

MARITIME METRO TRANSIT DEVELOPMENT PROGRAM (TDP) 2017 – 2021



Prepared by:
Bay-Lake Regional Planning Commission
December 2016



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CHAPTER 1: EXECUTIVE SUMMARY

The Bay-Lake Regional Planning Commission prepared a Transit Development Program (TDP) for the Maritime Metro Transit System which covers the period from 2017 through 2021. The study area for the TDP includes the Cities of Manitowoc and Two Rivers, both located within Manitowoc County, Wisconsin.

The TDP addressed several issues. The primary purpose of the TDP was to determine short-term future needs for public transportation services, and the best transit system configuration that should be provided to meet those needs. Throughout the planning process, the Bay-Lake Regional Planning Commission staff worked closely with the Maritime Metro Transit staff and with the TDP Review Committee to complete the Maritime Metro TDP.

As part of the transit planning process, the TDP Review Committee developed the following mission statement for public transportation services in the Manitowoc – Two Rivers area:

To provide a safe, reliable, convenient and cost-effective transit service with a skilled team of employees, dedicated to customers’ needs and independence.

Specific goals, objectives and performance standards were developed which support this mission statement, and provide a means of evaluating how well service is being provided in the Maritime Metro Transit System service area.

COMMUNITY RESEARCH

Several community research tasks were completed for this TDP in an effort to evaluate the need for public transportation services in the Manitowoc – Two Rivers area.

Transit System Overview

The TDP includes an overview of the transit operation in Chapter 3. This overview includes: the history of transit service in the Manitowoc – Two Rivers area; organization and management of the Maritime Metro Transit System (MMT); a description of MMT service characteristics; an inventory of the MMT vehicle fleet; an inventory of other MMT capital facilities; a description of the MMT fare structure; extensive documentation of systemwide ridership and revenue mile trends; discussion of MMT funding sources over a four year period; a description of MMT expenses over a four year period; and an inventory of other area transit and paratransit providers.

Community Profile

The TDP includes a “community profile” (profile of the transit service area) in Chapter 4. This “community profile” includes: a description of the MMT service area location; the economy of the service area; population and households in the service area (both in terms of total population trends as well as in terms of transit dependent population and household groups); potential trip generators; land use patterns; and motor vehicle travel patterns.

Ridership Opinion

The TDP includes documentation of ridership opinion in Chapter 5. An on-board ridership survey was conducted in late September of 2015, and focused on characteristics of transit riders

and on the rating of attributes of the Maritime Metro Transit System. Key findings from the on-board ridership survey included the following:

- The most common trip purposes of the ridership were shopping and work. School, “other,” personal business and medical trip purposes were also common among the ridership.
- Respondents were asked how they would make their trip if MMT bus service were not available. The top responses to this question were: walking, as a passenger in someone else’s vehicle, and taking a taxi. Other common responses to this question included: would not make the trip, and bicycling.
- Over 30 percent of respondents indicated that they have been riding MMT for 10 or more years, with 40 percent of respondents reporting that they have utilized MMT for six years or longer, over 66 percent of respondents commenting that they have ridden MMT for three or more years, and over 81 percent of respondents noting that they have used MMT for a year or longer.
- Nearly 23 percent of survey respondents rode MMT more than 10 times in any given week. Nearly 43 percent of survey respondents rode MMT seven or more times per week. Nearly 86 percent of survey respondents rode MMT three or more times per week, and 98 percent of survey respondents had a habit of using MMT at least once a week.
- Nearly 51 percent of respondents lived within one block of a MMT bus stop, while over 83 percent of the respondents lived within three blocks of a MMT bus stop.
- Transit service was a factor in residence location for nearly 62 percent of survey respondents.
- Some 83 percent of respondents did not have a vehicle available for the trip they were making on the transit system, and nearly 78 percent of the respondents were not licensed drivers.
- Nearly 59 percent of respondents lived in households with no vehicle available, while an additional 23 percent of respondents lived in households with only one vehicle available.
- Over eight percent of the respondents stated that they have some type of special need which impacts their use of transit service to get to all of their destinations. “Special needs” that were specified ranged from having certain disabilities to commenting that the transit service area and times of service were not always convenient for the respondent.
- Nearly 61 percent of respondents stated that they would like to see transit service hours extended, and most of these respondents indicated the days and hours in which they would like to see such service extended. In addition, nearly 34 percent of respondents commented that the transit service area should be expanded; again, most of these

respondents noted specific new areas that they would like MMT to serve.

- Over 57 percent of respondents to the on-board ridership survey were female.
- There was a fairly even age distribution among the ridership.
- Nearly 24 percent of respondents indicated that they were employed full-time, while over 22 percent of respondents reported that they were employed part-time. In addition, nearly 16 percent of survey respondents indicated that they were unemployed. Nearly 18 percent of respondents stated that they were students, while nearly 13 percent of respondents commented that they were retired.
- Over 77 percent of respondents to the on-board ridership survey had an annual household income of less than \$20,000.
- Users of the system generally rated MMT well. Seven of the ten attributes of transit service that were measured received strongly positive mean ratings, while one additional attribute received a positive mean rating. Two attributes (hours of service and waiting time for the bus) were rated between neutral and positive. Bus service information was rated highest, while waiting time for the bus was rated lowest among the ten attributes.

Chapter 5 also documents changes in responses by transit riders over time between the 2001, 2009 and 2015 on-board ridership surveys.

Route Ridership Patterns

The TDP includes documentation of route ridership patterns in Chapter 6. A boarding and alighting survey was conducted in early October of 2015, and focused on: total daily outbound and inbound boardings and alightings; maximum loads by route; a peak and off-peak boarding and alighting comparison (systemwide and by route); and outbound and inbound boarding and alighting profiles of the individual routes. Special emphasis was placed on identifying route segments with zero boardings and alightings for consideration of route restructuring, as well as on identifying bus stops with relatively high numbers of daily boardings and alightings for consideration in the placement of passenger shelters. Since the data in Chapter 6 are detailed and quantitative, interested readers are referred to that chapter for more specific information on route ridership patterns.

Transit System Performance

The TDP also documents the performance of MMT in Chapter 7. This chapter begins with a peer system analysis which compared transit performance measures for four similarly sized transit operations to MMT. The other transit operations included in the analysis were: Fond du Lac and Stevens Point, Wisconsin; Moorhead, Minnesota; and Middletown, Ohio. Efficiency measures examined in this peer system analysis included: passengers per revenue hour; cost per revenue hour; and cost per passenger trip. The peer comparisons were conducted for the analysis year of 2013 with data provided by the Wisconsin Department of Transportation (for in-state operations) and with data provided by the Federal Transit Administration's *2013 National Transit Database Transit Profiles* (for out-of-state operations). MMT had the second highest passenger per

revenue hour ratio of the five peer transit operations in 2013. MMT had the highest cost per revenue hour ratio of the five peer transit operations in 2013. MMT had the second lowest cost per passenger trip ratio of the five peer transit operations in 2013.

Chapter 7 also includes a cost allocation model used to evaluate the productivity of individual routes as well as to forecast the impacts of potential service changes evaluated in the alternatives analysis. In addition, Chapter 7 evaluates the productivity of each of the seven routes overall, for weekdays and for Saturdays; efficiency measures examined in this route-level analysis included: passengers per mile; passengers per hour; and cost per passenger. “Special event” transit service was also briefly evaluated in terms of these same efficiency measures.

GOALS, OBJECTIVES AND STANDARDS

Chapter 8 consists of the goals, objectives and standards developed for this TDP. These goals, objectives and standards were developed by the TDP Review Committee in February of 2016, and were refined by the TDP Review Committee during two meetings in March of 2016. The following general goals were developed for the TDP and for MMT:

GOAL 1: To assure that quality transit service continues to be available, financed through fares and through federal, state and local governmental funding sources.

GOAL 2: To assure that the transit operation remains affordable to passengers and to local units of government.

GOAL 3: To continue to attract additional ridership as part of an effort to improve community support of the transit operation.

GOAL 4: To address the mobility needs of the transit dependent.

GOAL 5: To actively participate in planning decisions regarding land use patterns in the transit service area, as well as regarding the location of major transit trip generators, in order to assure that future land use development is compatible with transit service as part of the planning process.

GOAL 6: To consider service improvements where warranted.

GOAL 7: To consider personnel improvements where warranted.

Several objectives were developed to support each goal. In addition, several standards were developed to support each objective. Interested readers are referred to Chapter 8 to examine the detailed objectives and standards which support each of the above goals.

ALTERNATIVES ANALYSIS

Chapter 9 of the TDP outlines the alternatives analysis process used in the development of this document. Based on issues that were identified and input from various sources regarding the services of MMT, the TDP review committee, Bay-Lake Regional Planning Commission staff and MMT staff developed and analyzed alternative configurations of the transit system. The main alternative involved route reconfiguration that took into account several desired objectives, but (1) consideration of housing the Manitowoc County mobility manager at MMT, and (2) consideration of bringing paratransit service “in-house” were also examined as alternatives.

MMT staff directed the alternatives analysis process in a manner in which it primarily focused on revising the existing route structure as opposed to dramatically increasing or decreasing service levels; this was done because (1) MMT did not have the financial capacity to increase service levels over the period covered by this TDP, yet (2) MMT has had tremendous success in attracting ridership over the past few years, and reductions in service or changes in the delivery of transit service could cause the higher ridership levels to decrease.

Development and review of the alternatives analysis chapter of the TDP took place at four meetings of the Maritime Metro TDP Review Committee held in March, April and November of 2016. MMT staff held special outreach meetings with various officials in the City of Two Rivers (including Two Rivers School District staff) in 2016 to discuss and modify proposed revisions to Route 1. In addition, MMT staff held focus group sessions with MMT drivers in 2016 which mainly dealt with discussion and modification of the preliminary proposed MMT route structure. Public hearings on the proposed route revisions were held at the Manitowoc Senior Center and at the Two Rivers City Hall in mid-November of 2016.

RECOMMENDED PLAN

Chapter 10 of the TDP is the recommended plan. Highlights of the recommended plan are as follows:

Recommended Changes to General Service

There are few recommended changes to general service proposed in this TDP:

- On weekdays, service hours are recommended to continue to be from 5:15 a.m. to 7:15 p.m. for Route 1, from 5:00 a.m. to 7:30 p.m. for Routes 2 and 6A, and from 5:30 a.m. to 8:00 p.m. for Routes 3, 4 and 6B. Weekday service hours on Route 5 are proposed to run from 5:45 a.m. to 7:45 p.m. so that this route can efficiently transfer with Route 3 at a remote transfer point in southwest Manitowoc on South 39th Street south of the Walmart Supercenter.
- On Saturdays, service hours are recommended to continue to be from 9:15 a.m. to 3:30 p.m. for Route 1, from 9:00 a.m. to 3:30 p.m. for Routes 2 and 6A, and from 9:30 a.m. to 4:00 p.m. for Routes 3, 4 and 6B. Saturday service hours on Route 5 are proposed to run from 9:15 a.m. to 3:45 p.m., again so that this route can efficiently transfer with Route 3.

Recommended Route-Specific Service Changes

The review committee also recommended redesign of several of the routes of the transit operation. Review committee members believed that system redesign provides answers to many of the problems currently facing the transit operation, and would accomplish the following objectives:

- Spacing Maritime Metro Transit routes in such a manner that they no longer overlap;
- Having school children dropped off on the correct side of the street;
- Adding more “dead time” to routes so that they do not fall behind;
- Establishing passenger shelters and bus stops away from storefronts in order to save time; and

- Adding transit service to the portion of the City of Manitowoc southwest of Interstate Highway 43, including possible recommendation of a western transfer point.

One specific portion of the two communities served by Maritime Metro Transit that would receive better service is the southwest portion of the City of Manitowoc, particularly areas southwest of Interstate Highway 43 that would be served by the reconfigured Route 5. In addition, incremental expansions to the service area are proposed for: the north, southwest and southeast portions of the City of Two Rivers (Route 1), as well as the west central portion of the City of Manitowoc (Routes 6A and 6B). All routes except for Routes 1 and 5 would begin at the downtown Intermodal Transfer Center. All routes except for Route 1 are anticipated to operate within 30 minutes per trip. Route 1 is anticipated to operate within one hour per trip. System redesign is recommended for implementation in early 2017.

Additional details concerning the recommended route-specific service changes can be found in Chapter 10 of the TDP, including Map 10.1.

Recommended Changes to ADA Paratransit Service

It is recommended that Maritime Metro Transit study the feasibility of bringing paratransit in-house during the period covered by this TDP. Other transit operations in the region have brought paratransit services in-house with tremendous success. Data presented in the Alternatives Analysis (Chapter 9) which examined this alternative will need to be updated to current conditions at the time that such an analysis is conducted.

ADA paratransit service hours will remain unchanged, and will mirror regular service hours as recommended in this TDP. ADA paratransit service hours are recommended to be 5:00 a.m. to 8:00 p.m. for City of Manitowoc routes and 5:15 a.m. to 7:15 p.m. for Route 1 (Two Rivers) on weekdays, and are recommended to be 9:00 a.m. to 4:00 p.m. for City of Manitowoc routes and 9:15 a.m. to 3:30 p.m. for Route 1 on Saturdays.

The redesign of the transit system and its routes could have some increased impact on demand for ADA paratransit service, since the extension of transit service to previously unserved portions of the southwest side of the City of Manitowoc (via the reconfigured Route 5) could bring facilities which serve disabled individuals within three-quarters of a mile of this reconfigured route (the Manitowoc County Health and Rehabilitation Center is expected to be a particularly busy ADA paratransit trip generator in this area). This could also occur in areas where other routes expanded in coverage (such as portions of Routes 1, 6A and 6B), and could also occur if other routes get extended in the future. ADA riders should continue to receive priority over other users of the paratransit service in the Maritime Metro Transit System service area.

The recommended ADA paratransit service area for MMT can be found in Chapter 10 of the TDP, including Map 10.2.

Financial Plan

A preliminary financial plan has been prepared which identifies projected operating costs and potential revenue sources. Operating costs for the fixed-route service were projected using adjustments for increases in costs in future years as well as the estimated operating

characteristics of transit service from 2017 to 2021. Operating and administration costs are assumed to increase by 3.0 percent each year between 2017 and 2021. The cost of the ADA paratransit service is assumed to increase at a rate of 2.0 percent per year between 2017 and 2021. Table 1.1 indicates the proposed financial plan for this TDP.

Table 1.1 does not include purchased transportation outside of ADA paratransit within the Maritime Metro Transit System service area; this line item is technically not part of the fixed-route and ADA component of the transit operation, and is largely subsidized by Manitowoc County. In addition, Table 1.1 does not include Maritime Metro Transit's mobility management activities, which returned to MMT in mid-2016, are completed through an agreement with the Aging and Disability Resource Center (ADRC) of the Lakeshore, and are funded through a Federal Section 5310 grant awarded by the Wisconsin Department of Transportation.

Projected revenues are also shown in Table 1.1. Federal Section 5311 revenues are assumed to be 49.12 percent of total expenses for all years covered by this TDP. State Section 85.20 revenues are assumed to be 13.40 percent of total expenses for all years covered by this TDP. These percentages are approximate, but the combined federal and state share of total expenses is expected to be 62.52 percent over the period covered by this TDP.

Municipal funding of transit begins at a base level of \$263,916 for the City of Manitowoc and \$99,055 for the City of Two Rivers in 2017. The combined municipal share to fund Maritime Metro Transit increases about 4 to 5 percent each year over the period from 2017 and 2021. Municipal funding of transit is projected to cover 19.17 percent of total expenses in 2017, 19.51 percent of total expenses in 2018, 19.71 percent of total expenses in 2019, 20.05 percent of total expenses in 2020, and 20.26 percent of total expenses in 2021.

Farebox revenues used to finance transit service are projected to begin at a base level of \$170,000 in 2017. Farebox revenues then are projected to stay flat between 2017 and 2018, increase by about 3.72 percent between 2018 and 2019, stay flat between 2019 and 2020, and increase by about 3.47 percent between 2020 and 2021. These increases are projected because it is recommended that the cost of the monthly pass increase in 2017, 2019 and 2021 (see the Fare Policy section which follows this discussion). Farebox funding of transit is projected to cover about 8.98 percent of total expenses in 2017, about 8.72 percent of total expenses in 2018, about 8.79 percent of total expenses in 2019, about 8.53 percent of total expenses in 2020, and about 8.58 percent of total expenses in 2021.

Other revenues (advertising and proprietary revenues, interest income, etc.) are expected to increase by two percent between 2017 and 2018, stay flat between 2018 and 2019, increase by two percent between 2019 and 2020, and stay flat between 2020 and 2021. This revenue source is projected to be about 8.6 to 9.4 percent of Maritime Metro Transit's budget for all years covered by this TDP.

Table 1.1: Proposed Financial Plan

| Item | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|-------------|-------------|-------------|-------------|-------------|
| Fixed-Route Operations and Administration | \$1,803,510 | \$1,857,615 | \$1,913,344 | \$1,970,744 | \$2,029,866 |
| ADA Paratransit Service | \$90,000 | \$91,800 | \$93,636 | \$95,509 | \$97,419 |
| Total | \$1,893,510 | \$1,949,415 | \$2,006,980 | \$2,066,253 | \$2,127,285 |

| Source | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|
| Federal - Section 5311 | \$930,076 | \$957,536 | \$985,811 | \$1,014,926 | \$1,044,904 |
| State - Section 85.20 | \$253,657 | \$261,146 | \$268,858 | \$276,798 | \$284,974 |
| City of Manitowoc | \$263,916 | \$276,582 | \$287,677 | \$301,210 | \$313,391 |
| City of Two Rivers | \$99,055 | \$103,809 | \$107,973 | \$113,052 | \$117,624 |
| Farebox Revenues | \$170,000 | \$170,000 | \$176,318 | \$176,318 | \$182,443 |
| Other Revenues | \$176,806 | \$180,342 | \$180,342 | \$183,949 | \$183,949 |
| Total | \$1,893,510 | \$1,949,415 | \$2,006,980 | \$2,066,253 | \$2,127,285 |

Source: Bay-Lake Regional Planning Commission, 2016.

Fare Policy

A fare policy has been recommended for Maritime Metro Transit to provide multi-year guidance to the staff, the City of Manitowoc Public Infrastructure Committee, and to the Common Council for setting and changing fares. The fare policy has considered goals and objectives established for the TDP, where feasible. The fare policy also attempts to make fares as affordable as possible for transit users, while at the same time keeping the proportion of farebox revenue to total expenses at a consistent level over the period covered by this TDP. The recommended fares are indicated in Table 1.2, along with the existing 2016 fare structure.

The current adult price of the monthly pass is low compared to nearly all other urban transit operations in northeastern Wisconsin (the exception being GO Transit in Oshkosh, which has a current monthly pass cost similar to Maritime Metro Transit at \$25). It is recommended that the monthly pass increase to \$26 in 2017, to \$28 in 2019, and to \$30 in 2021. Maritime Metro Transit could explore instituting monthly passes with lower costs for students (as is done at three transit operations in northeastern Wisconsin) and for the elderly and disabled (for fixed-route service, as is done at two transit operations in northeastern Wisconsin) over the period covered by this TDP.

The adult cash fare would remain at \$1.50 over the period covered by this TDP. The student cash fare would remain at \$1.00 over the period covered by this TDP.

The student “freedom pass” (which covers the months of June through August) is recommended to remain at \$30 throughout the period covered by this TDP.

Transit tickets for adult and student riders (which are sold in packs of ten) would remain at \$12 over the period covered by this TDP.

The “day pass” (good for unlimited rides on MMT for a single day of operation) is recommended to remain at \$4 over the period covered by this TDP. The “day pass” will continue to be marketed to tourists (particularly tourists arriving on the Car Ferry), but will also be marketed to local residents who need transit services on an irregular basis.

The school group/day care cash fare (per person) is recommended to remain at 50 cents over the period covered by this TDP.

Children age 4 and younger riding with an older responsible family member or babysitter would continue to ride for free. In addition, transfers would continue to be provided free of charge.

Maritime Metro Transit will maintain discounted cash fares for senior citizens and for individuals with disabilities of all ages during all hours of operation, in accordance with (and, to some extent, exceeding) Federal law. The discounted cash fare for these passengers will not exceed 50 percent of the full adult cash fare.

The cash fare for complementary paratransit service provided in accordance with the Americans with Disabilities Act of 1990 (ADA) will continue to be \$3.00 over the period covered by this TDP, or double the adult cash fare of \$1.50.

Table 1.2: Recommended Fare Structure

| Fare Category | Current Fare | Recommended Fare | | | | |
|--|--------------|------------------|---------|---------|---------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Monthly Pass | \$25.00 | \$26.00 | \$26.00 | \$28.00 | \$28.00 | \$30.00 |
| Adult Cash Fare | \$1.50 | \$1.50 | \$1.50 | \$1.50 | \$1.50 | \$1.50 |
| Student Cash Fare | \$1.00 | \$1.00 | \$1.00 | \$1.00 | \$1.00 | \$1.00 |
| Student "Freedom Pass" (June - August) | \$30.00 | \$30.00 | \$30.00 | \$30.00 | \$30.00 | \$30.00 |
| Bus Tickets (Adults and Students - Pack of 10) | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$12.00 |
| Day Pass (unlimited rides on one service day) | \$4.00 | \$4.00 | \$4.00 | \$4.00 | \$4.00 | \$4.00 |
| Senior Citizen Cash Fare* | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 |
| Persons with Disabilities** | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 |
| School Groups/Daycares (per person) | \$0.50 | \$0.50 | \$0.50 | \$0.50 | \$0.50 | \$0.50 |
| Children Age 4 and Younger*** | Free | Free | Free | Free | Free | Free |
| Transfers (with Fare Payment) | Free | Free | Free | Free | Free | Free |
| ADA Paratransit Fare | \$3.00 | \$3.00 | \$3.00 | \$3.00 | \$3.00 | \$3.00 |

*With Medicare Card

**With Metro Reduced Fare Card

***When accompanied by an older responsible family member or babysitter.

Source: Maritime Metro Transit System, 2016; and Bay-Lake Regional Planning Commission, 2016.

Capital Improvements

Table 1.3 lists capital projects for Maritime Metro Transit for the period covered by this TDP. Of these projects, three capital items are recommended for 2017, one capital item is recommended for 2018, three capital items are recommended for 2019, two capital items are recommended for 2020, and no capital items are recommended for 2021. The projects are described in detail in Chapter 10, and recommended locations for passenger shelter placement can be found on Map 10.3 in that chapter.

For most recommended capital projects, it is anticipated that the Federal Transit Administration (FTA) would provide 80 percent of transit capital funds for each purchase, while the City of Manitowoc would provide the remaining 20 percent of funding for these capital purchases. The federal funding for capital purchases would normally result from the FTA Section 5311 program, but could also occasionally come from the FTA Section 5339 (Buses and Bus Facilities Discretionary Grant) program, the Congestion Mitigation and Air Quality improvement program (CMAQ), or other FTA programs. In the case of the implementation of route changes, local

funding will likely be utilized for this capital item, but every attempt will be made to secure outside funding to complete that project.

Table 1.3: 2017 – 2021 Capital Improvement Program, Maritime Metro Transit System

| Project Description | Quantity | Year |
|--|-----------------|-------------|
| Implementation of Route Changes per TDP (Bus Stop Signage, Passenger Shelter Acquisition, and Concrete for ADA-Compliant Bus Stops and Bases for Passenger Shelters) | 1 | 2017 |
| Acquisition of Replacement Support Vehicle | 1 | 2017 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 4 | 2017 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 2 | 2018 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 2 | 2019 |
| Acquisition of Shop Equipment | 1 | 2019 |
| Acquisition of Replacement Minibuses to Provide ADA Paratransit Service | 3 | 2019 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 1 | 2020 |
| Acquisition of Replacement Van to Provide ADA Paratransit Service | 1 | 2020 |

Source: Maritime Metro Transit System, 2016; and Bay-Lake Regional Planning Commission, 2016.

Marketing Recommendations

Chapter 10 of the TDP includes narrative which describes various marketing recommendations for Maritime Metro Transit. These recommendations include, but are not limited to: working with local media to provide periodic human interest stories concerning the benefits of using transit service; various other media initiatives (rider testimonials, public education regarding the benefits of using transit, etc.); use of press releases; internal marketing (such as signage on buses, making transit maps, schedules and informational fliers available, and the publication of route-specific maps and schedules); participation in statewide and targeted marketing campaigns; increased use of MMT’s Facebook page as well as Twitter; and returning to production of a brief newsletter for MMT customers.

Monitoring Program

Chapter 10 of the TDP also includes narrative which describes a monitoring program for MMT.

Fixed-route buses should be no more than five minutes behind schedule at least 95 percent of the time. In addition, fixed-route buses should never be ahead of schedule. For the paratransit operation (ADA), vehicles should be within 30 minutes of requested pickup times at least 95 percent of the time. Exceptions to these standards can be made under unusual circumstances.

Productivity measures for both fixed-route and demand response services should be reported monthly, and should be reported by route, indicating the number of passengers per revenue hour and per revenue mile. Passenger ridership data should be collected on a continuous basis. Cost information should be reported quarterly; this information should include the average net cost

per passenger, the cost per passenger by route, ridership by route, and the average fare. Annual cost reporting should indicate not only routes, but also route segments that have excessive net costs per passenger. Passenger opinion and boarding and alighting surveys should be conducted on a biennial basis in order to gather more frequent data and perceptions concerning MMT.

Land Use Planning Recommendations

Chapter 10 of the TDP also includes narrative which describes land use planning recommendations concerning MMT. The MMT staff should play an important role in land use decisions, and should have an opportunity to comment as appropriate on land use proposals which are located within the transit service area. In addition, MMT staff should continue to serve on the City of Manitowoc Plan Commission, and should also monitor agendas of the City of Two Rivers Plan Commission and comment as appropriate on proposals that may have an impact on transit's ability to serve that community. The development codes of the City of Manitowoc should be reviewed to ensure that appropriate incentives are provided to promote the use of transit. Several transit-friendly land use and design guidelines are incorporated into the land use planning recommendations narrative.

Other Recommendations

Study the Feasibility of Bringing Paratransit Services In-House

Maritime Metro Transit should study the feasibility of bringing paratransit services in-house. This can occur around the time when the post-2016 request for proposals (RFP) for paratransit services (including ADA service), is issued. While these services are excellent today, including this recommendation in the TDP provides an option for evaluation of these services in the future if they become more costly and/or if the quality of these services deteriorates.

Improvements to Transit Management

A full-time Operations Supervisor is recommended for Maritime Metro Transit. Maritime Metro Transit will be adding a full-time Operations Supervisor to its staff in 2017.

Mid-Course Review

A "mid-course review" of the TDP should be conducted in 2019. This will allow the TDP to be a more flexible document in terms of being open to potential opportunities that may present themselves before the next TDP is prepared. Such a "mid-course review" could include additional route revisions to respond to land use and transportation changes in the transit service area since the TDP was adopted.

Implementation Strategy

The following is a recommended implementation strategy for elements in the TDP:

2016

- Bring mobility management services in-house (took effect in July 2016).

2017

- Raise monthly pass price from \$25 to \$26.
- Implement route revisions recommended in this TDP (bus stop signage, passenger shelter acquisition, pouring of extensive concrete at various locations for ADA-compliant bus

stops and bases for passenger shelters resulting from the routing changes, mapping, operations planning, etc.).

- Add a full-time Operations Supervisor to the Maritime Metro Transit staff.
- Replace one (1) support vehicle.
- Acquire four (4) replacement 35-foot heavy duty diesel low floor buses.
- Conduct passenger opinion survey (following implementation of route revisions).

2018

- Acquire two (2) replacement 35-foot heavy duty diesel low floor buses.
- Conduct boarding and alighting survey.

2019

- Raise monthly pass from \$26 to \$28.
- Acquire two (2) replacement 35-foot heavy duty diesel low floor buses.
- Acquire shop equipment.
- Acquire three (3) replacement minibuses to provide ADA paratransit service.
- Conduct passenger opinion survey.
- Conduct “mid-course review” of the TDP.

2020

- Acquire one (1) replacement 35-foot heavy duty diesel low floor bus.
- Acquire one (1) replacement van to provide ADA paratransit service.
- Conduct boarding and alighting survey.
- Begin work on a TDP Update.

2021

- Raise monthly pass from \$28 to \$30.
- Conduct passenger opinion survey.
- Conduct public opinion survey (suggested).
- Complete updated TDP for the 2022 – 2026 planning period.

Unknown Year

- Study the feasibility of bringing paratransit services in-house (when an RFP for paratransit services, including ADA service, is issued).
- Monitor management changes that took place in 2017.

Unless otherwise noted, fare and service changes for 2017 through 2021 and financial items should be implemented on January 1 of the year in question. Other activities will be implemented at some point during the year in question at the discretion of Maritime Metro Transit staff.

CHAPTER 2: INTRODUCTION

STUDY PURPOSE

The Bay-Lake Regional Planning Commission (BLRPC) completed a Transit Development Program (TDP) for the Maritime Metro Transit System for the period between 2017 and 2021. The area considered in this study consists of the Cities of Manitowoc and Two Rivers, both located within Manitowoc County.

Public transit services have been provided for decades in the Manitowoc – Two Rivers area. Similar to several other communities, the City of Manitowoc had to assume operation of the mass transportation system when it was no longer profitable for a private operator in the late 1970s; since then, the City of Manitowoc has continued to operate Maritime Metro Transit as a service to the community and area.

Maritime Metro Transit has experienced ridership levels in excess of 300,000 unlinked trips each year in recent years, due in part to implementation of route revisions and service improvements in the previous TDP (2010 – 2014), as well as improved marketing efforts. This TDP attempts to build upon the successes of Maritime Metro Transit over the past several years. With increased scrutiny of transit funding and policies at all levels of government, and with increased demands for improved transit services, it is appropriate to develop a short-range plan for public transportation services in the community and area. This planning process largely involves development of a strategy to optimize the use of capital and operational funding to meet the needs of the service area. This plan involves careful consideration of the appropriate future direction for public transportation services in the Manitowoc – Two Rivers area, as well as the appropriate manner in which such services should be provided.

ISSUES TO BE ADDRESSED

Specific issues addressed in the TDP planning process included the following:

- What do passengers think of Maritime Metro Transit? (Chapter 5).
- What are the most productive and least productive routes and route segments of the Maritime Metro Transit System? (Chapters 6 and 7).
- How does Maritime Metro Transit compare to peer transit operations around the Midwest in terms of various performance measures? (Chapter 7).
- What goals, objectives and standards are appropriate for the future of Maritime Metro Transit? (Chapter 8).
- Are fixed-route transit operations the most appropriate strategy for the Manitowoc – Two Rivers area, or should other operational strategies be pursued? (Chapter 9).
- If fixed-route service is appropriate for the transit service area, then does fixed-route service need radical reform, or are minor modifications to routes adequate? (Chapter 9).
- What additions and deletions to transit service are appropriate? (Chapter 10).

- What appropriate fare policy should be implemented by Maritime Metro Transit? (Chapter 10).
- What capital projects should be pursued to achieve transit goals? (Chapter 10).
- How can transit be used to achieve mobility and land use goals? (Chapter 10).
- How can changing demographics and land use patterns best be accommodated by Maritime Metro Transit? (Chapter 10).
- What land use policies should be established to facilitate public transportation service? (Chapter 10).
- Should communities in the transit service area be willing to assume increased local funding responsibility for existing or improved transit services? (Chapter 10).
- How should Maritime Metro Transit market itself over the next five years? (Chapter 10).
- What methods should Maritime Metro Transit utilize to internally monitor its performance? (Chapter 10).
- What is the appropriate implementation sequence for recommendations made in this plan? (Chapter 10).

PLANNING PROCESS

The completion of this Maritime Metro Transit Development Program (TDP) involved a substantial amount of research in the service area and an alternatives analysis to determine the best way to provide transit service in the Manitowoc – Two Rivers area. The Bay-Lake Regional Planning Commission collected and analyzed data concerning current characteristics of the transit system and of the service area. Two separate surveys were conducted to obtain the opinions of transit riders as well as to determine route ridership patterns. Other items developed in the planning process included: a peer system analysis; a cost allocation model and analysis of productivity by route; and goals, objectives and standards for the TDP. All of this information was used to develop an alternatives analysis, which in turn was utilized in the process of developing a recommended plan for public transportation in the Manitowoc – Two Rivers area. The “implementation strategy” section of the recommended plan chapter establishes the direction for achieving key recommendations in this TDP.

Meetings and public input sessions were conducted throughout this study. The meetings included the City of Manitowoc’s Transit Commission and Maritime Metro Transit staff. The TDP Review Committee met on 12 occasions to review TDP elements from July 2014 to November 2016. Maritime Metro Transit staff held focus group meetings with drivers in 2016, and held two public hearings regarding fare and routing changes proposed in the TDP in November 2016. This TDP is a joint effort of Maritime Metro Transit, local citizens, staff from the Bay-Lake Regional Planning Commission, the affected local governmental bodies, and the Wisconsin Department of Transportation.

CHAPTER 3: TRANSIT SYSTEM OVERVIEW

HISTORY OF TRANSIT SERVICE IN THE AREA

The Maritime Metro Transit System is owned and operated by the City of Manitowoc, and contracts with the City of Two Rivers to provide service. The City of Manitowoc took over the management of operations of the privately owned Manitowoc Motor Coach Company in January 1978, with the city increasing available services at that time, leading to increases in ridership. Transit services were privately owned in Manitowoc between 1934 (when transit service began) and early 1978. Transit in Manitowoc involved a historical peak in ridership in the late 1940s, and involved its lowest levels of ridership in the late 1960s and portions of the 1970s preceding public takeover of the operation. There have been five previous transit development programs (TDPs) prepared for Maritime Metro Transit; consulting firms prepared three of the previous TDPs in 1976, 1981 and in 1989, and the Bay-Lake Regional Planning Commission completed the *Maritime Metro TDP: 2003 – 2007* in 2002, as well as the *Maritime Metro TDP: 2010 – 2014* in 2010. The recommendations in these studies have largely determined the operational and administrative characteristics of Maritime Metro Transit over the past 35 to 40 years.

In 1992, the Maritime Metro Transit System initiated paratransit services under the Americans with Disabilities Act (ADA). This is a curb-to-curb service that provides transportation to the disabled population in the transit service area that, in many cases, is unable to utilize the fixed-route service. In addition, door-to-door service is available for an additional fee. The Maritime Metro Transit System contracts these services to a local provider, Assist-to-Transport LLC of Manitowoc.

ORGANIZATION AND MANAGEMENT

The Maritime Metro Transit System is one of many services provided by the City of Manitowoc, and is a function of city government. The Transit Manager is directly responsible for the coordination and administration of the planning, development and operation of the Maritime Metro Transit System. The Transit Manager reports to the Director of Public Infrastructure involving all city-related matters, and also reports to the Public Infrastructure Committee of the City of Manitowoc Common Council, which is the assigned Standing Committee for transit policy. In addition, the Transit Manager consults with the city's Transit Commission on transit matters; the Transit Commission has six citizen members plus one alderman. Ultimately, the final decision on transit matters rests with the Mayor and the Manitowoc Common Council.

The Maritime Metro Transit System is mostly a fixed-route, fixed-schedule bus system, with occasional route deviation in portions of the service area.

The City of Manitowoc is organized under a Mayor/Council form of government. The Common Council is composed of ten alderpersons, one from each of ten aldermanic districts in the city. The Mayor is popularly elected, and acts as chief executive officer of the city, presiding at all Common Council meetings. The Common Council is advised by several boards, commissions and committees. One of those committees, the Public Infrastructure Committee, establishes policy for the Maritime Metro Transit System. The Public Infrastructure Committee consists of five members, all of whom are alderpersons appointed by the Mayor and confirmed by the entire Common Council. Recommendations of the Public Infrastructure Committee are forwarded to the Common Council for final approval. Transit is placed on the agenda of the Public Infrastructure Committee for matters related to route changes, fare structure adjustments and

personnel issues; the Transit Commission is frequently consulted before these issues are discussed at the Public Infrastructure Committee.

The Maritime Metro Transit System obtains support from the City of Manitowoc in three major areas. First, the Department of Public Infrastructure is responsible for all vehicle maintenance activities associated with the fleet. Second, the Human Resources Department supports transit in terms of hiring employees as well as in labor negotiations. Finally, the Finance Department provides financial services, including processing payments, accruing revenue, recording expenses, and recording and monitoring all transit finances in several areas, including budget compliance.

The Maritime Metro Transit System has 17 bus drivers (11 full-time and six part-time drivers), as well as one full-time clerk and one part-time clerk. Maritime Metro Transit is directly overseen by the Transit Manager. Maritime Metro Transit also has 1.5 full-time equivalent mechanics that are overseen by the Fleet Manager, whose time is pro-rated between Maritime Metro Transit and the Department of Public Infrastructure.

SERVICE CHARACTERISTICS

Current regular fixed-route transit services provided in the Maritime Metro Transit System service area are depicted on Map 3.1. As Map 3.1 indicates, six of the seven primary routes (Routes 2, 3, 4, 5, 6A and 6B) converge at the Intermodal Transfer Center (915 South 11th Street) in Manitowoc's Central Business District. One additional primary route operates from a different transfer point; Route 1, which serves the City of Two Rivers, involves transfers from Route 2 at the Meadow Links Transfer Point on Johnston Drive. Schedules are designed so that transfers are easily accommodated between all Maritime Metro Transit routes.

Service is generally provided six days a week, Monday through Saturday (excluding major holidays), with no service on Sundays. Weekday service begins at 5:00 a.m. and ends at 7:30 p.m. for Routes 2, 5 and 6A, while weekday service begins at 5:30 a.m. and ends at 8:00 p.m. for Routes 3, 4 and 6B. Weekday service begins at 5:12 a.m. and ends around 7:12 p.m. on Route 1, which serves the City of Two Rivers. Saturday service begins at 9:00 a.m. and ends at 3:30 p.m. for Routes 2, 5 and 6A, while Saturday service begins at 9:30 a.m. and ends at 4:00 p.m. for Routes 3, 4 and 6B. Saturday service begins at 9:12 a.m. and ends at 3:12 p.m. on Route 1. Route length is generally one hour for Route 1 (although the last trip for Route 1 on Saturdays is a half hour in length), and is generally a half hour for all other routes on both weekdays and Saturdays.

Frequency of service is variable across the routes. On weekdays, Routes 2, 3, 4 and 5 have service once each hour before 7:00 a.m. and after 5:30 p.m., and have service once each half hour between 7:00 a.m. and 5:30 p.m., while Routes 1, 6A and 6B have service once each hour throughout the service day. On Saturdays, all routes have service once each hour throughout the service day.

The following is a description of the Maritime Metro Transit routes:

- **Route 1** is the Two Rivers route, which provides service between the Cities of Manitowoc and Two Rivers. Major trip generators served by Route 1 include Roncalli High School, the Woodland Clinic, Aurora Medical Center/Hospital, two elementary schools and one middle school in the City of Two Rivers, the Lester Public Library, the Two Rivers Senior Center, Two Rivers City Hall, Piggly Wiggly and Pick & Save Supermarkets in Two Rivers, and the Manitowoc Social Security

office, along with a few apartment complexes and elderly housing facilities in the City of Two Rivers.

- **Route 2** is the Northeast Loop route, which provides service to the portions of the east side of the City of Manitowoc north of the Manitowoc River, and connects to Route 1 at the Meadow Links Transfer Point. Major trip generators served by Route 2 include the Manitowoc Public Library, the Wisconsin Maritime Museum, the Manitowoc – Two Rivers YMCA, the Manitowoc Social Security office, Roncalli High School, the Piggly Wiggly Supermarket in Manitowoc, the north side Aurora Manitowoc Clinic, one junior high school, one alternative high school, and the Salvation Army, along with a few elderly housing facilities.
- **Route 3** is the Southwest Loop route, which travels along Washington Street and Calumet Avenue and provides service to the Manitowoc Senior Center, the Harbor Town area, the Manitowoc County Office Complex, restaurants and businesses along Frontage Road, and the south side Aurora Manitowoc Clinic. Major stores served by Route 3 include Copps’ Food Center, Festival Foods, the Walmart Supercenter and Shopko.
- **Route 4** is the Southeast Loop route, which provides service to the mostly residential southeastern portion of the City of Manitowoc east of South 26th Street and south of the Manitowoc River. Major trip generators served by Route 4 include Lincoln High School, the University of Wisconsin Manitowoc (on most daytime trips), three elementary schools (two public and one Catholic), a junior high school, and a Catholic middle school, along with some apartment complexes and elderly housing facilities.
- **Route 5** is the West Loop route. Route 5 also serves much of southwest Manitowoc, but with different destinations from Route 3. Route 5 travels on Franklin Street, Custer Street, Vista Road, West Expo Drive, South Rapids Road, Harbor Town Lane, Dewey Street, South 35th Street, Yorkshire Lane, South 30th Street, Calumet Avenue, and other streets on the southwest side. Major trip generators served by Route 5 include the Manitowoc Senior Center, medical, dental and eye clinics on West Expo Drive, Kohl’s, Lowe’s, the south side Aurora Medical Clinic, Festival Foods, and the Manitowoc County Job Center/Lakeshore Technical College Manitowoc campus (during limited hours).
- **Route 6A** is the North Central Loop route, which provides service to northern and west central portions of the City of Manitowoc north of Routes 3 and 5. Route 6A travels on South Water Street, Clark Street, Western Avenue, Meadow Lane, Broadway Street, North Rapids Road, Waldo Boulevard, North 23rd Street, Menasha Avenue, North 18th Street, New York Avenue, North 5th Street, Chicago Street, and North 10th Street, and other street segments. Major trip generators served by Route 6A include: Holy Family Memorial Medical Center, Holiday House, Meadow Lanes West, Rob’s Family Market, the Salvation Army, and various schools, manufacturers and small stores. Route 6A alternates with Route 6B throughout the service day.
- **Route 6B** is the Northwest Loop route. While Route 6B runs along much of the

same route structure as Route 6A, it also serves residential neighborhoods on the northwest side of Manitowoc. Route 6B travels on portions of North Rapids Road north of Waldo Boulevard, as well as along portions of Wildwood Drive, Kellner Street, and Menasha Avenue between Kellner Street and North 23rd Street. Unlike Route 6A, Route 6B does not travel on Waldo Boulevard or on North 23rd Street. In addition to the trip generators noted for Route 6A, Route 6B serves the Manitowoc County Airport, and also serves Lutheran High School once each morning and once each afternoon (via route deviation) when school is in session. Route 6B alternates with Route 6A throughout the service day.

VEHICLE FLEET

As illustrated in Table 3.1, the Maritime Metro Transit System operates a fleet of nine transit coaches in 2014. Four of the buses are 35 feet in length, while five other buses are 29 feet in length. All of the buses are equipped with diesel engines. The transit system has a very extensive preventive maintenance program for all vehicles which uses a checklist to guide all inspections. In addition to the nine transit coaches, Maritime Metro has two service vehicles; these are not listed in Table 3.1. Also, six vans owned by Maritime Metro Transit are used in the provision of complementary paratransit service for the disabled (these are not listed in Table 3.1); Maritime Metro Transit contracts with a private sector transportation provider for this service.

Maritime Metro Transit rotates its vehicles on a daily basis. During peak hours, Maritime Metro Transit has six buses in operation, with three buses as standby or spare vehicles.

Table 3.1: Maritime Metro Transit System Bus Fleet, 2014

| Make | Bus Number | Year | Capacity | Mileage |
|-------------|-------------------|-------------|-----------------|----------------|
| Gillig | 1009 | 2005 | 35 | 309,751 |
| Gillig | 1010 | 2005 | 35 | 300,693 |
| Gillig | 1011 | 2005 | 35 | 337,788 |
| Gillig | 1012 | 2005 | 35 | 326,329 |
| Gillig | 1013 | 2004 | 25 | 502,727 |
| Gillig | 1014 | 2004 | 25 | 509,924 |
| Gillig | 1015 | 2004 | 25 | 506,003 |
| Gillig | 1016 | 2004 | 25 | 480,194 |
| Gillig | 1017 | 2004 | 25 | 446,682 |

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

OTHER FACILITIES

The Maritime Metro Transit System has a heated and air conditioned transfer center that involves a significant portion of a city block in the central business district (near City Hall and the Post Office), and is well lit during hours of darkness, providing safe shelter for Maritime Metro Transit passengers. On the transit center premises, there is a drinking fountain, public restrooms, a conference room, large lobby area, a functional office, storage areas, and driver break room. The new transfer center is fully ADA accessible, has a parking lot for those who would like to drive to the facility and catch the bus at the transfer center, and has been constructed in an energy efficient manner. A security camera also monitors activity at the transit center.

Other facilities maintained by Maritime Metro Transit include 19 shelters at various bus stops with traditionally high ridership levels. Route maps are posted in several of these passenger shelters for the convenience of transit customers. There are four passenger shelters along Route 1, five passenger shelters along Route 2, five passenger shelters along Route 3, two passenger

shelters along Route 4, one passenger shelter along Route 5, two passenger shelters along Route 6A, and no passenger shelters along Route 6B. It should be noted that of these, Routes 1 and 2 share two passenger shelters, Routes 3 and 5 share two passenger shelters, and Routes 6A and 6B share two passenger shelters.

FARE STRUCTURE

The fare structure for the Maritime Metro Transit System is indicated in Table 3.2. With the exception of the cost of transit tickets, the current fare structure implements what was recommended in the *Maritime Metro Transit Development Program (TDP): 2010 – 2014*. There are five basic fare categories: Adult, Student (with valid student ID, regardless of where the student is enrolled), Seniors/Disabled, Youth Group, and Children age 4 and under.

Table 3.2: Maritime Metro Transit System Fare Schedule

| Payment Type | Cost |
|---|-------------|
| Adults (18 - 64 years) | |
| Cash Fare | \$1.50 |
| Transit Tickets (10) | \$12.00 |
| Day Pass | \$4.00 |
| Monthly Pass | \$25.00 |
| Students (with valid student ID) | |
| Cash Fare | \$1.00 |
| Transit Tickets (10) | \$12.00 |
| Day Pass | \$4.00 |
| Monthly Pass | \$25.00 |
| "Freedom Pass" (June - August/Ages 5 - 17 only) | \$30.00 |
| Seniors (65 & older)/Disabled (all ages) | |
| Cash Fare* | \$0.75 |
| Day Pass | \$4.00 |
| Monthly Pass | \$25.00 |
| Children (4 years & under)** | Free |
| School Groups, Daycares, etc. | \$0.50 |
| Transfers | Free |
| ADA Paratransit Fare (Curb-to-Curb) | \$3.00 |
| ADA Paratransit Fare (Door-to-Door) | \$5.00 |

*Senior/Disabled cash fare requires Metro reduced fare card or Medicare card.

**Children 4 years and under must be escorted by an adult. Limited to four children per fare-paying rider. Intended for parents, siblings and babysitters with infants or toddlers. Not available to preschool, daycare or play groups on field trips.

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

There are multiple payment options. First, fares may be paid in cash with exact change. Second, passes (the day pass, the monthly pass, and the summer “freedom pass” for students ages 5 through 17) are good for an unlimited number of rides during the day, calendar month or summer for which they are issued. Finally, transit (ride) tickets are made available for the occasional rider at a cost below the standard cash fare. Transit tickets do not expire and therefore may be used at any time, but must be purchased in groups of ten. Preschool age children who are escorted by an adult ride free. However, large numbers of children in an organized setting (such as school

groups and daycare settings) pay 50 cents per rider. Transfers from one Maritime Metro Transit to another when making a single one-way trip are free.

Transit tickets and passes may be purchased at several sales outlets throughout Manitowoc and Two Rivers. In Manitowoc, transit tickets and monthly passes can be purchased at the Maritime Metro Transit transfer station, at the Manitowoc Senior Center, and at the following retail outlets: Copps' Food Center, Festival Foods, Rob's Family Market, and the Unimart on North 8th Street. In Two Rivers, purchases can be made at the Two Rivers Senior Center, as well as at the Pick and Save and Piggly Wiggly Supermarkets. Purchase of transit tickets and monthly passes can also be made through the mail with orders placed with the Maritime Metro Transit office. Credit and debit cards can be used to purchase transit tickets and monthly passes at all supermarket outlets in the service area as well as at the Unimart on North 8th Street. Summer "freedom passes" and day passes can only be purchased at the Maritime Metro Transit transfer station.

Curb-to-curb Americans with Disabilities Act (ADA) paratransit service has a cash fare of \$3.00 a ride (\$6.00 round trip). Door-to-door ADA paratransit service has a cash fare of \$5.00 a ride (\$10.00 round trip). Tickets good for ten curb-to-curb ADA paratransit rides for \$30.00 are available for purchase at the Maritime Metro Transit transfer station and at the Manitowoc and Two Rivers Senior Centers. Purchase of these ride tickets can also be made through the mail with orders placed with the Maritime Metro Transit office.

SYSTEMWIDE RIDERSHIP AND REVENUE MILE TRENDS

Annual Revenue Passengers

Annual revenue passenger ridership data for the period between 2004 and 2013 are presented in Table 3.3 and Figure 3.1.

The number of fixed route trips and total passenger trips increased from 2004 through 2008, then decreased between 2008 and 2009. The number of fixed route trips and total passenger trips increased from 2009 through 2011 (with maximum ridership observed in 2011), then decreased between 2011 and 2012. The number of fixed route trips and total passenger trips again increased between 2012 and 2013. The observed ridership decrease from 2008 to 2009 was likely caused by the poor economy that hit much of the nation beginning in late 2008; similar ridership decreases were observed elsewhere in Wisconsin. The observed ridership decrease from 2011 to 2012 likely was the result of reduced service that was largely caused by a reduction in state funding of transit in the biennial state budget.

Among rider categories, adult ridership increased from 2004 through 2008, decreased from 2008 through 2010, increased from 2010 to 2011 (hitting its highest point in 2011), and decreased from 2011 to 2013. Student ridership increased from 2004 through 2008, decreased from 2008 through 2012 (hitting its lowest point in 2012), and finally increasing from 2012 to 2013. Senior citizen ridership increased from 2004 through 2007, and decreased from 2007 through 2013. Disabled passenger ridership consistently increased during the ten-year period, nearly doubling between 2004 and 2013.

The number of ADA paratransit trips decreased from 2004 through 2006, increased from 2006 through 2008, decreased from 2008 through 2010, increased from 2010 to 2011, decreased dramatically from 2011 to 2012, and increased slightly from 2012 to 2013. Overall, ADA paratransit ridership in 2013 was about 38 percent of such ridership in 2004. In the early years of

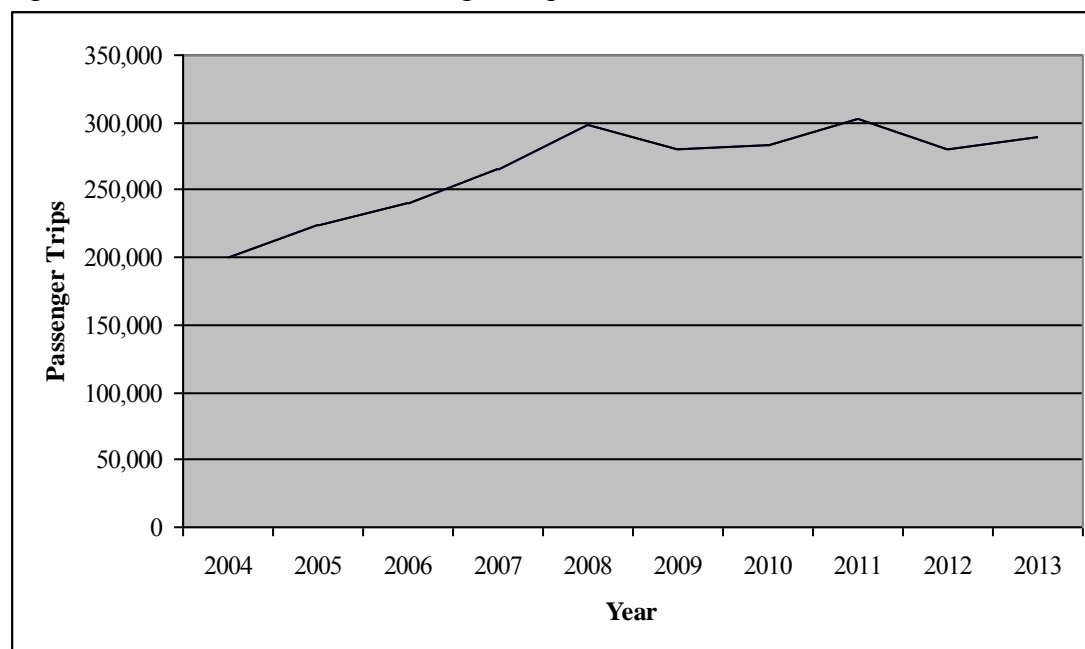
this period, the acquisition of lift equipped buses generally led to a decreased number of ADA paratransit trips because disabled riders who were unable to utilize fixed route service previously could now use that service provided that they were able to reach a bus stop. In the latter years of this period, proactive efforts by Maritime Metro Transit and Manitowoc County's mobility manager to conduct travel training, assign "bus buddies" and other programs made disabled riders more comfortable in using fixed route service, which led to significant decreases in ADA paratransit ridership coupled with significant increases in fixed route system ridership among the disabled ridership segment. It also appears that disabled passengers are using fixed route service more frequently than they used ADA paratransit service. Implementation of an agency fare also contributed to the large decrease in ADA paratransit ridership between 2011 and 2012.

Table 3.3: Annual Revenue Passenger Trips

| Year | Fixed Route Trips | ADA Paratransit Trips | Total Passenger Trips |
|------|-------------------|-----------------------|-----------------------|
| 2004 | 187,473 | 12,163 | 199,636 |
| 2005 | 213,695 | 9,574 | 223,269 |
| 2006 | 231,429 | 8,085 | 239,514 |
| 2007 | 256,436 | 8,484 | 264,920 |
| 2008 | 287,873 | 9,904 | 297,777 |
| 2009 | 271,193 | 9,102 | 280,295 |
| 2010 | 273,932 | 8,919 | 282,851 |
| 2011 | 292,501 | 10,757 | 303,258 |
| 2012 | 276,010 | 4,474 | 280,484 |
| 2013 | 284,567 | 4,614 | 289,181 |

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Figure 3.1: Annual Revenue Passenger Trips



Source Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Annual Revenue Miles

Annual revenue mileage data for the period between 2004 and 2013 are presented in Table 3.4 and Figure 3.2.

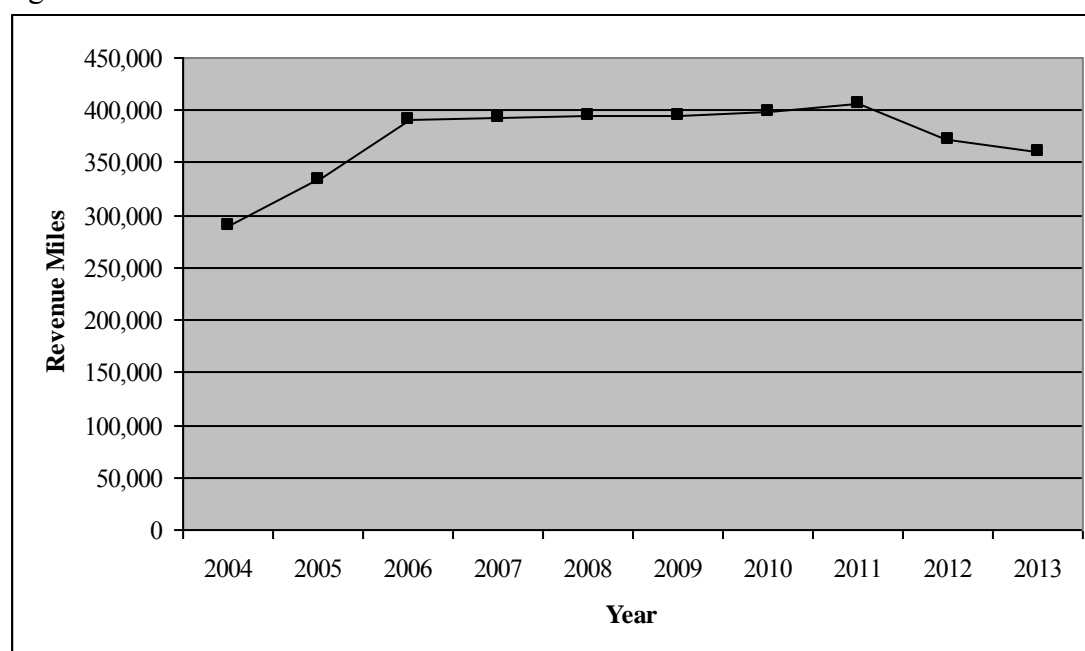
There was a significant increase in revenue miles between 2004 and 2005; this was largely due to the addition of weekday evening and Saturday afternoon transit service through a Congestion Mitigation and Air Quality (CMAQ) program grant. In addition, there was a significant increase in revenue miles between 2005 and 2006, which was largely due to the restructured route structure implemented in 2006. There were more modest increases in revenue miles between 2006 and 2008. There was a slight decrease in revenue miles between 2008 and 2009, followed by increases in revenue miles between 2009 and 2011; the maximum number of revenue miles (405,363) was observed in 2011. Finally, there were significant decreases in revenue miles between 2011 and 2013, due in part to decreases in state aid for transit operations in Wisconsin in recent biennial budgets. MMT staff noted that service hours were cut in mid-2012, and 2013 involved a full year of those cuts.

Table 3.4: Annual Revenue Miles

| Year | Revenue Miles |
|------|---------------|
| 2004 | 289,000 |
| 2005 | 333,276 |
| 2006 | 390,776 |
| 2007 | 391,944 |
| 2008 | 395,071 |
| 2009 | 393,775 |
| 2010 | 398,028 |
| 2011 | 405,363 |
| 2012 | 371,260 |
| 2013 | 359,642 |

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Figure 3.2: Annual Revenue Miles



Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

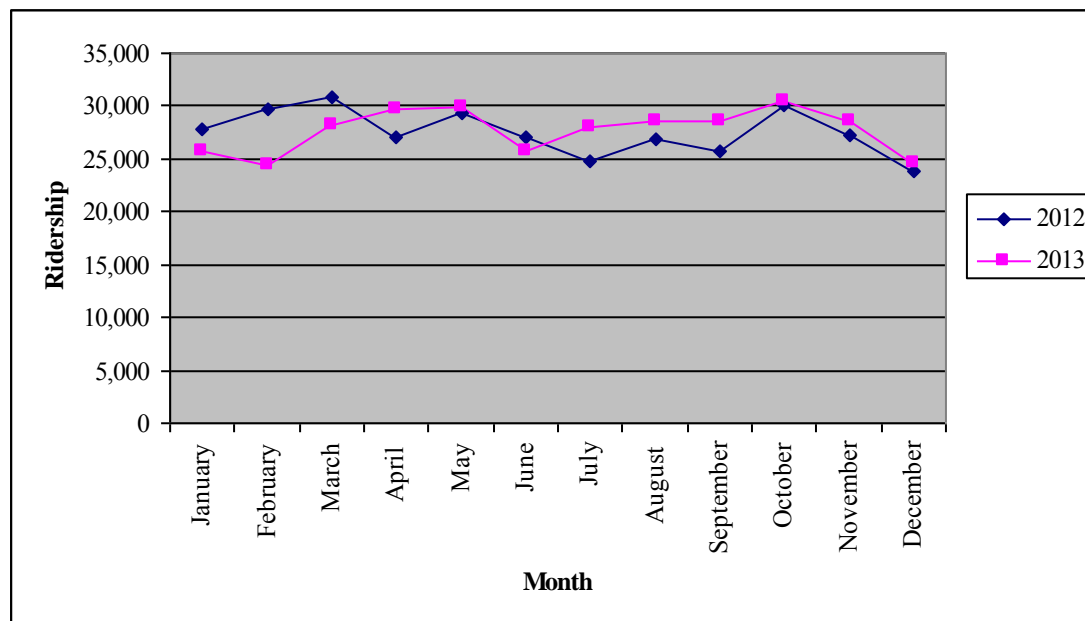
Monthly Ridership: 2012 – 2013

The monthly ridership pattern for calendar years 2012 and 2013 is illustrated in Figure 3.3.

In 2012, the highest ridership month was March; other above average ridership months in 2012 were February, May and October. Also in 2012, the lowest ridership month was December; other below average ridership months were July, August and September. January, April, June and November were the months closest to the monthly average of 27,523 riders in 2012.

In 2013, the highest ridership month was October; other above average ridership months in 2013 were April, May, August, September and November. Also in 2013, the lowest ridership month was February; other below average ridership months in 2013 were January, June and December. March and July were the months closest to the monthly average of 27,705 riders in 2013.

Figure 3.3: Monthly Ridership, 2012 – 2013

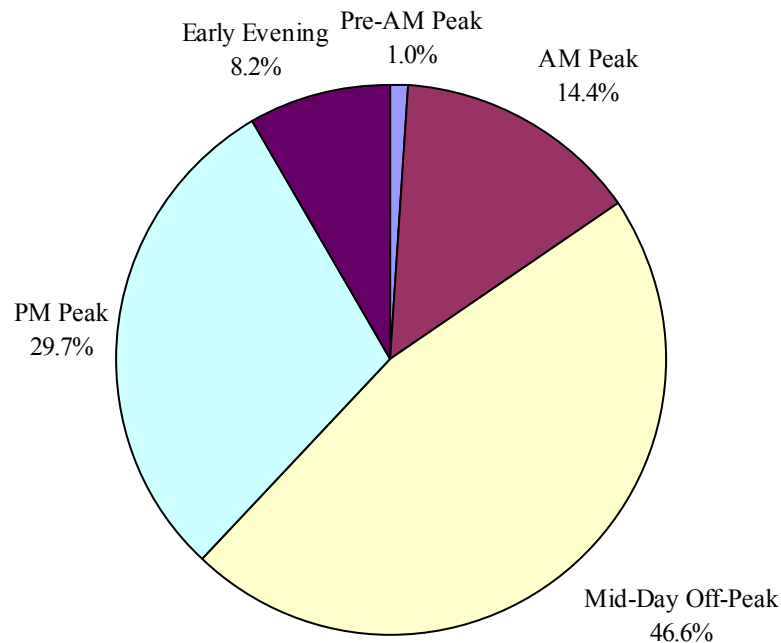


Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Ridership by Time of Day: 2013

Ridership by time of day for 2013 is presented in Figure 3.4. Maritime Metro Transit System ridership data have been categorized into five broad time periods: (1) the pre-AM peak period of 5:00 a.m. to 6:30 a.m. (this accounted for 1.0 percent of all ridership in 2013); (2) the AM peak period of 6:30 a.m. to 9:00 a.m. (14.4 percent of all 2013 ridership); (3) the mid-day off-peak period of 9:00 a.m. to 2:30 p.m. (46.6 percent of all 2013 ridership); (4) the PM peak period of 2:30 p.m. to 5:30 p.m. (29.7 percent of all 2013 ridership); and (5) early evening service after 5:30 p.m. (8.2 percent of all 2013 ridership). Chapter Six will provide greater detail in terms of ridership by time of day at the hourly level.

Figure 3.4: Ridership by Time of Day, 2013



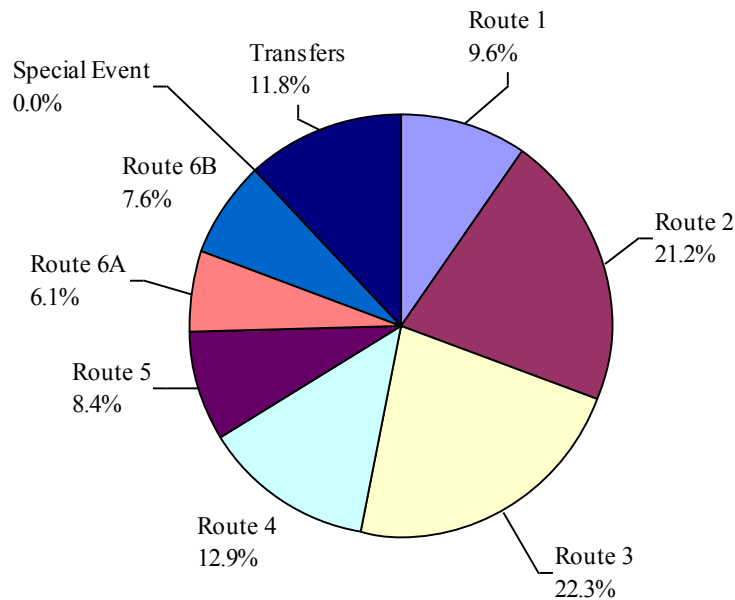
Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Ridership by Route: 2013

Ridership by route for 2013 is presented in Figure 3.5. Chapter Six will examine ridership by route at a greater level of detail than what is presented here.

The most commonly used route in 2013 was Route 3 (the Southwest Loop), with 22.3 percent of riders using this route. This was followed closely by Route 2 (the Northeast Loop), with 21.2 percent of riders using this route. The third most used route was Route 4 (the Southeast Loop), with 12.9 percent of riders using this route. The remaining routes had between six and ten percent of all ridership; these include: Route 1 (Two Rivers – 9.6 percent of all riders); Route 5 (the West Loop – 8.4 percent of all riders); Route 6B (Northwest Loop – 7.6 percent of all riders); and Route 6A (North Central Loop – 6.1 percent of all riders). Transfers constituted 11.8 percent of total ridership in 2013. Special event transportation not assigned to a specific route constituted less than 0.1 percent of total ridership in 2013.

Figure 3.5: Ridership by Route, 2013



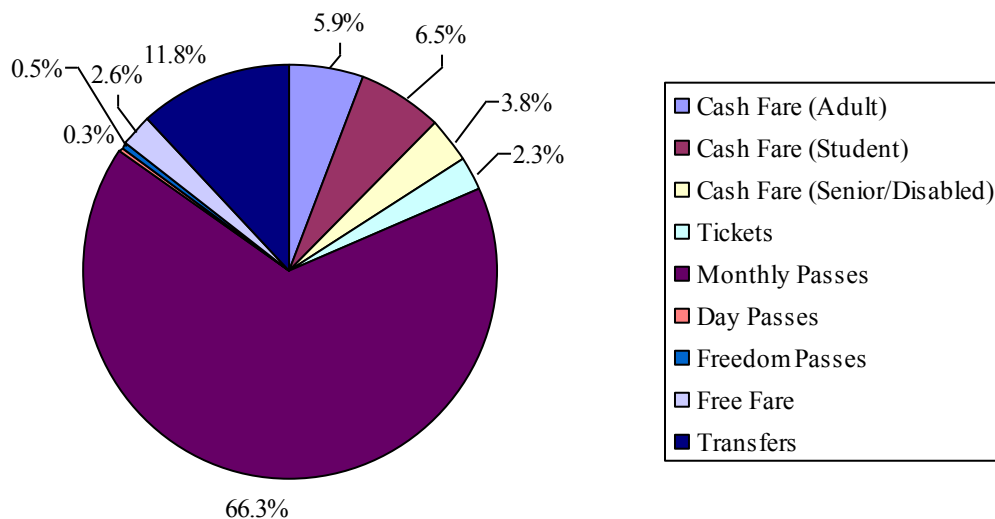
Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Ridership by Fare Category: 2013

Maritime Metro Transit maintains records of ridership by fare category; ridership by fare category for 2013 is indicated in Figure 3.6. The most popular payment method among Maritime Metro Transit riders is the monthly pass, which accounts for 66.3 percent of all rides given by the transit operation in 2013. Other payment methods among riders included: adult cash fare (5.9 percent of riders); student cash fare (6.5 percent of riders); cash fare for senior citizens and the disabled (3.8 percent of riders); tickets (2.3 percent of riders); day passes (0.3 percent of riders); and student “freedom” passes valid during the summer months (0.5 percent of riders). Non-payment documentation of ridership included: transfers (11.8 percent of ridership); and free rides (2.6 percent of all rides in 2013). The low cost of the monthly pass relative to cash fares has made the monthly pass a very popular option among the ridership over the past several years.

The analysis in Figure 3.6 only accounts for the fixed route component of the transit system. If paratransit services are considered, persons who paid the ADA paratransit fare would constitute approximately 1.4 percent of the total ridership of Maritime Metro Transit in 2013.

Figure 3.6: Ridership by Fare Category, 2013

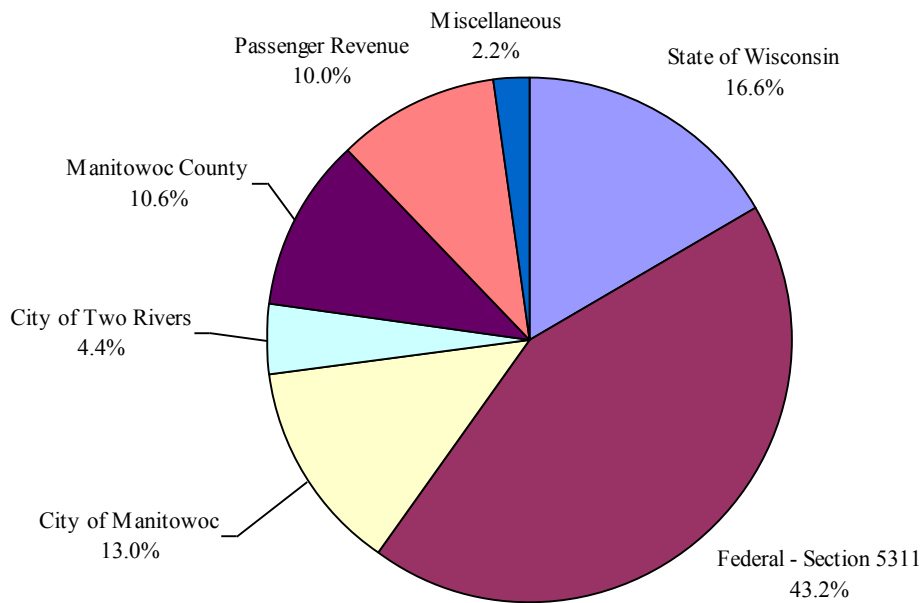


Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

FUNDING SOURCES: 2010 – 2013

The funding sources for Maritime Metro Transit in 2013 are indicated in Figure 3.7. In 2013, the largest contributor to the transit operation was the Federal government (Federal Transit Administration, or FTA), which contributed \$834,886, or about 43.2 percent of the transit budget. The second largest contributor to the transit budget was the State of Wisconsin (Wisconsin Department of Transportation), which contributed \$321,645, or about 16.6 percent of the transit budget. Other significant contributors to the transit budget included: the City of Manitowoc (\$251,503, or about 13.0 percent of the transit budget); Manitowoc County (\$204,219, or about 10.6 percent of the transit budget); the ridership through fares (\$193,404, or about 10.0 percent of the transit budget); and the City of Two Rivers (\$85,239, or about 4.4 percent of the transit budget). The least significant (but nonetheless important) contributor to the transit budget was miscellaneous revenues (primarily involving insurance recovery income and advertising revenue), involving \$42,466, or about 2.2 percent of the transit budget.

Figure 3.7: Funding Sources for Maritime Metro Transit, 2013



Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

Table 3.5 indicates funding sources for Maritime Metro Transit (MMT) over the four year period between 2010 and 2013. Table 3.5 indicates that in absolute dollar terms, state financial participation in MMT increased by about 9.5 percent between 2010 and 2011, decreased significantly (by nearly one third) between 2011 and 2012, and decreased slightly between 2012 and 2013. State participation in MMT in percentage terms increased between 2010 and 2011, decreased significantly between 2011 and 2012, and stayed virtually the same between 2012 and 2013. The decision of the State of Wisconsin to decrease state aid for transit operations in the biennial state budget in 2012 led to the decreases in 2012 and 2013.

Table 3.5 also indicates that in absolute dollar terms, Federal (FTA Section 5311) financial participation in MMT decreased every year from 2010 through 2013. Federal participation in MMT in percentage terms decreased from 2010 to 2011, increased from 2011 to 2012, and decreased from 2012 to 2013. Seeing a decrease in absolute Federal aid coupled with an increase in the percentage of Federal participation in MMT from 2011 to 2012 may seem counterintuitive, but decreases in the overall MMT budget and the significant decrease in state aid for MMT caused this to occur.

Table 3.5 shows that in absolute dollar terms, City of Manitowoc financial participation in MMT stayed the same between 2010 and 2012, then increased slightly between 2012 and 2013. City of Manitowoc participation in MMT in percentage terms stayed the same between 2010 and 2011, increased between 2011 and 2012, and increased again between 2012 and 2013.

Table 3.5 also shows that in absolute dollar terms, City of Two Rivers financial participation in MMT increased between 2010 and 2011, stayed the same between 2011 and 2012, and increased between 2012 and 2013. City of Two Rivers financial participation in MMT in percentage terms increased steadily throughout the four year period.

Table 3.5 indicates that in absolute dollar terms, Manitowoc County financial participation in MMT stayed the same between 2010 and 2011, decreased significantly (by nearly 30 percent) between 2011 and 2012, and increased significantly (by over 16 percent) between 2012 and 2013. Manitowoc County financial participation in MMT in percentage terms stayed the same between 2010 and 2011, decreased between 2011 and 2012, and increased between 2012 and 2013. Manitowoc County receives a Section 85.21 grant from the state of Wisconsin for the provision of transportation services for the elderly and disabled in the county, and this is passed on to MMT (along with a local match) for the provision of these services. It is likely that there have been decreases in funding for this program (along with most transit programs) at the state level in recent years.

Table 3.5 indicates that passenger revenue increased steadily in absolute dollar terms, and also increased steadily in percentage terms over the four year period between 2010 and 2013.

Finally, Table 3.5 shows that in absolute dollar terms, miscellaneous revenues (insurance recoveries, advertising revenue, etc.) decreased between 2010 and 2011, and increased steadily but slightly between 2011 and 2013. In percentage terms, miscellaneous revenues were within 0.2 percent of two percent of all revenues throughout the four year period between 2010 and 2013.

Table 3.5: Funding Sources for Maritime Metro Transit, 2010 – 2013

| Funding Source | 2010 | | 2011 | | 2012 | | 2013 | |
|------------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|
| | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
| State of Wisconsin | \$436,836 | 19.9% | \$478,530 | 21.8% | \$322,311 | 16.6% | \$321,645 | 16.6% |
| Federal - Section 5311 | \$970,828 | 44.2% | \$918,448 | 41.8% | \$888,683 | 45.9% | \$834,886 | 43.2% |
| City of Manitowoc | \$242,830 | 11.1% | \$242,830 | 11.1% | \$242,830 | 12.5% | \$251,503 | 13.0% |
| City of Two Rivers | \$79,193 | 3.6% | \$83,386 | 3.8% | \$83,386 | 4.3% | \$85,239 | 4.4% |
| Manitowoc County | \$249,000 | 11.3% | \$249,000 | 11.3% | \$175,580 | 9.1% | \$204,219 | 10.6% |
| Passenger Revenue | \$172,148 | 7.8% | \$183,558 | 8.4% | \$185,298 | 9.6% | \$193,404 | 10.0% |
| Miscellaneous | \$44,359 | 2.0% | \$39,876 | 1.8% | \$40,103 | 2.1% | \$42,466 | 2.2% |
| TOTAL | \$2,195,194 | 100.0% | \$2,195,628 | 100.0% | \$1,938,191 | 100.0% | \$1,933,363 | 100.0% |

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

EXPENSE BREAKDOWN: 2010 – 2013

Operating expense budgets for Maritime Metro Transit from 2010 to 2013 are depicted in Table 3.6. The overall budget decreased by over 21 percent from 2010 to 2011 (much of the higher amount in 2010 involved a transfer to the MMT capital project fund), decreased by over seven percent from 2011 to 2012, and decreased by over 16 percent from 2012 to 2013. Administrative expenses decreased every year over the four year period. Facilities related expenses decreased from 2010 to 2011, increased significantly from 2011 to 2012, then decreased from 2012 to 2013. Bus maintenance expenses increased from 2010 to 2011, decreased from 2011 to 2012, and decreased significantly from 2012 to 2013; vehicle depreciation “expenses” led to much of the fluctuation in this line item over this period. Bus operations expenses decreased significantly from 2010 to 2011 (due to the transfer to the MMT capital project fund in 2010), increased slightly from 2011 to 2012, and decreased somewhat from 2012 to 2013. ADA paratransit expenses increased by nearly 24 percent from 2010 to 2011, but decreased by nearly 50 percent from 2012 to 2013, and continued to decrease from 2012 to 2013; the travel training activities discussed earlier in this chapter likely led to the decreases in ADA paratransit expenses over the

past few years.

In 2010, 64.5 cents of every transit dollar were allocated to bus operations, while 21.3 cents were allocated to bus maintenance, 9.2 cents were allocated to administrative activities, 4.1 cents were spent on ADA paratransit purchased transportation, and 1.0 cents were spent on transit facilities. In 2013, 67.0 cents of every transit dollar were allocated to bus operations, while 20.7 cents were allocated to bus maintenance, 6.5 cents were allocated to administrative activities, 4.0 cents were spent on ADA paratransit purchased transportation, and 1.8 cents were spent on transit facilities.

Table 3.6: Maritime Metro Transit System Expense Breakdown, 2010 - 2013

| Expenses | 2010 | 2011 | 2012 | 2013 |
|---|-------------|-------------|-------------|-------------|
| ADMINISTRATION | | | | |
| Personal Services | \$211,959 | \$157,739 | \$109,417 | \$88,935 |
| Contract Services/Utilities | \$65,965 | \$57,242 | \$35,054 | \$33,931 |
| Supplies and Expenses | \$3,675 | \$2,880 | \$2,116 | \$2,321 |
| Equipment Rental | \$1,539 | \$864 | \$281 | \$127 |
| Transfer to Other Funds (Debt Service) | \$5,734 | \$5,542 | \$5,376 | \$0 |
| FACILITIES | | | | |
| Contract Services/Utilities | \$28,205 | \$21,934 | \$26,499 | \$24,828 |
| Supplies and Expenses | \$2,053 | \$1,795 | \$9,184 | \$7,436 |
| Insurance on Buildings | \$720 | \$1,780 | \$1,767 | \$2,476 |
| BUS MAINTENANCE | | | | |
| Personal Services | \$147,229 | \$111,644 | \$70,572 | \$100,743 |
| Contract Services/Utilities | \$17,405 | \$18,089 | \$3,719 | \$1,822 |
| Supplies and Expenses | \$241,105 | \$335,129 | \$306,868 | \$294,349 |
| Insurance on Fleet | \$7,533 | \$7,622 | \$7,194 | \$3,335 |
| Other Fixed Charges (Vehicle Depreciation, etc.) | \$259,322 | \$288,217 | \$307,314 | \$0 |
| BUS OPERATIONS | | | | |
| Personal Services | \$978,021 | \$981,738 | \$1,034,351 | \$1,015,494 |
| Contract Services/Utilities | \$246,248 | \$228,365 | \$215,730 | \$204,569 |
| Supplies and Expenses | \$4,410 | \$1,209 | \$2,791 | \$1,335 |
| Advertising | \$67,116 | \$67,276 | \$49,208 | \$40,845 |
| Liability Insurance | \$38,446 | \$42,219 | \$43,810 | \$35,108 |
| Transfer to Other Funds (General Fund) | \$700,000 | \$0 | \$0 | \$0 |
| PURCHASED TRANSPORTATION (ADA PARATRANSIT) | \$128,270 | \$158,986 | \$80,419 | \$77,675 |
| TOTAL | \$3,154,955 | \$2,490,273 | \$2,311,670 | \$1,935,326 |

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2014.

OTHER AREA TRANSIT/PARATRANSIT PROVIDERS

In addition to the Maritime Metro Transit System, transportation services in the transit service area are provided by several other sources.

Indian Trails Bus Lines provides intercity bus service between Manitowoc and other cities in the region, with transfer connections in Green Bay and Milwaukee. Passengers can travel to Appleton (via Greyhound), to various destinations in central Wisconsin (via Lamers Bus Lines), and to the Upper Peninsula of Michigan (via Indian Trails) from Green Bay. Passengers can travel to various destinations throughout Wisconsin, the Midwest and the United States from

Milwaukee using various bus lines as well as Amtrak. The negative aspects of the Indian Trails bus service are that it is infrequent (one trip north and one trip south each day), and one of these trips leaves at a time of the day when transit service does not operate (7:25 a.m. southbound and 11:20 p.m. northbound). The Indian Trails stop in Manitowoc is at the Shell station at 1701 South 41st Street, in the Harbor Town area; this area is currently served by Route 3.

Jefferson Lines also operates intercity bus service between Milwaukee and Green Bay. Southbound service (to Sheboygan and Milwaukee) leaves at 5:45 p.m. Northbound service (to Green Bay) leaves at 10:20 a.m. The same connections that are available through Indian Trails are available through Jefferson Lines in Green Bay and in Milwaukee. In addition, Jefferson Lines offers service along the State Highway 29 and Interstate Highway 94 corridors from Green Bay to Wausau, Eau Claire and Minneapolis-St. Paul. The Jefferson Lines stop in Manitowoc is also at the Shell station at 1701 South 41st Street.

Lamers Bus Lines offers a “Lamers Connect” service that specializes in transporting college students between their campuses and major communities across Wisconsin. The “Lamers Connect” route that serves Manitowoc connects Green Bay and Milwaukee, and only provides service on weekends (Fridays and Sundays). Destinations in Green Bay that are served by “Lamers Connect” include UW – Green Bay (excluding the summer months), Green Bay Metro, and the Green Bay Greyhound depot. Destinations in Milwaukee that are served by “Lamers Connect” include UW – Milwaukee, the Milwaukee Intermodal (including Amtrak) Station, and General Mitchell International Airport. “Lamers Connect” also serves Sheboygan at the Shoreline Metro transfer point. Southbound service leaves at 10:10 a.m., while northbound service leaves at 4:55 p.m. The “Lamers Connect” stop is also at the Shell station at 1701 South 41st Street.

Brandt Buses provides contracted school bus service for all elementary public and private school students who reside two or more miles from school (as designated for their attendance area) in the territory covered by the Manitowoc Public School District. All preschool and kindergarten students who attend Riverview School are also eligible for this service, as are junior high school and senior high school students who reside both outside the City of Manitowoc as well as two or more miles from school. Junior High School and Senior High School students who live within the City of Manitowoc are not eligible for free transportation, but can certainly purchase school bus transportation from Brandt Buses.

Two Rivers Buses, Inc. provides similar school bus service in the Two Rivers Public School District as that provided by Brandt Buses for the Manitowoc Public School District, except that all high school students in the Two Rivers Public School District receive free busing because of the location of the high school. Two Rivers Buses also provides service to Head Start students in the Manitowoc and Two Rivers Public School Districts.

Lakeshore Technical College (LTC) Express is a transportation service for LTC students. The service operates on weekdays when LTC classes are in session. The LTC Express picks passengers up at the MMT Intermodal Transfer Center at 7:15 a.m. and at the LTC campus at the Manitowoc County Job Center at 7:20 a.m., then travels to the LTC main campus in Cleveland. The LTC Express returns students from the main campus to Manitowoc beginning at 4:40 p.m. Service is also available from the main campus to LTC programs in Sheboygan, such as LTC’s Culinary Institute (but with time constraints). The cost for a one-way ride is \$2, with ten-ride passes also available for a discounted rate of \$18. A semester pass is also available for \$225, and

the pass is eligible for financial aid.

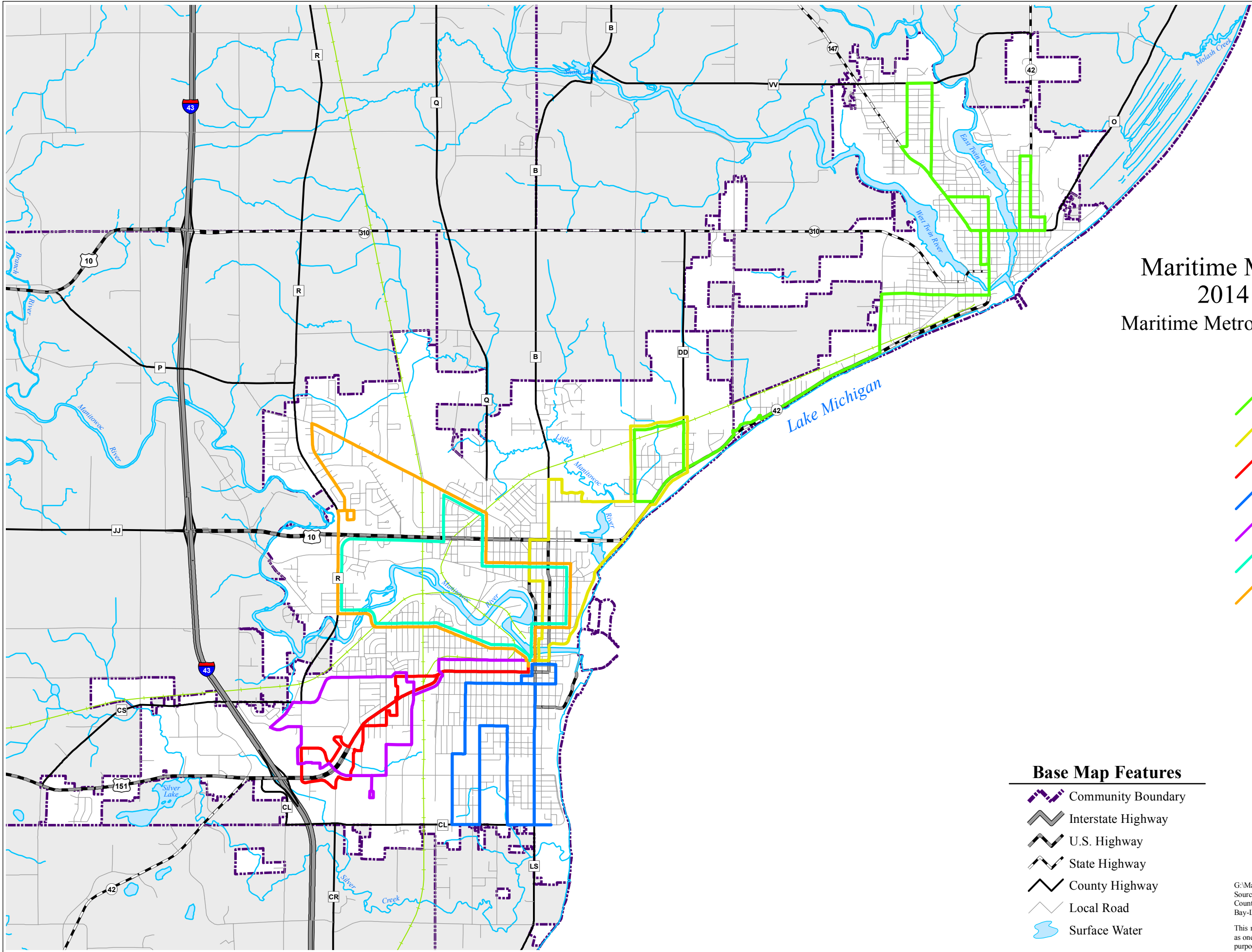
In addition to the above noted services, the following transportation options are available to residents of the transit service area; these services are presumed to be wheelchair accessible unless otherwise noted:

- Manitowoc County Elderly Transportation Program (a cooperative service of Manitowoc County and MMT, which operates on weekdays from 8:00 a.m. to 4:00 p.m., excluding holidays; persons age 65 and older are eligible; this is a demand-based curb-to-curb service, and costs \$2 for one-way trips that are 10 miles or shorter, \$3 for one-way trips that are longer than 10 miles, and 75 cents for meal site one-way trips or for additional stops on a one-way trip; eligibility determination is required).
- Manitowoc County Disabled Transportation Program (a cooperative service of Manitowoc County and MMT, which operates on weekdays from 8:00 a.m. to 4:00 p.m., excluding holidays; non-ambulatory or other disabled individuals are eligible; this is a demand-based door-to-door service, and costs \$4.50 per one-way trip regardless of length; eligibility determination is required).
- Manitowoc County Rural Disabled Routes (a cooperative service of Manitowoc County and MMT; this service primarily transports disabled residents of rural Manitowoc County to employment at the Holiday House in Manitowoc, and typically operates between the hours of 7:00 to 9:00 a.m. and 3:00 to 5:00 p.m. on weekdays).
- Aging and Disability Resource Center (ADRC) of the Lakeshore – Manitowoc County Volunteer Driver Program (by appointment only; elderly and disabled county residents are generally eligible for this service; this curb-to-curb service costs \$3 per one-way trip).
- Assist-to-Transport Private Pay Program (operates 24 hours a day and seven days a week; no eligibility restrictions; this is a demand-based service; this service costs \$30 per trip within Manitowoc County).
- HFM-CR Mobility (generally transports Medicaid customers to Holy Family Memorial Hospital and affiliated clinics in the area).
- Aurora Medical Center Transportation Service (operates weekdays from 8:00 a.m. to 5:00 p.m.; Aurora patients are eligible for this service to or from Aurora facilities in the area; this is a demand-based door-through-door service; there is no charge for this service).
- Disabled American Veterans (operates weekdays, with the Manitowoc pickup at the Holiday Inn at 7:30 a.m.; veterans using VA hospital services in Milwaukee are eligible; this transportation originates at the new VA clinic in Green Bay and travels along Interstate Highway 43 to Milwaukee).
- Maritime Cab and Delivery (operates 24 hours a day and seven days a week; no eligibility restrictions; this is a demand-based service; average costs are \$8 for service in Manitowoc; not wheelchair accessible).
- 2 Guys Taxi (operates 24 hours a day and seven days a week; no eligibility restrictions; this is a demand-based service; average costs are \$8 for service in Manitowoc; not

wheelchair accessible).

- Smitty's Taxi Service - Two Rivers (operates 24 hours a day and seven days a week; no eligibility restrictions; this is a demand-based service; not wheelchair accessible).
- Our Town Taxi Service (operates 24 hours a day and seven days a week; no eligibility restrictions; this is a demand-based service; average costs are \$8 for service in Manitowoc and \$12 to \$13 for service in Two Rivers; not wheelchair accessible).
- Companion Care Delivery (operates 24 hours a day and seven days a week; no eligibility restrictions; this is a demand-based service; average round trip cost \$30 for service in Manitowoc and \$35 in Two Rivers; not wheelchair accessible).
- Home Instead Senior Care (the Manitowoc franchise provides incidental transportation to its elderly clients as part of an overall care package for these clients).
- Two Rivers TRUST Car (available to City of Two Rivers residents age 50 and older between 8:00 a.m. and 4:00 p.m. on weekdays; a punch card cost \$10, and is good for ten rides; this is a program of the Two Rivers Senior Center, and Senior Center membership is required in order to use this service).
- A & J Mobility (serves several locations in Wisconsin, including Valders and Green Bay; insured adults over the age of 25 are eligible to rent vans; this service involves the purchase and rental of accessible specialized vehicles; costs start at \$110 per day, and decrease with longer-term rentals; a weekend rate of \$195 is also available).

The Maritime Metro Transit System uses the resources of an outside contractor to perform ADA paratransit service. Assist-to-Transport, the contracted service provider, handles the entire operation, including call taking, service delivery, dispatching and record keeping. These services are curb-to-curb, and are for persons who, due to physical circumstances, are not able to make use of the fixed route service. The cash fare for curb-to-curb transportation is \$3.00 per ride (\$6.00 per round trip). Door-to-door transportation is available for \$5.00 per ride (\$10.00 per round trip). Reservations for service must be made no later than the day before the needed trip. Service is available on weekdays from 5:00 a.m. to 8:00 p.m. and on Saturdays from 9:00 a.m. to 4:00 p.m. Paratransit service is not available on Sundays or on the same major holidays that regular fixed route bus service does not operate. Currently, Assist-to-Transport charges Maritime Metro Transit the following rates for paratransit rides: \$19.56 for each curb-to-curb trip and \$21.70 for each door-to-door trip.

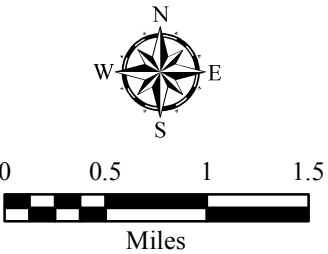


Maritime Metro Transit System:
2014 Route Structure
Maritime Metro Transit System Service Area

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6A
- Route 6B

Base Map Features

- Community Boundary
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water



G:\Manitowoc\County\TDP\2014
Source: WDNR, 2005; Manitowoc
County, 2009; Maritime Metro Transit, 2014;
Bay-Lake Regional Planning Commission, 2017.

BAY-LAKE
REGIONAL PLANNING COMMISSION

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.

CHAPTER 4: COMMUNITY PROFILE

LOCATION

The Maritime Metro Transit System service area, including the Cities of Manitowoc and Two Rivers, is located approximately 38 miles south-southeast of Green Bay and 79 miles north of Milwaukee. The City of Manitowoc is where the Manitowoc River meets Lake Michigan. A large amount of manufacturing activity has traditionally occurred in the Maritime Metro Transit service area, although services and wholesale and retail commerce dominate the local economy in certain areas as well. Regional transportation facilities include Interstate Highway 43, U.S. Highways 10 and 151, and State Highways 42, 147 and 310. The Maritime Metro Transit System service area also includes the port serving a car ferry between Manitowoc and Ludington, Michigan, as well as a marina. The Manitowoc County Airport is located at the north end of the City of Manitowoc portion of the service area. Characteristics of both communities include historic downtown areas, retail facilities, thriving industrial and business areas, and a strong tourism industry due to scenic rivers and access to Lake Michigan. Important characteristics for transit planning include the economy, population characteristics, major potential trip generators, land use patterns, and motor vehicle trip patterns. This chapter contains a summary of these important community characteristics.

ECONOMY

The rural area surrounding the Maritime Metro Transit System service area is primarily agricultural. The City of Manitowoc is a center for health and professional services, education, retail trade and industry in Manitowoc County as well as in adjacent portions of surrounding counties.

The *2008 – 2012 American Community Survey* data indicated that the City of Manitowoc had 16,073 persons 16 years and older who were employed, while the City of Two Rivers had 5,484 persons employed who were 16 years of age or older. Table 4.1 shows the distribution of employment by category in the Maritime Metro Transit System service area. Manufacturing is the largest category of employment, representing over 6,800 employees within the transit service area, or nearly 32 percent of total employment in the area. Other significant sectors of employment include educational/health/social services and wholesale/retail trade.

Table 4.1: Employment in the Maritime Metro Transit System Service Area: 2008 – 2012
American Community Survey

| Employment Category | Number Employed | Percentage Employed |
|---|-----------------|---------------------|
| Agriculture/Forestry/Fishing/Hunting/Mining | 187 | 0.9% |
| Construction | 880 | 4.1% |
| Manufacturing | 6,807 | 31.6% |
| Wholesale/Retail Trade | 2,617 | 12.1% |
| Transportation/Warehousing/Utilities | 910 | 4.2% |
| Information | 300 | 1.4% |
| Finance/Insurance/Real Estate/Rental and Leasing | 781 | 3.6% |
| Professional/Scientific/Management/Administrative/Waste Management Services | 1,011 | 4.7% |
| Educational/Health/Social Services | 4,667 | 21.6% |
| Arts/Entertainment/Recreation/Accommodation/Food Services | 1,848 | 8.6% |
| Other Services | 909 | 4.2% |
| Public Administration | 640 | 3.0% |
| TOTAL | 21,557 | 100.0% |

Source: U.S. Bureau of the Census, 2008 – 2012 American Community Survey 5-Year Estimates (Table S2405: Industry by Occupation for the Civilian Employed Population 16 Years and Over); and Bay-Lake Regional Planning Commission, 2014.

POPULATION AND HOUSEHOLDS

Total Population Trends

The total population of the City of Manitowoc in 2010 was 33,736, which represented a 0.9 percent decrease from 2000. The total 2010 population for the City of Two Rivers was 11,712, representing a 7.3 percent decrease in population from 2000. The change in population from 2000 to 2010 in the Maritime Metro Transit System service area represented a combined decrease of 2.7 percent.

In addition, according to Wisconsin Department of Administration population estimates, the population of the transit service area is estimated to have decreased by about 0.2 percent between 2010 and 2013. The City of Manitowoc is also estimated to have decreased in population by about 0.2 percent over the period from 2010 to 2013, while the City of Two Rivers is estimated to have decreased in population by about 0.5 percent over this same period.

Table 4.2 shows the total population of the two communities in the transit service area in 1990, 2000 and 2010 (according to the U.S. Bureau of the Census), as well as population estimates for 2013 (produced by the Wisconsin Department of Administration's Demographic Services Center). Table 4.2 also shows actual and estimated population changes for the transit service area and its communities from 1990 to 2000, 2000 to 2010, and from 2010 to 2013.

Table 4.2: Population in the Transit Service Area, 1990, 2000 and 2010 Census, 2013 Estimates

| | Census | | | Estimate | Percent Change | | |
|----------------------|--------|--------|--------|----------|----------------|-------------|-------------|
| | 1990 | 2000 | 2010 | 2013 | 1990 - 2000 | 2000 - 2010 | 2010 - 2013 |
| City of Manitowoc | 32,521 | 34,053 | 33,736 | 33,685 | 4.7% | -0.9% | -0.2% |
| City of Two Rivers | 13,030 | 12,639 | 11,712 | 11,658 | -3.0% | -7.3% | -0.5% |
| Transit Service Area | 45,551 | 46,692 | 45,448 | 45,343 | 2.5% | -2.7% | -0.2% |

Source: U.S. Bureau of the Census, 1990, 2000 and 2010; Wisconsin Department of Administration, Official Population Estimates, 2013; and Bay-Lake Regional Planning Commission, 2014.

According to Table 4.3, Wisconsin Department of Administration population projections for the period from 2010 through 2040 indicate that the population of the City of Manitowoc is projected to decrease by 2.6 percent, while the population of the City of Two Rivers is projected

to decrease by 14.7 percent. The combined population of both cities (the transit service area) is projected to decrease by 5.7 percent between 2010 and 2040.

Table 4.3: Population Projections in the Transit Service Area, 2010 – 2040

| | Census 1990 | Census 2000 | Census 2010 | Projection 2015 | Projection 2020 | Projection 2025 | Projection 2030 | Projection 2035 | Projection 2040 | Number Change 2010 - 2040 | Percent Change 2010 - 2040 |
|----------------------|----------------|----------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------------------|----------------------------------|
| City of Manitowoc | 32,521 | 34,053 | 33,736 | 33,320 | 33,760 | 34,060 | 34,180 | 33,890 | 32,870 | -866 | -2.6% |
| City of Two Rivers | 13,030 | 12,639 | 11,712 | 11,420 | 11,300 | 11,140 | 10,910 | 10,560 | 9,990 | -1,722 | -14.7% |
| Transit Service Area | 45,551 | 46,692 | 45,448 | 44,740 | 45,060 | 45,200 | 45,090 | 44,450 | 42,860 | -2,588 | -5.7% |

Source: Wisconsin Department of Administration, Demographic Services Center, *Wisconsin Minor Civil Division Projections, 2010 – 2040*; and Bay-Lake Regional Planning Commission, 2014.

Racial Minority Population

Map 4.1 indicates the population in each census block group in the Maritime Metro Transit System service area which belongs to a minority racial category. These include Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, other non-Caucasian minority racial categories, and all persons of two or more races. As Map 4.1 indicates, the largest concentrations of individuals belonging to racial minority categories (100 or more persons) can be found in one census block group in northeast Manitowoc (1.2), one census block group along the Lake Michigan shoreline in north Manitowoc (1.4), three census block groups just west of Manitowoc’s central business district (5.2, 5.3 and 5.4), two census block groups in southwest Manitowoc (6.2 and 6.3), two census block groups located to the southwest of Manitowoc’s central business district (7.3 and 7.6), one census block group in south central Manitowoc (7.5), two census block groups in southeast Manitowoc (8.3 and 8.4), and one census block group in Two Rivers along Lake Michigan and just south of that community’s central business district (54.3). Remaining census block groups containing persons of a racial minority are scattered throughout both cities (Manitowoc and Two Rivers). The City of Two Rivers has four additional block groups with between 50 and 100 persons of a racial minority; one of these is located in the northwest portion of the city (52.1), while another block group is located in the downtown area (53.2), and two other block groups are located to the southwest of the downtown (54.2 and 54.4). The lowest numbers of individuals belonging to racial minority categories can generally be found in outlying portions of the City of Manitowoc and the City of Two Rivers.

Population of Hispanic Origin

Map 4.2 indicates the population in each census block group in the Maritime Metro Transit System service area which is of Hispanic origin. As Map 4.2 indicates, the largest numbers of individuals of Hispanic origin (60 or more persons) can be found in one census block group in northeast Manitowoc (1.2), one census block group along the Lake Michigan shoreline in north Manitowoc (1.4), one census block group in northwest Manitowoc (3.1), two census block groups just west of Manitowoc’s central business district (5.3 and 5.4), one census block group in southwest Manitowoc (6.2), two census block groups located to the southwest of Manitowoc’s central business district (7.3 and 7.6), one census block group in south central Manitowoc (7.5), and two census block groups in southeast Manitowoc (8.3 and 8.4). Less significant concentrations of persons of Hispanic origin were found in the City of Two Rivers, although three census block groups in that city (52.1 on the city’s northwest side, as well as 54.3 and 54.4 on the city’s south side) each had 30 or more persons of Hispanic origin.

It is important to note that “minority racial category” and “Hispanic origin” are not mutually exclusive definitions, as there are Caucasian Hispanics as well as Hispanics who belong to

several minority groups.

Transit Dependent Population and Households

Throughout the United States, transit system ridership is drawn in large part by the “transit dependent” population, which includes youth under the age of 16, the elderly (65 years of age and older), households with an income of 80 percent of the county median household income, the mobility impaired, and members of households with zero or one available vehicles. Table 4.4 presents the 2010 population of youth under the age of 16 and persons 65 years of age and older by census block group in the Maritime Metro Transit System service area. Table 4.5 presents the 2008 – 2012 *American Community Survey (ACS)* population of mobility impaired persons and individuals commuting by bus, as well as households at 80 percent or less of the county median household income, zero vehicle households and one vehicle households by census tract in the Maritime Metro Transit System service area.

Maps 4.3 and 4.4 indicate the population under age 16 and the elderly population by census block group in 2010. Maps 4.5 and 4.6 indicate the mobility impaired population and the population commuting by bus by census tract according to the 2008 – 2012 ACS. Map 4.7 indicates the number of households at 80 percent or less of the county median household income by census tract according to the 2008 – 2012 ACS. Maps 4.8 and 4.9 indicate the number of zero vehicle and one vehicle households by census tract according to the 2008 – 2012 ACS. All of these maps portray information for the Cities of Manitowoc and Two Rivers, which constitute the transit system service area.

Population Under Age 16

Map 4.3 shows the population under the age of 16 in each census block group of the Maritime Metro Transit System service area in 2010. In 2010, 19.0 percent of the service area population was under the age of 16. Large numbers of youth can be found in various census block groups scattered throughout the Maritime Metro Transit System service area. Map 4.3 indicates that the largest concentrations of youth population (300 or more persons) can be found in a census block group on the northeast side of the City of Manitowoc (1.2), in two census block groups on the northwest side of the City of Manitowoc (3.1 and 3.2), in one census block group in south central Manitowoc (7.5), and in one census block group on the northwest side of the City of Two Rivers (52.1). Numerous other census block groups in the transit service area (all within the City of Manitowoc) each had between 200 and 300 persons under the age of 16 in 2010.

Table 4.4: Youth and Elderly Populations, 2010, Maritime Metro Transit System Service Area, by Census Block Group

| Census Tract | Block Group | Persons | Under 16 | | Elderly* | |
|----------------------------|-------------|---------------|--------------|--------------|--------------|--------------|
| | | | # | % | # | % |
| 1 | 1 | 645 | 117 | 18.1% | 151 | 23.4% |
| 1 | 2 | 1,546 | 354 | 22.9% | 231 | 14.9% |
| 1 | 3 | 701 | 152 | 21.7% | 134 | 19.1% |
| 1 | 4 | 2,344 | 298 | 12.7% | 616 | 26.3% |
| 2 | 1 | 1,545 | 255 | 16.5% | 386 | 25.0% |
| 2 | 2 | 859 | 182 | 21.2% | 110 | 12.8% |
| 3 | 1 | 1,912 | 310 | 16.2% | 374 | 19.6% |
| 3 | 2 | 2,327 | 396 | 17.0% | 587 | 25.2% |
| 3 | 3 | 1,376 | 254 | 18.5% | 224 | 16.3% |
| 4 | 1 | 868 | 187 | 21.5% | 124 | 14.3% |
| 4 | 2 | 979 | 200 | 20.4% | 101 | 10.3% |
| 4 | 3 | 762 | 172 | 22.6% | 94 | 12.3% |
| 4 | 4 | 1,042 | 207 | 19.9% | 170 | 16.3% |
| 4 | 5 | 525 | 140 | 26.7% | 40 | 7.6% |
| 5 | 1 | 590 | 126 | 21.4% | 59 | 10.0% |
| 5 | 2 | 517 | 114 | 22.1% | 36 | 7.0% |
| 5 | 3 | 835 | 177 | 21.2% | 117 | 14.0% |
| 5 | 4 | 908 | 220 | 24.2% | 88 | 9.7% |
| 6 | 1 | 723 | 143 | 19.8% | 125 | 17.3% |
| 6 | 2 | 1,264 | 236 | 18.7% | 301 | 23.8% |
| 6 | 3 | 1,232 | 245 | 19.9% | 196 | 15.9% |
| 6 | 4 | 937 | 135 | 14.4% | 226 | 24.1% |
| 6 | 5 | 1,213 | 178 | 14.7% | 306 | 25.2% |
| 7 | 1 | 686 | 134 | 19.5% | 140 | 20.4% |
| 7 | 2 | 871 | 139 | 16.0% | 135 | 15.5% |
| 7 | 3 | 1,053 | 293 | 27.8% | 95 | 9.0% |
| 7 | 4 | 690 | 143 | 20.7% | 136 | 19.7% |
| 7 | 5 | 1,384 | 411 | 29.7% | 174 | 12.6% |
| 7 | 6 | 1,217 | 159 | 13.1% | 557 | 45.8% |
| 8 | 1 | 574 | 120 | 20.9% | 50 | 8.7% |
| 8 | 2 | 1,294 | 219 | 16.9% | 209 | 16.2% |
| 8 | 3 | 1,103 | 250 | 22.7% | 122 | 11.1% |
| 8 | 4 | 1,075 | 273 | 25.4% | 92 | 8.6% |
| 105 | 1 | 1,218 | 198 | 16.3% | 196 | 16.1% |
| 105 | 2 | 1,488 | 235 | 15.8% | 383 | 25.7% |
| C. Manitowoc Total | | 38,303 | 7,372 | 19.2% | 7,085 | 18.5% |
| Census Tract | Block Group | Persons | Under 16 | | Elderly* | |
| | | | # | % | # | % |
| 51 | 1 | 1,008 | 156 | 15.5% | 323 | 32.0% |
| 51 | 2 | 691 | 120 | 17.4% | 112 | 16.2% |
| 51 | 3 | 731 | 115 | 15.7% | 116 | 15.9% |
| 52 | 1 | 1,772 | 309 | 17.4% | 331 | 18.7% |
| 52 | 2 | 754 | 114 | 15.1% | 229 | 30.4% |
| 52 | 3 | 998 | 172 | 17.2% | 233 | 23.3% |
| 52 | 4 | 1,027 | 178 | 17.3% | 180 | 17.5% |
| 53 | 1 | 789 | 176 | 22.3% | 132 | 16.7% |
| 53 | 2 | 643 | 137 | 21.3% | 97 | 15.1% |
| 53 | 3 | 639 | 125 | 19.6% | 75 | 11.7% |
| 54 | 1 | 654 | 116 | 17.7% | 88 | 13.5% |
| 54 | 2 | 693 | 138 | 19.9% | 102 | 14.7% |
| 54 | 3 | 908 | 194 | 21.4% | 117 | 12.9% |
| 54 | 4 | 861 | 186 | 21.6% | 135 | 15.7% |
| 101 | 3 | 959 | 156 | 16.3% | 168 | 17.5% |
| C. Two Rivers Total | | 13,127 | 2,392 | 18.2% | 2,438 | 18.6% |
| Service Area Total | | 51,430 | 9,764 | 19.0% | 9,523 | 18.5% |

Source: U.S. Bureau of the Census, 2010 (Summary File 1, Tables P12 and P14); and Bay-Lake Regional Planning Commission, 2014.

*"Elderly" is defined as age 65 and older.

Elderly Population

The elderly population is defined as those who are age 65 and older. Map 4.4 shows the elderly population in each census block group of the Maritime Metro Transit System service area in 2010. In 2010, 18.5 percent of the service area was considered elderly. Large numbers of elderly persons can be found in various census block groups scattered throughout the Maritime Metro Transit System service area. Map 4.4 indicates that the largest concentrations of elderly population (300 or more persons) can be found in many portions of the City of Manitowoc, including a census block group on the northeast side along Lake Michigan (1.4), in a census block group in north central Manitowoc (2.1), in two census block groups on the northwest side (3.1 and 3.2), on the near southwest side of Manitowoc (6.2), on the far southwest side of Manitowoc (6.5), on the near south side of Manitowoc (7.6), and on the southwest edge of the city (105.2). In the City of Two Rivers, one census block group on the north side (51.1) and a second census block group on the northwest side (52.1) have large concentrations of elderly persons. In addition, four census block groups in the City of Manitowoc and two census block groups in the City of Two Rivers each had between 200 and 300 elderly persons in 2010.

Mobility Impaired Population

The “mobility impaired” population is currently defined as persons age 5 and older who reported having an “ambulatory difficulty” in the *2008 – 2012 American Community Survey*, adjusted for the population age 5 and older as a whole. This is different from the “mobility impaired population” definition in previous TDPs. Map 4.5 shows the mobility impaired population in each census tract of the Maritime Metro Transit System service area. Some 6.5 percent of the service area population (of all ages) involved mobility impaired persons who were age 5 and older. Mobility impaired persons age 5 and older can be found in all census tracts within the Maritime Metro Transit System service area. Map 4.5 indicates that the largest concentrations of mobility impaired population (300 or more persons) can be found in three census tracts in the City of Manitowoc: the northeast side (census tract 1); the southwest side (census tract 6); and south central Manitowoc (census tract 7). In addition, three census tracts in the City of Manitowoc and two census tracts in the City of Two Rivers have between 200 and 300 mobility impaired persons.

Population Commuting by Bus

The population commuting by bus is defined as workers age 16 and older who reported taking a bus or trolley to work in the *2008 – 2012 American Community Survey*, adjusted for the working population age 16 and older as a whole. Map 4.6 shows the population reporting that it commuted by bus in each census tract of the Maritime Metro Transit System service area in the *2008 – 2012 American Community Survey*. Some 0.3 percent of the service area population (of all ages) involved workers age 16 and older commuting by bus. Map 4.6 indicates that persons who reported commuting by bus can be found in census tracts throughout several portions of the City of Manitowoc. The most active census tracts for commuting by bus can be found on the northeast side (census tract 1), as well as in the central portion of Manitowoc (census tract 5). Other portions of the City of Manitowoc that had commuting activity included the east central portion of the city (census tract 4), the near southwest side (census tract 6), the southeast side (census tract 8), and the southwest periphery of the city (census tract 105). In the City of Two Rivers, persons who reported commuting by bus can be found on the east side (census tract 51), as well as at the western periphery of the city (census tract 101).

Table 4.5: Transit Dependent Population and Households, 2008 – 2012 American Community Survey, Maritime Metro Transit System Service Area, by Census Tract

| Census Tract | Households | Mobility Impaired* | Commute by Bus** | 80% or Less of County MHI*** | | Zero Vehicle Households | | One Vehicle Households | |
|---------------------------|---------------|--------------------|------------------|------------------------------|--------------|-------------------------|-------------|------------------------|--------------|
| | | # | # | # | % | # | % | # | % |
| 1 | 2,619 | 521 | 43 | 1,360 | 51.9% | 273 | 10.4% | 1,304 | 49.8% |
| 2 | 1,052 | 124 | 0 | 386 | 36.7% | 51 | 4.8% | 318 | 30.2% |
| 3 | 2,311 | 249 | 0 | 653 | 28.3% | 115 | 5.0% | 570 | 24.7% |
| 4 | 1,778 | 116 | 8 | 718 | 40.4% | 61 | 3.4% | 575 | 32.3% |
| 5 | 1,255 | 229 | 33 | 751 | 59.8% | 179 | 14.3% | 452 | 36.0% |
| 6 | 2,330 | 317 | 13 | 1,040 | 44.6% | 73 | 3.1% | 1,114 | 47.8% |
| 7 | 2,523 | 413 | 0 | 1,259 | 49.9% | 289 | 11.5% | 1,008 | 40.0% |
| 8 | 1,876 | 249 | 12 | 884 | 47.1% | 134 | 7.1% | 865 | 46.1% |
| 105 | 1,258 | 171 | 13 | 332 | 26.4% | 19 | 1.5% | 236 | 18.8% |
| C. Manitowoc Total | 17,002 | 2,389 | 122 | 7,383 | 43.4% | 1,194 | 7.0% | 6,442 | 37.9% |

| Census Tract | Households | Mobility Impaired** | Commute by Bus*** | 80% or Less of County MHI**** | | Zero Vehicle Households | | One Vehicle Households | |
|----------------------------|--------------|---------------------|-------------------|-------------------------------|--------------|-------------------------|-------------|------------------------|--------------|
| | | # | # | # | % | # | % | # | % |
| 51 | 1,118 | 181 | 4 | 557 | 49.8% | 107 | 9.6% | 384 | 34.3% |
| 52 | 1,931 | 194 | 0 | 781 | 40.4% | 105 | 5.4% | 625 | 32.4% |
| 53 | 880 | 247 | 0 | 401 | 45.6% | 115 | 13.1% | 283 | 32.2% |
| 54 | 1,335 | 122 | 0 | 661 | 49.5% | 81 | 6.1% | 552 | 41.3% |
| 101 | 1,805 | 223 | 8 | 531 | 29.4% | 35 | 1.9% | 331 | 18.3% |
| C. Two Rivers Total | 7,069 | 967 | 12 | 2,931 | 41.5% | 443 | 6.3% | 2,175 | 30.8% |

| | | | | | | | | | |
|---------------------------|---------------|--------------|------------|---------------|--------------|--------------|-------------|--------------|--------------|
| Service Area Total | 24,071 | 3,356 | 134 | 10,314 | 42.8% | 1,637 | 6.8% | 8,617 | 35.8% |
|---------------------------|---------------|--------------|------------|---------------|--------------|--------------|-------------|--------------|--------------|

Source: U.S. Bureau of the Census, 2008 - 2012 American Community Survey 5-Year Estimates (Tables B08201, B18105, S0802 and S1901); and Bay-Lake Regional Planning Commission, 2014.

**"Mobility impaired" is defined as persons age 5 and older that reported having an "ambulatory difficulty" in the 2008 – 2012 American Community Survey, adjusted for the population age 5 and older as a whole.

***"Commute by bus" is defined as workers age 16 and older that reported taking a bus or trolley to work in the 2008 – 2012 American Community Survey, adjusted for the working population age 16 and older as a whole.

****Obtained from the 2008 – 2012 American Community Survey 5-Year Estimates, and includes households at 80 percent or less of the county median household income (MHI). The MHI for Manitowoc County was \$50,091 according to the 2008 – 2012 American Community Survey.

Households with 80 Percent or Less of the County Median Household Income

Map 4.7 shows the number of households with 80 percent or less of the county median household income in each census tract of the Maritime Metro Transit System service area in the 2008 – 2012 American Community Survey. Large numbers of households with 80 percent or less of the county median household income can be found in census tracts scattered around the Maritime Metro Transit System service area. Eighty percent or less of the county's median household income (which was \$50,091 in the 2008 – 2012 American Community Survey) is the definition of a "low-to-moderate income" household. Eighty percent of the county median household income in the 2008 – 2012 American Community Survey was \$40,073. Therefore, Map 4.7 displays the number of households which had a "low-to-moderate" household income in the 2008 – 2012 American Community Survey. According to the 2008 – 2012 American Community Survey, approximately 42.8 percent of households in the Maritime Metro Transit System service area were at 80 percent or less of the county median household income. Map 4.7 indicates that the largest concentrations of households at 80 percent or less of the county median household income (1,000 or more households) can be found in three census tracts in the City of Manitowoc: the northeast side (census tract 1); the near southwest side (census tract 6); and south central Manitowoc (census tract 7). In addition, four census tracts in the City of

Manitowoc and four census tracts in the City of Two Rivers have between 500 and 1,000 households at 80 percent or less of the county median household income.

Zero Vehicle Households

Map 4.8 shows the number of zero vehicle households in the Maritime Metro Transit System service area in the *2008 – 2012 American Community Survey*. Large numbers of zero vehicle households can be found throughout the Maritime Metro Transit System service area. According to the *2008 – 2012 American Community Survey*, some 6.8 percent of households in the service area had no vehicle. Map 4.8 indicates that the largest concentrations of zero vehicle households (200 or more households) can be found in two census tracts in the City of Manitowoc: the northeast side (census tract 1); and south central Manitowoc (census tract 7). In addition, three census tracts in the City of Manitowoc and three census tracts in the City of Two Rivers have between 100 and 200 zero vehicle households.

One Vehicle Households

Map 4.9 shows the number of one vehicle households in the Maritime Metro Transit System service area in the *2008 – 2012 American Community Survey*. High concentrations of one vehicle households can be found throughout the transit service area. According to the *2008 – 2012 American Community Survey*, approximately 35.8 percent of households within the service area had only one vehicle. Map 4.9 indicates that the largest concentrations of one vehicle households (1,000 or more households) can be found in three census tracts in the City of Manitowoc: the northeast side (census tract 1); the near southwest side (census tract 6); and south central Manitowoc (census tract 7). In addition, three census tracts in the City of Manitowoc and two census tracts in the City of Two Rivers have between 500 and 1,000 one vehicle households.

POTENTIAL TRIP GENERATORS

Map 4.10 indicates potential trip generators in the Maritime Metro Transit System service area. These activity centers are distributed throughout the transit service area, and include: major health care facilities; major educational facilities (such as middle schools/junior high schools, high schools, and post-secondary educational institutions); and shopping centers (including the central business districts as well as larger retail stores). Also considered potential trip generators are: governmental, social services and non-profit facilities (including post offices, the social security office, libraries, the county courthouse, and the offices of Manitowoc and Two Rivers city government and of Manitowoc County government). Several entertainment and recreational facilities are considered potential trip generators, as well as some larger parks in Manitowoc and Two Rivers. Finally, major child and adult day care facilities, Community Based Residential Facilities (CBRFs), long-term care providers, elderly and/or low income housing facilities, and larger employers are also considered potential trip generators.

LAND USE PATTERNS

Map 4.11 depicts land use in the Maritime Metro Transit System service area in 2007 (for the City of Manitowoc) and 2008 (for the City of Two Rivers). Much of the residential development is centrally located within both cities. In Manitowoc, there appears to be increasing residential development northwest of the city, closer to Interstate Highway 43. Business development in Manitowoc is focused where the Manitowoc River flows into Lake Michigan and off of Interstate Highway 43, mainly along Calumet Avenue. Commercial development in Two Rivers is almost exclusively within the central business district. There are also scattered areas of business development within the service area. Industrial development in both cities tends to be

focused along riverfront areas as well as areas which are closer to main highway access. Outdoor recreation and preserved natural areas cover a large amount of land throughout the service area, particularly along Lake Michigan and riverfront areas. There are also many areas in which land is under development scattered throughout both cities.

MOTOR VEHICLE TRAVEL PATTERNS

Similar to other small urban areas in the United States, the vast majority of travel occurring in the Maritime Metro Transit System service area is by private automobile. Therefore, an assessment of street and highway traffic volumes provides some understanding of the travel desires of the population as a whole. The most traveled streets and highways in the Maritime Metro Transit System service area include the portions of Interstate Highway 43 located within that service area. The most traveled streets and highways in the Maritime Metro Transit System service area also include the following thoroughfares in the City of Manitowoc:

- U.S. Highway 151/Calumet Avenue in the southwest portion of the City of Manitowoc (including portions of U.S. Highway 151 west of Interstate Highway 43);
- Rapids Road from Calumet Avenue to Wildwood Drive;
- Waldo Boulevard (parts are U.S. Highway 10) from Rapids Road to Memorial Drive;
- Memorial Drive (State Highway 42) from Waldo Boulevard to Washington Street in Two Rivers;
- North 18th Street from Waldo Boulevard to Michigan Avenue;
- Maritime Drive from North 8th Street to Memorial Drive;
- Washington Street from South 25th Street to South 8th Street;
- Dewey Street from Calumet Avenue to South 23rd Street;
- Portions of South 10th Street south of downtown Manitowoc and north of Dewey Street;
- Portions of Western Avenue near Holy Family Memorial Hospital;
- Most portions of South 21st Street from Holy Family Memorial Hospital to Washington Street; and
- Portions of 10th Street and 8th Street in the downtown area.

The most traveled streets and highways in the Maritime Metro Transit System service area also include the following thoroughfares in the City of Two Rivers:

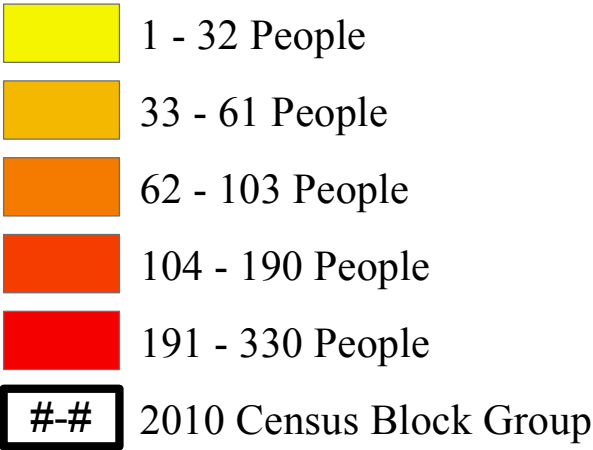
- Forest Avenue from Tannery Road to 22nd Street;
- Washington Street from Memorial Drive to 22nd Street;
- Most portions of 22nd Street from Washington Street to Lincoln Avenue (including the East Twin River bridge); and
- State Highway 310 at the West Twin River bridge.

All of the above noted thoroughfares generally had annual average daily traffic levels in excess of 8,000 vehicles in 2011. Several additional minor arterial and collector facilities had annual

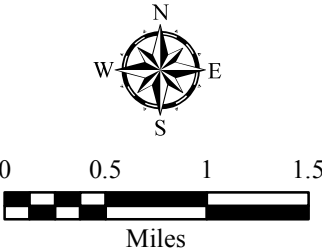
average daily traffic levels between 5,000 and 8,000 vehicles in 2011.

In general, street and highway congestion in the Maritime Metro Transit System service area is not significant (in fact virtually nonexistent), and does not serve to substantially reduce the attractiveness of the private automobile. Similarly, parking availability and cost are not significant issues which would encourage the use of transit.

Racial Minority Population
Cities of Manitowoc & Two Rivers
by Census Block Group: 2010
Maritime Metro Transit System Service Area



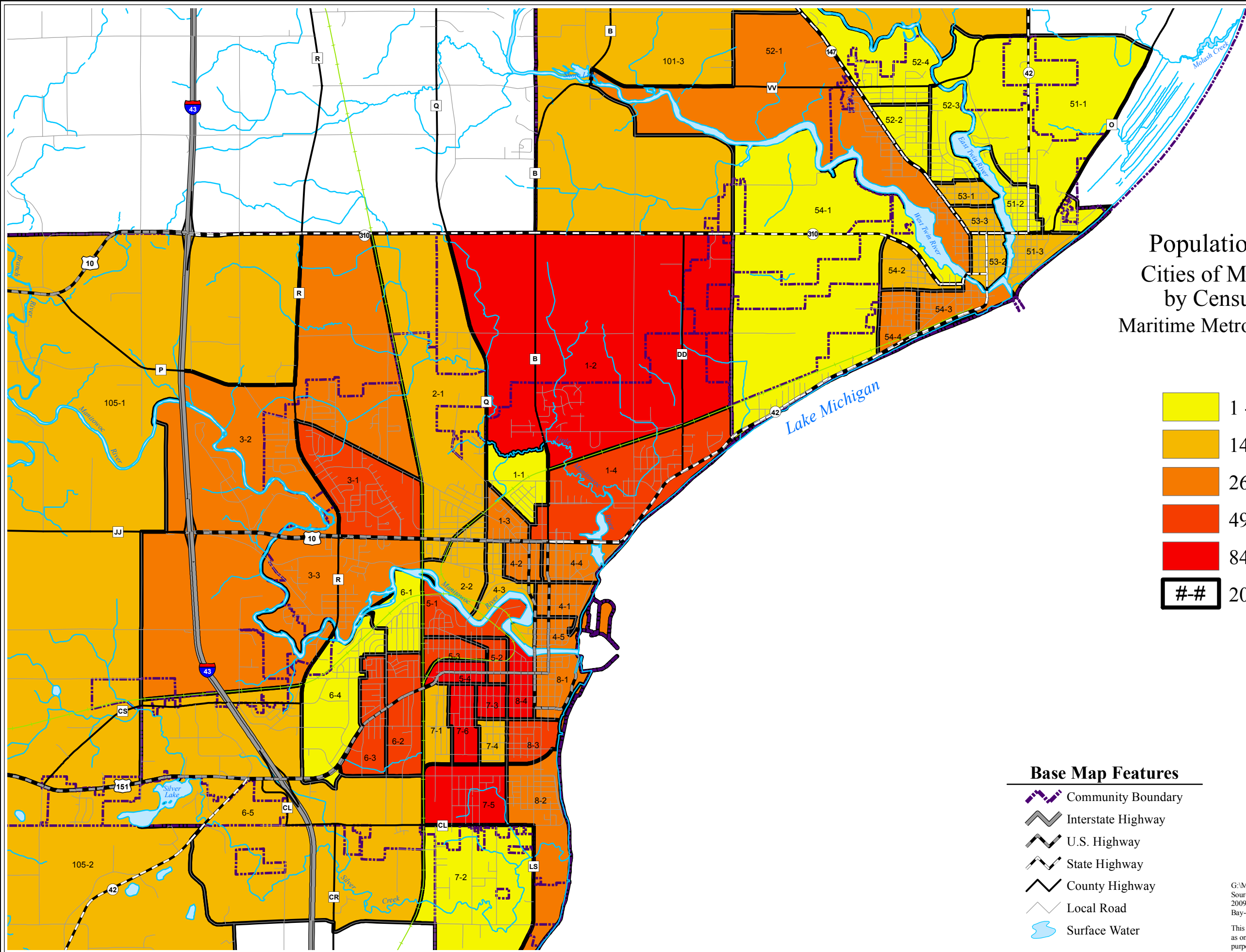
Base Map Features



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Source: WDNR, 2005; Manitowoc County,
2009; U.S. Bureau of the Census, 2010;
Bay-Lake Regional Planning Commission, 2017.

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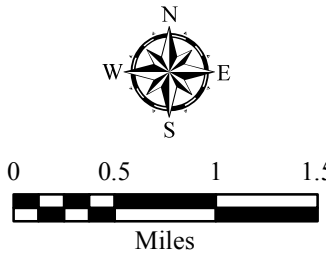
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Population of Hispanic Origin
Cities of Manitowoc & Two Rivers
by Census Block Group: 2010
Maritime Metro Transit System Service Area

- 1 - 13 People
- 14 - 25 People
- 26 - 48 People
- 49 - 83 People
- 84 - 142 People
- ## 2010 Census Block Group

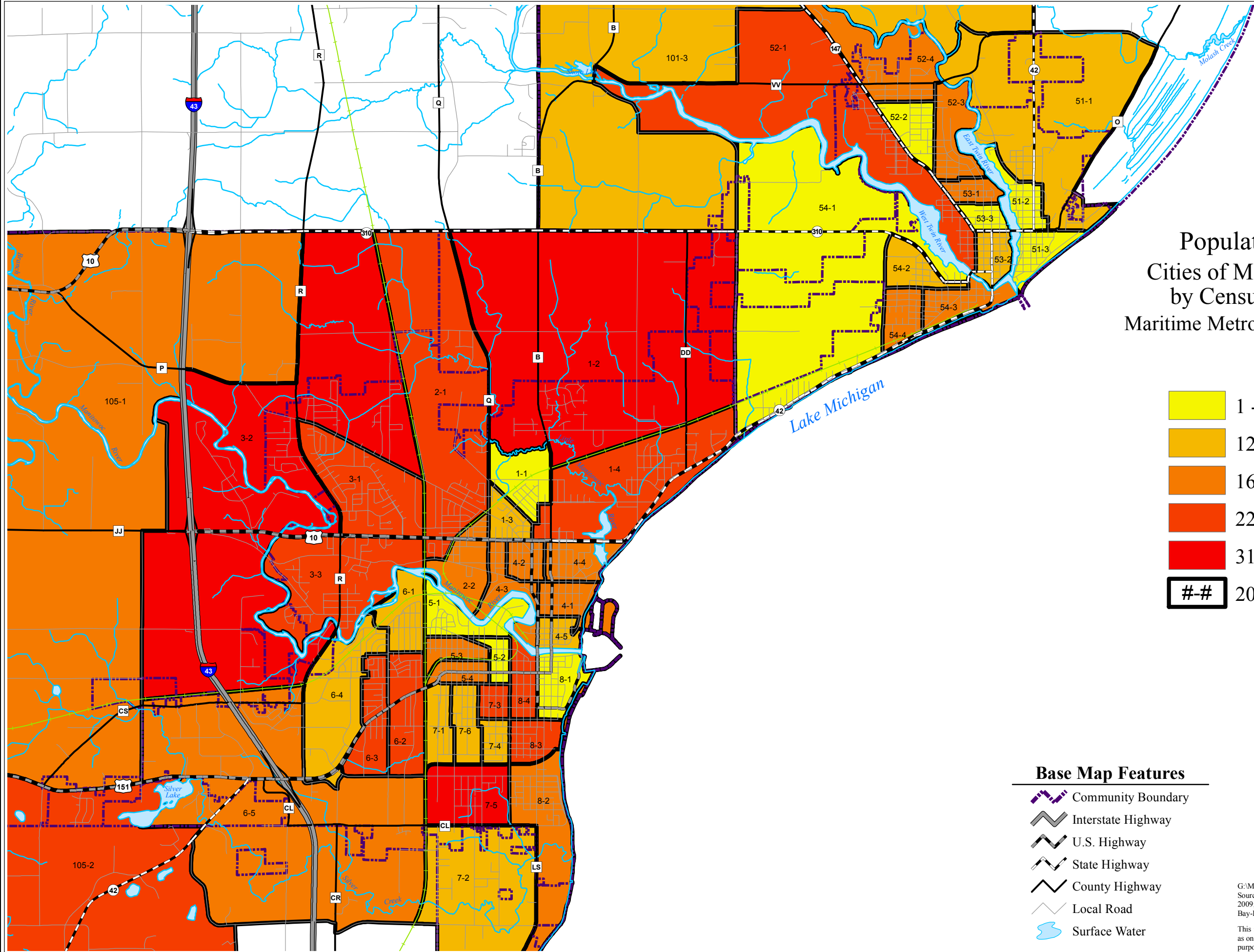
- Base Map Features**
- Community Boundary
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - County Highway
 - Local Road
 - Surface Water



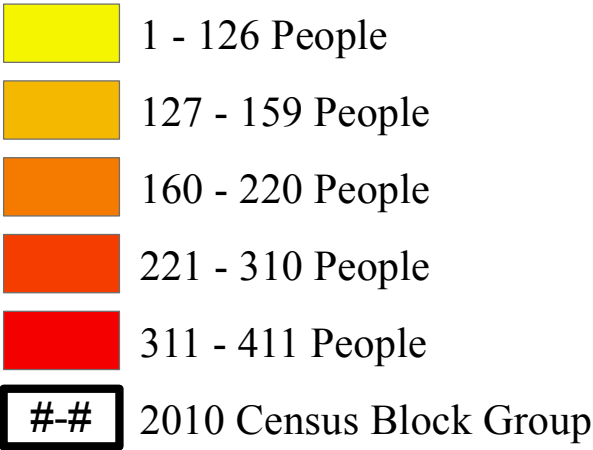
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Source: WDNR, 2005; Manitowoc County,
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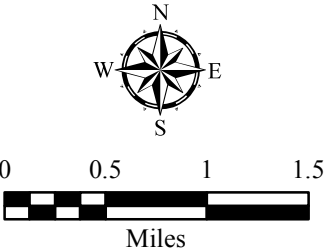
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Population Under Age 16
Cities of Manitowoc & Two Rivers
by Census Block Group: 2010
Maritime Metro Transit System Service Area



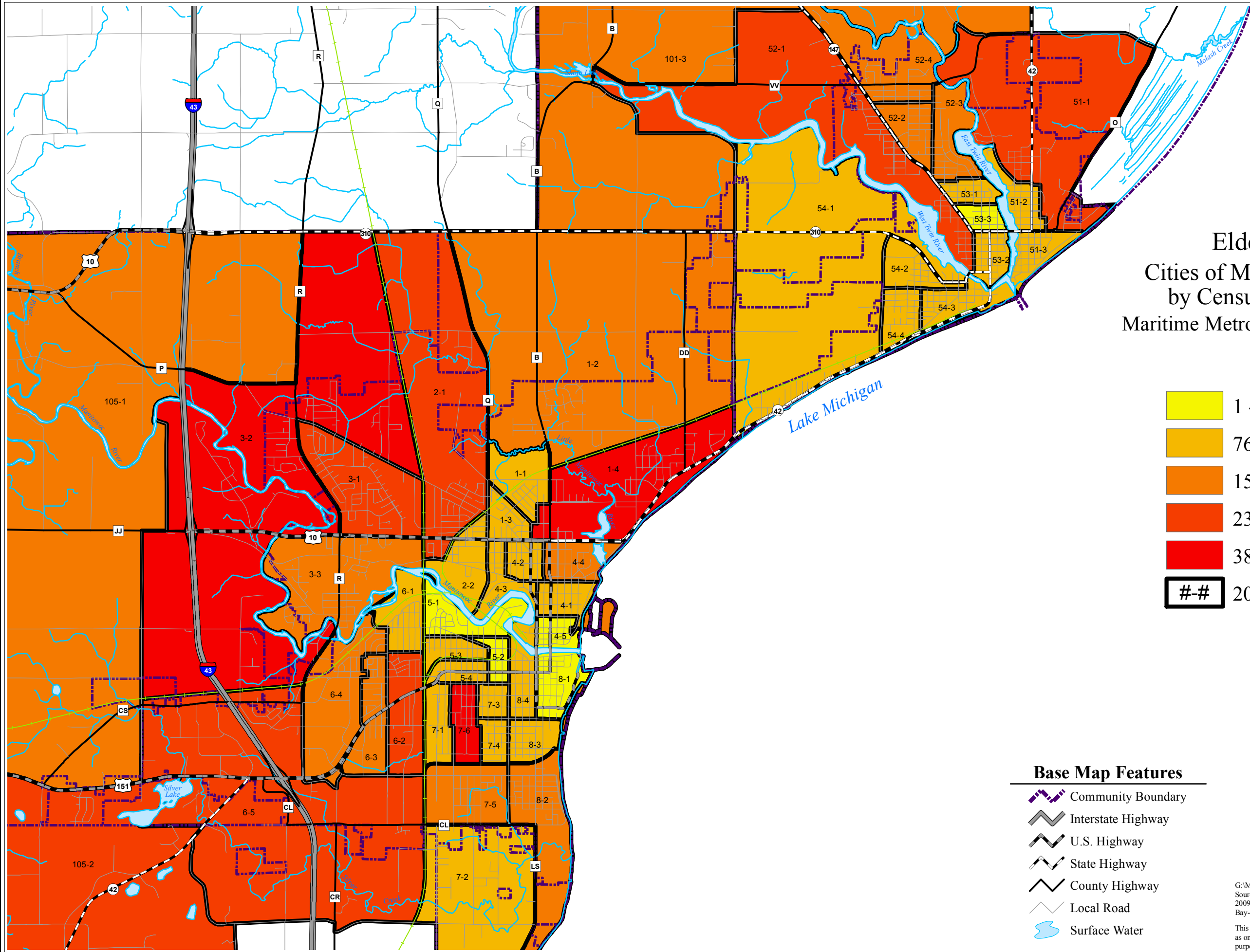
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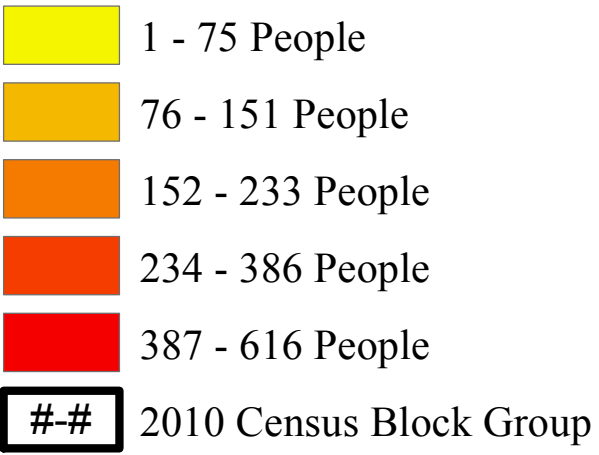
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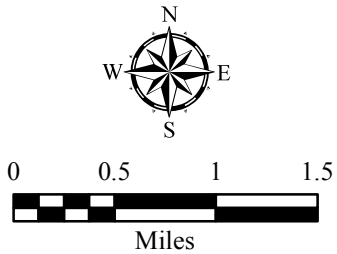


Elderly Population
Cities of Manitowoc & Two Rivers
by Census Block Group: 2010
Maritime Metro Transit System Service Area



Base Map Features

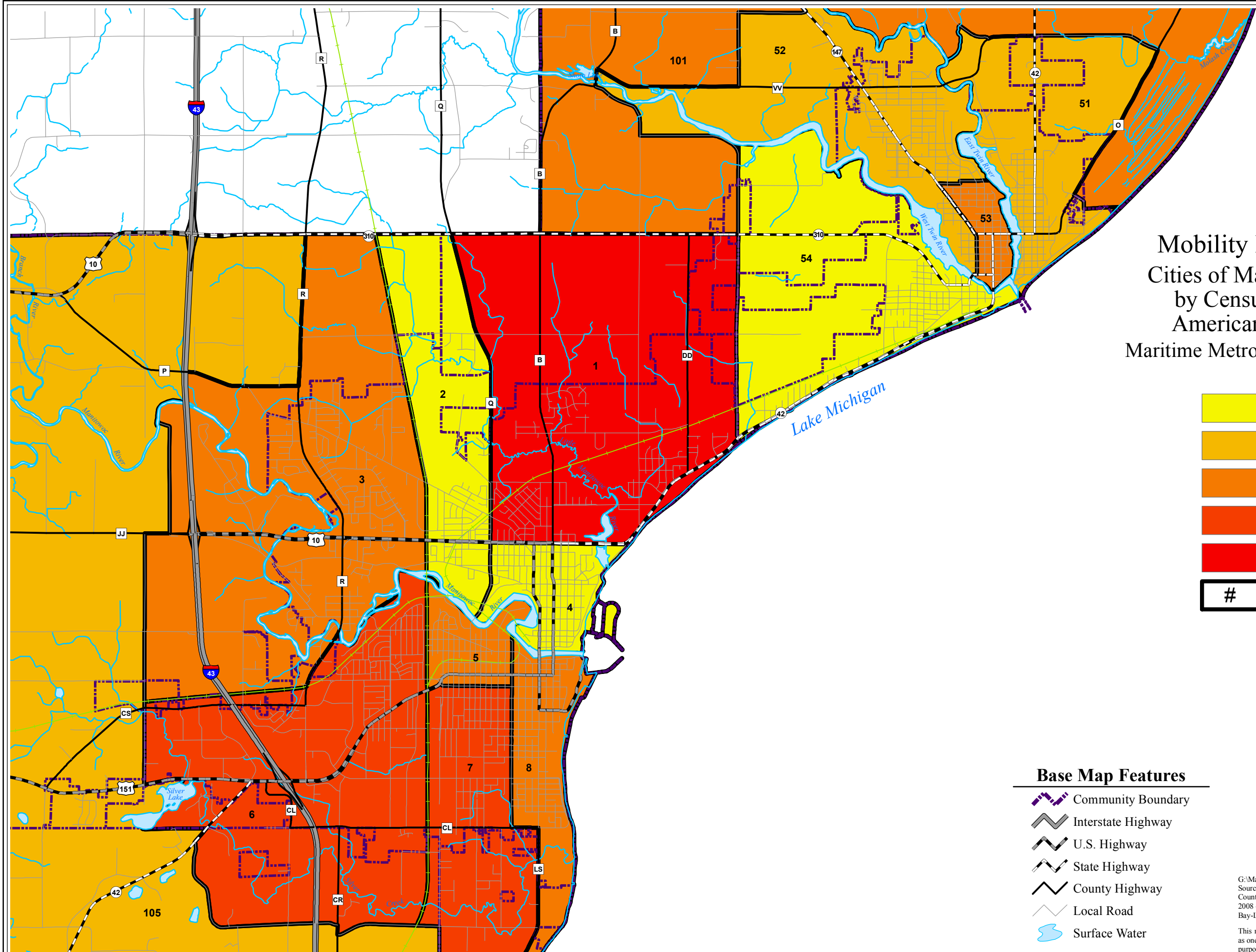
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- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water



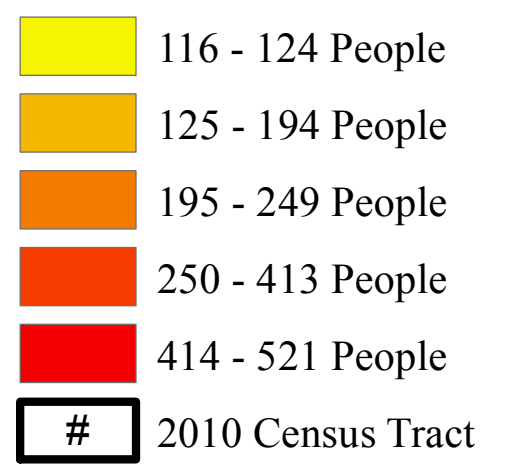
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Source: WDNR, 2005; Manitowoc County,
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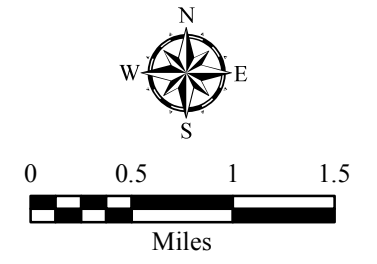
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Mobility Impaired Population
Cities of Manitowoc & Two Rivers
by Census Tract: 2008 - 2012
American Community Survey
Maritime Metro Transit System Service Area



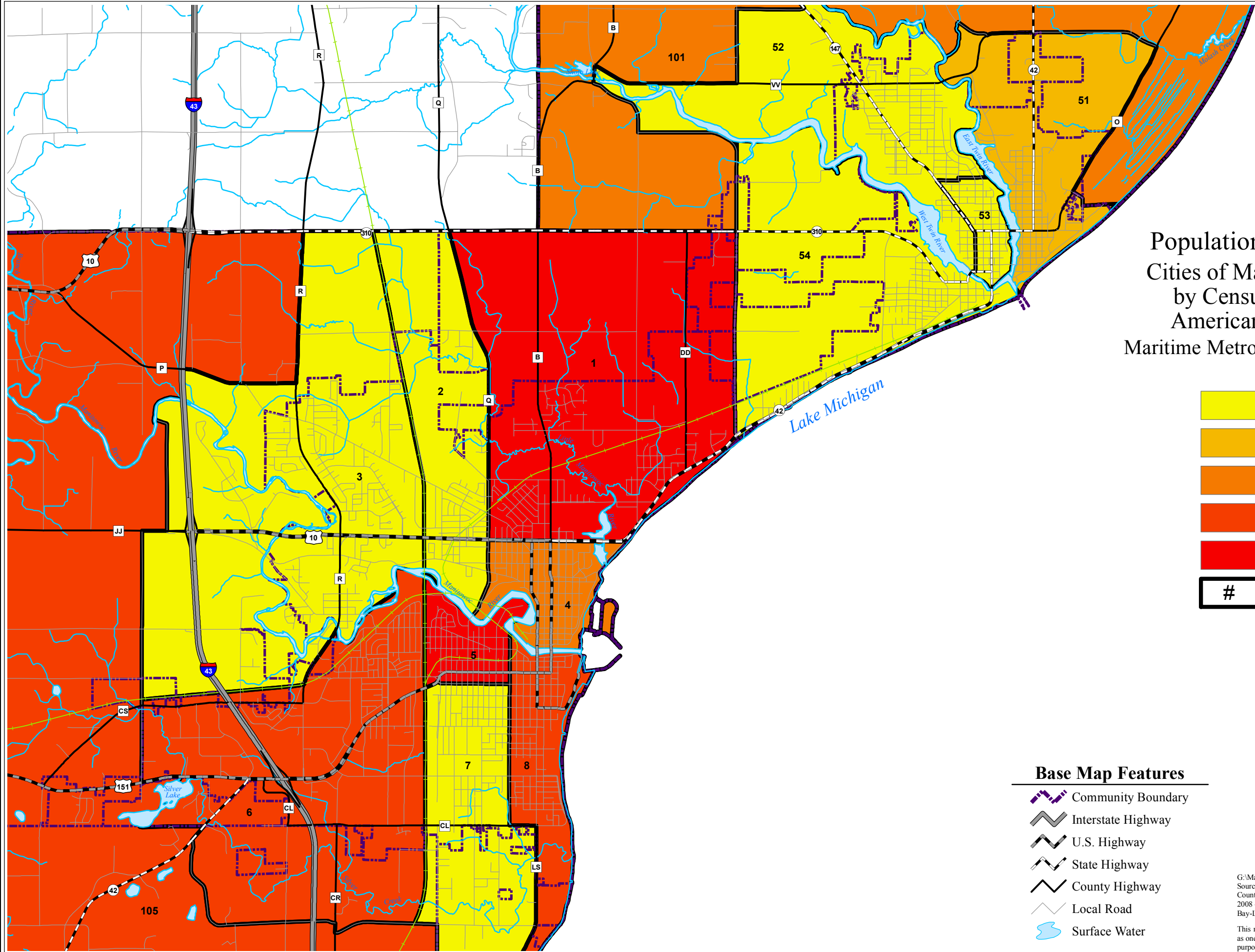
- Base Map Features**
- Community Boundary
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - County Highway
 - Local Road
 - Surface Water



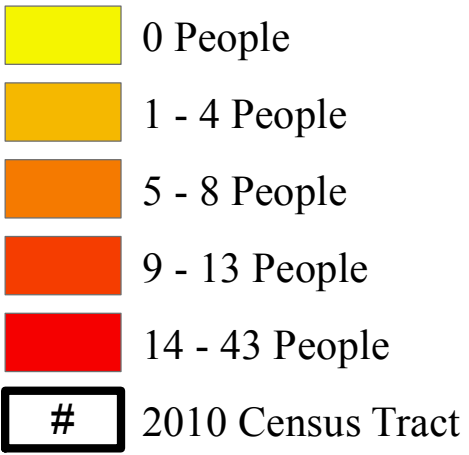
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Source: WDNR, 2005; Manitowoc
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2008 -2012 American Community Survey;
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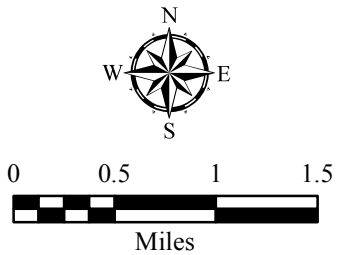


Population Commuting by Bus
Cities of Manitowoc & Two Rivers
by Census Tract: 2008 - 2012
American Community Survey
Maritime Metro Transit System Service Area



Base Map Features

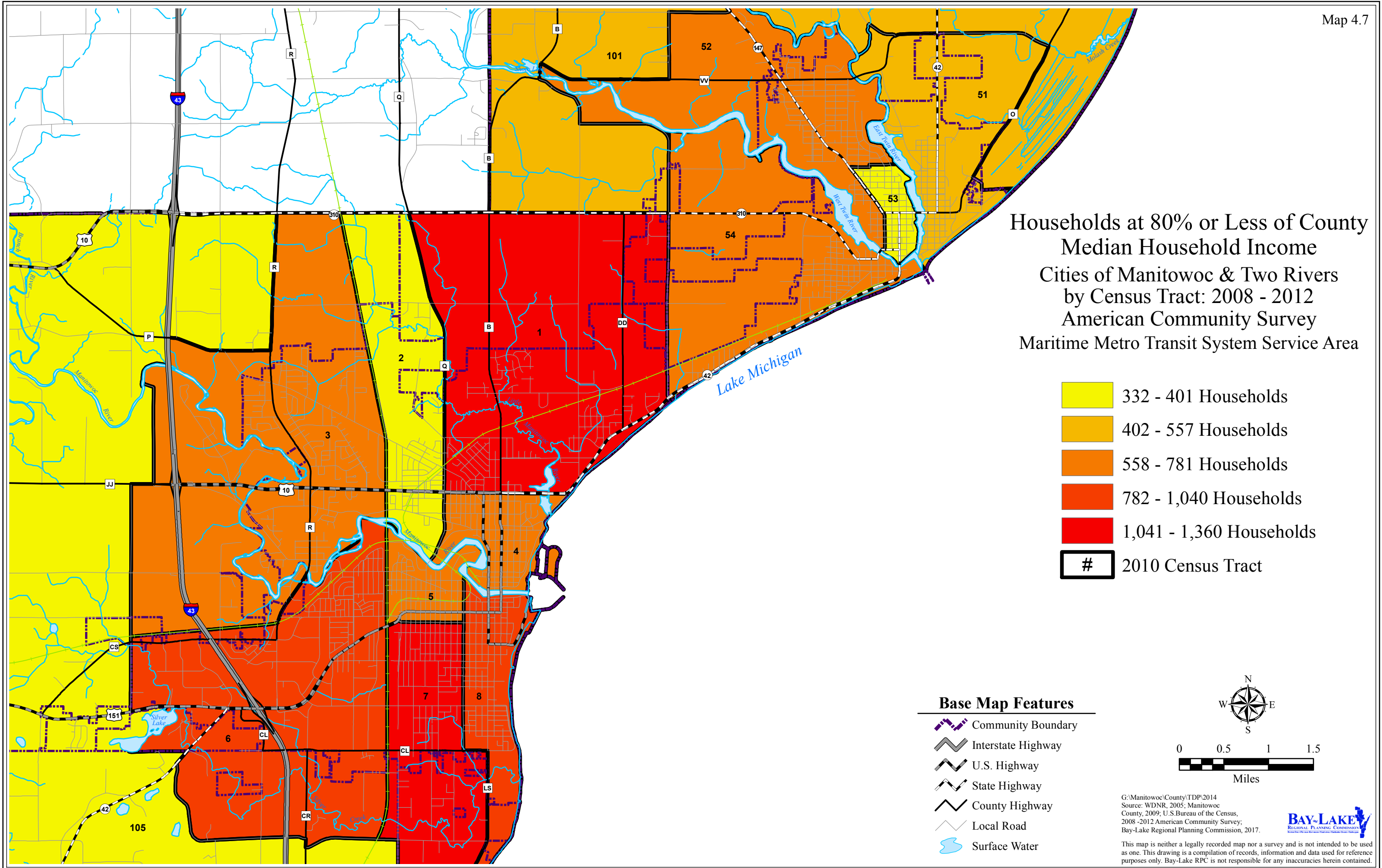
- Community Boundary
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water

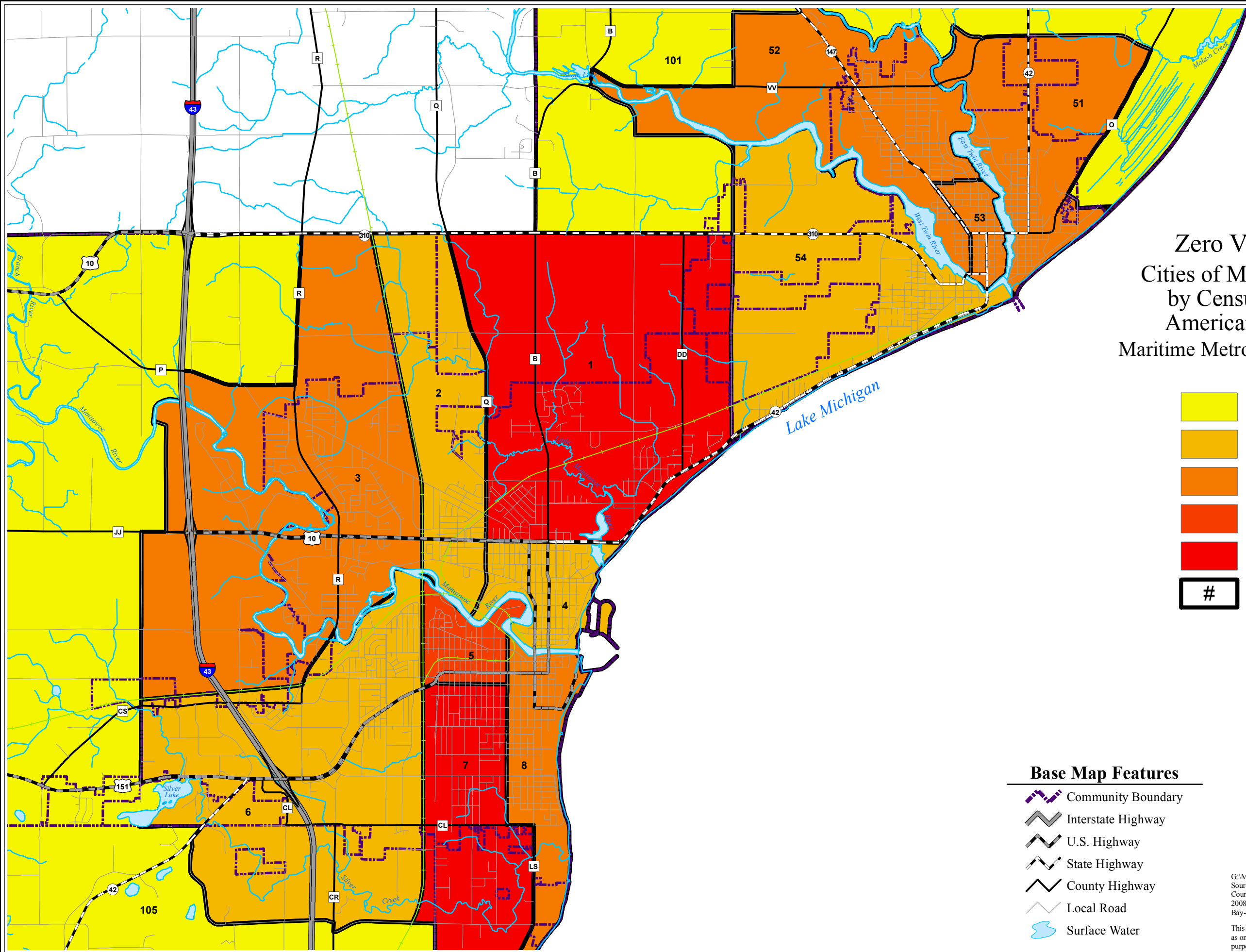


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Source: WDNR, 2005; Manitowoc
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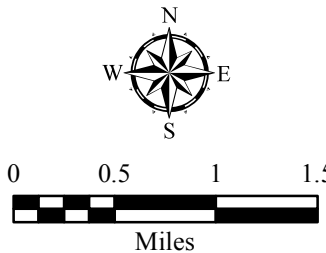


Zero Vehicle Households
Cities of Manitowoc & Two Rivers
by Census Tract: 2008 - 2012
American Community Survey
Maritime Metro Transit System Service Area

- 19 - 35 Households
- 36 - 81 Households
- 82 - 134 Households
- 135 - 179 Households
- 180 - 289 Households
- # 2010 Census Tract

Base Map Features

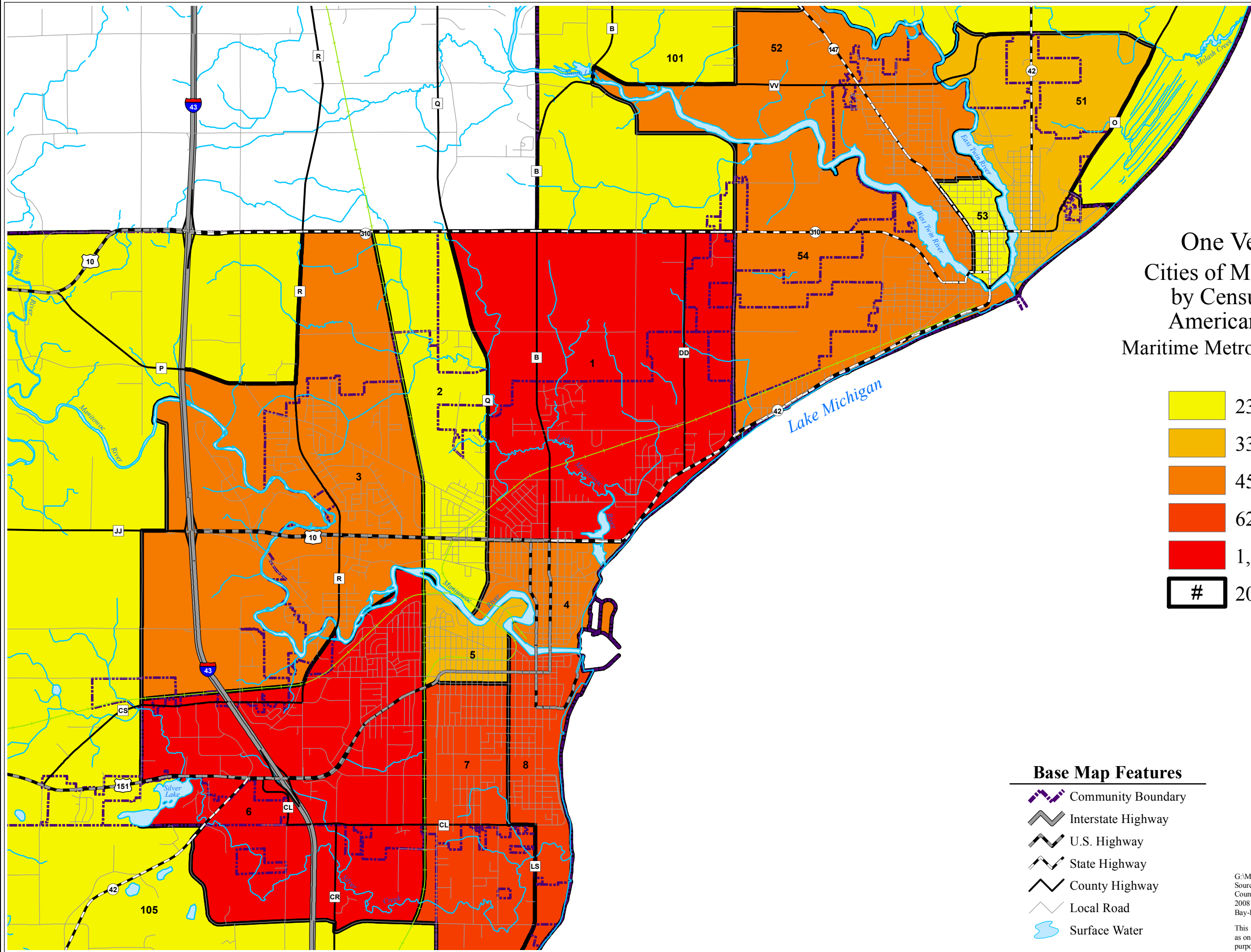
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- Interstate Highway
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- State Highway
- County Highway
- Local Road
- Surface Water



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Source: WDNR, 2005; Manitowoc
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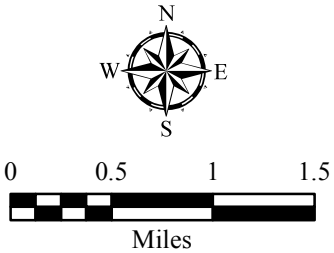


One Vehicle Households
Cities of Manitowoc & Two Rivers
by Census Tract: 2008 - 2012
American Community Survey
Maritime Metro Transit System Service Area

- 236 - 331 Households
- 332 - 452 Households
- 453 - 625 Households
- 626 - 1,008 Households
- 1,009 - 1,304 Households
- # 2010 Census Tract

Base Map Features

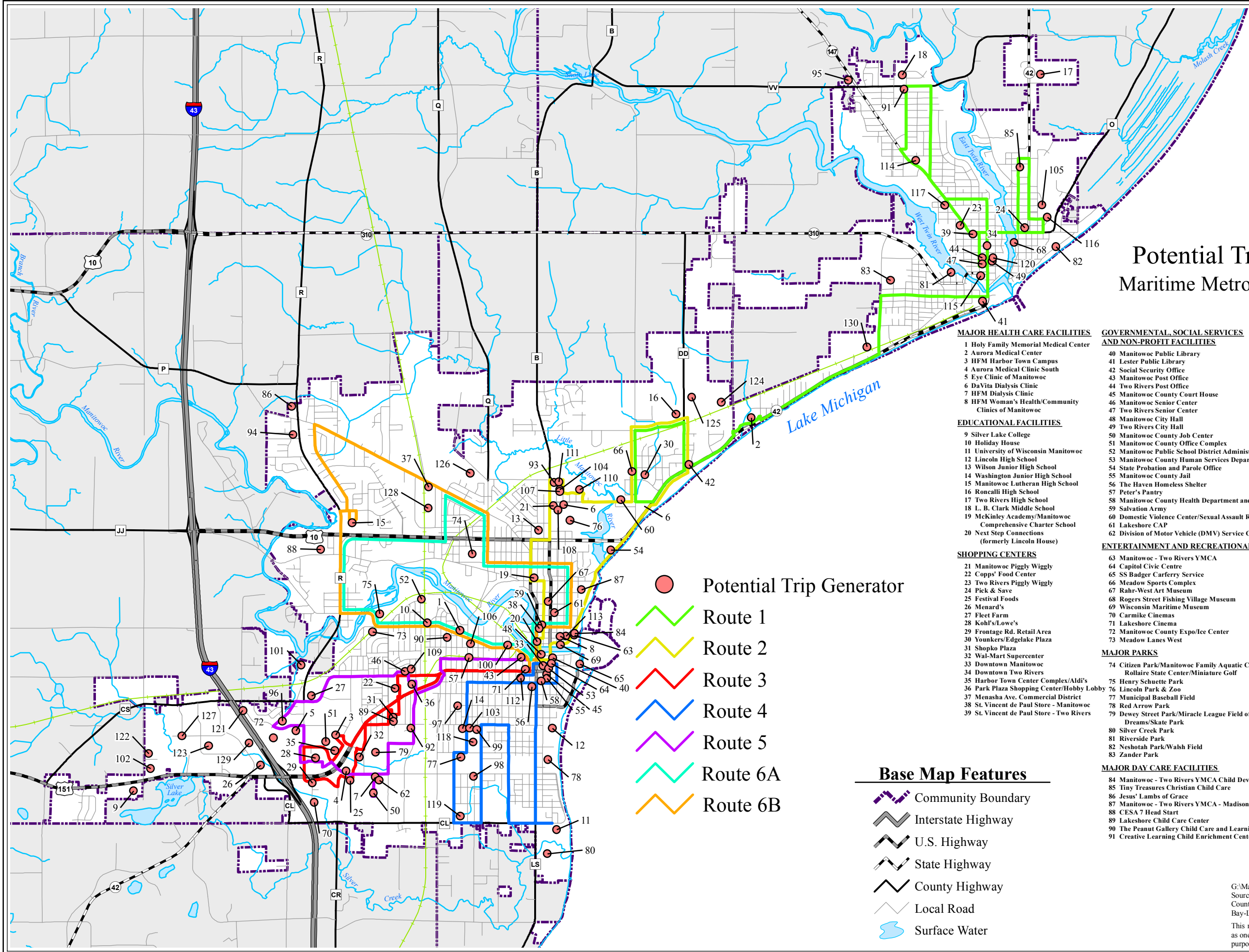
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Potential Trip Generators in 2014 Maritime Metro Transit System Service Area

MAJOR HEALTH CARE FACILITIES

- 1 Holy Family Memorial Medical Center
- 2 Aurora Medical Center
- 3 HFM Harbor Town Campus
- 4 Aurora Medical Clinic South
- 5 Eye Clinic of Manitowoc
- 6 DaVita Dialysis Clinic
- 7 HFM Dialysis Clinic
- 8 HFM Woman's Health/Community Clinics of Manitowoc

EDUCATIONAL FACILITIES

- 9 Silver Lake College
- 10 Holiday House
- 11 University of Wisconsin Manitowoc
- 12 Lincoln High School
- 13 Wilson Junior High School
- 14 Washington Junior High School
- 15 Manitowoc Lutheran High School
- 16 Roncalli High School
- 17 Two Rivers High School
- 18 L. B. Clark Middle School
- 19 McKinley Academy/Manitowoc Comprehensive Charter School
- 20 Next Step Connections (formerly Lincoln House)

SHOPPING CENTERS

- 21 Manitowoc Piggly Wiggly
- 22 Coppers' Food Center
- 23 Two Rivers Piggly Wiggly
- 24 Pick & Save
- 25 Festival Foods
- 26 Menard's
- 27 Fleet Farm
- 28 Kohl's/Lowe's
- 29 Frontage Rd. Retail Area
- 30 Younkers/Edgelake Plaza
- 31 Shopko Plaza
- 32 Wal-Mart Supercenter
- 33 Downtown Manitowoc
- 34 Downtown Two Rivers
- 35 Harbor Town Center Complex/Aldi's
- 36 Park Plaza Shopping Center/Hobby Lobby
- 37 Menasha Ave. Commercial District
- 38 St. Vincent de Paul Store - Manitowoc
- 39 St. Vincent de Paul Store - Two Rivers

GOVERNMENTAL, SOCIAL SERVICES AND NON-PROFIT FACILITIES

- 40 Manitowoc Public Library
- 41 Lester Public Library
- 42 Social Security Office
- 43 Manitowoc Post Office
- 44 Two Rivers Post Office
- 45 Manitowoc County Court House
- 46 Manitowoc Senior Center
- 47 Two Rivers Senior Center
- 48 Manitowoc City Hall
- 49 Two Rivers City Hall
- 50 Manitowoc County Job Center
- 51 Manitowoc County Office Complex
- 52 Manitowoc Public School District Administrative Office
- 53 Manitowoc County Human Services Department
- 54 State Probation and Parole Office
- 55 Manitowoc County Jail
- 56 The Haven Homeless Shelter
- 57 Peter's Pantry
- 58 Manitowoc County Health Department and WIC Office
- 59 Salvation Army
- 60 Domestic Violence Center/Sexual Assault Resource Center
- 61 Lakeshore CAP
- 62 Division of Motor Vehicle (DMV) Service Center

ENTERTAINMENT AND RECREATIONAL FACILITIES

- 63 Manitowoc - Two Rivers YMCA
- 64 Capitol Civic Centre
- 65 SS Badger Car ferry Service
- 66 Meadow Sports Complex
- 67 Rahr-West Art Museum
- 68 Rogers Street Fishing Village Museum
- 69 Wisconsin Maritime Museum
- 70 Carmike Cinemas
- 71 Lakeshore Cinema
- 72 Manitowoc County Expo/Ice Center
- 73 Meadow Lanes West

MAJOR PARKS

- 74 Citizen Park/Manitowoc Family Aquatic Center/Rollaie State Center/Miniature Golf
- 75 Henry Schuette Park
- 76 Lincoln Park & Zoo
- 77 Municipal Baseball Field
- 78 Red Arrow Park
- 79 Dewey Street Park/Miracle League Field of Dreams/Skate Park
- 80 Silver Creek Park
- 81 Riverside Park
- 82 Neshotah Park/Walsh Field
- 83 Zander Park

MAJOR DAY CARE FACILITIES

- 84 Manitowoc - Two Rivers YMCA Child Development Center
- 85 Tiny Treasures Christian Child Care
- 86 Jesus' Lambs of Grace
- 87 Manitowoc - Two Rivers YMCA - Madison
- 88 CESA 7 Head Start
- 89 Lakeshore Child Care Center
- 90 The Peanut Gallery Child Care and Learning Center
- 91 Creative Learning Child Enrichment Center

MAJOR COMMUNITY BASED RESIDENTIAL FACILITIES

- 92 Fieldcrest Manor
- 93 The Artisan Manitowoc
- 94 Harmony of Manitowoc - West
- 95 Harmony of Two Rivers
- 96 Kindred Hearts Manitowoc
- 97 Laurel Grove Assisted Living/Shady Lane Nursing Care Center
- 98 Maritime Gardens Assisted Living
- 99 The Villa

ADULT DAY CARE FACILITIES

- 100 Generations Adult Day Center

LONG-TERM CARE PROVIDERS

- 101 Rivers Bend Health & Rehabilitation Center
- 102 Manitowoc Health & Rehabilitation Center
- 103 St. Mary's Home for the Aged
- 104 North Ridge Medical and Rehabilitation Center
- 105 Hamilton Memorial Home

ELDERLY AND/OR LOW INCOME HOUSING FACILITIES

- 106 Garfield Gardens
- 107 Manitou Manor
- 108 Parkview Haven
- 109 Regency House
- 110 River Hill Apartments
- 111 Valley View Apartments
- 112 Washington Park Manor
- 113 Harbor Heights Apartments
- 114 Mueller Manor
- 115 River House Apartments
- 116 Village Green East
- 117 Village Green West
- 118 Felician Village
- 119 Southfield Townhouses
- 120 Marquette Manor
- 121 Custer Village Apartments

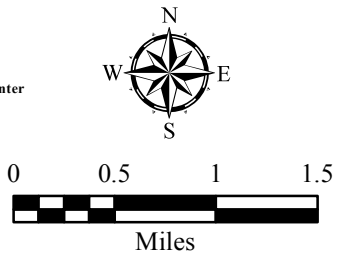
LARGER EMPLOYERS

- 122 Americollect
- 123 Northern Laboratory
- 124 Orion Energy Systems
- 125 Tramountina
- 126 LDI Industries
- 127 I-43 Technology and Enterprise Campus
- 128 Parker Hannifin
- 129 Parker Hannifin
- 130 Formrite Companies

- Potential Trip Generator
- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6A
- Route 6B

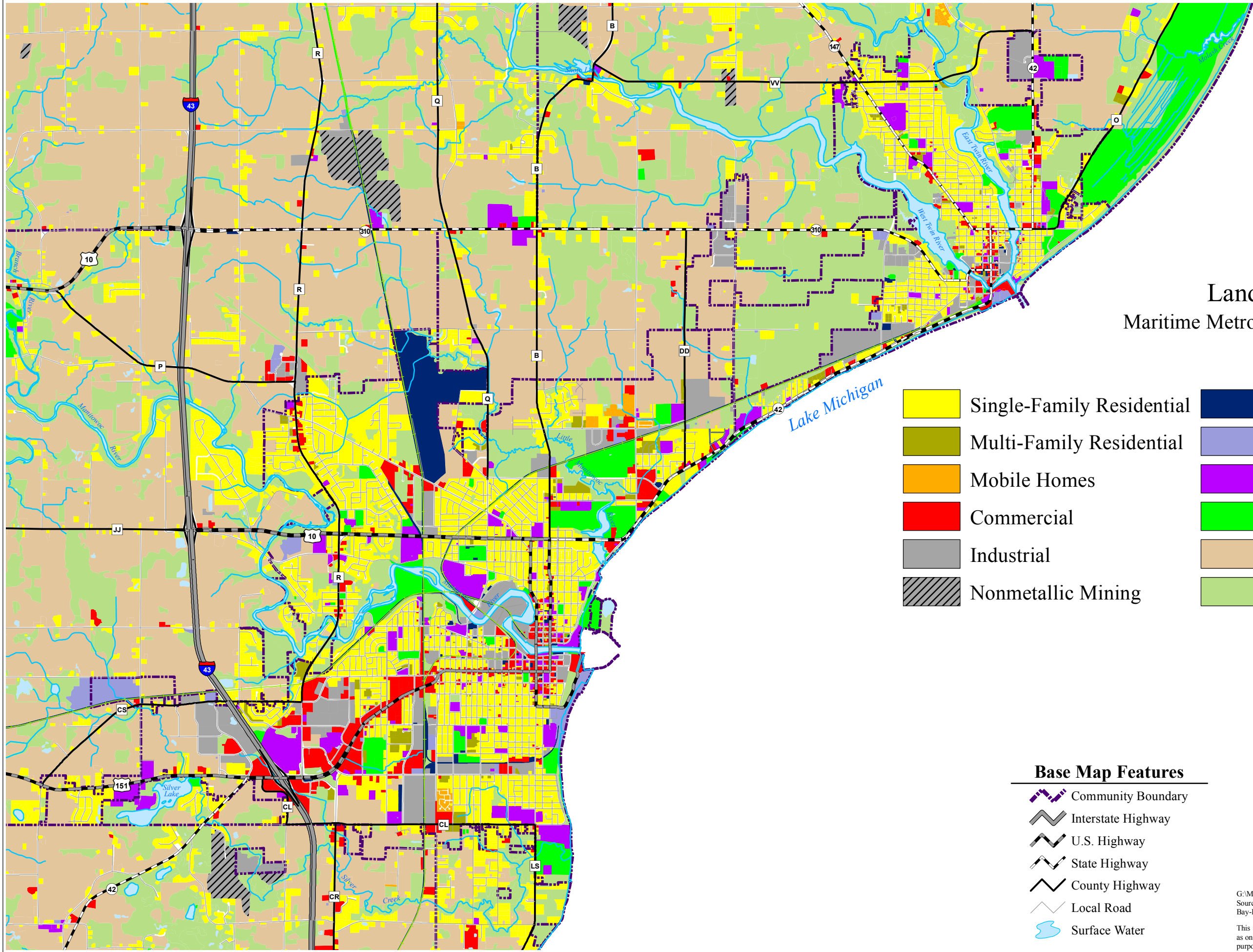
Base Map Features

- Community Boundary
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water










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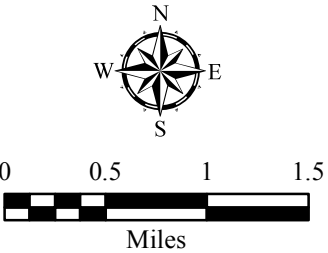


Land Use Inventory
Maritime Metro Transit System Service Area

- | | |
|---|---|
|  Single-Family Residential |  Transportation |
|  Multi-Family Residential |  Communications/Utilities |
|  Mobile Homes |  Governmental/Institutional |
|  Commercial |  Parks and Recreation |
|  Industrial |  Agricultural |
|  Nonmetallic Mining |  Woodlands/Natural Areas |

Base Map Features

-  Community Boundary
-  Interstate Highway
-  U.S. Highway
-  State Highway
-  County Highway
-  Local Road
-  Surface Water



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CHAPTER 5: RIDERSHIP OPINION

INTRODUCTION

A survey was conducted by the Bay-Lake Regional Planning Commission (with the assistance of several short-term survey takers recruited by Maritime Metro Transit and hired by the Commission) to assess ridership opinion concerning Maritime Metro Transit System services. The results of the 2015 on-board ridership survey are discussed in this chapter. Another section of this chapter compares results of the 2015 on-board ridership opinion survey to previous survey efforts (where results can be directly compared).

ON-BOARD RIDERSHIP OPINION SURVEY

Methodology

The ridership opinion survey was conducted to gather data from users of the Maritime Metro Transit System. The survey was conducted on Monday, September 28, 2015. All trips on all Maritime Metro Transit routes during the service day were surveyed. The objectives of the survey were to identify the profile of existing transit users and to determine how current users rate Maritime Metro Transit.

The questionnaire for the ridership opinion survey was designed to rate Maritime Metro Transit on ten attributes of transit service. The attributes included: (1) interior cleanliness of buses; (2) exterior cleanliness of buses; (3) waiting time for the bus; (4) courtesy of bus drivers; (5) availability of information concerning bus service; (6) cost of service; (7) the time it takes to reach destinations using bus service; (8) passenger safety; (9) ease of understanding the bus routes; and (10) hours of service.

The ridership opinion survey consisted of 19 questions, with a free response section at the end. These questions were designed to be brief and easily completed in a short period of time. The survey was presented to riders as a single two-sided sheet. First-time riders were asked to complete the entire questionnaire, while repeat riders were asked to complete only the first two questions of the survey. A total of 623 usable questionnaires was collected; 302 respondents completed the full survey instrument, while 321 respondents were repeat riders who only answered the first two questions. All respondents answered the first two questions. With the exception of Question #8 (the income question), over 95 percent of all respondents to the full survey answered questions 3 through 11 (the first page of the survey). Just over 79 percent of all respondents to the full survey answered Question #8. With the exception of Question #13 (the driver license question), between 85 and 90 percent of all respondents to the full survey answered questions 12 through 19 (the second page of the survey). Just over 92 percent of all respondents to the full survey answered Question #13. (The survey results and the summary results will appear as Appendix A of the TDP).

Characteristics of Transit Riders

The most common trip purposes were shopping (25.8 percent) and work (24.4 percent). Other significant trip purposes included school (18.3 percent), “other” (16.9 percent), personal business (12.4 percent), and medical (10.9 percent). Some 8.5 percent of riders responded that they had a social/recreational trip purpose, while less than two percent of respondents (in each category) had a human service agency visit or nutrition/senior center trip purpose. Percentages in this category added to over 100 percent because respondents were encouraged to check all responses that applied, and some respondents had multiple purpose trips.

Respondents were asked how they would make their trip if MMT bus service were not available. The top responses to this question were: walking (39.5 percent); as a passenger in someone else's vehicle (31.5 percent); and taking a taxi (20.7 percent). Other common responses to this question included: would not make the trip (16.4 percent); and bicycling (14.9 percent). Some 5.3 percent of respondents answered "other" to this question, while 3.5 percent of respondents stated that they would drive a vehicle if MMT bus service were not available. Again, percentages in this category added to over 100 percent because respondents were encouraged to check all responses that applied, and some respondents had multiple responses to this question.

Females constituted a majority of respondents (57.3 percent), while males comprised 42.7 percent of respondents.

Frequent age categories among respondents were: 35 to 44 (15.7 percent); under 16 (14.1 percent); 25 to 34 (14.0 percent); 45 to 54 (12.0 percent); 55 to 59 (12.0 percent); 65 or over (11.4 percent); and 18 to 24 (10.4 percent).

Some 23.8 percent of respondents were employed full-time, with an additional 22.2 percent of respondents reporting that they were employed part-time. On the other hand, nearly 15.9 percent of survey respondents indicated that they were unemployed. Nearly 17.9 percent of respondents stated that they were students, with an additional over 12.9 percent of respondents commenting that they were retired. Over 8.9 percent of respondents indicated that they had "other" employment status, while just over 2.3 percent of respondents reported that they were homemakers. Percentages in this category added to over 100 percent because respondents were encouraged to check all responses that applied, and some respondents had multiple statuses (such as being a student and having some level of employment at the same time).

The largest annual household income group represented among respondents was the under \$10,000 income group (51.9 percent), with the second highest being the \$10,000 to \$19,999 income group (25.5 percent), and with the third highest being the \$20,000 to \$29,999 income group (13.4 percent). Generally, as annual household income increases, percentage of respondents in the income category decreases.

The highest percentage of respondents (43.1 percent) rode Maritime Metro Transit 3 to 6 times per week, with 22.7 percent riding more than 10 times per week, with 20.0 percent riding 7 to 10 times per week, with 12.2 percent riding 1 to 2 times per week, and with 2.0 percent riding less than once per week.

The highest percentage of respondents (30.2 percent) have been riding Maritime Metro Transit for 10 or more years, with 26.1 percent having ridden MMT for 3 to 5 years, 18.6 percent having ridden MMT for one year or less, 15.3 percent having ridden MMT for 1 to 2 years, and 9.8 percent having ridden MMT for 6 to 10 years.

Some 50.5 percent of the respondents stated that they were within one block of a Maritime Metro Transit bus stop, with 83.4 percent of the respondents living within three blocks of a Maritime Metro Transit bus stop, the traditional service area standard.

Transit service was a factor in residence location for 61.8 percent of the respondents.

Some 77.7 percent of the respondents did not possess a driver's license. Similarly, some 83.0 percent of the respondents did not have a personal vehicle available for the transit trip which they were making.

Some 58.9 percent of the respondents had no vehicle in their household, with an additional 23.0 percent of respondents having only one vehicle in their household.

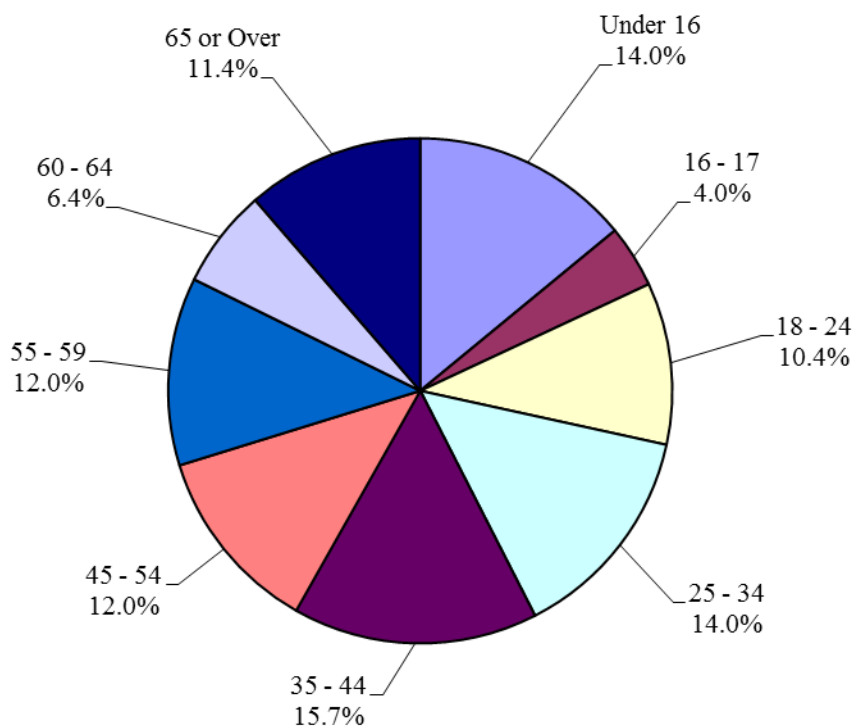
About 8.2 percent of the respondents stated that they have some type of special need which impacts their use of transit service to get to all of their destinations. “Special needs” that were specified ranged from having certain disabilities to commenting that the transit service area and times of service were not always convenient for the respondent.

Some 60.9 percent of respondents stated that they would like to see transit service hours extended, and most of these respondents indicated the days and hours in which they would like to see such service extended. Conversely, only about 33.9 percent of respondents commented that the transit service area should be expanded; again, a majority of these respondents noted the specific new areas that they would like Maritime Metro Transit to serve.

Some 42 respondents offered miscellaneous written comments regarding Maritime Metro Transit at the end of the survey instrument.

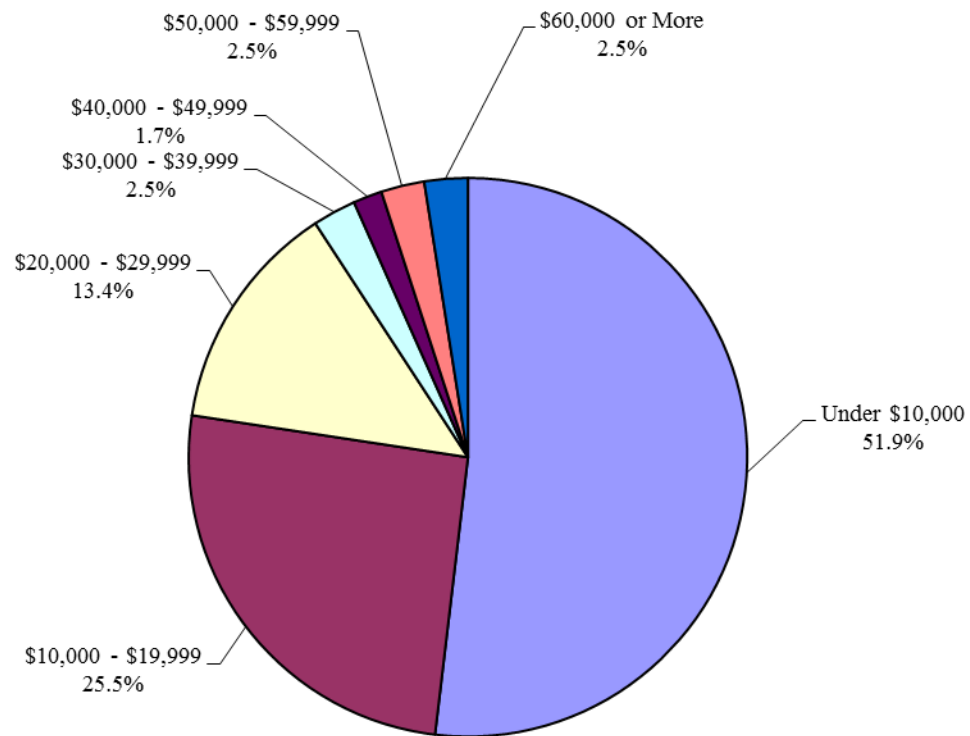
These and other demographic characteristics are shown in Figures 5.1 and 5.2, as well as in Tables 5.1 through 5.4.

Figure 5.1: Ages of Ridership Opinion Survey Respondents



Source: Bay-Lake Regional Planning Commission, 2015.

Figure 5.2: Annual Household Income Levels of Ridership Opinion Survey Respondents



Source: Bay-Lake Regional Planning Commission, 2015.

Table 5.1
Employment Status of Ridership Opinion Survey
Respondents

| Employment Status | Percentage |
|--------------------------|-------------------|
| Full-Time Employment | 23.8% |
| Part-Time Employment | 22.2% |
| Student | 17.9% |
| Unemployed | 15.9% |
| Retired | 12.9% |
| Homemaker | 2.3% |
| Other | 8.9% |

Note: Percentages add to over 100 percent because respondents were encouraged to check all responses that applied, and some respondents had multiple statuses.

Source: Bay-Lake Regional Planning Commission, 2015.

Table 5.2
Ages of Ridership Opinion Survey Respondents

| Age Category | Percentage |
|---------------------|-------------------|
| Under 16 | 14.0% |
| 16 - 17 | 4.0% |
| 18 - 24 | 10.4% |
| 25 - 34 | 14.0% |
| 35 - 44 | 15.7% |
| 45 - 54 | 12.0% |
| 55 - 59 | 12.0% |
| 60 - 64 | 6.4% |
| 65 or Over | 11.4% |

Source: Bay-Lake Regional Planning Commission, 2015.

Table 5.3
Household Income Levels of Ridership Opinion Survey
Respondents

| Household Income Level | Percentage |
|-------------------------------|-------------------|
| Under \$10,000 Annually | 51.9% |
| \$10,000 to \$19,999 Annually | 25.5% |
| \$20,000 to \$29,999 Annually | 13.4% |
| \$30,000 to \$39,999 Annually | 2.5% |
| \$40,000 to \$49,999 Annually | 1.7% |
| \$50,000 to \$59,999 Annually | 2.5% |
| \$60,000 or More Annually | 2.5% |

Source: Bay-Lake Regional Planning Commission, 2015.

Table 5.4

Trip Purposes of Ridership Opinion Survey Respondents

| Trip Purpose | Percentage |
|----------------------------|-------------------|
| Shopping | 25.8% |
| Work | 24.4% |
| School | 18.3% |
| Personal Business | 12.4% |
| Medical | 10.9% |
| Social/Recreational | 8.5% |
| Human Service Agency Visit | 1.9% |
| Nutrition/Senior Center | 1.0% |
| Other | 16.9% |

Note: Percentages add to over 100 percent because respondents were encouraged to check all responses that applied, and some respondents had multiple purpose trips.

Source: Bay-Lake Regional Planning Commission, 2015.

Rating of Maritime Metro Transit System Attributes

Overall, respondents to the ridership opinion survey rated Maritime Metro Transit very well. Most characteristics received strongly positive mean ratings. There were no characteristics which had a mean rating of less than 2.00, on a scale with “1” being “poor” and with “3” being “good.” The rated attributes of Maritime Metro Transit are shown in Table 5.5, with the most positively rated attribute appearing first.

Using the scale for rating attributes, any attribute rated at 2.50 or higher overall is considered to have a positive rating. An attribute rated at 2.75 or higher overall is considered to have a strongly positive rating. Seven of the ten attributes received strongly positive mean ratings, while one additional attribute received a positive mean rating.

Table 5.5

Ranked Attributes of Maritime Metro Transit According to Ridership Opinion Survey Respondents

| Rank | Attribute | Mean Rating |
|-------------|----------------------------------|--------------------|
| 1 | Bus Service Information | 2.86 |
| 2 | Passenger Safety | 2.84 |
| 3 | Interior Cleanliness of Bus | 2.81 |
| 4 | Courtesy of Driver | 2.81 |
| 5 | Ease of Understanding Bus Routes | 2.79 |
| 6 | Cost of Service | 2.77 |
| 7 | Exterior Cleanliness of Bus | 2.75 |
| 8 | Length of Ride Time | 2.71 |
| 9 | Hours of Service | 2.48 |
| 10 | Waiting Time for Bus | 2.43 |

Source: Bay-Lake Regional Planning Commission, 2015.

For further analysis of the data collected from Maritime Metro Transit users, the respondents were divided into subcategories. The categories of age and gender of the respondents were analyzed separately. The age classification divided respondents into two categories: under age 18; and age 18 and over. Table 5.6 shows the rating of the Maritime Metro Transit attributes for

the age classifications.

As seen by the responses in Table 5.6, passengers 18 years of age and older gave higher ratings to nine of ten attributes of the Maritime Metro Transit operation when compared to passengers under 18 years of age, the one exception being hours of service. The two age groups came within under one tenth of a point of each other in regard to driver courtesy. The two age groups came within one and two tenths of a point of each other in regard to the following five attributes: bus service information; ease of understanding bus routes; cost of service; exterior cleanliness of buses; and hours of service. The two age groups came within two and three tenths of a point of each other in regard to interior cleanliness of buses. The two age groups came within three and four tenths of a point of each other in regard to the following two attributes: passenger safety and length of ride time. The two age groups came within four and five tenths of a point of each other in regard to waiting time for the bus. Respondents under age 18 rated driver courtesy as their top attribute, while respondents age 18 and over rated passenger safety as their top attribute. Respondents from both groups rated length of ride time, waiting time for the bus, and hours of service as their lowest ranked attributes, but not in the same order.

Table 5.6
Ranked Attributes of Maritime Metro Transit by Age of Respondent

| Respondents Under Age 18 | | | Respondents Age 18 and Over | | |
|--------------------------|----------------------------------|----------------|-----------------------------|----------------------------------|----------------|
| Rank | Attribute | Average Rating | Rank | Attribute | Average Rating |
| 1 | Courtesy of Driver | 2.77 | 1 | Passenger Safety | 2.90 |
| 2 | Bus Service Information | 2.73 | 2 | Bus Service Information | 2.88 |
| 3 | Cost of Service | 2.68 | 3 | Interior Cleanliness of Bus | 2.85 |
| 4 | Ease of Understanding Bus Routes | 2.64 | 4 | Ease of Understanding Bus Routes | 2.83 |
| 5 | Interior Cleanliness of Bus | 2.60 | 5 | Courtesy of Driver | 2.83 |
| 6 | Exterior Cleanliness of Bus | 2.60 | 6 | Cost of Service | 2.79 |
| 7 | Passenger Safety | 2.59 | 7 | Exterior Cleanliness of Bus | 2.79 |
| 8 | Hours of Service | 2.57 | 8 | Length of Ride Time | 2.78 |
| 9 | Length of Ride Time | 2.39 | 9 | Waiting Time for Bus | 2.51 |
| 10 | Waiting Time for Bus | 2.07 | 10 | Hours of Service | 2.47 |

Source: Bay-Lake Regional Planning Commission, 2015.

The responses of male and female passengers also have been compared. Table 5.7 indicates the relationship between these two classifications of respondents. Females rated the following attributes higher than males: bus service information; exterior cleanliness of buses; and length of ride time. Males rated the following attributes higher than females: ease of understanding bus routes; cost of service; interior cleanliness of buses; waiting time for the bus; and hours of service. Males and females gave similar average ratings to the following attributes: passenger safety and driver courtesy. Ratings between male and female respondents were less than one tenth of a point apart for seven of the ten attributes. Males rated the following attributes significantly higher than females: cost of service (0.10 of a point higher); interior cleanliness of buses (0.15 of a point higher); and hours of service (0.16 of a point higher). There was little commonality in the ranking of the attributes between male and female passengers, although passenger safety and bus service information were the top two ranked attributes with both groups, while hours of service and waiting time for the bus were the lowest two ranked attributes with both groups. With a small range in the rating scores between the first and tenth ranked attributes in both groups, the rankings are a fairly insignificant form of analysis.

Table 5.7
Ranked Attributes of Maritime Metro Transit by Gender of Respondent

| Male Respondents | | | Female Respondents | | |
|------------------|----------------------------------|----------------|--------------------|----------------------------------|----------------|
| Rank | Attribute | Average Rating | Rank | Attribute | Average Rating |
| 1 | Passenger Safety | 2.85 | 1 | Bus Service Information | 2.86 |
| 2 | Bus Service Information | 2.85 | 2 | Passenger Safety | 2.85 |
| 3 | Cost of Service | 2.83 | 3 | Courtesy of Driver | 2.82 |
| 4 | Courtesy of Driver | 2.82 | 4 | Ease of Understanding Bus Routes | 2.78 |
| 5 | Ease of Understanding Bus Routes | 2.81 | 5 | Exterior Cleanliness of Bus | 2.76 |
| 6 | Interior Cleanliness of Bus | 2.79 | 6 | Cost of Service | 2.73 |
| 7 | Exterior Cleanliness of Bus | 2.75 | 7 | Length of Ride Time | 2.72 |
| 8 | Length of Ride Time | 2.71 | 8 | Interior Cleanliness of Bus | 2.64 |
| 9 | Hours of Service | 2.57 | 9 | Waiting Time for Bus | 2.42 |
| 10 | Waiting Time for Bus | 2.44 | 10 | Hours of Service | 2.41 |

Source: Bay-Lake Regional Planning Commission, 2015.

COMPARISON OF SURVEY FINDINGS

Demographics Compared

Age, gender and household income statistics were compared to better establish the relationship between the various populations being discussed. In Table 5.8, Maritime Metro Transit's 2001, 2009 and 2015 on-board ridership surveys, Maritime Metro Transit's 2001 community opinion survey, and 2000 Census, 2010 Census and 2008 – 2012 American Community Survey (ACS) data are presented. These comparisons are important in assessing the strengths and weaknesses of each type of data discussed.

Table 5.8
Comparison of Survey Respondent Groups

| Characteristic | 2001 On-Board Ridership Survey | 2009 On-Board Ridership Survey | 2015 On-Board Ridership Survey | 2001 Community Opinion Survey | 2000 Census Data | 2010 Census/ 2008-2012 ACS |
|---------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|------------------|----------------------------|
| Age | | | | | | |
| Under 16 | 8.8% | 10.4% | 14.0% | 0.0% | 21.4% | 19.3% |
| 16 - 24 | 16.2% | 21.3% | 14.4% | 6.6% | 11.2% | 10.6% |
| 25 - 44 | 27.0% | 26.5% | 29.8% | 30.6% | 27.8% | 23.5% |
| 45 - 59 | 25.7% | 25.3% | 24.1% | 25.4% | 17.6% | 22.3% |
| 60 and Over | 22.3% | 16.5% | 17.7% | 37.4% | 22.0% | 24.2% |
| Gender | | | | | | |
| Male | 34.7% | 44.1% | 42.7% | 35.8% | 48.6% | 48.4% |
| Female | 65.3% | 55.9% | 57.3% | 64.2% | 51.4% | 51.6% |
| Income | | | | | | |
| Under \$10,000 | 41.6% | 48.2% | 51.9% | 7.3% | 7.4% | 5.8% |
| \$10,000 - \$19,999 | 23.9% | 22.8% | 25.5% | 16.2% | 14.5% | 14.2% |
| \$20,000 - \$29,999 | 18.6% | 12.7% | 13.4% | 16.8% | 15.5% | 13.7% |
| \$30,000 - \$39,999 | 7.1% | 7.1% | 2.5% | 13.6% | 14.5% | 12.3% |
| \$40,000 or More | 8.8% | 9.1% | 6.7% | 46.1% | 48.1% | 54.0% |

Note: For the analysis of the 2001 Community Opinion Survey, "don't know" and "refused" responses have been excluded for purposes of comparative analysis in this table.

Source: Bay-Lake Regional Planning Commission, 2015.

Comparing the demographics of the past and current on-board ridership and community opinion surveys to the demographics of the Maritime Metro Transit System service area helps to identify populations that were under-represented or over-represented in survey efforts. For example, all survey efforts for which data were reported tended to over-represent females and under-represent males. The population of the service area (Cities of Manitowoc and Two Rivers) was 51.4 percent female in 2000 and was 51.6 percent female in 2010. However, 55.9 percent to 65.3 percent of the respondents from each of the four surveys for which data were reported were

female; this included three on-board ridership surveys and one community opinion survey.

The on-board ridership and community opinion survey populations differed substantially. The on-board ridership survey captured the opinions of persons under age 18, and also captured the opinions of more persons in lower income brackets.

The on-board ridership surveys (2001, 2009 and 2015) did a good job of representing the different age groups in the general population of the Maritime Metro Transit System service area. Because the community opinion survey (2001) was more extensive and complicated than the on-board ridership surveys, it was important to ask that an adult member of the household respond to the survey. Therefore, the community opinion survey does not fully represent the population under 25 years of age. Although this may be seen as a weakness in the methodology, the community opinion survey actually provided a better understanding of working age adults. Since transit systems tend to attract youth and the elderly for various reasons, understanding opinions and habits of the working age population is very important. Traditionally, it has been the working age population that has been the most difficult to attract as users of transit services.

The community opinion survey appeared to represent the various household income levels of the Maritime Metro Transit System service area. The on-board ridership surveys, while accurately representing the universe of transit users, under-represent the higher income level groups within the Maritime Metro Transit System service area. Such an assessment of the data should be considered as survey results are discussed in detail.

Comparison of 2001, 2009 and 2015 On-Board Ridership Surveys

There were clear demographic differences between the 2001, 2009 and 2015 ridership opinion surveys. As far as age distribution issues involving the ridership are concerned, the proportion of the ridership under the age of 16 using Maritime Metro Transit has steadily grown, from 8.8 percent in 2001 to 10.4 percent in 2009 to 14.0 percent in 2015. The proportion of the ridership between the ages of 16 and 24 increased from 16.2 percent in 2001 to 21.3 percent in 2009, but then decreased to 14.4 percent in 2015. The proportion of the ridership between the ages of 25 and 44 decreased slightly from 27.0 percent in 2001 to 26.5 percent in 2009, but then increased to 29.8 percent in 2015. The proportion of the ridership between the ages of 45 and 59 has steadily decreased, from 25.7 percent in 2001 to 25.3 percent in 2009 to 24.1 percent in 2015. The proportion of the ridership age 60 and over decreased from 22.3 percent in 2001 to 16.5 percent in 2009, then increased slightly to 17.7 percent in 2009.

Female riders constituted 65.3 percent of respondents in 2001, but only involved 55.9 percent of respondents in 2009. The proportion of female respondents increased slightly to 57.3 percent in 2015.

As far as annual household income levels of survey respondents were concerned, the proportion of riders who had an annual household income of less than \$10,000 increased from 41.6 percent in 2001 to 48.2 percent in 2009 to 51.9 percent in 2015. The proportion of riders who had an annual household income between \$10,000 and \$19,999 decreased slightly from 23.9 percent in 2001 to 22.8 percent in 2009, but increased to 25.5 percent in 2015. The proportion of riders who had an annual household income between \$20,000 and \$29,999 decreased from 18.6 percent in 2001 to 12.7 percent in 2009, but then increased slightly to 13.4 percent in 2015. The proportion of riders who had an annual household income between \$30,000 and \$39,999 was at 7.1 percent in both 2001 and 2009, but decreased significantly to 2.5 percent in 2015. Finally, the proportion of riders who had an annual household income of \$40,000 or more increased

slightly from 8.8 percent in 2001 to 9.1 percent in 2009, then decreased to 6.7 percent in 2015.

The proportion of riders who had full-time employment decreased significantly from 34.0 percent in 2001 to 21.5 percent in 2009, then increased slightly to 23.8 percent in 2015. The proportion of riders who had part-time employment decreased from 24.8 percent in 2001 to 19.9 percent in 2009, then increased to 22.2 percent in 2009. The proportion of students among the ridership decreased from 17.7 percent in 2001 to 14.2 percent in 2009, then rebounded to 17.9 percent in 2015. The proportion of riders that was unemployed increased significantly from 8.5 percent in 2001 to 21.1 percent in 2009, then decreased to 15.9 percent in 2015. The proportion of retired individuals among the ridership decreased from 17.7 percent in 2001 to 12.3 percent in 2009, then increased to 12.9 percent in 2015. The proportion of homemakers among the ridership decreased from 4.3 percent in 2001 to 4.2 percent in 2009 and to 2.3 percent in 2015. Finally, the proportion of persons with “other” occupational statuses increased from 6.9 percent in 2009 to 8.9 percent in 2015 (“other” occupational status was not a response listed on the 2001 survey instrument). Clearly, the recession that started in 2008 had an impact on many of the occupational responses to the survey in 2009. In addition, it should be noted that a minority of respondents had more than one occupational status at the same time.

The proportion of riders who listed shopping as their trip purpose decreased from 27.0 percent in 2001 to 25.7 percent in 2009, then increased slightly to 25.8 percent in 2015. The proportion of riders who listed work as their trip purpose decreased significantly from 42.9 percent in 2001 to 23.8 percent in 2009, then increased slightly to 24.4 percent in 2015. The proportion of respondents who listed school as their trip purpose increased steadily from 14.8 percent in 2001 to 17.8 percent in 2009 and to 18.3 percent in 2015. The proportion of riders who listed personal business as their trip purpose increased from 17.5 percent in 2001 to 21.6 percent in 2009, then decreased significantly to 12.4 percent in 2015. The proportion of riders who listed a medical visit as their trip purpose increased from 10.1 percent in 2001 to 10.9 percent in 2009, then remained at 10.9 percent in 2015. The proportion of riders who listed a social/recreational trip purpose decreased from 13.2 percent in 2001 to 12.6 percent in 2009, and decreased further to 8.5 percent in 2015. The proportion of riders who listed a human service agency visit as their trip purpose decreased from 3.2 percent in 2001 to 3.0 percent in 2009, and decreased further to 1.9 percent in 2015. The proportion of riders who listed a nutrition or senior center visit as their trip purpose increased from 0.5 percent in 2001 to 1.1 percent in 2009, then decreased slightly to 1.0 percent in 2015. Finally, the proportion of riders with “other” trip purposes increased from 14.1 percent in 2009 to 16.9 percent in 2015 (“other” trip purposes were not a response listed on the 2001 survey instrument). Again, the recession that started in 2008 had an impact on many of the trip purpose responses to the survey in 2009. Also, it should again be noted that a significant minority of respondents had more than one trip purpose for the same trip.

The proportion of respondents in which no vehicle or one vehicle was owned by their household decreased from 76.5 percent in 2001 to 69.7 percent in 2009, but increased significantly to 81.9 percent in 2015. Around the same percentage of respondents did not have a vehicle available for the transit trip they were making in 2015 in comparison to 2001 and 2009; in all three survey years, between 80 and 83 percent of respondents did not have a vehicle available for the transit trip they were making. Greater proportions of those surveyed in 2001 and 2015 appeared to ride Maritime Metro Transit with greater frequency than was the case in 2009.

Table 5.9
Transportation Characteristics of Ridership Opinion Survey Respondents
2001, 2009 and 2015

| Characteristic | 2001 Results | 2009 Results | 2015 Results |
|--|--------------|--------------|--------------|
| Household Motor Vehicles | | | |
| None Available | 57.5% | 48.9% | 58.9% |
| One Available | 19.0% | 20.8% | 23.0% |
| Two or More Available | 23.5% | 30.3% | 18.1% |
| Vehicle Available For This Trip | | | |
| Yes | 17.1% | 19.8% | 17.0% |
| No | 82.9% | 80.2% | 83.0% |
| Trips Made Per Week | | | |
| Two or Fewer Trips | 16.8% | 24.3% | 14.2% |
| 3 - 6 Trips | 38.4% | 31.5% | 43.1% |
| 7 - 10 Trips | 20.5% | 16.5% | 20.0% |
| More Than 10 Trips | 24.3% | 27.7% | 22.7% |

Source: Bay-Lake Regional Planning Commission, 2015.

As far as opinions of passengers were concerned, nine attributes of transit service were evaluated in 2001, 2009 and 2015. “Courtesy of driver” was rated first in 2001 and 2009, but was rated fourth in 2015. “Bus service information” was rated second in 2001, third in 2009, and first in 2015. “Passenger safety” was rated third in 2001, fourth in 2009, and second in 2015. “Exterior cleanliness of buses” was rated fourth in 2001, eighth in 2009, and seventh in 2015. “Interior cleanliness of buses” was rated fifth in both 2001 and 2009, and was rated third in 2015. “Waiting time for the bus” was rated sixth in 2001, ninth in 2009, and tenth (last) in 2015. “Length of ride time” (simply “ride time” in 2001) was rated seventh in both 2001 and 2009, and was rated eighth in 2015. “Cost of service” was rated eighth in 2001, and was rated sixth in both 2009 and 2015. “Hours of service” was rated ninth (last) in 2001, tenth (last) in 2009, and ninth in 2015.

One additional attribute was rated in 2009 and 2015, but not in 2001. That attribute, “ease of understanding bus routes,” was rated second in 2009 and fifth in 2015. Passengers rated Maritime Metro Transit attributes generally highly in all three survey years. The rating of these attributes is not directly comparable in that a scale of “1” (very poor) to “5” (very good) was used in 2001, while a simpler scale of “1” (poor) to “3” (good) was used in 2009 and in 2015.

CHAPTER 6: ROUTE RIDERSHIP PATTERNS

BOARDING AND ALIGHTING SURVEY METHODOLOGY

A boarding and alighting survey was conducted by the Bay-Lake Regional Planning Commission (with the assistance of several short-term survey takers recruited by Maritime Metro Transit and hired by the Commission) to assess the amount of usage and maximum loads in detail along routes of the Maritime Metro Transit System during all times of a typical service weekday. The boarding and alighting survey was conducted on Monday, October 5, 2015; all 148 trips on the seven Maritime Metro Transit routes that are typically offered on weekdays were surveyed that day.

The objectives of the survey were to: examine total daily outbound and inbound boardings and alightings; determine maximum loads on all trips; examine boardings and alightings on individual routes by broad time period; and provide route-specific outbound and inbound boarding and alighting profiles. The survey was taken with the assistance of nine individuals working over one day.

TOTAL DAILY BOARDINGS AND ALIGHTINGS

Table 6.1 indicates outbound and inbound boardings and alightings for all routes of the Maritime Metro Transit System during the survey day. As a reminder, Route 1 buses leave from (and interface with Route 2 buses at) the Meadow Links Transfer Point on Johnston Drive, while the transfer points for Routes 2 through 6B is the downtown Intermodal Transfer Center on South 11th Street.

Table 6.1: Outbound and Inbound Boardings and Alightings, All Routes in Operation, Maritime Metro Transit System, October 5, 2015

| Outbound | | Inbound | |
|-----------------|------------|----------------|------------|
| Boardings | Alightings | Boardings | Alightings |
| 843 | 432 | 379 | 746 |

Source: Bay-Lake Regional Planning Commission, 2015.

Outbound Boardings and Alightings

Throughout the transit system on all routes, there were 843 outbound boardings and 432 outbound alightings. “Outbound” is defined as traveling on a transit route from the respective transfer point for that route out to the “end point,” or generally the point along the route the furthest distance from the transfer point for the route in question.

Inbound Boardings and Alightings

Throughout the transit system on all routes, there were 379 inbound boardings and 746 inbound alightings. “Inbound” is defined as traveling from the end point in to the respective transfer point for the route in question.

MAXIMUM LOADS

Maximum loads on buses were calculated on a cumulative basis on all boarding and alighting survey forms. The length of a trip in which the maximum load is valid varies from trip to trip; on some trips, the maximum load occurs for only one block, while on other trips, the maximum load occurs for half or more of the trip. This information is useful in planning for the type of bus best suited for individual route runs.

While Maritime Metro Transit has predefined peak and non-peak times of service, each individual route tends to have its own peak periods in terms of a maximum load of passengers on the bus.

Maximum loads for Route 1 are indicated by time of day/trip in Table 6.2. As Table 6.2 indicates, the largest maximum load on Route 1 occurred from 4:15 to 5:15 p.m., with maximum loads of seven or more passengers also occurring between 6:15 and 9:15 a.m. as well as between 1:15 and 3:15 p.m.

Table 6.2: Maximum Loads, Route 1, Boarding and Alighting Survey, Maritime Metro Transit System, October 5, 2015

| Time of Day | Maximum Load |
|-------------------------|---------------------|
| 5:15 - 6:15 a.m. | 2 |
| 6:15 - 7:15 a.m. | 8 |
| 7:15 - 8:15 a.m. | 8 |
| 8:15 - 9:15 a.m. | 7 |
| 9:15 - 10:15 a.m. | 6 |
| 10:15 - 11:15 a.m. | 4 |
| 11:15 a.m. - 12:15 p.m. | 6 |
| 12:15 - 1:15 p.m. | 6 |
| 1:15 - 2:15 p.m. | 8 |
| 2:15 - 3:15 p.m. | 9 |
| 3:15 - 4:15 p.m. | 5 |
| 4:15 - 5:15 p.m. | 12 |
| 5:15 - 6:15 p.m. | 5 |
| 6:15 - 7:15 p.m. | 1 |

Source: Bay-Lake Regional Planning Commission, 2015.

Maximum loads for Routes 2 through 6B are indicated by time of day/trip in Table 6.3.

Table 6.3: Maximum Loads, Routes 2, 3, 4, 5, 6A and 6B, Boarding and Alighting Survey, Maritime Metro Transit System, October 5, 2015

| Time of Day | Route | | | | | |
|-------------------------|-------|----|----|----|----|----|
| | 2 | 3 | 4 | 5 | 6A | 6B |
| 5:00 - 5:30 a.m. | 6 | NA | NA | 2 | 1 | NA |
| 5:30 - 6:00 a.m. | NA | 5 | 0 | NA | NA | 0 |
| 6:00 - 6:30 a.m. | 3 | NA | NA | 1 | 2 | NA |
| 6:30 - 7:00 a.m. | NA | 8 | 2 | NA | NA | 3 |
| 7:00 - 7:30 a.m. | 18 | 1 | 14 | 4 | 5 | NA |
| 7:30 - 8:00 a.m. | 6 | 3 | 14 | 4 | NA | 5 |
| 8:00 - 8:30 a.m. | 17 | 7 | 5 | 4 | 10 | NA |
| 8:30 - 9:00 a.m. | 6 | 5 | 3 | 4 | NA | 18 |
| 9:00 - 9:30 a.m. | 14 | 5 | 5 | 1 | 5 | NA |
| 9:30 - 10:00 a.m. | 1 | 10 | 4 | 4 | NA | 3 |
| 10:00 - 10:30 a.m. | 12 | 7 | 4 | 4 | 5 | NA |
| 10:30 - 11:00 a.m. | 5 | 14 | 4 | 6 | NA | 5 |
| 11:00 - 11:30 a.m. | 12 | 9 | 5 | 7 | 2 | NA |
| 11:30 a.m. - 12:00 p.m. | 7 | 6 | 5 | 3 | NA | 7 |
| 12:00 - 12:30 p.m. | 5 | 7 | 4 | 3 | 6 | NA |
| 12:30 - 1:00 p.m. | 3 | 12 | 2 | 2 | NA | 5 |
| 1:00 - 1:30 p.m. | 12 | 6 | 6 | 2 | 7 | NA |
| 1:30 - 2:00 p.m. | 4 | 12 | 14 | 4 | NA | 3 |
| 2:00 - 2:30 p.m. | 9 | 9 | 5 | 7 | 5 | NA |
| 2:30 - 3:00 p.m. | 6 | 11 | 6 | 10 | NA | 6 |
| 3:00 - 3:30 p.m. | 15 | 16 | 10 | 6 | 7 | NA |
| 3:30 - 4:00 p.m. | 15 | 14 | 25 | 3 | NA | 26 |
| 4:00 - 4:30 p.m. | 24 | 21 | 7 | 9 | 12 | NA |
| 4:30 - 5:00 p.m. | 10 | 12 | 4 | 5 | NA | 3 |
| 5:00 - 5:30 p.m. | 9 | 10 | 6 | 1 | 4 | NA |
| 5:30 - 6:00 p.m. | 5 | 5 | 6 | 1 | NA | 4 |
| 6:00 - 6:30 p.m. | 7 | NA | NA | 4 | 3 | NA |
| 6:30 - 7:00 p.m. | NA | 6 | 3 | NA | NA | 0 |
| 7:00 - 7:30 p.m. | 3 | NA | NA | 2 | 0 | NA |
| 7:30 - 8:00 p.m. | NA | 2 | 2 | NA | NA | 0 |

Source: Bay-Lake Regional Planning Commission, 2015.

Table 6.3 indicates that the largest maximum loads on Route 2 occurred from 7:00 to 7:30 a.m., from 8:00 to 8:30 a.m., from 9:00 to 9:30 a.m., from 10:00 to 10:30 a.m., from 11:00 to 11:30 a.m., from 1:00 to 1:30 p.m., and from 3:00 to 4:30 p.m., with maximum loads of seven or more passengers also occurring between 11:30 a.m. and 12:00 noon, between 2:00 and 2:30 p.m., between 4:30 and 5:30 p.m., and between 6:00 and 6:30 p.m.

Table 6.3 indicates that the largest maximum loads on Route 3 occurred from 10:30 to 11:00 a.m., from 12:30 to 1:00 p.m., from 1:30 to 2:00 p.m., and from 2:30 to 5:00 p.m., with maximum loads of seven or more passengers also occurring between 6:30 and 7:00 a.m., between 8:00 and 8:30 a.m., between 9:30 and 10:30 a.m., between 11:00 and 11:30 a.m., between 12:00 noon and 12:30 p.m., between 2:00 and 2:30 p.m., and between 5:00 and 5:30 p.m.

Table 6.3 indicates that the largest maximum loads on Route 4 occurred from 7:00 to 8:00 a.m.,

1:30 to 2:00 p.m., and 3:30 to 4:00 p.m., with maximum loads of seven or more passengers also occurring between 3:00 and 3:30 p.m. and between 4:00 and 4:30 p.m.

Table 6.3 indicates that the largest maximum load on Route 5 (10 passengers) occurred from 2:30 to 3:00 p.m. Maximum loads of seven or more passengers also occurred between 11:00 and 11:30 a.m., between 2:00 and 2:30 p.m., and between 4:00 and 4:30 p.m.

Table 6.3 indicates that the largest maximum load on Route 6A (12 passengers) occurred from 4:00 to 4:30 p.m. Maximum loads of seven or more passengers also occurred between 8:00 and 8:30 a.m., between 1:00 and 1:30 p.m., and between 3:00 and 3:30 p.m.

Finally, Table 6.3 indicates that the largest maximum loads on Route 6B occurred from 8:30 to 9:00 a.m. and from 3:30 and 4:00 p.m., with a maximum load of seven or more passengers also occurring between 11:30 a.m. and 12:00 noon.

PEAK AND OFF-PEAK BOARDING AND ALIGHTING COMPARISON

Table 6.4 indicates boardings and alightings by generalized time period for routes of the Maritime Metro Transit System. Route 1 has slightly different generalized time periods from the other routes, as follows:

Pre-AM Peak – Route 1 – 5:15 to 6:15 a.m.

Routes 2 through 6B – 5:00 to 6:30 a.m.

AM Peak – Route 1 – 6:15 to 9:15 a.m.

Routes 2 through 6B – 6:30 to 9:00 a.m.

Mid-Day Off-Peak – Route 1 – 9:15 a.m. to 2:15 p.m.

Routes 2 through 6B – 9:00 a.m. to 2:30 p.m.

PM Peak – Route 1 – 2:15 to 5:15 p.m.

Routes 2 through 6B – 2:30 to 5:30 p.m.

Evening – Route 1 – 5:15 to 7:15 p.m.

Routes 2 through 6B – 5:30 to 8:00 p.m.

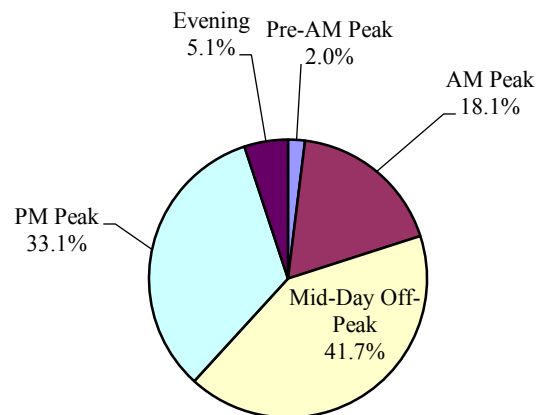
Table 6.4: Boardings and Alightings by Generalized Time Period, Maritime Metro Transit System, October 5, 2015

| Route | Generalized Time Period | | | | | | | | | |
|-------------------------|-------------------------|------------|-----------|------------|------------------|------------|-----------|------------|-----------|------------|
| | Pre-AM Peak | | AM Peak | | Mid-Day Off-Peak | | PM Peak | | Evening | |
| | Boardings | Alightings | Boardings | Alightings | Boardings | Alightings | Boardings | Alightings | Boardings | Alightings |
| 1 (Two Rivers) | 2 | 2 | 30 | 23 | 50 | 40 | 22 | 28 | 7 | 8 |
| 2 (Northeast Loop) | 12 | 10 | 54 | 49 | 126 | 115 | 92 | 96 | 13 | 13 |
| 3 (Southwest Loop) | 3 | 5 | 28 | 26 | 142 | 138 | 118 | 110 | 14 | 13 |
| 4 (Southeast Loop) | 0 | 0 | 38 | 37 | 72 | 70 | 72 | 70 | 13 | 15 |
| 5 (West Loop) | 3 | 3 | 20 | 20 | 57 | 56 | 40 | 40 | 7 | 5 |
| 6A (North Central Loop) | 4 | 4 | 18 | 17 | 33 | 31 | 25 | 24 | 3 | 3 |
| 6B (Northwest Loop) | 0 | 0 | 33 | 33 | 30 | 31 | 36 | 38 | 5 | 5 |
| TOTALS | 24 | 24 | 221 | 205 | 510 | 481 | 405 | 406 | 62 | 62 |

Source: Bay-Lake Regional Planning Commission, 2015.

Figure 6.1 indicates the distribution of boardings by generalized time period. Some 24 boardings occurred during the pre-AM peak period (2.0 percent), while 221 boardings occurred during the AM peak period (18.1 percent), 510 boardings occurred during the mid-day off-peak period (41.7 percent), 405 boardings occurred during the PM peak period (33.1 percent), and 62 boardings occurred during the evening period (5.1 percent).

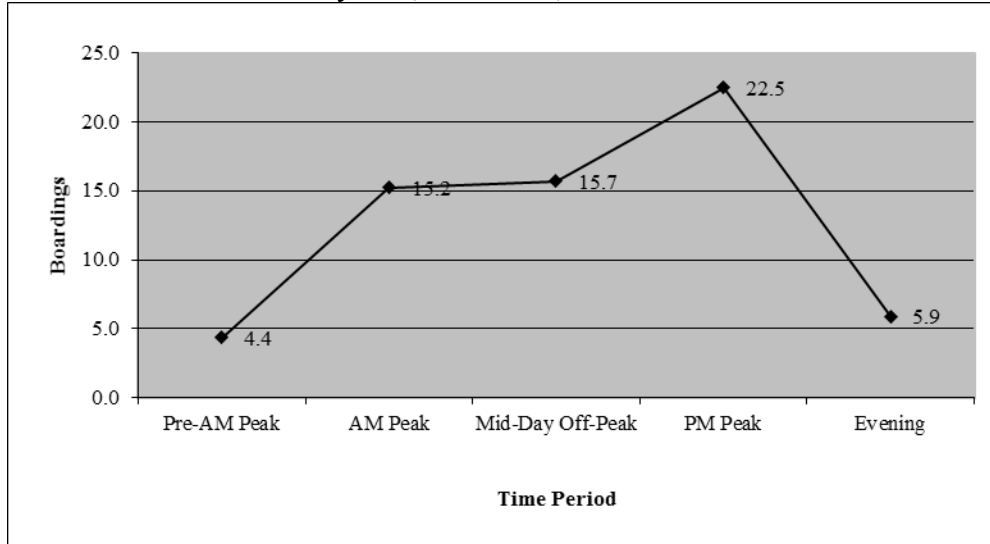
Figure 6.1: Boardings by Generalized Time Period, Maritime Metro Transit System, October 5, 2015



Source: Bay-Lake Regional Planning Commission, 2015.

Figure 6.2 indicates the average number of boardings per revenue hour of service during each of the five generalized time periods. The average number of boardings per revenue hour of service was 4.4 during the pre-AM peak period, 15.2 during the AM peak period, 15.7 during the mid-day off-peak period, 22.5 during the PM peak period, and 5.9 during the evening period.

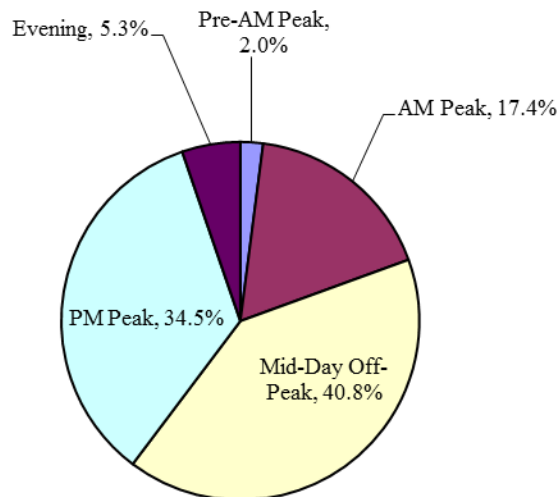
Figure 6.2: Average Number of Boardings per Revenue Hour by Generalized Time Period, Maritime Metro Transit System, October 5, 2015



Source: Bay-Lake Regional Planning Commission, 2015.

Figure 6.3 indicates the distribution of alightings by generalized time period. Some 24 alightings occurred during the pre-AM peak period (2.0 percent), while 205 alightings occurred during the AM peak period (17.4 percent), 481 alightings occurred during the mid-day off-peak period (40.8 percent), 406 alightings occurred during the PM peak period (34.5 percent), and 62 alightings occurred during the evening period (5.3 percent).

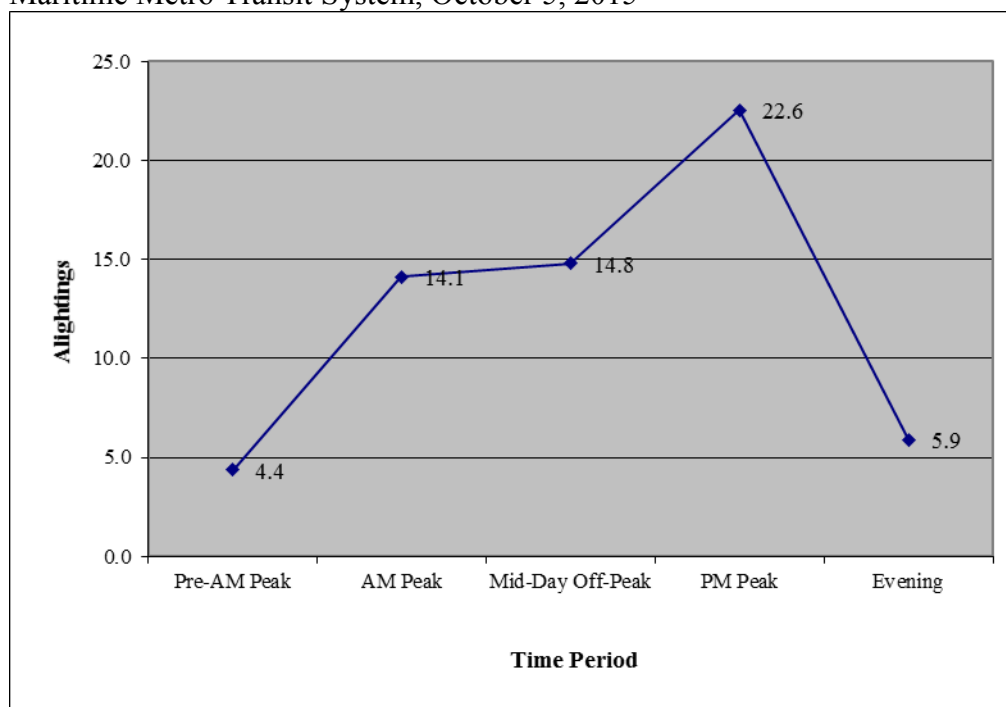
Figure 6.3: Alightings by Generalized Time Period, Maritime Metro Transit System, October 5, 2015



Source: Bay-Lake Regional Planning Commission, 2015.

Figure 6.4 indicates the average number of alightings per revenue hour of service during each of the five generalized time periods. The average number of alightings per revenue hour of service was 4.4 during the pre-AM peak period, 14.1 during the AM peak period, 14.8 during the mid-day off-peak period, 22.6 during the PM peak period, and 5.9 during the evening period.

Figure 6.4: Average Number of Alightings per Revenue Hour by Generalized Time Period, Maritime Metro Transit System, October 5, 2015



Source: Bay-Lake Regional Planning Commission, 2015.

It should be noted that boardings and alightings do not balance when aggregated at these generalized time periods. While some of this may be due to surveying error, this may be largely due to interplay between the routes at certain times of the day, particularly at times when there is a transition between two generalized time periods.

The following is an analysis of boardings and alightings on individual routes by generalized time period.

Route 1

On Route 1, two boardings occurred during the pre-AM peak period (1.8 percent), while 30 boardings occurred during the AM peak period (27.0 percent), 50 boardings occurred during the mid-day off-peak period (45.1 percent), 22 boardings occurred during the PM peak period (19.8 percent), and seven boardings occurred during the evening period (6.3 percent)

On Route 1, the average number of boardings per revenue hour of service was 2.0 during the pre-AM peak period, 10.0 during the AM peak period, 10.0 during the mid-day off-peak period, 7.3 during the PM peak period, and was 3.5 during the evening period.

On Route 1, two alightings occurred during the pre-AM peak period (2.0 percent), while 23 alightings occurred during the AM peak period (22.8 percent), 40 alightings occurred during the mid-day off-peak period (39.6 percent), 28 alightings occurred during the PM peak period (27.7 percent), and seven alightings occurred during the evening period (6.3 percent).

percent), and eight alightings occurred during the evening period (7.9 percent).

On Route 1, the average number of alightings per revenue hour of service was 2.0 during the pre-AM peak period, 7.7 during the AM peak period, 8.0 during the mid-day off-peak period, 9.3 during the PM peak period, and was 4.0 during the evening period.

Route 2

On Route 2, 12 boardings occurred during the pre-AM peak period (4.0 percent), while 54 boardings occurred during the AM peak period (18.2 percent), 126 boardings occurred during the mid-day off-peak period (42.4 percent), 92 boardings occurred during the PM peak period (31.0 percent), and 13 boardings occurred during the evening period (4.4 percent).

On Route 2, the average number of boardings per revenue hour of service was 12.0 during the pre-AM peak period, 27.0 during the AM peak period, 22.9 during the mid-day off-peak period, 30.7 during the PM peak period, and was 8.7 during the evening period.

On Route 2, 10 alightings occurred during the pre-AM peak period (3.5 percent), while 49 alightings occurred during the AM peak period (17.3 percent), 115 alightings occurred during the mid-day off-peak period (40.7 percent), 96 alightings occurred during the PM peak period (33.9 percent), and 13 alightings occurred during the evening period (4.6 percent).

On Route 2, the average number of alightings per revenue hour of service was 10.0 during the pre-AM peak period, 24.5 during the AM peak period, 20.9 during the mid-day off-peak period, 32.0 during the PM peak period, and was 8.7 during the evening period.

Route 3

On Route 3, three boardings occurred during the pre-AM peak period (1.0 percent), while 28 boardings occurred during the AM peak period (9.2 percent), 142 boardings occurred during the mid-day off-peak period (46.5 percent), 118 boardings occurred during the PM peak period (38.7 percent), and 14 boardings occurred during the evening period (4.6 percent).

On Route 3, the average number of boardings per revenue hour of service was 6.0 during the pre-AM peak period, 11.2 during the AM peak period, 25.8 during the mid-day off-peak period, 39.3 during the PM peak period, and was 9.3 during the evening period.

On Route 3, five alightings occurred during the pre-AM peak period (1.7 percent), while 26 alightings occurred during the AM peak period (8.9 percent), 138 alightings occurred during the mid-day off-peak period (47.3 percent), 110 alightings occurred during the PM peak period (37.7 percent), and 13 alightings occurred during the evening period (4.4 percent).

On Route 3, the average number of alightings per revenue hour of service was 10.0 during the pre-AM peak period, 10.4 during the AM peak period, 25.1 during the mid-day off-peak period, 36.7 during the PM peak period, and was 8.7 during the evening period.

Route 4

On Route 4, no boardings occurred during the pre-AM peak period (0.0 percent), while 38 boardings occurred during the AM peak period (19.5 percent), 72 boardings occurred during the mid-day off-peak period (36.9 percent), 72 boardings occurred during the PM peak period (36.9 percent), and 13 boardings occurred during the evening period (6.7 percent).

On Route 4, the average number of boardings per revenue hour of service was 0.0 during the pre-AM peak period, 15.2 during the AM peak period, 13.1 during the mid-day off-peak period, 24.0

during the PM peak period, and was 8.7 during the evening period.

On Route 4, no alightings occurred during the pre-AM peak period (0.0 percent), while 37 alightings occurred during the AM peak period (19.2 percent), 70 alightings occurred during the mid-day off-peak period (36.5 percent), 70 alightings occurred during the PM peak period (36.5 percent), and 15 alightings occurred during the evening period (7.8 percent).

On Route 4, the average number of alightings per revenue hour of service was 0.0 during the pre-AM peak period, 14.8 during the AM peak period, 12.7 during the mid-day off-peak period, 23.3 during the PM peak period, and was 10.0 during the evening period.

Route 5

On Route 5, three boardings occurred during the pre-AM peak period (2.4 percent), while 20 boardings occurred during the AM peak period (15.7 percent), 57 boardings occurred during the mid-day off-peak period (44.9 percent), 40 boardings occurred during the PM peak period (31.5 percent), and seven boardings occurred during the evening period (5.5 percent).

On Route 5, the average number of boardings per revenue hour of service was 3.0 during the pre-AM peak period, 10.0 during the AM peak period, 10.4 during the mid-day off-peak period, 13.3 during the PM peak period, and was 4.7 during the evening period.

On Route 5, three alightings occurred during the pre-AM peak period (2.4 percent), while 20 alightings occurred during the AM peak period (16.1 percent), 56 alightings occurred during the mid-day off-peak period (45.2 percent), 40 alightings occurred during the PM peak period (32.3 percent), and five alightings occurred during the evening period (4.0 percent).

On Route 5, the average number of alightings per revenue hour of service was 3.0 during the pre-AM peak period, 10.0 during the AM peak period, 10.2 during the mid-day off-peak period, 13.3 during the PM peak period, and was 3.3 during the evening period.

Route 6A

On Route 6A, four boardings occurred during the pre-AM peak period (4.8 percent), while 18 boardings occurred during the AM peak period (21.7 percent), 33 boardings occurred during the mid-day off-peak period (39.8 percent), 25 boardings occurred during the PM peak period (30.1 percent), and three boardings occurred during the evening period (3.6 percent).

On Route 6A, the average number of boardings per revenue hour of service was 4.0 during the pre-AM peak period, 18.0 during the AM peak period, 11.0 during the mid-day off-peak period, 16.7 during the PM peak period, and was 3.0 during the evening period.

On Route 6A, four alightings occurred during the pre-AM peak period (5.1 percent), while 17 alightings occurred during the AM peak period (21.5 percent), 31 alightings occurred during the mid-day off-peak period (39.2 percent), 24 alightings occurred during the PM peak period (30.4 percent), and three alightings occurred during the evening period (3.8 percent).

On Route 6A, the average number of alightings per revenue hour of service was 4.0 during the pre-AM peak period, 17.0 during the AM peak period, 10.3 during the mid-day off-peak period, 16.0 during the PM peak period, and was 3.0 during the evening period.

Route 6B

On Route 6B, no boardings occurred during the pre-AM peak period (0.0 percent), while 33 boardings occurred during the AM peak period (31.7 percent), 30 boardings occurred during the

mid-day off-peak period (28.9 percent), 36 boardings occurred during the PM peak period (34.6 percent), and five boardings occurred during the evening period (4.8 percent).

On Route 6B, the average number of boardings per revenue hour of service was 0.0 during the pre-AM peak period, 22.0 during the AM peak period, 12.0 during the mid-day off-peak period, 24.0 during the PM peak period, and was 3.3 during the evening period.

On Route 6B, no alightings occurred during the pre-AM peak period (0.0 percent), while 33 alightings occurred during the AM peak period (30.8 percent), 31 alightings occurred during the mid-day off-peak period (29.0 percent), 38 alightings occurred during the PM peak period (35.5 percent), and five alightings occurred during the evening period (4.7 percent).

On Route 6B, the average number of alightings per revenue hour of service was 0.0 during the pre-AM peak period, 22.0 during the AM peak period, 12.4 during the mid-day off-peak period, 25.3 during the PM peak period, and was 3.3 during the evening period.

ROUTE BOARDING AND ALIGHTING PROFILES

Three tables indicate in detail outbound and inbound boardings and alightings for the various trips of the individual routes of the Maritime Metro Transit System. Table 6.5 indicates outbound and inbound boardings and alightings on Route 1. Table 6.6 indicates outbound and inbound boardings and alightings on Routes 2, 3 and 4. Finally, Table 6.7 indicates outbound and inbound boardings and alightings on Routes 5, 6A and 6B.

Outbound Boardings and Alightings on Individual Routes

Route 1

Peak periods for outbound boardings (defined here as seven or more riders boarding the bus during the outbound segment of a trip) included the outbound segments of the following trips: 12:15 – 1:15 p.m. and 4:15 – 5:15 p.m. Peak periods for outbound alightings (defined here as seven or more riders leaving the bus during the outbound segment of a trip) included the outbound segments of the following trips: 1:15 – 2:15 p.m. and 4:15 – 5:15 p.m. (See Table 6.5).

Table 6.5: Outbound and Inbound Boardings and Alightings: Route 1: Maritime Metro Transit System: October 5, 2015

| Time of Day | Outbound | | Inbound | |
|-------------------------|-----------|------------|-----------|------------|
| | Boardings | Alightings | Boardings | Alightings |
| 5:15 - 6:15 a.m. | 0 | 0 | 2 | 2 |
| 6:15 - 7:15 a.m. | 2 | 2 | 8 | 8 |
| 7:15 - 8:15 a.m. | 5 | 3 | 6 | 8 |
| 8:15 - 9:15 a.m. | 5 | 2 | 4 | 0 |
| 9:15 - 10:15 a.m. | 6 | 1 | 3 | 3 |
| 10:15 - 11:15 a.m. | 6 | 4 | 3 | 4 |
| 11:15 a.m. - 12:15 p.m. | 5 | 3 | 5 | 7 |
| 12:15 - 1:15 p.m. | 7 | 2 | 1 | 6 |
| 1:15 - 2:15 p.m. | 5 | 8 | 9 | 2 |
| 2:15 - 3:15 p.m. | 2 | 3 | 3 | 4 |
| 3:15 - 4:15 p.m. | 0 | 2 | 2 | 3 |
| 4:15 - 5:15 p.m. | 11 | 13 | 4 | 3 |
| 5:15 - 6:15 p.m. | 6 | 4 | 0 | 3 |
| 6:15 - 7:15 p.m. | 1 | 1 | 0 | 0 |
| TOTALS | 61 | 48 | 50 | 53 |

Source: Bay-Lake Regional Planning Commission, 2015

Route 2

Peak periods for outbound boardings included the outbound segments of the following trips: 5:00 – 5:30 a.m., 7:00 – 7:30 a.m., 8:00 – 8:30 a.m., 9:00 – 9:30 a.m., 11:00 – 11:30 a.m., 12:00 – 12:30 p.m., 1:00 – 1:30 p.m., 2:00 – 2:30 p.m., 3:00 – 3:30 p.m., 3:30 – 4:00 p.m., 4:00 – 4:30 p.m., and 5:00 – 5:30 p.m. Peak periods for outbound alightings included the outbound segments of the following trips: 1:00 – 1:30 p.m., 3:00 – 3:30 p.m., 4:00 – 4:30 p.m., and 5:00 – 5:30 p.m. (See Table 6.6).

Route 3

Peak periods for outbound boardings included the outbound segments of the following trips: 10:00 – 10:30 a.m., 10:30 – 11:00 a.m., 11:00 – 11:30 a.m., 11:30 a.m. – 12:00 noon, 12:30 – 1:00 p.m., 1:00 – 1:30 p.m., 1:30 – 2:00 p.m., 2:30 – 3:00 p.m., 3:00 – 3:30 p.m., 3:30 – 4:00 p.m., 4:00 – 4:30 p.m., and 4:30 – 5:00 p.m. Peak periods for outbound alightings included the outbound segments of the following trips: 9:30 – 10:00 a.m., 10:30 – 11:00 a.m., 12:30 – 1:00 p.m., 2:30 – 3:00 p.m., 3:30 – 4:00 p.m., and 4:00 – 4:30 p.m. (See Table 6.6).

Route 4

Peak periods for outbound boardings included the outbound segments of the following trips: 1:00 – 1:30 p.m., 3:00 – 3:30 p.m., 3:30 – 4:00 p.m., and 4:00 – 4:30 p.m. Peak periods for outbound alightings included the outbound segment of the following trip: 7:30 – 8:00 a.m. (See Table 6.6)

Route 5

Peak periods for outbound boardings included the outbound segments of the following trips: 10:30 – 11:00 a.m., 2:00 – 2:30 p.m., 2:30 – 3:00 p.m., 4:00 – 4:30 p.m., and 4:30 – 5:00 p.m. Peak periods for outbound alightings included the outbound segments of the following trips: 2:30 – 3:00 p.m., and 4:00 – 4:30 p.m. (See Table 6.7).

Table 6.6
Outbound and Inbound Boardings and Alightings
Routes 2, 3 and 4
Maritime Metro Transit System
October 5, 2015

| Time of Day | Route 2 | | | | | | Route 3 | | | | | | Route 4 | | | | | |
|-------------------------|------------|------------|--|-----------|------------|--|------------|------------|--|------------|------------|--|------------|------------|--|-----------|------------|--|
| | Outbound | | | Inbound | | | Outbound | | | Inbound | | | Outbound | | | Inbound | | |
| | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | |
| 5:00 - 5:30 a.m. | 8 | 5 | | 1 | 2 | | NA | NA | | NA | NA | | NA | NA | | NA | NA | |
| 5:30 - 6:00 a.m. | NA | NA | | NA | NA | | 3 | 2 | | 0 | 3 | | 0 | 0 | | 0 | 0 | |
| 6:00 - 6:30 a.m. | 3 | 0 | | 0 | 3 | | NA | NA | | NA | NA | | NA | NA | | NA | NA | |
| 6:30 - 7:00 a.m. | NA | NA | | NA | NA | | 5 | 6 | | 6 | 6 | | 2 | 1 | | 2 | 2 | |
| 7:00 - 7:30 a.m. | 12 | 2 | | 6 | 19 | | 0 | 1 | | 1 | 1 | | 4 | 5 | | 17 | 3 | |
| 7:30 - 8:00 a.m. | 2 | 1 | | 6 | 4 | | 3 | 3 | | 0 | 0 | | 1 | 14 | | 1 | 2 | |
| 8:00 - 8:30 a.m. | 16 | 5 | | 6 | 12 | | 3 | 2 | | 4 | 5 | | 6 | 3 | | 2 | 4 | |
| 8:30 - 9:00 a.m. | 3 | 2 | | 3 | 4 | | 5 | 5 | | 1 | 1 | | 0 | 1 | | 3 | 2 | |
| 9:00 - 9:30 a.m. | 10 | 1 | | 9 | 11 | | 3 | 5 | | 3 | 3 | | 4 | 0 | | 1 | 6 | |
| 9:30 - 10:00 a.m. | 1 | 0 | | 1 | 2 | | 5 | 8 | | 1 | 4 | | 5 | 2 | | 1 | 3 | |
| 10:00 - 10:30 a.m. | 5 | 0 | | 7 | 8 | | 7 | 5 | | 5 | 0 | | 0 | 0 | | 3 | 2 | |
| 10:30 - 11:00 a.m. | 5 | 3 | | 1 | 5 | | 10 | 10 | | 2 | 7 | | 4 | 6 | | 1 | 1 | |
| 11:00 - 11:30 a.m. | 8 | 4 | | 9 | 9 | | 10 | 5 | | 5 | 6 | | 6 | 3 | | 3 | 4 | |
| 11:30 a.m. - 12:00 p.m. | 2 | 0 | | 2 | 7 | | 7 | 5 | | 6 | 7 | | 3 | 2 | | 2 | 5 | |
| 12:00 - 12:30 p.m. | 9 | 4 | | 4 | 8 | | 6 | 2 | | 4 | 9 | | 5 | 2 | | 1 | 3 | |
| 12:30 - 1:00 p.m. | 3 | 2 | | 4 | 5 | | 16 | 7 | | 5 | 10 | | 2 | 0 | | 2 | 2 | |
| 1:00 - 1:30 p.m. | 19 | 8 | | 4 | 15 | | 9 | 3 | | 3 | 9 | | 7 | 3 | | 2 | 7 | |
| 1:30 - 2:00 p.m. | 3 | 1 | | 4 | 6 | | 16 | 5 | | 3 | 14 | | 6 | 2 | | 11 | 13 | |
| 2:00 - 2:30 p.m. | 8 | 6 | | 8 | 10 | | 6 | 4 | | 10 | 10 | | 3 | 3 | | 1 | 1 | |
| 2:30 - 3:00 p.m. | 6 | 1 | | 2 | 5 | | 13 | 8 | | 9 | 14 | | 6 | 1 | | 0 | 4 | |
| 3:00 - 3:30 p.m. | 21 | 9 | | 5 | 16 | | 15 | 1 | | 4 | 19 | | 11 | 2 | | 3 | 13 | |
| 3:30 - 4:00 p.m. | 14 | 5 | | 2 | 10 | | 17 | 9 | | 9 | 12 | | 27 | 3 | | 5 | 27 | |
| 4:00 - 4:30 p.m. | 22 | 18 | | 1 | 10 | | 20 | 7 | | 5 | 13 | | 8 | 3 | | 2 | 7 | |
| 4:30 - 5:00 p.m. | 4 | 4 | | 1 | 4 | | 9 | 3 | | 7 | 14 | | 3 | 0 | | 1 | 4 | |
| 5:00 - 5:30 p.m. | 14 | 7 | | 0 | 7 | | 2 | 0 | | 8 | 10 | | 6 | 4 | | 0 | 2 | |
| 5:30 - 6:00 p.m. | 3 | 0 | | 2 | 4 | | 3 | 0 | | 2 | 3 | | 6 | 0 | | 4 | 10 | |
| 6:00 - 6:30 p.m. | 5 | 4 | | 1 | 1 | | NA | NA | | NA | NA | | NA | NA | | NA | NA | |
| 6:30 - 7:00 p.m. | NA | NA | | NA | NA | | 3 | 4 | | 4 | 4 | | 3 | 1 | | 0 | 2 | |
| 7:00 - 7:30 p.m. | 1 | 1 | | 1 | 3 | | NA | NA | | NA | NA | | NA | NA | | NA | NA | |
| 7:30 - 8:00 p.m. | NA | NA | | NA | NA | | 0 | 0 | | 2 | 2 | | 0 | 0 | | 0 | 2 | |
| TOTALS | 207 | 93 | | 90 | 190 | | 196 | 106 | | 109 | 186 | | 128 | 61 | | 67 | 131 | |

Source: Bay-Lake Regional Planning Commission, 2015.

Table 6.7
Outbound and Inbound Boardings and Alightings
Routes 5, 6A and 6B
Maritime Metro Transit System
October 5, 2015

| Time of Day | Route 5 | | | | | | Route 6A | | | | | | Route 6B | | | | | |
|-------------------------|------------|------------|----|-----------|------------|-----------|-----------|------------|----|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|----|
| | Outbound | | | Inbound | | | Outbound | | | Inbound | | | Outbound | | | Inbound | | |
| | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | | Boardings | Alightings | |
| 5:00 - 5:30 a.m. | 2 | 2 | NA | 0 | NA | 0 | 2 | 2 | NA | 0 | NA | 0 | NA | 0 | NA | NA | NA | NA |
| 5:30 - 6:00 a.m. | NA | NA | 0 | NA | 1 | NA | NA | 2 | NA | 0 | NA | 0 | NA | 0 | NA | 0 | 0 | NA |
| 6:00 - 6:30 a.m. | 0 | 0 | NA | 1 | NA | NA | NA | NA | 0 | NA | NA | NA | NA | 0 | NA | NA | 2 | NA |
| 6:30 - 7:00 a.m. | NA | NA | NA | NA | NA | NA | 3 | 0 | NA | 2 | NA | 5 | NA | NA | NA | 2 | NA | NA |
| 7:00 - 7:30 a.m. | 5 | 2 | 2 | 1 | 4 | 4 | 6 | 2 | NA | 7 | 10 | NA | 6 | 5 | 4 | NA | 5 | NA |
| 7:30 - 8:00 a.m. | 4 | 0 | 0 | 0 | 4 | 4 | NA | 2 | NA | NA | NA | NA | NA | NA | 1 | NA | NA | NA |
| 8:00 - 8:30 a.m. | 3 | 1 | 1 | 2 | 3 | 3 | NA | 0 | NA | 1 | 5 | NA | 19 | 17 | 1 | NA | 4 | NA |
| 8:30 - 9:00 a.m. | 4 | 2 | 2 | 1 | 1 | 1 | 4 | 0 | NA | NA | NA | NA | NA | NA | 1 | NA | NA | NA |
| 9:00 - 9:30 a.m. | 1 | 0 | 0 | 0 | 1 | 1 | NA | NA | NA | NA | NA | NA | 3 | 1 | 1 | 1 | 3 | NA |
| 9:30 - 10:00 a.m. | 4 | 3 | 0 | 0 | 1 | 1 | 4 | 0 | NA | 1 | 5 | NA | NA | 1 | NA | NA | NA | NA |
| 10:00 - 10:30 a.m. | 5 | 1 | 1 | 0 | 4 | 4 | NA | NA | NA | NA | NA | NA | 5 | 1 | 1 | 1 | 5 | NA |
| 10:30 - 11:00 a.m. | 7 | 4 | 2 | 2 | 5 | 5 | NA | 0 | NA | 0 | 1 | NA | NA | 1 | NA | NA | NA | NA |
| 11:00 - 11:30 a.m. | 5 | 0 | 0 | 2 | 4 | 4 | 2 | 0 | NA | NA | NA | NA | NA | NA | NA | 2 | NA | NA |
| 11:30 a.m. - 12:00 p.m. | 0 | 1 | 1 | 3 | 5 | 5 | NA | NA | NA | NA | NA | NA | 6 | 5 | 2 | NA | 3 | NA |
| 12:00 - 12:30 p.m. | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | NA | 3 | 6 | NA | NA | 2 | NA | 3 | 5 | NA |
| 12:30 - 1:00 p.m. | 2 | 1 | 1 | 1 | 1 | 1 | NA | NA | NA | NA | NA | NA | 4 | 2 | NA | NA | NA | NA |
| 1:00 - 1:30 p.m. | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 0 | NA | 5 | 7 | NA | NA | NA | 1 | 2 | 5 | NA |
| 1:30 - 2:00 p.m. | 5 | 4 | 4 | 0 | 1 | 1 | NA | NA | NA | NA | NA | NA | 3 | NA | NA | 2 | NA | NA |
| 2:00 - 2:30 p.m. | 11 | 6 | 7 | 2 | 6 | 6 | 7 | 3 | NA | 0 | 3 | NA | NA | 1 | NA | 2 | 5 | NA |
| 2:30 - 3:00 p.m. | 10 | 7 | 7 | 2 | 4 | 4 | NA | NA | NA | 0 | NA | NA | 6 | 4 | NA | NA | NA | NA |
| 3:00 - 3:30 p.m. | 6 | 2 | 2 | 0 | 5 | 5 | 8 | 2 | NA | 2 | 6 | NA | NA | NA | NA | NA | 3 | NA |
| 3:30 - 4:00 p.m. | 3 | 1 | 1 | 1 | 3 | 3 | NA | NA | NA | NA | NA | NA | 25 | 5 | 0 | NA | 22 | NA |
| 4:00 - 4:30 p.m. | 10 | 8 | 8 | 0 | 2 | 2 | 11 | 11 | NA | 0 | 1 | NA | NA | NA | NA | NA | NA | NA |
| 4:30 - 5:00 p.m. | 7 | 5 | 5 | 0 | 2 | 2 | NA | NA | NA | NA | NA | NA | 3 | 2 | 1 | 1 | 2 | NA |
| 5:00 - 5:30 p.m. | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 3 | NA | 0 | 1 | NA | NA | NA | NA | NA | NA | NA |
| 5:30 - 6:00 p.m. | 1 | 0 | 0 | 0 | 1 | 1 | NA | NA | NA | NA | NA | NA | 2 | 0 | 3 | 3 | 5 | NA |
| 6:00 - 6:30 p.m. | 4 | 3 | 3 | 0 | 1 | 1 | 3 | 0 | NA | 0 | 3 | NA | NA | NA | NA | NA | NA | NA |
| 6:30 - 7:00 p.m. | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0 | 0 | 0 | 0 | NA |
| 7:00 - 7:30 p.m. | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | NA | 0 | 0 | NA | NA | NA | NA | NA | NA | NA |
| 7:30 - 8:00 p.m. | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0 | 0 | 0 | 0 | NA |
| TOTALS | 106 | 57 | | 21 | 67 | 67 | 62 | 24 | | 21 | 55 | 83 | 43 | 21 | 64 | | | |

Source: Bay-Lake Regional Planning Commission, 2015.

Route 6A

Peak periods for outbound boardings included the outbound segments of the following trips: 2:00 – 2:30 p.m., 3:00 – 3:30 p.m., and 4:00 – 4:30 p.m. Peak periods for outbound alightings included the outbound segment of the following trip: 4:00 – 4:30 p.m. (See Table 6.7).

Route 6B

Peak periods for outbound boardings included the outbound segments of the following trips: 8:30 – 9:00 a.m., and 3:30 – 4:00 p.m. Peak periods for outbound alightings included the outbound segment of the following trip: 8:30 – 9:00 a.m. (See Table 6.7).

Inbound Boardings and Alightings on Individual Routes

Route 1

Peak periods for inbound boardings included the inbound segments of the following trips: 6:15 – 7:15 a.m., and 1:15 – 2:15 p.m. Peak periods for inbound alightings included the inbound segments of the following trips: 6:15 – 7:15 a.m., 7:15 – 8:15 a.m., and 11:15 a.m. – 12:15 p.m. (See Table 6.5).

Route 2

Peak periods for inbound boardings included the inbound segments of the following trips: 9:00 – 9:30 a.m., 10:00 – 10:30 a.m., 11:00 – 11:30 a.m., and 2:00 – 2:30 p.m. Peak periods for inbound alightings included the inbound segments of the following trips: 7:00 – 7:30 a.m., 8:00 – 8:30 a.m., 9:00 – 9:30 a.m., 10:00 – 10:30 a.m., 11:00 – 11:30 a.m., 11:30 a.m. – 12:00 noon, 12:00 – 12:30 p.m., 1:00 – 1:30 p.m., 2:00 – 2:30 p.m., 3:00 – 3:30 p.m., 3:30 – 4:00 p.m., 4:00 – 4:30 p.m., and 5:00 – 5:30 p.m. (See Table 6.6).

Route 3

Peak periods for inbound boardings included the inbound segments of the following trips: 2:00 – 2:30 p.m., 2:30 – 3:00 p.m., 3:30 – 4:00 p.m., 4:30 – 5:00 p.m., and 5:00 – 5:30 p.m. Peak periods for inbound alightings included the inbound segments of the following trips: 10:30 – 11:00 a.m., 11:30 a.m. – 12:00 noon, 12:00 – 12:30 p.m., 12:30 – 1:00 p.m., 1:00 – 1:30 p.m., 1:30 – 2:00 p.m., 2:00 – 2:30 p.m., 2:30 – 3:00 p.m., 3:00 – 3:30 p.m., 3:30 – 4:00 p.m., 4:00 – 4:30 p.m., 4:30 – 5:00 p.m., and 5:00 – 5:30 p.m. (See Table 6.6).

Route 4

Peak periods for inbound boardings included the inbound segments of the following trips: 7:00 – 7:30 a.m., and 1:30 – 2:00 p.m. Peak periods for inbound alightings included the inbound segments of the following trips: 1:00 – 1:30 p.m., 1:30 – 2:00 p.m., 3:00 – 3:30 p.m., 3:30 – 4:00 p.m., 4:00 – 4:30 p.m., and 5:30 – 6:00 p.m. (See Table 6.6).

Route 5

There were no peak periods for inbound boardings on Route 5; a maximum of three inbound boardings occurred on the 11:30 a.m. – 12:00 noon trip. In addition, there were no peak periods for inbound alightings on Route 5; a maximum of six inbound alightings occurred on the 2:00 – 2:30 p.m. trip. (See Table 6.7).

Route 6A

Peak periods for inbound boardings included the inbound segment of the following trip: 8:00 – 8:30 a.m. Peak periods for inbound alightings included the inbound segments of the following

trips: 8:00 – 8:30 a.m., and 1:00 – 1:30 p.m. (See Table 6.7).

Route 6B

There were no peak periods for inbound boardings on Route 6B; a maximum of four inbound boardings occurred on the 7:30 – 8:00 a.m. trip. Peak periods for inbound alightings included the inbound segment of the following trip: 3:30 – 4:00 p.m. (See Table 6.7).

LOW DEMAND SEGMENTS FOR INDIVIDUAL ROUTES

Map 6.1 indicates route segments that had zero boardings and alightings during the October 5, 2015, survey. From an analytical standpoint, greater attention must be given to low demand route segments at the outer loops of individual routes. The following is an analysis of low demand segments in the outer loop portions of individual routes.

Route 1

Thirteen significant segments on Route 1 had zero boardings or alightings. These segments included: Johnston Drive from East Linden Avenue to East Magnolia Avenue; Memorial Drive between Thiede Road and Columbus Street (both directions); Columbus Street between Memorial Drive and Shoreline Credit Union/Allstates Rigging (both directions); Forest Avenue between 27th Street and Tannery Road (both directions); 45th Street from Bellevue Place to Tannery Road; Tannery Road from 45th Street to 41st Street; 22nd Street between Washington Street and Polk Street (both directions); Polk Street from 22nd Street to 23rd Street; 34th Street from Lincoln Avenue to Jackson Street; Jackson Street from 34th Street to 30th Street; Jackson Street from the Pick & Save Supermarket to 22nd Street; Mirro Drive from East Ivy Lane to East Albert Drive; and East Albert Drive from Mirro Drive to Roncalli High School.

Route 2

There were no significant segments on Route 2 that had zero boardings or alightings.

Route 3

There were no significant segments on Route 3 that had zero boardings or alightings.

Route 4

Six significant segments on Route 4 had zero boardings or alightings. These segments included: South 14th Street from the Monroe Elementary School bus stop to Dueno Street; Division Street from South 16th Street to South 18th Street; South 18th Street from Division Street to the St. Mary's Home bus stop; South 23rd Street from Dewey Street to Grand Avenue; Grand Avenue from South 23rd Street to the Municipal Athletic Field bus stop; and South 7th Street from Marshall Street to Hancock Street.

Route 5

There were no significant segments on Route 5 that had zero boardings or alightings.

Route 6A

Two significant segments on Route 6A had zero boardings or alightings. These segments included: South Water Street from Franklin Street to Clark Street; and Menasha Avenue from North 23rd Street to the North 21st Street bus stop.

Route 6B

Seven significant segments on Route 6B had zero boardings or alightings. These segments included: South Water Street from Franklin Street to Clark Street; Broadway Street from North

41st Street to North Rapids Road; North Rapids Road from Broadway Street to Ellis Street; the trip segments that serve Lutheran High School (7:30 a.m. and 3:30 p.m. trips only); Menasha Avenue from North Rapids Road to Platt Street; New York Avenue from North 14th Street to North 8th Street; and North 5th Street from Cleveland Avenue/Hawthorne Terrace to St. Clair Street.

HIGH DEMAND LOADING POINTS FOR INDIVIDUAL ROUTES

This chapter also assesses existing Maritime Metro Transit bus stops where seven or more boardings occurred.

Map 6.2 provides an inventory of existing passenger shelters and recommended shelter locations. This inventory assumes that passenger shelters are in place at both transfer points utilized by the Maritime Metro Transit System. In some cases, the number of boardings involves both outbound and inbound boardings from a given location.

Recommended locations for passenger shelters will be determined in the final chapter of the TDP, and will involve general guidelines for shelter placement. Maritime Metro Transit System staff will need wide latitude in negotiating the actual siting of a shelter at a given intersection or other location based on passenger demands and the degree of cooperation from neighboring property owners. Not all locations listed as justifying shelters will be able to accommodate a shelter due to either not having a location to place the shelter or because the location already has front door pick-up and drop-off from its facility; these locations have been identified with an asterisk (*).

Route 1

Shelters Exist and are Justified:

- Washington Street and Two Rivers City Hall/Senior Center

Shelters Exist but are not Justified:

- Polk Street and 24th Street/Hamilton Home
- Forest Avenue at Village Green West Apartments
- Mishicot Road at Mueller Manor Stop

Shelters do not Exist but are Justified:

- 17th Street and Adams Street/Two Rivers Senior Center

Routes 1 and 2

Shelters Exist and are Justified:

- Meadow Links Transfer Point
- Johnston Drive and East Albert Drive

Shelters Exist but are not Justified:

- Reed Avenue and Johnston Drive

Shelters do not Exist but are Justified:

- None

Route 2

Shelters Exist and are Justified:

- North 8th Street at Piggly Wiggly Store

Shelters Exist but are not Justified:

- Maritime Drive – Wayside/Waldo East Office Complex/Parole Office
- South 8th Street and Quay Street – Manitowoc Public Library

Shelters do not Exist but are Justified:

- River Hills Apartments*
- Manitou Manor*
- North 9th Street and Chicago Street

Route 3

Shelters Exist and are Justified:

- Copps' Food Center
- Aldi – Harbor Town Lane

Shelters Exist but are not Justified:

- Frontage Road at Goodwill Bus Stop

Shelters do not Exist but are Justified:

- Walmart Supercenter Bus Stop*
- Grand Avenue and South 39th Street
- Shopko Store*

Routes 3 and 5

The shelter at the Manitowoc Senior Center exists and is justified. There are no shelters along combined Routes 3 and 5 that exist but are not justified. There are no bus stops along combined Routes 3 and 5 where shelters do not exist but are justified.

Route 4

Shelters Exist and are Justified:

- South 23rd Street at Southfield Townhouses Bus Stop

Shelters Exist but are not Justified:

- South 18th Street and Philippen Street (Felician Village)

Shelters do not Exist but are Justified:

- South 10th Street and Division Street (Lincoln High School)
- University of Wisconsin Manitowoc Bus Stop
- Division Street and South 15th Street (Jefferson Elementary School)
- Viebahn Street and South 21st Street

- Marshall Street and South 17th Street

Route 5

Shelters Exist and are Justified:

- Festival Foods Bus Stop

Shelters Exist but are not Justified:

- Manitowoc Eye Clinic Bus Stop

Shelters do not Exist but are Justified:

- None

Route 6A

No shelters exclusive to Route 6A were found to exist and were justified or were found to exist and were not justified. In addition, no bus stops exclusive to Route 6A involved cases where a shelter did not exist but was justified.

Route 6B

No shelters exclusive to Route 6B were found to exist and were justified. One shelter exclusive to Route 6B was found to exist and was not justified; this shelter was at Menasha Avenue at North 23rd Street near Rob's Family Market. In addition, no bus stops exclusive to Route 6B involved cases where a shelter did not exist but was justified.

Routes 6A and 6B

Shelters Exist and are Justified:

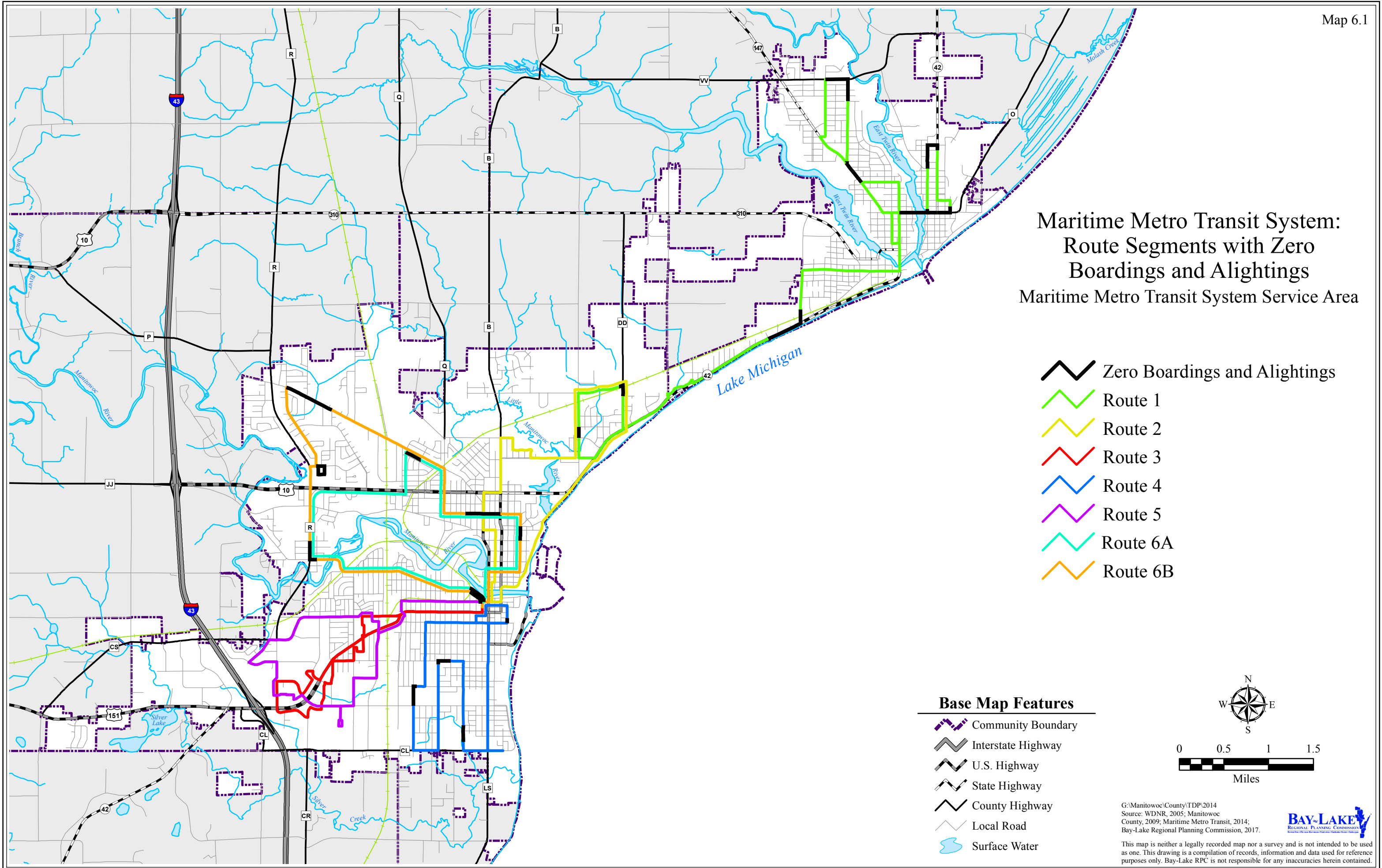
- Meadow Lane at Holiday House Bus Stop

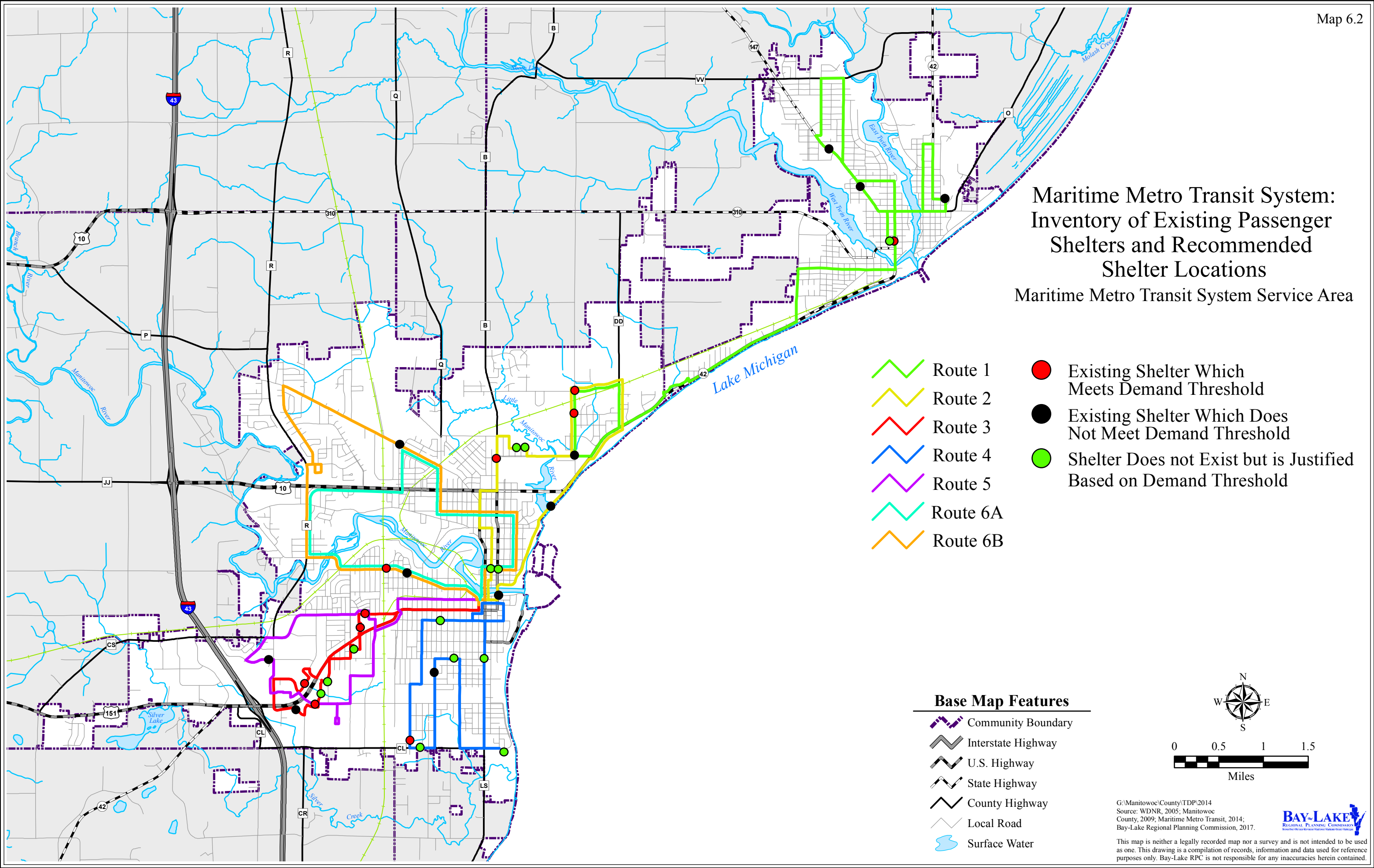
Shelters Exist but are not Justified:

- Western Avenue at Holy Family Memorial Medical Center Bus Stop

Shelters do not Exist but are Justified:

- Chicago Street and North 8th Street





CHAPTER 7: TRANSIT SYSTEM PERFORMANCE

PEER SYSTEM ANALYSIS

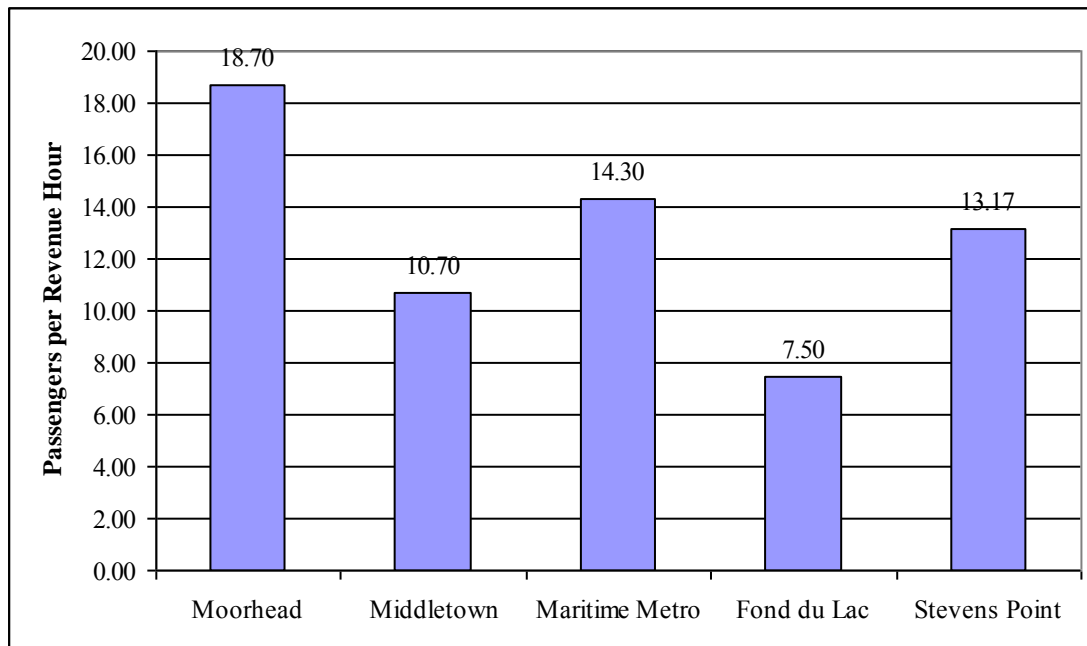
A useful way to measure the productivity of a transit operation is to compare it to transit operations in other cities. Although few transit operations are directly comparable, there are transit operations serving small urban areas with similar densities and other demographic characteristics to Manitowoc and Two Rivers which are useful to analyze for comparative purposes. Four other cities were selected for use in the comparison. Two of the transit operations are located in Wisconsin, one is located in neighboring Minnesota, and one is located in Ohio. Data for comparison from the out-of-state operations were compiled from the *2013 National Transit Database Transit Profiles*, published by the Federal Transit Administration. Data for comparison from operations within Wisconsin were gathered from the 2013 component of the *Wisconsin Department of Transportation Transit System Cost Efficiency Report, 2007 – 2013*, which was prepared by WisDOT's Bureau of Transit, Local Roads, Railroads and Harbors.

Three measures were selected for comparison of these systems. These are cost and productivity measures which are widely accepted in the public transit industry. These measures include: passengers per revenue hour, cost per revenue hour, and cost per passenger trip. A fourth measure (passengers per mile) could not be measured because it did not appear as a measure in the *Wisconsin Department of Transportation Transit System Cost Efficiency Report, 2007 – 2013*.

1. Passengers per Revenue Hour

Figure 7.1 shows productivity in terms of passengers per revenue hour. At 14.30 passengers per revenue hour, Maritime Metro Transit had the second highest ratio in 2013, with Moorhead, Minnesota, having the highest ratio at 18.70 passengers per revenue hour. Stevens Point was not far behind Maritime Metro Transit at 13.17 passengers per revenue hour. Fond du Lac had the lowest passenger per revenue hour ratio (7.50), followed by Middletown, Ohio (10.70). Fond du Lac became an urbanized area following the 2000 Census, while Stevens Point is a transit operation serving a similarly sized urban area to Manitowoc/Two Rivers.

Figure 7.1: System Productivity Comparison: Passengers per Revenue Hour

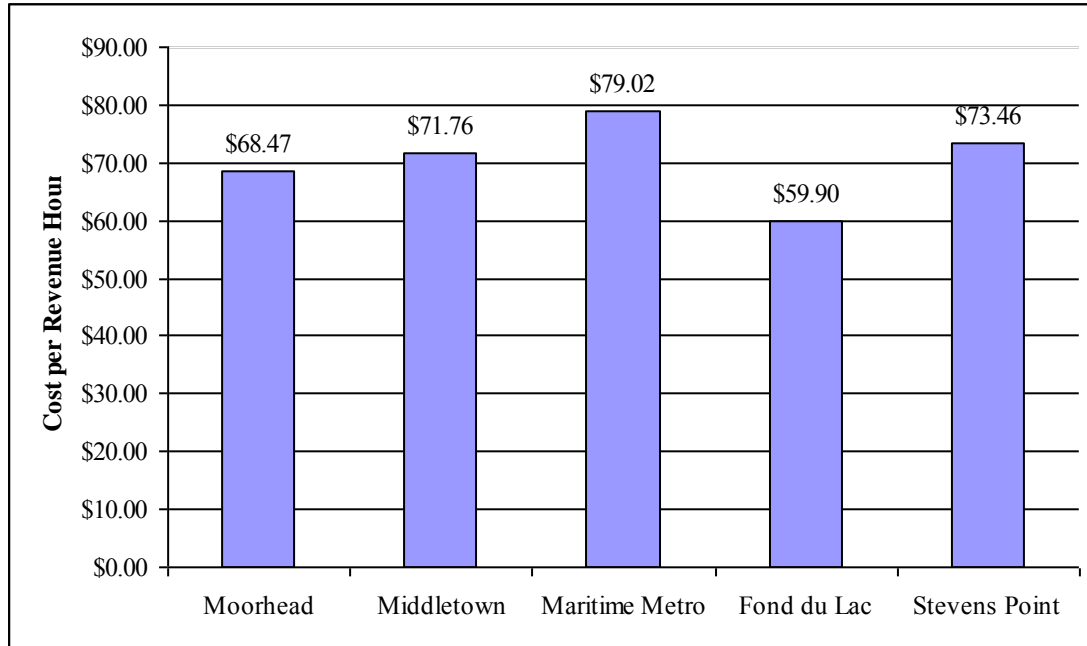


Source: 2013 National Transit Database Transit Profiles, Federal Transit Administration; Wisconsin Department of Transportation Transit System Cost Efficiency Report, 2007 – 2013, Bureau of Transit, Local Roads, Railroads and Harbors, Wisconsin Department of Transportation; and Bay-Lake Regional Planning Commission, 2015.

2. Cost per Revenue Hour

The cost per revenue hour reflecting vehicle operating costs is shown for the various transit operations in Figure 7.2. These data indicate that Maritime Metro Transit had the highest cost of the five transit systems in the comparison, at \$79.02 per revenue hour. Stevens Point was second in cost per revenue hour at \$73.46, and Middletown, Ohio, was third in cost per revenue hour at \$71.76. Moorhead, Minnesota, was fourth in cost per revenue hour at \$68.47. The lowest cost per revenue hour was in Fond du Lac (\$59.90).

Figure 7.2: System Productivity Comparison: Cost per Revenue Hour

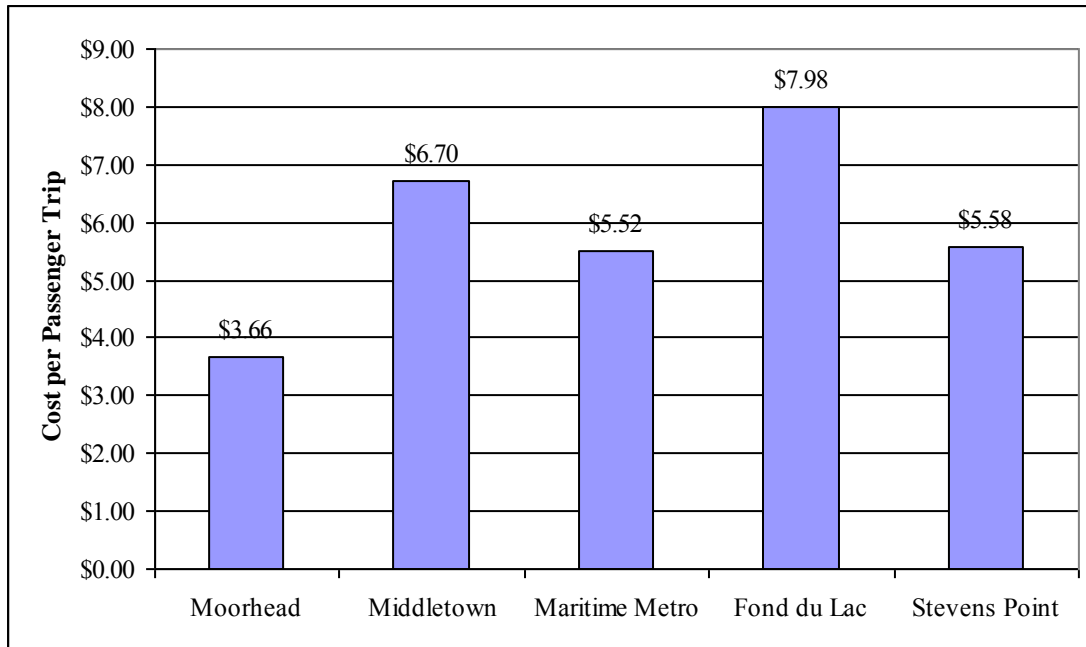


Source: 2013 National Transit Database Transit Profiles, Federal Transit Administration; Wisconsin Department of Transportation Transit System Cost Efficiency Report, 2007 – 2013, Bureau of Transit, Local Roads, Railroads and Harbors, Wisconsin Department of Transportation; and Bay-Lake Regional Planning Commission, 2015.

3. Cost per Passenger Trip

The cost per unlinked passenger trip is compared in Figure 7.3. Maritime Metro Transit, at a cost of \$5.52 per passenger trip, had the fourth lowest cost per passenger trip of the five transit systems in the comparison in 2013. Fond du Lac, at a cost of \$7.98 per passenger trip, had the highest cost per passenger trip of the five transit systems in the comparison in 2013, followed by Middletown, Ohio, at a cost of \$6.70 per passenger trip. Stevens Point, at \$5.58, had a cost per passenger trip only slightly higher than that of Maritime Metro Transit. Moorhead, Minnesota, had the lowest cost per passenger trip in the comparison at \$3.66.

Figure 7.3: System Productivity Comparison: Cost per Passenger Trip



Source: 2013 National Transit Database Transit Profiles, Federal Transit Administration; Wisconsin Department of Transportation Transit System Cost Efficiency Report, 2007 – 2013, Bureau of Transit, Local Roads, Railroads and Harbors, Wisconsin Department of Transportation; and Bay-Lake Regional Planning Commission, 2015.

COST ALLOCATION MODEL

Cost information from 2013 was used to develop a three factor cost allocation model of current Maritime Metro Transit operations. Such a model is useful in estimating the costs of various individual routes, as well as in estimating the cost ramifications of any proposed service alternatives. In order to develop such a model, each estimate of cost is allocated to one of two service variables. The two service variables used to allocate costs are the number of platform vehicle hours and the number of platform vehicle miles. In addition, fixed costs are identified as being constant. This is a valid assumption for the short-term future, although fixed costs could change over the long-term future. Examples of the cost allocation methodology include: allocating fuel costs for transit coaches to platform vehicle miles; allocating operator wages to platform vehicle hours; and allocating liability insurance expenses to fixed costs. Total costs allocated to each variable are then divided by the total route services quantity (i.e.: total platform vehicle hours or total platform vehicle miles) to determine a cost rate for each variable.

The allocation of cost for the 2013 Maritime Metro Transit System operation is presented in Table 7.1. This cost allocation has been applied to fixed-route services only. Demand response paratransit service has been excluded from the cost allocation model so that the productivity of individual Maritime Metro Transit routes can be compared. The cost allocation shown in Table 7.1 yields the following cost equation for fixed-route services:

$$\text{Total Cost} = (\$40.07 \times \text{platform vehicle hours}) + (\$1.04 \times \text{platform vehicle miles}) + \$241,667$$

Table 7.1: Maritime Metro Cost Allocation Model: 2013

| Annual Expenses | Cost Factor | | | Fixed Cost |
|---|-------------|------------------------|------------------------|------------|
| | | Platform Vehicle Hours | Platform Vehicle Miles | |
| Expenses - Operations | | | | |
| Salaries and Wages | \$637,612 | \$637,612 | | |
| Employer Paid Payroll Benefits | \$373,731 | \$373,731 | | |
| Uniforms | \$3,509 | \$3,509 | | |
| Employee Medical Exams | \$641 | | | \$641 |
| Employee Training and Education | \$350 | | | \$350 |
| Transit Documents | \$1,335 | | | \$1,335 |
| Marketing | \$40,264 | | | \$40,264 |
| Other Materials | \$581 | | | \$581 |
| Liability Insurance | \$35,108 | | | \$35,108 |
| Total Expenses - Operations | \$1,093,131 | \$1,014,852 | \$0 | \$78,279 |
| Expenses - Facility Operations and Maintenance | | | | |
| Salaries and Wages | \$0 | | | \$0 |
| Employer Paid Payroll Benefits | \$0 | | | \$0 |
| Utilities | \$20,739 | | | \$20,739 |
| Other Contractual Services | \$4,089 | | | \$4,089 |
| Other Supplies and Expenses | \$7,436 | | | \$7,436 |
| Insurance on Buildings | \$2,476 | | | \$2,476 |
| Total Expenses - Facility Operation and Maintenance | \$34,739 | \$0 | \$0 | \$34,739 |
| Expenses - Vehicle Maintenance and Supplies | | | | |
| Salaries and Wages | \$67,619 | | \$67,619 | |
| Employer Paid Payroll Benefits | \$33,123 | | \$33,123 | |
| Contractual Services | \$1,822 | | \$1,822 | |
| Fuel and Lubricants | \$182,452 | | \$182,452 | |
| Repair Parts and Supplies | \$88,683 | | \$88,683 | |
| Tires and Tubes | \$19,485 | | \$19,485 | |
| Other Materials | \$3,728 | | \$3,728 | |
| Insurance on Vehicles and Equipment | \$3,335 | | | \$3,335 |
| Total Expenses - Vehicle Maintenance and Supplies | \$400,248 | \$0 | \$396,913 | \$3,335 |
| Expenses - Administration | | | | |
| Salaries and Wages | \$64,525 | | | \$64,525 |
| Employer Paid Payroll Benefits | \$24,411 | | | \$24,411 |
| Contractual Services | \$33,931 | | | \$33,931 |
| Other Supplies and Expenses | \$2,321 | | | \$2,321 |
| Equipment Rental | \$127 | | | \$127 |
| Total Expenses - Administration | \$125,314 | \$0 | \$0 | \$125,314 |
| TOTAL EXPENSES | \$1,653,432 | \$1,014,852 | \$396,913 | \$241,667 |
| Service Variable Quantities | NA | 25,327 | 380,140 | 1 |
| Cost Equation Factor | NA | \$40.07 | \$1.04 | \$241,667 |

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

ROUTE PRODUCTIVITY

Each individual route has been evaluated to determine its productivity in terms of passengers per mile, passengers per hour, and cost per passenger. Individual route productivity is shown in Table 7.2. Table 7.2 and its accompanying narrative measure productivity for each route for all periods of operation for that route in 2013, including Saturdays. It should be noted that fixed costs have been excluded from the analysis in Table 7.2.

Table 7.2: Route Productivity for the Maritime Metro Transit System: 2013

| Route | Passengers per Day | Annual Passengers* | Trips per Weekday | Trips per Saturday | Trip Hours | Miles per Trip | Passengers per Hour | Passengers per Mile | Cost per Passenger | Annual Cost per Route** |
|--------------------------|-----------------------|-----------------------|----------------------|-----------------------|---------------|-------------------|------------------------|------------------------|-----------------------|----------------------------|
| 1 (Two Rivers) | 116 | 35,735 | 14 | 7 | 1.0 | 18.5 | 7.97 | 0.47 | \$7.25 | \$259,019 |
| 2 (Northeast Loop) | 266 | 81,804 | 26 | 7 | 0.5 | 8.1 | 20.41 | 1.38 | \$2.72 | \$222,603 |
| 3 (Southwest Loop) | 270 | 82,893 | 26 | 7 | 0.5 | 6.9 | 20.68 | 1.64 | \$2.57 | \$213,417 |
| 4 (Southeast Loop) | 162 | 49,736 | 26 | 7 | 0.5 | 8.4 | 12.41 | 0.81 | \$4.52 | \$224,899 |
| 5 (West Loop) | 101 | 31,067 | 26 | 7 | 0.5 | 7.9 | 7.75 | 0.54 | \$7.12 | \$221,072 |
| 6A (North Central Loop) | 85 | 26,028 | 15 | 7 | 0.5 | 7.9 | 10.83 | 0.75 | \$5.10 | \$132,622 |
| 6B (Northwest Loop) | 83 | 25,476 | 15 | 7 | 0.5 | 9.1 | 10.60 | 0.64 | \$5.42 | \$138,133 |
| Total or Overall Average | 1,084 | 332,739 | 148 | 49 | | | 13.14 | 0.88 | \$4.24 | \$1,411,765 |

*Annual passengers does not include special event transportation.

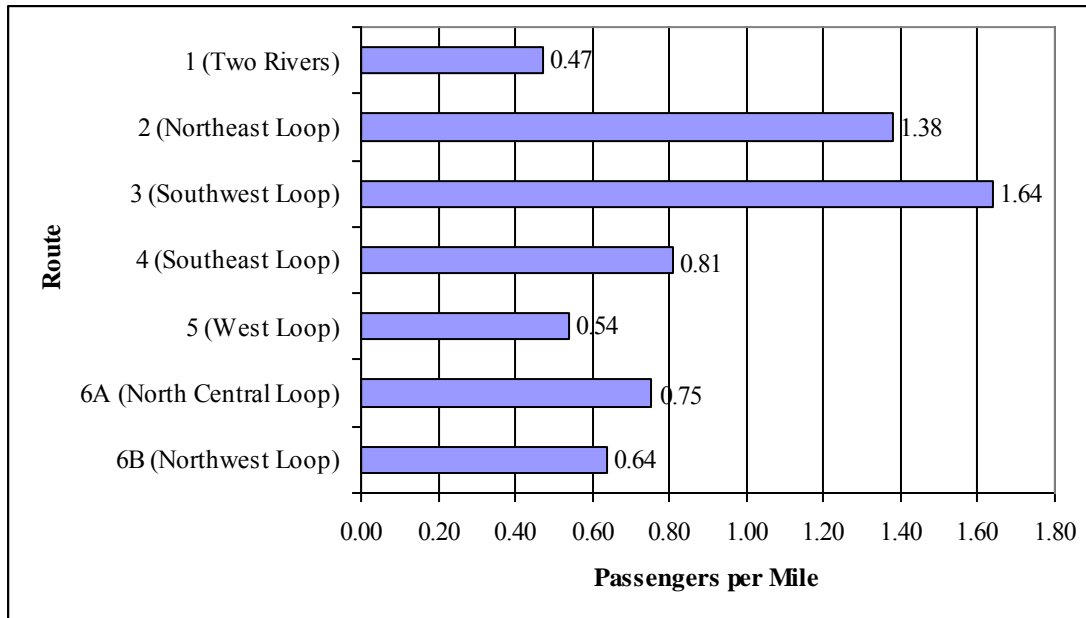
**Fixed costs have been excluded from the annual cost per route.

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

1. Passengers per Mile

The route productivity in passengers per mile for all routes is shown in Figure 7.4. As is shown in Figure 7.4, there is some variation in the number of passengers per mile, ranging from 0.47 passengers per mile to 1.64 passengers per mile. Most routes are operating in the range of 0.54 to 0.81 passengers per mile. Route 3 has the highest productivity using this measure among all of the routes, followed by Route 2. Route 1 exhibits the lowest productivity using this measure, most likely due to the large number of miles on this route traveling between two urban cores with minimal passenger boardings or alightings. Maritime Metro Transit averaged 0.88 passengers per mile in 2013.

Figure 7.4: Passengers per Mile by Route: 2013

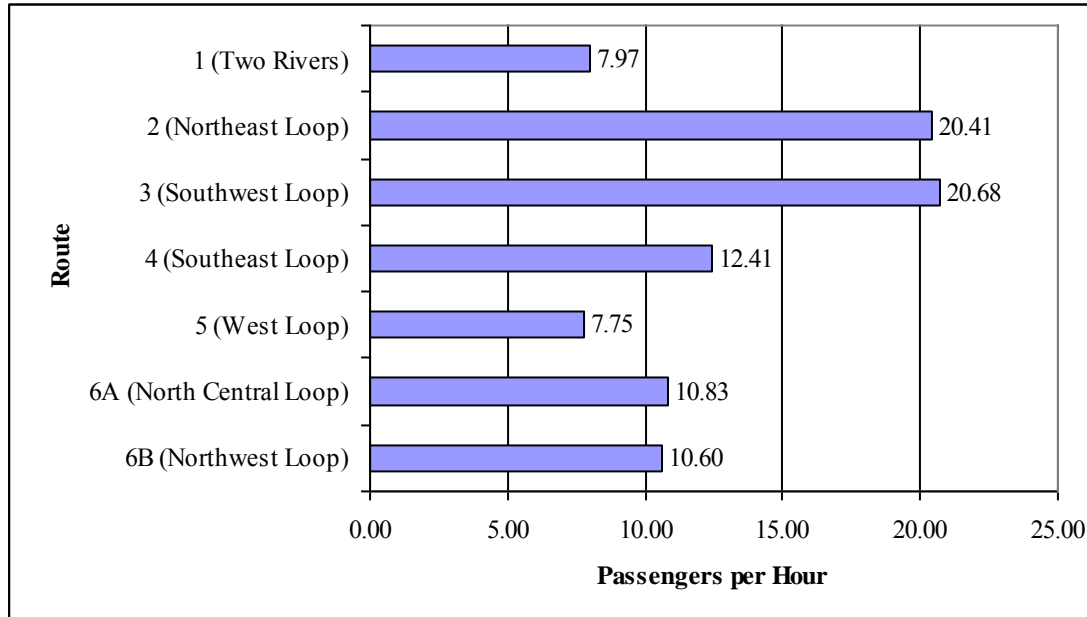


Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

2. Passengers per Hour

The route productivity in passengers per hour for all routes is shown in Figure 7.5. Again, there is some variation in the number of passengers per hour, ranging from 7.75 passengers per hour to 20.68 passengers per hour. Most routes are operating in the range of 7.9 to 12.5 passengers per hour. Route 3 has the highest productivity using this measure among all of the routes, followed by Route 2. Route 5 exhibits the lowest productivity using this measure. Maritime Metro Transit averaged 13.14 passengers per hour in 2013.

Figure 7.5: Passengers per Hour by Route: 2013



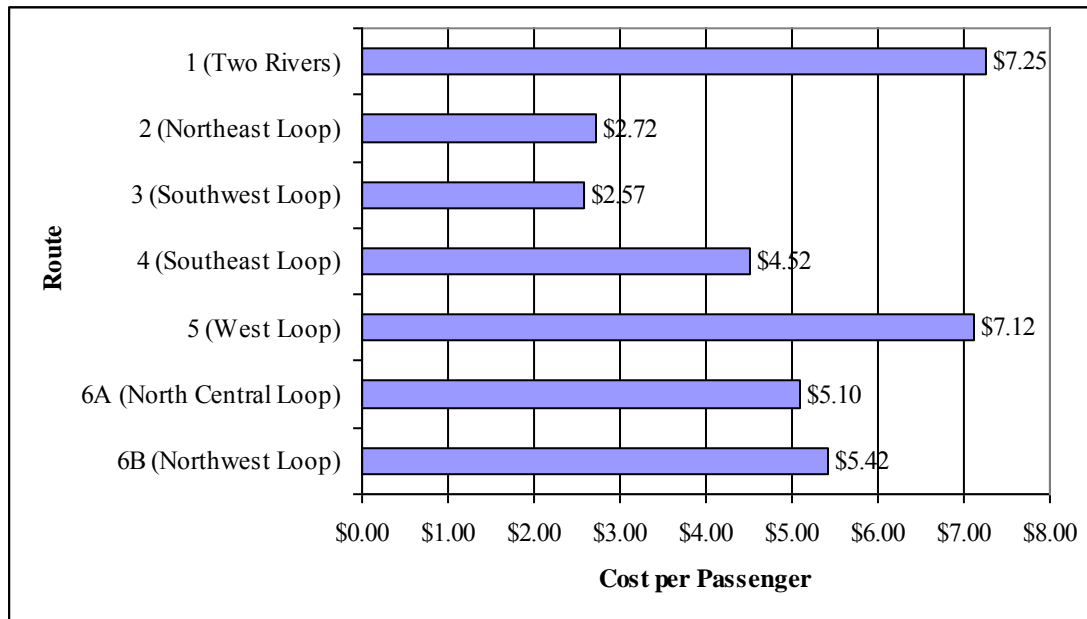
Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

3. Cost per Passenger

The route productivity in terms of cost per passenger for all routes is shown in Figure 7.6. Once again, there is some variation in the cost per passenger among the routes, ranging from \$2.57 to \$7.25. A plurality of the routes operated in the range of a \$4.50 to \$5.50 cost per passenger trip in 2013. At \$2.57 per passenger, Route 3 has the highest productivity using this measure among all routes, followed by Route 2 at \$2.72 per passenger. Route 1 exhibits the lowest productivity using this measure at \$7.25 per passenger, followed by Route 5 at \$7.12 per passenger. Maritime Metro Transit averaged a cost of \$4.24 per passenger in 2013.

It should be noted that fixed costs have been excluded from the analysis in Figure 7.6. If the fixed costs are included, they raise the average cost per passenger throughout the transit operation from \$4.24 to \$4.97. Fixed costs have been excluded from the analysis because it becomes difficult to allocate these costs among the routes, particularly when the cost per passenger analysis is examined for weekdays and for Saturdays.

Figure 7.6: Cost per Passenger by Route: 2013



Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

4. Weekday Route Productivity Analysis

1. Passengers per Mile

The route productivity in passengers per mile for all routes on weekdays is shown in Table 7.3. Since weekday service is dominant in the transit operation, many of the passenger per mile statistics are comparable to overall passenger per mile statistics for Maritime Metro Transit. There is some variation in the number of passengers per mile, ranging from 0.48 passengers per mile to 1.62 passengers per mile. A plurality of the routes is operating in the range of 0.65 to 0.83 passengers per mile. Route 3 had the highest productivity using this measure among all of the routes, followed by Route 2. Route 1 had the lowest productivity using this measure among all of the routes, followed by Route 5.

Table 7.3: Weekday Route Productivity for the Maritime Metro Transit System: 2013

| Route | Passengers per Hour | Passengers per Mile | Cost per Passenger | Annual Cost per Route* |
|--------------------------|--------------------------------|--------------------------------|-------------------------------|-----------------------------------|
| 1 (Two Rivers) | 8.20 | 0.48 | \$7.04 | \$235,662 |
| 2 (Northeast Loop) | 20.27 | 1.37 | \$2.74 | \$210,506 |
| 3 (Southwest Loop) | 20.48 | 1.62 | \$2.60 | \$201,820 |
| 4 (Southeast Loop) | 12.74 | 0.83 | \$4.40 | \$212,678 |
| 5 (West Loop) | 7.70 | 0.53 | \$7.17 | \$209,059 |
| 6A (North Central Loop) | 11.17 | 0.77 | \$4.94 | \$120,609 |
| 6B (Northwest Loop) | 10.90 | 0.65 | \$5.27 | \$125,620 |
| Total or Overall Average | 13.28 | 0.89 | \$4.20 | \$1,315,954 |

*Fixed costs have been excluded from the annual cost per route.

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

2. Passengers per Hour

The route productivity in passengers per hour for all routes on weekdays is shown in Table 7.3. Again, since weekday service is dominant in the transit operation, many of the passenger per hour statistics are comparable to overall passenger per hour statistics for Maritime Metro Transit. There is some variation in the number of passengers per hour, ranging from 7.70 passengers per hour to 20.48 passengers per hour. A plurality of the routes is operating in the range of 10.90 to 12.74 passengers per hour. Route 3 had the highest productivity using this measure among all of the routes, followed closely by Route 2. Route 5 had the lowest productivity using this measure among all of the routes, followed by Route 1.

1. Cost per Passenger

The route productivity in terms of cost per passenger for all routes on weekdays is shown in Table 7.3. Once again, since weekday service is dominant in the transit operation, many of the cost per passenger statistics are comparable to overall cost per passenger statistics for Maritime Metro Transit. There is some variation in the cost per passenger among the routes, ranging from \$2.60 to \$7.17. A plurality of the routes is operating in the range of a \$4.40 to \$5.27 cost per passenger trip. At \$2.60 per trip, Route 3 had the highest productivity using this measure among all of the routes, followed by Route 2 at \$2.74 per trip. At \$7.17 per trip, Route 5 had the lowest productivity using this measure among all of the routes, followed by Route 1 at \$7.04 per trip. Maritime Metro Transit averaged a cost of \$4.20 per passenger on weekdays in 2013.

5. Saturday Route Productivity Analysis

Average Saturday ridership was 354, or about 28.5 percent of the average weekday ridership figure of 1,240 in 2013. The range of hours in which transit service is provided on Saturdays is shorter than it is on weekdays.

On an “average” Saturday in 2013, there were 0.73 passengers per mile, 11.18 passengers per hour, and a cost of \$5.01 per passenger. This compares to 0.89 passengers per mile, 13.28 passengers per hour and a cost of \$4.20 per passenger on an “average” weekday in 2013. Students traveling to and from school and larger numbers of passengers traveling to and from work help to increase the “average” weekday statistics somewhat.

1. Passengers per Mile

The route productivity in passengers per mile for all Saturday routes is shown in Table 7.4. There is significant variation in the number of passengers per mile among the routes, ranging from 0.33 passengers per mile to 1.92 passengers per mile. Most routes are operating in the range of 0.43 to 0.60 passengers per mile. Route 3 has the highest productivity using this measure among all of the routes operating on Saturday, followed by Route 2. Route 1 has the lowest productivity using this measure among all of the routes.

Table 7.4: Saturday Route Productivity for the Maritime Metro Transit System: 2013

| Route | Passengers per Hour | Passengers per Mile | Cost per Passenger | Annual Cost per Route* |
|--------------------------|--------------------------------|--------------------------------|-------------------------------|-----------------------------------|
| 1 (Two Rivers) | 6.50 | 0.33 | \$10.24 | \$23,357 |
| 2 (Northeast Loop) | 22.81 | 1.54 | \$2.43 | \$12,097 |
| 3 (Southwest Loop) | 24.22 | 1.92 | \$2.20 | \$11,597 |
| 4 (Southeast Loop) | 6.65 | 0.43 | \$8.44 | \$12,221 |
| 5 (West Loop) | 8.69 | 0.60 | \$6.35 | \$12,013 |
| 6A (North Central Loop) | 7.38 | 0.51 | \$7.48 | \$12,013 |
| 6B (Northwest Loop) | 7.57 | 0.45 | \$7.59 | \$12,512 |
| Total or Overall Average | 11.18 | 0.73 | \$5.01 | \$95,812 |

*Fixed costs have been excluded from the annual cost per route.

Source: Maritime Metro Transit System, 2014; and Bay-Lake Regional Planning Commission, 2015.

2. Passengers per Hour

The route productivity in passengers per hour for all Saturday routes is shown in Table 7.4. There is significant variation in the number of passengers per hour, ranging from 6.50 passengers per hour to 24.22 passengers per hour. A plurality of the routes is operating in the range of 7.38 to 8.69 passengers per hour. Again, Route 3 has the highest productivity using this measure among all of the routes operating on Saturday, followed by Route 2. Route 1 has the lowest productivity using this measure among all of the routes, followed by Route 4.

3. Cost per Passenger

The route productivity in terms of cost per passenger for all Saturday routes is shown in Table 7.4. There is significant variation in the cost per passenger among the routes, ranging from \$2.20 to \$10.24. Most routes are operating in the range of a \$6.35 to \$8.44 cost per passenger trip. At \$2.20 per passenger, Route 3 has the highest productivity using this measure among all Saturday routes, followed by Route 2 at \$2.43 per passenger. The route which exhibits lowest productivity using this measure on Saturdays is Route 1 at \$10.24 per passenger.

6. “Special Event” Transit Service

Some 58 trips were provided by Maritime Metro Transit for special events. All of these trips occurred on one holiday (Independence Day, July 4, 2013). This service involved 0.61 passengers per mile, and involved 7.25 passengers per hour. This service also involved a cost of \$7.24 per passenger trip.

CHAPTER 8: GOALS, OBJECTIVES, STANDARDS AND THEIR USE IN EVALUATING THE CURRENT TRANSIT OPERATION

MISSION STATEMENT

Based on input from the review committee for the Transit Development Program (TDP), the ridership, transit drivers and the general public, as well as on review of community characteristics, the following mission statement indicates the proposed direction of Maritime Metro Transit over the short-term future:

To provide a safe, reliable, convenient and cost-effective transit service with a skilled team of employees, dedicated to customers' needs and independence.

PROCESS USED TO DEVELOP GOALS, OBJECTIVES AND STANDARDS

The mission statement, goals, objectives and standards developed in this chapter are based on consultation with the review committee for this TDP, as well as on consultation with the ridership of the transit system, transit drivers and with the general public. The mission statement indicates what transit should strive to achieve over the next five years. In addition to the mission statement, goals, objectives and standards have been developed to guide implementation of this plan. It should be noted that many of the objectives and standards in this chapter are long-range visions of ideal transit service, and can be achieved only as resources permit.

Transit service in the Manitowoc – Two Rivers area is an essential community service. Transit service will be needed in the future. Transit also needs to make efforts to attract riders from groups that could increase ridership and/or improve the community image of transit, including manufacturing and other employees, as well as students at all grade levels (including high school students as well as students in post-secondary educational institutions). Transit services should be affordable to both the taxpayer and the user of the system, and a balance between raising property tax levies (or other local taxes) and raising fares beyond the affordability range of the ridership is needed. With this in mind, Maritime Metro Transit should continue to aggressively demonstrate to federal, state and local decision makers the need for their funding and support of transit.

It is important to identify key transit service areas and transit corridors. Among these activity centers are: major health care facilities; educational facilities; shopping centers; governmental, social service and non-profit facilities; entertainment and recreational facilities; major parks; major child day care facilities; major community based residential facilities (CBRFs); adult day care facilities; long-term care providers; elderly and/or low income housing facilities; and larger employers. It will also be important to influence land use decisions, particularly concerning the location of key transit trip generators. Maritime Metro Transit (either through staff or through its governing board) should make recommendations to the respective City Plan Commissions and City/Common Councils in Manitowoc and Two Rivers regarding proposed locations for such facilities. Higher quality transit service will be possible for those facilities if they are located within the transit service area.

GOALS, OBJECTIVES AND STANDARDS

GOAL 1: To assure that quality transit service continues to be available, financed through fares and through federal, state and local governmental funding sources.

OBJECTIVE 1.1: By working to ensure continued state and federal aid for operating expenses, and by working to reinstate sufficient federal funding for capital items.

Standard 1.1.1: Maritime Metro Transit staff should participate in activities of the Wisconsin Urban and Rural Transit Association (WURTA) in which federal and state funding issues are addressed.

Standard 1.1.2: Maritime Metro Transit staff should make direct, in-person contact with federal and state legislators during legislative sessions and when these legislators return home during legislative recesses or at other times.

Standard 1.1.3: Maritime Metro Transit staff should host state and federal legislators for tours of the transit operation and brief “town hall” meetings with passengers, drivers and management at least once each year.

OBJECTIVE 1.2: By having community leaders and local governmental officials recognize that Maritime Metro Transit is a worthwhile and positive investment.

Standard 1.2.1: Work to obtain increased support of transit service from the Two Rivers City Council and the Manitowoc Common Council, and educate members of the Manitowoc County Board regarding the value of Maritime Metro Transit (in the event that MMT someday becomes part of a larger Regional Transit Authority, or RTA).

Standard 1.2.2: Maritime Metro Transit staff should continue to educate local decision makers concerning transit finances and revenue sources, and should work with decision makers toward a multiyear staging of increased local commitment toward the transit operation that at least keeps up with increases in total operational expenses each year.

Standard 1.2.3: Work to persuade local decision makers to consider removing human service needs (including transit) from locally imposed spending caps, or to list transit as a separate levy rather than grouping it with all other city general purposes.

Standard 1.2.4: Maritime Metro Transit staff should participate in meetings with elected local officials and local interest groups to discuss transportation funding issues, acting as an advocate for transit funding.

OBJECTIVE 1.3: By advocating for greater flexibility on transit issues with state legislators.

Standard 1.3.1: Work with the WURTA to persuade the Wisconsin Legislature to approve enabling legislation that would permit local option taxes or fees (i.e.: sales tax, motor fuel tax, RTA-related taxes, etc.).

Standard 1.3.2: Work with the WURTA to persuade the Wisconsin Legislature to consider removing human service needs (including transit) from state-imposed spending caps.

OBJECTIVE 1.4: By maximizing revenues received from vehicle advertising and other proprietary opportunities, thereby offsetting the costs to users of the transit

operation.

Standard 1.4.1: Advertising should be permitted on transit buses and, where feasible, at passenger shelters. Such advertising should be allowed only within the parameters of an established policy concerning advertising on buses and other transit facilities (i.e.: no tobacco or alcohol advertising).

Standard 1.4.2: Maritime Metro Transit should look for other (non-governmental and non-advertising) revenue generators, in an effort to keep fares low.

GOAL 2: To assure that the transit operation remains affordable to passengers and to local units of government.

OBJECTIVE 2.1: By examining the justification for existing service hours and levels of service, maximizing efficient use of current transit services in an attempt to reduce costs for both passengers and for cities in the transit system service area, and reexamination of the entire route structure.

Standard 2.1.1: Work to keep paratransit costs as low as possible without compromising safety or quality.

Standard 2.1.2: Fixed-route service should meet productivity levels of 10.0 passengers per hour or 0.6 passengers per mile. Individual routes should achieve a productivity of 8.0 passengers per hour or 0.5 passengers per mile. Fixed-route service which does not meet a minimum productivity of 8.0 passengers per hour or meet a minimum productivity of 0.5 passengers per mile will be evaluated for reconfiguration or for conversion to demand-response service. The most current annual ridership will be used to determine whether routes meet the standard.

Standard 2.1.3: Transit service on regular fixed routes also should be evaluated by time of day to determine if the above productivity levels are being met. If such productivity levels are not being met, policy options include less frequent service, reconfiguration, or conversion to demand-response service.

Standard 2.1.4: Work to improve the efficiency of Route 1 (the Two Rivers route).

Standard 2.1.5: Actions taken to implement Standards 2.1.2 through 2.1.4 should in no way violate Title VI of the Civil Rights Act of 1964. Maritime Metro Transit staff should evaluate whether service changes resulting from Standards 2.1.2 through 2.1.4 violate Title VI on a periodic basis, and if violations are observed, corrective actions should be taken.

Standard 2.1.6: Requests for new service will be evaluated to ensure that productivity objectives noted in Standard 2.1.2 are met. Estimates of ridership for any new service will be used to determine the expected productivity of the proposed service. Proposed new services should be projected to meet the minimum productivity standards.

Standard 2.1.7: Consider making more efficient use of transit service during non-peak hours of operation.

OBJECTIVE 2.2: By working to keep passenger fares as low as possible.

Standard 2.2.1: Passenger fares in select categories can be lowered in periodic marketing campaigns and offers.

Standard 2.2.2: Fare incentives for students should be continued and possibly increased over the period covered by this TDP.

Standard 2.2.3: Maintain the monthly pass at an affordable price.

GOAL 3: To continue to attract additional ridership as part of an effort to improve community support of the transit operation.

OBJECTIVE 3.1: By addressing noise, comfort, cleanliness and seating capacity issues on all revenue service vehicles in the transit fleet and at all transit facilities.

Standard 3.1.1: Acquire new buses to replace older buses in the fleet, and use innovative ways to acquire buses when federal capital funding is inadequate to replace buses when they exceed their service life.

Standard 3.1.2: Acquire service vehicles that have better equipment for securing mobility devices, or retrofit such vehicles for better securement if such vehicles are difficult to acquire.

Standard 3.1.3: Install automatic vehicle identification (AVI) on all buses, which can alert customers as to the location of their bus.

Standard 3.1.4: Maritime Metro Transit management should work in the new vehicle specifications process to minimize noise levels and to assure that lack of a smooth ride is caused by factors external to the vehicle.

Standard 3.1.5: Work with other Wisconsin transit operators toward joint procurements in an effort to minimize the cost of buses while at the same time obtaining buses that have a good operational reputation.

Standard 3.1.6: Smaller transit vehicles should only be employed on routes and at time periods in which anticipated passenger loads are never projected to exceed vehicle capacity.

Standard 3.1.7: Maintain clean buses and a clean transfer station.

OBJECTIVE 3.2: By continuing efforts to coordinate the timing and location of transit service with the arrival and departure of other mass transportation services.

Standard 3.2.1: Work to ensure more seamless transportation between rural (Manitowoc County) transportation service and Maritime Metro Transit routes.

Standard 3.2.2: Aggressive efforts should be made to attract all intercity mass transportation services which enter the Maritime Metro Transit System service area (Indian Trails, Jefferson Lines, Lamers Connect, etc.) to the Intermodal Transfer Center.

Standard 3.2.3: In the event that it is not possible to attract intercity mass transportation services to the Intermodal Transfer Center, the transit operation should provide timely and convenient service to the location(s) which these services select as their pick-up and drop-off point(s) in the Maritime Metro Transit System service area.

Standard 3.2.4: Work to ensure that the Lakeshore Technical College (LTC) Express student transportation service continues to stop at the Intermodal Transfer Center.

OBJECTIVE 3.3: By providing expanded and customized transit service to areas dominated by manufacturing and intensive commercial activity.

- Standard 3.3.1: Maritime Metro Transit staff should regularly monitor starting and ending times for shifts of manufacturing firms in the service area.
- Standard 3.3.2: In the event that starting or ending times for shifts of manufacturing firms are outside the range of hours of service for the transit system, additional transit service should be marketed and tested on a trial basis; if such service meets the provisions of Standard 2.1.2, then such service should be instituted on a long-term basis.
- Standard 3.3.3: Fixed-route transit service should run within one quarter mile of firms with greater than 100 employees and all industrial parks in the transit system service area, including the Manitowoc Industrial Park.
- OBJECTIVE 3.4: By providing timely, direct service to the University of Wisconsin Manitowoc, Silver Lake College, and the LTC campus at the Manitowoc County Job Center, and assure that there is intermittent transportation between the transit service area and the LTC Cleveland campus.
- Standard 3.4.1: Continue to serve UW Manitowoc and the LTC campus at the Manitowoc County Job Center, and consider expansions to service to these campuses if warranted.
- Standard 3.4.2: Students who live in the transit service area and who attend Silver Lake College should be surveyed concerning their willingness to use transit services to either attend classes (if residing off campus) or to access employment, shopping or services in the community (if residing on campus), and, if willing to use service, the best times for arrival and departure on the campus which fit their schedule. If survey results appear promising, service to the Silver Lake College campus could be instituted on a trial basis during high demand times of the service day. If the service meets the provisions of Standard 2.1.2 during the trial period, the changes should be instituted on a permanent basis.
- Standard 3.4.3: Work to ensure that LTC Express student transportation continues to connect the transit service area with the LTC Cleveland campus.
- OBJECTIVE 3.5: By expanding public relations and community outreach efforts in order to communicate the value of public transportation to all area residents.
- Standard 3.5.1: Work to assure that health and human service agencies better understand what transit can and cannot do.
- Standard 3.5.2: Feature employees from various sectors of the economy giving testimonials concerning how transit is a useful service in getting them to and from their jobs; these testimonials should be developed into persuasive advertising by a professional agency, and should be placed in newspaper and radio spots as part of the transit operation's advertising budget.
- Standard 3.5.3: Participate in presentations to various interest groups.
- OBJECTIVE 3.6: By implementing additional marketing as a means of providing the public with more information on transit services and in an effort to support transit.
- Standard 3.6.1: Utilize social media strategies (i.e.: Facebook, Twitter, etc.) to make the public more aware of Maritime Metro Transit and to increase ridership.

- Standard 3.6.2: All new services should be marketed through newspaper and radio advertising toward affected populations.
- Standard 3.6.3: Utilize digital bus signage to market special offers or new services of the transit system.
- Standard 3.6.4: Continue to increase the availability of transit schedules and informational fliers at key service points throughout the community, including banks and credit unions, hotel and motel lobbies, shopping centers, schools, libraries, and various public buildings.
- Standard 3.6.5: Advertise the availability of transit service to factories and other places of employment.
- Standard 3.6.6: Make maps of individual routes and system maps available to the public at informational kiosks.
- Standard 3.6.7: Coordinate transit service and transit promotional programs with business promotions.
- Standard 3.6.8: Increase interaction between Maritime Metro Transit and service organizations and other similar entities (including continuation of the good cooperative relationship with Holiday House).
- Standard 3.6.9: Maritime Metro Transit should market its operations and educate students and school staff on how to access and utilize transit routes to travel to and from school.
- Standard 3.6.10: Maritime Metro Transit should participate in statewide marketing campaigns when they occur.
- Standard 3.6.11: Maritime Metro Transit should consider targeted marketing in specific portions of the transit service area during street construction periods.
- Standard 3.6.12: Maritime Metro Transit should market its services at community events.
- Standard 3.6.13: Maritime Metro Transit should continue to publish its route and schedule map and other media in Spanish and Hmong, and should also work to publish these media in Braille.
- Standard 3.6.14: Maritime Metro Transit should create a website independent from Manitowoc city government.

OBJECTIVE 3.7: By providing service to keep buses on schedule.

- Standard 3.7.1: No vehicles on fixed-route service will operate ahead of schedule.
- Standard 3.7.2: Fixed-route service will exceed 95 percent of trips within five minutes behind established schedules.
- Standard 3.7.3: Demand-response service will exceed 95 percent of trips within 30 minutes of the requested time for pickup for Americans with Disabilities Act (ADA) paratransit service.
- Standard 3.7.4: Missed trips (defined as 30 or more minutes late for fixed-route service, and as requests which cannot be served for demand-response service) should be kept to a minimum.

Standard 3.7.5: Exceptions to Standards 3.7.2 through 3.7.4 can be made under unusual circumstances (i.e.: poor weather conditions, rail or boat traffic, mechanical breakdowns, full loads, etc.). Monitoring of whether the transit system meets these standards should exclude trips made which involve these circumstances in order to ensure a safe operation.

Standard 3.7.6: Utilize AVI, GPS or similar technology to track the location of buses on Maritime Metro Transit routes in order to determine whether the above standards are being met, and to inform passengers as to the status of the bus that they are planning to board.

OBJECTIVE 3.8: By utilizing better planning in order to provide easier access to transit services and to improve ridership.

Standard 3.8.1: Examine the restructuring of passenger pick-up points.

Standard 3.8.2: Examine changing demographics in the service area and their potential impacts on ridership.

Standard 3.8.3: Improve the continuity of route timing and structuring, including adding “dead time” to routes, considering conversion of certain route segments into “express” runs with no pick-ups or drop-offs, and keeping buses out of parking lots to the extent possible.

Standard 3.8.4: Maintain half-hour headways for all Maritime Metro Transit routes exclusively within the City of Manitowoc, and maintain one hour headways for routes serving the City of Two Rivers.

Standard 3.8.5: More effectively plan routes so that bus drop-off points are positioned on the same side of the street as trip generators (businesses, agencies, schools, etc.). In particular, reverse certain routes so that they are on the correct side of the street for dropping off and picking up school children.

Standard 3.8.6: Consider reestablishing or adding routes in areas where such service may be warranted by demand.

GOAL 4: To address the mobility needs of the transit dependent.

OBJECTIVE 4.1: By adequately serving residential concentrations of and facilities frequented by transit dependent population groups.

Standard 4.1.1: Census block groups with disproportionate racial minority and Hispanic origin populations should be served by the transit system in accordance with Title VI of the Civil Rights Act of 1964.

Standard 4.1.2: Key activity centers should be served by Maritime Metro Transit (i.e.: be within a quarter mile of a bus stop), including: major health care facilities; educational facilities; shopping centers; governmental, social service and non-profit facilities; entertainment and recreational facilities; major parks; major child day care facilities; major community based residential facilities (CBRFs); adult day care facilities; long-term care providers; elderly and/or low income housing facilities; and larger employers.

Standard 4.1.3: Passenger shelters should be provided at important loading points where boarding

passenger volumes exceed seven passengers per day along all Maritime Metro Transit routes; these shelters should be adequately and frequently maintained.

Standard 4.1.4: Maritime Metro Transit should consider increasing service to low income housing facilities and mobile home parks at the periphery of the transit service area.

OBJECTIVE 4.2: By cooperating with agencies responsible for implementing employment programs such that locations of employment placement are adequately served by Maritime Metro Transit both in terms of walking distance as well as in terms of work starting and ending times.

Standard 4.2.1: Work with those directly responsible for implementing employment programs so that new employees or others are surveyed as to any need for transit services and are educated as to the existence of the transit operation.

Standard 4.2.2: Encourage employers of participants in employment programs (and other employers in general), as well as administrators of employment programs, to subsidize monthly transit passes; such subsidies are deductible from federal corporate income taxes.

OBJECTIVE 4.3: By having transit service continue to comply with the requirements of the Americans with Disabilities Act of 1990 (ADA).

Standard 4.3.1: Continue complementary paratransit service for qualified individuals.

Standard 4.3.2: Continue to assure that all transit revenue service vehicles are accessible to the disabled as they are replaced.

Standard 4.3.3: Continue to offer comprehensive and frequent training to Maritime Metro Transit staff regarding the accommodation of disabled passengers.

Standard 4.3.4: Make sure that all Maritime Metro Transit bus stops are ADA-compliant.

Standard 4.3.5: Strike a balance between handling a rapidly increasing number of passengers using mobility devices and keeping Maritime Metro Transit fixed routes on time.

OBJECTIVE 4.4: By giving consideration to all subgroups of the transit ridership.

GOAL 5: To actively participate in planning decisions regarding land use patterns in the transit service area, as well as regarding the location of major transit trip generators, in order to assure that future land use development is compatible with transit service as part of the planning process.

OBJECTIVE 5.1: By having Maritime Metro Transit staff comment as appropriate on land use proposals which are located within the transit service area.

Standard 5.1.1: Design of subdivisions, offices and commercial centers within the transit service area will include access for transit vehicles and accessible walkways to and from potential bus stops.

Standard 5.1.2: A representative of Maritime Metro Transit shall receive notice of all meetings of the plan commissions of the cities of Manitowoc and Two Rivers as well as of meetings of any other committees of the two cities pertinent to development issues which may have an impact on the effectiveness of transit service.

OBJECTIVE 5.2: By having Maritime Metro Transit staff comment on proposed locations of

major trip generators. For major transit trip generators which are located outside the transit service area, comments will note that transit service might not be provided to meet the needs of the proposed facility.

Standard 5.2.1: Key transit trip generators should be located within the transit service area.

Standard 5.2.2: Transit service to key generators outside the transit service area will be evaluated based on the system productivity thresholds identified in Standard 2.1.2, and will be subject to the local governmental unit financing its share of such service.

GOAL 6: To consider service improvements where warranted.

OBJECTIVE 6.1: By considering improvement of the coverage of the service area.

Standard 6.1.1: Consider improvement of routes to new services and businesses (such as upcoming development on the Manitowoc County Expo grounds) while continuing to maintain an efficient transit operation.

Standard 6.1.2: Consider improvements to routes as urban development expands.

Standard 6.1.3: Utilize the existing Maritime Metro Transit route coverage to provide improved student transportation.

Standard 6.1.4: Consider expansion of Maritime Metro Transit's service area and revenue base to densely settled and adjacent portions of surrounding jurisdictions.

Standard 6.1.5: All proposals for improvements to coverage of the service area will be evaluated based on the system productivity thresholds identified in Standard 2.1.2, and will be subject to the local governmental unit financing its share of such service.

OBJECTIVE 6.2: By considering improved service hours.

Standard 6.2.1: Maintain early evening weeknight service, and consider expanding weeknight service hours so that those who cannot drive can attend events and activities in the transit service area.

Standard 6.2.2: Consider extending service hours on Saturdays, including addition of early morning and late afternoon service.

Standard 6.2.3: Consider starting new, limited service on Sundays.

Standard 6.2.4: All proposals for improving hours of service will be evaluated based on system productivity thresholds adjusted for the day of the week and time of the day of operation, and will be subject to the local governmental unit financing its share of such service.

GOAL 7: To consider personnel improvements where warranted.

OBJECTIVE 7.1: By considering driver personnel improvements.

Standard 7.1.1: Work to find qualified drivers as vacancies occur and as transit services are modified and possibly expanded.

Standard 7.1.2: Have Maritime Metro Transit institute policies that recognize and reward excellent driver service.

OBJECTIVE 7.2: By considering management personnel improvements.

Standard 7.2.1: Consider converting the transit manager to a full-time position (no longer shared with other roles in Manitowoc city government).

Standard 7.2.2: Consider hiring an assistant transit manager.

CHAPTER 9: ALTERNATIVES ANALYSIS

INTRODUCTION

In the completion process for the Maritime Metro TDP, several issues have been identified concerning the services of the Maritime Metro Transit System. The process used in completing the TDP included: discussions with Maritime Metro Transit (MMT) staff; numerous meetings with the TDP review committee; administration of ridership opinion and boarding and alighting surveys; and a public comment period on the draft TDP. Based on issues that were identified and input from various sources regarding the services of the Maritime Metro Transit System, the TDP review committee, the Bay-Lake Regional Planning Commission staff and MMT staff developed and analyzed alternative configurations of the transit system. The main alternative involved route reconfiguration that took into account several desired objectives, but (1) consideration of housing the Manitowoc County mobility manager at MMT, and (2) consideration of bringing paratransit service “in-house” were also examined as alternatives. Based on review of the initial alternative configurations of the transit system, such configurations were refined, and the analysis described in this chapter was conducted.

The Bay-Lake Regional Planning Commission staff and the Maritime Metro TDP review committee conducted an alternatives analysis for the Maritime Metro TDP. MMT staff directed the alternatives analysis process in a manner in which it primarily focused on revising the existing route structure as opposed to dramatically increasing or decreasing service levels. This was done because (1) MMT did not have the financial capacity to increase service levels over the period covered by this TDP, yet (2) MMT has had tremendous success in attracting ridership over the past few years, and reductions in service or changes in the delivery of transit service could cause the higher ridership levels to decrease. The two main alternative configurations of the transit system has been evaluated based on goals for transit service in the area, projected productivity, number of passengers and cost of operation. The smaller alternatives (adding a mobility manager to the staff of Maritime Metro Transit and consideration of bringing paratransit service “in-house”) were evaluated in more general terms, since productivity and ridership could not be measured for these alternatives.

The following narrative outlines the various alternatives that were examined in the process of completing the Maritime Metro TDP.

ALTERNATIVES EXAMINED

Baseline Alternative: Continuation of Status Quo Fixed-Route Transit Service

This alternative would maintain existing fixed-route transit service throughout the area with no changes. In 2015, the service averaged 12.75 passengers per hour at a cost per passenger of \$5.66. Several assumptions were made in the development of this alternative, including the following:

1. There will be no changes to existing fixed-route service throughout the area, including platform vehicle miles and platform vehicle hours.
2. There will be no change in fares.
3. Federal operational funding is \$896,580, or 47.7 percent of total expenses.
4. State operational funding is \$319,446, or 17.0 percent of total expenses.

The route structure was indicated in Map 3.1 of this TDP, and represents the existing route

structure. Table 7.2 of this TDP indicates individual costs by route for this “no change” alternative. Table 9.1 indicates the service, ridership and financial implications of this alternative in the base year of 2015, and, unlike Table 7.2, includes ADA paratransit costs.

Alternative A: Restructuring of Routes

This alternative would redesign the route structure. The following objectives would be accomplished through such restructuring:

1. Spacing Maritime Metro Transit routes in such a manner that they no longer overlap.
2. Having school children dropped off on the correct side of the street.
3. Adding more “dead time” to routes so that they do not fall behind.
4. Establishing passenger shelters and bus stops away from storefronts in order to save time.
5. Adding transit service to the portion of the City of Manitowoc southwest of Interstate Highway 43 (Silver Lake College, Americollect, Menard’s, etc.), including possible recommendation of a western transfer point.

A sixth objective, consideration of having Route 1 serve Two Rivers High School at the beginning and at the end of the school day, was considered but was eliminated by a working group in the City of Two Rivers, including representatives of the Two Rivers School District.

Several assumptions were made in the development of this alternative, including the following:

1. Route 1 remains a one hour route, but involves a number of routing changes, including service to broader areas of the north, southwest and southeast portions of the City of Two Rivers (including better service to an industrial area in southwest Two Rivers) and new service to Neshotah Park.
2. Route 2 was revised slightly. On the inbound segment of the route, buses will travel on North 8th Street to Waldo Boulevard, Waldo Boulevard from North 8th Street to North 7th Street, and North 7th Street from Waldo Boulevard to Chicago Street (buses currently travel on North 11th Street between Waldo Boulevard and Huron Street, Huron Street between North 11th and North 9th Streets, and North 9th Street between Huron and Chicago Streets).
3. Route 3 has been reconfigured so that it no longer travels past the easternmost portion of the Harbor Town area. Route 3 would now transfer with a reconfigured Route 5 on South 39th Street south of the Walmart Supercenter. Some areas previously served by Route 3 (such as the Frontage Road and most of the Harbor Town area) will now be served by Route 5. There will no longer be service to the door at Shopko, although Shopko will still be served by Route 3. The Walmart Supercenter will be served at its south end, and a passenger shelter will be placed at this location. Festival Foods will be served by the revised Route 3.
4. Route 4 has been reconfigured in several ways. The route has largely been reversed in order to have school children dropped off on the correct side of the street; this better serves three elementary schools, two junior high or middle schools, and one high school. UW Manitowoc and the Manitowoc Public Library continue to be served by Route 4.
5. Route 5 is a completely different configuration from the current route. Route 5 has been reconfigured so that it transfers with a shortened Route 3 on South 39th Street south of the Walmart Supercenter. Route 5 would travel in a clockwise fashion, and would serve the

| Table 9.1 Impacts of Alternate Configurations for Maritime Metro Transit Maritime Metro Transit Development Program (TDP) (For the 2015 Base Year) | | |
|---|---|---|
| | Baseline Alternative: Continuation of Status Quo Fixed-Route Transit Service | Alternative A: Restructuring of Routes |
| Platform Vehicle Miles | 382,078 | 394,599 |
| Platform Vehicle Hours | 26,060 | 26,176 |
| Ridership | 332,158 | 348,766 |
| | | |
| Cost per Passenger | \$5.66 | \$5.45 |
| Cost per Platform Vehicle Mile | \$4.92 | \$4.81 |
| Cost per Platform Vehicle Hour | \$72.12 | \$72.56 |
| Passengers per Platform Vehicle Mile | 0.87 | 0.88 |
| Passengers per Platform Vehicle Hour | 12.75 | 13.32 |
| Farebox Revenue per Passenger | \$0.58 | \$0.58 |
| | | |
| Expenses | \$1,879,488 | \$1,899,437 |
| Farebox Revenues | \$191,041 | \$200,593 |
| ADA Revenues | \$200,596 | \$202,725 |
| Other Non-Subsidy Revenues | \$44,900 | \$44,900 |
| Deficit | \$1,442,951 | \$1,451,219 |
| Federal Share | \$896,580 | \$906,096 |
| State Share | \$319,446 | \$322,837 |
| Local Share | \$348,038 | \$348,038 |
| Balance | \$121,113 | \$125,752 |
| Source: Maritime Metro Transit, 2015 and 2016; and Bay-Lake Regional Planning Commission, 2016. | | |

following destinations: businesses on Frontage Road (with a stop in the Goodwill Store parking lot), Menard's, the Manitowoc Industrial Park (including Northern Labs), Silver Lake College (with a stop near Clare Hall), Americollect, the Manitowoc County Health and Rehabilitation Center, the apartment complex at the intersection of West Custer Street and Expo Drive, the clinics at the intersection of Expo Drive and South Rapids Road, and various businesses and services in the Harbor Town shopping complex. In addition, the Meijer Supermarket planned for an area west of the intersection of South Rapids Road and Dewey Street will be served by Route 5 when the store opens for business in early 2018. This route has been reconfigured to add transit service to the portion of the City of Manitowoc southwest of Interstate Highway 43.

6. Route 6A has been reconfigured in several ways. The route has been redesigned to drop to the southwest to serve certain areas covered by the current Route 5, specifically Custer Street between MacArthur Drive and South Rapids Road, which will serve a dense residential neighborhood, an industrial area, and Fleet Farm; River's Bend would also be served with this route change, although passengers would need to cross Rapids Road, which would lead to the need for a crosswalk in this location. Route 6A has been reconfigured so that it does not overlap with Route 2 to the extent that it has with the most recent route structure. The return portion of the route now travels south on North 18th Street from Menasha Avenue to New York Avenue, then travels east on New York Avenue from North 18th Street to North 11th Street, travels on North 11th and North 10th Streets from New York Avenue to Franklin Street, travels on Franklin Street from South 10th Street to South 11th Street, and finally returns to the Intermodal Transfer Center on South 11th Street. The outbound portion of the revised route travels on Franklin Street, South Water Street, Clark Street and Western Avenue. This route also travels on portions of Waldo Boulevard and North 23rd Street; this has not changed with the route reconfiguration, and is unique to Route 6A.
7. Route 6B has been reconfigured in the same ways that Route 6A has been reconfigured. Segments that are unique to Route 6B have not been changed, including North Rapids Road from Waldo Boulevard to Wildwood Drive, Wildwood Drive from North Rapids Road to Kellner Street, Kellner Street from Wildwood Drive to Menasha Avenue, and Menasha Avenue from Kellner Street to North 23rd Street. The special route deviation that serves Lutheran High School twice each weekday when school is in session has been eliminated.
8. Ridership is estimated to increase by about 5.0 percent.
9. Route miles increase by about 3.1 percent when compared to the baseline alternative.
10. Service hours increase by about 0.4 percent when compared to the baseline alternative.
11. The current range of service hours is assumed.
12. Farebox revenues increase in proportion to the increase in ridership.
13. ADA ridership, revenues and expenses would involve some increase mostly due to the increased service area caused by the restructuring of Route 5.
14. There would be no change in fares.
15. There would be no change in "other" revenues from the baseline alternative.
16. Federal operational funding is 47.7 percent of total expenses.

17. State operational funding is 17.0 percent of total expenses.

18. Local operational funding covers the balance of expenses, and does not change from the baseline alternative.

Table 9.1 indicates the service, ridership and financial implications of this alternative in the base year of 2015. Map 9.1 presents the route restructuring alternative as originally configured, while Map 10.1 (in Chapter 10) presents the final proposed restructuring of MMT routes.

Alternative B: Adding a Mobility Manager to the Staff of Maritime Metro Transit

This alternative would involve adding a mobility manager to the staff of Maritime Metro Transit. Several assumptions were made in the development of this alternative, including the following:

1. A total of \$56,144 would be available to fund this position, including \$44,916 in Section 5310 funding, and a 20 percent local match of \$11,218. This is the same amount that has been awarded to the ADRC of the Lakeshore for its mobility manager position in 2015 and 2016.
2. The mobility manager would be paid \$15.00 per hour, or at 2,080 hours per year, an annual salary of \$31,200.
3. Benefits associated with the position will include paid time off, the employer share of health and dental insurance, the employer share of Social Security, the employer share of participation in the Wisconsin Retirement System (WRS), and other benefits afforded to Maritime Metro Transit and other City of Manitowoc employees. The value of all benefits (paid by the employer) is estimated to be \$22,609, or about 72.5 percent of salary.
4. Some \$53,809 will be needed to fund this position. At the proposed salary, the mobility manager would not need to take on other tasks in order to sustain the position. However, if the salary or benefit levels increase, then the mobility manager may need to take on other tasks in order to sustain the position.
5. The mobility manager would coordinate and manage transportation programs for elderly and disabled citizens in Manitowoc County. Essential duties would include the following:
 - A. Coordinating and monitoring the services of contracted providers.
 - B. Recruiting, screening, training and scheduling volunteers to provide transportation services.
 - C. Responding to citizen requests for transportation service by ensuring eligibility, assessing needs and arranging for transportation.
 - D. Responding to transportation requests from human services case managers and from the Lakeland Care District.
 - E. Scheduling vehicles, adhering to the established maintenance schedule, and fueling vehicles.
 - F. Billing clients and the Lakeland Care District for transportation services, and processing reimbursements for volunteer drivers when they use their own vehicles.
 - G. Making and receiving referrals to and from ADRC of the Lakeshore and Manitowoc County Human Services staff.

H. Writing grant applications and completing associated reports.

Alternative C: Consideration of Bringing Paratransit Service “In-House”

This alternative would convert paratransit service that Maritime Metro Transit currently pays an outside contractor (Assist-to-Transport) to provide to being directly provided by Maritime Metro Transit. Drivers, dispatchers and others involved with these paratransit services would be employees of Maritime Metro Transit under this alternative.

Several assumptions were made in the development of this alternative, including the following:

1. Total paratransit costs in 2015 were \$364,802, including \$111,415 for the ADA program, \$107,418 for the Manitowoc County elderly transportation program, and \$145,969 for the Manitowoc County rural disabled transportation program.
2. Total paratransit passenger revenues in 2015 were \$79,828, including \$24,506 for the ADA program, \$25,568 for the Manitowoc County elderly transportation program, and \$29,754 for the Manitowoc County rural disabled transportation program.
3. Total paratransit ridership in 2015 was 30,905, including 5,224 for the ADA program, 9,893 for the Manitowoc County elderly transportation program, and 15,788 for the Manitowoc County rural disabled transportation program.
4. There was a total of 19,316 hours of paratransit service provided in 2015, including 5,731 hours of service for the ADA program, 9,553 hours of service for the Manitowoc County elderly transportation program, and 4,032 hours of service for the Manitowoc County rural disabled transportation program.
5. There was a total of 232,947 miles of paratransit service provided in 2015, including 52,765 miles of service for the ADA program, 90,686 miles of service for the Manitowoc County elderly transportation program, and 89,496 miles of service for the Manitowoc County rural disabled transportation program.
6. Maritime Metro Transit drivers are paid an average rate of \$20.00 per hour (excluding benefits).
7. Assist-to-Transport drivers are paid an average rate of \$9.25 per hour (excluding benefits).
8. The current paratransit operation involves three full-time drivers and three part-time drivers.
9. There would be additional personnel costs if paratransit service is brought “in-house.” This would include the need for: additional mechanic personnel (0.50 full-time equivalent, or FTE); additional clerical/dispatching staff (1.25 FTE); and conversion of the transit manager to a full-time position (an additional 0.25 FTE).
10. There would be additional non-personnel costs if paratransit service is brought “in-house” that are currently absorbed contractually by Assist-to-Transport. These include: fuel costs; parts costs; costs involving obtaining additional liability insurance; and possible costs involving the storage of paratransit vehicles.
11. Maritime Metro Transit would need to verify the ownership status of vehicles that are currently providing paratransit services (i.e.: the number of vehicles owned by Maritime Metro Transit, by Manitowoc County, by Assist-to-Transport, and by other entities). Any vehicles owned by Assist-to-Transport may involve additional acquisitions by Maritime

Metro Transit or by Manitowoc County before Maritime Metro Transit could take over paratransit operations.

12. The scope of paratransit services being provided needs to be verified as part of follow-up study regarding this alternative. For example, we know that the Manitowoc County rural disabled transportation program operates north, south and west buses from Holiday House, and also operates a bus for transportation to and from the CP Center in Green Bay, but other paratransit services need to be better understood, particularly the Manitowoc County elderly transportation program.
13. The average cost per ride for Assist-to-Transport in 2015 was \$11.80. This included an average cost per ride of \$21.33 for the ADA program, \$10.86 for the Manitowoc County elderly transportation program, and \$9.25 for the Manitowoc County rural disabled transportation program.

PROCESS USED TO ELIMINATE ALTERNATIVES AND DEVELOP A “PREFERRED ALTERNATIVE”

The TDP Review Committee met on March 31, 2016, and on April 21, 2016, to consider the alternatives developed for the TDP.

Alternative A (Restructuring of Routes) has been recommended for implementation in 2017, but was reconfigured multiple times from early April through November of 2016 based on input received and on how the routes were anticipated to operate on the streets.

Alternative B (Adding a Mobility Manager to the Staff of Maritime Metro Transit) was also recommended for implementation, and the Manitowoc County mobility manager was made an employee of Maritime Metro Transit in early July of 2016.

Alternative C (Consideration of Bringing Paratransit Service “In-House”) was rejected as an alternative for implementation in the near future due to satisfaction with the current paratransit service provider. This alternative may be reconsidered if circumstances change in the coming years.

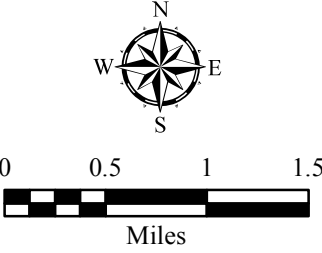
Alternative A
Restructuring of Routes
(Proposed Revisions to the
2017 Route Structure)

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6A
- Route 6B
- Route Travel Direction

Note: Service to the Meijer Supermarket off of Route 5 is proposed to begin in early 2018.

Base Map Features

- Community Boundary
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water



G:\Manitowoc\County\TDP\2014
Source: WDNR, 2005; Manitowoc
County, 2009; Maritime Metro Transit, 2016;
Bay-Lake Regional Planning Commission, 2017.

BAY-LAKE
REGIONAL PLANNING COMMISSION

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.

CHAPTER 10: RECOMMENDED PLAN

RECOMMENDED SERVICE CHANGES

General Service Changes

There are few recommended changes to general service proposed in this TDP:

- On weekdays, service hours are recommended to continue to be from 5:15 a.m. to 7:15 p.m. for Route 1, from 5:00 a.m. to 7:30 p.m. for Routes 2 and 6A, and from 5:30 a.m. to 8:00 p.m. for Routes 3, 4 and 6B. Weekday service hours on Route 5 are proposed to run from 5:45 a.m. to 7:45 p.m. so that this route can efficiently transfer with Route 3 at a remote transfer point in southwest Manitowoc on South 39th Street south of the Walmart Supercenter.
- On Saturdays, service hours are recommended to continue to be from 9:15 a.m. to 3:30 p.m. for Route 1, from 9:00 a.m. to 3:30 p.m. for Routes 2 and 6A, and from 9:30 a.m. to 4:00 p.m. for Routes 3, 4 and 6B. Saturday service hours on Route 5 are proposed to run from 9:15 a.m. to 3:45 p.m., again so that this route can efficiently transfer with Route 3.

Route-Specific Service Changes

The review committee also recommended redesign of several of the routes of the transit operation. Review committee members believed that system redesign provides answers to many of the problems currently facing the transit operation, and would accomplish the following objectives:

- Spacing Maritime Metro Transit routes in such a manner that they no longer overlap;
- Having school children dropped off on the correct side of the street;
- Adding more “dead time” to routes so that they do not fall behind;
- Establishing passenger shelters and bus stops away from storefronts in order to save time; and
- Adding transit service to the portion of the City of Manitowoc southwest of Interstate Highway 43, including possible recommendation of a western transfer point.

One specific portion of the two communities served by Maritime Metro Transit that would receive better service is the southwest portion of the City of Manitowoc, particularly areas southwest of Interstate Highway 43 that would be served by the reconfigured Route 5. In addition, incremental expansions to the service area are proposed for: the north, southwest and southeast portions of the City of Two Rivers (Route 1), as well as the west central portion of the City of Manitowoc (Routes 6A and 6B). All routes except for Routes 1 and 5 would begin at the downtown Intermodal Transfer Center. All routes except for Route 1 are anticipated to operate within 30 minutes per trip. Route 1 is anticipated to operate within one hour per trip. System redesign is recommended for implementation in 2017.

Map 10.1 indicates proposed generalized revisions to all of the routes.

In terms of route-specific service changes, the following changes to routes are recommended:

Route 1

Several modifications are recommended for Route 1. Route 1 would continue to begin at an outlying transfer point with Route 2. Changes recommended for Route 1 are as follows:

- On the outbound portion of the trip, an industrial area and other destinations in the southwestern portion of the City of Two Rivers would be better served.
- The Two Rivers Senior Center would be served twice: once on the outbound portion of the trip from Adams Street, and once on the inbound portion of the trip from the intersection of 17th and Washington Streets.
- More territory on the north side of the City of Two Rivers would be served, especially immediately west of the East Twin River.
- The south entrance of Neshotah Park/Beach would now be served by this route, along with other destinations in southeast Two Rivers.
- The Lester Public Library would continue to be served by Route 1.

In addition, one idea regarding Route 1 was considered but was not a candidate for implementation of route revisions. This idea involved having Route 1 serve Two Rivers High School at the beginning and at the end of the school day. This idea was considered but was eliminated by a working group in the City of Two Rivers, including representatives of the Two Rivers School District.

Route 2

Only one significant modification is recommended for Route 2, which would begin at the downtown Intermodal Transfer Center, and with the other end point being the remote transfer point with Route 1 on Johnston Drive. Route 2 would largely function as it does today. The exceptions are as follows:

- On the inbound segment of the route, buses would continue southbound on North 8th Street to Waldo Boulevard, then would travel east on Waldo Boulevard from North 8th Street to North 7th Street, then would travel southbound on North 7th Street from Waldo Boulevard to Chicago Street, and then would travel on Chicago Street from North 7th Street to North 10th Street, where the route would then follow its current path back to the Intermodal Transfer Center (buses currently travel on North 8th Street to Waldo Boulevard, Waldo Boulevard from North 8th Street to North 11th Street, North 11th Street from Waldo Boulevard to Huron Street, Huron Street from North 11th Street to North 9th Street, North 9th Street from Huron Street to Chicago Street, and Chicago Street from North 9th Street to North 10th Street).

Route 3

Several modifications are recommended for Route 3, which would begin at the downtown Intermodal Transfer Center, and with the other end point being the remote transfer point with the reconfigured Route 5 on South 39th Street. Changes recommended for Route 3 are as follows:

- The route has been reconfigured so that it no longer travels past the easternmost portion of the Harbor Town area. This route would now transfer with a reconfigured Route 5

south of the Walmart Supercenter. Some areas previously served by Route 3 (such as the Frontage Road and most of the Harbor Town area) would now be served by Route 5.

- Route 3 will continue to provide service to the front entrance of Shopko.
- The Walmart Supercenter will be served at its south end, and a passenger shelter will be placed at this location.
- Festival Foods will be served by the revised route.
- The Manitowoc County Job Center and Lakeshore Technical College (LTC) Manitowoc campus will be served by Route 3. Passengers can wait for the bus at Dewey Street. Alternatively, passengers will be able to push a button at the entrance to the Job Center that will let the driver of this route know that the bus needs to come in to the Job Center to pick up passengers. Passengers on Route 3 will also need to signal in a timely manner or communicate to the driver that they need to be dropped off at the Job Center.
- Street segments that have been served by Route 5 would now be served by Route 3; these segments include portions of Dewey Street, South 35th Street, Yorkshire Lane and South 30th Street.

Route 4

A few modifications are recommended for Route 4. Route 4 would begin and end at the downtown Intermodal Transfer Center. Changes recommended for Route 4 are as follows:

- The route has largely been reversed in order to have school children dropped off on the correct side of the street; this better serves three elementary schools, two junior high or middle schools, and one high school.
- Seven segments have been added to the route, including: Washington Street from South 12th Street to South 14th Street; South 14th Street from Washington Street to Marshall Street; Marshall Street from South 21st Street to South 24th Street; South 24th Street from Marshall Street to Division Street; Division Street from South 24th Street to South 18th Street; Viebahn Street from S. 14th Street to S. 18th Street; and Dewey Street from S. 23rd Street to S. 10th Street.
- Seven segments have been deleted from the route, including: South 12th Street from Washington Street to Marshall Street; Marshall Street from South 10th Street to South 14th Street; South 21st Street from Marshall Avenue to Grand Avenue; South 23rd Street from Grand Avenue to Dewey Street; Grand Avenue from S. 23rd Street to S. 21st Street; South 18th Street from Division Street to Viebahn Street; and South 10th Street from Dewey Street to Viebahn Street.

It should be noted that Route 4 would continue to serve UW Manitowoc and the Manitowoc Public Library. From an operations standpoint, the revised route has advantages in that it would only cross Dewey Street once and the railroad tracks twice.

Route 5

Route 5 is a completely different configuration from the current route. Route 5 would begin at an outlying transfer point with Route 3 on South 39th Street south of the Walmart Supercenter. Changes recommended for Route 5 are as follows:

- This route has been reconfigured so that it transfers with a shortened Route 3 on South 39th Street south of the Walmart Supercenter.
- This route (as reconfigured) would add transit service to the portion of the City of Manitowoc west of Interstate Highway 43.
- This route would travel in a clockwise fashion.
- The revised route would serve the following destinations: businesses on Frontage Road (with a stop in the Goodwill Store parking lot), Menard's, the Manitowoc Industrial Park (including Northern Labs), Silver Lake College (with a stop near Clare Hall), Americollect, the Manitowoc County Health and Rehabilitation Center, the apartment complex at the intersection of West Custer Street and Expo Drive, the clinics at the intersection of Expo Drive and South Rapids Road, and various businesses and services in the Harbor Town shopping complex.
- The revised route would eventually serve the Meijer supermarket west of the intersection of South Rapids Road and Dewey Street (with a stop on the store property once built and open for business in early 2018).

Routes 6A and 6B

A few modifications are recommended for Routes 6A and 6B. Routes 6A and 6B would begin and end at the downtown Intermodal Transfer Center. Changes recommended for Routes 6A and 6B are as follows:

- Both routes have been redesigned to drop to the southwest to serve certain areas covered by the current Route 5, specifically Custer Street between MacArthur Drive and South Rapids Road, which will serve a dense residential neighborhood, an industrial area, and Fleet Farm.
- The revisions to Routes 6A and 6B would also allow River's Bend Health and Rehabilitation Center to be served. However, passengers will need to call MMT to request pickup, and passengers on the bus will need to signal in a timely manner or communicate to the driver that they need to be dropped off at River's Bend. Due to safety concerns, the bus will not be allowed to stop and drop off passengers on Rapids Road across from River's Bend.
- With these revisions, the outbound portion of Routes 6A and 6B would travel on Franklin Street, South Water Street, Clark Street and Western Avenue, while the inbound portion of these routes would travel on North 18th Street, New York Avenue, North 11th Street, North 10th Street and Franklin Street.
- Routes 6A and 6B have been reconfigured so that they minimize overlapping with Route 2, as some of the return portion of both routes would now travel on North 18th Street, North 11th Street and North 10th Street north of Chicago Street (as opposed to North 5th Street, which led to much of the overlap).

Outside of what has been noted for both routes, there are no additional recommended changes for Route 6A, which also travels on portions of Waldo Boulevard and North 23rd Street; this has not changed with the route reconfiguration, and is unique to Route 6A.

For Route 6B, one recommended change is as follows:

- The special route deviation that has served Lutheran High School twice each weekday when school is in session has been eliminated.

Segments that are unique to Route 6B have not been changed, including North Rapids Road from Waldo Boulevard to Wildwood Drive, Wildwood Drive from North Rapids Road to Kellner Street, Kellner Street from Wildwood Drive to Menasha Avenue, and Menasha Avenue from Kellner Street to North 23rd Street.

ADA Paratransit Service

ADA paratransit service has been provided through a contract with Assist-to-Transport, LLC. This contract took effect on January 1, 2012, and was in effect through December 31, 2014; this contract included two annual renewal options that were utilized in calendar years 2015 and 2016. A request for proposals (RFP) for the provision of this service will be issued soon; a contract awarded through this RFP process would cover the period from January 1, 2017, through December 31, 2019, with two annual renewal options in calendar years 2020 and 2021, and with a 90 day termination clause if needed.

It is recommended that Maritime Metro Transit study the feasibility of bringing paratransit in-house during the period covered by this TDP. Other transit operations in the region have brought paratransit services in-house with tremendous success. Data presented in Chapter 9 which examined this alternative will need to be updated to current conditions at the time that such an analysis is conducted.

ADA paratransit service hours will remain unchanged, and will mirror regular service hours as recommended in this TDP. ADA paratransit service hours are recommended to be 5:00 a.m. to 8:00 p.m. for City of Manitowoc routes and 5:15 a.m. to 7:15 p.m. for Route 1 (Two Rivers) on weekdays, and are recommended to be 9:00 a.m. to 4:00 p.m. for City of Manitowoc routes and 9:15 a.m. to 3:30 p.m. for Route 1 on Saturdays.

The redesign of the transit system and its routes could have some increased impact on demand for ADA paratransit service, since the extension of transit service to previously unserved portions of the southwest side of the City of Manitowoc (via the reconfigured Route 5) could bring facilities which serve disabled individuals within three-quarters of a mile of this reconfigured route (the Manitowoc County Health and Rehabilitation Center is expected to be a particularly busy ADA paratransit trip generator in this area). This could also occur in areas where other routes expanded in coverage (such as portions of Routes 1, 6A and 6B), and could also occur if other routes get extended in the future. ADA riders should continue to receive priority over other users of the paratransit service in the Maritime Metro Transit System service area.

Map 10.2 shows the recommended ADA paratransit service area for Maritime Metro Transit.

FINANCIAL PLAN

A preliminary financial plan has been prepared which identifies projected operating costs and potential revenue sources. Operating costs for the fixed-route service were projected using adjustments for increases in costs in future years as well as the estimated operating characteristics of transit service from 2017 to 2021. Operating and administration costs are

assumed to increase by 3.0 percent each year between 2017 and 2021. The cost of the ADA paratransit service is assumed to increase at a rate of 2.0 percent per year between 2017 and 2021.

All of these cost elements are shown in Table 10.1. Costs shown in Table 10.1 for the fixed-route service assume that route changes will be implemented at the beginning of any given calendar year.

Table 10.1 does not include purchased transportation outside of ADA paratransit within the Maritime Metro Transit System service area; this line item is technically not part of the fixed-route and ADA component of the transit operation, and is largely subsidized by Manitowoc County. In addition, Table 10.1 does not include Maritime Metro Transit's mobility management activities, which returned to MMT in mid-2016, are completed through an agreement with the Aging and Disability Resource Center (ADRC) of the Lakeshore, and are funded through a Federal Section 5310 grant awarded by the Wisconsin Department of Transportation.

Projected revenues are also shown in Table 10.1. Federal Section 5311 revenues are assumed to be 49.12 percent of total expenses for all years covered by this TDP. State Section 85.20 revenues are assumed to be 13.40 percent of total expenses for all years covered by this TDP. These percentages are approximate, but the combined federal and state share of total expenses is expected to be 62.52 percent over the period covered by this TDP.

Municipal funding of transit begins at a base level of \$263,916 for the City of Manitowoc and \$99,055 for the City of Two Rivers in 2017. The combined municipal share to fund Maritime Metro Transit increases about 4 to 5 percent each year (a range between 4.01 percent and 4.80 percent) over the period from 2017 and 2021. Municipal funding of transit is projected to cover 19.17 percent of total expenses in 2017, 19.51 percent of total expenses in 2018, 19.71 percent of total expenses in 2019, 20.05 percent of total expenses in 2020, and 20.26 percent of total expenses in 2021.

Farebox revenues used to finance transit service are projected to begin at a base level of \$170,000 in 2017. Farebox revenues then are projected to stay flat between 2017 and 2018, increase by about 3.72 percent between 2018 and 2019, stay flat between 2019 and 2020, and increase by about 3.47 percent between 2020 and 2021. These increases are projected because it is recommended that the cost of the monthly pass increase in 2017, 2019 and 2021 (see the Fare Policy section which follows this discussion). Farebox funding of transit is projected to cover about 8.98 percent of total expenses in 2017, about 8.72 percent of total expenses in 2018, about 8.79 percent of total expenses in 2019, about 8.53 percent of total expenses in 2020, and about 8.58 percent of total expenses in 2021.

Other revenues (advertising and proprietary revenues, interest income, etc.) are expected to increase by two percent between 2017 and 2018, stay flat between 2018 and 2019, increase by two percent between 2019 and 2020, and stay flat between 2020 and 2021. This revenue source is projected to be about 8.6 to 9.4 percent of Maritime Metro Transit's budget for all years covered by this TDP.

Capital expenditures are identified in Table 10.3. In general, Federal grants (covering 80 percent of the cost of capital items) and City of Manitowoc matching funds (covering the remaining 20 percent of the cost of capital items) will cover capital costs.

Table 10.1: Proposed Financial Plan

| Item | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|-------------|-------------|-------------|-------------|-------------|
| Fixed-Route Operations and Administration | \$1,803,510 | \$1,857,615 | \$1,913,344 | \$1,970,744 | \$2,029,866 |
| ADA Paratransit Service | \$90,000 | \$91,800 | \$93,636 | \$95,509 | \$97,419 |
| Total | \$1,893,510 | \$1,949,415 | \$2,006,980 | \$2,066,253 | \$2,127,285 |

| Source | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|
| Federal - Section 5311 | \$930,076 | \$957,536 | \$985,811 | \$1,014,926 | \$1,044,904 |
| State - Section 85.20 | \$253,657 | \$261,146 | \$268,858 | \$276,798 | \$284,974 |
| City of Manitowoc | \$263,916 | \$276,582 | \$287,677 | \$301,210 | \$313,391 |
| City of Two Rivers | \$99,055 | \$103,809 | \$107,973 | \$113,052 | \$117,624 |
| Farebox Revenues | \$170,000 | \$170,000 | \$176,318 | \$176,318 | \$182,443 |
| Other Revenues | \$176,806 | \$180,342 | \$180,342 | \$183,949 | \$183,949 |
| Total | \$1,893,510 | \$1,949,415 | \$2,006,980 | \$2,066,253 | \$2,127,285 |

Source: Bay-Lake Regional Planning Commission, 2016.

FARE POLICY

A fare policy has been recommended for Maritime Metro Transit to provide multi-year guidance to the staff, the City of Manitowoc Public Infrastructure Committee, and to the Common Council for setting and changing fares. The fare policy has considered goals and objectives established for the TDP, where feasible. The fare policy also attempts to make fares as affordable as possible for transit users, while at the same time keeping the proportion of farebox revenue to total expenses at a consistent level (around 8 to 9 percent) over the period covered by this TDP. The recommended fares are indicated in Table 10.2, along with the existing 2016 fare structure.

The current adult price of the monthly pass is low compared to nearly all other urban transit operations in northeastern Wisconsin (the exception being GO Transit in Oshkosh, which has a current monthly pass cost similar to Maritime Metro Transit at \$25). It is recommended that the monthly pass increase to \$26 in 2017, to \$28 in 2019, and to \$30 in 2021. Maritime Metro Transit could explore instituting monthly passes with lower costs for students (as is done at three transit operations in northeastern Wisconsin) and for the elderly and disabled (for fixed-route service, as is done at two transit operations in northeastern Wisconsin) over the period covered by this TDP.

The adult cash fare would remain at \$1.50 over the period covered by this TDP. The student cash fare would remain at \$1.00 over the period covered by this TDP.

The student “freedom pass” (which covers the months of June through August) is recommended to remain at \$30 throughout the period covered by this TDP.

Transit tickets for adult and student riders (which are sold in packs of ten) would remain at \$12 over the period covered by this TDP.

The “day pass” (good for unlimited rides on MMT for a single day of operation) is recommended to remain at \$4 over the period covered by this TDP. The “day pass” will continue to be

marketed to tourists (particularly tourists arriving on the Car Ferry), but will also be marketed to local residents who need transit services on an irregular basis.

The school group/day care cash fare (per person) is recommended to remain at 50 cents over the period covered by this TDP.

Children age 4 and younger riding with an older responsible family member or babysitter would continue to ride for free. In addition, transfers would continue to be provided free of charge.

Maritime Metro Transit will maintain discounted cash fares for senior citizens and for individuals with disabilities of all ages during all hours of operation, in accordance with (and, to some extent, exceeding) Federal law. The discounted cash fare for these passengers will not exceed 50 percent of the full adult cash fare.

The cash fare for complementary paratransit service provided in accordance with the Americans with Disabilities Act of 1990 (ADA) will continue to be \$3.00 over the period covered by this TDP, or double the adult cash fare of \$1.50.

Table 10.2: Recommended Fare Structure

| Fare Category | Current Fare | Recommended Fare | | | | |
|--|--------------|------------------|---------|---------|---------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Monthly Pass | \$25.00 | \$26.00 | \$26.00 | \$28.00 | \$28.00 | \$30.00 |
| Adult Cash Fare | \$1.50 | \$1.50 | \$1.50 | \$1.50 | \$1.50 | \$1.50 |
| Student Cash Fare | \$1.00 | \$1.00 | \$1.00 | \$1.00 | \$1.00 | \$1.00 |
| Student "Freedom Pass" (June - August) | \$30.00 | \$30.00 | \$30.00 | \$30.00 | \$30.00 | \$30.00 |
| Bus Tickets (Adults and Students - Pack of 10) | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$12.00 |
| Day Pass (unlimited rides on one service day) | \$4.00 | \$4.00 | \$4.00 | \$4.00 | \$4.00 | \$4.00 |
| Senior Citizen Cash Fare* | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 |
| Persons with Disabilities** | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 | \$0.75 |
| School Groups/Daycares (per person) | \$0.50 | \$0.50 | \$0.50 | \$0.50 | \$0.50 | \$0.50 |
| Children Age 4 and Younger*** | Free | Free | Free | Free | Free | Free |
| Transfers (with Fare Payment) | Free | Free | Free | Free | Free | Free |
| ADA Paratransit Fare | \$3.00 | \$3.00 | \$3.00 | \$3.00 | \$3.00 | \$3.00 |

*With Medicare Card

**With Metro Reduced Fare Card

***When accompanied by an older responsible family member or babysitter.

Source: Maritime Metro Transit System, 2016; and Bay-Lake Regional Planning Commission, 2016.

Discounted fares are offered through the purchase of monthly passes, as well as through the purchase of transit tickets for adults and "freedom passes" for students in the summer. Discounts in the case of monthly passes are approximately 58.3 percent today, and are anticipated to be approximately 56.7 percent in 2017 and 2018, 53.3 percent in 2019 and 2020, and 50.0 percent in 2021 (assuming that purchasers ride 40 times per month). The monthly pass provides the greatest benefit to the most frequent users of the transit system.

Transit management should continue to approach business and industry leaders in the transit service area to promote giving employees monthly passes as a tax-deductible benefit of employment.

CAPITAL IMPROVEMENTS

Table 10.3 lists capital projects for Maritime Metro Transit for the period covered by this TDP. Of these projects, three capital items are recommended for 2017, one capital item is recommended for 2018, three capital items are recommended for 2019, two capital items are recommended for 2020, and no capital items are recommended for 2021.

Table 10.3: 2017 – 2021 Capital Improvement Program, Maritime Metro Transit System

| Project Description | Quantity | Year |
|--|-----------------|-------------|
| Implementation of Route Changes per TDP (Bus Stop Signage, Passenger Shelter Acquisition, and Concrete for ADA-Compliant Bus Stops and Bases for Passenger Shelters) | 1 | 2017 |
| Acquisition of Replacement Support Vehicle | 1 | 2017 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 4 | 2017 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 2 | 2018 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 2 | 2019 |
| Acquisition of Shop Equipment | 1 | 2019 |
| Acquisition of Replacement Minibuses to Provide ADA Paratransit Service | 3 | 2019 |
| Acquisition of Replacement 35-Foot Heavy Duty Diesel Low Floor Buses | 1 | 2020 |
| Acquisition of Replacement Van to Provide ADA Paratransit Service | 1 | 2020 |

Source: Maritime Metro Transit System, 2016; and Bay-Lake Regional Planning Commission, 2016.

2017 Projects

Three capital projects are recommended for calendar year 2017. The 2017 projects are as follows:

- Implementation of route changes in this TDP will be a capital project in 2017. With the implementation of this TDP, Maritime Metro Transit expects some changes to each of its routes, including extensive changes to a few of its routes. Activities involved with this implementation include bus stop signage, passenger shelter acquisition, and pouring of extensive concrete at various locations for ADA-compliant bus stops and bases for passenger shelters resulting from the routing changes. Other forms of implementation will include mapping and operations planning. The City of Manitowoc's Department of Public Infrastructure will likely be involved with sign relocation/new sign installation, passenger shelter relocation and installation, etc., as they have done in the past. The location of recommended passenger shelters implemented due to these routing changes can be found on Map 10.3.
- One (1) replacement support vehicle is expected to be purchased in 2017.
- Four (4) fixed-route buses (with a length of 35 feet each) are expected to be purchased in 2017. These will be heavy duty diesel low floor buses. These new buses will be used to replace four older buses that will have exceeded their life expectancy at the time of

replacement. The new buses will provide a better transportation experience for passengers as well as reduce maintenance and repair costs. From the time a purchase order is issued for new buses, it typically takes one year for delivery.

2018 Projects

One capital project is recommended for calendar year 2018. The 2018 project is as follows:

- Two (2) fixed-route buses (with a length of 35 feet each) are expected to be purchased in 2018. These will again be heavy duty diesel low floor buses. These new buses will be used to replace two older buses that will have exceeded their life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2017 fixed-route bus acquisitions.

2019 Projects

Three capital projects are recommended for calendar year 2019. The 2019 projects are as follows:

- Two (2) fixed-route buses (with a length of 35 feet each) are expected to be purchased in 2019. These will again be heavy duty diesel low floor buses. These new buses will be used to replace two older buses that will have exceeded their life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2017 and 2018 fixed-route bus acquisitions.
- Acquisition of shop equipment is expected to occur in 2019.
- Three (3) minibuses to provide ADA paratransit service are expected to be purchased in 2019. These minibuses will be used to replace three older minibuses that will have exceeded their life expectancy at the time of replacement. The new minibuses will provide a better transportation experience for passengers as well as reduce maintenance and repair costs.

2020 Projects

Two capital projects are recommended for calendar year 2020. The 2020 projects are as follows:

- One (1) fixed-route bus (with a length of 35 feet) is expected to be purchased in 2020. This will again be a heavy duty low floor bus. This new bus will be used to replace one older bus that will have exceeded its life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2017, 2018 and 2019 fixed-route bus acquisitions.
- One (1) van to provide ADA paratransit service is expected to be purchased in 2020. This van will be used to replace an older van that will have exceeded its life expectancy at the time of replacement. As with the minibuses to be acquired in 2019, the new van will provide a better transportation experience for passengers as well as reduce maintenance and repair costs.

2021 Projects

No capital projects are recommended for calendar year 2021.

For most recommended capital projects, it is anticipated that the Federal Transit Administration (FTA) would provide 80 percent of transit capital funds for each purchase, while the City of Manitowoc would provide the remaining 20 percent of funding for these capital purchases. The federal funding for capital purchases would normally result from the FTA Section 5311 program, but could also occasionally come from the FTA Section 5339 (Buses and Bus Facilities Discretionary Grant) program, the Congestion Mitigation and Air Quality improvement program (CMAQ), or other FTA programs. In the case of the implementation of route changes, local funding will likely be utilized for this capital item, but every attempt will be made to secure outside funding to complete that project.

MARKETING RECOMMENDATIONS

The best marketing involves providing services that are desired by potential users. The service expansions recommended in this chapter are a part of marketing. Service expansions and enhancements are elements of marketing because they provide desirable service to those who will use it. The monitoring program discussed in this chapter supports marketing because on-time performance is an important characteristic of good service. In order to provide good service, it is essential to have information that may be used by management for evaluation of the service and continuous improvement of that service. The City of Manitowoc Public Infrastructure Committee and Maritime Metro Transit management and staff must maintain a customer orientation in every implementation activity. Some individual promotional activities have been identified that will enhance these implementation and marketing efforts.

Maritime Metro Transit should work with the *Herald Times Reporter* and with other local media outlets to provide periodic human interest stories. Human interest stories can be used to reinforce this understanding and to inform residents of the benefits provided by Maritime Metro Transit. Examples of good stories would involve individuals who are able to work or participate in post-secondary education because of the availability of public transportation service or someone with a disability who is able to access such opportunities because of Maritime Metro Transit. These could be users of either the fixed-route service or the ADA paratransit service.

In newspaper and radio advertisements, employees from various sectors of the economy could be featured giving testimonials concerning how transit is a useful service in getting them to and from their jobs. Such testimonials should be developed into persuasive advertising by a professional agency, and could be used in newspaper display ads and radio spots as part of the transit operation's advertising budget. Regular newspaper advertising should educate the public concerning the environmental benefits of using transit and concerning the real total costs of operating an automobile. All new services should be marketed through newspaper and radio advertising toward affected populations (such as employees and shoppers for Saturday afternoon service).

Maritime Metro Transit should make use of press releases for any significant event or accomplishment of any employees. Press releases should be prepared and disseminated to the media announcing new schedules, routes, fares, services, community involvement activities, outstanding employees, safety record, major staff changes, awards, etc. However, the media should not be overwhelmed with too much information that is not meaningful and might

otherwise dilute the attention paid to other more important matters pertinent to the transit operation.

Signage on buses should be used to market special offers or new services of the transit system. The availability of transit schedules and informational fliers should continue to increase at key service points throughout the community, including areas where large concentrations of elderly and disabled persons reside, banks, hotel and motel lobbies, shopping centers, schools, libraries, the Manitowoc County Job Center, the Aging and Disability Resource Center (ADRC) of the Lakeshore, the Manitowoc County Courthouse, the Division of Motor Vehicles station, and various public buildings. Maps of individual routes should be published, and should be available to the public either at a display booth or in a pamphlet form. Transit service and transit promotional programs should continue to be coordinated with business promotions. Maritime Metro Transit should participate in statewide marketing campaigns when they occur. Maritime Metro Transit should also consider targeted marketing in specific portions of the transit service area during street construction periods.

Maritime Metro Transit should increase use of its Facebook page to promote its services and inform the public of changes to and improvements in service. Maritime Metro Transit can also inform the public regarding its activities via Twitter, either by setting up its own Twitter account or by utilizing the City of Manitowoc's existing Twitter account. Finally, Maritime Metro Transit should return to publishing a brief (maximum two pages) periodic newsletter for its customers informing them of happenings at the transit operation.

MONITORING PROGRAM

A monitoring program is essential to determining the efficiency and effectiveness of the service that is being provided. Monthly and quarterly reports should be prepared by the Maritime Metro Transit staff and presented to the City of Manitowoc Public Infrastructure Committee. Information contained in these reports should include on-time performance, productivity and costs.

In the ridership opinion survey conducted for this TDP, respondents emphasized the need for a transit system to run on time, but not ahead of schedule. While Maritime Metro Transit received above average ratings for its on-time performance, this attribute ("waiting time for the bus") was ranked the lowest of the ten rated attributes of transit service, indicating that there is much room for improvement. Maritime Metro Transit staff has noted on multiple occasions that on-time performance can be problematic, especially during weekday afternoons.

Maritime Metro Transit should institute a formal program to monitor and track on-time performance. If the transit system's on-time performance (defined by trips running no more than five minutes behind the scheduled time) is less than 95 percent, then operational changes should be considered. Similar tracking should be instituted to assure that no fixed-route trips operate ahead of schedule. Additional monitoring is needed for the paratransit operation to assure that at least 95 percent of trips are within 30 minutes of the requested time for pickup for ADA paratransit service. Exceptions to these standards should be made under unusual circumstances, such as poor weather conditions, rail or boat traffic, mechanical breakdowns, full loads, etc.

Monitoring of whether the transit system meets these standards should exclude trips made which involve these circumstances in order to ensure a safe transit operation.

Productivity measures for both fixed-route and demand response services should be reported monthly. Productivity should be reported by route, indicating the number of passengers per revenue hour and per revenue mile. The actual productivity should be compared to the productivity standards that have been established in Standard 2.1.2 within Chapter 8 of this TDP.

In order to monitor productivity for individual routes, passenger ridership data should be collected on a continuous basis. This includes equipping buses with recording fare boxes. The data which are collected will help the Maritime Metro Transit staff to better understand detailed ridership patterns and characteristics over long periods of time.

Cost information also should be reported quarterly. The average net cost per passenger should be reported, along with the cost per passenger by route, ridership by route, and the average fare. Annual reporting should indicate not only routes, but also route segments that have excessive net costs per passenger. The City of Manitowoc Public Infrastructure Committee can then determine the policy direction which will be taken, and recommend appropriate funding decisions for the Common Council.

Finally, passenger opinion and boarding and alighting surveys should be conducted on a biennial basis in order to gather more frequent data and perceptions; these surveys can be staggered in different years if it assists with work load. Riders on both fixed-route and demand response services should be surveyed. Questions for the passenger opinion survey should be similar to those for the 2015 survey so that changes in demographics and opinion of the ridership can continue to be longitudinally analyzed.

LAND USE PLANNING RECOMMENDATIONS

Land use has a strong relationship with transportation demand and travel patterns. Land use planning and design play an important role in determining the viability of public transportation and the feasibility of serving portions of the transit service area. As stated in Objective 5.1 in Chapter 8 of this TDP, the Maritime Metro Transit staff should play an important role in land use decisions in the transit service area. The Maritime Metro Transit staff should have an opportunity to comment as appropriate on land use proposals which are located within the transit service area. Design of subdivisions, offices and commercial centers within the transit service area should include access for transit vehicles and accessible walkways to and from potential bus stops. In addition, Maritime Metro Transit staff (Transit Manager and Director of Public Infrastructure) should continue to serve on the City of Manitowoc Plan Commission, and should also monitor agendas of the City of Two Rivers Plan Commission and comment as appropriate on proposals that may have an impact on transit's ability to serve that community.

The Maritime Metro Transit staff should comment on proposed locations of major trip generators. For major transit trip generators that are located outside the transit service area, comments will note that transit service might not be provided to meet the needs of the proposed facility. Key transit trip generators should be located within the transit service area. Any transit service to key generators outside the transit service area shall be evaluated based on the system productivity thresholds identified in Standard 2.1.2 of the Goals, Objectives and Standards for

this TDP (Chapter 8), and will be subject to the local governmental unit financing its share of such service.

The development codes of the City of Manitowoc should be reviewed to ensure that appropriate incentives are provided to promote the use of transit. Development requirements and incentives for alternate modes of transportation are major policy issues that must be addressed in the City of Manitowoc and elsewhere in the transit service area. Design requirements are related to incentives for alternate modes of transportation. Design of new buildings should incorporate needs associated with good transit service. These are not limited to dimensions to provide easy access for buses, but also space for bus stops and easy pedestrian access to the facility from the transit stop. In many cases, street design has created a barrier between transit service and the facilities that are meant to be served. Frequently, good pedestrian access is overlooked. It is important to note that each transit patron is a pedestrian at both ends of the transit trip.

One of the best land use strategies that can be implemented to support public transit systems involves the creation of sufficient densities of people to use the system. If places of employment and residences are located in proximity to create a concentration of people at both origins and destinations, then it is possible to have an efficient transit service. The Maritime Metro Transit System service area has both employment and residential developments that are dispersed throughout the community. Other communities have found that recommended minimum densities of development to support public transportation are seven dwelling units per acre for residential development, and a floor area ratio of 1.0 for commercial and office development. Mixed-use activity centers will also support the use of public transportation. If several opportunities are available for people to shop, eat, and conduct personal business near their place of employment, then the need for a private automobile will be reduced. This need for use of a private automobile may be further reduced by including residential development as part of high-density, mixed-use activity centers. Neighborhood commercial developments with residential neighborhoods may reduce the need for automobile trips. The existence of neighborhood commercial centers may also reduce the need to use a private automobile to travel to one's place of employment. If a person is able to walk to a neighborhood store, there is no longer a need to drive a car to work and make a stop on the way home. Therefore, public transportation may become more attractive as a means of traveling to and from work.

One of the first considerations for design of developments is location. Transit service should be a primary consideration for the location of developments. Residential development would ideally be located within public transportation corridors. These corridors may or may not have existing service, but residential development should be located and designed to support the extension of service where it does not exist. The other consideration of location is proximity to activity centers. Mixed-use activity centers both support the use of public transportation and reduce dependence on private automobiles.

Developments along public transportation corridors should have a transit-oriented design rather than an automobile-oriented design. Since each transit customer is a pedestrian as soon as he or she leaves the bus, pedestrian facilities should be emphasized. A transit-oriented design would have a relatively small setback from the transit corridor, in contrast to automobile-oriented

designs, which frequently have large parking lots between the street and the building. Large parking lots and lack of pedestrian walkways often discourage the use of public transportation. In addition to minimum setbacks, the city ordinance should specify a maximum setback within the public transportation corridor. The location of parking facilities within the public transportation corridor should also be addressed. Where feasible, the city ordinance should require that parking be provided at the rear and possibly at the side of the building. The front of the building should be oriented to the street with a maximum setback that is close to the street and is oriented to public transportation and pedestrians.

Pedestrian access is very important for users of public transportation. This is particularly true in residential developments, where subdivisions are often designed with circuitous streets. A bus stop on a collector or arterial street may be very close to the residences within a subdivision, but the walking distance may be excessive because there is no direct access. Pedestrian access should be provided in the proximity of bus stops to residential developments. One strategy that can be used to promote such access is through the use of paths that are short cuts between blocks. These paths may also be combined with bicycle facilities, which further reduce dependence on private automobiles for travel. The alternative to providing convenient pedestrian access to arterial and collector streets is to operate transit service through the neighborhood streets. However, under this alternative strategy, the transit route then becomes circuitous and inefficient.

Finally, design considerations to support public transportation should be incorporated into the design and construction of any development. Streets that will be designed as transit routes must have adequate turning radii at intersections. These streets must also have sidewalks and bus stops. The bus stops may or may not have shelters, depending on the demand at any particular stop. The stops and sidewalks should connect with other walkways or paths to provide easy access to residential developments and to commercial development. The objective in establishing these design features is to provide efficient circulation patterns, both for transit routes and for pedestrians who are walking to and from the transit route.

OTHER RECOMMENDATIONS

Study the Feasibility of Bringing Paratransit Services In-House

Maritime Metro Transit should study the feasibility of bringing paratransit services in-house. This can occur around the time when the post-2016 request for proposals (RFP) for paratransit services (including ADA service), is issued. While these services are excellent today, including this recommendation in the TDP provides an option for evaluation of these services in the future if they become more costly and/or if the quality of these services deteriorates.

Improvements to Transit Management

A full-time Operations Supervisor is recommended for Maritime Metro Transit. Maritime Metro Transit will be adding a full-time Operations Supervisor to its staff in 2017.

Mid-Course Review

A “mid-course review” of the TDP should be conducted in 2019. This will allow the TDP to be a more flexible document in terms of being open to potential opportunities that may present

themselves before the next TDP is prepared. Such a “mid-course review” could include additional route revisions to respond to land use and transportation changes in the transit service area since the TDP was adopted.

IMPLEMENTATION STRATEGY

The following is a recommended implementation strategy for elements in this TDP:

2016

- Bring mobility management services in-house (took effect in July 2016).

2017

- Raise monthly pass price from \$25 to \$26.
- Implement route revisions recommended in this TDP (bus stop signage, passenger shelter acquisition, pouring of extensive concrete at various locations for ADA-compliant bus stops and bases for passenger shelters resulting from the routing changes, mapping, operations planning, etc.).
- Add a full-time Operations Supervisor to the Maritime Metro Transit staff.
- Replace one (1) support vehicle.
- Acquire four (4) replacement 35-foot heavy duty diesel low floor buses.
- Conduct passenger opinion survey (following implementation of route revisions).

2018

- Acquire two (2) replacement 35-foot heavy duty diesel low floor buses.
- Conduct boarding and alighting survey.

2019

- Raise monthly pass from \$26 to \$28.
- Acquire two (2) replacement 35-foot heavy duty diesel low floor buses.
- Acquire shop equipment.
- Acquire three (3) replacement minibuses to provide ADA paratransit service.
- Conduct passenger opinion survey.
- Conduct “mid-course review” of the TDP.

2020

- Acquire one (1) replacement 35-foot heavy duty diesel low floor bus.
- Acquire one (1) replacement van to provide ADA paratransit service.
- Conduct boarding and alighting survey.
- Begin work on a TDP Update.

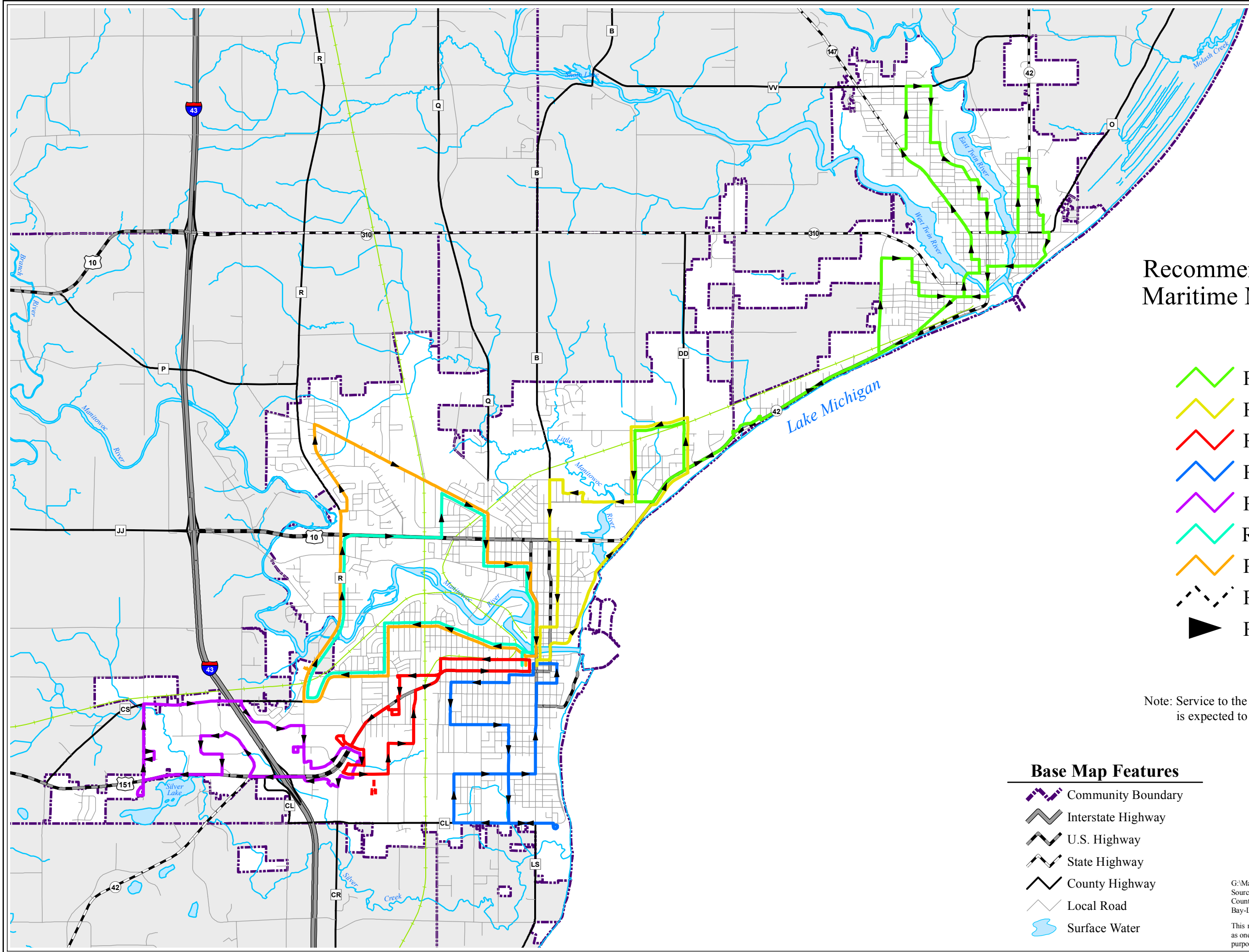
2021

- Raise monthly pass from \$28 to \$30.
- Conduct passenger opinion survey.
- Conduct public opinion survey (suggested).
- Complete updated TDP for the 2022 – 2026 planning period.

Unknown Year

- Study the feasibility of bringing paratransit services in-house (when an RFP for paratransit services, including ADA service, is issued).
- Monitor management changes that took place in 2017.

Unless otherwise noted, fare and service changes for 2017 through 2021 and financial items should be implemented on January 1 of the year in question. Other activities will be implemented at some point during the year in question at the discretion of Maritime Metro Transit staff.



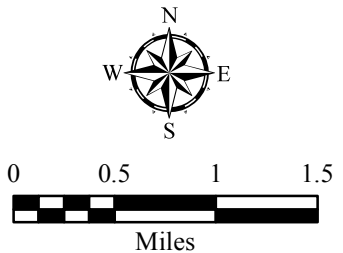
Recommended Route Structure Maritime Metro Transit System

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6A
- Route 6B
- Route Deviation
- Route Travel Direction

Note: Service to the Meijer Supermarket off of Route 5 is expected to begin in early 2018.

Base Map Features

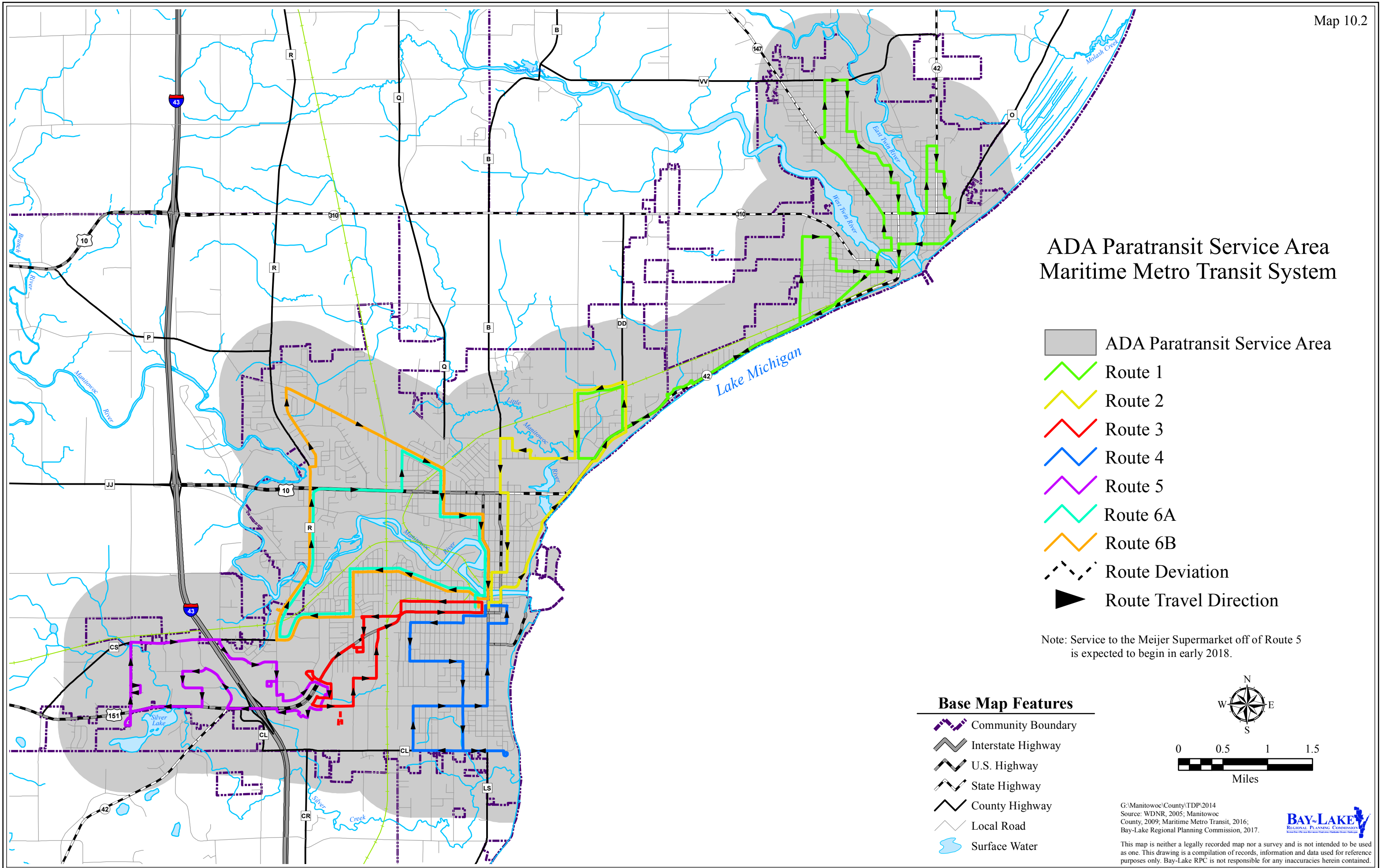
- Community Boundary
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water

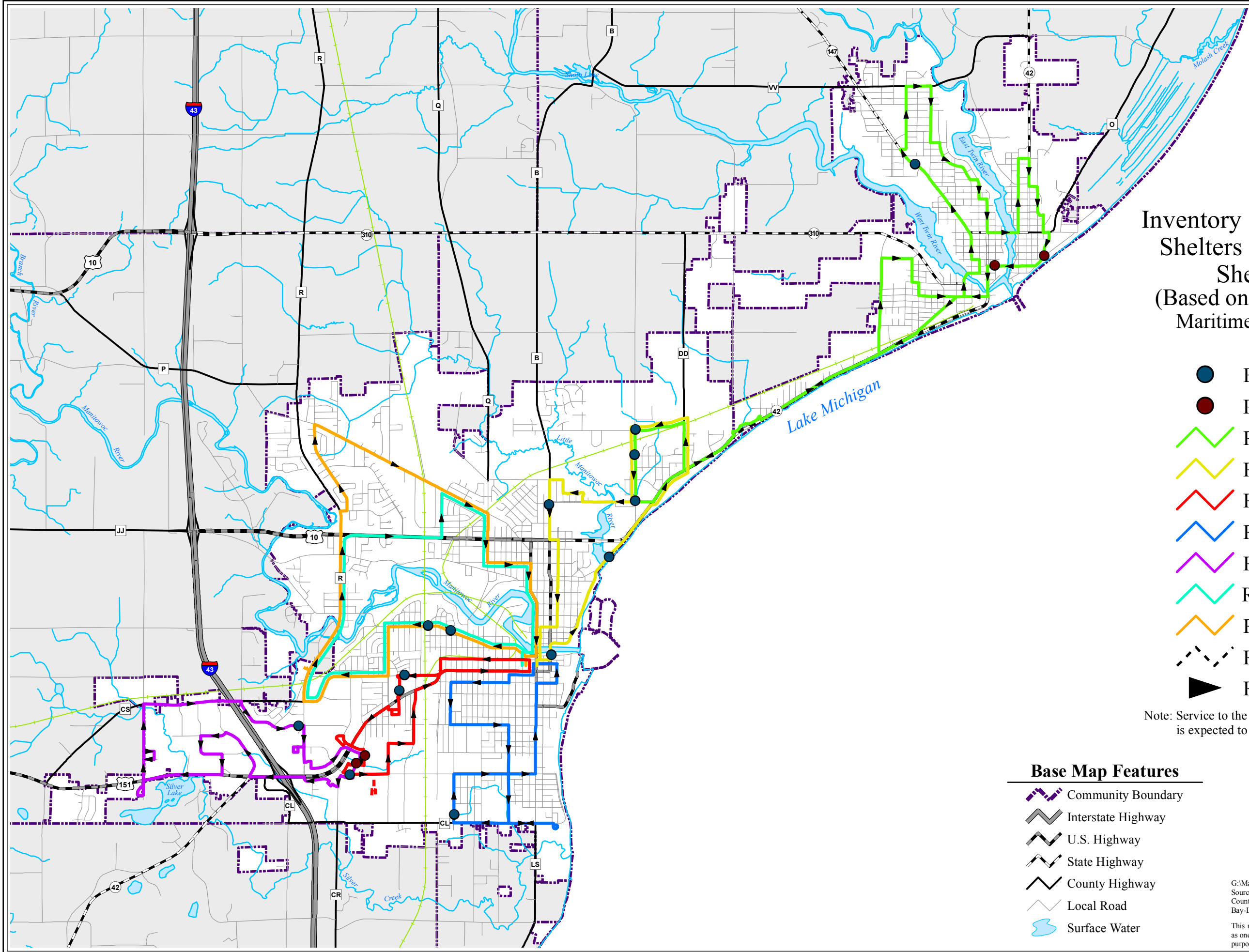


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Source: WDNR, 2005; Manitowoc
County, 2009; Maritime Metro Transit, 2016;
Bay-Lake Regional Planning Commission, 2017.

BAY-LAKE
REGIONAL PLANNING COMMISSION

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.





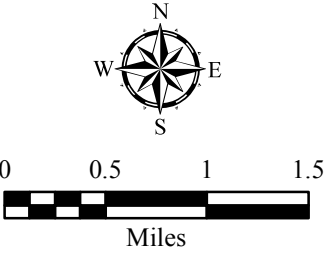
Inventory of Existing Passenger Shelters and Recommended Shelter Locations
(Based on New Route Structure)
Maritime Metro Transit System

- Existing Shelter
- Proposed Shelter
- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6A
- Route 6B
- Route Deviation
- Route Travel Direction

Note: Service to the Meijer Supermarket off of Route 5 is expected to begin in early 2018.

Base Map Features

- Community Boundary
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Local Road
- Surface Water



G:\Manitowoc\County\TDP\2014
Source: WDNR, 2005; Manitowoc County, 2009; Maritime Metro Transit, 2016; Bay-Lake Regional Planning Commission, 2017.

BAY-LAKE
REGIONAL PLANNING COMMISSION

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APPENDIX A
RESPONSES TO THE 2015 MARITIME METRO TRANSIT
PASSENGER OPINION SURVEY

2015 MARITIME METRO TRANSIT SYSTEM PASSENGER OPINION SURVEY

The Maritime Metro Transit System is conducting this survey to learn about your travel on the bus and your attitudes toward our transit service. Please take a few minutes to answer the following survey questions. Your input is very important, and all responses will remain completely confidential.

1. What is the purpose for *this* trip? (Check all that apply)

| | | |
|--------------------|--------------------------|---------------------------------|
| 25.8% Shopping | 8.5% Social/Recreational | 1.9% Human Service Agency Visit |
| 10.9% Medical | 12.4% Personal Business | 1.0% Nutrition/Senior Center |
| 24.4% Work Related | 18.3% School | 16.9% Other |

2. How would you have made *this* trip if the bus were not available? (Check all that apply)

| | | |
|----------------------|-------------------------------|---------------------------|
| 3.5% Drive a Vehicle | 31.5% As Passenger in Vehicle | 39.5% Walk |
| 14.9% Bicycle | 20.7% Taxi | 16.4% Would not Make Trip |
| 5.3% Other | | |

If you have completed this survey earlier today, stop at this point; otherwise please continue.

3. Gender of respondent:

| | |
|------------|--------------|
| 42.7% Male | 57.3% Female |
|------------|--------------|

4. What is your age category?

| | | | |
|------------------|----------------|----------------|----------------|
| 14.0% Under 16 | 4.0% 16 to 17 | 10.4% 18 to 24 | 14.0% 25 to 34 |
| 15.7% 35 to 44 | 12.0% 45 to 54 | 12.0% 55 to 59 | 6.4% 60 to 64 |
| 11.4% 65 or Over | | | |

5. What is your ethnic background? (Check all that apply)

| | | |
|---------------------|-----------------------|----------------------|
| 75.4% White | 5.5% Native American | 6.5% Hispanic Origin |
| 3.2% Asian American | 8.7% African American | 0.7% Other |

6. How many persons live in your household, including you?

| | | | | |
|---------|---------|---------|---------|-----------------|
| 39.1% 1 | 17.2% 2 | 14.1% 3 | 15.5% 4 | 14.1% 5 or More |
|---------|---------|---------|---------|-----------------|

7. What is your current employment status? (Check all that apply)

| | | |
|----------------------------|--------------------------------|---------------|
| 15.9% Unemployed | 2.3% Homemaker | 17.9% Student |
| 23.8% Full-Time Employment | 12.9% Retired | |
| 22.2% Part-Time Employment | 8.9% Other (various responses) | |

8. What is your annual *household* income category?

| | | | | | |
|-------|----------------------|-------|----------------------|-------|----------------------|
| 51.9% | Under \$10,000 | 25.5% | \$10,000 to \$19,999 | 13.4% | \$20,000 to \$29,999 |
| 2.5% | \$30,000 to \$39,999 | 1.7% | \$40,000 to \$49,999 | 2.5% | \$50,000 to \$59,999 |
| 2.5% | \$60,000 or More | | | | |

9. How many times per week do you ride the bus? (a round trip equals 2 times)

| | | | | | |
|-------|----------------|-------|--------------------|-------|--------------|
| 2.0% | Less than Once | 12.2% | 1 to 2 Times | 43.1% | 3 to 6 Times |
| 20.0% | 7 to 10 Times | 22.7% | More than 10 Times | | |

10. How long have you been riding the bus?

| | | | | | |
|-------|----------------|-------|------------------|-------|--------------|
| 18.6% | 1 Year or Less | 15.3% | 1 to 2 Years | 26.1% | 3 to 5 Years |
| 9.8% | 6 to 10 Years | 30.2% | 10 or More Years | | |

11. How many blocks do you live from a bus stop?

| | | | | | |
|-------|-----------|-------|---|-------|-----------|
| 50.5% | 1 or Less | 21.5% | 2 | 11.4% | 3 |
| 5.9% | 4 | 3.8% | 5 | 6.9% | 6 or More |

12. Was the availability of public transportation a factor in your choice of housing location?

| | | | |
|-------|-----|-------|----|
| 61.8% | Yes | 38.2% | No |
|-------|-----|-------|----|

13. Do you have a driver's license?

| | | | |
|-------|-----|-------|----|
| 22.3% | Yes | 77.7% | No |
|-------|-----|-------|----|

14. Did you have a vehicle available for this trip?

| | | | |
|-------|-----|-------|----|
| 17.0% | Yes | 83.0% | No |
|-------|-----|-------|----|

15. How many vehicles do you have in your household?

| | | | | | | | |
|-------|---|-------|---|-------|---|------|-----------|
| 58.9% | 0 | 23.0% | 1 | 12.4% | 2 | 5.7% | 3 or More |
|-------|---|-------|---|-------|---|------|-----------|

16. Do you have a special need that prevents you from using the bus to get to all of your destinations?

| | | | |
|------|-----|-------|----|
| 8.2% | Yes | 91.8% | No |
|------|-----|-------|----|

If yes, please explain (Ten unique responses were listed).

17. How would you rate the following factors about Maritime Metro Transit?

1 = Poor

2 = Neutral

3 = Good

Interior cleanliness of bus: 2.81

Exterior cleanliness of bus: 2.75

Waiting time for bus: 2.43

Courtesy of driver: 2.81

Bus service information: 2.86

Cost of service: 2.77

Length of ride time: 2.71

Passenger safety: 2.84

Ease of understanding bus routes: 2.79

Hours of service: 2.48

18. Should the transit service hours be extended?

60.9% Yes

39.1% No

If yes, extended on what days and at what times? (137 of 162 who responded “yes” provided a written response to this question).

19. Should the transit service area be expanded?

33.9% Yes

66.1% No

If yes, what new areas should be served by the transit operation? (51 of 87 who responded “yes” provided a written response to this question).

Additional Comments:

45 Unique Written Responses

Please return survey and pencil to survey taker on the bus. Thank you for your cooperation!

APPENDIX B
MEMBERS OF THE MARITIME METRO TRANSIT DEVELOPMENT
PROGRAM (TDP) REVIEW COMMITTEE

**MEMBERS OF THE MARITIME METRO TRANSIT DEVELOPMENT PROGRAM
(TDP) REVIEW COMMITTEE**

Christopher Able
Aldersperson, City of Manitowoc (through March 2016)

Jan Algozine
Student Life Office, Silver Lake College

Jim Brey
Aldersperson, City of Manitowoc (starting April 2016)

Linda Grider
Maritime Metro Transit Mobility Manager
(Previously with the Aging and Disability Resource Center of the Lakeshore)

Steve Hirshfeld
Wisconsin Department of Transportation, Bureau of Transit, Local Roads, Railroads and Harbors

Tom Keil
Holiday House Executive Director and Manitowoc Transit Commission

Marlo Kohlmann
Maritime Metro Transit Staff

Dan Koski
City of Manitowoc Department of Public Infrastructure

Matt Kouba
Maritime Metro Transit Driver

Jim Muenzenmeyer
Maritime Metro Transit Manager

Pat Naumann
Maritime Metro Transit Rider and Manitowoc Transit Commission

Ben Nolen
Maritime Metro Transit Driver (through November 2015)

Janet Paszkiewicz
Manitowoc Transit Commission (through April 2016)

**MEMBERS OF THE MARITIME METRO TRANSIT DEVELOPMENT PROGRAM
(TDP) REVIEW COMMITTEE
(CONTINUED)**

Sheryl Paszkiewicz
Manitowoc Transit Commission (starting May 2016)

Ruben Reveles
Aldersperson, City of Two Rivers (through August 2015)

Ian Ritz
Wisconsin Department of Transportation, Bureau of Transit, Local Roads, Railroads and Harbors

Curt Vanderstelt (Alternate: Judy Goodchild)
City of Two Rivers, Assistant City Manager

Staff Responsible for TDP Preparation

Jeffrey Agee-Aguayo
Bay-Lake Regional Planning Commission

APPENDIX C
DOCUMENTATION OF PUBLIC INPUT OPPORTUNITIES IN THE
COMPLETION OF THE MARITIME METRO TDP

DOCUMENTATION OF PUBLIC INPUT OPPORTUNITIES IN THE COMPLETION OF THE MARITIME METRO TRANSIT DEVELOPMENT PROGRAM (TDP)

Meetings of the Maritime Metro TDP Review Committee

Some twelve (12) meetings of the Maritime Metro TDP Review Committee were held starting in July 2014 and ending in November 2016. Five meetings were held in 2014, one meeting was held in 2015, and six meetings were held in 2016. All of these meetings were open to the public, and there was a public comment agenda item at each meeting. Minutes from each of these meetings are available upon request.

Maritime Metro Transit Passenger Opinion Survey

The Maritime Metro Transit System passenger opinion survey was conducted in late September of 2015. Passengers were asked various opinion-related questions, including the rating of factors related to transit service, as well as whether bus service hours should be extended or the transit service area should be expanded. Passengers were also asked a series of demographic questions. Survey findings can be found in Chapter 5 (Ridership Opinion) as well as in Appendix A.

Public Hearings on Monthly Pass Increase and Route Revisions

Maritime Metro Transit staff conducted two (2) public hearings in mid-November of 2016. Bay-Lake Regional Planning Commission staff was present at both public hearings. Proposals to (1) increase the cost of the monthly pass from \$25 to \$26; and (2) implement a series of route revisions (both effective in January 2017) were presented to attendees at both public hearings. These changes are noted in Chapter 10 of the TDP (Recommended Plan). Maritime Metro Transit staff stated that there were 26 attendees at the public hearing held on November 16, 2016, at the Manitowoc Senior Center, and added that there were 15 attendees at the public hearing held on November 17, 2016, at Two Rivers City Hall. Maritime Metro Transit staff noted that the overwhelming majority of comments received at the public hearing and in letters and e-mails were positive. Of note, the Forward Service Corporation commented that it could have placed 60 employees if Route 5 had served the industrial park area over the past two years (as is being proposed for 2017).

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