

Chapter Four: Transportation

This chapter includes a compilation of background information, goals, objectives, policies and recommended programs to guide the future development and maintenance of various modes of transportation in the City of Jefferson. The chapter also compares the City's transportation policies and programs to state, county, and regional transportation plans.

Existing Transportation Network

The City of Jefferson is well connected to the region through the existing roadway network. Other transportation facilities, such as freight rail, airport service, and bike and recreational trails are located in or easily available to the City. This section describes the existing conditions of transportation facilities in the City. Map 8 shows existing and planned roadways in the City.

Roadways

The City of Jefferson is approximately 6 miles south of Interstate 94. I-94 serves as a regional, controlled-access facility within Wisconsin, connecting Minneapolis, La Crosse, and Madison with Milwaukee and Chicago. The Wisconsin Department of Transportation Corridors 2020 Plan designated the Interstate as a "backbone" route, which connects major population and economic centers.

State Trunk Highway 26 (Main Street) and United States Highway 18 (Racine Street) function as the City's arterials. STH 26 is the City's primary north-south minor arterial and is located in the center of Jefferson. USH 18 travels east-west and cuts through the middle portion of the City. Traffic volumes on STH 26 north of Greenwood Street increased 12.5 percent between 2000 and 2004. Traffic volumes on USH 18 just east of the Rock River increased only slightly between 2000 and 2004. County Trunk Highway N, K, W, J, and Y, and STH 89, also provide good access to area communities.

Future improvements to STH 26 will likely change its functional classification from a minor to a principal arterial. Section B of this Chapter includes a summary of the future STH 26 bypass.

Transportation Recommendations Summary

- Plan for interconnected streets connecting future development areas to the older parts of the City.
- Expand bicycling and walking opportunities in and near the City, especially along the Rock River.
- Update the City's Official Map based on the recommendations of this *Plan*.

Roadway Function Classification System

Wisconsin's functional classification system groups roads and highways according to the character of service they offer, ranging from rapid through access to local land access. The purpose of functional classification is to enhance overall travel efficiency and accommodate traffic patterns and land uses by designing streets to the standards suggested by their functional class. The four main functional classes include:

- **Principal Arterials:** Serve longer inter-urban type trips and traffic traveling through urban areas, including interstate highways and other freeways (e.g. I-94).
- **Minor Arterials:** Provide intra-community continuity and service trips of moderate length, with more emphasis on land access than principal arterials (e.g. STH 26).
- **Collectors:** Provide both land access and traffic circulation within residential neighborhoods, commercial areas, and industrial areas (e.g. CTH J, K, N, W and Y; Collins Road and Dewey Avenue).
- **Local Streets:** Provide direct access to abutting land and access to collectors. Local roads offer the lowest level of mobility. Through traffic movement on this system is usually discouraged (e.g. Highland Avenue).

Source: WisDOT, Facilities Development Manual, Procedure 4-1-15

Local streets are neighborhood roadways that provide access to individual homes and businesses, but do not serve as carriers of through traffic. In newer neighborhoods, local streets are often curvilinear so as to discourage through traffic and to provide a safer and more private street for residents.

Information on commuting patterns can be found in the Economic Development Chapter of this *Plan*.

Bridges

The City of Jefferson has two state-maintained bridges; one located on STH 26 and one on USH 18, both passing over the Rock River. The State maintains condition reports for these structures. Locally maintained bridges include Wisconsin Drive over the Crawfish River, Puerner Street over the Rock River, and two pedestrian bridges over the Rock River.

Airports

There are two airports with hard-surface runways in Jefferson County. The City of Watertown Airport is located at 1741 River Drive and has an average of 159 operations per day. The Fort Atkinson Municipal Airport is located at N3465 County Road K in Jefferson and has an average of 30 operations per day.

Located 40 miles west of Jefferson in Madison, the Dane County Regional Airport (DCRA) offers a full range of flights to regional, national, and international destinations to serve a growing metropolitan area. Renovations completed in June 2006 have increased the total square footage from 126,000 to 278,000 in the passenger terminal, expanding additional counter queuing areas, baggage claim areas and restaurants and shops. Annually, there are nearly 116,000 aircraft landings and takeoffs from three runways. DCRA is served by 13 commercial air carriers with over 100 scheduled flights per day and two air freight airlines.

General Mitchell International Airport in Milwaukee is located about 50 miles east of Jefferson. Mitchell's 13 airlines offer roughly 252 daily departures and arrivals. Approximately 90 cities are served directly from Mitchell International.

Rail

The Union Pacific Railroad operates the freight line through the City of Jefferson. The main line for this railroad runs from Chicago to the Twin Cities through Dodge County to the north. The branch that serves Jefferson is known as the "secondary local 2 line" and deviates from the main line at the Clyman Junction in the Town of Clyman, Dodge County.

Passenger rail service is available in Milwaukee, and the Hiawatha Amtrak passenger trains connect Chicago and Minneapolis through Watertown and Ixonia. The closest passenger rail service stop is located in the City of Columbus in Columbia County.

The Canadian Pacific Railroad branch line that runs through Watertown and Waterloo to the north has been identified as a potential future high speed passenger rail route, connecting Madison and Milwaukee, under the Midwest Regional Rail Initiative.

Bicycle and Pedestrian Facilities

The City of Jefferson is located in close proximity to the Glacial Drumlin State Trail, which traverses Jefferson County east to west and runs just north of the City. A segment of trail is missing immediately north of the City. Directional signs guide trail users on local and county roads to the other segment. There are ongoing efforts to acquire land to complete the trail.

The Glacial River Trail extends south from Downtown Fort Atkinson to the Jefferson/Rock County line.



The 1,000-mile Ice Age National Trail crosses the southeast corner of Jefferson County, on the trail segment between Janesville and the southern unit of the Kettle Moraine State Forest.

Public Transportation and Para-Transit

Shared-Ride Taxi service is available in the City of Jefferson. Additionally, Badger Coaches provide daily bus transportation between Madison and Milwaukee and offers regularly scheduled stops close to Jefferson in Johnson Creek.

Jefferson County provides specialized transportation services which are designed for use by elderly or disabled persons. To be eligible for specialized transit services, an individual must be at least 55 years of age or be disabled. Transportation services are provided to all areas within Jefferson County in wheelchair-accessible vans.

Water and Truck Transportation

There is no waterborne freight movement in the City. Freight shipments in Jefferson are handled by truck and rail. While there are no officially designated truck routes in the City, semi-trucks mainly travel along CTH N, J, W, USH 18, and Collins Road.

Review of City, State, and Regional Transportation Plans

Following is a review of state and regional transportation plans and studies that are relevant to the City.

STH 26 Corridor Study (ongoing)

WIS 26 is an important route connecting communities and major highways in Rock, Jefferson and Dodge counties. It is designated as a long-truck route in the National Highway System and as a connector route in WisDOT's State Highway Plan 2020. Under the plan, connector routes are given higher priority funding since they connect major regions and economic centers. WisDOT has completed the following studies and is planning improvements to the corridor to ensure safety and efficiency on this well-traveled highway:

- Bike route planning study (Janesville to Watertown)
- Corridor plan (Janesville to Waupun)
- Environmental Impact Statement (Janesville to Watertown)
- Expansion project (Janesville to WIS 60)

The adopted Plan includes bypasses of Milton, Jefferson, and Watertown, with the long range potential of an access-controlled four-lane highway. The approved alignment of the Jefferson bypass is depicted on the maps in this Plan.

City of Jefferson Comprehensive Outdoor Recreation Plan (1997)

The purpose of this plan is to guide decisions regarding recreational facility development and land acquisition. Transportation related recommendations including the construction of a Rock River corridor trail, a multi-use trail along the Crawfish River, a signed bike route through the northern portion of the City, and on-street bike lanes on East Puerner Street, North Dewey Avenue, West Plymouth Street, and North Jackson Avenue.

Jefferson County Agricultural Preservation and Land Use Plan (1999)

This plan provides a vision and guidelines for growth, development, and land preservation in Jefferson County over the next 20 years. In regards to transportation, the plan outlines existing facilities as well as general recommendations for improvements. Recommendations include the construction of a Highway 26 bypass around the City of Jefferson.

Jefferson County Bikeway/Pedestrianway Plan (1996)

In 1996, Jefferson County adopted the Jefferson County Bikeway/Pedestrianway Plan, which focuses on improving pedestrian and bicycle facilities in the County. It identifies desirable routes through Jefferson County and includes a detailed plan for several cities and villages, including Jefferson. Specific recommendations for the City of Jefferson include the construction of a multi-use trail from North Street to Main Street along the Rock River, paving the shoulders of CTH N, and signing roads as local bike routes.

Connecting Jefferson County's Parks and Communities: Proposed Trail Linkages (2005)

This document provides a review of general trail design guidelines recommended for Jefferson County trails, which include connectivity, wayfinding, viewsheds and vistas, meandering paths, visible road crossings, and signage. Using input from GIS analysis, stakeholders, and Jefferson County natural features, the plan proposes two potential trail routes for the western section of the County: a 26-mile Waterloo-Crawfish River Loop and an 18-mile Fort Atkinson Loop. The plan also includes recommendations for several additional trail connections throughout the County. Specific recommendations for the City of Jefferson area include a trail connection from Jefferson to the Jefferson County Marsh to the Glacial Drumlin trail and Jefferson to Fort Atkinson/Glacial River Trail.

Wisconsin State Highway Plan (2000)

The Wisconsin State Highway Plan focuses on the 11,800 miles of State Trunk Highway routes in Wisconsin. The plan does not identify specific projects, but broad strategies and policies to improve the state highway system over the next 20 years. Given its focus, the plan does not identify improvement needs on roads under local jurisdiction. This plan includes three main areas of emphasis: pavement and bridge preservation, traffic movement, and safety. This plan does not provide any Jefferson-specific recommendations.

Wisconsin Southwest Region Highway Improvement Program (2006)

The WisDOT maintains a six-year improvement program for state and federal highways within the Region. Wisconsin has 112,362 miles of public roads, from Interstate freeways to city and village streets. This highway improvement program covers only the 11,753-mile state highway system that is administered and maintained by the Wisconsin Department of Transportation (WisDOT). The other 100,609 miles are improved and maintained by the cities, towns, counties and villages in which the roadways are located. The state highway system consists of 750 miles of Interstate freeways and 11,010 miles of state and US-marked highways.

While the 11,753 miles of state highways represent only 10.5% of all public road mileage in Wisconsin, they carry over 34.7 billion vehicle miles of travel a year, or about 60.5% of the total annual statewide highway travel. To ensure the system's vitality and viability, WisDOT currently invests over \$750 million each year, resulting in over 565 miles of roads improved and rehabilitated annually.

Projects in the 6-year improvement program include the expansion of 50 miles of STH 26, from Janesville to STH 60 in Dodge County, as described above. As part of this project, bypasses will be constructed around Milton, Jefferson, and Watertown. The STH 26 improvements include an expansion from two- to four lanes out from the City of Janesville to STH 60, just north of the City of Watertown. The STH 26 communities most likely to be directly affected by the two- to four-lane conversion are the rural areas located outside the cities of Fort Atkinson, Jefferson, Milton, and Watertown. In rural areas between the bypassed cities, STH 26 was typically kept "on-alignment" due to factors such as existing corridor conditions, safety/mobility needs, available right-of-way, and cost. Construction is planned to begin in 2009 for the City of Jefferson segment of the project.

Translinks 21: A Multimodal Transportation Plan for Wisconsin's 21st Century (1995)

The Translinks 21 Plan includes an overall vision and goals for transportation systems in the state for the next 25 years. More specifically, the goal is to provide a statewide highway network designed to shape a comprehensive, integrated, multimodal transportation blueprint that sets the framework for future policies,

programs, and investments and provides essential links to key centers throughout the state. Translinks 21 will address the highways, airports, railroads, water ports and urban transportation systems that carry people and goods throughout Wisconsin.

This 1995 plan recommends complete construction of the Corridors 2020 “backbone” network by 2005, the creation of a new state grant program to help local governments prepare transportation corridor management plans, the provision of state funding to assist small communities in providing transportation services to elderly and disabled persons, and the development of a detailed assessment of local road investment needs. This plan does not include any Jefferson-specific recommendations.

Wisconsin Department of Transportation Connections 2030

When completed, Connections 2030 will identify a series of multimodal corridors for each part of the state. Each corridor will identify routes and/or services for several modes of transportation, including car, rail, airplane, and transit. As the long-range transportation plan, the document will assist the state in prioritizing investments and assist WisDOT transportation districts in identifying future segments for more detailed corridor plans.

Wisconsin Bicycle Transportation Plan 2020 (1998)

Wisconsin Bicycle Transportation Plan 2020 presents a blueprint for improving conditions for bicycling, clarifies the WisDOT’s role in bicycle transportation, and establishes policies for further integrating bicycling into the current transportation system. While this plan does not include any Jefferson-specific recommendations, the plan map illustrates existing state trails and future “priority corridors and key linkages” for bicycling along the State Trunk Highway system in Wisconsin.

Wisconsin Pedestrian Plan Policy 2020 (2002)

In 2001, the State adopted a pedestrian policy plan, which highlights the importance of walking and the need for pedestrian facilities. Additionally, the plan outlines measures to increase walking and to promote pedestrian comfort and safety. This plan provides a policy framework for addressing pedestrian issues and clarifies WisDOT’s role in meeting pedestrian needs.

Midwest Regional Rail Initiative

The Midwest Regional Rail Initiative represents an ongoing effort by nine Midwest communities, including Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin, to develop an expanded and improved passenger rail system throughout the Midwest. The proposed regional system would use existing rail lines to connect these nine Midwest states.

As part of this initiative, a rail system is proposed to connect Milwaukee and Madison along the railway corridor that passes through Watertown and Waterloo, north of the City. However, because these systems are intended to provide high-speed connections between major cities (i.e. Madison, Milwaukee, Chicago), it is unlikely that rail stops will be planned for smaller communities along the proposed corridor.

Wisconsin State Airport System Plan 2020

This plan includes a general inventory of existing airport facilities in the state and provides a framework for the preservation and enhancement of a system of public-use airports to meet the current and future aviation needs of the state. It includes recommendations to upgrade existing facilities through runway extensions and replacements and facility improvements, but does not identify any new locations for airports to meet future needs. There are no recommendations related to the Fort Atkinson Municipal Airport.

Transportation Goals, Objectives, and Policies

Goal:

- a. Provide a safe, efficient transportation system that serves multiple users.
- b. Develop and maintain a comprehensive system of bicycle and pedestrian facilities in the Jefferson area.

Objectives:

- a. Provide an overall transportation system that accommodates existing and planned development in the most efficient and effective manner possible.
- b. Ensure that transportation system improvements are coordinated with land development by scheduling transportation improvements that accommodate new developments without promoting unplanned or poorly planned development
- c. Provide a system of arterial and collector streets that will provide safe and efficient access to regional highways for both local and commuter traffic.
- d. Provide safe and efficient access between neighborhoods, employment centers, schools, service centers and recreational centers.
- e. Support safe biking and walking routes in the City that serve neighborhoods, schools, parks, playgrounds and activity centers.
- f. Consider pedestrian and bicycle accessibility when selecting sites for new public facilities such as schools, parks, libraries, and community centers.
- g. Continue to utilize riverfront corridors for multi-use trail and walkway development.
- h. Provide for adequate on- and off-street parking facilities.
- i. Continue to participate on appropriate state, regional, county, and local transportation planning efforts that may have an impact on the City and its transportation system, including initiatives related to air, water, and truck transportation.
- j. Work with local, county, and state agencies to provide the highest quality route for the Glacial Drumlin State Trail.



Policies:

- a. Follow STH 26 preservation policy recommendations related to access control and site design.
- b. Work towards implementing the City of Jefferson Comprehensive Park and Outdoor Recreation Plan, the Jefferson County Bikeway/Pedestrianway Plan, and state bike transportation plans.
- c. Encourage the development of selected through collector streets in neighborhoods that will provide safe and efficient access to major arterials, meeting design standards included earlier in this Chapter.
- d. Discourage the use of cul-de-sacs with would force traffic onto a limited number of through streets.
- e. Require all new streets in the City to be designed to provide safe and efficient access by City maintenance and public safety vehicles.
- f. Preserve sufficient public street right-of-way to allow for needed street updates and improvements.

natural features (e.g., topography, wetlands) prevent the extension or looping of a through roadway.

Recommended street system improvements are listed below and shown on the Transportation System Improvements map:

- Work closely with WisDOT for the completion of the STH 26 Bypass so that the facility fulfills purpose and need requirements and is consistent with the recommendations of the City of Jefferson Comprehensive Plan. The planned STH 26 Bypass will redirect STH 26 from Downtown Jefferson to the west edge of the City boundary. The bypass will reduce commercial truck and pass-through traffic Downtown which will provide the community with an opportunity to focus on Downtown reinvestment and redevelopment. Traffic reduction will allow Downtown to become a pedestrian, bicycle, and residential friendly atmosphere. On the other hand, the reduced traffic Downtown will also reduce the visibility of Downtown businesses and services. To manage this shift, Downtown businesses will need to plan for increased coordination and marketing.
- The City should plan for a western extension of Collins Road north of Oak Drive. This facility should be officially mapped with a minimum right of way of 100 feet.
- The City should plan for a new north-south collector street parallel with and west of CTH Y. This facility should be officially mapped with a minimum right of way of 100 feet.
- The City should plan for the extension of Puerner Street east of Dewey Road to CTH Y. This facility should be officially mapped with a minimum right of way of 80 feet.
- The City should plan for a new collector street roughly parallel to and on the east side of the STH 26 Bypass to serve future development in this area. This facility should be officially mapped with a minimum right of way of 100 feet. A “reverse frontage road” located 300-600 feet from STH 26 is the preferred general location.
- Prior to the development of lands designated as Planned Neighborhood on the Future Land Use Map, the City shall require developers to work with City staff to develop a street system plan for the proposed new neighborhood.
- The City should adopt an access control ordinance that applies to all arterial streets within the City and its ETJ area.

2. *Official Mapping*

Recommended street system improvements in the Jefferson planning area include adoption of an official map that identifies existing streets, expansions of existing street rights-of-way, rights-of-way for proposed new streets. Chapter 62.23 Wis. Stats. authorizes cities to create and adopt official maps for lands within the municipality and the extraterritorial jurisdiction of the municipality. The Existing and Planned Transportation System Improvements map (Map 8) depicts proposed right-of-way widths for major roads in the City and the extraterritorial area.

- The following streets should be officially mapped with rights-of-way from 80 feet to 100 feet:
 - West Spangler Street
 - North Jackson Avenue
 - Dewey Avenue north of Racine Street
 - Dewey Avenue south of Spring Street
 - Puerner Street
 - North Watertown Avenue
 - Vogel Road

- West Junction Road
- Riess Road
- Popp Road
- Martin Road
- New southeast collector
- New southwest collector
- The following county highways within the Jefferson extraterritorial planning jurisdiction should be officially mapped with minimum rights-of-way of 100 feet:
 - CTH N
 - CTH K
 - CTH W
 - CTH J
 - CTH Y
 - CTH Q
- The following highways should be officially mapped with minimum rights-of-way of at least 120 feet depending upon the amount of existing development along the existing corridors:
 - USH 18
 - STH 26
 - STH 89

3. *Bike and Pedestrian Facilities*

Non-vehicular options are an important component of the overall transportation system. Bicycle and sidewalk route improvements should be integrated into public street improvements, wherever possible. Development of off-street recreation trails should be pursued in cooperation with public and private partners as opportunities arise through development, redevelopment, and preservation efforts.

Future Facilities

Map 8 includes the recommendations from the City of Jefferson Comprehensive Outdoor Recreation Plan, the Jefferson County Bikeway/Pedestrianway Plan, and the Downtown and Riverfront Redevelopment Plan.

Bicycle/pedestrian trails are proposed along both sides of the Rock River from Puerner Street to Main Street. Other proposed routes include connections to the Glacial Drumlin Trail via Dewey Road on the east side of the City and Jackson Avenue on the west side.

Jefferson is fortunate to have two existing pedestrian bridges (Milwaukee Street and North Street) and one pending pedestrian bridge at



Jackson Avenue. In the long-term, additional pedestrian bridges could be constructed to connect the community to the island in the Rock River.

Design Guidelines

Although this *Plan* presents general recommendations regarding locations for future trails and bike routes, more formal and detailed recommendations regarding type and location would require more in-depth analyses of the City's road network, including traffic patterns and street widths. Design recommendations are outlined in the following section.

When designing an on-street bicycle facility, the following factors should be carefully considered: traffic speed limits and volumes; number of heavy vehicles, such as trucks and buses, using the roadway; presence and duration of on-street parking; number of intersections and commercial driveways along the route; width of the pavement, right-of-way and shoulder; and surface conditions of the roadway and shoulder.

Local streets are usually safe for most bicyclists (except young children) without widening the roadway due to their low traffic volumes and speed limits. Likewise, many collector streets can accommodate bicyclists without the need for special roadway designs. Twelve foot-wide streets are usually sufficient to meet the needs of bicyclists on low traffic volume, low speed streets. Shared-use streets usually include all streets with no special provisions for bicycle travel. Shared lane facilities usually do not have special signing for bicycles unless they are part of a comprehensive bicycle route system.

Bicycle lanes should always be one-way facilities carrying traffic in the same direction as adjacent motor vehicle traffic. Bicycle lanes should be a minimum of 4 feet wide excluding the curb and gutter. On streets where vehicular parking is prohibited, a bicycle lane with a minimum width of five feet should be provided, with at least four feet located to the left of the longitudinal joint between the pavement and gutter section. If a bicycle lane must be located on a street with speed limits in excess of 35 miles per hour, or on streets carrying a significant number of trucks or buses, a six foot-wide lane is recommended. Ideally, an off-street bicycle lane should be provided along heavily traveled streets with high traffic speeds and heavy volumes of truck traffic.

On streets where vehicular parking is permitted, bicycle lanes should be located between the outside motor vehicle travel lane and the parking lane. Both sides of the bicycle lane should be marked. A left-hand pavement stripe should be used to differentiate the motor vehicle lane from the bicycle lane and a right hand pavement stripe should be used to separate the bicycle lane from the parking lane. A minimum bicycle lane width of five feet should be provided, however, a lane width of six feet is recommended in order to provide cyclists with additional separation from parked motor vehicles and the danger presented by opening vehicle doors. Bicycle lanes should not be located between the curb and the parking lane since such a location reduces the visibility of bicyclists at intersections and increases the potential for motor vehicle conflicts and collisions.

4. Other Transportation Options

The City should continue to work with the County and other transportation providers to support other transportation options, including commuter facilities, para-transit for the growing elderly and disabled populations and transportation services for lower income workers. Available programs include:

- *Specialized Transportation Assistance Program for Counties* program, which provides funding for transportation services, purchasing services from any public or private organization, subsidizing elderly and disabled passengers for their use of services or use of their own personal vehicles, performing or funding management studies on transportation, training and the purchase of equipment. This program requires a 20% local match in funding.
- *Elderly and Disabled Transportation Capital Assistance* program. Eligible applicants include private and non-profit organizations, local public bodies that do not have private or public transportation providers available, and local public bodies that are approved providers of transportation services for the elderly and disabled. The program covers 80% of the cost of eligible equipment.

- *Wisconsin Employment Transportation Assistance Program (WETAP)*. This program supports transportation services to link low-income workers with jobs, training centers and childcare facilities. Applicants must prepare a Regional Job Access Plan that identifies the needs for assistance. Eligible applicants include local governments and non-profit agencies.

Map 8: Existing and Planned Transportation System Improvements

