail	0.0	6.0	2.5	0.0	0.0	5.5	14.0	0.0	14.0
551	Wood County	SR 65 Bike Lanes	0.0	6.0	2.0	0.0	1.0	5.0	14.0	0.0	14.0
559	Lucas County	Western Lucas County Connections	0.0	5.0	3.0	0.0	0.0	6.0	14.0	0.0	14.0
647	Lucas County	Implement Fixed Guideway Public Transit using Advanced Technology	0.0	6.0	0.0	0.0	2.0	5.5	13.5	0.5	14.0
547	Lucas County	Secor Park-Oak Openings Preserve Connector	0.0	6.0	1.5	0.0	0.0	6.0	13.5	0.0	13.5
554	Lucas County	Complete Sylvania River Trail system	0.0	5.0	1.5	0.0	2.0	4.0	12.5	1.0	13.5
557	Lucas	University Parks Trail Extension North	0.0	6.0	1.5	0.0	2.0	3.5	13.0	0.5	13.5
610	Wood County	Improvements to Lime City Rd and SR 65 intersection	5.5	0.0	2.5	0.0	3.0	2.5	13.5	0.0	13.5
635	Wood County	Realign Wales Rd and build grade separation (Tracy Rd to East Broadway St)	3.0	0.0	1.5	3.5	5.0	0.5	13.5	0.0	13.5
503	Lucas and Wood Counties	Implement a wayfinding system	0.0	5.0	1.0	0.0	2.0	5.0	13.0	0.0	13.0

Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points
521	Monroe County, MI	Governor's Showcase Trail and Chessie Circle Connection	0.0	7.0	3.5	0.0	0.0	2.0	12.5	0.0	12.5
565	Lucas County	Expand the Norfolk Southern Toledo Intermodal Terminal (Airline Yard)	0.0	0.0	0.0	8.0	0.0	1.5	9.5	3.0	12.5
609	Wood County	Widen Lime City Rd in City of Rossford (SR 65 to Buck Rd) ; and widen in Wood County (I-75 to SR 795).	6.0	0.0	3.5	0.0	2.0	1.0	12.5	0.0	12.5
616	Wood County	Improvements to Pemberville Rd (US 20/23 to Village of Pemberville)	5.0	0.0	2.5	4.0	1.0	0.0	12.5	0.0	12.5
624	Wood County	Repave SR 65 (in City of Rossford) and traffic signal upgrade	6.5	0.0	3.0	0.0	0.0	3.0	12.5	0.0	12.5
587	Wood County	Improve Liberty Hi Rd (SR 18 to Cygnet Rd) and Cygnet Rd. (Liberty Hi Rd. to I-75); replace two bridges	3.0	0.0	1.5	5.5	1.0	0.0	11.0	0.5	11.5
602	Wood County	Install roundabout at Five Point and Hull Prairie roads	4.0	0.0	3.5	0.0	2.0	2.0	11.5	0.0	11.5
620	Lucas County	Construct a roundabout at Salisbury Rd and Albon Rd	4.0	0.0	3.5	0.0	2.0	2.0	11.5	0.0	11.5
657	Lucas County	Infrastructure improvements to Ironville Terminal	0.0	0.0	0.0	5.5	0.0	3.5	9.0	2.5	11.5
550	Lucas County	SR 64 Sidepath	0.0	4.0	2.5	0.0	0.0	4.5	11.0	0.0	11.0
560	Lucas County, Ohio and Monroe County, MI	Whiteford Township to Trilby- Washington Trail Connector	0.0	4.0	2.5	0.0	0.0	4.5	11.0	0.0	11.0
623	Wood County	Reconstruct SR 25 (Village of Cygnet to City of Bowling Green)	6.0	0.0	2.0	0.0	1.0	2.0	11.0	0.0	11.0
659	Lucas, Wood, & Monroe Co.	Safe Routes to School implementation - Other	0.0	0.0	3.0	0.0	2.0	6.0	11.0	0.0	11.0
505	Lucas County, Ohio and Monroe County, MI	Bedford Township and Chessie Circle Connector	0.0	0.0	3.0	0.0	3.0	4.5	10.5	0.0	10.5
508	Wood County	Bowling Green- Pemberville Connector	0.0	4.0	1.5	0.0	0.0	5.0	10.5	0.0	10.5
520	Monroe County, MI	Governor's Showcase Trail	0.0	5.0	1.5	0.0	0.0	4.0	10.5	0.0	10.5
539	Lucas County	Point Place Connector	0.0	4.0	2.0	0.0	0.0	4.5	10.5	0.0	10.5
543	Lucas County	River Road Towpath Connector	0.0	4.0	2.0	0.0	0.0	4.5	10.5	0.0	10.5
548	Lucas County	South River Road Share the Road	0.0	5.0	1.5	0.0	0.0	4.0	10.5	0.0	10.5

Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points
558	Wood County	Wabash- Cannonball Trail and North Coast Inland Trail Connector	0.0	4.0	2.5	0.0	0.0	4.0	10.5	0.0	10.5
619	Wood County	Install roundabout at Roachton and Hull Prairie roads	4.0	0.0	3.5	0.0	1.0	2.0	10.5	0.0	10.5
531	Wood County	North Coast Inland Trail-Oregon Connector	0.0	5.0	1.5	0.0	0.0	3.5	10.0	0.0	10.0
562	Lucas County	Rail grade separation at Manhattan Blvd or other location for unimpeded access to Point Place	0.0	0.0	2.0	4.5	2.0	1.5	10.0	0.0	10.0
589	Wood County	Improve Poe Rd (Green to Range Line Rd); realign at railroad crossing; bridge replacement.	7.0	0.0	1.5	0.0	1.0	0.5	10.0	0.0	10.0
652	Lucas County	Add downtown Toledo transit hub	0.0	0.0	0.0	0.0	6.0	4.0	10.0	0.0	10.0
549	Monroe County, MI	Southern Monroe County East-West Connector	0.0	4.0	1.5	0.0	0.0	4.0	9.5	0.0	9.5
594	Wood County	Install roundabout at Napoleon and Campbell Hill roads	2.5	0.0	4.0	0.0	1.0	2.0	9.5	0.0	9.5
605	Lucas County	Widen Harroun Rd (Kroger driveway to Flower Hospital)	4.5	0.0	2.5	0.0	1.0	1.5	9.5	0.0	9.5
509	Lucas and Wood	Bowling Green- Perrysburg connector	0.0	4.0	1.0	0.0	0.0	4.0	9.0	0.0	9.0
540	Lucas County	Pray Bl. Connector	0.0	2.0	1.5	0.0	2.0	3.5	9.0	0.0	9.0
604	Wood County	Widen Glenwood Rd (SR 65-Buck Rd)	4.0	0.0	3.0	0.0	1.0	1.0	9.0	0.0	9.0
507	Wood County	Bowling Green- Grand Rapids connector	0.0	3.0	0.5	0.0	0.0	5.0	8.5	0.0	8.5
510	Wood County	Bowling Green- Weston connector	0.0	3.0	1.5	0.0	0.0	4.0	8.5	0.0	8.5
566	Lucas County	Reduce rail/highway conflicts, SR 18/SR 235/CSX crossing in Village of Hoytville (possible grade separation and/or highway bypass)	0.0	0.0	2.0	3.5	2.0	1.0	8.5	0.0	8.5
597	Lucas County	Improvements to Angola Rd (near King Rd)	3.5	0.0	3.0	0.0	1.0	1.0	8.5	0.0	8.5
524	Lucas County	Maumee Bay and Metroparks Connector	0.0	2.0	1.0	0.0	0.0	5.0	8.0	0.0	8.0
528	Lucas County	Neapolis-Waterville Rd. facility	0.0	4.0	1.0	0.0	0.0	3.0	8.0	0.0	8.0
536	Wood County	Extend walking/bike trail into recently acquired park land (Pemberville)	0.0	1.0	1.0	0.0	2.0	4.0	8.0	0.0	8.0
574	Wood County	Replace Bridge St /Middle Branch Portage River bridge	5.0	0.0	1.0	0.0	0.0	2.0	8.0	0.0	8.0

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576	Wood County	Replace Luckey Road / Toussaint Creek bridge	6.0	0.0	1.0	0.0	0.0	1.0	8.0	0.0	8.0
578	Wood County	Replace Rudoloph Road/ Middle Branch Portage River bridge	5.0	0.0	1.0	0.0	0.0	2.0	8.0	0.0	8.0
639	Lucas County	One-call/one-click center	0.0	0.0	0.0	0.0	2.0	6.0	8.0	0.0	8.0
579	Wood County	Replace Wintergreen Road / Beaver Creek bridge	5.0	0.0	1.0	0.0	0.0	1.5	7.5	0.0	7.5
593	Wood County	Widen and improve shoulders, Emerson Rd (Pelton to Mermill Rd)	3.0	0.0	3.0	0.0	1.0	0.5	7.5	0.0	7.5
644	Lucas County	Provide signal prioritization for transit and emergency vehicles	0.0	0.0	3.0	0.0	0.0	4.5	7.5	0.0	7.5
532	Lucas County	Oak Openings-Blue Creek Connectors	0.0	3.0	1.0	0.0	0.0	3.0	7.0	0.0	7.0
541	Lucas County	Providence Neapolis Swanton Rd. facility	0.0	2.0	1.0	0.0	0.0	4.0	7.0	0.0	7.0
564	Wood County	Solve rail/roadway conflict of blocked CSX rail crossings in Village of North Baltimore	0.0	0.0	3.0	1.5	1.0	1.5	7.0	0.0	7.0
577	Wood County	Replace Potter Road / Middle Branch Portage River bridge	5.0	0.0	1.0	0.0	0.0	1.0	7.0	0.0	7.0
537	Wood County	Pemberville downtown street enhancement	0.0	1.0	0.0	0.0	2.0	3.5	6.5	0.0	6.5
658	Lucas County	Infrastructure improvements to Toledo Shipyard	0.0	0.0	0.0	4.0	0.0	1.5	5.5	1.0	6.5
573	Lucas County	Toledo Train Station Upgrades	0.0	0.0	0.0	0.0	1.0	5.0	6.0	0.0	6.0
642	Lucas County	Transit Stop Improvements	0.0	0.0	0.0	0.0	2.0	4.0	6.0	0.0	6.0
575	Wood County	Replace Hull Prairie Road / Ditch 2089 bridge	2.0	0.0	1.0	0.0	0.0	2.0	5.0	0.0	5.0
637	Lucas County	Clean air- alternative fueling stations	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	4.0
640	Lucas County	Replace TARTA bus fleet	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	4.0
650	Lucas County	TARTA facilities improvements	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	4.0
567	Wood County	Rebuild CSX rail crossing at SR 105	0.0	0.0	1.5	0.0	0.0	2.0	3.5	0.0	3.5
592		TMACOG Safety Locations and Measures Report	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	3.0
595		Develop a regional access management plan or policy	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	3.0

Sort #	County	Project Name	Infrastructure Condition: Goal Score	Personal Mobility: Goal Score	Safety: Goal Score	Freight Movement: Goal Score	Congestion: Goal Score	Environmental: Goal Score	Overall Score	Economic Development: Bonus Score	Overall Score + ED Bonus Points
654	Lucas and Wood Counties, Ohio and Monroe County, MI	Increase travel training for area paratransit passengers to improve their independence to take regular fixed route service	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	1.0
501	Lucas County	Improved Toledo Express passenger flights and modal connectivity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
502		Bicycle counting program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
527	Lucas County, Ohio and Monroe County, MI	Comprehensive bike path system connecting Michigan and Ohio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
529	Lucas and Wood Counties	Conduct a non- motorized plan for the TMACOG region	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538	Wood County	Bike lanes in both the North and South part of Perrysburg Twp. connecting to Lime City Rd.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
569	Lucas and Wood Counties	Improve connectivity between passenger rail and transit (and other systems)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
636	Lucas County	Develop a collaboration transit facility at the Toledo train station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
638	Lucas County	High Capacity Transit Study	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
645	1	Promote commuter services such as carpooling and vanpool as a way to increase modal split		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
646	Lucas and Wood Counties	Conduct major outreach effort to determine best methods to better serve and interact with underserved communities, including low- income, minorities, disabled, and Limited English Proficiency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
649	Lucas and Wood Counties, Ohio and Monroe County, MI	Transit Origin and Destination Survey in the Toledo Urbanized Area	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
651	Lucas County	Implement a sales tax (1/2 cent) for TARTA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
653	Lucas and Wood Counties, Ohio and Monroe County, MI	Region-wide transit marketing initiative, promote the pluses of transit across the region	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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655	Wood Counties	Transit can contract with private providers to expand hours of service	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
656	Wood County	Create a Volunteer Driver Program for rural areas in Wood County	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Projects that affect Environmental Justice Areas of Concern

	Projects that affect Environmental Justice Areas of Concern	
Dl	Posted Post total for the setting	Number of
Rank	Project Description/Location	Projects
Committee	•	4
C-1	Reconstruct I-75 - Glenwood to South	1
C-2	Reconstruct I-75 - South to Dorr	1
C-5	High Level Bridge Painting	1
C-6	I-75 Rehab - Cecilia Ave to Michigan line	1
C-8	Rebuild SR 25 Bridge over NS RR	1
C-10	Bancroft - Secor to Parkside	1
C-18	South Ave - Reynolds to Byrne	1
C-19	I-280 Resurface - Navarre to I-75	1
C-24	SR 25 Reconstruct - I-75 to Erie St	1
C-27	Front St - I-280 to Millard	1
C-33	I-475 Resurface - Douglas to I-75	1
C-34	I-75 Resurface - Central to Cecelia	1
C-39	Detroit/Fearing Resurfacing	1
C-46	Bancroft Bridge Redeck over I-75	1
C-48	Bennet Rd - Laskey to Alexis	1
C-49	Lagrange - Utica to Oakland	1
C-50	Wenz Rd - Angola to Hill	1
C-54	Central Ave - Secor to Upton	1
C-55	Maumee Ave Bridge Replacement	1
Priority Pr		
1	Anthony Wayne Trail - Detroit to South	1
2	Navarre Ave - White to Lallendorf	1
3	Toledo Transit Hub	1
6	Airport Hwy Ped Facilities at Spring Meadows	1
10	Improve South/Kuhlman/Edwin Truck Connector	1
11	Intermodal Connector from NS Intermodal Terminal to I-75	1
12	Lucas county-wide public transit	1
17	Improve Ramp from I-75 to Logan/Collingwood	1
18	Riverside Trail East (Non-Motor)	1
20	Swan Creek Trail (Non-Motor)	1
21	Trilby-Washington Trail (Non-Motor)	1
24	Overland Trail (Non-Motor)	1
25	I-475 Widening - Talmadge to Douglas	1
27	Regional Central Traffic System	1
28	Cherry-University Trail (Non-Motor)	1
29	Chessie Circle Trail (Non-Motor)	1
30	Riverside Trail (Non-Motor)	1
32	Increase passenger trains to 5 round trips/day, Toledo to Cleveland; add	
	Toledo Detroit service	1
33	Chessie Circle Trail (Non-Motor)	1
34	Greenhouse Trail (Non-Motor)	1
35	Maumee River Passenger/Freight Bridge	1
37	McCord Rd - Angola to Bancroft	1
38	Court St Share the Road/Bowling Green Network (Non-Motor)	1
39	Buckeye Basin Trail (Non-Motor)	1

		Number of
Rank	Project Description/Location	Projects
40	Key St Share the Road (Non-Motor)	1
41	Improve Sylvania/Jackman/Tremainsville	1
42	Improve Detroit/Telegraph/Laskey	1
43	Downtown Toledo Bike Facilities (Non-Motor)	1
46	Fixed guideway or bus rapid transit in heavily travelled corridors	1
47	Phillips Ave/NS RR Grade Separation	1
48	Oregon Trail (Non-Motor)	1
51	Toledo to Bowling Green transit	1
58	Erie Twp and Overland Trail Connector (Non-Motor)	1
59	Richards Rd Connector (Non-Motor)	1
62	Perrysburg-Holland Rd - Ohio Turnpike to I-475	1
64	Upgrade frequently-used transit stops	1
65	Build Ohio Hub high speed passenger rail system	1
70	Douglas Rd Pedestrian Bridge (Non-Motor)	1
72	One call-one click transit information center	1
73	Cherry-University & Riverside Connector (Non-Motor)	1
77	Replace TARTA bus fleet	1
78	Collingwood - I-75 to Monroe plus Roundabout	1
83	Train Station Upgrade	1
89	Bancroft/Crissey Roundabout	1
90	Frankfort/Crissey Roundabout	1
96	Signal prioritization for transit and emergency vehicles	1
97	Crissey/Dorr Roundabouts	1
98	Crissey/Angola East Roundabout	1
102	Manhattan or Summit RR Grade Separation	1
106	NS Toledo Intermodal Terminal Expansion	1
110	Ironville Terminal Improvements	1
131	Napoleon/Campbell Hill Rd Roundabout	1
136	Angola Rd improvements near King Rd	1
142	Toledo Shipyard Upgrades	1
	eservation (roads):	-
3,300111110	SR 65 - Lucas Co.	1
	SR 25 - Wood Co.	1
	Consual St	1
	Broadway St	1
	Summit St	1
	Lewis Ave	1
	Nebraska Ave	1
	Douglas Rd	1
	Expressway Dr	1
	Cass Rd	1
	Collingwood Blvd	1
	Jackson St	1
	Madison Ave	1
	Suder Ave	1
	Woodruff Ave	1
	York St	1
	I O IN JU	T

		Number of
Rank	Project Description/Location	Projects
	Sylvania Ave	1
	Arlington Ave	1
	Summit St	1
	Eastgate Rd	1
	Hawley St	1
	Bancroft St	1
	Hill Ave	1
System I	Preservation (bridges):	
	SR 2 at NS Railroad and Emerald Ave	1
	I-80 at Cass Rd	1
	Bancroft St at Ottawa River	1
	Heatherdowns at Swan Creek	1

Append	ix H: MPC) Approva	al Letter o	of Long Ra H

Approval of "On the Move: 2015-2045 Transportation Plan" - STAFF REPORT

TOLEDO METROPOLITAN AREA COUNCIL OF GOVERNMENTS BOARD OF TRUSTEES AGENDA JUNE 17, 2015

The "On the Move: 2015-2045 Transportation Plan" is the region's updated long range multimodal transportation plan, developed over a two-year period under the guidance of the TMACOG Transportation Planning Committee which served as the plan task force. The 2045 Plan is based on extensive public input from business and neighborhood leaders, employers, real estate experts, planners, educators, economic development professionals, and others. It lists 330 projects that are of high priority for our region, comprised of both "committed" projects that have at least some funding and "priority" projects for which funding is expected during the life of the plan based on fiscal estimates.

The "On the Move: 2015-2045 Transportation Plan" complies with the Moving Ahead for Progress in the 21st Century Act (MAP-21) and associated federal regulations that establish procedures for transportation planning by MPOs such as TMACOG.

The 2045 Plan established a vision and focused on eight specific goals established by the task force. These goals are:

"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.

In addition to the 330 recommended capital projects, the 2045 Plan calls for 15 initiatives aimed at solving important regional needs through specific research, community education, and other collaborative undertakings. The plan also promotes a list of policies that are a resource for guiding future actions taken in the region.

A RESOLUTION OF THE TOLEDO METROPOLITAN AREA COUNCIL OF GOVERNMENTS ADOPTING THE "ON THE MOVE: 2015-2045 TRANSPORTATION PLAN"

WHEREAS, the Toledo Metropolitan Area Council of Governments (TMACOG) is designated as the Metropolitan Planning Organization (MPO) by the Governor through the Ohio Department of Transportation in cooperation with local elected officials and is authorized to carry out the continuing, cooperative, and comprehensive transportation planning process for the Toledo Metropolitan Planning Area that results in plans and programs that consider all transportation modes and support community development and social goals; and

WHEREAS, the Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted by Congress in 2012, and the Code of Federal Regulations governing MPOs (23 C.F.R. 450) require that a long range plan be updated every four years; and

WHEREAS, the Transportation Planning Committee, serving as the long range plan task force under the Transportation Council, has developed the "On the Move: 2015-2045 Transportation Plan" over the past two years, selecting a comprehensive list of policies, initiatives, and projects that address important regional goals after substantial public input and technical analysis; and

WHEREAS, TMACOG participated in a statewide interagency consultation with FHWA, ODOT, OEPA acknowledging the "On the Move: 2015-2045 Transportation Plan" is not subject to an air quality conformity determination; and

WHEREAS, the "On the Move: 2015-2045 Transportation Plan" includes a financial analysis demonstrating the availability of more than \$3.3 billion in funding for transportation needs over the next 30 years; and

WHEREAS, our region can compete effectively for needed funding for transportation only if we are organized and focused on implementing an agreed upon set of priorities; and

WHEREAS, the TMACOG Transportation Council approved this resolution on May 6, 2015, and the TMACOG Executive Committee approved it on May 20, 2015;

NOW, THEREFORE, BE IT RESOLVED BY THE TOLEDO METROPOLITAN AREA COUNCIL OF GOVERNMENTS:

Section 1:

THAT TMACOG adopts the "On the Move: 2015-2045 Transportation Plan" as the regional transportation plan for the Toledo Metropolitan Planning Area; and

Section 2:

THAT TMACOG supports the goals, projects, policies, and initiatives contained in the "On the Move: 2015-2045 Transportation Plan" and requests members and implementing agencies to incorporate the planning, design and construction and/or implementation of 2045 Plan projects, initiatives, and policies into their planning for transportation improvements in their jurisdictions; and

Section 3:

THAT it is the policy of TMACOG to advocate for and be part of efforts to increase funding for needed transportation improvements for our region as identified in "On the Move: 2015-2045 Transportation Plan".

Adopted by the Board of Trustees on June 17, 2015.

Yea <u>32</u>, Nay <u>0</u>, Abstain <u>0</u>

James M. Sass, Chair

Toledo Metropolitan Area

Council of Governments (TMACOG)

Anthony L. Reams, President

Toledo Metropolitan Area

Council of Governments (TMACOG)