

Green Bay Metropolitan Planning Organization (MPO) 2045 Long-Range Transportation Plan



**Brown County Planning Commission/Green Bay MPO
October 7, 2015**



U.S. Department of Transportation
Federal Highway Administration



U.S. Department of Transportation
Federal Transit Administration



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RESOLUTION NO. 2015-09

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
BROWN COUNTY PLANNING COMMISSION
APPROVING THE GREEN BAY METROPOLITAN PLANNING ORGANIZATION (MPO)
2045 LONG-RANGE TRANSPORTATION PLAN**

WHEREAS, U.S. Department of Transportation (DOT) regulations require the development and approval of a Long-Range Transportation Plan (LRTP) for each urbanized area by the Metropolitan Planning Organization (MPO); and

WHEREAS, In accordance with 23 CFR 450.334(a) the Brown County Planning Commission (BCPC) hereby certifies that the metropolitan transportation planning process is addressing major issues facing the metropolitan planning area and is being conducted in accordance with all applicable requirements of:

1. 23 U.S.C. 134 and 49 U.S.C. 5303, and this subpart;
2. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR part 21;
3. 49 USC 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
4. Sections 1101(b) of the Moving Ahead for Progress in the 21st Century Act (MAP-21) (P.L. 112-141) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in the US DOT funded projects;
5. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
6. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR Parts 27, 37, and 38;
7. The Older Americans Act, as amended (42 U.S.C 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
8. Section 324 of title 23, U.S.C regarding the prohibition of discrimination based on gender; and
9. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR 27 regarding discrimination against individuals with disabilities; and

WHEREAS, the BCPC is the designated MPO for the Green Bay Urbanized Area with responsibility for carrying out an urban transportation planning program; and

WHEREAS, the BCPC Board of Directors is the Green Bay MPO's policy board.

THEREFORE, BE IT RESOLVED, that the BCPC Board of Directors approves Green Bay Metropolitan Planning Organization (MPO) 2045 Long-Range Transportation Plan.

NOW, BE IT FURTHER RESOLVED that the MPO planning process is compliant with the requirements of MAP-21 and that the BCPC certifies that the urban transportation planning process certification requirements of 23 CFR 450.114 (c) are satisfied.

Dated at Green Bay, Wisconsin, this 7th day of October 2015.

BROWN COUNTY PLANNING COMMISSION



Norbert Dantine, Jr., President

ATTEST:



Chuck Lamine, AICP, Planning Director

Green Bay Metropolitan Planning Organization (MPO) Committees and Staff

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Chapter 1

Goals and Objectives

Introduction

Over the last several decades, the term transportation has become synonymous with streets and highways. If you ask someone to define a community's transportation system, chances are the person will tell you it is the community's street network. The same person will probably also tell you that a state department of transportation's purpose is to build and maintain highways. Although streets and highways are components of a transportation system, they are just that – components. A truly comprehensive and balanced transportation system includes several modes and facilities that can be conveniently and safely used by the young, old, and everyone in between.

The trend over the last several years has been toward the creation of automobile-oriented transportation systems that are characterized by a strict separation of land uses (residential from commercial, commercial from industrial, etc.), a lack of convenient connections between these uses, large parking lots situated between streets and buildings, wide streets that do not have sidewalks on either side, development significantly outside of the urban core, and other features that force people to drive to and from all of their destinations because other transportation modes are not practical. In many places, these land use and transportation facility decisions have created a dependency on the automobile so significant that the communities feel they have no choice but to continue building, rebuilding, and expanding their street and highway systems so they can continue to function. In addition to being very expensive to build and maintain, these systems make traveling very difficult for people who cannot drive. These types of transportation systems also force seniors and others who might prefer not to drive to continue using their cars out of fear of losing their independence.

Creating a community (or, in this case, a metropolitan area and county) where people and freight are able to move about safely and efficiently through the year 2045 is the purpose of this plan. Some of the methods of creating a comprehensive and balanced transportation system that serves everyone are addressed in the following sections.

MAP-21 and Performance-Based Transportation Planning

The current federal transportation law (Moving Ahead for Progress in the 21st Century [MAP-21]) strongly emphasizes the establishment of performance- and outcome-based transportation programs, and Metropolitan Planning Organizations (MPOs) are required to use a performance-based approach when they develop transportation plans for their Metropolitan Planning Areas.

According to MAP-21, performance measures that address seven surface transportation areas must be developed by the US Department of Transportation in consultation with states, MPOs, and other stakeholders. These seven areas are:

- Pavement condition on the interstate system and on the remainder of the National Highway System (NHS)
- Performance of the interstate system and the remainder of the NHS
- Bridge condition on the NHS
- Fatalities and serious injuries (number and rate per vehicle mile traveled) on all public roads
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the interstate system

Federal law also requires MPOs to establish performance targets that support MAP-21's surface transportation performance measures, and the selection of these targets must be coordinated with public transportation providers (Green Bay Metro) and the state (Wisconsin Department of Transportation). Because MAP-21 requires these MPO targets to be developed no more than 180 days after the public transportation providers or state DOTs develop their targets, the Green Bay MPO's targets will be developed after targets are developed by Green Bay Metro or the Wisconsin Department of Transportation (WisDOT).

Green Bay MPO Long-Range Transportation Plan Goals and Objectives

Goals and objectives have specific purposes within the long-range planning process. Goals are general guidelines that explain what you want to achieve, and objectives define specific and measurable strategies that should be implemented to attain the identified goals.

To fulfill the requirements of MAP-21 and maximize the efficiency, accessibility, and safety of the Metropolitan Planning Area's transportation system, the goals and objectives of the Green Bay MPO 2045 Long-Range Transportation Plan are designed to be consistent with the seven surface transportation areas and to be as precise and measurable as possible. The MPO plan's goals and objectives apply to actions and activities that can be completed by the MPO itself or in cooperation with the state, county, or Metropolitan Planning Area communities. Actions and activities that shape the transportation system but are traditionally the responsibilities of communities (e.g. land use planning, subdivision review, and site plan review) are not specifically addressed in the MPO plan because they are beyond the scope of the MPO. However, MPO staff will assist communities with these actions and activities as requested.

The proposed goals and objectives for the Green Bay MPO Long-Range Transportation Plan are summarized in the following section (not listed in order of priority).

Transportation Structures and Pavement Condition

Goal: Ensure that all transportation structures (bridges, interchanges, and overpasses) within the Green Bay Metropolitan Planning Area are safe for and accessible to all transportation modes.

Objectives:

- Ensure that all transportation structures within the Metropolitan Planning Area have appropriate bicycle and pedestrian facilities when they are constructed or reconstructed.
- Ensure that all transportation structures in the Metropolitan Planning Area have adequate sufficiency ratings by 2020.

Goal: Ensure that the condition of the Metropolitan Planning Area's functionally classified highway and street system is adequate.

Objectives:

- Elevate the condition of 80% of all functionally classified county highways and local streets within the Metropolitan Planning Area to a minimum of 5 (Fair) on the state's Pavement Surface Evaluation and Rating (PASER) scale by 2020.
- Elevate the condition of state and federal highways to a minimum rating of Fair on the state's pavement rating scale by 2020.

Transportation Safety

Goal: Improve safety on the Green Bay Metropolitan Planning Area's multimodal transportation system.

Objectives:

- Reduce the average annual number of fatal motorized vehicle crashes by 50 percent before 2020.
- Reduce the average annual number of motorized vehicle crashes that involve incapacitating injuries by 20 percent before 2020.
- Reduce the average annual number of fatal bicycle crashes to zero before 2020.
- Reduce the average annual number of bicycle crashes that involve incapacitating injuries by 20 percent before 2020.
- Reduce the average annual number of fatal pedestrian crashes to zero before 2020.
- Reduce the average annual number of pedestrian crashes that involve incapacitating injuries by 20 percent before 2020.

Highway and Street Operation, Safety, and Accessibility

Goal: Improve traffic operations and reduce traffic congestion on the Green Bay Metropolitan Planning Area's functionally classified highway and street system.

Objectives:

- Achieve a Level of Service (LOS) rating of D or better for every functionally classified street and highway segment in the Metropolitan Planning Area by 2020.
- Reduce total delay per vehicle per mile and total delay per mile on the Metropolitan Planning Area's functionally classified street and highway system by 2020.

Goal: Design arterial, collector, and local streets to maximize efficient traffic circulation while enabling people of all ages and physical abilities to conveniently and safely cross and travel along them.

Objectives:

- Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to construct or reconstruct arterial streets as two-lane boulevards or three-lane streets instead of four-lane streets unless transportation studies demonstrate that more lanes are necessary.
- Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to construct curb extensions (bump-outs) at collector and local street intersections and other pedestrian crossing points when parking lanes are present.
- Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to place roundabouts at arterial and collector street intersections when the intersections are constructed or reconstructed unless adequate space is not available because of physical or environmental barriers.

Bicycle and Pedestrian Facilities

Goal: Develop a bicycling and walking culture in the Green Bay Metropolitan Planning Area that enables people of all ages and physical abilities to safely and conveniently travel throughout the area.

Objectives:

- Increase the number of rating points that are awarded to projects that include appropriate bicycle and pedestrian facilities in the MPO's Transportation Improvement Program (TIP) project prioritization process.
- Ensure that the bicycle and pedestrian facility components of construction and reconstruction projects are consistent with the guidance for bicycle and pedestrian facilities in Chapter 11-46 of the Wisconsin Department of Transportation's Facilities Development Manual (FDM) when prioritizing projects in the TIP.
- Encourage and offer assistance to every community in the Green Bay Metropolitan Planning Area to develop a comprehensive bicycle and pedestrian plan and a sidewalk installation policy by 2020.
- Provide assistance to the state, Brown County, and the Metropolitan Planning Area communities to increase the number of pedestrian countdown signals in the Green Bay Metropolitan Planning Area by 50 percent by 2020.
- Complete an inventory of bicycle parking accommodations at parks, government buildings, schools, shopping centers, major employers, and other bicycling trip generators in the Metropolitan Planning Area to determine if the accommodations should be improved and/or increased. This inventory should be completed by the end of 2016.
- Encourage and offer assistance to every Metropolitan Planning Area community to develop bicycle and pedestrian education and enforcement programs by 2020.

Public Transportation

Goal: Increase the annual number of revenue passengers on Green Bay Metro's buses to at least 1.7 million by 2020.

Objectives:

- Expand Metro's U-Pass program to include Northeast Wisconsin Technical College (NWTC) by 2020.
- Recruit 10 businesses to participate in employee bus pass programs by 2020.
- Continue to provide the Packers Game Day Service throughout the Metro service area.
- Identify heavily-used bus stops and work with communities to increase the number of heavily-used stops that have concrete pads and sidewalk access by 20 percent by 2020.
- Increase ridership capacity by retiring Metro's 30' buses and replacing them with a combination of 35' and 40' buses by 2020.
- Identify additional revenue sources to increase service frequency and coverage.

Transportation Services for Seniors and Individuals with Disabilities

Goal: Meet the growing transportation needs of seniors and individuals with disabilities within the Green Bay Metropolitan Planning Area.

Objectives:

- Develop, update, and implement the recommendations in the Brown County Coordinated Public Transit-Human Services Transportation Plan.
- Determine if a Brown County Mobility Manager should be appointed to connect providers of specialized transportation services with seniors and people with disabilities.
- Administer the area's Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program.
- Continue to work with the Brown County Transportation Coordinating Committee (TCC) to identify unmet transportation needs of seniors and people with disabilities.

Freight & Passenger Transportation

Goal: Reduce fuel consumption and maximize the lifespan and existing capacity of the Green Bay Metropolitan Planning Area's highway and street system by increasing the proportion of freight shipped to and from the area by rail, water, and air.

Objectives:

- Reestablish a minimum of one intermodal terminal in the Green Bay Metropolitan Planning Area by 2020.
- With input of both railroads, develop a rail container loading component complementing water & trucking for the establishment of an intermodal freight terminal."
- Identify & designate roads emanating from the Port that are capable of handling over-sized loads (hi-wide clearances).
- Increase annual domestic and international imports and exports through the Port of Green Bay by 20 percent by 2020.
- Secure the federal authorization and funding necessary to increase the port's dredging depth to 26 feet from Grassy Island to the entrance to the Georgia-Pacific turning basin by 2020.
- Establish a Federal Inspection Station (FIS) at Austin Straubel International Airport by 2020.

Chapter 2

Existing Transportation System

Streets and Highways

Brown County currently contains two interstate highways, two US highways, nine state highways, several county trunk highways, and many local streets. These streets and highways are currently the primary means of reaching the County's residential, commercial, industrial, and other destinations. The County's street and highway system can be seen in Figure 1.

The following table illustrates roadway mileages by jurisdiction within communities that fall within the urbanized area.

Green Bay Urbanized Area - Mileage by Community and Jurisdiction

| Community | Jurisdiction | | | | | Total |
|---------------------------------|---------------|---------------|---------------|---------------|--------------|-----------------|
| | Fed./State | County | City | Village | Town | |
| City of De Pere | 8.33 | 9.15 | 105.54 | | | 123.02 |
| City of Green Bay | 38.14 | 17.34 | 414.73 | | | 470.21 |
| Village of Allouez | 4.84 | 5.34 | | 54.42 | | 64.60 |
| Village of Ashwaubenon | 11.66 | 13.18 | | 99.22 | | 124.06 |
| Village of Howard | 11.20 | 15.92 | | 103.73 | | 130.85 |
| Village of Bellevue | 9.71 | 14.19 | | 73.11 | | 97.01 |
| Village of Hobart | 3.36 | 10.17 | | 56.19 | | 69.72 |
| Village of Suamico | 6.03 | 11.86 | | 86.77 | | 104.66 |
| Town of Green Bay | 0.00 | 0.00 | | | 2.25 | 2.25 |
| Town of Humboldt | 0.33 | 0.00 | | | 1.36 | 1.69 |
| Town of Lawrence | 4.74 | 9.39 | | | 33.75 | 47.88 |
| Town of Ledgeview | 2.35 | 7.29 | | | 27.77 | 37.41 |
| Town of Pittsfield | 0.00 | 0.00 | | | 3.28 | 3.28 |
| Town of Rockland | 0.44 | 1.05 | | | 4.66 | 6.15 |
| Town of Scott | 3.18 | 1.00 | | | 17.57 | 21.75 |
| Town of Little Suamico (Oconto) | 1.99 | 0.00 | | | 5.08 | 7.07 |
| Total: | 106.30 | 115.88 | 520.27 | 473.44 | 95.72 | 1,311.61 |

Source: Wisconsin Department of Transportation. Last updated on 5-6-2014.

May not include adjustments due to STH 29, I-41, & other reconstruction projects or jurisdictional changes.

Does not include road miles outside of the urbanized area boundary.

Urban and Rural Functional Classification System

(Definitions courtesy of the *WisDOT Functional Classification Criteria, April 2013*)

A component of a street and highway system is the functional classification network. This network is typically based on traffic volumes, land uses, road spacing, and system continuity.

Urban

The urban functional classification system includes four defined categories.

Principal Arterial: Principal arterials serve major economic activity centers of an urbanized area, the highest Average Daily Traffic (ADT) corridors, and regional and intra-urban trip length desires. In every urbanized area, the longest trip lengths and highest ADT are characteristic of the main entrance and exit routes. Because they have the longest trip lengths, highest ADTs, and are generally extensions of the highest rural functional routes, such routes should be principal arterials. Principal arterial trip lengths are

indicative of the rural-oriented traffic entering and exiting the urbanized area on the rural arterial system, as well as the longest trans-urbanized area travel demands.

Minor Arterial: Urban minor arterials serve important economic activity centers, have moderate ADT, and serve intercommunity trip length desires interconnecting and augmenting the principal arterial system. Trip lengths are characteristic of the rural-oriented traffic entering and exiting the urbanized area on the rural collector system. In conjunction with principal arterials, minor arterials should provide an urban extension of the rural collector system to the urbanized area Central Business District (CBD) and connect satellite community CBDs with the main CBD.

Although the predominant function of minor arterials is traffic mobility, minor arterials serve some local traffic while providing greater land access than principal arterials. As such, minor arterials may be stub-ended at major traffic generators.

Collector: Collectors provide direct access to residential neighborhoods, commercial, and industrial areas, and serve moderate to low ADT and inter-neighborhood trips. As the name implies, these routes collect and distribute traffic between local streets and arterials. In the CBD and areas of similar development and traffic density, the collector system may include the street grid, which forms the logical entity for traffic circulation.

Collectors may stub-end in penetrating residential neighborhoods and serving isolated traffic generators, but should be linked to other collectors and arterials for traffic circulation.

Generally, the travel mobility and land access functions of collectors are equal.

Local Street: Urban local streets predominantly serve to access adjacent land uses. They serve the ends of most trips. All streets not classified as arterials or collectors are local function streets.

Rural

The rural functional classification system includes five distinct types: rural principal arterials, rural minor arterials, rural major collectors, rural minor collectors, and rural local roads. These classifications are summarized below.

Rural Principal Arterial: Principal arterials serve corridor movements having trip length and travel density characteristics of an interstate or interregional nature. These routes generally serve urbanized populations of 5,000+.

Rural Minor Arterial: Minor arterials, in conjunction with principal arterials, serve moderate to large-sized places (cities, villages, towns, and clusters of communities), and other traffic generators providing intra-regional and inter-area traffic movements. These routes generally serve places with populations of 1,000+.

Rural Major Collector: Major collectors provide service to smaller-to-moderate sized places and other intra-area traffic generators, and link those generators to nearby larger population centers (cities, villages, and towns) or higher function routes. These routes generally serve places with populations of 100+.

Rural Minor Collector: Minor collectors provide service to all remaining smaller places, link the locally important traffic generators with their rural hinterland, and are spaced consistent with population density so as to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road. These routes generally serve places with populations of 50+.

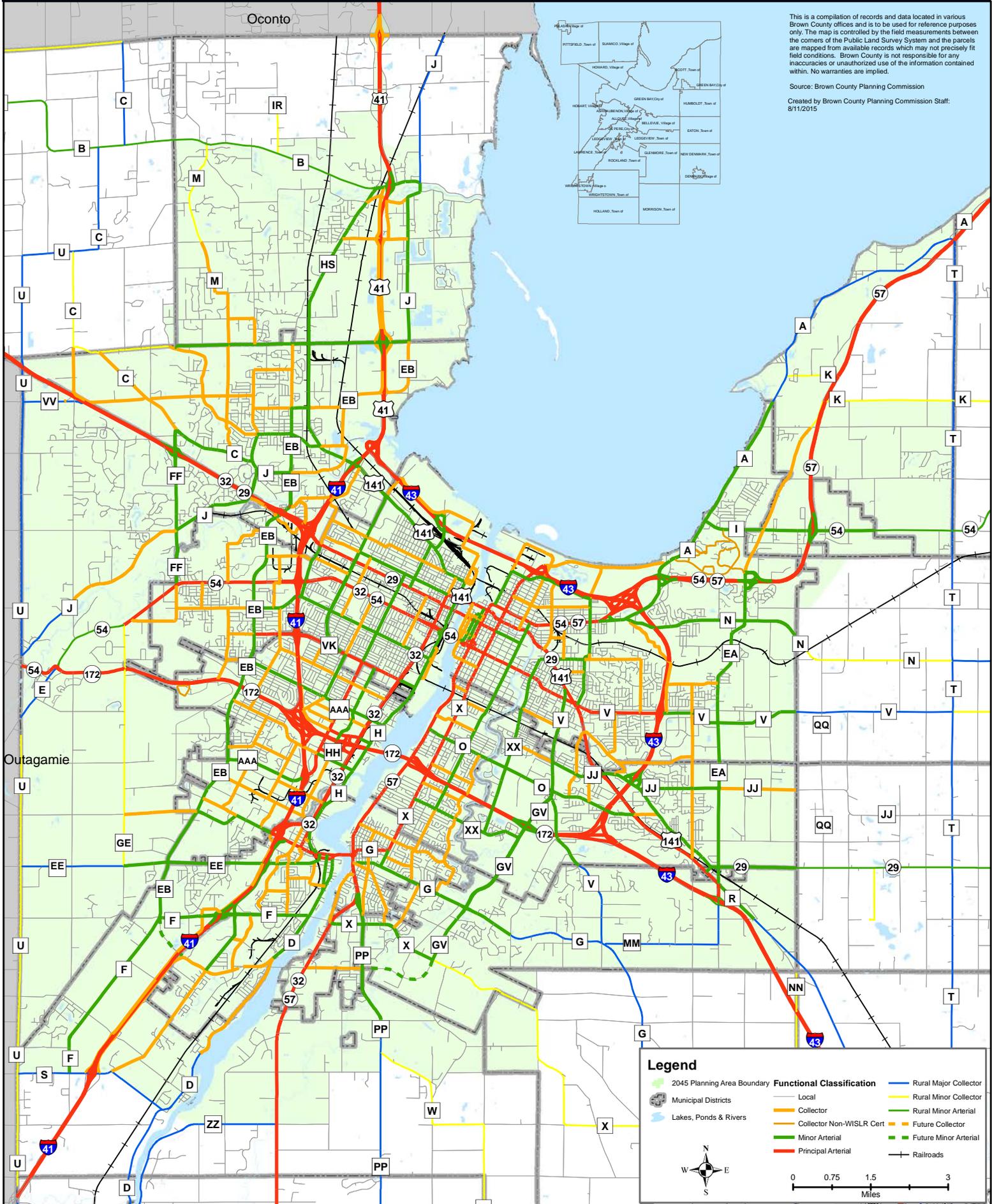
Rural Local Road: Local roads provide access to adjacent land and provide for travel over relatively short distances on an inter-township or intra-township basis. All rural roads not classified as arterials or collectors will be local function roads.

Street Patterns

The street patterns in some parts of Brown County's urban and rural communities enable many vehicle trips to occur on the local and collector streets because they are well connected. However, many communities contain several cul-de-sacs, horseshoe roads, and other streets that do not provide convenient connections to surrounding streets. This lack of street connectivity forces motorists to use the arterial streets and highways at some point during many trips, and this concentration of traffic can create barriers to other transportation modes (such as walking, bicycling, and transit). Figure 2 shows the County's functional classification system.



Figure 2
Functionally Classified Roads
 Brown County, WI



Pedestrian and Bicycle Facilities

Brown County's bicycle and pedestrian plan, originally adopted by the Brown County Planning Commission Board of Directors in 1994, has been updated numerous times to reflect new and updated community plans, recognize the construction of new facilities, and recommend additional projects. Although the number of bicycle facilities in the County has grown considerably since the early 1990s and pedestrian access has been improved through the construction of the Fox River Trail and other area trails, the number of communities that require sidewalks in new developments and elsewhere is still fairly small. The metropolitan area's existing bicycle and pedestrian systems are shown in Figure 3 and Figure 4, and methods of creating comprehensive bicycle and pedestrian systems in the metropolitan area are addressed later in this plan.

Transit

Urban Services

The urbanized portion of Brown County is served by two public transit agencies (Green Bay Metro and the Oneida Transit System), a major non-profit provider (Curative Connections), and several demand response private-for-profit transportation companies (taxi/charter).

Green Bay Metro Services

Green Bay Metro operates 15 fixed routes and several limited service routes in the Cities of Green Bay and De Pere and the Villages of Allouez, Ashwaubenon, and Bellevue (see Figure 5 for Metro's fixed route system). Metro also connects with the Oneida Transit System on the west side of Green Bay to enable people to transfer between the two systems.

Green Bay Metro Multiple Hub Fixed Route System

Prior to 2011, Metro used a single hub located at the Transportation Center. Today, the bus system is designed around four hubs. The system in use is similar to what is called a "radial pulse" system. The system is "radial" because the layout of the routes brings buses to a hub and then radiates them out in a spoke-like fashion to cover the service area. It is called a "pulse" system because all routes are timed, when feasible, to arrive at a hub at regular intervals, allowing for transfers to occur with little or no waiting. Transfer opportunities exist at the following hub locations:

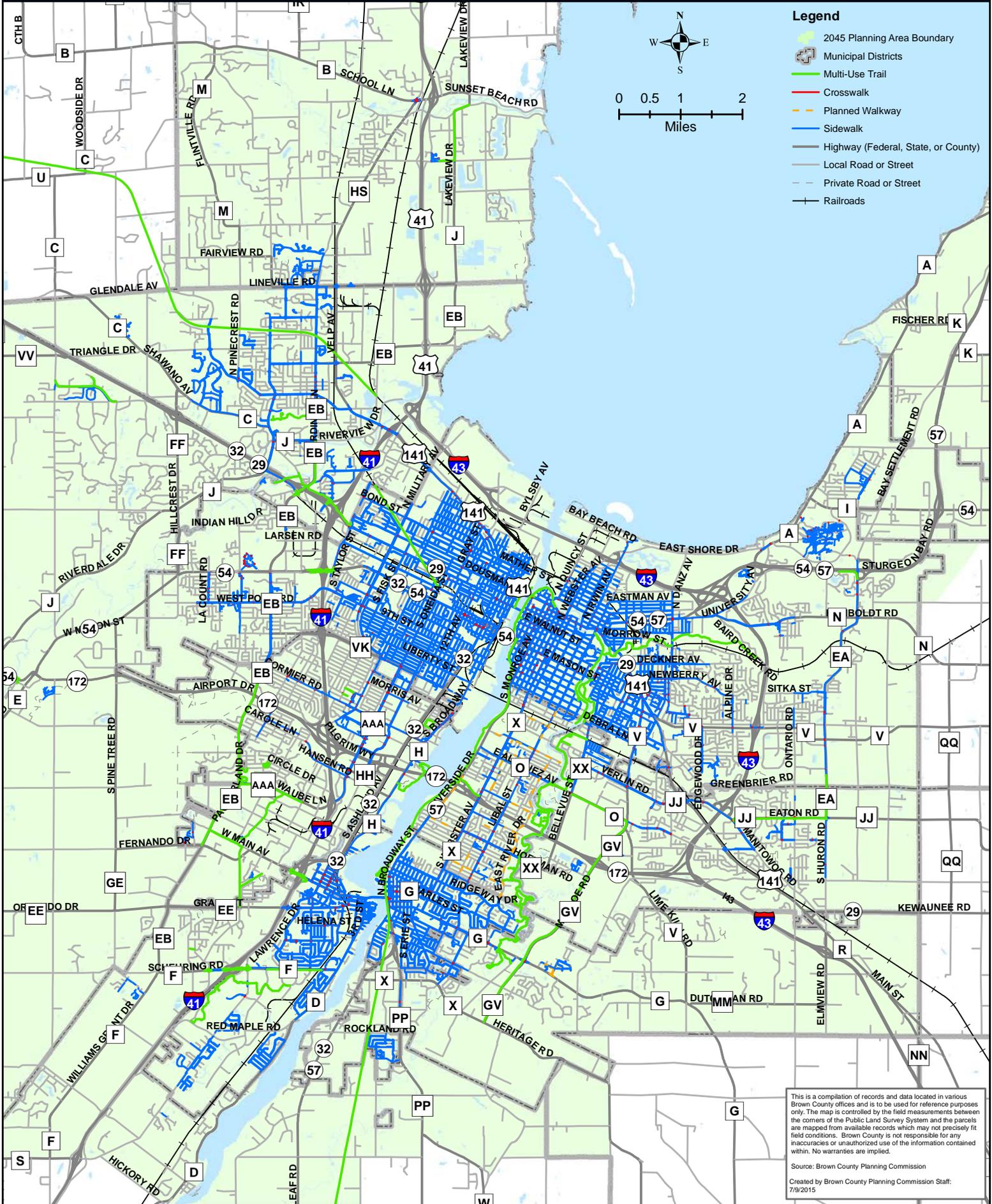
- Green Bay Metro Transportation Center, 901 University Avenue in Green Bay
- Green Bay Plaza on Military Avenue near Sears in Green Bay
- Bay Park Square on the east side of Oneida Street just south of Willard Drive in Ashwaubenon
- Shopko, 230 N Wisconsin Street in De Pere



Figure 4

Existing Pedestrian Facilities

Brown County, WI



This is a compilation of records and data located in various Brown County offices and is to be used for reference purposes only. The map is controlled by the field measurements between the corners of the Public Land Survey System and the parcels are mapped from available records which may not precisely fit field conditions. Brown County is not responsible for any inaccuracies or unauthorized use of the information contained within. No warranties are implied.

Source: Brown County Planning Commission
 Created by Brown County Planning Commission Staff:
 7/9/2015

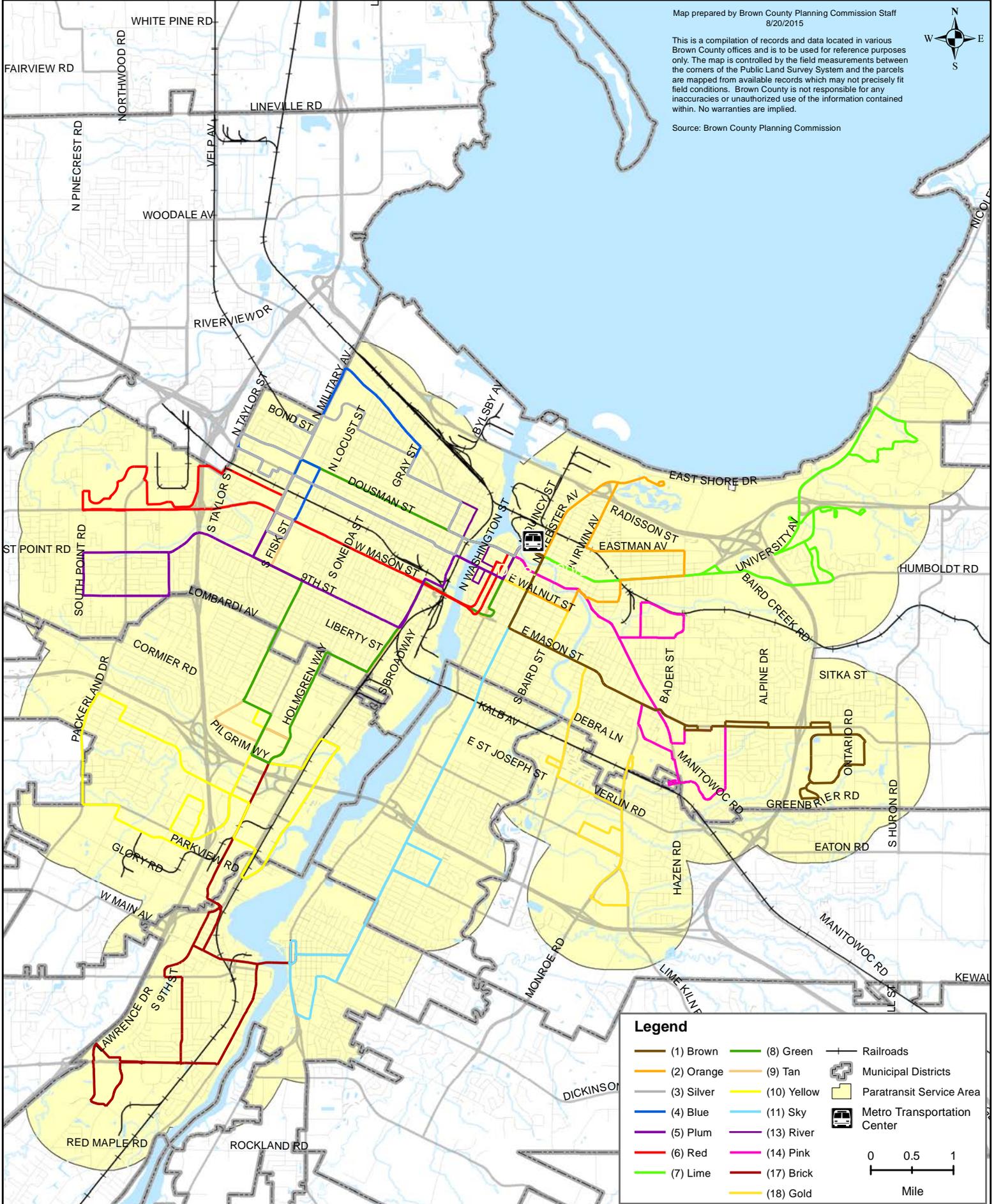


Figure 5 Green Bay Metro Routes as of June 1, 2015 Brown County, WI

Map prepared by Brown County Planning Commission Staff
8/20/2015

This is a compilation of records and data located in various Brown County offices and is to be used for reference purposes only. The map is controlled by the field measurements between the corners of the Public Land Survey System and the parcels are mapped from available records which may not precisely fit field conditions. Brown County is not responsible for any inaccuracies or unauthorized use of the information contained within. No warranties are implied.

Source: Brown County Planning Commission



Legend

| | | |
|------------|-------------|-----------------------------|
| (1) Brown | (8) Green | Railroads |
| (2) Orange | (9) Tan | Municipal Districts |
| (3) Silver | (10) Yellow | Paratransit Service Area |
| (4) Blue | (11) Sky | Metro Transportation Center |
| (5) Plum | (13) River | |
| (6) Red | (14) Pink | |
| (7) Lime | (17) Brick | |
| (18) Gold | | |

0 0.5 1
Mile

Green Bay Metro

Green Bay Metro's fixed route ridership has been declining over the last 20 years. The consolidation of bus routes and the reduction in service hours (amount of service) at various times throughout the period have contributed to the decline. The system's fixed route ridership levels between 1995 and 2014 are summarized below.

Green Bay Metro Ridership (1995-2014)

| Year | Trips |
|-------------|--------------|
| 1995 | 1,894,383 |
| 1996 | 2,009,188 |
| 1997 | 1,965,649 |
| 1998 | 1,744,323 |
| 1999 | 1,660,679 |
| 2000 | 1,624,501 |
| 2001 | 1,624,932 |
| 2002 | 1,684,584 |
| 2003 | 1,711,296 |
| 2004 | 1,668,387 |
| 2005 | 1,736,118 |
| 2006 | 1,702,113 |
| 2007 | 1,697,819 |
| 2008 | 1,763,038 |
| 2009 | 1,354,368 |
| 2010 | 1,370,835 |
| 2011 | 1,542,287 |
| 2012 | 1,523,838 |
| 2013 | 1,482,429 |
| 2014 | 1,429,205 |

Source: Green Bay Metro

The Brown County Planning Commission completed a Transit Development Plan (TDP) for Green Bay Metro that addresses the system's operating and capital needs between 2014 and 2018. Like the previous TDP, the document includes an extensive long-range element that addresses many of the barriers Metro faces to attract people to the system and strategies aimed at increasing ridership to levels that exceed those from the mid-1990s. These barriers and strategies are discussed later in this plan.

Specialized Transportation Services for Individuals with Disabilities (Paratransit)

As a federally-funded public transit system, Green Bay Metro is required by the Americans with Disabilities Act (ADA) to provide service to people with disabilities using lift-equipped fixed route buses and/or specially designed (paratransit) vehicles. Since paratransit is designed to complement the fixed route service, eligible patrons are able to use it during the same hours as Metro's regular service to travel to and from any destination within 3/4 of a mile of every fixed route.

Metro currently provides paratransit service through a contractual arrangement with a private company, and this arrangement is working well. Increases in cost per trip have kept the cost of the program high despite the successful effort to decrease in the number of annual paratransit trips through a thorough client certification process, conditional eligibility determinations, travel training program, and implementation of an agency fare. The service comprises approximately 20 percent of Metro's operating budget but provides about four percent of its trips.

Paratransit Program 1998-2014

| Year | Trips | Trip Costs* | Cost Increase/ Decrease | Percent Cost Increase/Decrease |
|-----------|---------|-------------|----------------------------|-----------------------------------|
| 1998** | 69,621 | \$602,918 | | |
| 1999 | 81,571 | \$908,077 | +\$305,159 | +51% |
| 2000 | 94,057 | \$1,081,756 | +\$173,679 | +19% |
| 2001 | 97,000 | \$1,161,209 | +\$79,453 | +7% |
| 2002*** | 98,320 | \$1,484,632 | +\$323,423 | +28% |
| 2003 | 96,509 | \$1,515,223 | +\$30,591 | +2% |
| 2004 | 100,601 | \$1,664,826 | +\$149,603 | +10% |
| 2005 | 96,039 | \$1,639,625 | -\$25,201 | -2% |
| 2006**** | 72,979 | \$1,305,135 | -\$334,490 | -20% |
| 2007 | 69,499 | \$1,243,337 | -\$61,798 | -5% |
| 2008 | 69,140 | \$1,337,548 | +\$94,211 | +8% |
| 2009 | 68,868 | \$1,313,787 | -\$23,761 | -2% |
| 2010 | 67,384 | \$1,337,797 | +\$24,010 | +2% |
| 2011***** | 63,337 | \$1,330,561 | -\$7,236 | -1% |
| 2012 | 59,399 | \$1,393,869 | +\$63,308 | +5% |
| 2013 | 55,821 | \$1,543,765 | +\$149,896 | +10% |
| 2014 | 54,477 | \$1,440,195 | -\$103,570 | -6% |

* Trip cost includes fuel escalator payments from 2006-2011.

** Under contract with Lamers, Inc.

*** Start of four and one-half year contract in January with four-month extension with Medi-Vans.

**** Start of four and one-half year contract in November with Medi-Vans. Service area reduction implemented.

***** Start of four year and eight month contract in May with MV Transportation.

Green Bay Metro staff continues to examine methods of providing reliable service at a lower cost, and some of these potential cost-saving strategies are addressed in the Financial Capacity Analysis section of the MPO plan.

Non-Emergency Medical Transportation (NEMT)

Medical Transportation Management (MTM, Inc.) is Wisconsin's non-emergency medical transportation manager and is responsible for arranging transportation to covered appointments for Medicaid and BadgerCare Plus members. To qualify, members cannot have access to neighbors, friends, or relatives that can provide the ride.

Non-emergency medical transportation can be provided by public transportation systems, non-profit human service agencies, and private-for-profit transportation companies. MTM Inc. contacts transportation providers and schedules and pays for the qualifying trip. There is no cost to the user.

Rural Transit

The rural sections of Brown County are currently served by the area's private transportation providers and Curative Connections, but the service does not extend very far outside of the urbanized area.

Rail Transportation

Although Brown County has several rail lines in place, most of these lines do not carry many trains each day. These lines, which are currently operated by the Canadian National Railroad (CN) and the Escanaba and Lake Superior Railroad Company (ELS), carry goods to and from various industries in the County. However, the CN line that runs along the west side of the Fox River into the City of Green Bay carries several trains each day and provides service to the Village of Wrightstown Industrial Park, City of De Pere Business Park, and the industrial area immediately south of downtown Green Bay.

Until 2003, the Green Bay industrial area contained three very important intermodal freight facilities. These were:

- The Schneider National intermodal facility, which was used to transfer truck trailers to and from railcars.
- The Canadian National rail yard, which was used to transfer truck trailers to and from railcars.
- The Leicht Transfer and Storage facility, which is a truck/rail transfer facility that uses a lift system like the one used at the CN rail yard.

The Canadian National (CN) Railroad has a business model that establishes intermodal facilities 500 miles from each other. Because an intermodal facility already exists in Chicago, CN establishing an intermodal facility in Wisconsin is challenging. Because of this spacing policy, the establishment of an intermodal facility in the Green Bay Urbanized Area will likely have to be driven by businesses that desire this service.

This and other future rail activities are discussed later in the plan.

Air Transportation

As the third largest airport in the State of Wisconsin, Austin Straubel International Airport operates a 24-hour, 365-day a year operation. As such, the Airport is a key ingredient to northeastern Wisconsin's economic growth and quality of life. (For a map of the airport, see Figure 6).

Austin Straubel directly serves Atlanta, Chicago, Detroit, and Minneapolis.

In addition, the airport is host to a multitude of support businesses such as a parking facility, car rental agencies, restaurant/lounge, hotel, fixed based operators, gift shops, air freight companies, and customs house brokerage. Charter service is also available.

During the five-year period from 2009 to 2013, the number of passengers handled at Austin Straubel International Airport decreased by approximately 15 percent. Annual passenger numbers are shown below.

Passengers

| Year | Passenger Ons and Offs |
|-------------|-------------------------------|
| 2009 | 719,268 |
| 2010 | 725,036 |
| 2011 | 731,284 |
| 2012 | 586,943 |
| 2013 | 610,675 |

Source: Austin Straubel International Airport.

The amount of air cargo that was transported in and out of airport has increased in recent years and is summarized below.

Cargo

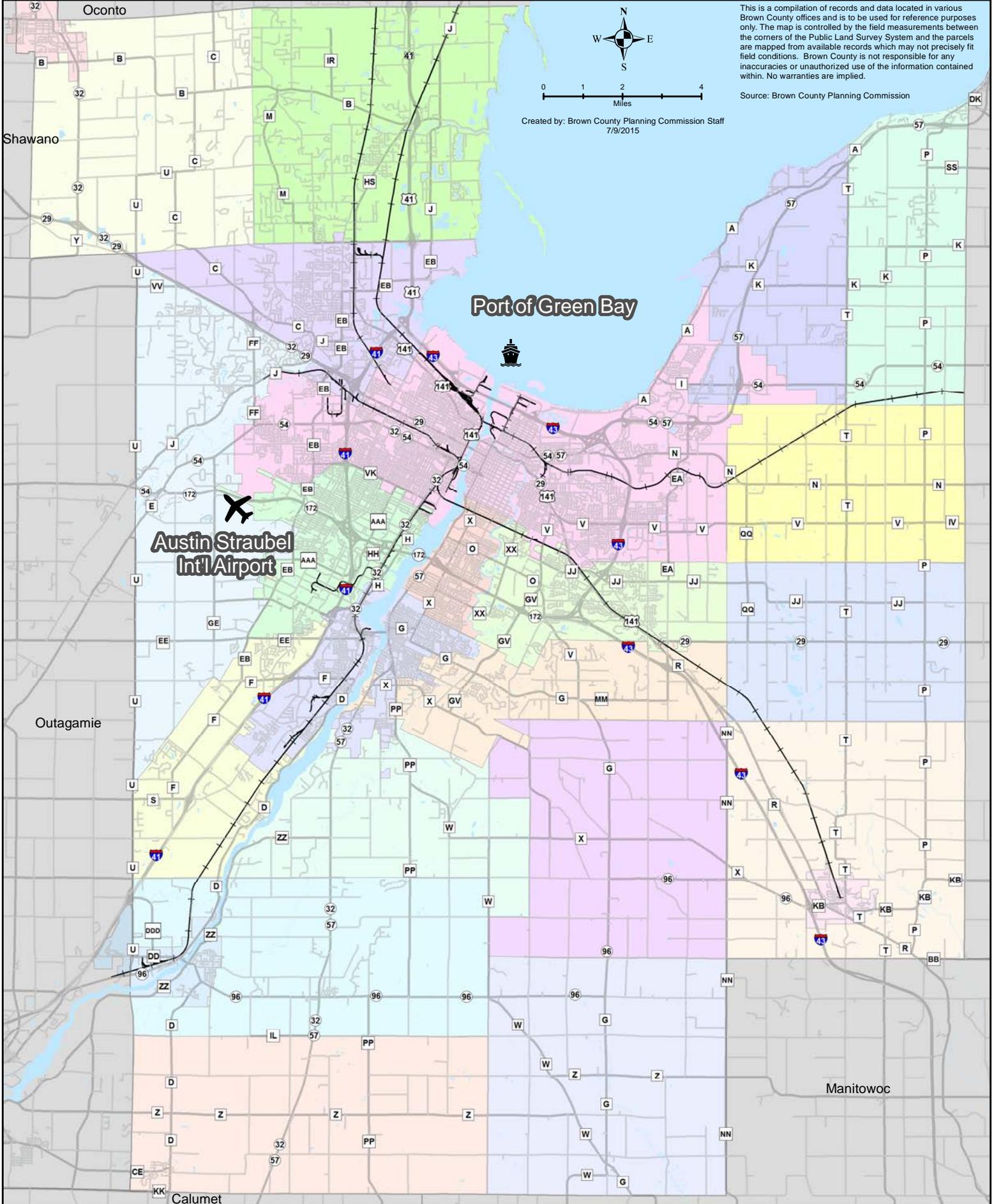
| Year | Cargo & Mail On (in pounds) | Cargo & Mail Off (in pounds) |
|-------------|--|---|
| 2009 | 130,772 | 225,052 |
| 2010 | 185,186 | 266,673 |
| 2011 | 212,431 | 313,424 |
| 2012 | 134,866 | 251,554 |
| 2013 | 177,382 | 365,474 |

Source: Austin Straubel International Airport.



Figure 6 Port and Airport Facilities

Brown County, WI



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Source: Brown County Planning Commission

Created by: Brown County Planning Commission Staff
7/9/2015

Trucking

Brown County contains several large and small trucking companies that serve the immediate area, region, and nation. The County is also home to Schneider National Inc., which operates in the United States, Canada, and Mexico and is one of the largest transportation companies in North America.

Schneider and the rest of the trucking firms in Brown County also import and export a variety of goods to and from the area and enable area businesses to avoid having to warehouse large quantities of materials through the provision of “just in time” delivery services.

Over the long-range planning period, it is important that the area’s truck routes be maintained and easily identified to minimize travel time delays and impacts on neighborhoods.

Water Transportation

The Port of Green Bay is a very important part of Brown County’s economic structure. During the 2013 shipping season, the port handled a total of 2,216,904 metric tons of limestone, coal, cement, and other commodities. The port is served by 14 active terminal operators including C. Reiss Coal Company, Construction Resource Management, Flint Hills Resources, Fox River Dock Company, Georgia-Pacific Corporation, Great Lakes Calcium Corporations, KK Integrated Logistics, Inc., Lafarge North America, Noble Petro, Inc. RGL Holdings, Sanimax, St. Mary’s Cement Company, US Venture, and Graymount. A five-year summary of port activity is included in the following table:

2009-2013 Port Activity in Metric Tons

| Year | Domestic Imports | Foreign Imports | Domestic Exports | Foreign Exports | Total |
|--------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------|
| 2009 | 1,469,254 | 314,249 | 26,808 | 0 | 1,810,311 |
| 2010 | 1,592,825 | 131,343 | 5,986 | 0 | 1,730,154 |
| 2011 | 1,690,763 | 261,629 | 152,359 | 58,005 | 2,162,756 |
| 2012 | 1,542,298 | 162,893 | 91,094 | 121,366 | 1,917,651 |
| 2013 | 1,833,381 | 277,873 | 96,451 | 9,199 | 2,216,904 |
| Five-Year Total: | 8,128,521 | 1,147,987 | 372,698 | 188,570 | 9,837,776 |
| Percent of Total: | 82.6% | 11.7% | 3.8% | 1.9% | 100.0% |

Source: Brown County Port and Solid Waste Department. Metric Ton = 2,204.6 lbs.

According to the port data, the vast majority of the port’s activities are devoted to imports (94.3 percent), and the imported materials were transported throughout northeast Wisconsin to support the area’s paper mills and other industries. The port was also responsible for approximately \$83 million in economic output and that more than 800 jobs were directly or indirectly associated with the port in 2010.

Methods of increasing both imports and exports during the long-range planning period are addressed later in this plan.

Chapter 3

Transportation System Performance Measures

MAP-21 states that Metropolitan Planning Organizations (MPOs), in cooperation with state and public transit operators, shall develop long-range transportation plans through a performance-driven, outcome-based approach. The metropolitan transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decision making to support the national goals.

Federal law also calls for coordination of target-setting between States and MPOs to ensure consistency with national goals.

A Performance-Based Transportation Plan should include goals, implementation strategies, and performance status. It can also improve communication with the public, add transparency, connect short-term and long-term plans, and can be used to inform the technical and policy boards.

The status of each performance measure identified in 2010 for the 2035 plan has been updated annually with the publication of the *MPO's Transportation System Performance Measures Status Report*.

Development of Modified and New Performance Measures for the 2045 LRTP

Because most of the 2035 LRTP's transportation system performance measures were consistent with the 2045 LRTP's goals and objectives, these performance measures were retained as performance measures in the 2045 LRTP. However, because some of the 2045 LRTP's objectives were not specifically addressed by the 2035 plan's performance measures, additional measures needed to be developed for these objectives. A few of the 2035 LRTP's performance measures also needed to be modified to include targets that are attainable during the planning period. The modified and new performance measures for the 2045 LRTP are summarized below.

Modified Performance Measures

Transportation Safety Measures

1. Reduce average number of fatal motorized vehicle crashes by 50% by 2020.
2. Reduce average number incapacitating injury crashes by 20% by 2020.
3. Reduce average number of incapacitating injury bike crashes by 20% by 2020.
4. Reduce average number of incapacitating injury pedestrian crashes by 20% by 2020.

New Performance Measures

Bicycle & Pedestrian Facilities

1. Increase the number of pedestrian countdown signals by three each year.
2. Inventory bike parking and determine if improvements are needed and/or supply should be increased.
3. Develop bike & pedestrian education and enforcement programs by 2020.

Public Transportation

1. Green Bay Metro should recruit 10 businesses to participate in employee bus programs by 2020.
2. Green Bay Metro should continue to provide the Packers Game Day Service.

Transportation Services for Seniors and Individuals with Disabilities

1. Develop, update, and implement Coordinated Public Transit-Human Services Plan recommendations.
2. Determine if a Mobility Manager should be appointed to connect specialized providers with riders.
3. Administer the area's Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program.
4. Continue to work with the Transportation Coordinating Committee to identify unmet needs of seniors and individuals with disabilities.

Summary of the 2045 LRTP's Performance Measures

The 2045 LRTP's performance measures are summarized in the following table.

**Transportation System Performance Measures, Goals, Objectives,
and Implementation Strategies
for the
2045 Long-Range Transportation Plan**

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|---|---|--|
| <p>Transportation Structures & Pavement Condition</p> <p>Goal: Ensure that all transportation structures (bridges, interchanges, & overpasses) within the Green Bay Metropolitan Planning Area are safe for & accessible to all transportation modes.</p> | <p>Ensure that all transportation structures within the Metropolitan Planning Area have appropriate bicycle & pedestrian facilities when they are constructed or reconstructed.</p> <p>Ensure that all transportation structures in the Metropolitan Planning Area have adequate sufficiency ratings by 2020.</p> | <p>Continue to examine each project during the planning & design phases to ensure that appropriate bicycle & pedestrian facilities are included.</p> <p>Emphasize bridge maintenance when budgeting & bonding for transportation improvements.</p> |
| <p>Goal: Ensure that the condition of the Metropolitan Planning Area's functionally classified highway & street system is adequate.</p> | <p>Elevate the condition of 80% of all functionally classified county highways & local streets within the Metropolitan Planning Area to a minimum of 5 (Fair) on the state's Pavement Surface Evaluation & Rating (PASER) scale by 2020.</p> <p>Elevate the condition of state & federal highways to a minimum rating of Fair on the state's pavement rating scale by 2020.</p> | <p>Emphasize street & highway maintenance when budgeting & bonding for transportation improvements.</p> <p>Encourage the State of Wisconsin to emphasize maintenance in its highway program.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|--|--|---|
| <p>Transportation Safety</p> <p>Goal: Improve safety on the Green Bay Metropolitan Planning Area's multimodal transportation system.</p> | <p>Reduce the average annual number of fatal motorized vehicle crashes by 50 percent before 2020.</p> <p>Reduce the average annual number of motorized vehicle crashes that involve incapacitating injuries by 20 percent before 2020.</p> <p>Reduce the average annual number of fatal bicycle crashes to zero before 2020.</p> <p>Reduce the average annual number of bicycle crashes that involve incapacitating injuries by 20 percent before 2020.</p> <p>Reduce the average annual number of fatal pedestrian crashes to zero before 2020.</p> <p>Reduce the average annual number of pedestrian crashes that involve incapacitating injuries by 20 percent before 2020.</p> <p>Increase enforcement expertise on Transportation Subcommittee.</p> | <p>Utilize the University of Wisconsin's Traffic Operations & Safety (TOPS) Laboratory database to analyze fatal crashes & determine what could have prevented them from occurring.</p> <p>Utilize the TOPS Laboratory database to analyze injury crashes & determine what could have prevented them from occurring.</p> <p>Utilize the TOPS Laboratory database to analyze fatal crashes & determine what could have prevented them from occurring.</p> <p>Utilize the TOPS Laboratory database to analyze injury crashes & determine what could have prevented them from occurring.</p> <p>Utilize the TOPS Laboratory database to analyze fatal crashes & determine what could have prevented them from occurring.</p> <p>Utilize the TOPS Laboratory database to analyze injury crashes & determine what could have prevented them from occurring.</p> <p>Add a member to the Transportation Subcommittee who represents law enforcement and/or traffic safety.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|---|--|--|
| <p>Highway & Street Operation, Safety, & Accessibility</p> <p>Goal: Improve traffic operations & reduce traffic congestion on the Green Bay Metropolitan Planning Area's functionally classified highway & street system.</p> | <p>Achieve a Level of Service (LOS) rating of D or better for every functionally classified street & highway segment in the Metropolitan Planning Area by 2020.</p> <p>Reduce total delay per vehicle per mile and total delay per mile on the Metropolitan Planning Area's functionally classified street and highway system by 2020.</p> | <p>In addition to completing the major projects identified in the Long-Range Transportation Plan, continue to utilize the following congestion management techniques:</p> <ul style="list-style-type: none"> • Roundabouts. • Three-lane streets & two-lane boulevards. • Development patterns that mix land uses (to encourage non-motorized vehicle travel). • Bicycle & pedestrian facilities. • Queue detectors mounted on traffic signals. • Annual arterial street signal timing assessment to determine if an update is necessary. • Minimization of driveway access along major streets. • Transit service. • Park-and-ride facilities. <p>Utilize data collected in 2014 and 2015 to identify and develop strategies to alleviate congestion.</p> <p>Utilize the congestion management techniques listed above to reduce travel delay.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|--|--|--|
| <p>Highway & Street Operation, Safety, & Accessibility (continued)</p> <p>Goal: Design arterial, collector, & local streets to maximize efficient traffic circulation while enabling people of all ages & physical abilities to conveniently & safely cross & travel along them.</p> | <p>Encourage & offer planning assistance to the state, county, & Metropolitan Planning Area communities to continue to construct or reconstruct arterial streets as two-lane boulevards or three-lane streets instead of four-lane streets unless transportation studies demonstrate that more lanes are necessary.</p> <p>Encourage & offer planning assistance to the state, county, & Metropolitan Planning Area communities to continue to construct curb extensions (bump-outs) at collector & local street intersections & other pedestrian crossing points when parking lanes are present when vehicle and pedestrian traffic volumes warrant installation.</p> <p>Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to place roundabouts at arterial & collector street intersections when the intersections are constructed or reconstructed unless adequate space is not available because of physical or environmental barriers.</p> | <p>For arterial streets, continue to construct two-lane boulevards or three-lane streets unless more lanes are proven to be necessary. Also continue to construct roundabouts at intersections.</p> <p>For collector & local streets, continue to minimize street widths. Add curb extensions at intersections when parking lanes are present & when vehicular & pedestrian traffic warrants installation.</p> <p>For all streets, only allow construction of cul-de-sacs when physical or environmental barriers are present. Also include public rights-of-way at end of cul-de-sacs for non-motorized connections to adjacent developments.</p> <p>Same as above.</p> <p>Develop criteria to determine where bump-outs & crosswalks are warranted.</p> <p>Same as above.</p> <p>Develop criteria to determine where neighborhood traffic circles should be installed.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|---|--|---|
| <p>Bicycle & Pedestrian Facilities</p> <p>Goal: Develop a bicycling & walking culture in the Green Bay Metropolitan Planning Area that enables people of all ages & physical abilities to safely & conveniently travel throughout the area.</p> | <p>Increase the number of rating points that are awarded to projects that include appropriate bicycle & pedestrian facilities in the MPO's Transportation Improvement Program (TIP) STP-U project prioritization process.</p> <p>Ensure that the bicycle & pedestrian facility components of construction & reconstruction projects are consistent with the guidance for bicycle & pedestrian facilities in Chapter 11-46 of the Wisconsin Department of Transportation's Facilities Development Manual (FDM) when prioritizing projects in the TIP.</p> <p>Encourage & offer assistance to every community in the Green Bay Metropolitan Planning Area to develop a comprehensive bicycle & pedestrian plan & a sidewalk installation policy by 2020.</p> <p>Provide assistance to the state, Brown County, & the Metropolitan Planning Area communities to increase the number of pedestrian countdown signals in the Green Bay Metropolitan Planning Area by three per year until 2020.</p> | <p>A revised project prioritization process was developed in 2014/2015. The revised process was recommended for approval by the BCPC Transportation Subcommittee (MPO TAC), & approved by the BCPC Board of Directors in May of 2015.</p> <p>This is addressed in the revised TIP project prioritization process that was approved in May of 2015.</p> <p>Use the "Sidepath Suitability Index" to determine the appropriateness of sidepaths (trails) next to streets & highways.</p> <p>Contact the Metropolitan Planning Area Communities that do not have plans/policies & determine if they would like assistance. If assistance is desired, include the projects in the MPO's Annual Work Program.</p> <p>After completing an inventory of signals with & without countdown indicators, identify locations for the indicators.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|---|--|---|
| <p>Bicycle & Pedestrian Facilities (continued)</p> <p>Goal: Develop a bicycling & walking culture in the Green Bay Metropolitan Planning Area that enables people of all ages & physical abilities to safely & conveniently travel throughout the area.</p> | <p>Complete an inventory of bicycle parking accommodations at parks, government buildings, schools, shopping centers, major employers, & other bicycling trip generators in the Metropolitan Planning Area to determine if the accommodations should be improved and/or increased. This inventory should be completed by the end of 2016.</p> <p>Encourage & offer assistance to every Metropolitan Planning Area community that does not have in place bicycle & pedestrian education & enforcement programs to develop them by 2020.</p> | <p>This inventory began in the spring/summer of 2015.</p> <p>Contact the Metropolitan Planning Area Communities that do not have programs & determine if they would like assistance. If assistance is desired, help the communities find the resources needed to develop & implement these programs.</p> <p>Encourage and continue to develop bicycle & pedestrian safety & enforcement programs.</p> <p>Encourage communities to apply for financial assistance through the Transportation Alternatives Program (TAP).</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|--|---|--|
| <p>Public Transportation</p> <p><u>Goal:</u> Increase the annual number of passengers on Green Bay Metro's buses to at least 1.7 million by 2020.</p> | <p>Expand Metro's U-Pass program to include Northeast Wisconsin Technical College (NWTC) by 2020.</p> <p>Recruit 10 businesses to participate in employee bus pass programs by 2020.</p> <p>Continue to provide the Packers Game Day Service throughout the Metro service area.</p> <p>Identify heavily-used bus stops & work with communities to increase the number of heavily-used stops that have concrete pads & sidewalk access by 20 percent by 2020.</p> <p>Increase ridership capacity by retiring Metro's 30' buses & replacing them with a combination of 35' & 40' buses by 2020.</p> | <p>Metro staff should continue to encourage NWTC to participate in program.</p> <p>Metro staff should continue to contact businesses & encourage them to participate in the U-Pass or other programs.</p> <p>Continue strong working relationship between Green Bay Metro, the Green Bay Packers & other potential sponsors.</p> <p>These stops were identified in the MPO's 2014 Green Bay Metro Comprehensive Bus Stop Study.</p> <p>Work with communities, county & state public works/engineering departments to design & install sidewalks and/or concrete pads at the heavily-used bus stops that were identified in the 2014 bus stop study.</p> <p>Continue to purchase 35' & 40' buses for the fixed route system.</p> <p>Budget funds on an annual basis to replace aging buses.</p> <p>Acquire funding for replacement buses through the creation of a Regional Transportation Authority (RTA) or similar funding mechanism if these opportunities are available.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|---|---|---|
| Public Transportation (continued) | Identify additional revenue sources to increase service frequency & coverage. | Increase operating funding for more frequent headways & additional route options through the creation of an RTA or similar funding mechanism if these opportunities are available. |
| <p>Transportation Services for Seniors & Individuals with Disabilities</p> <p>Goal: Meet the growing transportation needs of seniors & individuals with disabilities within the Green Bay Metropolitan Planning Area.</p> | <p>Develop, update, & implement the recommendations in the Brown County Coordinated Public Transit-Human Services Transportation Plan.</p> <p>Determine if a Brown County Mobility Manager should be appointed to connect providers of specialized transportation services with seniors & people with disabilities.</p> <p>Administer the area's Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities Program.</p> <p>Continue to work with the Brown County Transportation Coordinating Committee (TCC) to identify unmet transportation needs of seniors & people with disabilities.</p> | <p>The MPO should continue to work with the Brown County Transportation Coordinating Committee (TCC) & the public to update the plan in 2016.</p> <p>The MPO should continue to work with the Brown County Transportation Coordinating Committee (TCC) to identify a funding source for this position.</p> <p>The MPO, Green Bay Metro (Designated Recipient), & the TCC should continue to work together to administer the program.</p> <p>Continue to hold quarterly meetings of the TCC.</p> |

| Performance Measures & Goals: | Objectives: | Implementation Strategies: |
|--|---|---|
| Freight Transportation (Rail, Water, & Air) (continued) | <p>Identify & designate roads emanating from the Port that are capable of handling over-sized loads (hi-wide clearances).</p> <p>Secure the federal authorization & funding necessary to increase the port's dredging depth to 26 feet from Grassy Island to the entrance to the Georgia-Pacific turning basin by 2020.</p> <p>Austin Straubel International Airport staff should continue its efforts to expand services and establish Federal Inspection Station (FIS) designation.</p> | <p>Seek additional and/or increase the volume of products to import & export from the area. Examples of possible cargo include manufacturing & agricultural products.</p> <p>Work with state, county, and local units of government to designate routes and/or identify road improvements to do the same.</p> <p>Work with the U.S. Army Corps of Engineers to change the port's federally-authorized dredging depth to 26 feet & width to at least 250 feet. Ensure that the Corps of Engineers has enough money to complete & maintain the dredging project.</p> <p>Seek formal FIS designation and funding for staffing.</p> |

Chapter 4

Future Transportation System

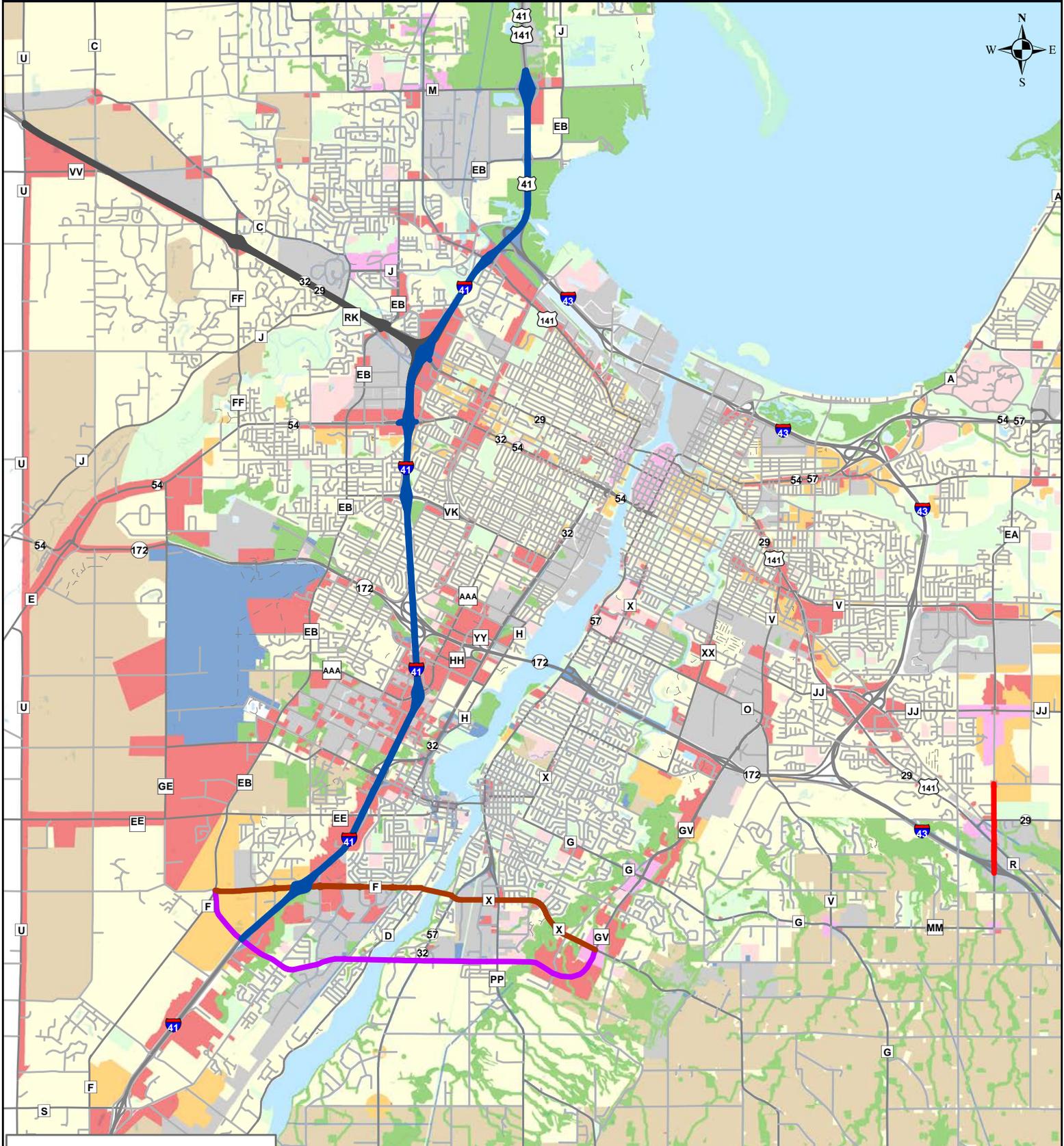
This section of the MPO Long-Range Transportation Plan identifies the major aspects of the Green Bay Metropolitan Planning Area's transportation system and recommends methods of developing them over the next 30 years to create a more comprehensive intermodal and multimodal transportation system. The section also addresses the land use patterns that communities are encouraged to promote during this period to help create this system. Existing and future land use maps are included in the following two figures.



Figure 8

Future Land Use Based on Community Comprehensive Plans with Major Planned Projects

Brown County, WI



0 1.5 3
Miles

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Map prepared by Brown County Planning Commission Staff
Date Created: 9/22/2015
Source: Brown County Planning Commission & Brown County Land Information Office

Legend

- US 41 Expansion
- Southern Bridge and Arterial North Corridor Alternative
- Southern Bridge and Arterial South Corridor Alternative
- Eastern Arterial Construction
- STH 29 Conversion to Freeway

Future Land Use

- Agricultural/Rural Residential; Exclusive Agriculture; Agriculture/Rural Residential
- Business
- City/Village/Town Center
- Commercial
- Industrial; Industrial/Business Park
- Institutional/Government
- Mixed Use
- Natural Areas
- Park/Recreational
- Primary Residential; Residential
- Transportation/Utilities
- Water

Major Streets and Highways

To estimate the number of vehicles that will use the Metropolitan Planning Area's major street and highway system in 2045, MPO staff worked with WisDOT and a consulting firm to develop a computer traffic model that assigns vehicle trips to the street and highway system by identifying the fastest route between points within Traffic Analysis Zones (TAZs). This model, which is a tool used by state and metropolitan planning agencies throughout the country to plan and design streets, is intended to help analysts predict where traffic congestion will likely occur in the future as a result of household, employment, and other growth that is projected to happen between a base and a future year (which, in this plan, is between 2010 and 2045). The Metropolitan Planning Area's TAZs are identified in Appendix 1 of the plan.

After the base year traffic model was created and made consistent with existing traffic patterns, a future year model was created to estimate how well the existing street and highway system will handle the traffic increases that are projected to occur by 2045. The model was then adjusted to include street and highway projects that will be completed in the near future, and this model was used to estimate the impact on what is called the *existing and committed* (E+C) street and highway system. This E+C model was used to analyze two long-range development scenarios.

The first development scenario is based the future land use plans of the communities within the Metropolitan Planning Area and the most recent demographic projections produced by the Wisconsin Department of Administration (WDOA). The second development scenario is similar to the first one, but this scenario estimates how the area's street and highway system will perform if all of the household and employment growth projected for outside the urbanized area instead occurs evenly within the urbanized area.

The results of both E+C model scenarios suggest that most of the Metropolitan Planning Area's major streets and highways will not likely experience significant congestion in 2045. However, the results also suggest that future daily traffic volumes on small segments of the area's street system could exceed their design capacities, so the analysts added streets and highways that are currently planned for the area to estimate how these facilities will help to address the projected congestion. These planned projects are summarized in the following section and are shown in the previous figures.

Southern Bridge and Connecting Arterial Streets

Following the adoption of the Brown County Year 2020 Land Use and Transportation Plan in 1996, the Brown County Planning Commission began working with the Brown County Public Works Department, WisDOT, FHWA, communities, and environmental agencies to study methods of handling existing and projected transportation demand in this part of the metropolitan area. The 1996 plan and the findings of subsequent plans, meetings, and studies suggested that the addition of a Fox River bridge and connecting roadway segments in this area would be the most effective method of handling the demand that will be generated by the development planned for the area. However, the federal, state, and local agencies involved in these efforts also recognized the need to complete an environmental analysis before proceeding with a project that could affect the area's natural, social, and other characteristics.

The Brown County Planning Commission is currently working with federal agencies, state agencies, local agencies and communities, and the public to complete an Environmental Impact Statement (EIS) and Interstate Access Justification Report (IAJR) for this project. The EIS process is currently in the alternatives analysis phase, and the EIS document that recommends a location for a new Fox River bridge and connecting arterial street system is expected to be completed in 2018.

STH 29 Freeway Conversion

The conversion of STH 29 from CTH FF to CTH U from an expressway to a freeway will help to preserve and enhance the long-term safety, efficiency, and mobility of the highway.

As traffic increases on STH 29, the number of conflicts between vehicles entering and exiting from the existing access points on the highway will also increase. Movements to and from the intersecting roads disrupt the flow of traffic as vehicles merge or cross STH 29. Without improvements, crashes (especially side-swipe, 90 degree angle, and rear-end crashes) are expected to increase.

Converting STH 29 from an expressway to a freeway and limiting access will improve safety by restricting where vehicles enter and exit the highway and reduce the number of crashes and injuries.

STH 29 is designated by WisDOT as a Backbone Route. The highway serves interstate and inter-regional trips and functions as the primary route across north-central Wisconsin, linking Green Bay with I-94 and Minneapolis/St. Paul.

Current traffic volumes make STH 29 the state's most heavily traveled east-west highway north of I-94. These traffic volumes also indicate that a large amount of truck traffic travels STH 29, highlighting the highway's importance to Wisconsin's industry, business, and agriculture.

This project has been split into the following two phases:

Phase I was completed in 2014 and included the following elements:

- STH 29/CTH FF intersection – conversion to a diamond interchange
- STH 29/CTH FF interchange ramps – roundabouts installed
- Golden Pond Park Ct. - access relocated farther away from ramps
- STH 29/Sunlite Dr./Woodland Rd. intersection - Woodland Rd. and Sunlite Dr. relocated in order to remove intersection with STH 29
- STH 29/Catherine Dr. - cul-de-sac built at Catherine Dr., east of Woodland Rd./Sunlite Dr.
- CTH FF/Golden Pond Park Ct./Navajo Trail - roundabout installed
- Sherwood St./Shawano Ave. (CTH C) – roundabout installed

Phase II has not been completed but includes the following elements:

- STH 29/CTH VV intersection - Design for converting to a diamond interchange
- STH 29/North Pine Tree Rd. - Current Pine Tree Rd. to be extended over STH 29

- Milltown Rd. - Realignment
- Old Highway 29 - Realignment
- STH 29/CTH U – Overpass

Funding has not been approved for Phase II. Real estate acquisition will not begin until construction funding is secured. It is currently estimated that Phase II will cost \$27,100,000.

I-41 Interstate Designation and Expansion Project

The Federal Highway Administration officially approved the Interstate designation in late 2014. Installation of about 3,000 new signs throughout the I-41 Corridor is expected to be completed in 2015.

The expansion of I-41 between CTH F and CTH M in Brown County began in 2010 and is programmed to be completed in 2017. Over this 14-mile stretch, the project will include the addition of 24 roundabouts and nine rebuilt interchanges.

Eastern Arterial Extension

The Eastern Arterial (CTH EA) between STH 54/57 and STH 29 has been recognized in Brown County and community plans since the 1960s as an important north-south route east of I-43. Brown County, Green Bay, and Bellevue have been actively planning, programming, and constructing segments of the arterial for the last several years, and the corridor is expected to be completed between STH 54/57 in Green Bay and STH 29 in Bellevue by 2018.

WisDOT has completed an environmental study for the extension of CTH EA from STH 29 to US 141/CTH R. Although this extension project is not currently programmed, the study recommends that EA be extended directly south to US 141/CTH R.

It is also possible that the Eastern Arterial will be extended south to I-43 during the life of the plan.

Traffic Model Findings Following the Addition of Major Planned Projects

After adding these major planned projects to the existing and committed project model, the outputs suggested that nearly all of the Metropolitan Planning Area's street and highway system will be able to handle the traffic projected for 2045 (especially if transit service continues to complement the street and highway system). However, the model also indicated that some deficiencies (congestion) may still exist on a handful of streets in the area. The results of these model runs are shown in the following figures.



Figure 9
Existing + Committed + Planned Projects
Future Land Use Scenario - Based on Community Comprehensive Plans
Southern Bridge and Arterials Option 1 North
Brown County, WI

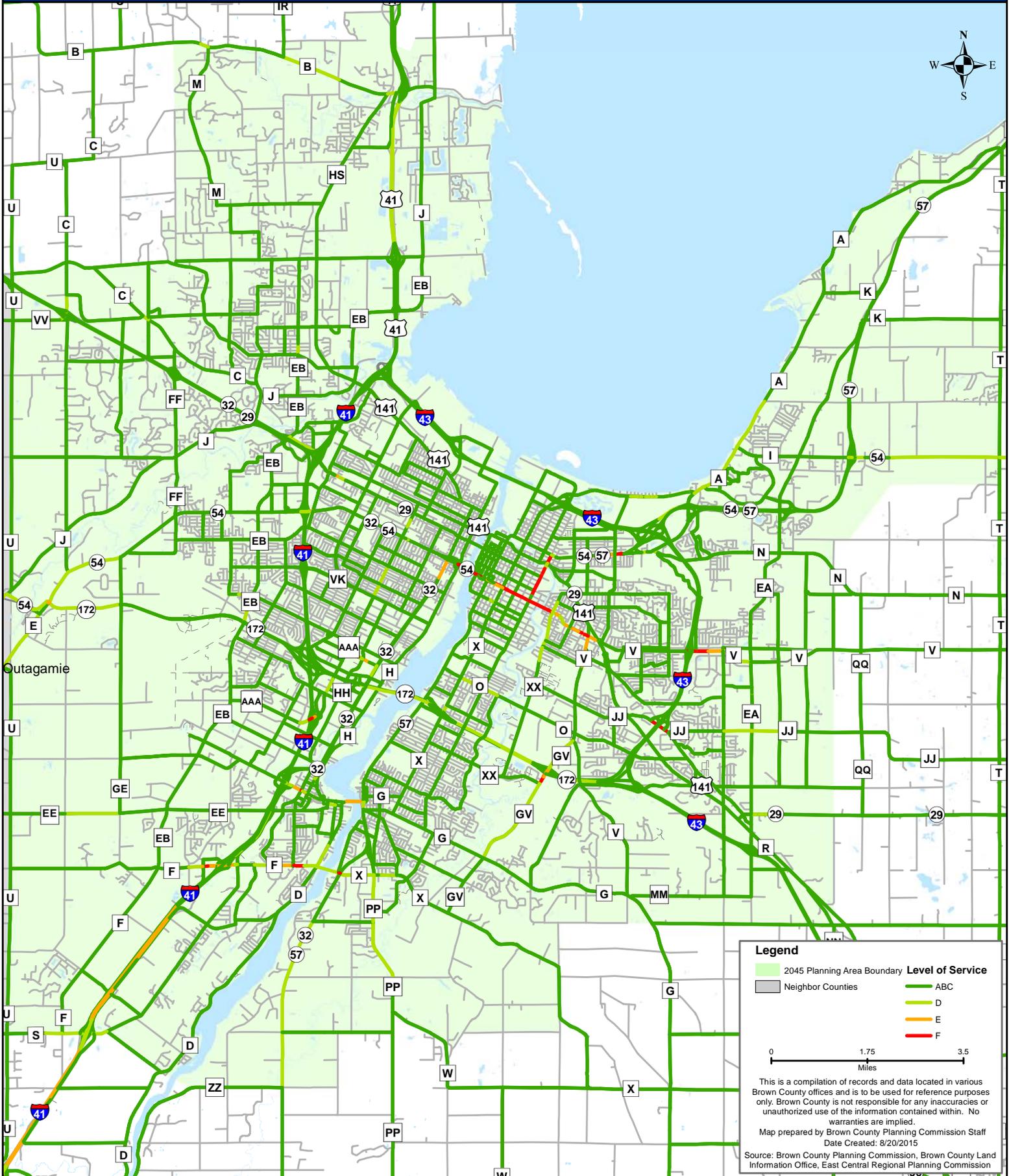


Figure 10



Existing + Committed + Planned Projects Future Land Use Scenario - Based on Community Comprehensive Plans Southern Bridge and Arterials Option 2 South with I 41 Interchange

Brown County, WI

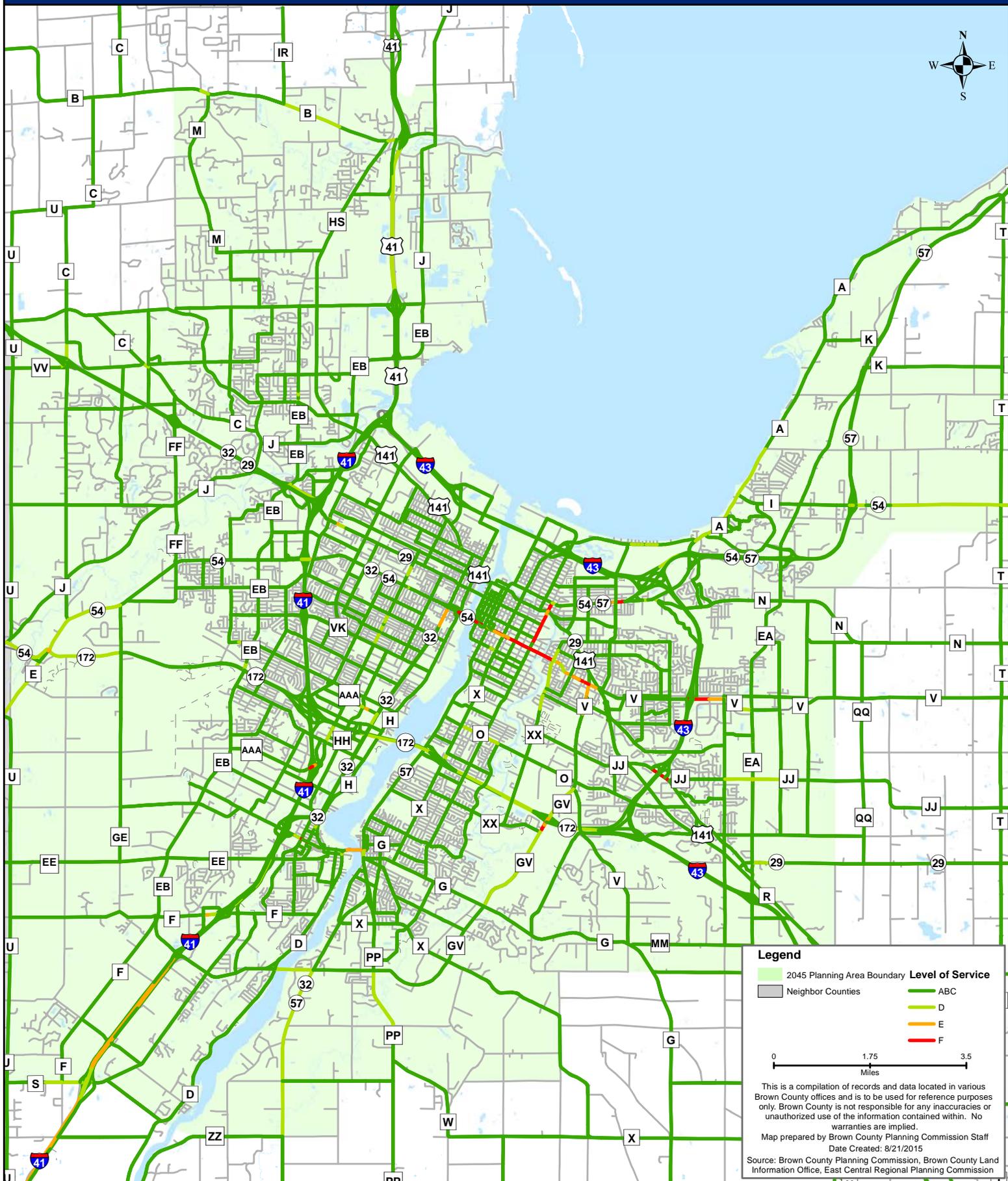




Figure 11

Existing + Committed + Planned Projects Future Land Use Scenario - Based on Community Comprehensive Plans Southern Bridge and Arterials Option 3 South with I 41 Overpass

Brown County, WI

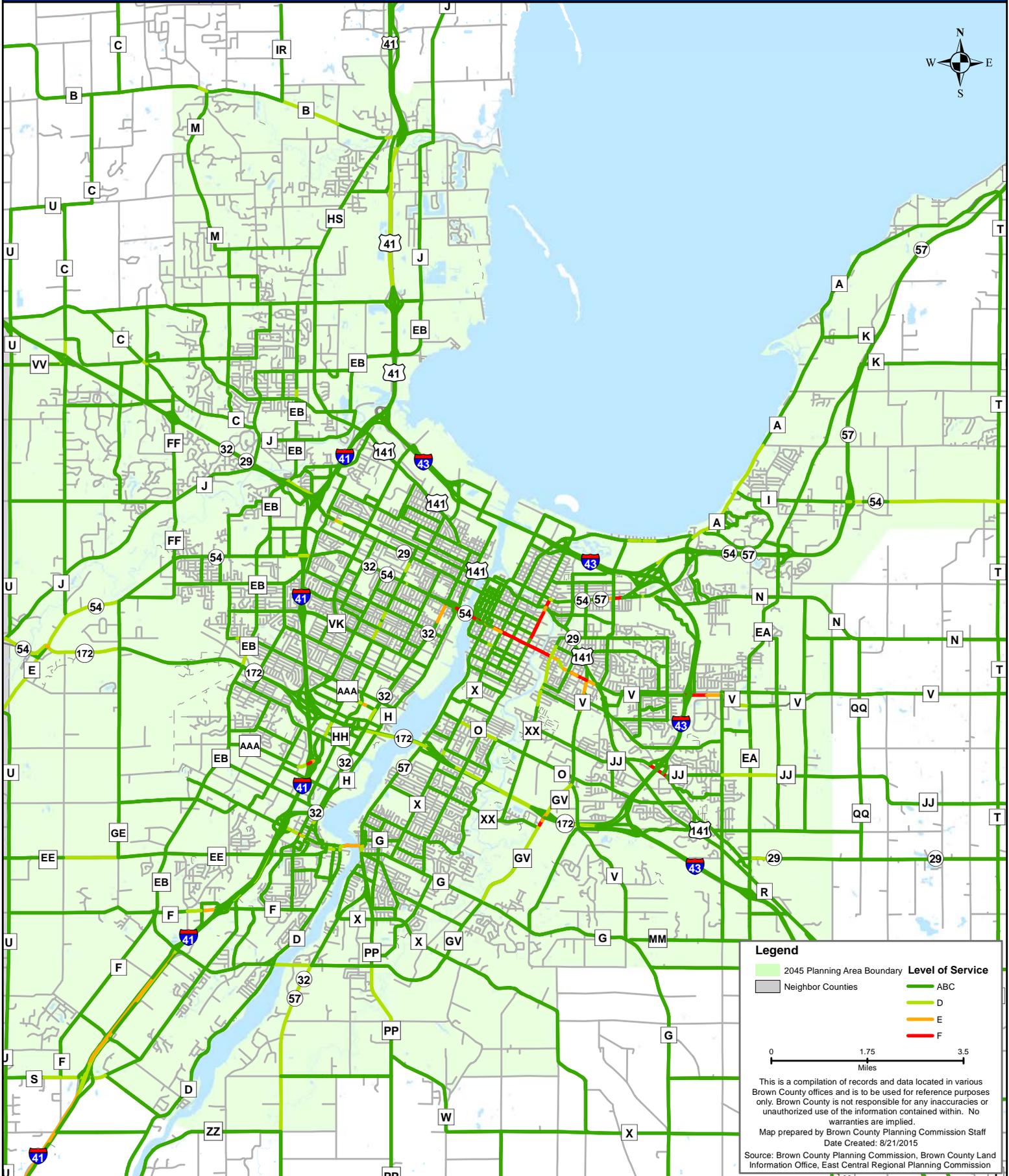
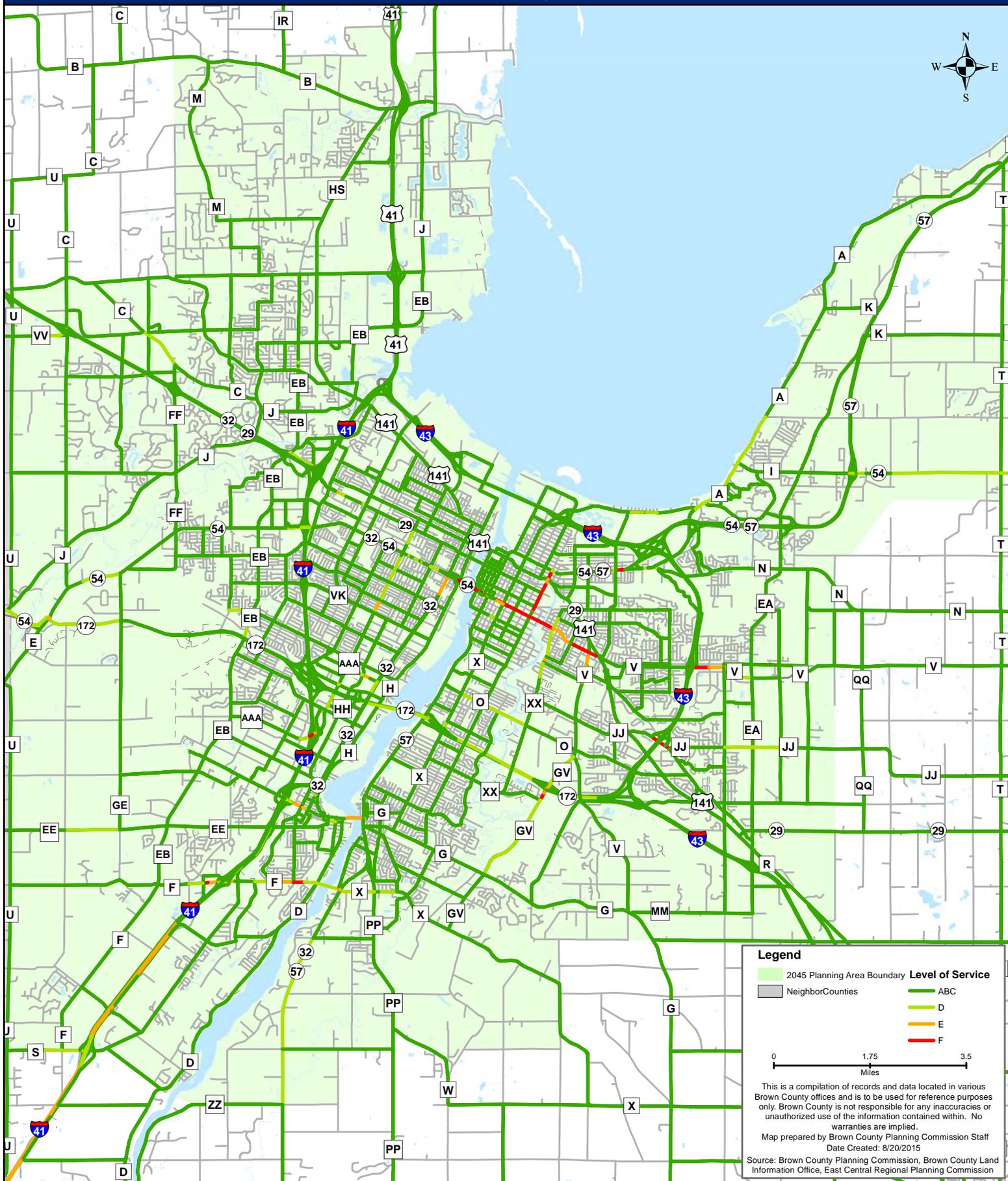


Figure 12

Existing + Committed + Planned Projects Alternative Land Use Scenario - High Density Southern Bridge and Arterials Option 1 North

Brown County, WI



Legend

| | | | |
|--|-----------------------------|--|----------------------|
| | 2045 Planning Area Boundary | | Level of Service ABC |
| | NeighborCounties | | D |
| | | | E |
| | | | F |

0 1.75 3.5
Miles

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Map prepared by Brown County Planning Commission Staff
Date Created: 8/20/2015

Source: Brown County Planning Commission, Brown County Land Information Office, East Central Regional Planning Commission

Figure 13

Existing + Committed + Planned Projects
Alternative Land Use Scenario - High Density
Southern Bridge and Arterials Option 2 South with I 41 Interchange

Brown County, WI

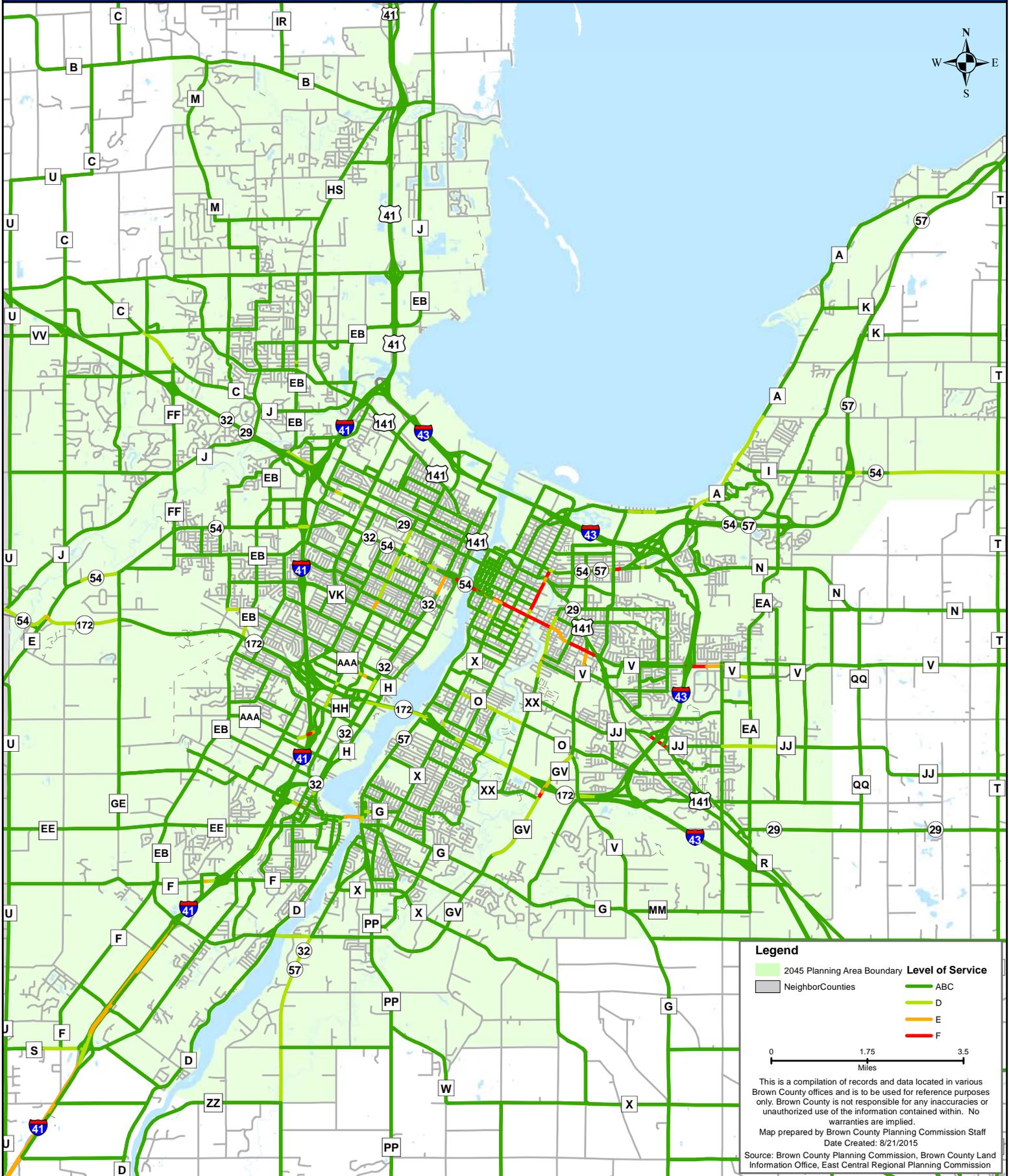
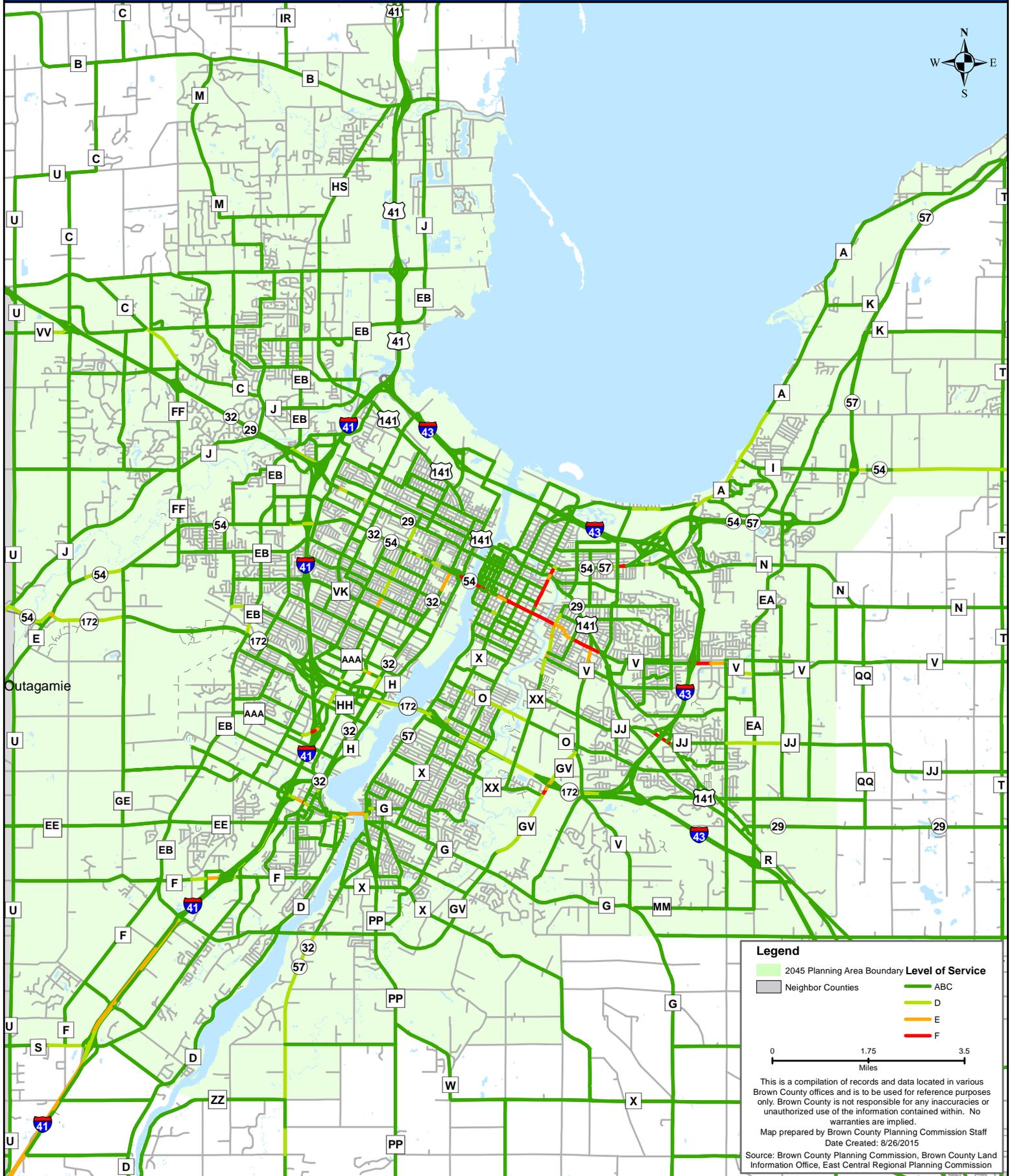




Figure 14
Existing + Committed + Planned Projects
Alternative Land Use Scenario - High Density
Southern Bridge and Arterials Option 3 South with I 41 Overpass

Brown County, WI



County Highways and Community Streets

The communities within the Green Bay Metropolitan Planning Area currently have relatively few multi-lane streets, but some of the two-lane streets are still at least 40 feet wide. The communities also contain cul-de-sacs and long blocks that provide infrequent connections to intersecting streets. In addition to being expensive to construct and maintain, the wide streets encourage people to drive rapidly through neighborhoods, school zones, and other areas where high speeds are not appropriate. The long blocks, cul-de-sacs, and separation of land uses in the newer portions of the communities also do more than encourage people to drive from place to place – they often force them to drive because other transportation modes are not practical.

To enhance everyone's ability to safely and efficiently navigate the metropolitan area's transportation system with and without personal vehicles, the Metropolitan Planning Area communities are encouraged to:

- Increase street connectivity and intersection frequency.
- Minimize barriers to pedestrian and bicycle travel and encourage people to drive at appropriate speeds.
- Improve accessibility and safety at intersections and other potential conflict points.

Methods of achieving these aims are addressed in this section.

Develop a Complete Streets Policy for Street Construction and Reconstruction Projects

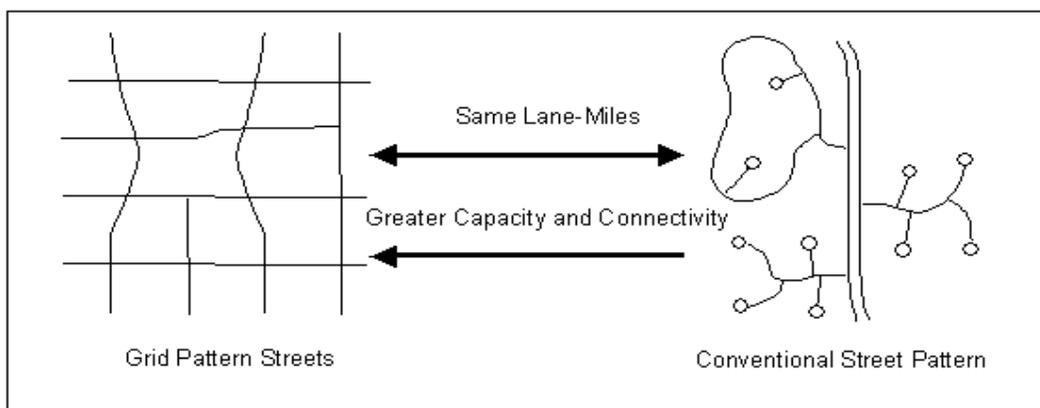
Metropolitan area communities should develop “complete streets” policies for construction and reconstruction projects to ensure that bicyclists, pedestrians, and motorists can be safely and conveniently accommodated on all streets. The communities should also work with the state and county to ensure that state and county highways in the metropolitan area communities are built and rebuilt to safely and conveniently accommodate all transportation modes.

A complete streets approach to planning, design, and construction would improve accessibility throughout the metropolitan area and be consistent with the MPO's STP-U project evaluation and scoring process that was approved by the BCPC Board of Directors in May of 2015.

Develop Well-Connected Street Patterns

To enable and encourage people to walk and bicycle throughout the metropolitan area communities, the communities are encouraged to require the development of well-connected street networks within new developments that have frequent connections to the existing street system. These kinds of street patterns also provide motorists several route options and avoid concentrating traffic on relatively few streets. A comparison of well-connected and conventional street patterns is shown on the following page:

Comparison of Well-Connected and Conventional Street Patterns



Although well-connected street patterns enable traffic to be distributed evenly, are very accessible to a variety of transportation system users, are easy for public works departments to plow and maintain, enable communities to create efficient sewer and water systems (that do not have several stubs), and provide efficient routes to incidents for fire departments and other emergency responders, situations will arise where streets cannot be connected due to physical or environmental constraints. If constraints prohibit street connections, the metropolitan area communities are encouraged to allow the development of cul-de-sacs near the constraints. However, to maximize connectivity in these neighborhoods, the cul-de-sacs should have public rights-of-way or easements reserved at the bulbs to enable pedestrians and bicyclists to travel throughout the area easily. This connectivity concept is further discussed later in this plan.

Allow the Construction of Narrow Streets

Many communities currently require streets to be at least 36 feet wide and rights-of-way to be at least 70 feet wide. Street and right-of-way widths are typically narrower for town roads, but rural subdivisions also contain relatively wide streets and rights-of-way. Although the construction of wide streets has been standard practice for many years, these widths are typically not necessary (especially within residential neighborhoods) and force communities to maintain a significant amount of land that could instead be taxable property. To address this issue, the street width requirements in the communities' subdivision ordinances are encouraged to be amended to allow the construction of narrower streets. The ordinances should also be amended to establish right-of-way width standards that do not require the acquisition of more right-of-way than necessary. A summary of street and right-of-way standards that should be considered by the communities as alternatives to the standards in the American Association of State Highway and Transportation Officials (AASHTO) Policy on the Geometric Design of Highways and Streets is included in the table below. These alternative standards are based on recommendations in Residential Streets (third edition), which was developed by the Urban Land Institute in conjunction with the Institute of Transportation Engineers, National Association of Homebuilders, and American Society of Civil Engineers.

Alternative Street and Right-of-Way Width Standards Summary

| Street Type | Right-of-Way Width * | Pavement Width (curb face to curb face) | Driving Lane Width | On-Street Parking | Parking Areas Defined by Curbs? |
|-----------------------|----------------------|---|--------------------------|-------------------|---------------------------------|
| Collectors | 60 feet | 34 feet | 9 - 10 feet | Both Sides | Yes |
| Local Streets | | | | | |
| No parking allowed | 40 feet | 18 feet | 9 feet | None | No |
| Parking on one side | 46 - 48 feet | 22 - 24 feet | 14 - 16 feet travel lane | One Side | If Needed |
| Parking on both sides | 50 - 52 feet | 26 - 28 feet | 10 - 12 feet travel lane | Both Sides | If Needed |
| Alleys | 16 feet | 12 feet | --- | --- | --- |

* The right-of-way width includes the widths of the driving area, parking area, curbs, terraces (between the sidewalk and street), and sidewalks.

The implementation of these standards will enable communities to reserve only the land they need to accommodate their streets, sidewalks, and terraces and to construct streets that conform to the development concepts addressed in the comprehensive plan.

Define the Parking Areas of Streets That Have Curbs

The parking areas of streets should be defined by curb extensions at many intersections throughout the metropolitan area when vehicle and pedestrian volumes warrant them. If a block is relatively long, extensions should also be placed at other points along the street. The curb extensions will prohibit drivers from using the parking lanes as passing or turning lanes at intersections and encourage people to drive slowly when parked vehicles are not present. The curb extensions will also minimize pedestrian crossing distances at intersections. Examples of curb extensions that were built along Fourth Street and Grant Street in De Pere are shown below.



Curb extension on Fourth Street in De Pere

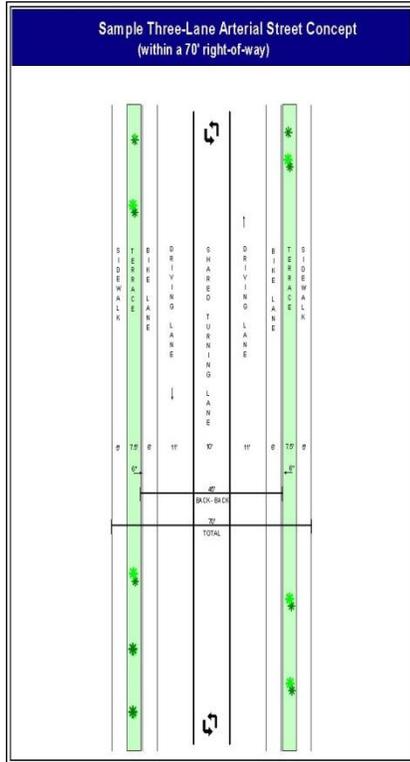


Curb extension on Grant Street in De Pere

Attempt to Avoid Expanding Streets to Four or More Lanes

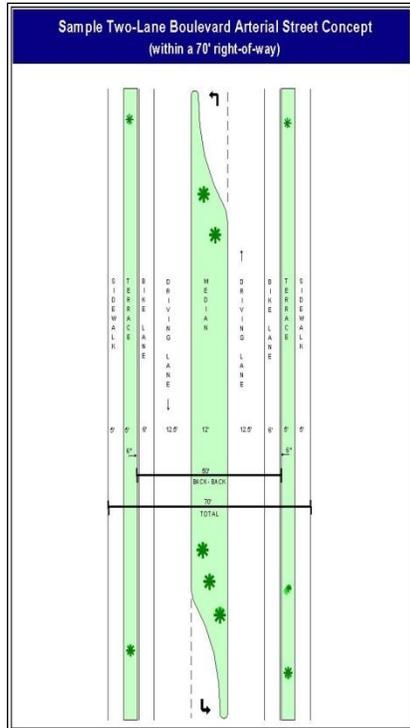
The typical response to traffic congestion throughout the United States is to widen streets to accommodate the traffic. However, the additional capacity offered by a widened street almost always attracts additional vehicle trips, and the result is that the widened streets often become congested again. Since street widening has proven to be an ineffective long-term method of relieving traffic congestion, Brown County and the metropolitan area communities should attempt to save the millions of dollars that would be necessary to expand the streets to four or more lanes and examine other approaches to reducing traffic congestion unless expansion is found to be absolutely necessary through the completion of traffic studies and other analyses.

One way to move traffic efficiently while minimizing barriers to pedestrian and bicycle travel and encouraging people to drive at appropriate speeds is through the construction of a system of two-lane arterial boulevards or three-lane arterial streets that are complemented by an interconnected collector and local street system, mixed land uses, and efficient traffic control techniques at intersections. The street interconnectivity and mixing of land uses make walking and bicycling viable transportation options and help to avoid forcing traffic onto a system of relatively few large arterial streets. Building narrower arterial streets instead of the standard wide arterial streets will also make thoroughfares more attractive throughout the metropolitan area.



Three-lane streets work well when arterial corridors contain driveways...





...but two-lane boulevards are ideal for streets that have little or no direct driveway



Source: Brown County Planning Commission

These and similar design techniques have been used in metropolitan area communities and are recommended in several comprehensive plans to create efficient and attractive arterial streets that promote neighborhood compatibility and accessibility for everyone.

Continue to Design Intersections to Maximize Safety and Accessibility

Green Bay Metropolitan Area communities should continue to utilize street design techniques that reduce vehicle speeds, minimize the possibility of conflicts, and enhance traveler awareness to maximize pedestrian, bicyclist, and motorist safety and accessibility at intersections. Techniques that the Green Bay Metropolitan Area communities should continue to use include roundabouts, curb extensions at intersections, and other similar street design features. The narrower street widths recommended in this chapter can also help make intersections safer by controlling the speed of vehicles as they approach the intersections.

Roundabouts in the Metropolitan Planning Area

As of July 2015, there were 67 existing roundabouts and 14 planned roundabouts in the Metropolitan Planning Area with an additional four existing or planned for the rural area of Brown County. Existing and planned roundabouts are shown in Figure 15.

Potential Roundabout Locations in the Metropolitan Planning Area

Because the existing roundabouts have proven to be very successful, the metropolitan area's communities should continue to work with the Brown County Planning Commission, Brown County Public Works Department, and Wisconsin Department of Transportation to build the roundabouts that are scheduled for the area and to study the possibility of installing roundabouts at other intersections. The communities should also continue to install roundabouts at minor intersections to calm traffic and enhance the appearance of neighborhoods.



Lineville/Cardinal roundabout in Howard/Suamico



Bicyclist traveling through a roundabout in De Pere

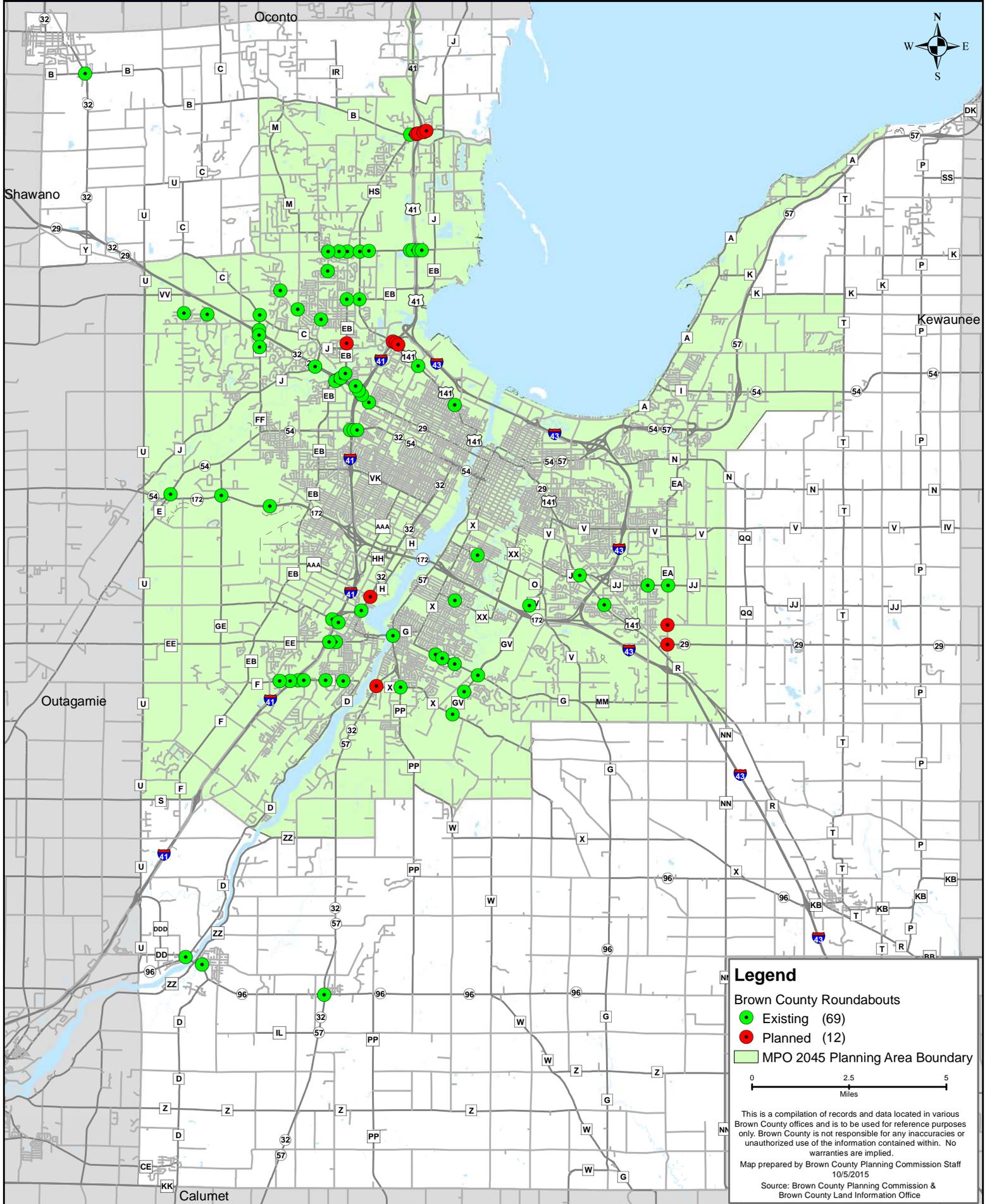
Pedestrian and Bicycle Facilities

The metropolitan area communities have been implementing the bicycle facility recommendations in the Brown County Bicycle and Pedestrian Plan Update since the update was completed in 2011, and trail systems are being built throughout the area to serve regional and local purposes. Some communities continue to not require sidewalks along all of their streets and highways, but many communities have adopted comprehensive and other plans that call for the installation of sidewalks in new developments and in other areas. However, development in some communities continues to be characterized by cul-de-sacs, horseshoe streets, long blocks, and other design features that make walking and bicycling difficult and undesirable.



Figure 15 Existing and Planned Roundabouts as of September 2015

Brown County, WI



Legend

Brown County Roundabouts

- Existing (69)
- Planned (12)
- MPO 2045 Planning Area Boundary

0 2.5 5
Miles

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Map prepared by Brown County Planning Commission Staff
10/5/2015

Source: Brown County Planning Commission &
Brown County Land Information Office

To enable people of all ages and physical abilities to travel from place to place on foot and by bicycle, the metropolitan area communities should:

- Develop land use patterns that enable and encourage walking and bicycling.
- Continue to create safe and continuous pedestrian and bicycle systems.
- Enable people to easily reach developments on foot or by bicycle.

Methods of enabling and encouraging metropolitan area residents and visitors to walk and bike are addressed in this section.

Mixing Land Uses

To enable and encourage people to make additional walking and bicycling trips, metropolitan area communities are encouraged to mix land uses to create destinations that can be easily reached by pedestrians and bicyclists. The additional mixing of residential, commercial, institutional, and recreational uses will enable people of all ages and physical abilities to travel from place to place without motorized vehicles, which will significantly improve mobility for all residents and minimize traffic on the existing street and highway system.



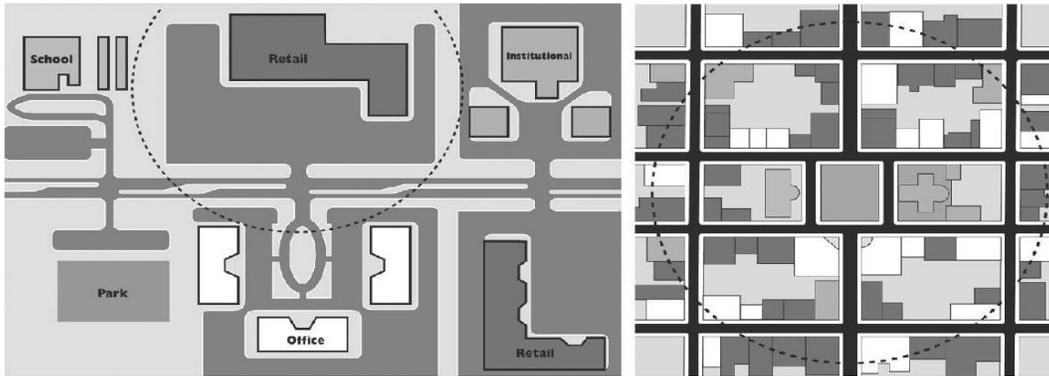
Dentist's office in a De Pere neighborhood



Dairy and Deli located on Gray Street in a Green Bay neighborhood.

The image on the following page compares a conventional land use and street pattern with a mixed land use and well-connected street pattern. The dotted circle on the diagram represents a 500-foot radius, which is a distance that most people feel comfortable walking. This diagram demonstrates that a greater number and variety of destinations are easily reachable on foot (and by bicycle) when land uses are mixed and streets are frequently interconnected. Street connectivity in neighborhoods enables people to travel much shorter distances to reach their destinations than a system with few connections.

Segregated Land Uses vs. Mixed Uses with High Connectivity



The older neighborhoods in Green Bay, De Pere, and other communities have many of the characteristics of the high connectivity diagram on the right side of the image, but newer developments in many of the metropolitan area communities tend to resemble the diagram on the left. To enable and encourage people of all ages and physical abilities to travel from place to place safely and easily, the communities are encouraged to require the creation of well-connected and diverse neighborhoods that contain pedestrian and bicycle facilities (such as sidewalks, trails, bicycle lanes, and other facilities).

Developing Comprehensive Sidewalk Systems in Metropolitan Area Communities

Most metropolitan area communities have developed and adopted policies requiring the installation of sidewalks (at least to some extent) in all new developments. The table below provides a summary.

| Metropolitan Area Community | Sidewalk Policy per Subdivision or Other Ordinance* |
|-----------------------------|---|
| City of De Pere | Yes |
| City of Green Bay | Yes |
| Village of Allouez | Yes |
| Village of Ashwaubenon | No |
| Village of Bellevue | Yes |
| Village of Hobart | No |
| Village of Howard | Yes |
| Village of Suamico | Yes |
| Town of Green Bay | No |
| Town of Lawrence | Partial |
| Town of Ledgeview | Yes |
| Town of Rockland | Yes |
| Town of Scott | Yes |

* The specific requirements vary by community.

It is recommended that all metropolitan communities without a comprehensive sidewalk policy adopt a policy as soon as possible, and methods of creating a sidewalk system that could be included in a community policy are summarized in the following section.

Methods of Creating a Sidewalk System

In addition to providing a place for people of all ages and physical abilities to travel safely, sidewalks are a place for friends and neighbors to interact with each other, for children to play, and for commerce to occur. Sidewalks also provide the “street life” that helps to enhance neighborhood security. For these and other reasons, sidewalks should be installed along streets and highways within the metropolitan area.

A process for establishing sidewalk systems is summarized below.

Step 1: Require sidewalks in all new subdivisions. The communities could begin the process of creating their comprehensive sidewalk systems by requiring developers to install sidewalks on both sides of all streets in new subdivisions and by not approving new subdivisions that do not include sidewalks. The only situation where sidewalks should not be required on both sides of a street is when physical or environmental constraints exist. In these situations, sidewalks should be required on at least one side of the street.

Step 2: Install sidewalks along major streets and walk routes. Next, communities could install sidewalks along both sides of all existing home-to-school walking routes and all existing collector and arterial streets. These sidewalks will enable children to walk outside of the driving area and provide people a safe place to walk along the streets that carry high volumes of traffic.

Step 3: Construct sidewalks along the rest of the streets by identifying demand and consulting residents prior to street reconstruction projects. After requiring sidewalks along all new subdivision streets and installing sidewalks along all home-to-school walking routes and collector and arterial streets, the communities could work toward constructing sidewalks along the rest of their existing streets by identifying neighborhoods where people want sidewalks and meeting with residents prior to street reconstruction projects to determine if street narrowing and sidewalks should be elements of the projects.

Walkways Along Streets with Reverse Frontage Lots

One of the reasons that sidewalks are not installed along major streets is that many of these streets do not have homes or other developments that directly face or access them. This lack of direct access prevents governmental (state, county, and local) entities from assessing for the costs of the sidewalks and makes it difficult to justify requiring property owners to maintain them, and these entities often do not want to make the equipment and labor investments needed to maintain the sidewalks themselves. Unfortunately, this results in minimal or no pedestrian access along streets where traffic is very heavy and many commercial and other destinations are located. It also restricts the ability of non-drivers to travel in the newly developed parts of the metropolitan area because the arterial street system must be used at some point to make many trips in these areas.

If sidewalks cannot (or will not) be installed, the state, county, and local governments should consider enhancing pedestrian access along major streets that have reverse frontage lots and little or no driveway access by constructing multi-use trails that are 10 or 12 feet wide. Once the trails are installed, they can be plowed and maintained using equipment that governments at all levels already have. But before installing trails that run parallel to streets, communities should assess whether or not the trails will be safe for bicyclists and other users. A technique for doing this is called the Sidepath Suitability Index.

Determining the Safety of Bicyclists on Parallel Trails Using the Sidepath Suitability Index

A method of estimating the relative safety of bicyclists on trails (or paths) that run parallel to streets was recently developed by the League of Illinois Bicyclists (LIB). This “Sidepath Suitability Index” is designed to enable communities and other entities to rate the safety of existing parallel paths, determine if a new path would be an appropriate option, and identify methods for making existing or planned paths as safe as possible.

To assess the suitability of placing a path along a road segment, the following factors are considered:

1. **Intersection traffic**, which considers vehicle volumes, vehicle speeds, the number of driveway and street intersections, and other conditions.
2. **Path continuity**, which measures the impact of gaps (unpaved areas, etc.) that exist along the path.
3. **Curb cuts**, which considers whether or not curb cuts exist at street and driveway crossings.
4. **Pedestrian use**, which considers the level of pedestrian use and the conflicts that exist or could exist between walkers and bicyclists.
5. **Crosswalks**, which measures the visibility of crosswalks at intersections.
6. **Separation between intersections and sidepaths**, which considers the proximity of the path's intersection and driveway crossings to the parallel road.

Each of these factors is assessed and scored, and the final score is used to determine the overall suitability of the path by comparing the score to the categories in the following table:

| <u>Sidepath Suitability</u> | <u>Points</u> |
|-----------------------------|---------------|
| Most Suitable | 0-7 |
| Somewhat Suitable | 8-9 |
| Least Suitable | 10-11 |
| Not Suitable | 12+ |

If communities intend to emphasize the construction of parallel paths, it is important that those who will be involved in developing these paths carefully consider where the paths should and should not be built. The following two examples illustrate how the suitability index works.

Example 1: *A street segment with very few access points that has curb cuts and highly visible crosswalks at intersections. The sidepath crosswalks are close to the parallel street at the crossings, and pedestrian use of the path is moderate.*

After completing the analysis shown in Appendix 2, this segment's suitability rating was found to be 4, which falls within the Most Suitable category. This result suggests that a path along this segment that includes the features summarized in Example 1 would be acceptable.

Example 2: *A street segment that intersects often with commercial driveways and streets. This segment has curb cuts and highly visible crosswalks at street intersections. The sidepath crosswalks are close to the parallel street at the street intersections, but the driveway crossings are not close to the parallel street. Pedestrian use of the path is moderate here as well.*

After completing the analysis shown in Appendix 2, this segment's suitability rating was found to be 11, which falls within the Least Suitable category. This result suggests that a path along this segment that includes the features summarized in Example 2 would not be as safe as on-street bicycle lanes because of the relatively high number of street and driveway crossings and the possibility that drivers will not see oncoming bikers because the drivers will tend to look for gaps in traffic instead of bicyclists on the path.

In situations where parallel multi-use paths are found to fall within the Not Suitable or Least Suitable categories, communities should strongly consider adding on-street bicycle lanes and sidewalks instead of the paths. Communities should also consider choosing on-street lanes and sidewalks over multi-use paths in situations where the parallel paths fall within the Somewhat Suitable category. However, if

communities still want to build paths when undesirable conditions exist, they should try to maximize the paths' suitability by minimizing the number of conflict points and making the paths as visible as possible to drivers.

Developing Pedestrian and Bicycle Trail Systems in Urban and Rural Communities

The number of trails in the metropolitan area has steadily grown for several years, and studies have shown that facilities like the Fox River Trail are heavily used and contribute to the economic health of the area. In addition to the county-operated Fox River and Mountain-Bay Trails, local trail systems exist or are being developed in many of the area's communities. The Oneida Nation is also in the process of developing a trail along the former Wisconsin Central rail line between Howard and New London.

Over the next 30 years, it is important to continue developing trails throughout the metropolitan area and to link as many of the trails as possible to create a continuous system that serves the urban and rural areas and connects Brown County to the surrounding counties. Some examples of trail connections that should be pursued include:

- Extending the East River Trail through the Town of Ledgeview to connect to the Fox River Trail on the north or south side of Rockland Road.
- Complete the East River Trail Extension. Once built, the trail will fill the one-mile gap between the Fox River Trail and the East River Trail (approximately Quincy Street east to Baird Street) through the historic Olde Main Street District. Planning for the "missing link" has been completed with the publication of the East River Trail Connection Plan. Funding for this project will be sought through grants and public/private partnerships.
- Continue to pave portions of the Fox River Trail. The trail is currently paved with asphalt from Green Bay to Lasee Road in the Town of Rockland, and the trail continues south with limestone cover into Outagamie County. The county should seek grants and funds through private/public partnerships to accomplish this task.
- Working with the Oneida Nation and Wisconsin DNR to develop access and trailhead facilities for the proposed trail along the former Wisconsin Central rail line between Howard and New London.

Trails should also be developed along other rail rights-of-way as they are proposed for abandonment throughout the metropolitan area over the next 30 years, and unpaved trails should be considered for paving if they are located in densely developed areas.

Designing Developments That Provide Direct Access to Sidewalks and Streets

Many buildings in downtown Green Bay, downtown De Pere, and in other heavily developed parts of the metropolitan area can be easily reached by pedestrians, bicyclists, and motorists because they have minimal or no setbacks. However, many developments are more difficult to reach on foot or by bicycle because they were built a significant distance from the street and are fronted by large parking lots that are difficult for walkers and bikers to cross. Examples of these types of developments include most large discount stores, large grocery stores, and strip developments along arterial streets.



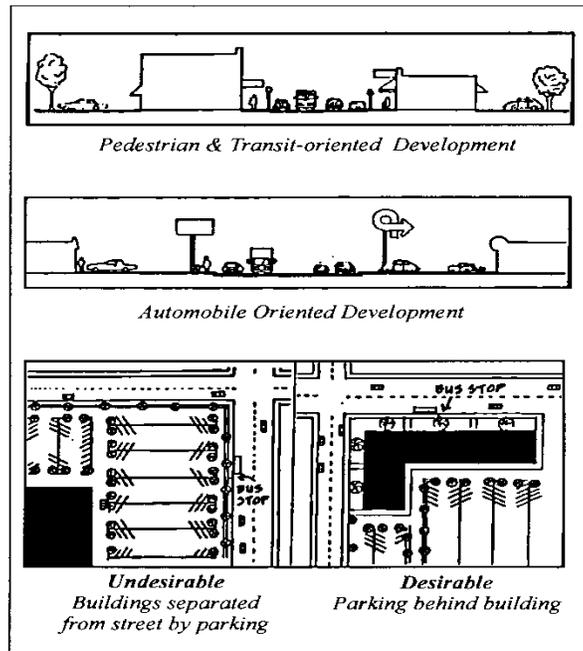
Parking lots between sidewalks and buildings discourage walking and bicycling,



...but buildings that provide direct access to sidewalks and streets encourage walking and bicycling.

To enable and encourage people to travel to destinations with and without motorized vehicles, the metropolitan area communities should encourage the development and redevelopment of buildings that have zero or minimal setbacks, parking along the side or in the rear, and other features similar to those recommended in the plan's Land Use chapter (see image below for examples of auto-oriented vs. pedestrian- and transit-oriented development patterns). People will still be able to reach their destinations with motorized vehicles, but these design features will also enable and encourage people to travel to them using other transportation modes.

Pedestrian- and Transit-Oriented Development vs. Automobile-Oriented Development



Ensuring That All Transportation Structures Have Pedestrian and Bicycle Facilities

The County and metropolitan area communities should continue to work with the Wisconsin Department of Transportation to ensure that all bridges, interchange overpasses, and other transportation structures have adequate pedestrian and bicycle facilities when they are constructed or reconstructed. The new Fox River bridge and new interchanges, overpasses, and underpasses along the I-41 corridor are examples of facilities that will need to be equipped with adequate pedestrian and bicycle facilities when they are built to avoid the cost and inconvenience of retrofitting the structures in the future.

Enabling People to Travel Easily Between Subdivisions and Other Developments When Cul-de-sacs Are Necessary

In some parts of the metropolitan area, the well-connected street networks recommended earlier in this chapter will not be feasible due to the presence of existing development or environmental/physical constraints. When cul-de-sacs must be built and development and physical barriers are not insurmountable, the communities should require the designation of public rights-of-way at or near the end of the cul-de-sacs for multi-use paths that connect to neighboring subdivisions, schools, parks, and other destinations. These paths should be between 10 and 12 feet wide and paved to accommodate pedestrians, bicyclists, skaters, and other non-motorized uses. This width and surface will also be able to handle authorized vehicles such as park and public works trucks.

Bicyclist, Pedestrian, and Driver Enforcement Activities

Treat Enforcement Actions as Education and Outreach Opportunities

As pedestrian and bicycle systems continue to be developed throughout the Green Bay Metropolitan Area and communities and residents are being educated on how to use them properly, law enforcement agencies should support these efforts by enforcing the rules of the road as they apply to bicyclists, pedestrians, and drivers. These enforcement activities should initially be treated as education outreach programs where officers see offenses, stop the offenders, explain what they did wrong, and give them a leaflet or other piece of literature. The agencies could issue citations for serious violations and repeat offenses, but most ticketing should not occur until after the outreach element has been in place for several months.

Encourage Residents to Correct Unsafe Driving, Walking, and Bicycling Behavior

Because Green Bay Metropolitan Area has over 200,000 residents and law enforcement agencies have to enforce *all* laws, it is impossible for the agencies to correct most of the unsafe bicycling, walking, and driving behavior. To help the agencies with this effort, residents should be encouraged to remind their friends, families, neighbors, and others that:

- Bicyclists must ride with traffic and stop at stop signs and signals.
- Drivers must yield to pedestrians in crosswalks.
- Pedestrians and bicyclists must provide drivers enough time to yield to them in crosswalks.
- Bicyclists belong on the street and should not be harassed by passing drivers.
- Drivers need to look for pedestrians before proceeding through intersections.

Bicyclist, Pedestrian, and Driver Education Activities

Develop a Complete Streets Policy for Street Construction and Reconstruction Projects

A complete streets policy should be developed for all street construction and reconstruction projects to ensure that bicyclists, pedestrians, and motorists can be safely and conveniently accommodated on all streets. Green Bay Metropolitan Area communities should also work with the state and county to ensure that state and county highways are built and rebuilt to safely and conveniently accommodate all transportation modes.

Several methods should be used to educate people about the rights and responsibilities of bicyclists, pedestrians, and drivers. Some examples of possible methods are summarized below.

Offer Bicycle Safety Training in Physical Education Classes

Bicycle crashes in the Green Bay Metropolitan Area and elsewhere often involve children, and many of these crashes are partially or largely caused by children making illegal or unpredictable movements at intersections. To maximize the likelihood that children will learn and retain the information they need to be safe bicyclists, bicycle safety training should be offered in grades K through 12 as a unit in gym classes. This program would be similar to many driver education programs in that it would combine classroom instruction with on-road experience. For the younger students, the emphasis would be placed on educating them about bicycle safety and the rules of the road. However, the older students would also be able to practice what they learn on a course situated on the school grounds or along actual streets. The bicycles for the on-road training could be donated to schools by local law enforcement agencies and maintained by local high school students in exchange for the community service credits that many of them need to graduate.

Continue to Offer Pedestrian and Bicycle Safety Programs at Schools

Special presentations at schools, bicycle education programs, and education and enforcement programs should continue to be offered at schools throughout the area. School liaison officers could also speak to classes or entire schools about bicycle and pedestrian laws and safety.

Ensure that Driver Education Courses Address how to Interact with Bicyclists and Pedestrians

The driver education courses offered through public schools and private companies should include units that address how to safely and lawfully interact with bicyclists and pedestrians. For example, young drivers should be taught that they must share the road with bicyclists and yield to pedestrians at marked and unmarked crosswalks. They should also be taught that bicycles are vehicles and that bicyclists must obey all traffic laws.

Install Share the Road with Bicycles Signs Along Bicycle Routes and Other Streets Where Bicycling is Common

Green Bay Metropolitan Area communities should consider installing “Share the Road with Bicycles” signs along signed bicycle routes and on other streets where bicycling is common to remind drivers to look for bikes and that bicyclists belong on the streets.

Developing land use patterns that enable and encourage walking and bicycling, expanding the metropolitan area’s pedestrian system, and enabling people to easily reach developments from the streets and walkways will enhance accessibility and mobility for everyone. This enhanced mobility and choice of viable transportation modes will also help attract new residents of all ages to the area, improve access to businesses, and allow the existing and future street and highway systems to handle traffic efficiently.

Transit

There are many reasons for the Green Bay Metropolitan Area to promote the use of mass transit over the next several decades. Transit-oriented land uses require far less space than vehicle-oriented land uses (such as parking lots and structures), it is a form of transportation that is available to anyone who wants to use it, a bus is a far more efficient use of the metropolitan area’s street system than an individual vehicle, a bus’s impact on the environment is much lower than the number of cars it would take to equal a bus’s carrying capacity, and transit enhances the livability of an area because it reduces people’s reliance on cars and minimizes the negative impacts of driving (noise, traffic congestion, etc.). But despite these positive attributes, Green Bay Metro primarily serves area residents who do not have access to cars. There are many reasons why the bus system appeals to these “captive” riders and does not appeal to many people who have other transportation options. Some of these reasons include:

Travel time. Since the Metro buses have to share the same streets (and the same delays) as personal vehicles, the buses do not provide travel time incentives for people who have the option to use their own vehicles. In most cases, buses actually take longer to travel from place to place than cars because the buses have to stop to pick up passengers. This time deterrent is especially significant for trips where people have to transfer to another route to reach their destinations.

Frequency, convenience, and reliability. Compared to many other transit systems, Green Bay Metro provides relatively average service frequency to many destinations in the metropolitan area. The most frequent Metro routes only provide access to these destinations every half hour, and the rest of the routes serve their areas once an hour. Although this service frequency is acceptable by transit standards, it cannot compete with the current level of convenience offered by personal vehicles that can be accessed quickly and driven to any destination without having to continually stop. The missed transfers that occasionally occur also make it difficult for people to rely on the system for work and other trips.

Urban design. Over the last decade, the communities in the Green Bay Metropolitan Area have built a handful of interconnected streets, sidewalks and trails, and other facilities that make transit an attractive and viable transportation mode. However, many land development projects still contain only minimal density and little mixture of uses (residential with commercial, etc.). Low-density and homogenous development patterns also make transit service very inefficient because the number of potential riders in these areas is low.

Another element of urban design that has made transit less appealing is the decentralization of the metropolitan area. When Green Bay was the area's clearly defined economic center, taking a bus from the outlying areas to downtown Green Bay for work, shopping, or other purposes was more convenient than it is today because transfers often weren't necessary and several destinations were within easy walking distance of the downtown transit center. But today, many large employers, educational institutions, commercial developments, and other destinations are located on the edge of the transit service area or outside the service area altogether. This situation makes taking the bus to these places inconvenient or impossible, and it is certainly one of many deterrents to transit use by those who have other transportation options.

Green Bay Metro provides a very important service to the metropolitan area, and it is important to enhance its attractiveness to non-captive riders as the area grows in the future. The vast majority of trips continue to be made in personal vehicles.

To significantly increase and sustain ridership over the next several years, Metro will have to overcome many well-established local, state, and federal policies, procedures, and preferences. This challenge will be difficult, but it is not impossible. Some methods of addressing these issues are discussed in the rest of this chapter.

Meeting the Challenge

To maximize its chances of significantly improving and sustaining ridership over the next several years, Green Bay Metro will need to work with state and local government representatives, elected officials at every level, private companies, and the public to create a viable set of coordinated transit incentives and automobile disincentives. Some examples of these measures that pertain to the issues discussed in the previous section are discussed below.

Establish a Regional Transportation Authority (RTA) or Similar Funding Mechanism

For many years, Green Bay Metro has been one of the most cost-effective transit systems in Wisconsin. Audits conducted by WisDOT and other agencies have shown that Metro consistently provides more rides for less money than nearly all of its peer systems throughout the state. But even though Metro has proven its ability to do a lot with a relatively small budget, the system's current and projected funding levels are not nearly enough to improve service to a point where most people believe that the buses are as reliable, convenient, and pleasant as personal vehicles.

To significantly enhance service for existing bus riders and make Metro a viable transportation option for non-riders, Metro will have to raise and sustain additional capital and operating money in the future. Since the current federal, state, and local funding sources will not likely increase substantially over the next several years, Metro should work with the Brown County Planning Commission (BCPC), the City of Green Bay, and its municipal partners to develop a strategy for the creation of a Regional Transportation Authority (RTA) or a similar funding mechanism that enables Metro to maintain or expand its service.

Improve Transit Travel Time

The best method of improving transit travel time is through the creation of busways or railways that have very few or no conflicts with other vehicles. These conflict-free rights-of-way enable transit vehicles to avoid traffic congestion and other impediments that would ordinarily slow them down, which makes transit travel more appealing to people. Being able to avoid the traffic congestion that drivers cannot avoid is also a very powerful method of encouraging people to choose transit over their cars.

Some examples of facilities that enable transit to operate on dedicated right-of-way include rapid rail lines (such as those that currently exist in Atlanta, San Francisco, and other large American cities), electric trolley lines, street and highway lanes that are devoted strictly to buses (busways), and high occupant vehicle (HOV) lanes that can be shared by transit vehicles and personal vehicles that contain more than one person.¹ These transit options are attractive to potential riders because they are not subject to many of the delays that the Green Bay Metro buses and other similar vehicles face by traveling on the same streets as everyone else. In many cases, these dedicated right-of-way transit modes are more attractive than driving because people actually save time during their work commutes and other trips.

The main obstacle to implementing a dedicated right-of-way transit system is the high cost of starting the system, and it is very unlikely that the Green Bay Metropolitan Area will build a rapid rail or electric trolley system within the next 30 years because of the cost and other constraints. It would be physically possible to convert some existing and planned street and highway lanes in the Green Bay area to HOV lanes (especially during events such as Packers games), and this might encourage people to choose the bus over their cars if the service is also frequent, reliable, and competitively priced. However, this policy would initially draw sharp criticism from many interests and might not be politically feasible as a result. Because of the cost and other factors, it is unlikely that transit service in the Green Bay Metropolitan Area will become attractive to “choice” riders in the future based solely on travel time savings.

Consider Maintaining Fares at Current Levels and Continue the Green Saturday Program

As transit operating costs escalate, Metro and systems like it are often pressured to raise fares to cover the additional expenses. However, the amount of money generated by fares is relatively small for many transit systems (fixed route fares cover only 15-18% of Metro’s overall expenses), and fare increases make it more difficult to attract riders to the systems. As a result, fare increases often do more harm to transit systems than good.

A transit system has a very difficult time competing with cars for the reasons discussed at the beginning of this chapter, so it is important for Green Bay Metro to make it as financially attractive as possible to potential riders. The Green Bay Transit Commission implemented Green Saturday in mid-2011. Green Saturday allows everyone to ride the fixed route system for free on Saturday. The program is designed to encourage non-riders to give Metro a try with the goal that they become fare-paying regular riders during the week. A survey of riders indicated that this has occurred. Response to the program has been positive as Saturday ridership has increased significantly. Green Bay Metro should continue to operate the Green Saturday Program.

¹ The number of required occupants varies from place to place. Some cities require four or more people to be in the vehicle, but many only require two or more occupants.

U-Pass Program

The U-Pass (or Universal Pass) Program began on July 1, 2008. The program allows participants an unlimited number of rides on any Green Bay Metro bus by scanning an authorized identification card. Metro is reimbursed for the trips by the participant at an agreed upon rate. UW-Green Bay, Rasmussen College, and St. Norbert College currently participate in the program. In 2014, Metro provided 39,708 U-Pass one-way trips. Metro is reimbursed for the trips by the participant at an agreed upon rate.

Green Bay Metro should investigate similar arrangements with other educational institutions and local businesses and entities.

Other transit fare incentives

In addition to maintaining the system's fare structure and expanding the U-Pass Program, Metro should continue to work with the area's large retail centers, hospitals, businesses, and other significant trip generators to establish programs that encourage transit use and discourage driving. Some examples of these programs include:

Travel allowance programs. Travel allowance programs can be established by employers to provide employees incentives to give up their cars in favor of the bus or another mode of transportation. The travel allowance is determined by the market value of a parking space used by an employee, and this amount is given to the employee to use for the parking space or a bus pass. The employee can also keep the allowance and find a non-motorized means of reaching work (walking, bicycling, etc.).

Transit trip validation programs. Nationally, many malls and other retail centers attempt to attract people to them by offering to pay for a portion of their customers' parking costs, but very few (if any) retail outlets offer validation programs for people who ride the bus. This program could be as simple as selling bus vouchers to interested businesses and having the businesses "validate" a shopper's bus trip by giving him or her a voucher following a purchase. The Metro service area contains several retail centers that might be interested in participating in a transit trip validation program, and the program would be relatively inexpensive to start and administer.

Create Park and Ride Partnerships with Owners of Private Parking Lots

Metro does not directly serve the state-owned park and ride lots in the Green Bay Metropolitan Area, but many of Metro's fixed routes directly serve developments that have large parking lots that are often partially occupied or empty. To encourage more people to ride the bus, Metro should contact area shopping centers, churches, and other developments with large lots to find out if the owners will allow people to use their lots as transit park and ride facilities.

Although the park and ride arrangements would be beneficial to Metro, the shopping centers and other for-profit developments could also benefit by having potential customers park at their facilities. The additional vehicles in the parking lots will also suggest to passersby that the participating businesses are popular places to shop.

Improve Service Frequency, Convenience, and Reliability

Unless an RTA or a similar funding mechanism can be created, Metro's budget situation will make it difficult to increase service frequency to a point where the bus can compete with private vehicles. One of the primary reasons that buses have a hard time competing is that it is much more convenient to drive a car because free or low cost parking is almost always available next to or near most destinations. However, there are ways to encourage people to choose the bus over their private vehicles even if additional transit money is not available. For example, the communities in the Metro service area could increase the cost of parking in community-owned ramps and lots and use the extra revenue to increase the frequency of transit service throughout the area. As controversial as this policy would likely be after it is implemented, it could be beneficial in many ways. First, the additional revenue would help to make

transit service more frequent and convenient, which would improve its appeal to people who can choose from a variety of transportation modes. Second, it would provide an incentive for people who do not have to drive to choose the bus (or another transportation mode), which could relieve traffic on the street system and extend the life of the existing infrastructure. Third, it would force drivers to recognize and absorb a larger portion of the cost of providing parking by increasing their direct (out-of-pocket) costs.

This parking pricing strategy could be implemented as a flat hourly increase or as a graduated fee. With a graduated fee system, people who park for long periods of time would pay a fee that increases every hour (e.g. \$0.75 the first hour, \$1.00 the second hour, \$1.25 the third hour, etc.). This approach would encourage commuters and other people who park for long periods of time and typically do not need their cars during the day to use the bus while accommodating people who make trips for business meetings and other time-sensitive trips where cars might be necessary.

Design Communities to be More Transit-Friendly

At the beginning of this chapter, some of the urban design characteristics that discourage or prevent many people from riding the bus were summarized. Although some of these characteristics will be very difficult to change, others are actually changing in some service area communities at this time. Some transit-friendly urban design characteristics are discussed in the following section.

Grid and grid-like street patterns. Well connected street systems minimize walking distances and enable people to reach bus stops much easier than if they have to walk the equivalent of several blocks to reach a stop.

Sidewalks. An interconnected street network should be complemented by an extensive sidewalk system to allow people to safely travel to and from bus stops and to provide a place to wait for the bus. Sidewalks are especially important to children, seniors, people who use mobility aids, and others who face a particularly high risk walking within the driving areas of streets.

Mixed land uses. The mixing of residential, commercial, institutional, and recreational uses provides several different trip generators for transit systems to serve.

Developments that provide direct access to sidewalks and streets.

Many buildings in the Metro service area are difficult to reach after exiting a bus because they were built a significant distance from the street and are fronted by large parking lots that are difficult for people to cross without being in a car. To encourage people to travel to destinations on a bus, communities should ensure that new and redevelopment projects have buildings with zero or minimal setbacks, parking in the rear, and other features that enable people of all ages and physical abilities to reach them safely and easily.

Developing land use and street patterns that enable and encourage transit use, creating a safe and continuous sidewalk system, and enabling people to easily reach developments from the streets and sidewalks will increase the attractiveness and viability of transit in the Green Bay Metro service area. The funding strategies, pricing incentives, and other recommendations in the long-range chapter of the *Transit Development Plan*, will also help make transit more competitive with cars and other private vehicles, but the strategies identified in this chapter must be accompanied by complementary policies that force people to realize the high financial, environmental, and social costs of excessive driving. The Green Bay Metropolitan Area is not currently facing the severe traffic congestion and other vehicle-related issues that Houston, Atlanta, and other large automobile-dependent communities are experiencing, but our future could be similar to these communities' situations if a strong effort is not made to develop a more balanced transportation system that contains a transit system that people with and without other mode options are willing and able to use.

Specialized Transportation Services for Individuals with Disabilities

Individuals with qualifying disabilities in communities that are in Metro's fixed route service area will continue to have access to the service offered by Metro's paratransit provider within $\frac{3}{4}$ of a mile of each fixed route. Although there are other private companies in the Green Bay Metropolitan Area that offer the same service, Metro's paratransit provider is able to offer clients a very low per-trip rate that is largely subsidized by Metro. The Metro paratransit provider is also obligated to pick up and drop off clients within time limits specified in a contract with Metro (which is based on standards in the Americans with Disabilities Act), so the service is very reliable. Retaining access to this service will be very important in the future as the population continues to age, and many agencies, such as the CP Center and Curative Connections will continue to rely on Metro's paratransit provider to transport clients to and from their facilities.

Rail Transportation

Freight Rail

With the absence of all intermodal freight facilities in the Green Bay area for over a decade, a Brown County Intermodal Freight Committee comprised of private industry & public sector membership was established in 2012 to investigate the re-opening of a rail ramp to not only enhance existing service but to attract new businesses to the area. The committee met for over a year and recommended the re-establishment of a rail ramp in Green Bay.

However, as stated earlier in the report, the CN Railroad has a business model that establishes intermodal facilities 500 miles from each other. Because an intermodal facility already exists in Chicago, CN establishing an intermodal facility in Northeast Wisconsin will be a challenge. Green Bay will need substantial private industry participation in order to drive the establishment of an intermodal freight facility.

Passenger Rail

The Green Bay Metropolitan Area communities do not currently have access to passenger rail service, but a high speed passenger rail line extended to the Green Bay Metropolitan Area is included in the Midwest Regional Rail Initiative (MRRRI) plan. If this service is implemented, it will provide another means for area residents to travel throughout the Midwest without using their personal vehicles. The implementation of this service will also enhance the attractiveness of public transit to metropolitan area residents by enabling them to use the bus to reach what will likely be the area's primary MRRRI terminal in downtown Green Bay.

Austin Straubel International Airport can also benefit from this service if the airport can cooperate with Green Bay Metro or another local transportation provider to transport passengers between the MRRRI terminal and the airport. For this to succeed, the airport will have to also market the service to people who live outside the area and offer incentives (in addition to avoiding long-term parking charges) to use the train. The airport should also prepare a strategy to reclaim some of its passengers if people who would ordinarily fly through Green Bay choose to use the train to travel to General Mitchell Field in Milwaukee.

Attempts to implement the MRRRI plan or other high speed intercity passenger initiatives have been denied in recent years with several states (including Wisconsin) cancelling or rejecting the federal funds that were offered to help establish and operate the service.

Air Transportation

Austin Straubel International Airport will continue to provide air service to people traveling to and from the Green Bay Metropolitan Area, and the expansion of Green Bay Metropolitan Area's commercial and industrial base over the life of the plan will likely increase the demand for air freight service at the airport.

According to the 2012 *Austin Straubel International Airport Development Committee Study & Findings Report*, the airport must begin the process of evolving its existing business model, which relies strictly on passenger flow to financially sustain itself. The airline industry is no longer focused on passenger volume, but instead on revenue volume per passenger. Accordingly, the airport must further diversify its revenue streams in order to remain sustainable as the airline industry moves forward, carrying fewer passengers, thereby reducing airport revenue. The airport must begin to look at other sources of revenue to remain financially viable by developing a comprehensive strategic plan that identifies these potential revenue sources.

A long-term strategic plan should encompass the following three points to ensure sustainable future development:

- Utilization of available outlying properties through leasing and development thereby creating long-term income streams based on property values.
- Development of niche aviation businesses based on exploitation of the airport's location.
- Continued efforts at increasing public understanding of the economic value of the airport to the community with the ultimate goal of establishing an air service development fund.

The report concludes with the following recommendations:

- Pursue development of a more detailed market analysis to further refine efforts to recruit compatible business to the sites identified in each of the three sectors (retail, light industrial, office/professional).
- When the detailed market analysis plan has been completed, create marketing materials designed to most closely align with selection criteria for businesses in each of the three identified sectors.
- Upon completion of the two bullet points above, begin an active business attraction campaign to identify and recruit businesses within each of the identified sectors.
- Pursue planning or other grant opportunities for a detailed market analysis plan, market assessment, or target-marketing opportunities.
- For the sector identified as light industrial (manufacturing) pursue the Wisconsin Certified Sites Program designation to increase airport readiness for development opportunities and to improve the marketability of these sites.
- Pursue approvals of the FAA, Village of Ashwaubenon, Village of Hobart, and Oneida Nation for proposed uses through amendments to their comprehensive plans and zoning ordinances.
- Pursue potential consideration of the Village of Hobart and the Village of Ashwaubenon for establishment of Tax Increment Financing (TIF) districts to provide necessary infrastructure improvements or business incentive financing.
- Develop a capital improvements plan to determine what, if any, infrastructure improvements would be necessary for development of the identified sites.

Austin Straubel Commerce District



Since the publication of the report, Brown County staff has identified and begun marketing a number of parcels available for commercial and industrial use. In addition, Brown County staff is currently pursuing Wisconsin Certified Sites Program designation on select properties to increase airport readiness for development opportunities and to improve the marketability of these sites. A decision on the designation is expected in 2015.

Trucking

The truck routes in the metropolitan area are mainly the state and county highways that run through the area's communities. However, as commercial and other truck-generating land uses are mixed into various parts of the communities over the next 30 years, the communities should consider formally identifying streets where heavy trucks are allowed to travel. These truck routes should be designed to minimize impacts on residential areas and to inform truck drivers of the most efficient routes into and out of the communities.

Once this system is identified, the communities should mark the truck routes with street signs that distinguish them from the other streets. One method of doing this is to paint the truck route street signs a different color so they can be easily identified by truck drivers. This approach has been used by the Village of Ashwaubenon for several years to enable truckers to determine if they can drive on certain streets before they unknowingly enter them illegally.

In addition to clearly identifying truck routes, Schneider National and other local trucking firms should continue to work with the Port of Green Bay and the rail companies that serve the area to continue transporting raw and finished goods.

Water Transportation

Channel Depth and Width

Perhaps the most significant issue that continues to face the Port of Green Bay is the depth and width of the shipping channel. Although Green Bay's port is considered to be an international facility, its 24-foot-deep and 100-foot-wide channel is unable to accommodate international shipping traffic that requires a deeper and wider channel to avoid scraping the riverbed. The deepening and widening of the Port of Green Bay's channel and the attraction of additional international shipping traffic to the port would be beneficial in the following ways:

- The number of trucks on (and the damage to) the highways between Milwaukee and Green Bay will be reduced, which will help to reduce fuel consumption and emissions and extend the life of the highways.

- The potential for increasing exports from the port could improve as the international ships seek “backhauls” after unloading their materials here. These backhauls (which are loads that are carried from a port after unloading the original cargo) will also allow the ships to avoid having to travel long distances empty, which will save shipping companies a significant amount of money.
- The ability to accommodate additional international shipping traffic will enable Green Bay and the surrounding area to compete for industries that will not consider the Green Bay Metropolitan Area at this time because of the insufficient channel depth and width.
- The ability to handle additional international shipping traffic will add to the prestige of the Port of Green Bay, which can also help to attract additional industries to the area.

For these and other reasons, Brown County and the communities directly affected by the Port of Green Bay should work with the U.S. Army Corps of Engineers to change the port’s federally-authorized dredging depth to 26 feet and width to at least 250 feet. Once this is done, the County and affected communities should work with the federal government to ensure that the Corps of Engineers has enough money to complete and maintain the dredging project. Brown County should also identify sites to dispose of the additional dredge spoils to enable the channel to maintain its adequate depth and width.

Other

In addition to increasing the depth and width of the Fox River channel, the Port of Green Bay should address the following issues during the long-range planning period:

- Once the channel is deepened and widened, the port should seek additional products to import and export from the area, including manufacturing and agricultural products.
- To receive additional exportable goods and continue to enable imported materials to be transported throughout the region, the port should attempt to expand its relationship with the area’s rail and trucking companies. This could include making arrangements with local trucking companies to carry truck trailers on ships (like trains currently do) in addition to various finished and/or raw products from the region.
- The port should continue to accumulate funds (through docking fees and other charges) to purchase land that can be leased to port-related industries in the future.
- The port should continue to pursue federal and state grants to expand port activities.
- Please refer to the *Port of Green Bay - 2015 Strategic Plan* for further information regarding initiatives and action plan items.

Coordinated Public Transit-Human Services Plan for Brown County

The public transit-human services provisions of the last two federal transportation laws (TEA-21 and SAFETEA-LU) and the current federal law (MAP-21) aim to improve transportation services for individuals with disabilities, older adults, and individuals with lower incomes by ensuring that communities coordinate transportation resources provided through many federal programs. Coordination will enhance transportation access, minimize the duplication of services, and facilitate the most cost-effective transportation services possible with the resources that are available. To accomplish these goals, each county is required to develop and publish a Coordinated Public Transit-Human Services Transportation Plan.

Transportation law requires that the Coordinated Public Transit-Human Services Transportation Plan identify an approved program of projects prior to the distribution of funds from the federal Section 5310

Enhanced Mobility of Seniors and Individuals with Disabilities Program. WisDOT also requires that the following nine items be included in the plan:

1. County meeting invitation list and documentation worksheet (two contacts using different formats such as letters, e-mails, and phone calls for each invitee should be documented on the worksheet).
2. County meeting participant list.
3. Copy of the published Notice of Public Comment Period and Meeting.
4. County meeting flyer.
5. County meeting record.
6. County inventory of transportation programs and services.
7. County coordination and assessment action plan.
8. County list of approved projects funded under Section 5310 funds.
9. County meeting evaluation and summary.

Public Participation Process

The Coordinated Public Transit-Human Service Transportation Plan must be developed through a process that includes representatives from public and private transportation providers, human service agencies, interested parties, and the general public.

In 2006, WisDOT developed a county meeting process to comply with this requirement. In Brown County, MPO staff was chosen to coordinate the project, conduct meetings, and write the final report. MPO staff was chosen because it is currently responsible for reviewing federal and state program applications, is aware of transit programs and funding streams in the county, and serves as staff for an independent and objective entity.

MPO staff developed a list of potential representatives using WisDOT-endorsed guidelines and invited WisDOT to participate in the county meeting. MPO staff also established a 30-day public comment period and issued a meeting invitation to the general public. Following the public comment period, the project's working group met and identified coordination and other issues of concern that are summarized in the plan's Framework for Action section. The group also developed the action plan and identified the approved program of projects contained in the report.

MPO staff has developed all of the county's Coordinated Public Transit-Human Services Transportation Plans since 2006.

Framework for Action: Building the Fully Coordinated Transportation System

The framework assessment tool is endorsed by WisDOT and is designed to help participants realize a shared vision and develop an action plan based upon assessing progress against an established list of core elements. The core elements used in this tool are:

1. Making Things Happen by Leadership and Partnership
2. Taking Stock of County Needs and Moving Forward
3. Putting Customers First
4. Adapting Funding for Greater Mobility
5. Moving People Efficiently

The county meeting participants were asked to identify areas where they believe things have been "done well" or where the county or other entities need to "do better." The participants were also asked to help staff develop a plan that identifies proposed actions, the parties responsible for implementing the actions, and an approximate implementation schedule. Action items from the most recent version of the plan are summarized in Appendix 3 and have been updated to reflect current conditions.

Community Sensitive Design

When designing transportation facilities, people tend to use standards that have been established and published by AASHTO and other organizations. Although these standards are reliable and are the products of extensive study and experience, their application in some situations can benefit some transportation system users at the expense of others.

Community Sensitive Design (CSD) is a process that integrates the transportation project into the community's architectural, cultural, historical and environmental character. The most visible result of CSD is the aesthetic design of a project's structural elements such as bridges, retaining walls, landscapes, and noise barriers. CSD may also be used to incorporate pedestrian and bicycle facilities into the project.

Community sensitive design features were incorporated in the I-41 expansion project. In the example below, traffic calming measures include a roundabout with highly visible and relatively short pedestrian crossings.

Artist Rendering of I-41 at Velp Avenue Looking West
(construction to be completed in 2016/2017)



In the example below, retaining walls include locally significant cultural-themed designs.

Larsen Street at I-41 During Reconstruction



Larsen Street at I-41 After Reconstruction



When Wisconsin’s 2015-2017 budget was signed in July of 2015, it included a provision that prohibits the use of state funds for CSD activities (which are referred to as Community Sensitive Solutions [CSS] in Wisconsin).

System Operations and Congestion Management

One of the MPO plan's objectives is to maximize the capacity of the metropolitan area's existing street and highway system and minimize the addition of new lane miles. The MPO has worked for many years with Brown County, the metropolitan area's communities, WisDOT, and other entities to achieve this objective, and some of the techniques that have been and will continue to be used include:

- Roundabouts
- Three-lane streets and two-lane boulevards
- Land use plans that emphasize the mixing of land uses
- Bicycle and pedestrian facilities
- Queue detectors mounted on traffic signals
- Annual arterial street signal timing assessments to determine if updates are necessary
- Minimization of driveway access along major streets
- Transit service
- Park-and-ride facilities

These techniques have helped to maximize existing capacity (as well as safety and accessibility) on the metropolitan area street system, but additional strategies should be considered in the future to address what could be congested conditions on the area's freeways.

Congestion Management Process

According to federal law, metropolitan areas that have populations of 200,000 or more must have Congestion Management Processes (CMPs) that provide information about transportation system performance, offer strategies for alleviating traffic congestion, and identify methods of enhancing the mobility of people and goods. With the population of the metropolitan area exceeding 200,000 following the 2010 Census, MPO staff developed and the MPO Policy Board approved the *Congestion Management Process (CMP) for the Green Bay Metropolitan Planning Area* in 2013.

The CMP addresses:

- Serious consideration of strategies that result in the most efficient and effective use of existing and future transportation facilities.
- Strategies that reduce single occupant vehicle (SOV) travel and improve the efficiency of the existing transportation system.
- Methods of monitoring and evaluating the performance of the multimodal transportation system.
- A definition of parameters for measuring the extent of congestion and for supporting the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies.
- A program for data collection and system performance monitoring to define the extent and duration of congestion.
- Methods of identifying and evaluating the anticipated performance and expected benefits of appropriate traditional and nontraditional congestion management strategies.
- The identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy (or combination of strategies) proposed for implementation.

- The implementation of a process for periodically assessing the efficiency and effectiveness of implemented CMP strategies.
- MPO staff is in the process of collecting information for the CMP and implementing the CMP's recommendations.

The CMP's transportation system performance measures and targets are very similar to the performance measures and targets identified in the Goals and Objectives section of the 2045 Long-Range Transportation Plan. The CMP's congestion-reduction policies are also very similar to the Long-Range Plan's policies, and these policies will be the basis for selecting projects that will be funded through the MPO's Transportation Improvement Program (TIP).

The following maps illustrate AM, Mid-Day, and PM peak congestion conditions reported by MPO staff as part of the CMP data collection effort in 2014 and 2015.

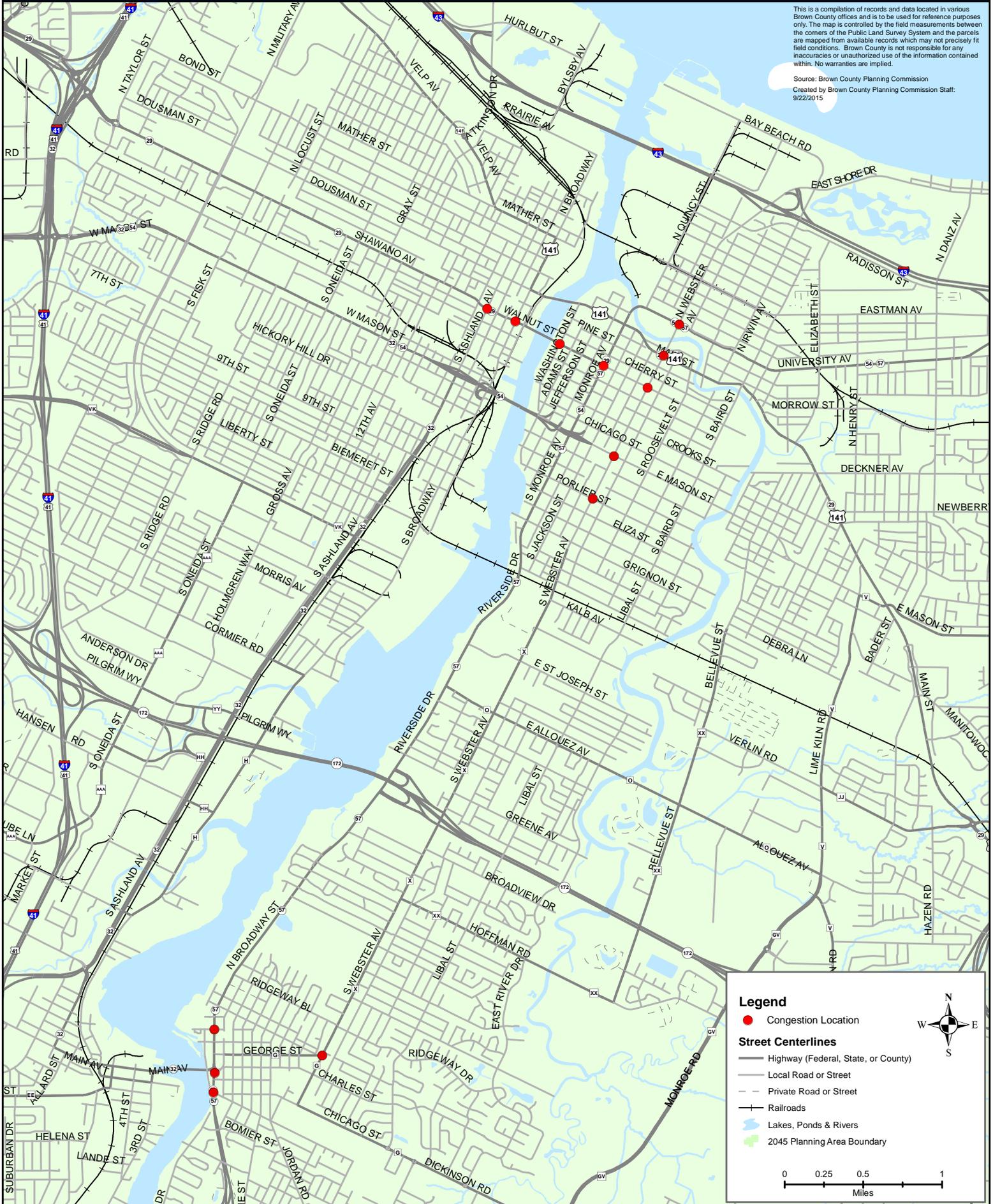


Figure 16

2014/2015 Congestion Management Process AM Peak Congestion Locations Brown County, WI

This is a compilation of records and data located in various Brown County offices and is to be used for reference purposes only. The map is controlled by the field measurements between the corners of the Public Land Survey System and the parcels are mapped from available records which may not precisely fit field conditions. Brown County is not responsible for any inaccuracies or unauthorized use of the information contained within. No warranties are implied.

Source: Brown County Planning Commission
Created by Brown County Planning Commission Staff:
9/22/2015



Legend

- Congestion Location

Street Centerlines

- Highway (Federal, State, or County)
- Local Road or Street
- - Private Road or Street
- Railroads

— Lakes, Ponds & Rivers

— 2045 Planning Area Boundary

0 0.25 0.5 1
Miles



Figure 17 2014/2015 Congestion Management Process Off Peak Congestion Locations Brown County, WI

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Source: Brown County Planning Commission
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9/22/2015

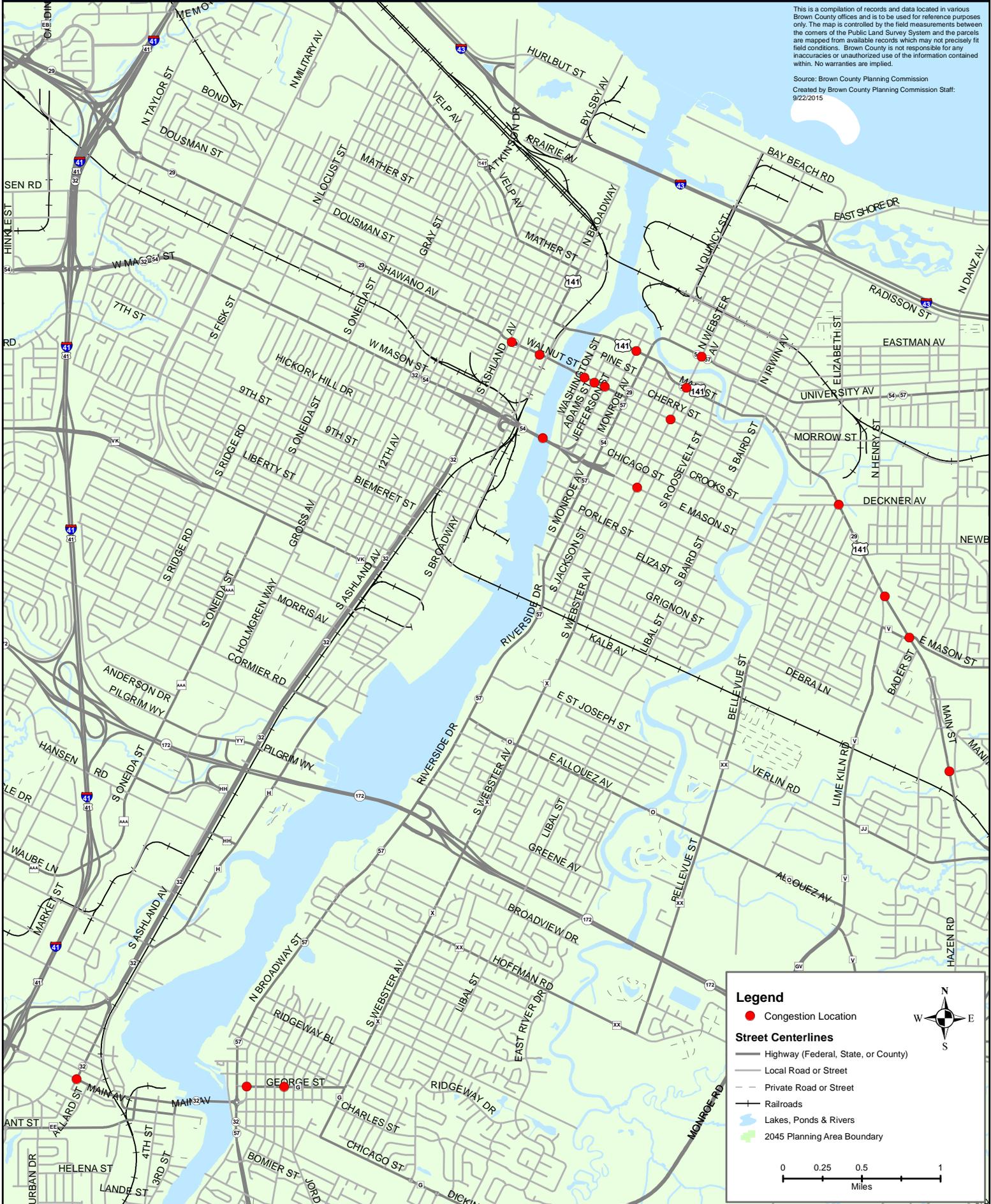


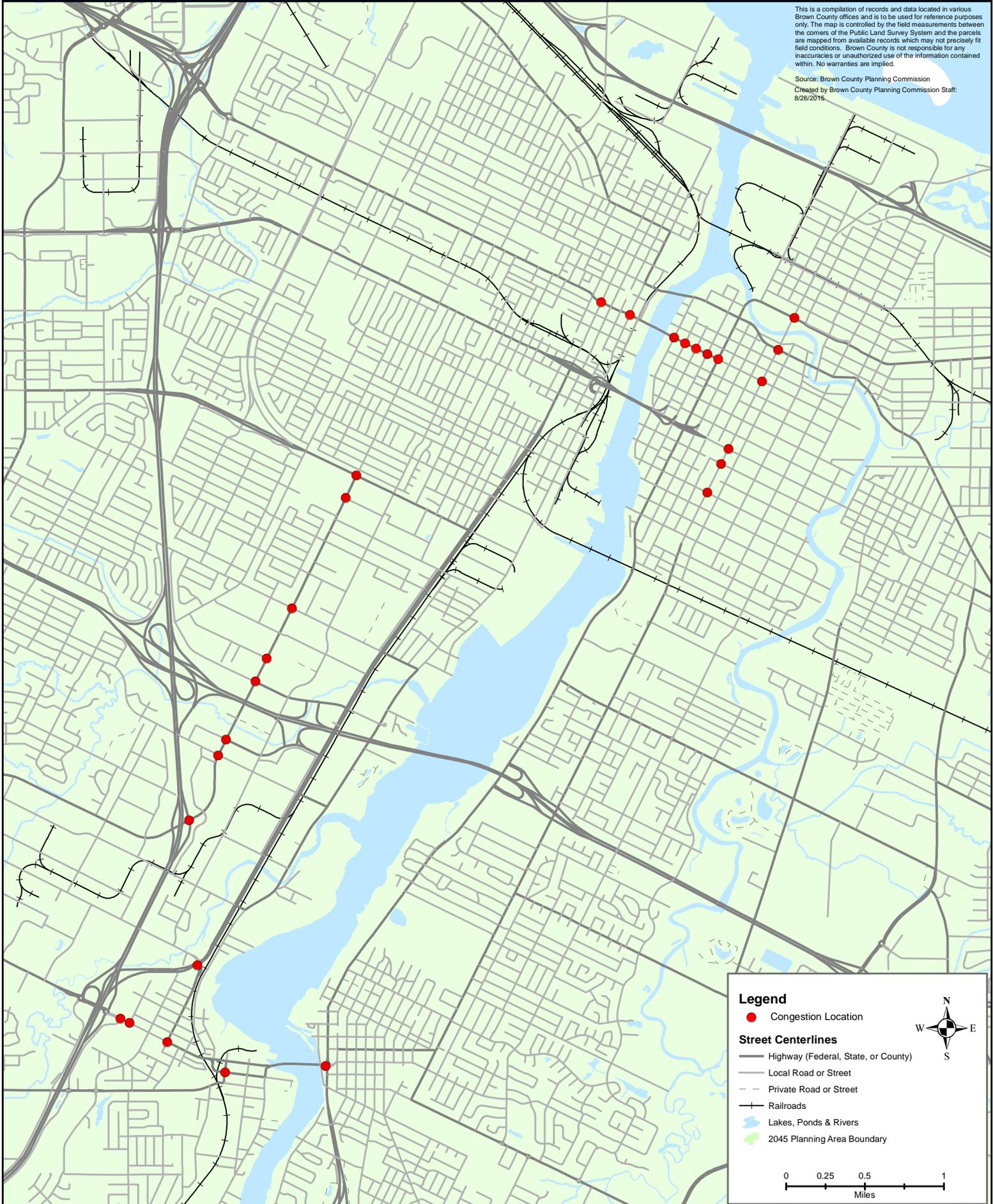


Figure 18

2014/2015 Congestion Management Process PM Peak Congestion Locations Brown County, WI

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Source: Brown County Planning Commission
Created by Brown County Planning Commission Staff:
8/26/2015



Title VI

As a subrecipient of federal funds through FHWA and FTA, the Green Bay MPO is required to comply with *Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987*, and all related regulations and statutes.

The MPO is also required to comply with *Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted Programs of the U.S. Department of Transportation*. The purpose of these regulations is to assure that no person or groups of persons shall, on the grounds of race, color, and national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by the MPO, regardless of whether those programs and activities are federally funded or not.

In addition, the MPO will provide meaningful access to services for persons with Limited English Proficiency.

In June of 2014, the *Green Bay Metropolitan Planning Organization (MPO) Title VI and Non-Discrimination Program/Limited English Proficiency Plan* was adopted by the Brown County Planning Commission Board of Directors. In addition to addressing how the MPO will satisfy the federal Title VI requirements, this plan describes how the MPO will satisfy the requirements of Executive Order 12898, which is commonly known as Environmental Justice.

Environmental Justice

The concept of Environmental Justice (EJ) was established by executive order in February of 1994 to ensure that the effects of federally-funded transportation programs, policies, and activities that could harm the health or environment of minority and low-income populations are thoroughly studied before being implemented. Some of the effects that must be considered include²:

- Air, noise, and water pollution
- Soil contamination
- Destruction or disruption of manmade or natural resources
- Destruction or reduction of aesthetic values
- Destruction or disruption of community cohesion or a community's economic vitality
- Destruction or disruption of the availability of public and private facilities and services
- Adverse employment effects
- Vibration
- Displacement of persons, businesses, farms, or nonprofit organizations
- Increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community
- Denial of, reduction in, or significant delay in the receipt of benefits of US DOT programs, policies, or activities

Environmental Justice focuses on adverse impacts that are primarily borne by minority and low-income populations or impacts that are more severe for minority and low-income populations than for others. If a

² From Environmental Justice and Transportation Investment Policy (University of Iowa Public Policy Center, 1997).

disproportionately adverse impact is likely, a transportation program, policy, or activity could not occur using federal funds unless the following two criteria are satisfied³:

- Alternative approaches or further mitigation measures that would avoid or reduce the disproportionate effect are not practicable, and
- A substantial need exists for the program, policy, or activity based on the overall public interest, and alternative approaches that would have fewer adverse effects on protected populations would involve extraordinarily higher costs or would have other more severe social, economic, environmental, or human health impacts.

What this means is that when minority or low-income populations would be adversely and disproportionately affected, it must be clearly shown that a transportation project, policy, or activity has merit and is less harmful to these protected populations than other alternatives. It is also crucial that appropriate members of protected populations be consulted as the projects, policies, or activities are being planned and studied.

Projected Effects of Major Street and Highway Projects on Minority and Low-Income Populations in the Green Bay Metropolitan Planning Area

As the environmental studies for the major street and highway projects presented in this plan proceed, it is important to estimate their impacts on nearby minority and low-income populations⁴. A process for doing this is to identify the locations of these populations using block and block group data from the 2010 United States Census, add the major street and highway project corridors to the maps, and determine which projects will occur in areas that have relatively high numbers and proportions of minority and low-income residents.

Because the US Census classifies minority households by block and low-income households by block group, census-based impact estimates for minority populations will typically be more accurate than estimates for low-income populations. It is also important to note that a few disproportionately high household incomes in a census block group can mask the presence of many households with relatively low incomes because the information is averaged. A truly accurate assessment of possible impacts could begin with census data but should also include field reviews, neighborhood meetings, door-to-door surveys, and other site-specific tasks that will paint a complete picture of the populations that will be affected.

With these considerations in mind, the results of a census-based analysis for major projects in the Green Bay Metropolitan Area are summarized in the following sections and are shown in the following figures.

Southern Bridge and Connecting Arterial Streets

As mentioned earlier in the Long-Range Plan, the Brown County Planning Commission is currently working with federal agencies, state agencies, local agencies and communities, and the public to complete the Environmental Impact Statement (EIS) and Interstate Access Justification Report (IAJR) for this project. The two corridor location alternatives currently being studied are Rockland Road-Red Maple Road and Scheuring Road-Heritage Road. The termini for both alternatives are CTH GV/CTH X in the Town of Ledgeview and CTH EB/CTH X in the Town of Lawrence.

Based on the census and other information that has been collected and analyzed during the EIS development process, it appears that a new Fox River bridge and connecting arterial street system at

³ Ibid.

⁴ According to *Environmental Justice and Transportation Investment Policy*, a low-income household is a household that falls below the US Department of Health and Human Services (DHHS) poverty guidelines. In 2014, this threshold was an annual income of \$19,790 for a family of three people. The average household size according to the DHHS is 2.54 persons.

either location will not negatively affect minority or low-income populations. However, to maximize the number of transportation options for EJ populations and others, the following treatments should be included in the project:

- Bicycle and pedestrian facilities on both sides of the Southern Bridge and arterial streets.
- A grade-separated crossing for the Fox River Trail that can be accessed by the sidewalks and/or trails on both sides of the arterial streets.
- Trees and other landscaping features in the medians and on both sides of the streets.
- Street intersections that are safe and accessible to people using a variety of transportation modes.

Eastern Arterial – Willow Road to US 141/CTH R

Based on the census information for this area, the Eastern Arterial will not negatively affect minority or low-income populations next to the corridor when it is built because relatively few people currently live in the area. However, it is very important to make the corridor accessible to all populations and to make it as unobtrusive as possible so it can be used, crossed, and tolerated by people who will live in and travel through the area for many decades. Some examples of treatments that should be considered include:

- A street design that is compatible with the land uses that are planned for both sides of the corridor.
- Bicycle and pedestrian facilities on both sides of the corridor.
- Trees and other landscaping features on both sides of the streets. These features should also be included if a median is present.
- Street intersections that are safe and accessible to people using a variety of transportation modes.



Figure 19

Equity Analysis - Minority Population at or above 11.1% by Census Block

Brown County, WI

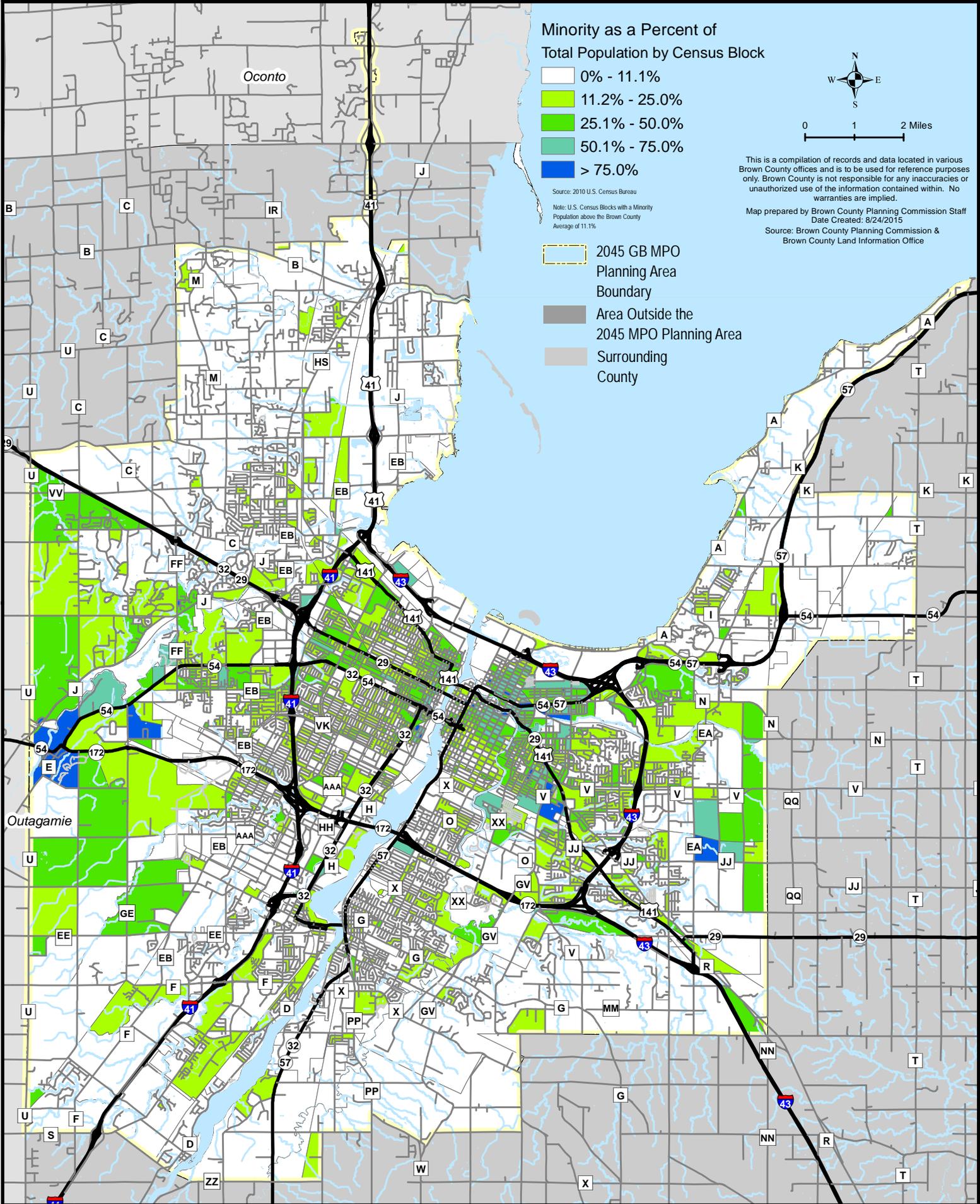
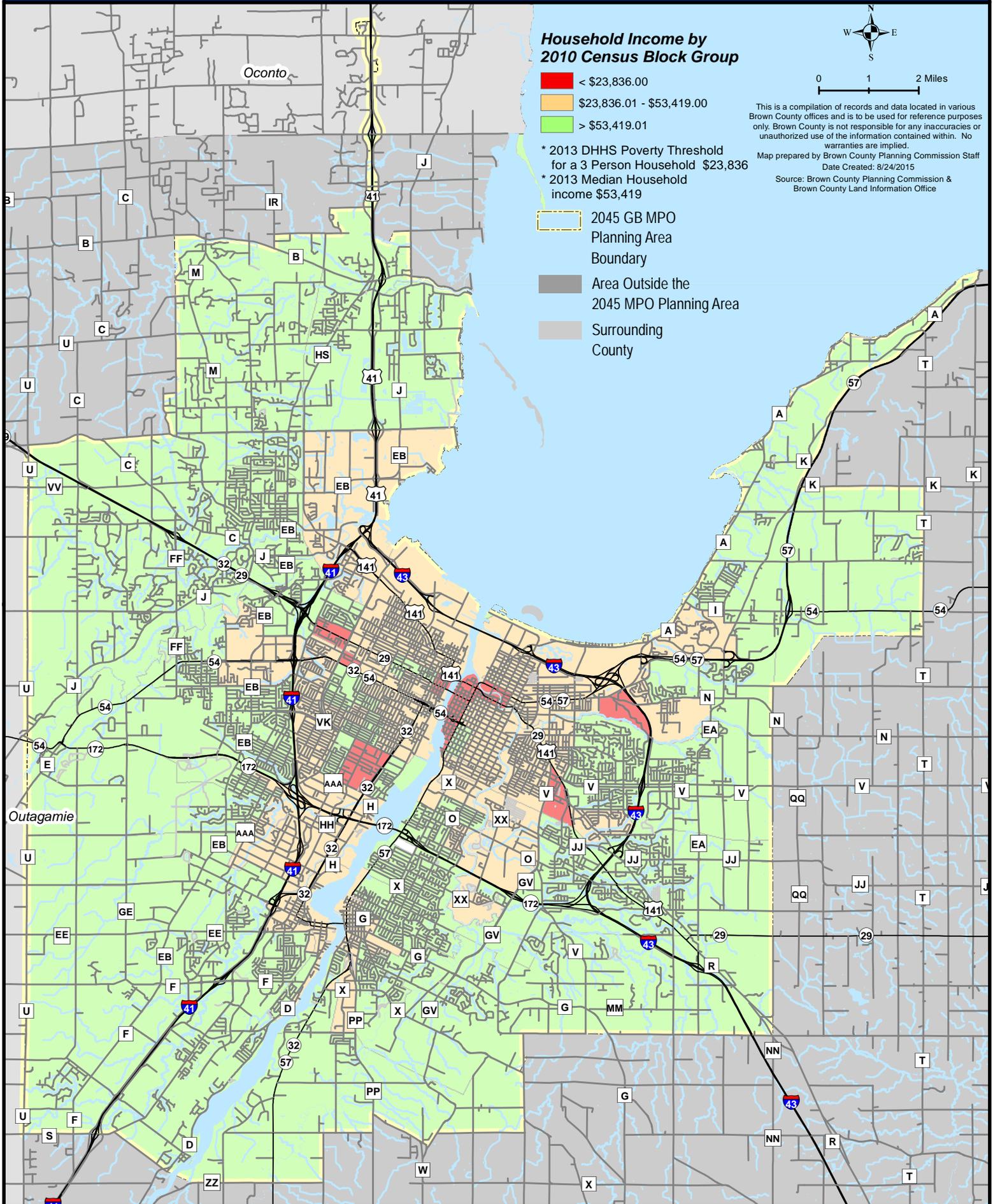




Figure 20

Equity Analysis - Income at or Below Poverty Level by Census Block Group

Brown County, WI



Household Income by 2010 Census Block Group

- < \$23,836.00
- \$23,836.01 - \$53,419.00
- > \$53,419.01

* 2013 DHHS Poverty Threshold for a 3 Person Household \$23,836
 * 2013 Median Household income \$53,419

- 2045 GB MPO Planning Area Boundary
- Area Outside the 2045 MPO Planning Area
- Surrounding County



0 1 2 Miles

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Map prepared by Brown County Planning Commission Staff
 Date Created: 8/24/2015

Source: Brown County Planning Commission & Brown County Land Information Office

Level of Transit Service to Minority and Low-Income Populations in the Green Bay Metropolitan Area

Another aspect of Environmental Justice that should be addressed is the level of transit service provided to minority and low-income populations. Green Bay Metro provides a significant amount of service to the area's census tracts that contain a high percentage of minority populations and the census block group that fell below the US Department of Health and Human Services poverty guidelines.



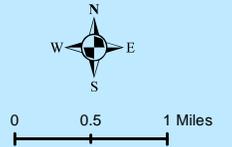
Figure 21

Transit Service - Minority Population at or above 11.1% by Census Block

Brown County, WI

Minority as a Percent of Total Population by Census Block

- 0% - 11.1%
- 11.2% - 25.0%
- 25.1% - 50.0%
- 50.1% - 75.0%
- > 75.0%



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Map prepared by Brown County Planning Commission Staff
Date Created: 9/22/2015
Source: Brown County Planning Commission & Brown County Land Information Office

Source: 2010 U.S. Census Bureau

Note: U.S. Census Blocks with a Minority Population above the Brown County Average of 11.1%

Green Bay Metro Bus Route

2045 GB MPO Planning Area Boundary

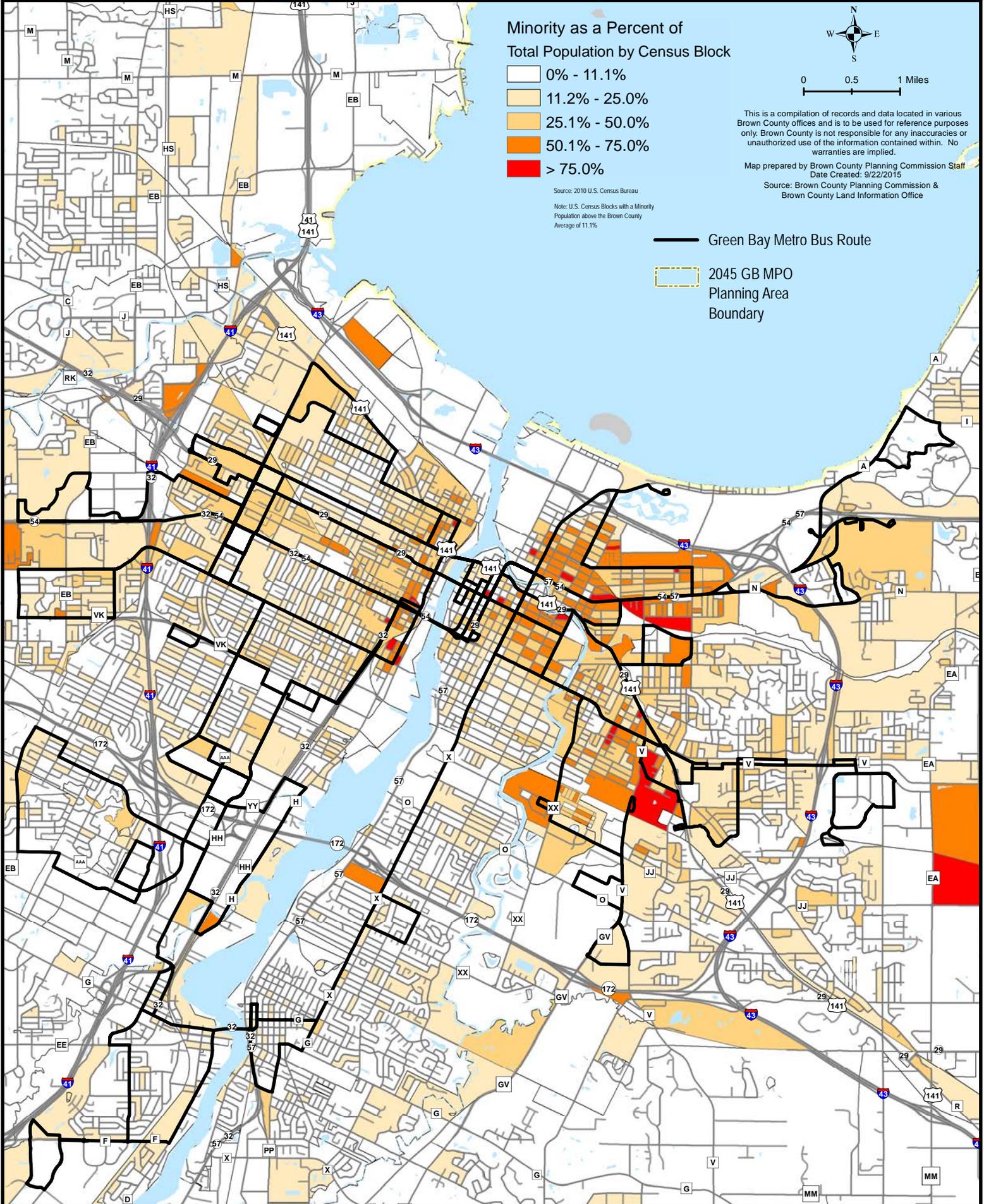
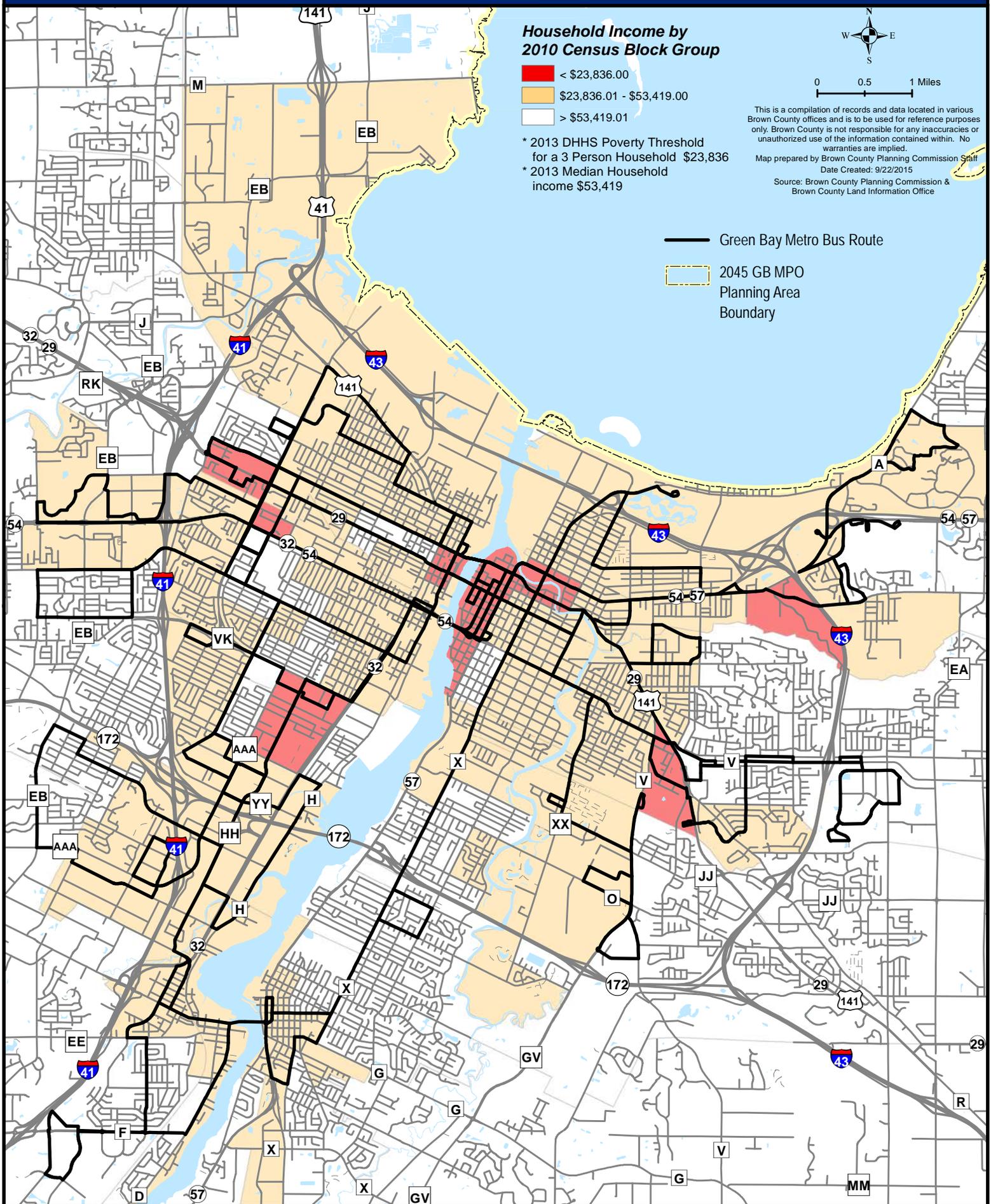




Figure 22

Transit Service - Income at or Below Poverty Level by Census Block Group

Brown County, WI



Title VI Analysis of Transit Service and Amenities

In 2006, MPO staff completed a Title VI compliance assessment for Green Bay Metro. This assessment determined if the transit system's service quality is consistent among different groups of users and the degree to which service is responsive to the needs of minority populations. This assessment found that the metropolitan area's minority populations are well served by Metro and/or the Oneida Transit System. The 2006 assessment was compared to the data from the most recent census and information from the American Community Survey. Findings show Metro continues to serve minority and low-income areas very well. MPO staff conducts analyses as new socio-economic data becomes available. The results are reported each year as part of the Transportation Improvement Program. In addition, Green Bay Metro is required by the Federal Transit Administration to maintain and update as necessary a *Title VI Compliance Program*. The program was updated in 2015 and is published on Green Bay Metro's website at www.GreenBayMetro.org.

Environmental Justice Considerations for TIP Projects

In addition to examining the possible effects of major transportation projects on minority and low-income residents, the MPO will continue analyzing projects that are submitted for inclusion in the Transportation Improvement Program (TIP) to estimate their impacts on these populations.

Ladders of Opportunity

The U.S. Department of Transportation encourages State DOTs, MPOs, and providers of public transportation, as part of the transportation planning process, to identify transportation connectivity gaps in accessing essential services. This includes:



- Access to work for individuals lacking ready access to transportation, especially in low-income communities.
- Economic opportunities by offering transit access to employment centers, educational and training opportunities, and other basic needs.
- Partnerships and coordinated planning among state and local governments and social/human services and transportation providers to improve coordinated planning and delivery of workforce development, training, education, and basic services to veterans, seniors, youths, and other populations.

To assess the extent to which the Metropolitan Planning Area's multimodal transportation system currently provides access to essential services, MPO staff identified and mapped approximately 85 essential services within the 2045 planning boundary and analyzed how well these services are served by public transit, paratransit, bicycle facilities, and sidewalks/trails. This information is summarized in the following maps:



Figure 23

Public Transit Access to Essential Services within the Green Bay Metropolitan Planning Area

Analysis of public transit service to employment, health care, education, social services, and recreation for concentrations of disadvantaged populations: A Ladders of Opportunity Approach.

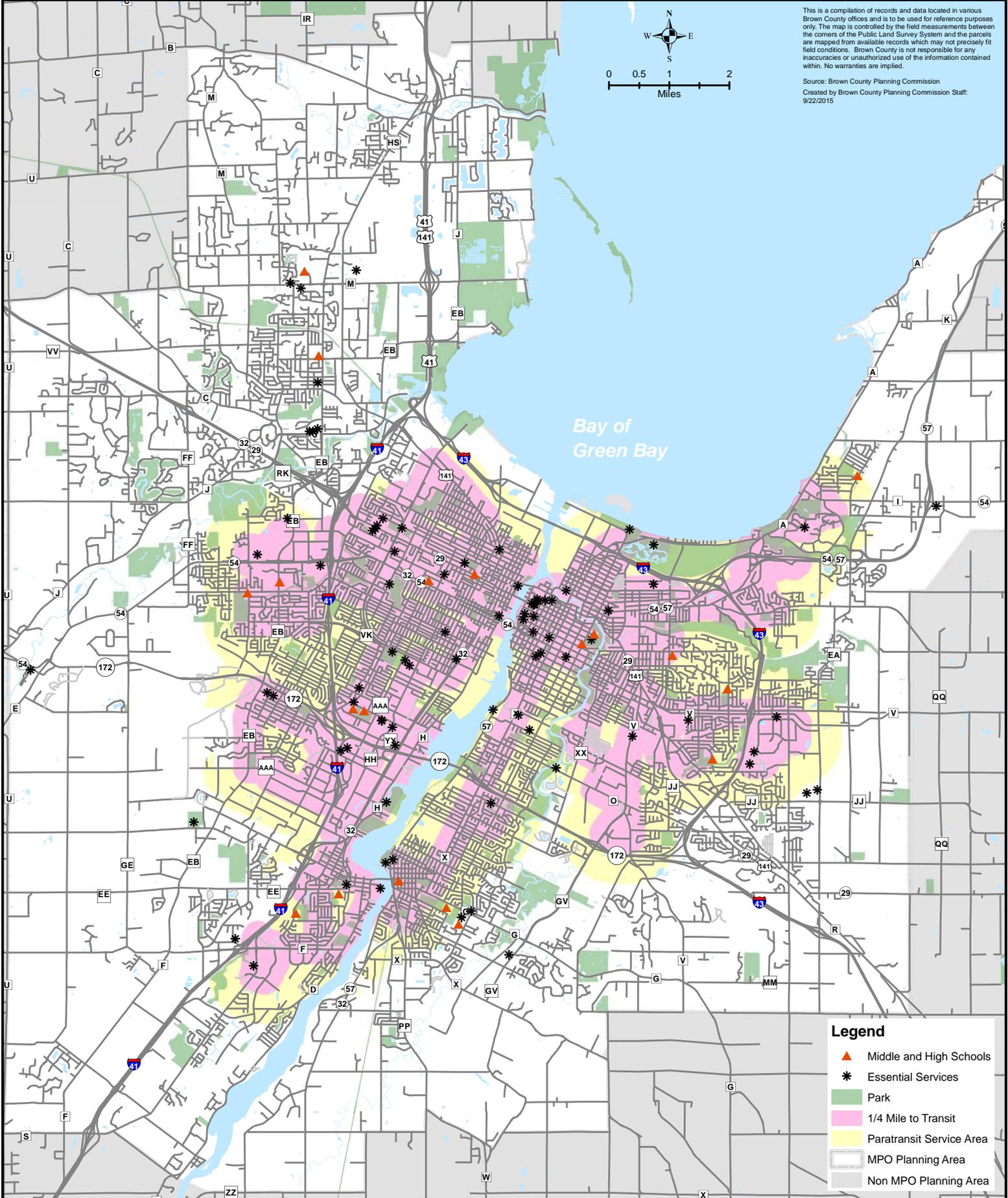




Figure 24

Bicycle Access to Essential Services within the Green bay Metropolitan Area

Analysis of bicycle facilities to employment, health care, education, social services, and recreation for concentrations of disadvantaged populations: A Ladders of Opportunity Approach.

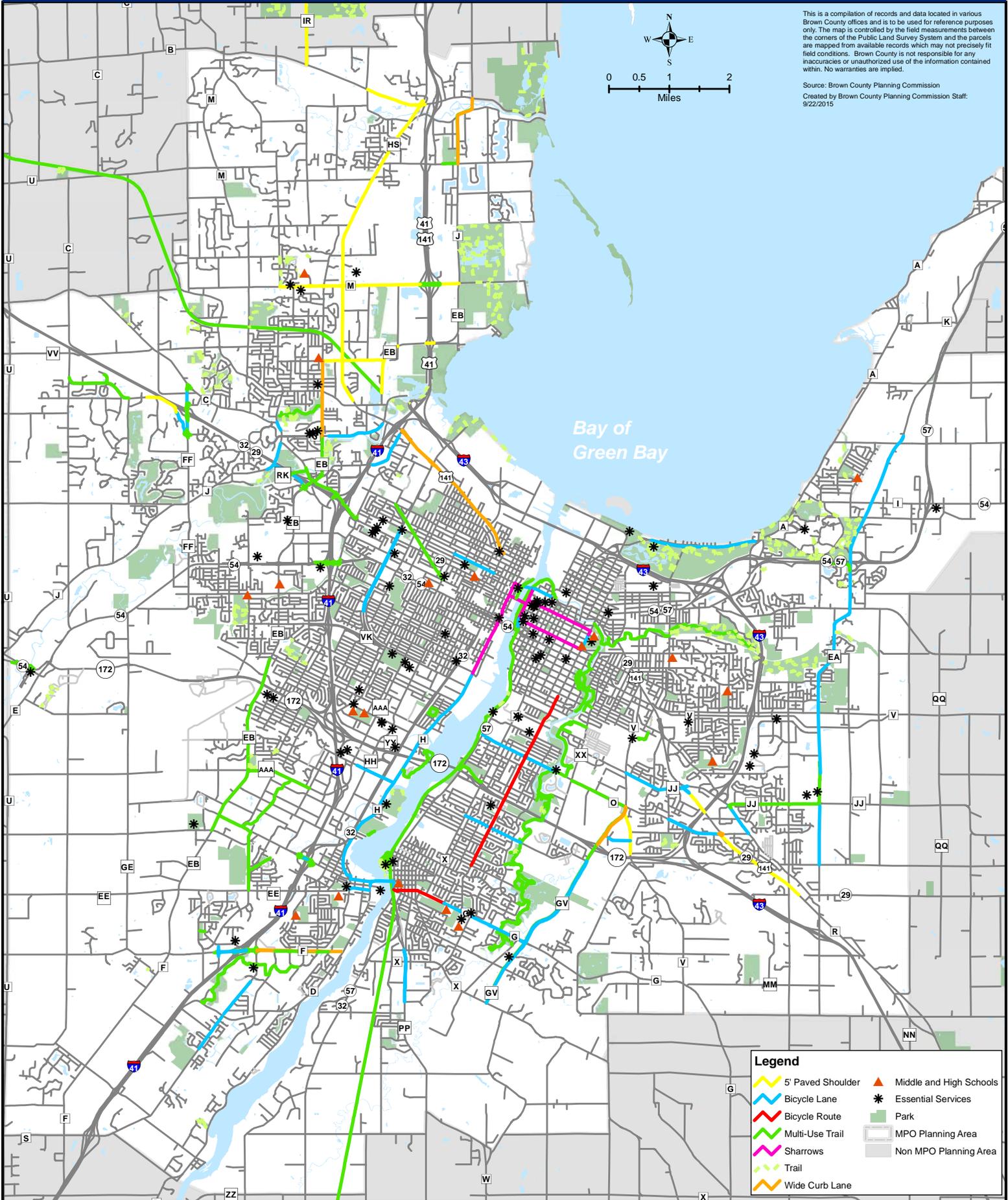
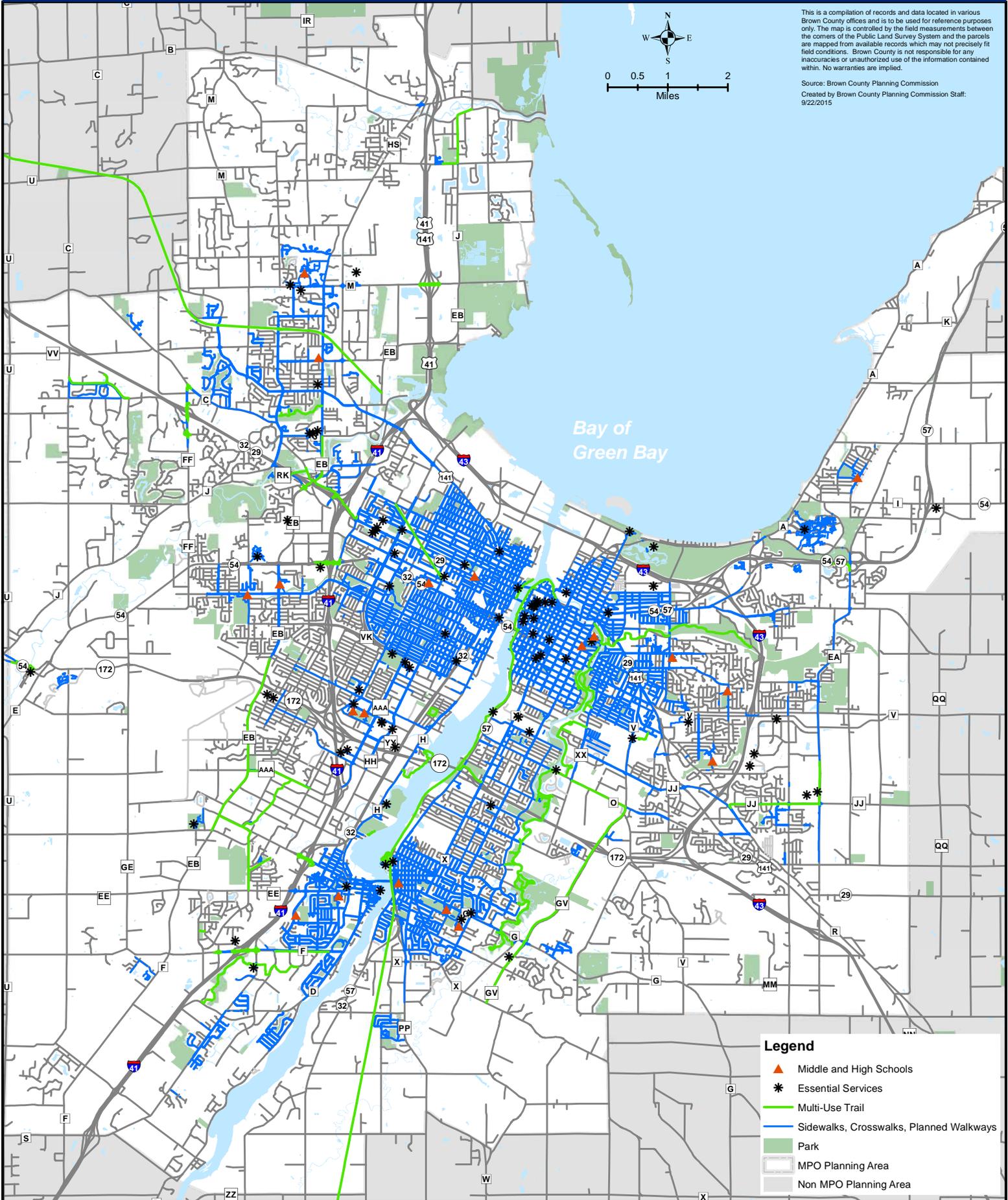




Figure 25

Sidewalk Access to Essential Services within the Green Bay Metropolitan Planning Area

Analysis of sidewalk access to employment, health care, education, social services, and recreation for concentrations of disadvantaged populations: A Ladders of Opportunity Approach.



Essential services in the metropolitan area, for the most part, are accessible by fixed route bus and paratransit services. However, essential services are served to a lesser extent by bicycle and pedestrian facilities. To increase access to essential services via a variety of transportation modes, the following are recommended:

- Extend transit and paratransit service to the Village of Howard.
- Increase transit service frequency.
- Study, and if found feasible, implement demand-response services to accommodate early/late shift schedules.
- Implement the recommendations in the Brown County Bicycle and Pedestrian Plan.

Mitigation of Environmental Impacts of Major Transportation Projects

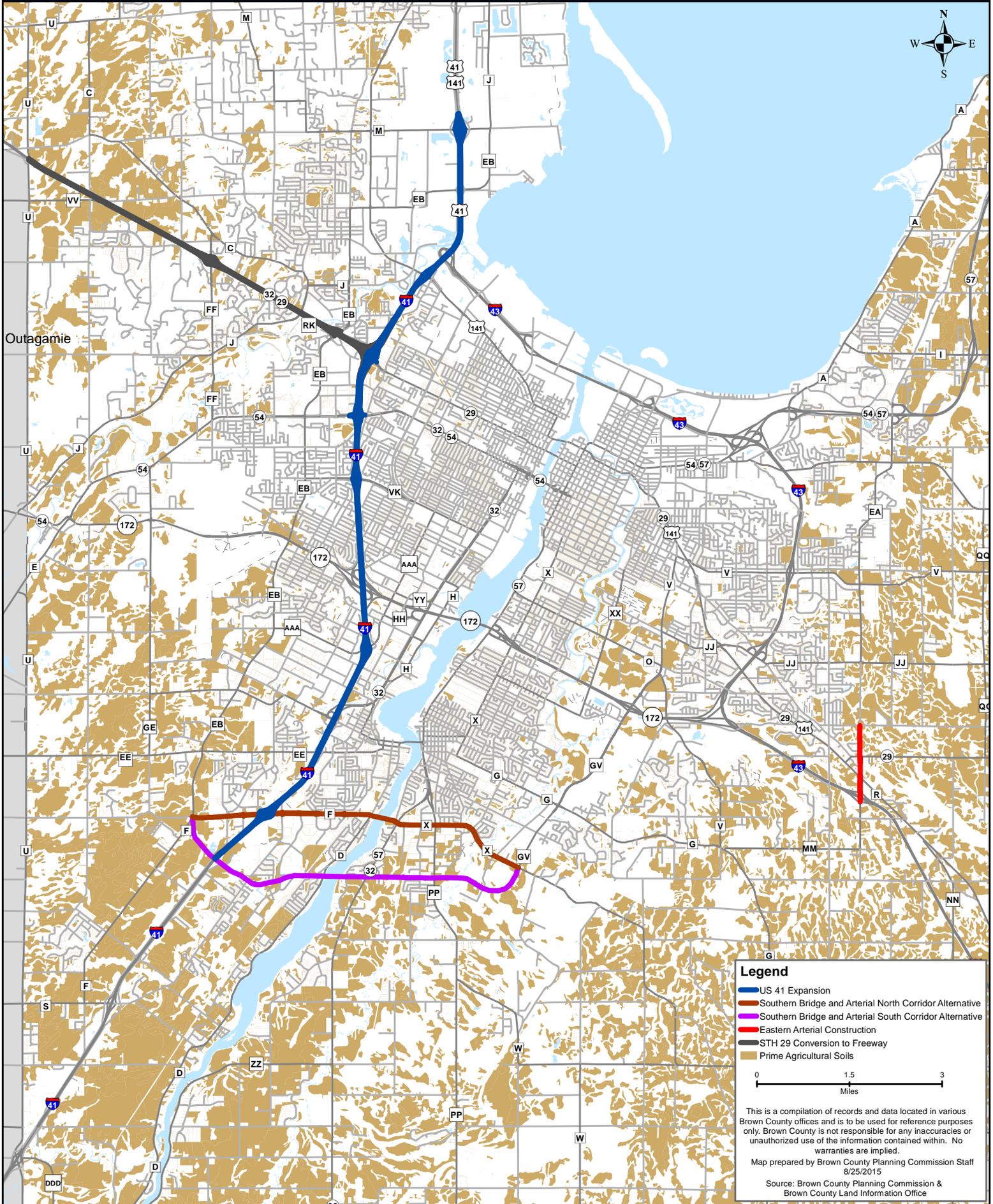
Federal transportation law requires consultation with federal, state, and local environmental agencies during the development of long-range transportation plans and Transportation Improvement Programs (TIPs). These consultation efforts are designed to identify potential conflicts between planned transportation projects and homes, businesses, neighborhoods, communities, parks, forests, wetlands, and other human and natural resources and to identify effective methods of mitigating these impacts on a regional level.



Figure 26

Prime Agricultural Soils and Major Planned Projects

Brown County, WI



Legend

- US 41 Expansion
- Southern Bridge and Arterial North Corridor Alternative
- Southern Bridge and Arterial South Corridor Alternative
- Eastern Arterial Construction
- STH 29 Conversion to Freeway
- Prime Agricultural Soils

0 1.5 3
Miles

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Map prepared by Brown County Planning Commission Staff
8/25/2015

Source: Brown County Planning Commission &
Brown County Land Information Office



Figure 27
Wetlands and Major Planned Projects
Brown County, WI

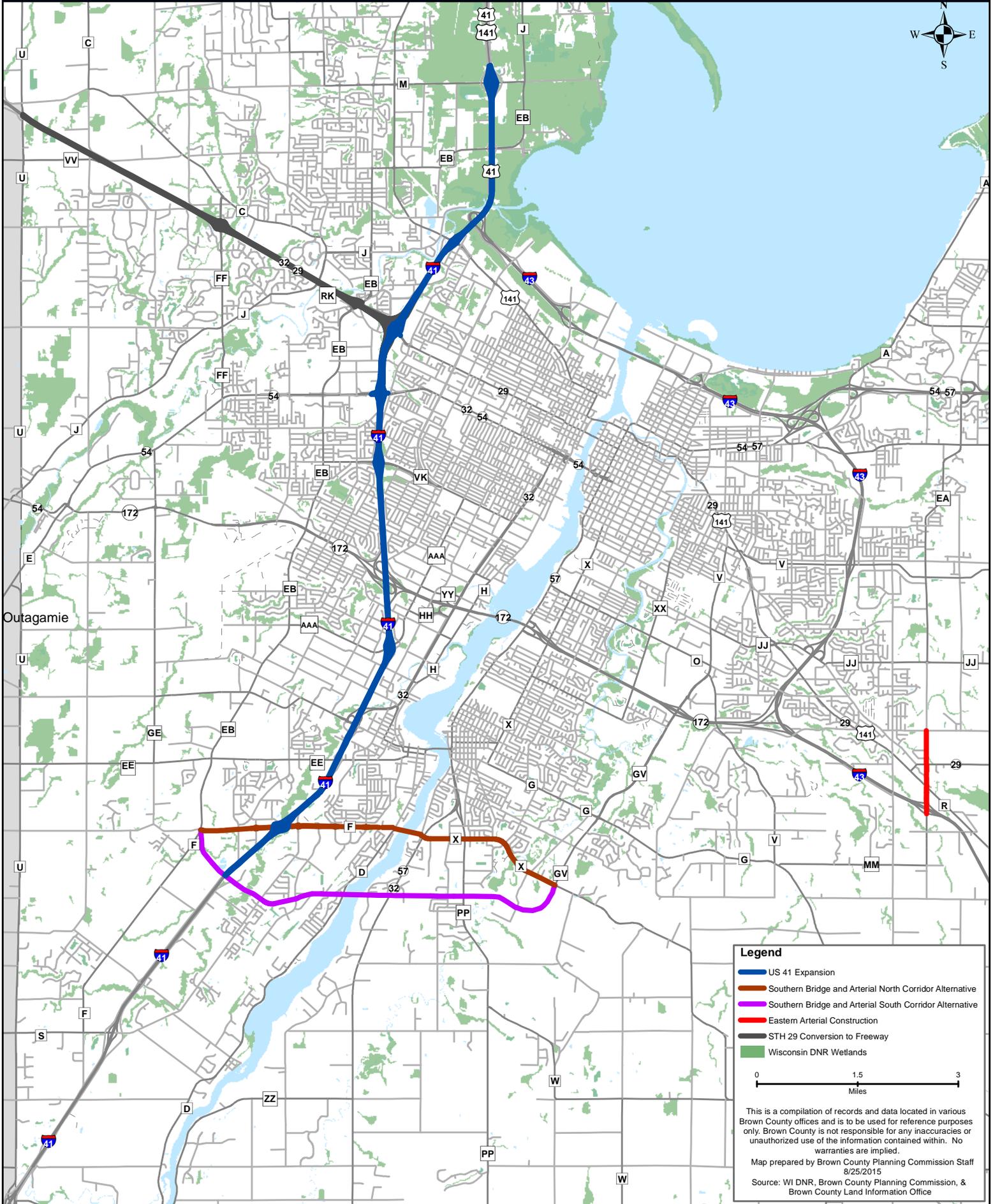




Figure 28

Woodlands and Major Planned Projects

Brown County, WI

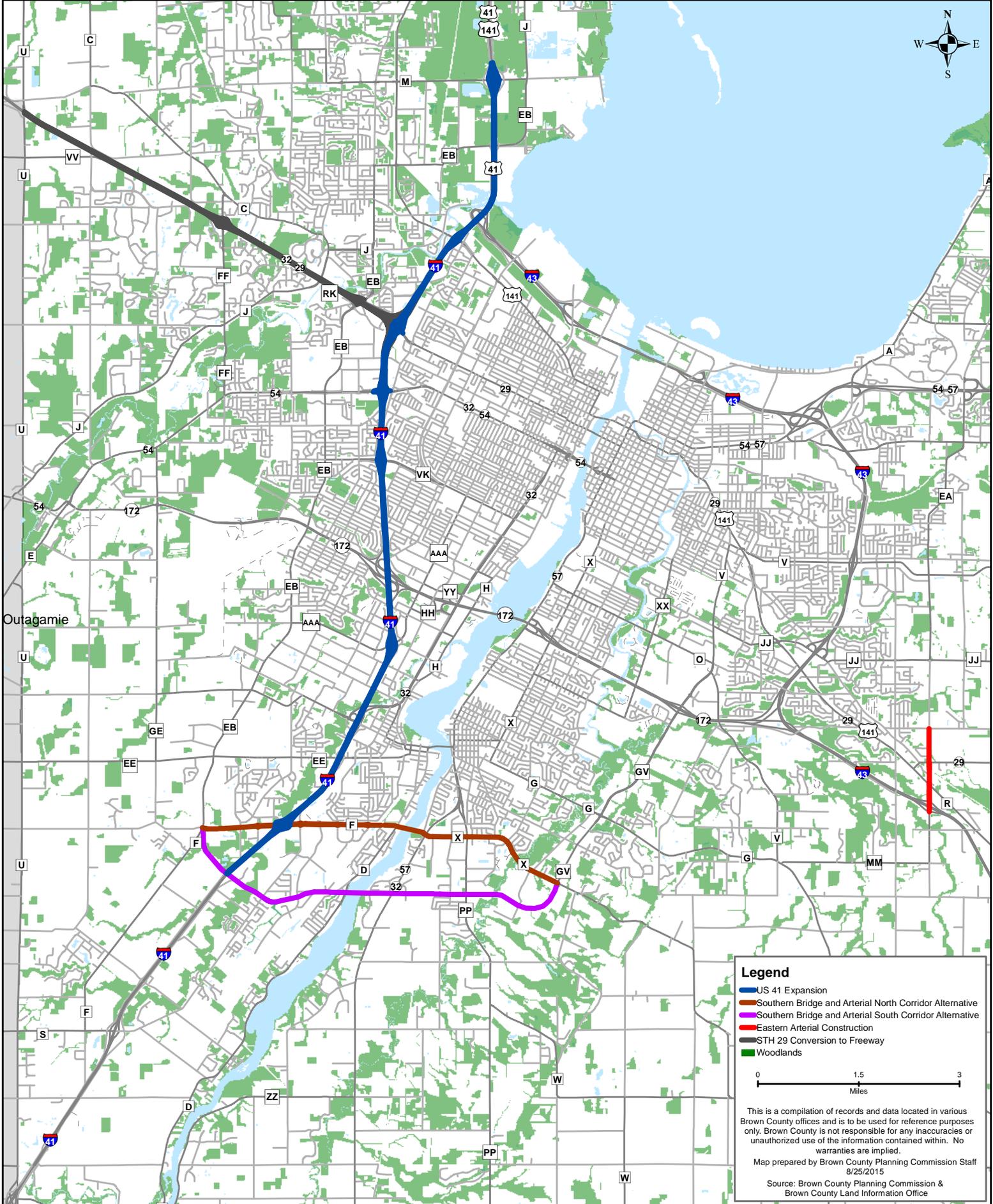




Figure 29

Drainage Basins and Major Planned Projects

Brown County, WI

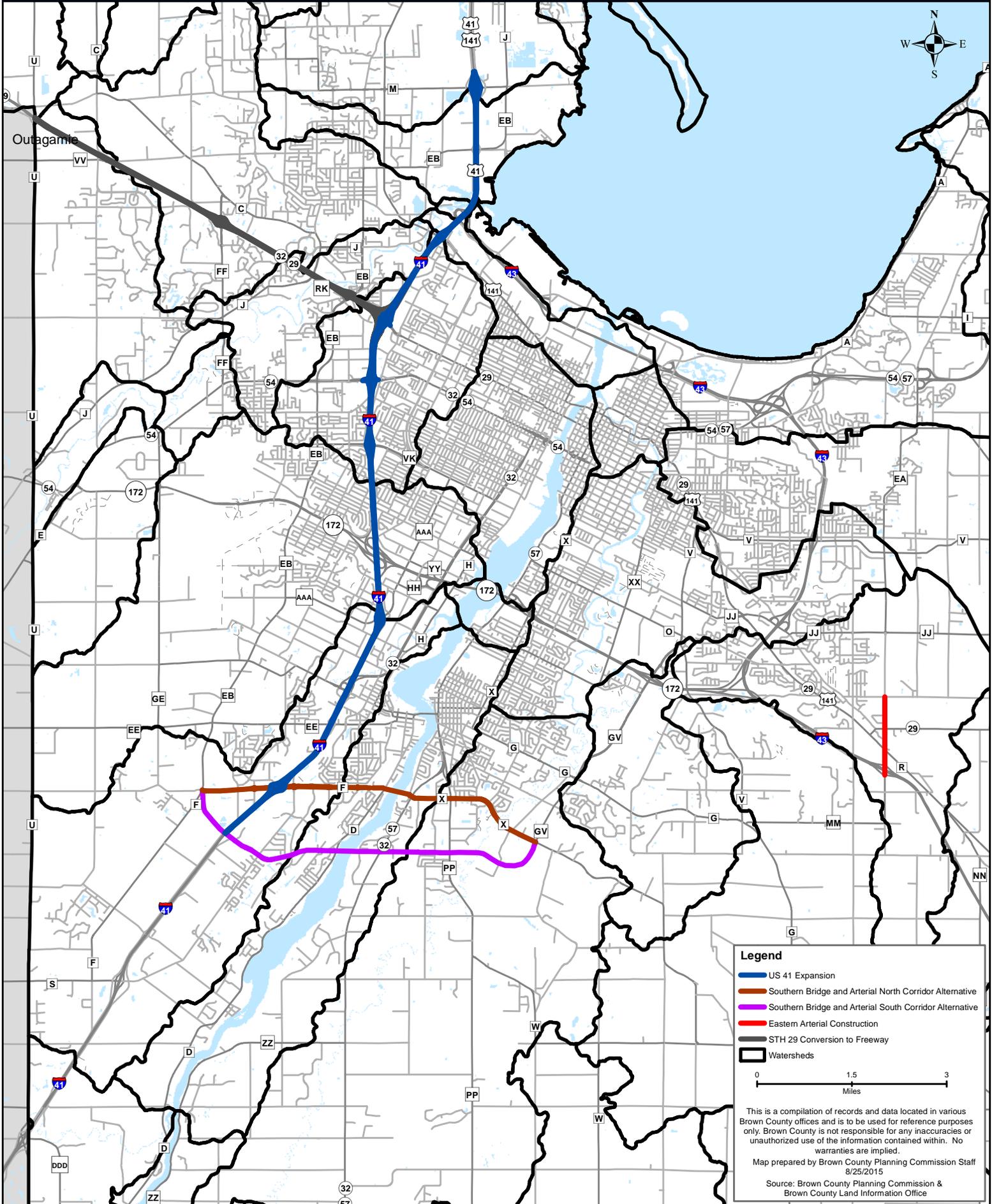
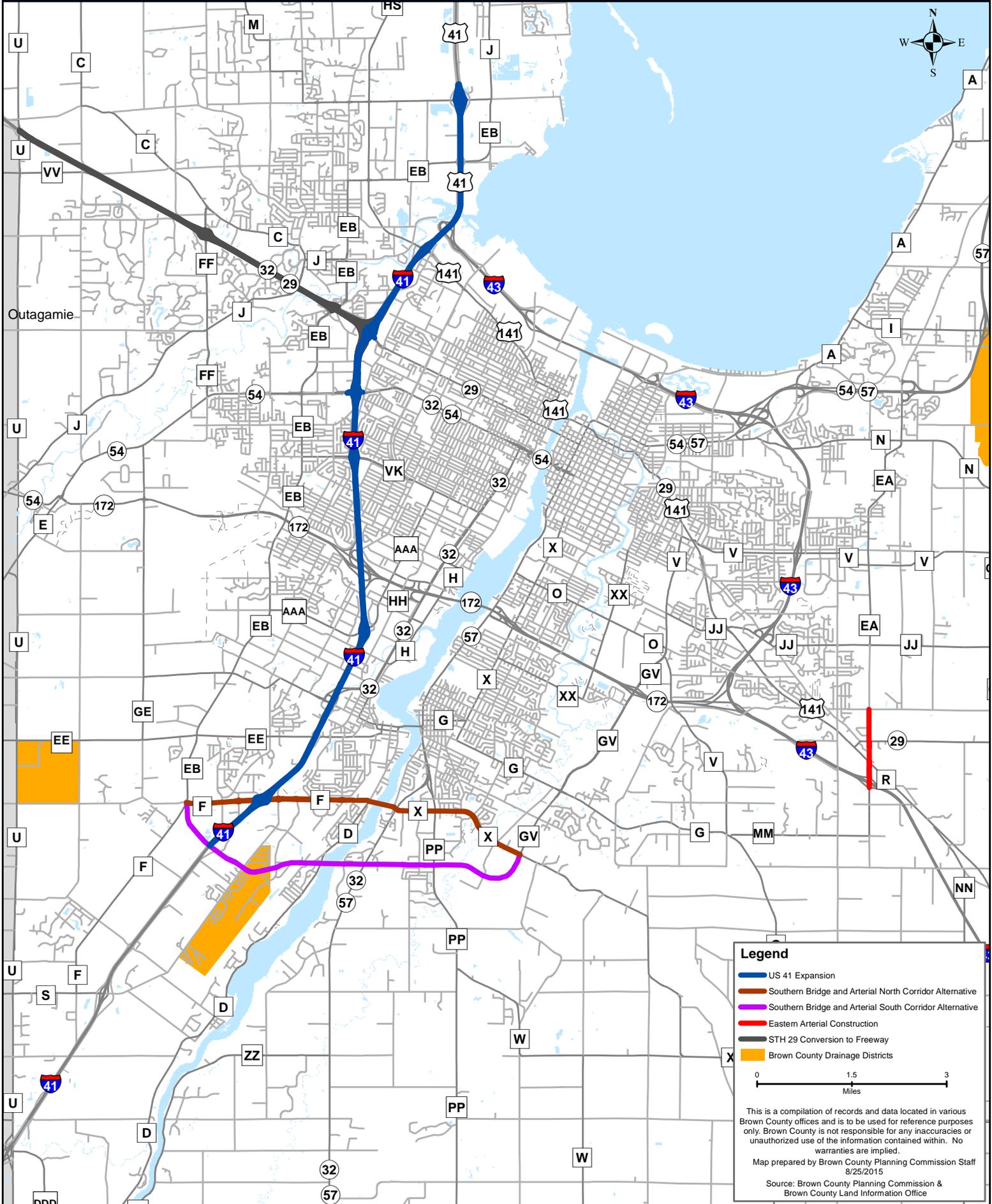




Figure 30

Drainage Districts and Major Planned Projects

Brown County, WI



Summary of Meeting with Environmental Resource Agencies

A meeting with environmental resource agencies and representatives of WisDOT was held on May 4, 2015, to discuss the status of the MPO area's major transportation projects and identify additional environmental issues that should be addressed in the 2045 Long-Range Transportation Plan. No Issues were identified during the meeting.

A transcript of the meeting can be found in Appendix 4.

Compensatory Mitigation Rules for Losses of Aquatic Resources

On April 10, 2008, the US Army Corps of Engineers (USACE) and US EPA issued final regulations governing compensatory mitigation for activities authorized by permits issued by the USACE. The regulations establish performance standards and criteria for the use of compensatory mitigation, mitigation banks, and in-lieu programs to improve the quality and success of mitigation projects.

The new regulations are designed to improve the planning, implementation, and management of compensatory mitigation projects by:

- Emphasizing a watershed approach in the selection of mitigation project locations.
- Requiring measurable, enforceable ecological performance standards.
- Requiring regular monitoring for all types of compensation.
- Specifying the components of a complete compensatory mitigation plan.
- Assuring the long-term protection of compensation sites.
- Providing financial assurances.
- Identifying the parties responsible for specific project tasks.

An impact minimization approach that the MPO should follow when planning major transportation projects is summarized in the following section.

Strategy 1: Avoid Environmentally Significant Features

When planning new or improved transportation facilities, measures should be taken to completely avoid environmentally significant features. However, situations might arise where avoiding these features is not physically possible or financially feasible. In these situations, the features should be avoided as much as possible and local mitigation measures should be used to restore what is lost or harmed.

Strategy 2: Employ Local Mitigation Measures

When transportation facilities have to pass through or near environmentally significant features, the impacts to the features should be minimized at or near the site through the use of various mitigation measures. Some of these measures could include:

Replacing or supplementing an affected wetland with a new wetland. When wetlands are harmed by transportation projects, new wetlands should be created as close as possible to the original wetlands to help handle runoff, re-establish wildlife habitats, and achieve the other environmental benefits associated with these features.

Stabilizing and establishing vegetative buffers along shorelines. A method of minimizing the impacts of transportation facilities near rivers, streams, and creeks is stabilizing and creating vegetative buffers along the shorelines. The addition of native grasses, flowers, shrubs, trees, and other plantings will help to minimize erosion and maximize pollutant filtration. These plantings can also improve the appearance of transportation corridors.

Replacing lost trees with new trees. When forests have to be disrupted to enable the construction or improvement of transportation facilities, the communities and/or agencies responsible for the project should plant new trees to replace the ones that were removed. The new trees could be added to the original forest, in another place near the forest, or along the transportation facility. Although these measures are already taken by many communities in the metropolitan planning area through their Tree City USA programs, efforts should be made throughout the entire planning area to replace trees that have to be removed.

Strategy 3: Utilize Wetland Banks When Local Mitigation Measures Are Not Feasible

When environmentally significant features such as wetlands cannot be avoided and mitigation measures at or near the sites of transportation projects are not feasible, an attempt to minimize the impacts of these projects should be made by buying space in one of the state's wetland banks. Although buying into these banks will not necessarily mitigate the impacts to specific wetlands in the metropolitan planning area, it will help the state's overall wetland inventory to expand.

To improve the chances of minimizing the impacts of transportation projects on local wetlands, Green Bay Metropolitan Area communities should consider working together to establish a wetland bank. The Brown County Public Works Department is in the process of establishing a wetland bank in southern Brown County.

Mitigation Policies for the Human Environment (Environmental Justice)

See the previous section of the 2045 Green Bay MPO Long-Range Transportation Plan for these mitigation policies.

Transportation System Security

MAP-21 stresses the need to improve transportation system security and requires security to be a stand-alone planning factor. Transportation security refers to personal and system-wide security, and planning for incidents should address an area's vulnerability to attacks and natural disasters. Security planning should also include methods of preventing and reacting to attacks and disasters.

Green Bay Metro enhanced security at the Transportation Center, the Brown County Emergency Management Department developed a plan that identifies tools, resources, and routes that should be used to evacuate all or portions of the metropolitan area during emergencies, and Brown County has received grants to enhance security at the Port of Green Bay. These three efforts are summarized below.

Transit Security

All of Green Bay Metro buses are outfitted with a video/audio system. Metro also purchased an Automatic Vehicle Location (AVL) system in to improve security and traveler information on the buses and at the transportation center.

Brown County Evacuation Plan

The Brown County Evacuation Plan provides guidelines for evacuation operations and planning to protect life and property. The plan will be used as a guide for evacuating residents during catastrophic events and will emphasize the evacuation of people with special needs. The document does not recommend a specific evacuation plan, but it identifies tools and resources that could be utilized during emergency evacuations. The plan is updated periodically by the Emergency Management Department.

The plan addresses the following evacuation scenarios:

Local Evacuation

This is a small-scale evacuation that may be necessary because of severe weather events, hazardous material incidents, major fires, bomb threats, or civil disturbances. This would include a relatively small number of citizens in a local area. Evacuation times would typically be short, and citizens would be permitted to return to their businesses and homes in a short period of time.

Intermediate Evacuation

This is an evacuation that could involve a large number of citizens and a large area. Citizens may be out of their homes and businesses for an extended period of time, but these evacuations could likely be handled with the resources that are already available in the county.

Mass Evacuation

This would involve an incident that would require the evacuation of the entire Green Bay Metropolitan Area or possibly even the county. Resources will be required from outside the county and the coordination of these resources will be done through the Brown County Emergency Operations Center (EOC). If the county EOC is unavailable, the EOC will operate from a remote location. Mutual aid agreements will also need to be activated.

The evacuation plan also identifies recommended evacuation routes, the roles and responsibilities of emergency responders, the incident command systems that could be used during an evacuation and procedures for returning evacuees to their homes.

Port of Green Bay

Brown County has aggressively sought grants from the US Department of Homeland Security to maximize security at the Port of Green Bay. Some examples of the projects that have been completed using these grants include the acquisition of patrol boats for the Green Bay Police and Brown County Sheriff's Departments, the purchase of a fireboat for the Green Bay Fire Department, the addition of 30 surveillance cameras, the installation of 2,000 feet of security fencing, and the development of a transportation worker identification card system. The county has also developed many security plans and procedures for the port and regularly practices its responses to a variety of port-related incidents.

The metropolitan area communities and county have done a good job of anticipating and preparing for security risks and disasters, but these entities should continue to assess potential vulnerabilities and seek funds through the Homeland Security Grant Program (HSGP) and Port Security Grant Program (PSGP) to cover the costs of maximizing transportation system security.

Chapter 5

Financial Capacity Analysis

This section of the MPO plan presents an assessment of the financial capacity of transportation providers in the Green Bay Metropolitan Area to implement the street, highway, transit, and other transportation improvements identified in the plan. The term "financial capacity" refers to the ability of each provider of transportation facilities and services to maintain and preserve the existing transportation system and to finance the planned improvements described earlier in the plan.

A financial capacity analysis is required by Moving Ahead for Progress in the 21st Century (MAP-21) to demonstrate that metropolitan area transportation plans are *fiscally constrained*, which means that the costs of the projects included in a plan and the maintenance and preservation of the existing transportation system can be covered using available and projected funding sources. Where projected shortfalls exist, the regulations also require that new sources of revenue be identified.

The financial capacity analysis considers the trends in sources and uses of funds, determines the implications of these trends in light of other economic and demographic projections for the metropolitan area, and estimates the ability of existing funding sources to meet the maintenance, preservation, and improvement needs of the transportation system. The findings of the plan's financial capacity analysis are presented in the rest of this section.

Recent Trends

The Green Bay Metropolitan Area's capacity to maintain, preserve, and improve its transportation system is largely defined by the conditions that exist today. Among the existing conditions that are important to the plan's financial analysis are the institutional structure by which the transportation system is administered and financed, the sources and uses of funds, and the trends in the various tax bases that could affect future revenues.

Current Sources and Uses of Transportation Funds

The total amount of money spent on municipal street, county highway, state and federal highways, and public transit services in the Green Bay Metropolitan Area was approximately \$718 million for the three year period between 2010 and 2012 (the most recent years for which data are available from the Wisconsin Department of Revenue). A summary of transportation revenues and expenditures for the metropolitan area communities, Brown County, and Green Bay Metro is presented in the following section.

Municipal Streets

The street-related revenues and expenditures for the metropolitan area municipalities were extracted from annual financial reports filed by these entities with the Wisconsin Department of Revenue. These reports provide audited financial results for all programs administered by the municipalities and provide a reasonably thorough basis for evaluating current financial conditions. The financial information considered in this analysis includes items such as storm sewers, sidewalks, and street lighting because these improvements are commonly associated with street construction (and would be difficult to extract from the data).

Municipal streets are largely financed by local sources. These sources include special assessments, public charges (e.g. to developers), and general revenues. The metropolitan area municipalities also use

funds from the state's General Transportation Aids program and federal Surface Transportation Program (STP) to finance projects.

Brown County and the metropolitan area municipalities use relatively similar mechanisms to fund street maintenance and improvements, but the application of these practices varies from place to place. These mechanisms and the recent street- and highway-related expenditures for the county and metropolitan area municipalities are summarized below.

**Municipal Maintenance Expenditures, Construction Expenditures,
Other Street Related Expenditures and General Obligation Debt Levels
Between 2010 and 2012**

City of Green Bay

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general public works budget (for routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$7,835,100 | \$8,229,100 | \$7,357,100 |
| Street Construction | \$8,329,500 | \$4,662,100 | \$7,731,400 |
| Street-Related Facilities | \$11,116,000 | \$10,080,400 | \$11,499,700 |
| Total Street-Related Expenses | \$27,280,600 | \$22,971,600 | \$26,588,200 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 50.3% | 48.5% | 48.0% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the City of Green Bay (2010 – 2012).

City of De Pere

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general public works budget (for routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$1,767,400 | \$1,968,300 | \$1,417,500 |
| Street Construction | \$1,613,000 | \$2,033,000 | \$1,800,400 |
| Street-Related Facilities | \$1,241,300 | \$1,198,000 | \$1,033,600 |
| Total Street-Related Expenses | \$4,621,700 | \$5,199,300 | \$4,251,500 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 31.2% | 33.0% | 36.8% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the City of De Pere (2010 – 2012).

Village of Allouez

Existing municipal funding mechanisms: Bonding (for large-scale projects) and general budget (for paving projects and routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$622,300 | \$686,200 | \$558,400 |
| Street Construction | \$96,900 | \$938,100 | \$903,000 |
| Street-Related Facilities | \$216,600 | \$283,800 | \$290,500 |
| Total Street-Related Expenses | \$935,800 | \$1,908,100 | \$1,751,900 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 43.3% | 54.4% | 67.2% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Village of Allouez (2010 – 2012).

Village of Ashwaubenon

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), and general budget (for paving projects and routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$1,578,400 | \$1,594,800 | \$1,491,600 |
| Street Construction | \$1,910,500 | \$932,200 | \$6,443,700 |
| Street-Related Facilities | \$492,300 | \$518,700 | \$409,600 |
| Total Street-Related Expenses | \$3,981,200 | \$3,045,700 | \$8,344,900 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 10.1% | 16.1% | 14.7% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Village of Ashwaubenon (2010 – 2012).

Village of Bellevue

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general public works budget (for routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$535,700 | \$524,200 | \$560,700 |
| Street Construction | \$712,600 | \$1,133,900 | \$3,315,600 |
| Street-Related Facilities | \$113,500 | \$225,900 | \$293,400 |
| Total Street-Related Expenses | \$1,361,800 | \$1,884,000 | \$4,169,700 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 30.1% | 33.2% | 43.9% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Village of Bellevue (2010 – 2012).

Village of Howard

Existing municipal funding mechanisms: Public charges to developers (for subdivision streets), special assessments (for street reconstruction projects), and general budget (for routine maintenance). The Village does not currently bond for projects.

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$1,122,000 | \$1,271,100 | \$1,129,700 |
| Street Construction | \$1,105,300 | \$1,170,400 | \$1,074,700 |
| Street-Related Facilities | \$868,000 | \$378,700 | \$338,600 |
| Total Street-Related Expenses | \$3,095,300 | \$2,820,200 | \$2,543,000 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 5.1% | 6.6% | 4.9% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Village of Howard (2010 – 2012).

Village of Hobart

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$235,200 | \$199,900 | \$201,800 |
| Street Construction | \$1,439,300 | \$457,000 | \$695,200 |
| Street-Related Facilities | \$445,000 | \$126,000 | \$86,700 |
| Total Street-Related Expenses | \$2,119,500 | \$782,900 | \$983,700 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 16.1% | 12.9% | 20.3% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Village of Hobart (2010 – 2012).

Village of Suamico

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), and general budget (for routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$5,065,600 | \$1,169,800 | \$672,700 |
| Street Construction | \$831,800 | \$858,900 | \$760,000 |
| Street-Related Facilities | \$35,500 | \$78,600 | \$38,300 |
| Total Street-Related Expenses | \$5,932,900 | \$2,107,300 | \$1,471,000 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 47.5% | 50.3% | 47.8% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Village of Suamico (2010 – 2012).

Town of Glenmore

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$166,200 | \$189,900 | \$70,700 |
| Street Construction | \$206,900 | \$173,500 | \$129,600 |
| Street-Related Facilities | \$700 | \$700 | \$0 |
| Total Street-Related Expenses | \$373,800 | \$364,100 | \$200,300 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 0.0% | 0.0% | 0.0% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Glenmore (2010 – 2012).

Town of Green Bay

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | 2010 <u>Expenses</u> | 2011 <u>Expenses</u> | 2012 <u>Expenses</u> |
|--|-------------------------|-------------------------|-------------------------|
| Street Maintenance & Admin. | \$280,400 | \$210,900 | \$293,400 |
| Street Construction | \$0 | \$0 | \$0 |
| Street-Related Facilities | \$8,300 | \$9,600 | \$0 |
| Total Street-Related Expenses | \$288,700 | \$220,500 | \$293,400 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 4.1% | 2.3% | 1.9% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Green Bay (2010 – 2012).

Town of Humboldt

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|--|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$67,900 | \$85,100 | \$101,100 |
| Street Construction | \$70,400 | \$52,500 | \$16,700 |
| Street-Related Facilities | \$4,900 | \$5,000 | \$10,800 |
| Total Street-Related Expenses | \$143,200 | \$142,600 | \$128,600 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 5.3% | 4.7% | 4.4% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Humboldt (2010 – 2012).

Town of Lawrence

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general public works budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|---|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$411,100 | \$282,300 | \$254,300 |
| Street Construction | \$232,000 | \$473,900 | \$270,500 |
| Street-Related Facilities | \$136,600 | \$39,300 | \$26,800 |
| Total Street-Related Expenses | \$779,700 | \$795,500 | \$551,600 |
| Approximate General Obligation Debt Level/ Percent Capacity Used | 24.2% | 23.7% | 20.2% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Lawrence (2010 – 2012).

Town of Ledgeview

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general public works budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|--|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$352,300 | \$303,700 | \$321,500 |
| Street Construction | \$151,100 | \$1,287,900 | \$1,321,300 |
| Street-Related Facilities | \$34,800 | \$58,600 | \$48,200 |
| Total Street-Related Expenses | \$538,200 | \$1,650,200 | \$1,691,000 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 16.8% | 25.5% | 36.2% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Ledgeview (2010 – 2012).

Town of Pittsfield

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|---|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$156,200 | \$103,500 | \$70,700 |
| Street Construction | \$0 | \$122,300 | \$129,600 |
| Street-Related Facilities | \$0 | \$0 | \$0 |
| Total Street-Related Expenses | \$156,200 | \$225,800 | \$200,300 |
| Approximate General Obligation Debt Level/ Percent Capacity Used | 21.8% | 19.4% | 17.5% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Pittsfield (2010 – 2012).

Town of Rockland

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|--|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$159,400 | \$266,800 | \$293,400 |
| Street Construction | \$81,500 | \$0 | \$0 |
| Street-Related Facilities | \$0 | \$0 | \$0 |
| Total Street-Related Expenses | \$240,900 | \$266,800 | \$293,400 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 2.6% | 2.1% | 1.5% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Rockland (2010 – 2012).

Town of Scott

Existing municipal funding mechanisms: Bonding (for large-scale projects), public charges to developers (for subdivision streets), special assessments, and general budget (for resurfacing projects and routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|--|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$270,900 | \$138,000 | \$111,500 |
| Street Construction | \$91,700 | \$111,500 | \$482,700 |
| Street-Related Facilities | \$19,200 | \$18,500 | \$18,100 |
| Total Street-Related Expenses | \$381,800 | \$268,000 | \$612,300 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 3.0% | 4.4% | 4.1% |

Sources: Wisconsin Dept. of Revenue Financial Reports for the Town of Scott (2010 – 2012).

Based on the information above, it appears that the metropolitan area municipalities that will be affected by the major street and highway projects in this plan have recently been able to complete many street construction and maintenance projects while remaining below (and in many cases well below) their general obligation debt limits.

County Highways

Brown County's financial report that was filed with the Wisconsin Department of Revenue states that the county's highways were funded by general revenues, state transportation aids, federal STP funds, and cost sharing with municipalities. The county also uses bonds to finance its highway construction projects, and the county's general obligation debt in 2012 was only 16 percent of its allowable debt limit.

Brown County Highway Maintenance Expenditures, Construction Expenditures, Other Highway-Related Expenditures and Debt Obligation Levels Between 2010 and 2012

Existing County funding mechanisms: Bonding (for large-scale projects), limited assessments, and general public works budget (for routine maintenance).

| <u>Activity</u> | <u>2010 Expenses</u> | <u>2011 Expenses</u> | <u>2012 Expenses</u> |
|--|--------------------------|--------------------------|--------------------------|
| Street Maintenance & Admin. | \$4,014,700 | \$4,776,000 | \$3,409,600 |
| Street Construction | \$10,546,200 | \$8,896,600 | \$20,716,200 |
| Street-Related Facilities | \$669,600 | \$210,800 | \$741,900 |
| Total Street-Related Expenses | \$15,230,500 | \$13,883,400 | \$24,867,700 |
| Approximate General Obligation Debt Level/Percent Capacity Used | 15.5% | 15.8% | 16.0% |

Sources: Wisconsin Dept. of Revenue Financial Reports for Brown County (2010 – 2012).

Based on the information above, it appears that Brown County has also been able to recently complete several highway construction and maintenance projects while remaining well below its general obligation debt limit.

State Highways

The state and federal highway funding sources that have been used for many years in the Green Bay Metropolitan Area include:

- Federal National Highway Performance Program (NHPP), which includes the former National Highway System, Bridge Rehabilitation, Bridge Replacement, and Interstate Maintenance funding programs.
- Federal Surface Transportation Program (STP) funds.
- Federal Highway Safety Improvement Program (HSIP) funds.
- Federal Transportation Alternatives Program (TAP) funds.
- State Connecting Highway Aids.

In the past, it was typically assumed that state and federal highway revenues would equal the amount of money needed to maintain and add to the highway system. However, the motor fuel taxes, registration fees, and other state and federal revenue sources that have traditionally funded these projects have not been able to keep up with the rapidly rising costs of maintaining and adding to the state's highway system. The gap between forecasted highway revenues and expenses in Wisconsin has become so

significant that the *Wisconsin State Highway Plan 2020* that was published in 2000 by the Wisconsin DOT states:

Under TEA-21 (predecessor transportation law to MAP-21), Wisconsin will generally receive a dollar for every dollar of federal gas tax sent to Washington, D.C. This is an improvement over the 92 cents per dollar that Wisconsin received during the previous six-year transportation act. Even with this additional federal revenue, there remains a \$5.1 billion gap in funding required to fully address the identified needs over the 21-year planning period⁵.

Wisconsin's most recent transportation plan (Connections 2030) that was adopted in October of 2009 also recognizes that funding the state's highway system will be very difficult in the future. Although Connections 2030's financial element does not project the amount of revenue necessary to fully address the state's highway needs over the planning period, it acknowledges that the repeal of the state's fuel tax indexing system and problems with other existing federal and state funding mechanisms will make it hard to fulfill Wisconsin's long-term highway needs. This situation and WisDOT's approach to completing highway projects is summarized on Page 12-9 of Connections 2030, which states:

During the next two decades, transportation costs are expected to fluctuate widely. It is difficult to forecast these changes with precision, but the impacts of unplanned increases are raising the costs of scheduled highway projects, thereby limiting the department's ability to address additional needs with existing revenues. In other cases, projects are simply delayed.

The financial element of Connections 2030 addresses general strategies that WisDOT intends to pursue to increase federal and state transportation funding, but it appears that the state's long-term fiscal constraint policy will continue to be to build and rebuild what can be funded and to delay unfunded projects until money is available to complete them. This is also the policy that has been and will continue to be used at the county and community levels over the long-range planning period.

Public Transportation (including Green Bay Metro and other public transportation related services)

Green Bay Metro is a department of the City of Green Bay, but the system's operation is funded by a variety of sources. Metro's capital program expenditures are episodic because they are affected by the replacement and rehabilitation of its bus fleet. Capital outlays for buses and other equipment are financed by federal funds (either Section 5307 Urbanized Area Formula Program [operating and capital funds] or Section 5339 Capital Program) and city general revenues. In addition, transportation services for seniors, individuals with disabilities, employment related transportation, and smaller scale services received federal and/or state funding. The funding levels and sources between 2010 and 2012 are summarized below.

⁵ Wisconsin State Highway Plan 2020 Summary Report (Page 44).

**Public Transportation Revenues in the Green Bay Metropolitan Area
2010-2012**

| | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>3-Year Total</u> |
|---|--------------------|--------------------|--------------------|---------------------|
| <u>Public Operating Assistance</u> | | | | |
| FTA Section 5307 funds/ Operating Assistance & Capitalized Maintenance (federal) | \$2,677,000 | \$2,549,416 | \$2,386,783 | \$7,613,199 |
| FTA Section 5310 Enhanced Mobility funds (federal)* | \$26,000 | \$60,000 | \$34,000 | \$120,000 |
| FTA Section 5316 Job Access & Reverse Commute (federal) | \$100,000 | \$75,000 | \$50,000 | \$225,000 |
| 85.20 funds (state) | \$1,813,000 | \$2,138,654 | \$1,942,971 | \$5,894,625 |
| Municipal funds (Green Bay, De Pere, Allouez, Ashwaubenon, Bellevue, & Oneida Tribe of Indians**) | \$1,664,000 | \$1,520,055 | \$1,520,055 | \$4,704,110 |
| <u>Operating Revenues from Green Bay Metro only</u> | | | | |
| Farebox revenues (fixed route bus & paratransit services) | \$1,240,000 | \$1,204,632 | \$1,307,273 | \$3,751,905 |
| Other revenues (sale of advertising, used oil & parts, & interest) | \$106,000 | \$122,409 | \$122,409 | \$350,818 |
| <u>Operating Revenues from Red Cross only</u> | | | | |
| Farebox & Rentals (demand response bus & paratransit services) | \$185,523 | \$199,593 | \$210,951 | \$596,067 |
| Total Revenues | \$7,626,000 | \$7,670,166 | \$7,363,491 | \$22,659,657 |

* Green Bay Metro will begin receiving Section 5310 funds in 2015.

** The Oneida Tribe of Indians discontinued direct contributions in 2014.

Sources: 2015-2019 Transportation Improvement Program for the Green Bay Urbanized Area; Green Bay Metro.

Major Metropolitan Area Projects

The major metropolitan area projects addressed in this analysis are the projects identified in the Major Streets and Highways section of the plan. Although estimated costs and completion dates have been identified for some of the projects, the costs and completion dates of others have not been developed at this time because they are currently being studied.

**Estimated Implementation Dates and Costs of Major Projects
In the Green Bay Metropolitan Area**

| Highway Segment/Component | Estimated Implementation Date(s) | Estimated Cost |
|--|----------------------------------|----------------|
| <u>I-41 Expansion: Orange Lane to Lineville Road*</u> Primary Jurisdictions: State of Wisconsin | 2010-2017 | \$975,000,000 |
| I-41 Mainline Reconstruction | | |
| Glory Road to 9th Street | through 2017 | |
| Larsen Road to Memorial Drive | through 2017 | |
| Duck Creek to Lineville Road | through 2017 | |
| I-43 Interchange | through 2016 | |
| Velp Avenue (US 141) Interchange | Spring 2017 | |
| Morris Avenue (bridges over Morris Avenue) | through 2015 | |
| Cormier Road (bridges over Cormier Road) | through 2015 | |
| STH 172 Ramps | through 2016 | |
| Waube Lane/Oneida Street Interchange | Summer 2016 | |
| Parkview Road | Summer 2016 | |
| *portions completed prior to 2015; Source: WisDOT | | |

| Highway Segment/Component | Estimated Implementation Date(s) | Estimated Cost |
|--|----------------------------------|----------------|
| <u>Eastern Arterial</u> Primary Jurisdictions: Brown County & Wisconsin. Other Jurisdictions: V. of Bellevue & T. Ledgeview. | | |
| Willow Road – STH 29: | | |
| Engineering | 2015 | \$338,000 |
| Construction | 2019 | \$2,470,000 |
| STH 29 – I-43 | 2021+ | Unknown |
| Source: 2015-2019 GB Urbanized Area TIP | | |

| Highway Segment/Component | Estimated Implementation Date(s) | Estimated Cost |
|---|----------------------------------|----------------|
| <u>STH 29 Freeway Conversion</u> Primary Jurisdiction: State of Wisconsin. I-41 Interchange: Taylor St to CTH J (project costs included w I-41) CTH VV to CTH U CTH VV - to be converted to a diamond interchange North Pine Tree Rd. - to be extended over STH 29 Milltown Road Realignment Old Highway 29 Realignment CTH U – Overpass Source: WisDOT | completed 2023+ | \$27,100,000 |

Southern Bridge and Connecting Arterial Streets

Following the adoption of the Brown County Year 2020 Land Use and Transportation Plan in 1996, the Brown County Planning Commission began working with WisDOT, the Brown County Public Works Department, and communities to study methods of handling existing and projected transportation demand in the southern portion of the metropolitan area. The 1996 plan and the findings of subsequent plans, meetings, and studies suggested that the addition of a Fox River bridge and connecting arterial roadway segments in this area would be the most effective method of handling the demand that will be generated by the development planned for the area. However, the participants in these efforts also recognized the need to complete an environmental analysis before proceeding with a project that could affect the area’s natural, social, and other characteristics.

The Brown County Planning Commission is currently working with federal agencies, state agencies, local agencies and communities, and the public to complete an Environmental Impact Statement (EIS) and Interstate Access Justification Report (IAJR) for this project.

| Highway Segment/Component | Estimated Implementation Date(s) | Estimated Cost |
|---|----------------------------------|----------------|
| <u>Southern Bridge and Arterials*</u> Primary Jurisdiction: Brown County | undetermined | |

*The two corridor location alternatives currently being studied are Rockland Road-Red Maple Road and Scheuring Road-Heritage Road. The termini for both alternatives are CTH GV/CTH X in the Town of Ledgeview and CTH EB/CTH F in the Town of Lawrence.

Other projects that will likely be deemed major could occur elsewhere in the county between 2015 and 2045, but this section of the plan only addresses projects within the Green Bay Urbanized Area because these projects will be the ones eligible for urban federal aids.

Projected Ability to Fund Transportation Programs

The plan's financial projections address the funding sources that will presumably exist between 2010 and 2045 to maintain and enhance municipal streets, county trunk highways, state/federal highways, public transit, pedestrian walkways, and other metropolitan area transportation facilities.

Recent Expenditures for Metropolitan Area Transportation Programs

Between 2010 and 2012, approximately \$718,845,957 was spent to build, maintain, and operate the metropolitan area's street, highway, transit, and other transportation systems. This is 114 percent more than the amount spent for these purposes during the three year period (2006-2008) that was studied in the 2035 MPO Long-Range Transportation Plan that was approved in November of 2010. These expenditures (and transit revenues for the same period) are summarized in the following section. The large increase can, in part, be attributed to work completed on the I-41 expansion and STH 29 freeway conversion projects between 2010 and 2012.

MPO Long-Range Transportation Plan Study Years

| Study Years | Expenditures |
|--------------------------|---------------------|
| 2006-2008 | \$335,275,500 |
| 2010-2012 | \$718,845,957 |
| Percent Increase: | 114% |

**Summary of County and Community Street, Bicycle, Pedestrian,
and Other Street-Related Expenditures by Activity
2010-2012**

| <u>Activity</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>3-Year Total</u> |
|-----------------------------|--------------------|--------------------|--------------------|----------------------------|
| Street Maint./Admin. | | | | |
| Brown County* | \$4,014,700 | \$4,776,000 | \$3,409,600 | \$12,200,300 |
| C. Green Bay | \$7,835,100 | \$8,229,100 | \$7,357,100 | \$23,421,300 |
| C. De Pere | \$1,767,400 | \$1,968,300 | \$1,417,500 | \$5,153,200 |
| V. Ashwaubenon | \$1,578,400 | \$1,594,800 | \$1,491,600 | \$4,664,800 |
| V. Allouez | \$622,300 | \$686,200 | \$558,400 | \$1,866,900 |
| V. Howard | \$1,122,000 | \$1,271,100 | \$1,129,700 | \$3,522,800 |
| V. Bellevue | \$535,700 | \$524,200 | \$560,700 | \$1,620,600 |
| V. Hobart | \$235,200 | \$199,900 | \$201,800 | \$636,900 |
| V. Suamico* | \$5,065,600 | \$1,169,800 | \$672,700 | \$6,908,100 |
| T. Glenmore* | \$166,200 | \$189,900 | \$70,700 | \$426,800 |
| T. Green Bay* | \$280,400 | \$210,900 | \$293,400 | \$784,700 |
| T. Humboldt* | \$67,900 | \$85,100 | \$101,100 | \$254,100 |
| T. Lawrence* | \$411,100 | \$282,300 | \$254,300 | \$947,700 |
| T. Ledgeview* | \$352,300 | \$303,700 | \$321,500 | \$977,500 |
| T. Pittsfield* | \$156,200 | \$103,500 | \$70,700 | \$330,400 |
| T. Rockland* | \$159,400 | \$266,800 | \$293,400 | \$719,600 |
| T. Scott* | \$270,900 | \$138,000 | \$111,500 | \$520,400 |
| Maint./Admin. | \$24,640,800 | \$21,999,600 | \$18,315,700 | \$64,956,100 |

*Portions of the expenditures occurred outside the Metropolitan Planning Area.

| <u>Activity</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>3-Year Total</u> |
|----------------------------|---------------------|---------------------|---------------------|----------------------------|
| Street Construction | | | | |
| Brown County* | \$10,546,200 | \$8,896,600 | \$20,716,200 | \$40,159,000 |
| C. Green Bay | \$8,329,500 | \$4,662,100 | \$7,731,400 | \$20,723,000 |
| C. De Pere | \$1,613,000 | \$2,033,000 | \$1,800,400 | \$5,446,400 |
| V. Ashwaubenon | \$1,910,500 | \$932,200 | \$6,443,700 | \$9,286,400 |
| V. Allouez | \$96,900 | \$938,100 | \$903,000 | \$1,938,000 |
| V. Howard | \$1,105,300 | \$1,170,400 | \$1,074,700 | \$3,350,400 |
| V. Bellevue | \$712,600 | \$1,133,900 | \$3,315,600 | \$5,162,100 |
| V. Hobart | \$1,439,300 | \$457,000 | \$695,200 | \$2,591,500 |
| V. Suamico* | \$831,800 | \$858,900 | \$760,000 | \$2,450,700 |
| T. Glenmore* | \$206,900 | \$173,500 | \$129,600 | \$510,000 |
| T. Green Bay* | \$0 | \$0 | \$0 | \$0 |
| T. Humboldt* | \$70,400 | \$52,500 | \$16,700 | \$139,600 |
| T. Lawrence* | \$232,000 | \$473,900 | \$270,500 | \$976,400 |
| T. Ledgeview* | \$151,100 | \$1,287,900 | \$1,321,300 | \$2,760,300 |
| T. Pittsfield* | \$0 | \$122,300 | \$129,600 | \$251,900 |
| T. Rockland* | \$81,500 | \$0 | \$0 | \$81,500 |
| T. Scott* | \$91,700 | \$111,500 | \$482,700 | \$685,900 |
| Construction | \$27,418,700 | \$23,303,800 | \$45,790,600 | \$96,513,100 |

*Portions of the expenditures occurred outside the Metropolitan Planning Area.

| <u>Activity</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>3-Year Total</u> |
|----------------------------------|---------------------|---------------------|---------------------|----------------------------|
| Street-Related Facilities | | | | |
| Brown County* | \$669,600 | \$210,800 | \$741,900 | \$1,622,300 |
| C. Green Bay | \$11,116,000 | \$10,080,400 | \$11,499,700 | \$32,696,100 |
| C. De Pere | \$1,241,300 | \$1,198,000 | \$1,033,600 | \$3,472,900 |
| V. Ashwaubenon | \$492,300 | \$518,700 | \$409,600 | \$1,420,600 |
| V. Allouez | \$216,600 | \$283,800 | \$290,500 | \$790,900 |
| V. Howard | \$868,000 | \$378,700 | \$338,600 | \$1,585,300 |
| V. Bellevue | \$113,500 | \$225,900 | \$293,400 | \$632,800 |
| V. Hobart | \$445,000 | \$126,000 | \$86,700 | \$657,700 |
| V. Suamico* | \$35,500 | \$78,600 | \$38,300 | \$152,400 |
| T. Glenmore* | \$700 | \$700 | \$0 | \$1,400 |
| T. Green Bay* | \$8,300 | \$9,600 | \$0 | \$17,900 |
| T. Humboldt* | \$4,900 | \$5,000 | \$10,800 | \$20,700 |
| T. Lawrence* | \$136,600 | \$39,300 | \$26,800 | \$202,700 |
| T. Ledgeview* | \$34,800 | \$58,600 | \$48,200 | \$141,600 |
| T. Pittsfield* | \$0 | \$0 | \$0 | \$0 |
| T. Rockland* | \$0 | \$0 | \$0 | \$0 |
| T. Scott* | \$19,200 | \$18,500 | \$18,100 | \$55,800 |
| Street-Related Facilities | \$15,402,300 | \$13,232,600 | \$14,836,200 | \$43,471,100 |

*Portions of the expenditures occurred outside the Metropolitan Planning Area.

**Summary of State and Federal Spending
for Non-Transit Transportation Projects in the Green Bay Metropolitan Area
with I-41 and STH 29 Projects
2010-2012**

| Project Category | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>3-Year Total</u> |
|---------------------------|----------------------|----------------------|----------------------|----------------------------|
| <u>Highway</u> | | | | |
| Federal | \$78,608,000 | \$70,080,000 | \$152,651,000 | \$301,339,000 |
| State | \$57,803,000 | \$67,887,000 | \$62,559,000 | \$188,249,000 |
| Subtotal Highway | \$136,411,000 | \$137,967,000 | \$215,210,000 | \$489,588,000 |
| <u>TE/TAP</u> | | | | |
| Federal | \$835,000 | \$15,000 | \$0 | \$850,000 |
| State | \$100,000 | \$0 | \$21,000 | \$121,000 |
| Subtotal TE/TAP | \$935,000 | \$15,000 | \$21,000 | \$971,000 |
| <u>SRTS</u> | | | | |
| Federal | \$0 | \$381,000 | \$306,000 | \$687,000 |
| State | \$0 | \$0 | \$0 | \$0 |
| Subtotal SRTS | \$0 | \$381,000 | \$306,000 | \$687,000 |
| Total Expenditures | \$137,346,000 | \$138,363,000 | \$215,537,000 | \$491,246,000 |

Sources: Green Bay MPO Transportation Improvement Program Analyses (2010-2012).

**Summary of State and Federal Spending
for Non-Transit Transportation Projects in the Green Bay Metropolitan Area
without I-41 and STH 29 Projects
2010-2012**

| Project Category | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>3-Year Total</u> |
|---------------------------|---------------------|---------------------|---------------------|----------------------------|
| <u>Highway</u> | | | | |
| Federal | \$18,216,000 | \$12,092,000 | \$22,020,000 | \$52,328,000 |
| State | \$7,178,000 | \$2,780,000 | \$8,187,000 | \$18,145,000 |
| Subtotal Highway | \$25,394,000 | \$14,872,000 | \$30,207,000 | \$70,473,000 |
| <u>TE/TAP</u> | | | | |
| Federal | \$835,000 | \$15,000 | \$0 | \$850,000 |
| State | \$100,000 | \$0 | \$21,000 | \$121,000 |
| Subtotal TE/TAP | \$935,000 | \$15,000 | \$21,000 | \$971,000 |
| <u>SRTS</u> | | | | |
| Federal | \$0 | \$381,000 | \$306,000 | \$687,000 |
| State | \$0 | \$0 | \$0 | \$0 |
| Subtotal SRTS | \$0 | \$381,000 | \$306,000 | \$687,000 |
| Total Expenditures | \$26,329,000 | \$15,268,000 | \$30,534,000 | \$72,131,000 |

Sources: Green Bay MPO Transportation Improvement Program Analyses (2010-2012).

Projected Transportation Expenses and Revenues

As stated earlier in this section, much of the federal and state funds that were committed to the area between 2010 and 2012 were used for the I-41 expansion and STH 29 freeway conversion projects. However, the amount of federal and state funding necessary for the metropolitan area's transportation system will likely decrease significantly after the I-41 and STH 29 projects are finished, and both projects are expected to be finished well before 2045. Therefore, the I-41 expansion and STH 29 freeway conversion projects are not included in the plan's long-range expenditure projections. These projections are summarized in tabular format later in this chapter.

MAP-21 requires that the financial elements of the long-range plan include inflation factors that estimate the costs of projects in their construction years. The WisDOT Bureau of Planning and Economic Development has recommended that an annual inflation factor of 2.5% be applied. When this inflation factor is applied, it is estimated that approximately \$5,094,000,000 will be needed to maintain and enhance the metropolitan area's transportation system through 2045.

Municipal Street Projects Summary

The focus of the municipal streets program is the maintenance and preservation of existing infrastructure, the construction of new local streets, and reconstruction of some streets to support heavier traffic flows and improve accessibility and safety. Since all of the metropolitan area municipalities have enough bonding capacity to accommodate this growth in spending (as noted earlier in this section) and the ability to fund projects using special assessments and other mechanisms, the projected rate of growth should be able to be accommodated if funds from local property tax levies also increase at an acceptable rate (which might not occur if the statewide property tax caps continue to exist). The metropolitan area communities will also be able to apply for and, if approved, use federal Surface Transportation Program (STP) funds to cover a portion of the costs of projects on the federal aid system.

**Projected Expenses and Revenues for Metropolitan Area Transportation Projects (2015-2045)
Fiscal Constraint Demonstration**

| Program/Activity | Current Annual Spending* | Projected Expenses | | | | Projected Revenues | | | |
|--|--------------------------|---------------------------|---------------------------|-------------------------------|------------------------|---------------------------|---------------------------|-------------------------------|------------------------|
| | | Six-Year Period 2015-2020 | Ten-Year Period 2021-2030 | Fifteen-Year Period 2031-2045 | Planning Period Total | Six-Year Period 2015-2020 | Ten-Year Period 2021-2030 | Fifteen-Year Period 2031-2045 | Planning Period Total |
| Federal (includes NHPP, STP, & HSIP) | \$17,442,667 | \$111,664,665 | \$197,550,634 | \$329,228,170 | \$638,443,468 | \$111,664,665 | \$197,550,634 | \$329,228,170 | \$638,443,468 |
| State of Wisconsin | \$6,048,333 | \$39,878,938 | \$70,551,499 | \$117,577,659 | \$228,008,096 | \$39,878,938 | \$70,551,499 | \$117,577,659 | \$228,008,096 |
| Surface Transportation Program-Urban (STP-U) | \$2,941,000 | \$19,391,120 | \$34,305,642 | \$57,172,096 | \$110,868,858 | \$19,391,120 | \$34,305,642 | \$57,172,096 | \$110,868,858 |
| Transportation Alternatives Program (TAP) | \$305,000 | \$2,010,980 | \$3,557,709 | \$5,929,102 | \$11,497,790 | \$2,010,980 | \$3,557,709 | \$5,929,102 | \$11,497,790 |
| Federal Section 5307 | \$2,168,000 | \$14,294,440 | \$25,288,892 | \$42,145,224 | \$81,728,556 | \$14,294,440 | \$25,288,892 | \$42,145,224 | \$81,728,556 |
| Federal Section 5310 | \$163,000 | \$994,464 | \$1,756,492 | \$2,927,284 | \$5,678,240 | \$994,464 | \$1,756,492 | \$2,927,284 | \$5,678,240 |
| Federal Section 5339 | \$242,000 | \$1,595,597 | \$2,822,838 | \$4,704,402 | \$9,122,837 | \$1,595,597 | \$2,822,838 | \$4,704,402 | \$9,122,837 |
| State of Wisconsin 85.20 | \$2,200,000 | \$14,505,428 | \$25,662,160 | \$42,767,294 | \$82,934,882 | \$14,505,428 | \$25,662,160 | \$42,767,294 | \$82,934,882 |
| State of Wisconsin 85.21 | \$505,000 | \$3,329,655 | \$5,890,632 | \$9,817,038 | \$19,037,325 | \$3,329,655 | \$5,890,632 | \$9,817,038 | \$19,037,325 |
| Brown County & Communities Maint./Admin. | \$21,652,033 | \$142,760,005 | \$252,562,702 | \$420,908,578 | \$816,231,285 | \$142,760,005 | \$252,562,702 | \$420,908,578 | \$816,231,285 |
| Brown County & Communities Construction | \$32,171,033 | \$212,115,731 | \$375,262,821 | \$625,394,561 | \$1,212,773,114 | \$212,115,731 | \$375,262,821 | \$625,394,561 | \$1,212,773,114 |
| Brown County & Communities Street-Related Facilities | \$14,490,367 | \$95,540,441 | \$169,024,595 | \$281,688,077 | \$546,253,113 | \$95,540,441 | \$169,024,595 | \$281,688,077 | \$546,253,113 |
| Total: | \$100,328,433 | \$658,081,465 | \$1,164,236,616 | \$1,940,259,484 | \$3,762,577,565 | \$658,081,465 | \$1,164,236,616 | \$1,940,259,484 | \$3,762,577,565 |

* Current Annual Spending is in approximate 2011 dollars.

Per WisDOT Central Office expenses are anticipated to increase 2.3% annually with program revenues expected to increase 1% annually.

Expenses Notes:

- An annual inflation factor of 2.3% was applied to all projections.
- The costs associated with the I-41 expansion and STH 29 freeway conversion projects were removed from the annual spending estimates because they will be finished shortly after the beginning of the 30-year planning period (2015-2045).

Revenues Notes:

- An annual inflation factor of 1.0% was applied to all projections.
- Green Bay Metro revenue projections are based on the assumption that the state and federal governments will continue to cover approximately 56 percent of the system's operating costs.
- Since Brown County and the communities in this analysis have been and continue to be below their general debt limits, it was assumed that this will continue over the 30-year planning period. If financial problems arise during the planning period, it is assumed that the county and/or communities will adjust their programs to allow them to remain below their debt limits.

County Trunk Highway Projects Summary

The focus of the county highway program is the maintenance and preservation of existing infrastructure, the construction of new county highways, and reconstruction of some highways to support heavier traffic flows and improve accessibility and safety. Based on recent experience, it is clear that the county has the bonding capacity and assessment ability to handle its major and minor highway construction and maintenance program through 2045. Brown County will also be able to apply for and, if approved, use federal Surface Transportation Program (STP) funds to cover a portion of the costs of projects on the federal aid system.

Financial Capacity Assessment for Municipal Streets and County Highways

Based on the results of this financial capacity analysis, it appears that the metropolitan area communities and Brown County will be able to fund the construction and maintenance of the existing, committed, and planned street and highway systems through 2045. Assuming this will be the case, the communities and county should continue to examine how the street and highway systems should be built to maximize accessibility, safety, mobility, visual appeal, environmental friendliness, and financial efficiency.

This plan contains many concepts that the metropolitan area communities and county can use to accomplish these goals, and many of these concepts have been implemented throughout the metropolitan area since the late 1990s. It is recommended that the county and metropolitan area communities continue to use the concepts in this plan to create a balanced transportation system that can be easily and safely used by everyone.

State Highway Projects Summary

It was mentioned earlier in this section that the *Wisconsin State Highway Plan 2020* predicted that an additional \$5.1 billion (on top of the projected revenue amount of \$15.3 billion) will be needed to fully address the state's highway system needs between 2000 and 2020. The state's Connections 2030 plan that was adopted in October of 2009 did not provide specific estimates of what will be needed to sustain and improve the state's highway system through 2030. However, it acknowledged that the impacts of unplanned project cost increases are raising the costs of scheduled highway projects, which will continue

to limit WisDOT's ability to address additional needs with existing revenues. The plan also states that these funding shortfalls will force WisDOT to delay some highway projects.

These anticipated deficits prompted a committee to research and develop recommendations for addressing the projected revenue needs. When the committee finished its work, it presented ten short-term and four long-term revenue growth recommendations to the governor and legislature for their consideration⁶.

Wisconsin Commission on Transportation Finance and Policy⁷

The Wisconsin Commission on Transportation Finance and Policy was created in the 2011-2013 state budget. The Commission was directed to examine issues related to the future of transportation finance in Wisconsin, including the following:

- Highway maintenance, rehabilitation, and expansion projects
- Local aid and assistance programs, including general transportation aids
- Transportation fund revenue projections
- Transportation fund debt service
- Options to achieve balance between revenues, expenditures, and debt

The Commission issued a report entitled *Keep Wisconsin Moving – Smart Investments-Measurable Results* in January 2013.

In the report, the Commission called for a measured approach over the next decade that ensures adequate funds for Wisconsin's future transportation system. This includes additional annual investments of nearly \$480 million through 2023 across all modes, including state and local roads and bridges, airports, railroads, harbors, transit, and bicycle and pedestrian facilities. The recommended investments would provide the minimum amount needed to maintain existing road and bridge conditions, improve safety, provide limited highway modernization, and facilitate some multimodal improvements. According to data compiled by the Commission, continuing the status quo level of investment will result in serious worsening in the condition and safety of state highways, increased urban highway congestion, and reduced service levels for public transit.

The Commission recommended the following:

- Raise the state gas tax by 5 cents per gallon.
- Adopt a new Mileage-Based Registration Fee for passenger cars and light trucks that amounts to just more than a penny for each mile traveled.
- Increase Annual Registration Fees for commercial vehicles by 73 percent.
- Increase the fee for an eight-year drivers license by \$20.
- Eliminate the sales tax exemption on the trade-in value of a vehicle.

The Commission also recommends various other changes related to how transportation is paid for in Wisconsin.

- Enact legislation to allow for regional or local transportation initiatives supported by county or local sales taxes.
- Support a proposed state constitutional amendment to protect the integrity of the Wisconsin Transportation Fund. **Note:** A November 4, 2014, ballot measure regarding amending the state constitution to protect the state transportation fund passed as follows:

⁶ See Page 46 of the Wisconsin State Highway Plan 2020 Summary Report.

⁷ See Wisconsin Commission on Transportation Finance and Policy documents at <http://www.dot.wisconsin.gov/about/tfp/>. Courtesy of the Wisconsin Department of Transportation.

| Response | Votes | Percent |
|----------|-----------|---------|
| ✓ Yes | 1,733,101 | 79.84% |
| No | 434,806 | 20.06% |

- Increase bonding over next the ten years, but keep debt service payments for transportation projects at a manageable level.
- Address inflation in the future. Index the state fuel tax and vehicle registration fees to mitigate the impact of inflation.
- Encourage federal legislation that allows states more flexibility to toll on the National Highway System.

Transit

State and federal revenues have fluctuated for many years, but the total amount of money available to the transit system from these two sources consistently covered slightly more than 60 percent of the system's operating costs through 2004. However, this level has fallen and is currently in the 56 percent range. State and federal shares of Green Bay Metro's operating budget could continue to decline unless the contributions from these entities rise at the same rate as Metro's operating expenses.

Possible Funding Strategies

The MPO long-range transportation plan addresses many possible methods of increasing transit ridership and revenue, but many of these methods could take many years to successfully implement. To address Metro's short-term revenue and service concerns, MPO staff continues to work with Metro staff, the Brown County Transportation Coordinating Committee (TCC), and other organizations and individuals to identify methods of reducing the costs associated with the paratransit and transit services, coordinating the use of the state and federal transportation funds that are currently received by Brown County, Curative Connections, Metro, and other entities, and increasing ridership and revenue. Some of the specific strategies that have been discussed include:

- Working with the metropolitan area communities, the state, and other entities to increase financial contributions to Metro and other area public transportation services.
- Studying the coordination of transit funding and service to maximize the level of public transportation service in and around the metropolitan area.
- Including specific provisions in the next paratransit request for proposals (RFP) that will encourage potential paratransit providers to submit proposals that offer lower per-trip rates than those in the current contract.
- Having Metro purchase paratransit vehicles and bringing the paratransit service in-house as a long-term strategy to save money.

These and other strategies will hopefully allow Metro to at least maintain its current level of service if state, federal, and municipal funding assistance does not rise at the same rate as Metro's operating costs. However, if adjustments to the system are necessary, Metro and MPO staffs have developed a list of strategies to address these adjustments.

Funding to Help Develop the Area's Transportation System

To help Brown County and the county's communities fund the development of a multimodal transportation system, they should continue to apply for transportation grants from various sources over the next several years. Some examples of these programs are summarized in this section.

Transportation Alternatives Program (TAP) and Stewardship Program

Brown County and the county's communities should continue to apply for federal Transportation Alternatives Program (TAP) grants through the MPO to help fund the development of a bicycle and pedestrian system. The county and communities should also continue to apply for funds from Wisconsin's Stewardship Program to assist in funding the construction of off-street trail systems.

Since 1994, the TAP and its predecessor programs have enabled many bicycle, pedestrian, Safe Routes to School (SRTS), and other projects to be completed throughout Brown County. Information about the TAP can be obtained from the Brown County Planning Commission or Wisconsin DOT, and the county and communities can contact the Wisconsin Department of Natural Resources for information about the Stewardship Program.

Highway Safety Improvement Program (HSIP) (formerly the Hazard Elimination and Safety [HES] Program)

Hazard Elimination and Safety (HES) Program grants funded 90 percent of the cost of installing a roundabout at the intersection of Ninth Street and Grant and safety improvements at Main Avenue and Ninth Street. Safety funds were also used to install positive-offset left turn lanes on Ashland Avenue and STH 172 in Ashwaubenon.

The county and the county's communities should continue to apply for federal safety funds through the Highway Safety Improvement Program (HSIP) to correct safety problems, and other grant programs through WisDOT's Bureau of Transportation Safety should also be investigated to address safety issues.

CMAQ Program

If Brown County is designated as an air quality non-attainment area in the future, the county and the county's communities should seek funds from the Congestion Mitigation and Air Quality (CMAQ) Program administered by WisDOT to implement projects that will improve the area's air quality.

Brown County and the county's communities should also investigate other grant opportunities as they arise in the future.

Chapter 6

Summary of Recommendations

This plan includes the following general recommendations. More specific recommendations can be found in Chapter 3 – Transportation System Performance Measures.

General

- Create a metropolitan area where people and freight are able to move about safely and efficiently.

Major Highway and Street Projects

- WisDOT should continue work and complete the expansion of I-41 between CTH F and CTH M in Brown County that began in 2010.
- Continue to work with federal agencies, state agencies, local agencies and communities, and the public to finalize the southern bridge and connecting arterial streets Environmental Impact Statement (EIS) and Interstate Access Justification Report (IAJR). The EIS process is currently in the Alternatives Analysis phase, and the EIS document that recommends a location for a new southern bridge and connecting arterial streets is expected to be completed in 2018.
- Now that Phase I of the STH 29 freeway conversion project is completed, WisDOT should proceed with the engineering, right-of-way acquisition, and construction of Phase 2 of the project which includes the following elements:
 - STH 29/CTH VV intersection - Design for converting to a diamond interchange
 - STH 29/North Pine Tree Rd. - Current Pine Tree Rd. to be extended over WIS 29
 - Milltown Rd. - Realignment
 - Old Highway 29 - Realignment
 - STH 29/CTH U – Overpass
- During the planning period, extend the Eastern Arterial (CTH EA) directly south from STH 29 (Kewaunee Road) to US 141/CTH R as recommended by the consulting firm hired by WisDOT to conduct an Environmental Assessment (EA) Study for the project.

County Highways and Community Streets

- Metropolitan area communities should develop “complete streets” policies for construction and reconstruction projects to ensure that bicyclists, pedestrians, and motorists can be safely and conveniently accommodated on all streets.
- To enable and encourage people to walk and bicycle throughout the communities in the metropolitan area and rest of the county, area communities are encouraged to require well-connected street patterns within new developments that have frequent connections to the existing street system. Cul-de-sacs should only be allowed if physical or environmental constraints prohibit street connections.

- Area communities are encouraged to amend their subdivision ordinances to allow the construction of narrow streets and to establish right-of-way width standards that do not require the acquisition of more right-of-way than necessary.
- The parking areas of streets should be defined by curb extensions at many intersections throughout the metropolitan area when vehicle and pedestrian volumes warrant them. If a block is relatively long, extensions should also be placed at other points along the street.
- Develop criteria to determine where bump-outs & crosswalks are warranted.
- Develop criteria to determine where neighborhood traffic circles should be installed.
- To move traffic efficiently while minimizing barriers to pedestrian and bicycle travel, Brown County and the metropolitan area communities are encouraged to construct a system of two-lane arterial boulevards and/or three-lane streets that are complemented by interconnected collector and local street systems, mixed land uses, and efficient traffic control techniques at intersections. Streets with four travel lanes should be avoided unless they are found to be necessary as a result of detailed traffic studies or other analyses.
- Brown County and metropolitan area communities should continue to consider street design techniques that reduce vehicle speeds, minimize the possibility of conflicts, and enhance traveler awareness to maximize pedestrian, bicyclist, and motorist safety and accessibility at intersections. Techniques that the county and metropolitan area communities should continue to use include roundabouts, curb extensions at intersections, and other similar street design features.

Transportation Structures & Pavement Condition

- WisDOT, Brown County, and metropolitan area communities should continue to ensure that all transportation structures (bridges, interchanges, and overpasses) within the Green Bay Metropolitan Planning Area are safe for and accessible to all transportation modes.
- WisDOT, Brown County, and metropolitan area communities should ensure that the condition of the Metropolitan Planning Area's functionally classified highway and street system is adequate.

Transportation Safety (crash reduction)

- In an effort to reduce motorized and non-motorized crashes resulting in fatalities, injuries, and property damage, design arterial, collector, and local streets to maximize efficient traffic circulation while enabling people of all ages and physical abilities to conveniently and safely cross and travel along them.

Highway and Street Operations, Safety, and Accessibility

- Improve traffic operations and reduce traffic congestion on the Green Bay Metropolitan Planning Area's functionally classified highway and street system. Implement recommendations identified in the MPO's Congestion Management Process (CMP) that offer strategies for alleviating traffic congestion and methods of enhancing the mobility of people and goods.
- WisDOT, Brown County, and metropolitan area communities should consider the context of street and highway projects when they are planned, designed, and built to enable the streets and highways to fit with the surrounding areas.

Bicycle & Pedestrian Facilities

- Develop comprehensive sidewalk and bicycle systems throughout the metropolitan area.

Port of Green Bay

- In addition to increasing the depth and width of the Fox River channel, the port should continue to seek additional products to import and export from the area. The port should also continue to pursue federal and state grants to expand port activities.

Austin Straubel International Airport

- The airport should continue its efforts to expand services and establish Federal Inspection Station (FIS) designation.

Trucking

- As commercial and other truck-generating land uses are mixed into various parts of the communities over the next 30 years, the communities should consider formally identifying streets where heavy trucks are allowed to travel. Once this system is identified, Brown County and metropolitan area communities should mark the truck routes with street signs that distinguish them from the other streets.

Rail

- Reestablish an intermodal terminal in the Green Bay Metropolitan Area.

Public Transit

- The communities within the Green Bay Metro service area are encouraged to continue to work with Metro to improve and sustain ridership by increasing service frequency, convenience, and reliability. Consider accomplishing this through the establishment of a Regional Transportation Authority (RTA) or similar funding mechanism.
- The communities within the Green Bay Metro service area are encouraged to work with Metro, employers within the service area, retail centers, the Brown County Planning Commission, and other groups and individuals to implement programs that could increase transit ridership. Examples of efforts include U-Pass, travel allowance, and trip validation programs.
- The communities within the Green Bay Metro service area should work with state and local government representatives, elected officials at every level, private companies, and the public to create a viable set of coordinated transit incentives and automobile disincentives to increase transit ridership.

Transportation Services for Seniors and Individuals with Disabilities

- In order to meet the growing transportation needs of seniors and individuals with disabilities, the MPO and area communities should continue to coordinate transportation resources provided through many

federal and state programs. Coordination will enhance transportation access, minimize the duplication of services, and facilitate the most cost-effective transportation services possible with the resources that are available. MPO staff should continue to work with the Brown County Transportation Coordinating Committee (TCC) to identify unmet transportation needs of seniors and people with disabilities.

Environmental Justice

- WisDOT, the MPO, and Green Bay Metro should continue to examine proposed transportation investments to determine if minority and/or low-income populations will be negatively affected by them.

Ladders of Opportunity

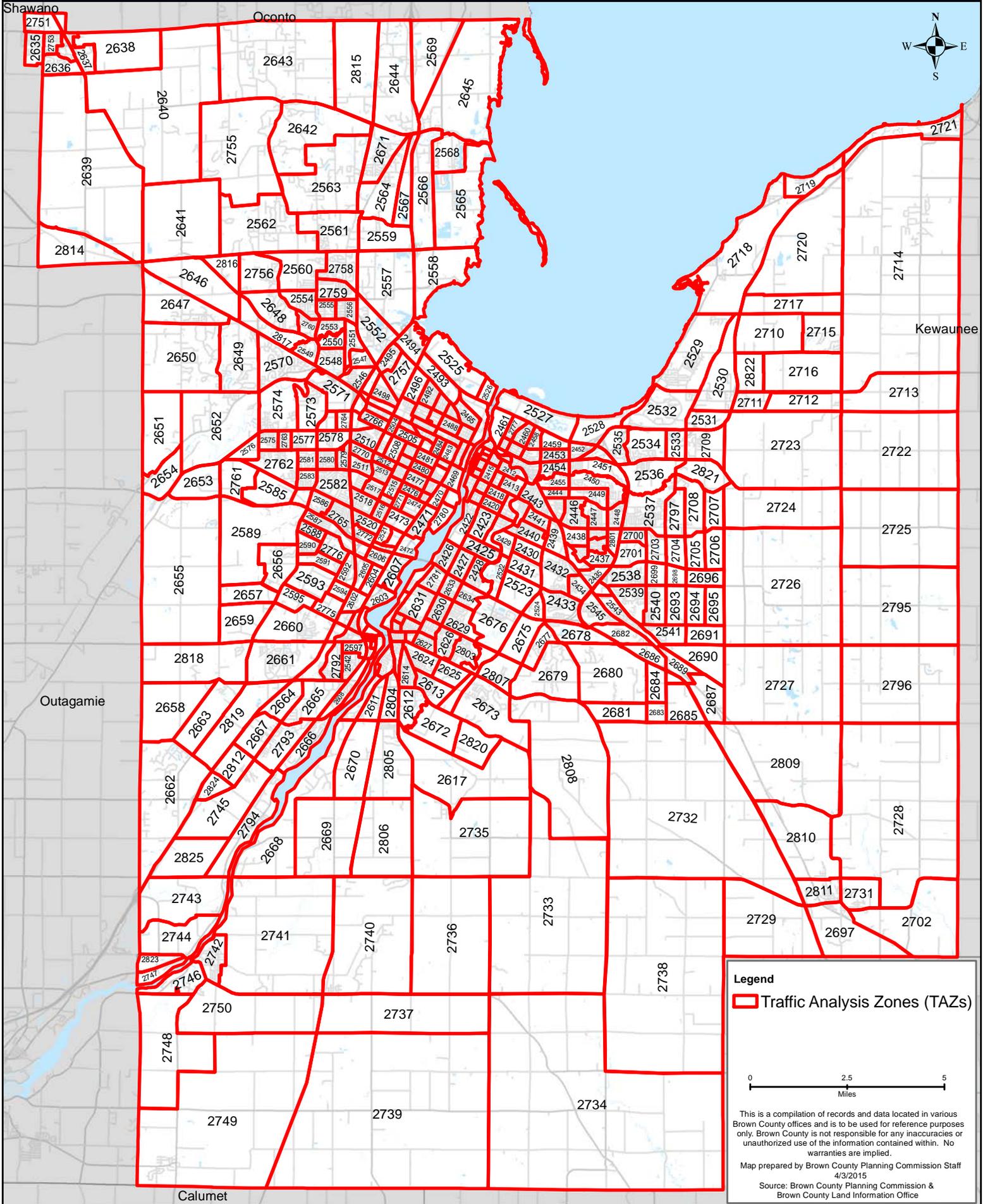
- Encourage WisDOT, communities, and providers of public transportation to identify transportation connectivity gaps in accessing essential services. Continue to support/enhance:
 - Access to work for individuals lacking ready access to transportation, especially in low-income communities.
 - Economic opportunities by offering transit access to employment centers, educational and training opportunities, and other basic needs.
 - Partnerships and coordinated planning among state and local governments and social/human services and transportation providers to improve coordinated planning and delivery of workforce development, training, education, and basic services to veterans, seniors, youths, and other populations.

Funding to Help Develop the County's Transportation System

- To help Brown County and metropolitan area communities fund the development of a multimodal transportation system, the county and the metropolitan area communities should continue to apply for transportation grants from various sources during the long-range planning period.



Appendix 1 Traffic Analysis Zones Brown County, WI



Legend

Traffic Analysis Zones (TAZs)

0 2.5 5
Miles

This is a compilation of records and data located in various Brown County offices and is to be used for reference purposes only. Brown County is not responsible for any inaccuracies or unauthorized use of the information contained within. No warranties are implied.

Map prepared by Brown County Planning Commission Staff
4/3/2015
Source: Brown County Planning Commission &
Brown County Land Information Office

Appendix 2: Calculations for Sidepath Suitability Analyses

Example 1 Calculations

1. Intersection Traffic Score

R = Number of residential driveway intersections: **0**

A = Number of minor street/minor commercial driveway intersections (< 1,000 ADT): **3**

B = Number of major street/major commercial driveway intersections (≥ 1,000 ADT): **2**

M = Street segment length (in miles): **1 mile**

Spd = Posted speed limit on parallel street (≤ 30 mph = 1, 35-40 = 2, ≥ 45 = 3): **35 mph**

Vol = Average daily traffic (ADT) on parallel street (≤ 2,000 = 1, 2,000-10,000 = 2, ≥ 10,000 = 3): **11,000**

$$\text{Intersection Traffic Score (ITS)} = \text{spd} \times \text{vol} \times (\text{R} + [2\text{A}] + [4\text{B}]) / \text{M}$$

$$\begin{aligned} \text{ITS} &= 2 \times 3 \times (0 + 6 + 8) / 1 \\ &= (6 \times 14) / 1 \\ &= 84 / 1 \\ &= 84 \end{aligned}$$

| | | | | | | | | |
|--------------------|---|------|-------|---------------|---------|---------|---------|------|
| Int. Traffic Score | 0 | 1-40 | 41-80 | 81-120 | 121-160 | 161-200 | 201-240 | >240 |
| Suitability Points | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Number of suitability points = 3

2. Path Continuity

No pavement gaps exist along the sidepath.

Number of suitability points = 0

3. Curb Cuts

All of the intersecting streets have curb cuts.

Number of suitability points = 0

4. Pedestrian Use

The path has a moderate amount of pedestrian use and is 10' wide.

| Low Pedestrian Use | Medium Pedestrian Use | High Pedestrian Use |
|------------------------|--------------------------------|-------------------------|
| Path 0' – 5' = 1 point | Path 0' – 5' = 2 points | Path 0' – 5' = 4 points |
| Path > 5' = 0 points | Path 6' – 7' = 1 point | Path 6' – 7' = 2 points |
| | Path > 7' = 0 points | Path > 7' = 1 point |

Number of suitability points = 0

5. Crosswalks

The crosswalks along the segment are prominent at each street intersection.

Number of suitability points = 0

6. Separation Between Intersections and Sidepath

The path is brought close to the parallel road at each street/driveway crossing.

| Crossing Condition | Points |
|--|----------|
| Crossings go through stopped traffic at intersecting streets/driveways | 5 |
| Crossings not "close enough" to the parallel streets | 3 |
| Crossings brought close to the parallel streets | 1 |

Number of suitability points = 1

Total Suitability Score

| Sidepath Suitability | Most Suitable | Somewhat Suitable | Least Suitable | Not Suitable |
|----------------------|---------------|-------------------|----------------|--------------|
| Points | 0-7 | 8-9 | 10-11 | 12 or more |

Total number of suitability points = 4

Sidepath Suitability Rating = Most Suitable

Example 2 Calculations

1. Intersection Traffic Score

R = Number of residential driveway intersections: **2**

A = Number of minor street/minor commercial driveway intersections (< 1,000 ADT): **12**

B = Number of major street/major commercial driveway intersections (≥ 1,000 ADT): **2**

M = Street segment length (in miles): **1 mile**

Spd = Posted speed limit on parallel street (≤ 30 mph = 1, 35-40 = 2, ≥ 45 = 3): **35 mph**

Vol = Average daily traffic (ADT) on parallel street (≤ 2,000 = 1, 2,000-10,000 = 2, ≥ 10,000 = 3): **11,000**

$$\text{Intersection Traffic Score (ITS)} = \text{spd} \times \text{vol} \times (\text{R} + [2\text{A}] + [4\text{B}]) / \text{M}$$

$$\begin{aligned} \text{ITS} &= 2 \times 3 \times (2 + 24 + 8) / 1 \\ &= (6 \times 34) / 1 \\ &= 204 / 1 \\ &= 204 \end{aligned}$$

| | | | | | | | | |
|--------------------|---|------|-------|--------|---------|---------|----------------|------|
| Int. Traffic Score | 0 | 1-40 | 41-80 | 81-120 | 121-160 | 161-200 | 201-240 | >240 |
| Suitability Points | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Number of suitability points = 6

2. Path Continuity

No pavement gaps exist along the sidepath.

Number of suitability points = 0

3. Curb Cuts

All of the intersecting streets have curb cuts.

Number of suitability points = 0

4. Pedestrian Use

The path has a moderate amount of pedestrian use and is 10' wide.

| Low Pedestrian Use | Medium Pedestrian Use | High Pedestrian Use |
|---------------------------|--------------------------------|----------------------------|
| Path 0' – 5' = 1 point | Path 0' – 5' = 2 points | Path 0' – 5' = 4 points |
| Path > 5' = 0 points | Path 6' – 7' = 1 point | Path 6' – 7' = 2 points |
| | Path > 7' = 0 points | Path > 7' = 1 point |

Number of suitability points = 0

5. Crosswalks

The crosswalks along the segment are prominent at each street intersection.

Number of suitability points = 0

6. Separation Between Intersections and Sidepath

The path is not close to the parallel road at each street/driveway crossing.

| Crossing Condition | Points |
|--|---------------|
| Crossings go through stopped traffic at intersecting streets/driveways | 5 |
| Crossings not “close enough” to the parallel streets | 3 |
| Crossings brought close to the parallel streets | 1 |

Number of suitability points = 5

Total Suitability Score

| Sidepath Suitability | Most Suitable | Somewhat Suitable | Least Suitable | Not Suitable |
|-----------------------------|----------------------|--------------------------|-----------------------|---------------------|
| Points | 0-7 | 8-9 | 10-11 | 12 or more |

Total number of suitability points = 11

Sidepath Suitability Rating = Least Suitable

APPENDIX 3: Brown County Coordinated Public Transit-Human Services Transportation Plan - Action Plan

| Issue/Action | Responsible Party | Timeline | Roadblock to Implementation |
|---|--|--|---|
| <p>Continue holding quarterly meetings of the Brown County Transportation Coordinating Committee (TCC).</p> | <p>Brown County Planning Commission/MPO and the Aging & Disability Resource Center of Brown County</p> | <p><u>The formation of the TCC:</u> The TCC was established by the Brown County Board of Supervisors in 2008.</p> <p><u>The function of the TCC:</u> TCC members collaborate/share information on available services, assist in resolving client/provider issues, and provide advocacy on behalf of seniors and individuals with disabilities who require specialized transportation services. The TCC also reviews and approves the ADRC's annual 85.21 applications and reviews and recommends approval of projects through the Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program.</p> | <p>None.</p> |
| <p>Delay or prevent the need for specialized transportation services through mobility training.</p> | <p>Human service agencies and Green Bay Metro</p> | <p><u>Available.</u> Green Bay Metro, in cooperation with the Brown County Planning Commission/MPO and the Job Center of Wisconsin produced a "How to Ride the Bus" video. The video is available in closed captioning, English, and Spanish. Although the video was produced in 2007, many of the components are still applicable.</p> <p><u>Ongoing.</u> Green Bay Metro offers one-on-one bus boarding and alighting training for individuals using mobility devices.</p> | <p>Lack of resources.</p> |
| <p>To enhance public transportation service for existing bus riders & make Metro a viable option for non-riders, Metro will have to raise & sustain additional money in the future. Current federal, state, & local funding sources will not likely increase over the next several years.</p> <p>Continue to study the possibility of creating a Regional Transportation Authority (RTA) or other alternative funding program in the Green Bay area, Brown County, or region.</p> | <p>Green Bay Transit Commission, Green Bay Metro staff, Brown County Planning Commission/MPO, and the State of Wisconsin</p> | <p><u>Ongoing.</u> BCPC/MPO and Metro staffs continue to monitor/study the impact of recent changes in federal and state funding levels. Staffs continue to monitor state RTA enabling legislation proposals.</p> | <p>Federal Transportation law limits the amount of funding large urban areas can receive for public bus and paratransit services. The Green Bay Urbanized Area reached 200,000+ population in the 2010 Census, prompting a decrease in overall federal transit aids used to provide service in Green Bay, De Pere, Allouez, Ashwaubenon, and Bellevue.</p> <p>State of Wisconsin 2012/2013 budget reduced transit aid by 10%. 2015 budget returns 4%.</p> <p>State of Wisconsin enabling legislation must be approved before locals can seek public approval of a RTA. Previously-approved RTAs eliminated.</p> |

| Issue/Action | Responsible Party | Timeline | Roadblock to Implementation |
|--|---|---|--|
| <p>Service gaps are often created due to lack of funding, vehicle capacity, as a result of institutional barriers, or other reasons. Gaps need to be identified and resolved if possible.</p> <p><u>Gaps:</u> There have been requests for public transportation services to accommodate shift workers, for Sunday and holiday travelers, and to areas currently not serviced. There is also a need for services to be available 24 hours a day, seven days a week, for 365 days a year.</p> | <p>All. Explore public/private partnerships to fill gaps.</p> | <p><u>Not identified.</u> Public transportation services are not projected to increase in near future.</p> | <p>No additional funding available to provide an increase in service.</p> <p>A limited number of private providers offer this service, but it is often much more expensive than public transportation options.</p> |
| <p>Explore additional funding programs/opportunities, including the Federal Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program (which was revised under MAP-21) and/or other funding programs or opportunities.</p> | <p>Brown County Planning Commission/MPO staff, Green Bay Metro, and human service agencies.</p> | <p>The American Red Cross has been a past recipient of vehicles for use in its transportation program.</p> <p><u>2013+.</u> Green Bay Metro has accepted the role of the Designated Recipient (DR) for the new MAP-21 Section 5310 program. The Green Bay Urbanized Area will now receive a direct allocation from the program and will not have to compete for with other areas of the state.</p> <p><u>2014.</u> Green Bay Metro applied for and received funds for seven accessible bus shelters.</p> <p><u>2014.</u> Curative Connections applied for and received funds for two accessible vehicles to transport individuals to day programs.</p> <p><u>2015.</u> Curative Connections & Disabled American Veterans applied for and received funds for two and one accessible vehicles respectively.</p> <p><u>2016+.</u> It is anticipated that Green Bay Metro and human service agencies will continue to apply for funds to enhance transportation services for seniors and individuals with disabilities.</p> | <p>Section 5310 funds limited.</p> |

| Issue/Action | Responsible Party | Timeline | Roadblock to Implementation |
|---|---|--|--|
| <p>Non-Emergency Medical Transportation (NEMT) provided by the State of Wisconsin Department of Health Services (DHS) & MTM Transportation to qualifying Medicaid and BadgerCare Plus Members is of poor quality and often leaves eligible clients without transportation. Other service quality issues have been documented. Service improvements needed.</p> | <p>Wisconsin DHS and private for profit transportation firm, MTM.</p> | <p>MTM began providing service on August 1st, 2013, after the previous provider, LogistiCare, issued a letter of intent to cease service.</p> <p>MTM's service is being monitored by representatives of the Brown County TCC and other committees and organizations throughout the state.</p> <p>Due to the numerous complaints, the Wisconsin Legislative Fiscal Bureau has conducted an audit of MTM.</p> | <p>Wisconsin Legislature approved current brokerage system structure in an effort to save money.</p> |
| <p>NEMT is difficult and costly to obtain for nursing home clients traveling to and from medical appointments and for hospital discharge. Federal reimbursement rates for qualifying individuals are approximately \$10.00 per day which is low compared to the actual cost of providing transportation at approximately \$25.00 to \$50.00 per trip. In many cases, the nursing home pays for the balance.</p> | <p>Unknown.</p> | <p><u>2013+</u>. The Brown County TCC has been studying the issue. A solution has not been identified, but the TCC will continue to address this issue in cooperation with representatives of area nursing homes.</p> | <p>Federal, State, and local funding constraints.</p> <p>Medicaid reimbursement rates are typically well below actual expenses.</p> |
| <p>Immediate specialized transportation services are needed (for unforeseen circumstances).</p> | <p>Public and private transportation providers.</p> | <p><u>None</u>. The Green Bay Metro paratransit program policy does not allow for same day trip requests. The Red Cross program will attempt to accommodate a same day request but the client can rarely be accommodated due to capacity issues. Private pay trips are available on short notice under certain circumstances.</p> | <p>Program policy and/or program capacity issues.</p> <p>A limited number of private providers offer this service although it can be cost prohibitive for some people.</p> |
| <p>The Green Bay area and Brown County could benefit from an expanded Mobility Manager function.</p> | <p>The Job Center of Wisconsin (office located in Green Bay) employed a Mobility Manager from 2008-2014. JARC, WETAP, and private funds offset the cost of the program.</p> | <p>None.</p> | <p>Lack of funding.</p> |

| Issue/Action | Responsible Party | Timeline | Roadblock to Implementation |
|--|--|---|--|
| Physical barriers, such as lack of sidewalks and curb cuts, restrict access to transportation services. | Brown County municipalities, Brown County Department of Public Works, State of Wisconsin, and private developers | <u>Ongoing</u> . The need for improved land use decisions and transportation design policies are addressed in many local comprehensive plans, the Transit Development Plan, the Green Bay MPO's Long-Range Transportation Plan, and other planning documents. | Local, county, and state policies. |
| New capabilities and opportunities are being created in both the transportation and human service communities through use of technology. Explore the increased use of technology. | Green Bay Metro, human service agencies, and Brown County Planning Commission/MPO | <u>Ongoing</u> . Recent advancements and investments in technology have included Green Bay Metro's "Trip Planner" and "Where is My Bus?" applications. A high-tech fare collection system with pre-paid swipe card ability and an automatic vehicle locator (AVL) system was installed on all of Metro buses. | Lack of funding. |
| Study the future of the Green Bay Metro Paratransit Program to possibly include a partial in-house operation. The current service is provided largely by a private operator under contract with Green Bay Metro. | Green Bay Transit Commission with support from Green Bay Metro and Brown County Planning Commission/MPO staffs | <u>Within five year period</u> . The BCPC and Green Bay MPO have included this concept in plans and programs for many years. This concept has been endorsed by the Green Bay Transit Commission. Green Bay Metro has secured funding for scheduling and dispatch software. | Lack of funding to hire additional staff and acquire accessible vans and/or small buses. |
| Educate local, state, and federal elected officials (policy makers) and the general public of the need for specialized transportation services. The need for specialized transportation services will increase as Brown County's population ages. Also develop an advocacy strategy. | Brown County TCC, Brown County Planning Commission/Green Bay MPO, Green Bay Metro, and other committees and organizations. | <u>Ongoing</u> . Brown County TCC membership includes elected officials and members of various advocacy groups. <u>Ongoing</u> . The MPO staff serves on the NE Wisconsin Regional Access to Transportation Committee (NEWRATC). Funding and advocacy are key components of the committee's work. <u>Ongoing</u> . BC Homeless & Housing Coalition, Bay Area Community Council, Job Center of Wisconsin/Mobility Manager, United Way, JOSHUA, ESTHER, and many others have brought the issue forward. | To be determined. |
| Engage seniors, individuals with disabilities, low-income individuals, and agency staff who represent them in the development of transportation plans and policies. | Brown County Transportation Coordinating Committee, Brown County Planning Commission/MPO, and Green Bay Metro. | <u>Ongoing</u> . The Brown County TCC's membership includes advocates for seniors, individuals with disabilities, and low income individuals. | To be determined. |

Appendix 4: Environmental Consultation Minutes and Comments

**Minutes of the
Environmental Consultation for the
2045 Long-Range Transportation Plan for the Green Bay Urbanized Area
by the
Brown County Planning Commission**

**9:00 a.m.
Monday, May 4, 2015
Green Bay Metro Transportation Center
901 University Avenue
Green Bay, Wisconsin**

Present: Lisa J. Conard, Brown County Planning Commission, and James Doperalski, Jr., Wisconsin Department of Natural Resources.

ORDER OF BUSINESS:

L. Conard opened the meeting at 9:08 a.m.

1. Introductions.

Introductions were given.

2. Overview of the *2045 Long-Range Transportation Plan for the Green Bay Urbanized Area* development process.

L. Conard provided an overview via PowerPoint.

3. Identification and discussion of environmental issues that should be addressed in the *2045 Long-Range Transportation Plan for the Green Bay Urbanized Area*.

L. Conard reviewed the major construction projects identified in the plan to date.

J. Doperalski stated that he is the liaison between the WDNR office and WisDOT and is familiar with all of the major projects identified in the plan. He stated he has and will continue to provide comments to the appropriate project sponsor.

4. Any other matters.

L. Conard stated that staff will continue to accept comments from the environmental resource agencies throughout the plan development process.

5. Adjourn.

L. Conard closed the meeting at 9:22 a.m.

Environmental Consultation opportunity for comment:

The following email was provided to the MPO from Alice Halpin on DATCP on 5/14/2015:

I have reviewed the draft chapters and resource maps posted on Brown County's website. This information is very thorough. However, you may want to add a map for existing drainage districts.

Chapter 88 of Wisconsin State Statutes governs drainage districts and also limits the obstruction of natural drainage courses. WisDOT is obligated to place culverts, bridges, etc. at a crossing of a drainage district ditch at the elevation of record and with sufficient capacity to maintain the cross-section of record.

There are portions of at least three drainage districts within the Green Bay Urbanized Area, two in Brown County and one that is mostly in Outagamie County. A map showing these districts is attached. Listed below are the names of these drainage districts and the drainage board members for their respective counties.

Brown County
Drainage Districts #4 and #5

Brown County Drainage Board Members
Warren Jadin, 444 School Rd., Luxemburg, WI 54217, phone: (920) 863-2451
Bill Ullmer, 5041 Placid Way, New Franken, WI 54229, phone: (920) 866-9069
Carl Vanden Avond, 933 Sugarbush Rd., Luxemburg, WI 54217, phone: (920) 468 4069

Outagamie County
Oneida-Hobart Drainage District

Outagamie County Drainage Board Members
Carl Anthony, Chairperson, P.O. Box 6, Shiocton, WI 54170, phone: (920) 986-3949
Joan Barkholtz, Secretary, 286 Gardners Row, Appleton, WI 54911
Alvin Kramer, Jr., W5569 Center Valley Road, Black Creek, WI 54106
Gregory Nettekoven, N4661 County Road PP, Black Creek, WI 53106

Additional information about drainage districts is available on the Wisconsin Department of Agriculture, Trade and Consumer Protection's website at http://datcp.wi.gov/Environment/Drainage_Programs/index.aspx .

Alice Halpin
Agricultural Impact Statements Program
Wisconsin Department of Agriculture, Trade and Consumer Protection
P.O. Box 8911
Madison, WI 53708-8911
phone: (608)224-4646
fax: (608)224-4615
e-mail: alice.halpin@wisconsin.gov

Appendix 5: Affidavit - Public Review Period, Public Comment Period, Public Open House, and Public Hearing Notice



**STATE OF WISCONSIN
BROWN COUNTY**

BROWN COUNTY PLANNING LEGALS

305 E WALNUT ST STE 320
GREEN BAY WI 543015027

Being duly sworn, doth depose and say that she/he is an authorized representative of the Green Bay Press Gazette, a newspaper Green Bay, Wisconsin, and that an advertisement of which the annexed is a true copy taken from said paper, which was published therein on

Account Number: GWM-284368
Order Number: 0000659768
No. of Affidavits: 1
Total Ad Cost: \$89.39
Published Dates: 08/19/15, 08/26/15



(Signed) *Teri Hulbert* (Date) *8-26-15*
Legal Clerk



Signed and sworn before me

Alexandra Zakowski

My commission expires *3/3/19*

NOTICE OF REQUEST FOR COMMENTS & NOTICE OF OPEN HOUSE & PUBLIC HEARING ON THE GREEN BAY METROPOLITAN PLANNING ORGANIZATION (MPO) 2046 LONG-RANGE TRANSPORTATION PLAN
All interested persons are advised of a 30-day comment period, open house, and public hearing on the draft plan. The 30-day public review and comment period for is scheduled for August 19 to September 18, 2015. Copies of the draft will be available for viewing at:
Brown County Planning Commission
305 E. Walnut St., Room 320
Green Bay, WI 54301
The document can also be viewed on the internet at <http://www.co.brown.wi.us/>. Click on Departments, Planning, and Transportation.
A public open house and staff presentation will take place on:
Wednesday, September 2, 2015
Green Bay Metro
901 University Ave.
Green Bay, WI 54302
4:00 p.m. - 8:00 p.m.
The public hearing will take place before the Brown County Planning Commission Board of Directors on:
Wednesday, September 2, 2015
Green Bay Metro
901 University Ave.
Green Bay, WI 54302
8:30 p.m.
Unless otherwise noticed, this serves as the final program of projects. Written comments should be mailed to Lee J. Conrad, Brown County Planning Commission, PO Box 23690, Green Bay, WI 54303-3600 by September 18, 2015.
Published by
Sandy Jane
County Clerk
RUN: Aug 19, 26 2015 WNAQLP

BROWN COUNTY PLANNING LEGALS
Re: 094-Long Range Transportation Plan

GANNETT WI MEDIA
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PO BOX 23430
GREEN BAY, WI 54305-3430

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FAX: 877-943-0443
EMAIL: legals@greenbaypressgazette.com

Appendix 6: Letter Sent to Interested Parties List per Adopted Public Participation Policy

Dear Interested Party,

Federal transportation law (Moving Ahead for Progress in the 21st Century [MAP-21]) requires Metropolitan Planning Organizations (MPOs) issue an update to its long-range transportation plan at least every five years. The Brown County Planning Commission (BCPC), as the MPO for the Green Bay Urbanized Area, has issued the ***DRAFT Green Bay MPO 2045 Long-Range Transportation Plan***.

MAP-21 strongly emphasizes the establishment of performance- and outcome-based transportation programs, and MPOs are required to use a performance-based approach when they develop transportation plans for their areas. Performance measures that address seven surface transportation areas must be developed by the US Department of Transportation in consultation with states, MPOs, and other stakeholders. These seven areas are:

- Pavement condition on the interstate system and on the remainder of the National Highway System (NHS)
- Performance of the interstate system and the remainder of the NHS
- Bridge condition on the NHS
- Fatalities and serious injuries (number and rate per vehicle mile traveled) on all public roads
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the interstate system

The MPO is holding a 30-day public review period from August 19 to September 18, 2015.

A public open house and staff presentation will take place on:

Wednesday, September 2, 2015
Green Bay Metro
901 University Ave.
Green Bay, WI 54302
4:00 p.m. – 6:00 p.m.

The public hearing will take place before the Brown County Planning Commission Board of Directors on:

Wednesday, September 2, 2015
Green Bay Metro
901 University Ave.
Green Bay, WI 54302
6:30 p.m.

The plan is scheduled to be presented to the Brown County Planning Commission Board of Directors for final approval consideration on October 7, 2015.

A copy of the *DRAFT Green Bay Metropolitan Planning Organization (MPO) 2045 Long-Range Transportation Plan* can be found at the following: [Link Inserted](#).

If you wish to submit comments about the contents of the *DRAFT Green Bay MPO 2045 Long-Range Transportation Plan*, you can submit them by telephone, email, or US mail. You can also submit comments through the Brown County Planning Commission/Green Bay MPO Facebook Page.

If you have questions, please feel free to contact me.

Regards,

Lisa J. Conard, Senior Planner
Brown County Planning Commission/Green Bay MPO
305 E. Walnut Street Room 320
PO Box 23600
Green Bay, WI 54305-3600
Phone: (920) 448-6489
Email: Conard_LJ@co.brown.wi.us
Website: www.co.brown.wi.us/planning

Appendix 7: Public Hearing Transcript and Public Comments

Minutes
BROWN COUNTY PLANNING COMMISSION
BOARD OF DIRECTORS
Wednesday, September 2, 2015
Green Bay Metro Transportation Center
901 University Avenue, Commission Room
Green Bay, WI 54302
6:30 p.m.

ROLL CALL:

| | | | | | |
|-----------------------|------------|-------------------------|------------|----------------------------|------------|
| Paul Blindauer | <u>X</u> | Matthew Harris | <u>X</u> | Debbie Schumacher | <u>Exc</u> |
| James Botz | <u>Exc</u> | Frederick Heitl | <u>Exc</u> | Ray Tauscher | <u>X</u> |
| Brian Brock | <u>X</u> | Phil Hilgenberg | <u>X</u> | Lanny Tibaldo | <u>Exc</u> |
| William Clancy | <u>Exc</u> | Kathleen Janssen | <u>X</u> | Jason Ward | <u>X</u> |
| Norbert Dantinne, Jr. | <u>X</u> | Dotty Juengst | <u>Exc</u> | Dave Wiese | <u>X</u> |
| Bernie Erickson | <u>X</u> | Patty Kiewiz | <u>X</u> | Reed Woodward | <u>Exc</u> |
| Steve Gander | <u>X</u> | Michael Malcheski | <u>X</u> | City of Green Bay (Vacant) | |
| Adam Gauthier | <u>Exc</u> | Eric Rakers (Alternate) | <u>X</u> | City of Green Bay (Vacant) | |
| Steve Grenier | <u>Exc</u> | Dan Robinson | <u>Exc</u> | | |
| Mark Handeland | <u>X</u> | Terry Schaeuble | <u>X</u> | | |

OTHERS PRESENT: Chuck Lamine, Lisa J. Conard, Cole Runge, Peter Schlein, Kathy Meyer and George Thompson.

2. Public Hearing: Overview and Public hearing on the *Draft Green Bay Metropolitan Planning Organization (MPO) 2045 Long-Range Transportation Plan*.

L. Conard provided a brief overview of the work to-date on the Long-Range Plan via PowerPoint.

Staff has been working on over the past 18 months in conjunction with a technical advisory committee.

L. Conard stated that a Long-Range Transportation plan covers a minimum of a 20-year period and identifies current and future transportation needs based on population projections and travel demand. By law, the transportation plan must be updated every five years. The most recent plan was completed in 2010.

L. Conard indicated that the federal transportation law (MAP-21) states that MPOs must establish a performance and outcome based transportation program and that MPOs are required to use this performance based approach in developing transportation plans. For the long-range plan, the following seven areas must be addressed:

- 1) Pavement condition on the interstate system and on the remainder of the National Highway System (NHS).
- 2) Performance of the interstate system and the remainder of the NHS.
- 3) Bridge condition on the NHS.
- 4) Fatalities and serious injuries on all public roads.
- 5) Traffic congestion.
- 6) On-road mobile source emissions.
- 7) Freight movement on the interstate system.

Future Land Use and Majors

- 1) I-41 Expansion (to be completed in 2017).
- 2) South Bridge & Connecting Arterial Streets.
- 3) STH 29 Freeway Conversion.
- 4) Eastern Arterial.

L. Conard stated that MPOs are required to develop and carryout a congestion management process and this was completed in 2014-2015 by staff.

L. Conard stated that under federal law MPOs are required to evaluate transportation services, programs, and projects under Title VI of the Civil Rights Act of 1964. Basically, transportation investments cannot disproportionately have an adverse impact based on race, color, or national origin (minority populations).

L. Conard stated that Environmental Justice was introduced in the 1990's and focuses on household income. MPO staff looked at various income levels and mapped them in accordance with transportation investments.

L. Conard reviewed the recommendation highlights:

- Advance work on the four major construction projects: I-41, South Bridge and Connecting Arterials, STH 29 Freeway Conversion and the Eastern Arterial.
- Construct/reconstruct roads using techniques that will maximize safety.
- Improve traffic operations by implementing plan recommendations that will assist in alleviating congestion.
- Increase service frequency and convenience of public transportation services.
- Develop comprehensive sidewalk and bicycle systems.
- Continue to examine proposed transportation investments to determine if minority, low-income, or other targeted populations are not negatively affected by them.
- Expand services currently offered by the port, rail and airport.
- Continue to apply for transportation grants to help fund the development of the area's multi-modal transportation system.

L. Conard summarized the plan schedule:

- MPO staff collects data and prepares draft report in conjunction with the Long-Range Transportation Plan Technical Advisory Committee.
- 30-day Public Review and Comment Period – August 19th and September 18th.
- Open House – September 2nd.
- Public Hearing – September 2nd.
- Long-Range Transportation Plan Technical Advisory Committee – September 8th.
- BCPC Transportation Subcommittee - September 14th.
- Public Comments accepted through September 18th.
- BCPC Board of Directors approval consideration – October 7th.
- Staff submits final to WisDOT, FTA and FHWA.

L. Conard opened the public hearing and asked three times if anyone wished to speak. Hearing no comment, L. Conard closed the public hearing.