

City of Whitewater
Parks and Recreation Board Agenda
Tuesday, November 12, 2013 - 5:30 pm
Community Room – 1st Floor, Whitewater Municipal Building
312 W. Whitewater St. Whitewater, WI 53190

Call to Order and Roll Call

Consent Agenda:

CA-A	Approval of Parks and Recreation Board minutes of October 21, 2013
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Hearing of Citizen Comments:

No formal action will be taken during this meeting, although issues raised may become part of a future agenda. Participants are allotted a 3 minute speaking period. Specific items listed on the agenda may not be discussed at this time; however, citizens are invited to speak to those issues as designated in the agenda.

Staff Reports:

Senior Coordinator	WASC Conference, Holiday Luncheon
Sports Coordinator	Youth Football, Basketball, WPRC Conference
Parks & Recreation Director	Treyton's Field of Dreams Construction, Turtle Mound Park Playground, WPRC Conference, Park Board Photo

Considerations:

C-1	Discussion and possible action on camp site for 4 th of July carnival employees
C-2	Discussion and possible action on Bicycle & Pedestrian Master Plan
C-3	Discussion and work session related to the Park & Open Space Plan / Parks & Recreation Strategic Plan <ul style="list-style-type: none"> • Review of Recommended Park Improvements (2014-2018) • Development of Park Improvements (2019-2028) • Role of Parks & Recreation in Economic Development • Recommended Sustainable Practices • Goals, Objectives, & Policies
C-4	Request for future agenda items
C-5	Adjourn

City of Whitewater
Parks and Recreation Board
Minutes
Monday October 21, 2013 - 4:30pm
Community Room - 1st Floor, Whitewater Municipal Building
312 W. Whitewater St. Whitewater, WI 53190

Call to Order and Roll Call

Rachel Deporter, Nate Jaeger, Ken Kidd, Brandon Knedler, and Bruce Parker (4:35). Absent: Teri Smith. Kim Gosh and Jen Kaina.

Staff: Matt Amundson, Deb Weberpal, Michelle Dujardin and Abby Schultz

Guests: None

Consent Agenda

Approval of Parks and Recreation Board minutes of September 26, 2013

No items to be removed from consent agenda. Kidd moved to accept the consent agenda. Second by Jaeger. Ayes: Rachel Deporter, Nate Jaeger, Ken Kidd, Brandon Knedler. Noes: None. Abstain: None. Absent: Parker, Smith, Kaina, and Gosh. Motion passed.

Hearing of Citizen Comments

No formal action will be taken during this meeting, although issues raised may become part of a future agenda. Participants are allotted a 3 minute speaking period. Specific items listed on the agenda may not be discussed at this time; however, citizens are invited to speak to those issues as designated in the agenda.

There were no citizen comments.

Staff Reports:

Director Matt Amundson: Treyton's Field of Dreams Construction - Amundson showed pictures of construction progress. Work has begun on the small parking lot and path today. One week to 10 days behind schedule because of weather. (Parker arrived 4:35) Volunteers working with Russell Walton are making a final push to haul remaining fill to the site.

Turtle Mound Park Playground-Old playground has been removed and installation is this Wednesday and Thursday.

Trail Extension – Discussion with Lowell Hagen to coordinate/communicate with the township to share bike/pedestrian master plan, DNR's plan.

NRPA Congress – highlights: ADA session - now working on compliance, Proragis is an NRPA GIS program, destination facilities, technology sessions, trade show highlights – trail counters, accessible canoe/kayak launch, bottle refill stations, solar trail lighting.

Discussion and approval of site plan, floor plan, elevations, and a rendering for the proposed pavilion at Starin Park related to Treyton's Field of Dreams

Amundson referred to the packet. Original plan reviewed. He reviewed the few changes that went to plan board. Parker moved to accept the plan revisions. Second by Knedler. Ayes: Deporter, Jaeger, Kidd, Knedler, Parker. Noes: None. Abstain: None. Absent: Smith, Kaina, and Gosh. Motion passed.

Discussion and possible action related to Lakes Management

Amundson referred to the packet. DNR Lakes Biologist feels mechanical harvesting is best short term solution which would include a navigational channel. Harvesting is visible and the community will see the difference. Harvesting will occur in June and early August on both lakes. Amundson has identified potential grants. Parker moved to approve use of mechanical harvesting in 2014 on both Trippe and Cravath Lakes. Second by Kidd. Ayes: Deporter, Jaeger, Kidd, Knedler, Parker. Noes: None. Abstain: None. Absent: Smith, Kaina, and Gosh. Motion passed.

Presentation of Rec Desk and GoStrive

Amundson previewed the new RecDesk site online and previewed some of the new items. It will be implemented on December 1. We will be fully integrated with Strive beginning once RecDesk is up and running.

Discussion and work session related to the Park & Open Space Plan / Parks & Recreation

Strategic Plan

- Review of Existing Recreation Programming
In the packet is information from last master plan and program document from budget. Amundson identified an area of growth in potential programming could be in before and after school opportunities. There could be opportunities to include community in addition to after school children. Other potential programming included: Tennis, Music, AAU sports, Community band, Parents night out, Nature based programming, Ski Club, and Lifetime sports/activities.
- Recommended Recreation Programming (5 & 10 Year Goals)

Request for future agenda items

Decision on where 4th of July carnival employee "camp" will be in 2014.

Adjourn

6:03 pm. Motion by Deporter. Second by Knedler. Affirmed by voice vote.

Next scheduled meeting: Tuesday, November 12, 5:30 pm

Respectfully submitted,



Debra Weberpal



UW-Whitewater Photo

City of Whitewater Bicycle and Pedestrian Plan

November 2013

PREPARED BY:
Alta Planning + Design
Madison, WI / Portland, OR
(503) 230-9862



**WISCONSIN
BIKE FED**

Acknowledgments

The City of Whitewater appreciates the efforts of the numerous residents and enthusiasts who participated in the development of this plan. Their creativity, energy, and commitment were the driving force behind this effort. In addition, the following residents, staff, and other agency and organization members contributed regularly to the City of Whitewater Bicycle and Pedestrian Plan.

Common Council

Patrick Singer, President

Lynn Binnie

Dr. Ken Kidd

Jim Olsen

Andrew Crone

Jim Winship

Stephanie Abbott

Parks & Recreation Board

Brandon Knedler, Chairperson

Dr. Ken Kidd

Nathan Jaeger

Jen Kaina

Teri Smith

Rachel DePorter

Bruce Parker

Kim Gosh, Alternate

City Staff

Michelle Dujardin, Recreation & Community Events Programmer

Latisha Birkeland, Neighborhood Services Manager

Scott Weberpal, GIS Technician

Dean Fischer, Public Works Director

Chuck Nass, Parks/Streets Superintendent

Cameron Clapper, City Manager

Kevin Brunner, Former City Manager

Lisa Otterbacher, Chief of Police

Brian Uhl, Captain

Saul Valadez, Juvenile Officer

Timothy Swartz, Patrol Officer

Alta Planning+Design, Wisconsin Bicycle Federation



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Executive Summary

The City of Whitewater is located in southeastern Wisconsin just west of the Kettle Moraine in the beautiful rolling countryside of Walworth and Jefferson counties.

The city has made excellent use of its waterfront by developing park land and public gathering spaces on Cravath Lake and trails along Trippe Lake and Whitewater Creek. The trails provide an excellent opportunity for Whitewater residents and visitors to enjoy the outdoors on foot or on bike.

The City of Whitewater Bicycle and Pedestrian Plan builds on efforts by the community to improve transportation options and the quality of life in Whitewater. The Plan guides the development of a network of bicycle routes linking activity centers within the City as well as to the larger regional network. The improved network will not only make bicycling a more viable mode of transportation, but will contribute to economic development opportunities and enhanced quality of life for the community. Pedestrian policies are discussed to assist Whitewater in making it easier and more pleasant to walk for transportation and recreation.

Vision

The City of Whitewater will enhance transportation choices by developing a network of on-street and off-street bicycle and pedestrian facilities that provide connections to destinations throughout the city and regionally significant assets.

Why Bicycling and Walking?

Bicycling and walking are low-cost means of transportation that are non-polluting, energy-efficient, versatile, healthy and fun. Both modes can help build physical activity into our daily lives while reducing traffic congestion and air pollution and saving money. The many advantages to walking and bicycling include:

- Bicycling and walking are good for the economy. Bicycling makes up \$133 billion of the US economy, funding 1.1 million jobs.¹
- Walkable and bikeable neighborhoods are more livable and attractive; increasing home values property tax revenue.²
- Walking and bicycling can save families money. By replacing short car trips, bicycling and walking can help lessen personal transportation costs.³
- Walking and bicycling are good for public health. Bicycling for exercise can reduce the cost of spending on health care by as much as \$514 per person every year.⁴
- More people walking and bicycling increase safety for others. In a community where twice as many people walk, a person walking has a 66 percent reduced risk of being injured by a motorist.⁵

¹ Flusche, Darren for the League of American Bicyclists. (2009). The Economic Benefits of Bicycle Infrastructure Investments.

² Cortright, Joe for CEOs for Cities. (2009). Walking the Walk: How Walkability Raises Home Values in U.S. Cities.

³ Center for Neighborhood Technology. (2005). Driven to Spend: Pumping Dollars out of Our Households and Communities.

⁴ Feifei, W., McDonald, T., Champagne, L.J., and Edington, D.W. (2004). Relationship of Body Mass Index and Physical Activity to Health Care Costs Among Employees. *Journal of Occupational and Environmental Medicine*. 46(5):428-436

⁵ Jacobsen, P.L. (2003). Safety in numbers: more walkers and bicyclists, safer walking and bicycling. *Injury Prevention* 9:205-209.



Existing Conditions

Whitewater's bikeway network today consists of bike lanes along a few of the busier streets, an off street path system running along Whitewater creek and Cravath and Trippe Lake shores, connecting paths through parks, and many peaceful local streets that carry very little traffic through the city. This Plan seeks to leverage opportunities and to overcome barriers to accommodating and encouraging bicycle and pedestrian trips.

Opportunities include:

- A pedestrian- and bicycle- friendly downtown district;
- Existing walk- and bicycle-friendly streets through the local neighborhoods;
- The trail along Whitewater Creek, connecting parks, lakes, open space and the UW-Whitewater campus;
- Space in many locations to provide low-cost bicycle improvements; and
- A large base of potentially high-demand in the students of UW-Whitewater.

Constraints include:

- A bottleneck at the East Gateway over Cravath Lake makes full accommodation of all users difficult.;
- Lack of wayfinding tools along existing walkway and bikeway networks;
- Uncomfortable walking and bicycling environments along high-volume roadways, in particular Main Street.

Public Involvement

Whitewater residents, community stakeholder groups and public agency staff helped guide the development of this Plan. Public input about the opportunities and challenges to better bicycling and walking in Whitewater was obtained in several ways, including two public input workshops (June 2012 and December 2012), and through several project meetings with the plan Steering Committee from April of 2012 to March of 2013.

Implementation

The City of Whitewater Bicycle and Pedestrian Plan is a 20-year plan for completing the system of bikeways, shared-use paths and spot improvements in Whitewater. The completed network will result

in a city where biking and walking for transportation and recreation are every day, safe activities that are enjoyed by residents and visitors alike. The recommended network builds upon previous and on-going local and regional planning efforts and reflects the input offered by county staff, the project Steering Committee, stakeholder groups, and Whitewater residents. Implementation of the plan will take place over many years. The implementation strategy presents a targeted methodology for how the City of Whitewater can institutionalize bicycle and pedestrian improvements into local and regional planning processes and projects.

The following strategies and action items are provided to guide the City of Whitewater toward the vision identified in the plan:

- Establish a Permanent Pedestrian and Bicycle Advisory Committee.
- Implement the wayfinding sign program on the existing trails in 2013 and 2014.
- Begin a feasibility study of the “road diet” on Main Street in 2013 or 2014
- Strategically pursue infrastructure projects by obtaining capital improvement and grant

funding as well as incorporating projects into upcoming public works projects, especially the short-term bicycle improvements.

- Regularly revisit project priorities in the plan as projects are completed, conditions change and new projects are needed.
- Partnering with W3 and the university implement education, encouragement and enforcement activities to encourage more walking and bicycling in Whitewater.

Short-term Project List

- Shared Lane Markings along W Whitewater and E Main in Downtown to promote business access;
- Neighborhood Greenways on N Prince St, N Franklin St, E Clay St, W Highland St, and other low-stress neighborhood streets to offer comfortable routes close to home;
- Bike Lanes on S Wisconsin St, W Main St, and Elkhorn Rd, and other busier streets to help people reach key destinations along those corridors.

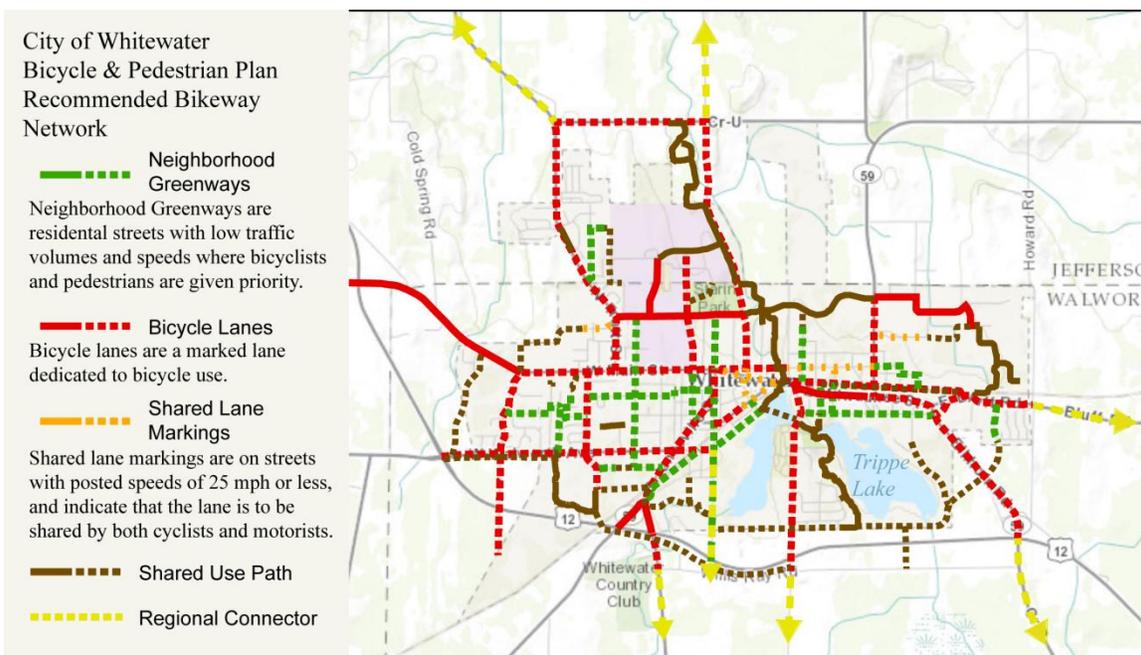


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Appendix C: Demand Benefits Model

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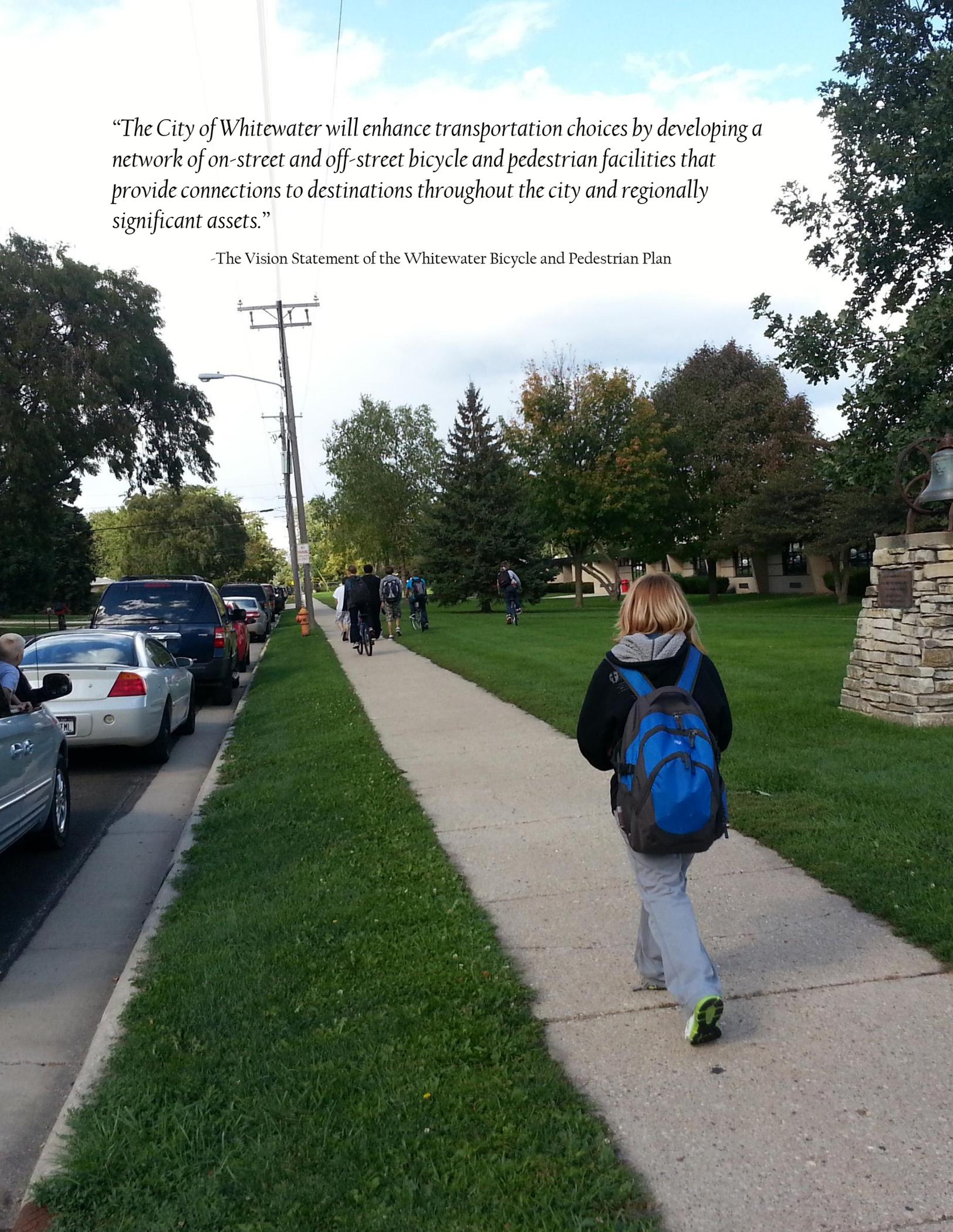
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“The City of Whitewater will enhance transportation choices by developing a network of on-street and off-street bicycle and pedestrian facilities that provide connections to destinations throughout the city and regionally significant assets.”

-The Vision Statement of the Whitewater Bicycle and Pedestrian Plan





1 Introduction

Setting

The City of Whitewater is located mostly in the northwest corner of Walworth County, with the northern edge of the city in Jefferson County. In 2010 the city's population was 14,390. University of Wisconsin–Whitewater (also known as UW–Whitewater) is located in the northwest corner of the city. It is a four-year, co-educational, residential college accredited by the North Central Association of Colleges and Secondary Schools. Enrollment in 2010-11 was over 11,500. The city hosts a vibrant downtown, and two large commercial areas on the east and west ends of town. Located less than an hour to either Madison or Milwaukee, and twenty minutes from Whitewater Lake, the Kettle Moraine and other beautiful natural resources, Whitewater is a great place to live and work.

Whitewater Creek, Cravath Lake and Trippe Lake are all located within the city boundaries. The city has made excellent use of its waterfront by developing park land and public gathering spaces on Cravath Lake and trails along Trippe Lake and Whitewater Creek. The trails provide an excellent opportunity for Whitewater residents and visitors to enjoy the outdoors on foot or on bike. The rolling rural landscape surrounding Whitewater also provides fantastic biking opportunities, both on-road and off-road.

In addition to its setting that encourages active and healthy living, Whitewater is fortunate enough to have a community-based collaboration working to increase the longevity and quality of life here. Working for Whitewater's Wellness (W3) is comprised of individuals representing healthcare, school systems, and municipalities within the Whitewater community.

Contents of the Plan

The Whitewater Bicycle and Pedestrian Plan provides a path forward for expanding and enhancing the existing bicycling and path network, and guides the City toward a solid policy basis for pedestrian focused improvements. The Plan is organized as follows:

Chapter 1: Introduction, provides an overview of this plan and its purpose, and the planning context within Whitewater and Wisconsin.

Chapter 2: Needs Analysis, estimates the amount of walking and bicycling in Whitewater today, and models the benefits of potential increases of walking and bicycling in 2025.

BICYCLE AND PEDESTRIAN PLAN

Chapter 3: Existing Conditions, describes Whitewater’s existing bikeway and path network and summarizes strengths and weaknesses of the system.

Chapter 4: Recommended Bikeway Network, depicts the recommended system of bikeways and facility types to provide opportunities for cycling throughout the city.

Chapter 5: Recommended Pedestrian Policies, makes the case for a strong Complete Streets policy to support development of the pedestrian environment.

Chapter 6: Recommended Programs, describes education, encouragement, enforcement and evaluation measures the City of Whitewater and/or other local agencies should implement to promote bicycling, increase bicyclist safety, and increase the awareness of bicycling and walking as a viable travel mode.

Chapter 7: Implementation presents evaluation criteria for facilities and programs and details several top-priority projects. This chapter provides cost opinions for the recommended bicycle and trail projects and programs, and identifies potential funding strategies and supporting policies.

Goals and Objectives

The vision, goals and objectives of the Plan are principles that will guide the development and implementation of bicycle and pedestrian improvements in coming decades. Goals and objectives direct the way the public improvements are made, where resources are allocated, how programs are operated and how implementation priorities are determined. The goals and policies in this Plan were developed through an analysis of existing policies and review of best practices in other similar communities and discussion with the public and stakeholders.

Several objectives are measurable and allow tracking and benchmarking to demonstrate the extent of the City’s progress toward the goals and overall vision over time. The Plan has three levels in its framework:

Vision. Pursuit of this statement underpins all of the Plan’s goals and objectives.

Goals. The four principal goals provide guidance for achieving the Plan vision.

Objectives. Objectives guide the community on how to achieve and measure progress toward realizing each goal.

Benchmarks. Potential measurable metrics that describe Whitewater’s progress towards Plan implementation.



Goal 1. Support bicycling and walking as viable transportation modes in the City of Whitewater.

Objective 1.1. Implement the Whitewater

Bicycle and Pedestrian Plan facility recommendations to provide bicycling and walking routes to key destinations.

Objective 1.2. Seek new funding sources and strategies to support the implementation of the Whitewater Bicycle and Pedestrian Plan.

Objective 1.3. Improve bicyclists’ and pedestrians’ safety and comfort by creating a greater awareness and understanding of how these modes may be accommodated during construction or facility repair activities.

Benchmarks

- Miles of new bikeways and sidewalks completed; percentage of high-priority projects identified in the City of Whitewater Bicycle and Pedestrian Plan completed.

Planning Priorities

The most effective bicycle and pedestrian plans are holistic and consider the “Five Es” of non-motorized transportation planning: *Engineering, Education, Encouragement, Evaluation and Enforcement.*



1.) Engineering



2.) Education



3.) Encouragement



4.) Evaluation



5.) Enforcement

BICYCLE AND PEDESTRIAN PLAN

- Proportion of roadway restriping, reconstruction, and construction projects that include bicycle and/or pedestrian improvements.
- Number of grants applied for; amount of grant funding acquired.



Goal 2. Promote bicycling and walking in the City of Whitewater by improving awareness of the benefits of bicycling and walking to the entire community.

Objective 2.1. Improve public awareness of the bicycle network and presence of bicyclists.

Objective 2.2. Support education and encouragement efforts in the City.

Objective 2.3. Establish a bicycle and pedestrian count program following the National Bicycle and Pedestrian Documentation Program (NBPD) methodology.

Benchmarks

- Development of a wayfinding signage and trail naming plan;
- Number of signs installed
- Number of encouragement/safety training events in the community
- Completed BFC application; goal of initial recognition at the bronze level with a target of obtaining gold level recognition.
- Track and publish the use and change of active transportation modes over time.



Goal 3. Integrate bicycle and pedestrian planning into the City of Whitewater's planning processes.

Objective 3.1. Institutionalize bicycle and pedestrian planning into all of The City of Whitewater's planning efforts by establishing a Bicycle and Pedestrian Advisory Committee (BPAC).

Objective 3.2. Require inclusion of bicyclists and pedestrians in citywide planning efforts.

Objective 3.3. Adopt and implement a Complete Streets policy.

Objective 3.4. Encourage annual staff and decision maker attendance at conferences and other training opportunities that emphasize bicycle and pedestrian friendly design.

Objective 3.5. Coordinate with neighboring jurisdictions to develop regionally serving on- and off-street bicycle facilities.

Benchmarks

- Revised project priorities list every five years.
- Adopted Complete Streets Policy.

Public Involvement

The planning process included many opportunities for residents of Whitewater to share their experiences and knowledge of biking and walking in the city. Many people shared detailed information on where they bike and walk, things they would like to see improved and their program ideas to encourage more people to bike and walk. The information gathered from residents inspired the recommendations for both on-road and trail improvements, and ideas for programs to encourage citizens to use active transportation modes and to educate them on how to do so safely. This information has helped to create a better plan. The meeting dates are provided below.

Steering Committee

The Steering Committee followed the plan development closely, and met 5 times throughout the planning process:

- April 2012
- June 2012
- September 2012
- October 2012
- December 2012
- March 2013

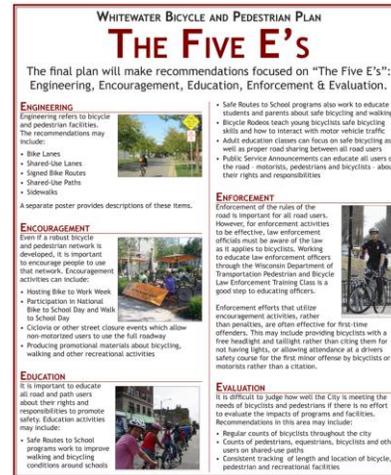


Figure 1-1: The public information meeting featured presentation boards and other plan materials to communicate concepts and proposals to the public.

Public Information Meetings

Two public meetings formed the foundation of direct outreach with the public during the planning process:

- June 2012
- December 2012

Policy Review

Over 10 years of plans and policy documents relevant to the Whitewater Bicycle and Pedestrian Plan were reviewed to support the creation of the Plan. The review focuses on plans and studies prepared by the Wisconsin Department of Transportation (WisDOT), as well as relevant information from the City of Whitewater and related regions of Jefferson, Walworth and Rock counties.



Figure 1-2: Administrative code Trans 75 aims to “ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds or federal funds.”

BICYCLE AND PEDESTRIAN PLAN

The following plans were reviewed for this analysis. A detailed description of each plan is included in Appendix B: Plan and Policy Review.

Statewide Planning Documents

- Administrative Code Trans 75: BIKEWAYS AND SIDEWALKS IN HIGHWAY PROJECTS (2009)
- Wisconsin State Bicycle Transportation Plan 2020 (1998)
- Wisconsin Pedestrian Policy Plan 2020 (2002)
- Wisconsin Department of Transportation Guide for Path/Street Crossings (2011)
- Developing a Model for Reducing Bicycle/Motor Vehicle Crashes (2006)
- Wisconsin Bicycle Planning Guidance (2003)
- Wisconsin Bicycle Facility Design Handbook (2004)
- Wisconsin Guide to Pedestrian Best Practices (2010)

County Planning Documents

- 2010 Jefferson County Bicycle Plan (2010)

City of Whitewater Planning Documents

- City of Whitewater Comprehensive Bikeway Plan (2000)
- City of Whitewater 2009 Comprehensive Plan Community Survey (2009)



2 Needs Analysis

Demand Potential and Benefits

To support and quantify the objectives of the Plan, analysts used a walking and biking demand model to measure the impacts of current and potential future trip activity within Whitewater. A detailed description of model assumptions and data sources is included in Appendix C: Demand Benefits Model.

This model uses Census and other national studies to extrapolate the number of bicycling or walking trips taken today within Whitewater. Comparing today's trip making with aspirational future mode share targets can illustrate the potential benefits of achieving such changes.

Current Demand and Benefits

Table 2-1 shows the results of the model, which estimates that 2,428 bicycle and 16,765 walking trips occur in Whitewater each day for transportation purposes. The majority are utilitarian trips not related to work, which include medical/dental services, shopping/errands, family or personal business, obligations, meals, and other trips.

Table 2-1: Model Estimate of Current Walking and Bicycling Trips

	Bicycling	Walking
Work Commute Trips (Daily)	590	2,298
K-12 School Trips (Daily)	15	229
College Commute Trips (Daily)	350	1,364
Utilitarian Trips	1,473	12,874
Total Current Daily Trips	2,428	16,765

To the extent that bicycling and walking trips replace single-occupancy vehicle trips, they reduce emissions and have the tangible economic benefits of reducing traffic congestion, crashes, and maintenance costs. In addition, the reduced need to own and operate a vehicle saves families money. The current annual household transportation cost savings alone is estimated at \$280 per person. Full benefits calculations are available in Appendix C: Demand Benefits Model.

Future Demand and Benefits

Estimating future benefits requires additional assumptions regarding Whitewater’s future population and anticipated commuting patterns in 2025, the timeframe for this planning effort. Future population predictions determined in *A Multi-Jurisdictional Comprehensive Plan for Walworth County: 2035* were used in this model. Table 2-2 shows the model results for future trip making in Whitewater.

Table 2-2: Future (2025) Bicycling and Walking Trips

	Bicycling (6% Share)	Bicycling (8% Share)	Walking
Work Commute Trips (Daily)	999	1,332	2,598
K-12 School Trips (Daily)	147	196	259
College Commute Trips (Daily)	594	792	1,545
Utilitarian Trips	2496	3328	14564
Total Current Daily Trips	4,236	5,648	18,966

The important factor to consider with these future assumptions is not the accuracy of the mode share percentages, but the benefits that would accrue to Whitewater if those numbers are reached. As more cities across the country track changes in bikeway mileage over time and participate in annual bicycle counts, more data will be available to better understand and refine mode share predictions.

For the 6% bicycle mode share assumption, transportation savings are estimated to accrue at a rate of \$322 per person. An 8% bicycle mode share would result in an estimated \$366 per person savings. Additional future benefit calculations are available in Appendix C: Demand Benefits Model.

Difficult-to-Quantify Benefits of Bicycling and Walking

Bicycling is a low-cost and effective means of transportation and is non-polluting, energy-efficient, versatile, healthy, and fun. Bicycles offer low-cost mobility to the non-driving public. Bicycling as a means of transportation has been growing in popularity as many communities work to create more balanced transportation systems and individuals seek to be healthier. In addition, more people are willing to bicycle more frequently if better bicycle facilities are provided.⁶

In addition to the tangible financial savings estimated above, bicycling has many other benefits that are challenging to quantify, are increasingly the subject of study. Bike lanes can improve retail business directly by drawing customers and, indirectly, by supporting the regional economy. Patrons who bike to local stores have been found to spend more money than patrons who drive.⁷ Other studies show that bikeable and walkable communities attract the young creative class,⁸ which can help cities and counties gain a competitive edge and diversify economic base. By replacing short car trips, bicycling can help middle-class families defray

⁶ Pucher, J., Dill, J. and Handy, S. (2010). *Infrastructure, programs, and policies to increase bicycling: An international review*. Preventative Medicine 50:S106-S125.

⁷ The Clean Air Partnership. (2009). *Bike Lanes, On-Street Parking and Business: A Study of Bloor Street in Toronto’s Annex Neighborhood*.

⁸ Cortright, Joe for CEOs for Cities. (2007). *Portland’s Green Dividend*.

rising transportation costs. Families that drive less spend 10 percent of their income on transportation, compared to 19 percent for households with heavy car use,⁹ freeing additional income for local goods and services.

Bicycle Friendly Community Benefits

The League of American Bicyclists sponsors the Bicycle Friendly America program [bikeleague.org] to encourage businesses, cities, states and universities to provide good cycling infrastructure, education, evaluation and enforcement through a standardized review process. Typically, bicycle friendly communities are places where people want to live, work and visit. Benefits of increasing bicycle use include reduced motor vehicle traffic, greater physical health and fitness and improved air quality. People that ride bicycles more often reduce their transportation costs, have more disposable income, and achieve their recommended weekly exercise without a gym workout. Bicycle Friendly Community status can help a community understand how it relates to peers across the US and, by studying the experiences of these communities, put the potential benefits of increasing bike friendliness into perspective. 2012 Gold level BFC Communities with populations comparable to Whitewater include Steamboat Springs, CO; Jackson & Teton County, WY; and Breckenridge, CO.

⁹ Center for Neighborhood Technology. (2005). *Driven to Spend: Pumping Dollars out of Our Households and Communities*.

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3 Existing Conditions

This chapter describes the current on- and off-street bikeway network and local pedestrian policies in Whitewater. The chapter begins with a local pedestrian policy assessment, followed by an inventory of existing bicycle lane and shared use path facilities. An analysis of system strengths and weaknesses highlights key areas where improvements may be needed concludes this chapter.

Pedestrian Policy Assessment

Whitewater, like all Wisconsin cities, must conform to Administrative Code Trans 75. The rule aims to “ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds of federal funds.”

Local Whitewater Policy

Administrative Code

The municipal code for Whitewater contains many pedestrian-focused regulations. Specific chapters or code items are identified below, sorted according to whether they support or serve as impediments to active travel.

Supportive Code Items	
5.19 - Sidewalk Café Permit	<p>This chapter recognizes the value of active uses of the public right of way and provides guidelines for the placement and use of dining areas on sidewalks adjacent to restaurants.</p> <ul style="list-style-type: none"> • Placement restrictions identified in the code include: • Sidewalk cafés shall be located in such a manner that a distance of not less than four feet is maintained at all times as a clear and unobstructed pedestrian path. For the purpose of the minimum clear path, parking meters, traffic signs, trees, light poles and all similar obstacles shall be considered obstructions. • Shall not be placed within five feet of fire hydrants, alleys, or bike racks. Shall not be placed within five feet of a pedestrian crosswalk or corner

Supportive Code Items	
	<p>curb cut.</p> <ul style="list-style-type: none"> • Shall not block designated ingress, egress, or fire exits from or to the restaurant, or any other structures. • Shall be readily removable and shall not be physically attached, chained or in any manner affixed to any structure, tree, signpost, light pole, or other fixture, curb, or sidewalk. • No portion of an umbrella shall be less than six feet eight inches above the sidewalk. <p>All sidewalk shall be constructed in accordance with applicable provisions of the State of Wisconsin Standard Specifications for Road and Bridge Construction, 1981 Edition.</p>
12.20 - Sidewalks	This chapter covers the use and upkeep of sidewalks within Whitewater. It requires the owner or occupant of the adjacent property to ensure the removal of trash and obstructions from the sidewalk, as well as requires the daily removal of snow accumulation.
12.22 - Construction Standards of Sidewalks	This chapter covers the construction, installation, and repair standards of sidewalks within Whitewater. Aside from key streets identified in the Code, "All sidewalks shall be laid within the street right-of-way and shall be laid one foot from the property line, and shall be four feet in width"
Restrictive Code Items	
12.04 – General Regulations	Item 12.04.020 - Ball playing on streets prohibited, discourages active use of streets within Whitewater. While the penalty is minimal, and enforcement is unlikely, Code items prohibiting active uses may act as a barrier to encouraging pedestrian use of the right of way.
12.22 Construction Standards of Sidewalks	<p>The Code identifies four conditions in which the normal requirement for sidewalks on major roads is waived. As sidewalk provision is an important part of a complete street, waiving the construction requirements should be done after careful considerations. The identified conditions are:</p> <ul style="list-style-type: none"> • Sidewalk will not be required when the nature of the terrain creates insurmountable engineering problems. • Sidewalk will not be required where there is insufficient right-of-way. • Sidewalk will not be required if the installation would generate a safety hazard by encouraging pedestrian traffic in dangerous areas. • Sidewalks will not be required along vacant land which extends to the city limits which is not situated between areas generating pedestrian traffic, and streets on which curb and gutter has not been installed.

Future Policy Opportunities

The City of Whitewater may want to consider additional policies and programs to bolster its currently existing pedestrian-supportive regulations. These policies include:

- Creation of a network of "complete streets"
- Balancing motor vehicle mobility with bicycle and pedestrian accessibility
- Encouraging traffic calming and intersection improvements
- Prioritizing traffic calming measures over congestion management
- Assigning high priority to pedestrian and bicycle projects
- Considering establishment of pedestrian only zones
- Enforcing laws that protect pedestrians
- Ensuring that bicycling and walking facilities are provided for all demographics, including people of different ages, races, ethnicities, incomes, and different neighborhoods
- Establishing and participating in Safe Routes to School programs
- Amending Ordinance 12.04.020 so as to encourage Open Streets and other on-street events
- Minimizing impervious surface area

Existing Bikeway Facilities

Federal and state bicycle planning and design guides define bikeways as preferential roadways accommodating bicycle travel through the use of bicycle route designations, bike lane striping, or shared-use paths to physically separate cyclists from motorists. Map 3-1 shows the existing bikeway network in Whitewater.

Existing On-Street Bikeways

On-street bikeways can take several forms, depending on the speed and volume of traffic on the roadway, space available to accommodate bicyclists, and type of users expected on the facility. Currently, bike lanes are the only implemented on-street bikeway type in Whitewater. The Whitewater Bicycle and Pedestrian Plan recommends a variety of on-street bikeway facility types in addition to conventional bike lanes. These recommended bikeway types are described briefly below, and are discussed in detail in Appendix D: Bicycle and Pedestrian Design Guidelines.

- **Bike Lanes:** Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and also include pavement stencils. Bike lanes are most appropriate where higher traffic volumes and/or speeds warrant greater separation of bicyclists and motor vehicles.

There are approximately 3.33 miles of existing bike lanes in Whitewater. These are illustrated on Map3- 1 and detailed in Table 3- 1.

Table 3-1. City of Whitewater On-Street Bikeways (Bicycle Lanes Only)

Street	From	To	Miles
Corporate Dr	N Technology Dr	Whitewater University Tech Park Path	0.06
E Executive Dr	N Newcomb St	N Prospect Dr	0.26
N Prospect Dr	E Executive Dr	N Universal Blvd	0.09

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N Technology Dr	N Universal Blvd	Corporate Dr	0.13
N Universal Blvd	N Prospect Dr	N Technology Dr	0.31
S Janesville St	USH 12	S Janesville St	0.43
W Starin Dr	N Tratt St	N Newcomb St	1.68
Warhawk Dr	W Schwager Dr	W Starin St	0.37
Total			3.33

Existing Off-Street Bikeways

Off-Street Bikeways, commonly called shared-use paths (also referred to as “trails” and “multi-use paths” or “off-street trails”) are often viewed as recreational facilities, but they are also important corridors for utilitarian trips. Off-street facilities that accommodate bicycle travel can be categorized into the following typologies: multi-use path, a facility that has an exclusive right-of-way; side path, a two-way trail on one side of the road located within the road right-of-way; and park trail, a shared-use facility located within a park.

The following section briefly describes these off-street facilities.

- **Shared-Use Paths** have exclusive right-of-way and are not directly adjacent to a roadway. They provide access across the city and connect to the regional network. Multi-use paths are frequently used by cyclists riding long distances, whether to go to work in neighboring towns and villages or to get out for a long-distance weekend ride. In addition to fast-moving cyclists, recreational riders use the shared use trails for family outings or more leisurely rides.
- **Side Paths:** Some shared-use paths in Whitewater are directly adjacent to roadways and within the street right-of-way, such as the path adjacent to East Starin Road. These ‘side paths’ serve both bicyclists and pedestrians and are wider than a standard sidewalk. Side paths provide commuter routes between residential areas and employment centers, as well as to retail areas. They are used by recreational riders mainly to access the shared use path or regional trail network. The high frequency of street crossings limits fast and continuous riding, making them less preferable to on-street bikeways for transportation-oriented riders.

Current off-street bikeways in Whitewater are a mixture of all types of paths and trails, with several facilities providing access to the University of Wisconsin-Whitewater campus. In total, there are approximately 7.5 miles of existing off-street bikeways in Whitewater. These are illustrated on Map 3-1, and identified in Table 3-2 below.



Figure3-1. Shared use paths through Brewery Hill Park accommodate bicyclists and pedestrians.

Table 3-2. City of Whitewater Off-Street Bikeways

Name	Miles
Starin Road	0.88
City Garage/Brewery Park	0.73
Whitewater University Tech Park	1.38
Prairie Village	1.34
Waters Edge South	1.37
Cravath Lakefront	0.23
Prairie Village to Lauderdale Dr	0.75
North Tratt	0.16
Schwager Drive	0.41
Whitewater Middle School Path	0.16
Total	7.4

Bicycling and Walking at the University of Wisconsin-Whitewater

Several bicycle facilities exist around and through campus including bike lanes on Warhawk Drive and West Starin Road, and off-street trails along portions of Schwager Drive and Fremont Road. The central east-west roadway through campus, West Starin Road, is a boulevard style street that accommodates cyclists, pedestrians and motor vehicles. There are periodic pullouts for motor vehicle loading and parking. In-pavement pedestrian crosswalk signs are placed in the bike lane and may create a hazard for bicycle traffic. Motor vehicle volumes in the campus area range from 4,800 ADT (Average Daily Trips) on Prince Street to 15,100 ADT on Prairie Street. Roadways such as Prince Street that are already designated bikeways, could be enhanced with additional signing, marking and potential traffic calming. Bicycles may be ridden on campus except where prohibited by posted signs or otherwise noted in the Campus Policy on Skating and Bicycling¹⁰.

Pedestrians around the university are accommodated by sidewalks, which are generally separated from motor vehicle traffic by a wide planter strip. The bulk of pedestrian traffic occurs in the academic core, south of Starin Road and crosswalks are typically provided at all intersections. In addition to sidewalks, pedestrians are accommodated along numerous pathways connecting campus buildings. Direct access to downtown Whitewater and the Main Street Commercial Area is provided via West Main Street (Old Highway 12).

Constraints and Opportunities

¹⁰ Office of the Vice Chancellor for Administrative Affairs. "Skating & Bicycling Policy." 2002. Web. Accessed June 6, 2012.

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Opportunities and Constrains

Constraints

Described below, bicyclists in Whitewater face a variety of challenges. Major barriers, challenging intersections, and network gaps are identified on .

Limited Bikeway Network

The existing network of bicycle routes is limited in scope, and does not comprehensively provide full access to common destinations. Current bikeway corridors do not serve recreational riders who want to connect quickly into the regional trail system for long recreational rides. Filling these gaps can quickly increase the effectiveness of existing bicycling infrastructure. The system also does not serve utilitarian cyclists who want to ride to a workplace or shopping center quickly. A complete network of on- and off-street bikeways would provide routes for cyclists of all abilities and trip purposes.

Barriers

The waterways in Whitewater are a barrier to comfortable bicycle travel. Bridges tend to be narrow, without adequate room for all users. Successfully implementing comfortable facilities on these corridors will be impossible if overcrossings are not made to be bicycle friendly. Overcrossings to consider for improvement include:

- Main Street
- East Starin Road

Challenging Intersections

Major intersections can be challenging for cyclists riding on the bikeway network. These challenges include:

- Intersections of existing shared use paths at arterial roadways that do not provide marked crossings, such as the shared use path through Brewery Hill Park at West North Street.
- Intersections where sidepaths end abruptly or offer inadequate transition to other bikeway types. This may be seen at the transition from the Fremont Street sidepath to a shared use trail in the northeast corner on Starin Park.
- Intersections where on-street bikeways are terminated in advance of the intersection, often done to assign roadway space to turn lanes. This can be seen at West Starin Road & North Fremont Street.

Gaps

While bicyclists in Whitewater benefit from the existence of some on- and off-street bicycle facilities, these do not offer continuous travel opportunities throughout the entire city. Even small network gaps between facilities require bicyclists to either ride on the road or on a sidewalk to access another bikeway. Filling gaps is

an effective way to capitalize on existing infrastructure and was a key strategy used in both development of the cycling network and phasing of project recommendations.

Lack of Wayfinding Tools

Whitewater's bikeway system could benefit from signage and additional wayfinding tools to orient users and direct them to and through major destinations like the downtown, schools, parks, and commercial areas. Currently bicycle and pedestrian wayfinding signing in Whitewater is limited and found primarily at trailheads and within some parks. As the on-street network is being developed, cyclists should be directed to key destinations along the bikeway, to raise awareness of the new facilities and to encourage more residents to try bicycling to different destinations around the city.

Side Path Safety Concerns

The *AASHTO Guide for the Development of Bicycle Facilities* generally recommends against the development of trails adjacent to roadways. Also known as "side paths," these facilities create a situation where a portion of the bicycle traffic rides against the normal flow of motor vehicle traffic. Key concerns about shared-use paths directly adjacent to roadways (e.g., with minimal or no separation) are:

- When the path ends, cyclists riding against traffic tend to continue to travel on the wrong side of the street, as do cyclists going to the path. Wrong-way bicycle travel is a major cause of crashes.
- At intersections, motorists crossing the path may not notice bicyclists approaching from certain directions, especially where sight distances are poor.
- Ambiguity as to expected user behavior at the crossings of paths, streets, and driveways.¹¹
- Stopped vehicles on a cross-street or driveway may block the path.
- Because of the closeness of vehicle traffic to opposing bicycle traffic, barriers are often necessary to separate motorists from cyclists. These barriers serve as obstructions, complicate facility maintenance and waste available right-of-way.
- Paths directly adjacent to high-volume roadways diminish users' experience by placing them in an uncomfortable environment. This could lead to a path's underutilization.
- When implementing a side path, special attention should be paid to the design of intersections and driveway crossings to mitigate the concerns noted above.

When designing a bikeway network, the presence of a nearby or parallel path should not be used to preclude adequate shoulder or bike lane width on the roadway, as the on-street bicycle facility will generally be superior to the side path for experienced cyclists and those who are cycling for transportation purposes. Bike lanes should be provided as an alternate (more transportation-oriented) facility whenever possible.

Driver Behavior/Lack of Awareness of Bicycling Facilities

¹¹ Wisconsin DOT published the *Wisconsin Department of Transportation Guide for Path/Street Crossings* in 2011 to help clarify path/street crossing ambiguities, though user awareness of this guidance is likely to be limited.

In Whitewater, motorists often disregard marked crosswalks and warning devices. At trail crossings, this lack of compliance requires trail users to wait until the road is clear before proceeding across the street. Motorists' lack of compliance with posted speeds is another safety concern, particularly to bicyclists riding on the shoulder of major roads.

Opportunities

Various characteristics foster an environment where bicycling is safe and enjoyable in Whitewater. These system strengths are described below.

East Main Street Repaving

Routine paving of roadways may offer an opportunity to add bike lanes where adequate right-of-way exists. East Main Street is scheduled for repaving in the next five years and should be considered for such an upgrade.

Highway 12 Undercrossing

Built at the time of highway construction, the undercrossing of Highway 12 will offer a safe way to cross the busy roadway away from traffic. When the opportunity arises to connect to this location, the grade-separated crossing will be a useful asset to connecting corridors.

Existing Trail Network

Whitewater already has a number of existing recreational trails that can form the basis of a first-class off-street trail network that provides access to destinations like the Whitewater Creek Natural Area and Cravath Lake. Whitewater could enhance the existing trails by providing improved trailhead facilities, providing wayfinding and extending the existing network. A trail map could be developed and marketed to help increase tourism and recreation associated with the system.

Potential for Neighborhood Greenways

Most neighborhood or residential streets in Whitewater can be classified as "shared roadways." Shared roadways accommodate vehicles and bicycles in the same travel lane. The most suitable roadways for shared vehicle/bicycle use are those with lower posted speeds (25 MPH or less) and lower traffic volumes (3,000 average daily traffic volume or less). Figure 3-2 identifies the traffic volumes of a selection of city streets, and reveals that many of these local streets feature low-traffic volumes appropriate for shared roadway bicycle use.

These streets present a generally good environment for bicycling. Formally designating streets as neighborhood greenways often requires little more than signage and pavement markings, as well as improving crossings at major streets. Other streets that have higher traffic volumes and speeds (but not sufficient to warrant bike lanes or cycle tracks), may require traffic calming techniques to reduce vehicle speeds while limiting conflicts between motorists and bicyclists.

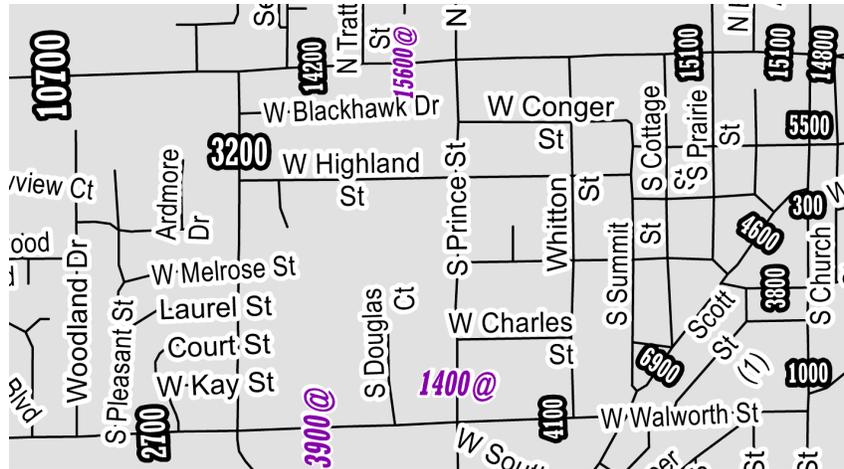
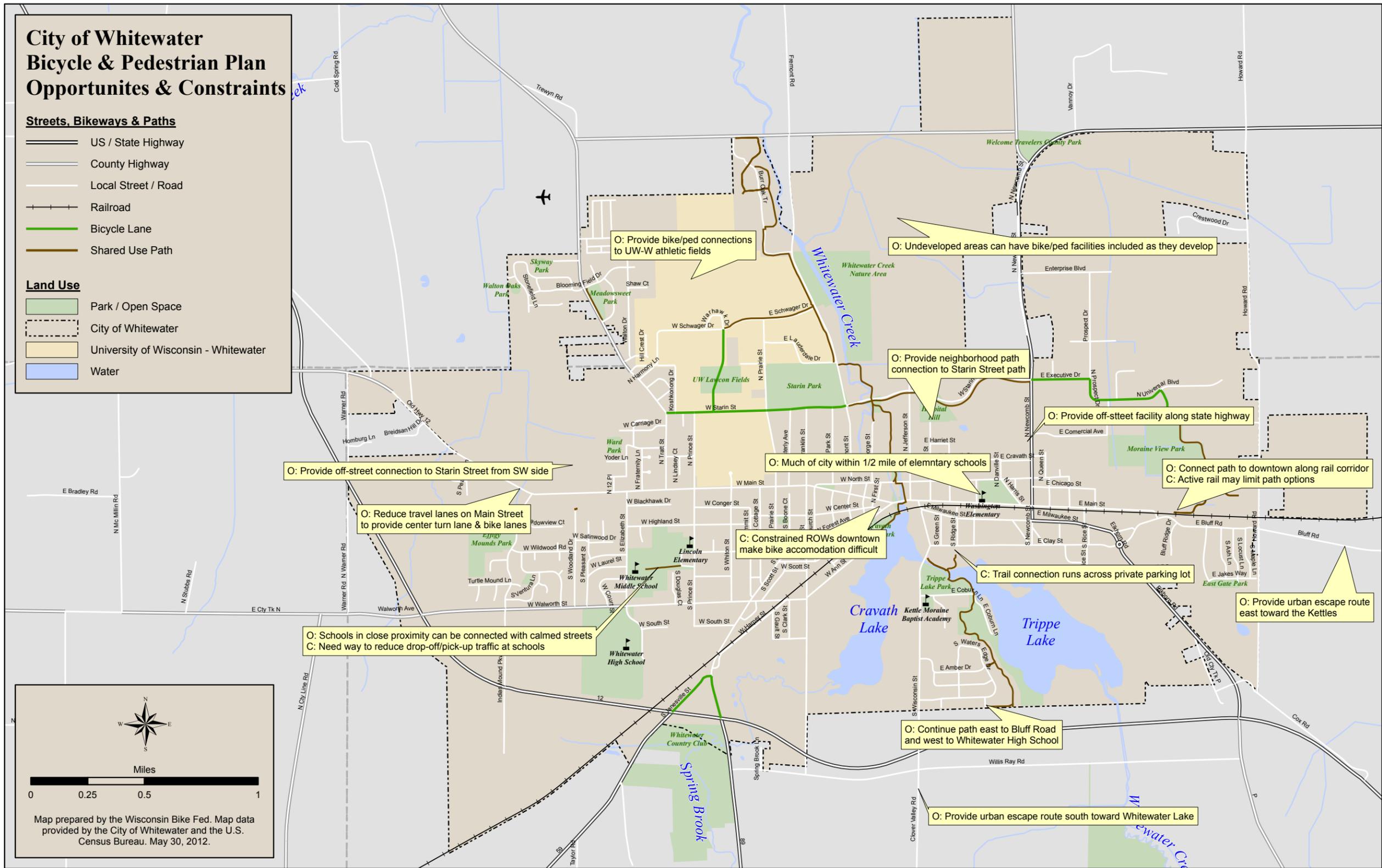


Figure 3-2: 2009 Roadway Traffic Volumes (Figures followed by @ are from 2006)

Planned Bikeway Improvements

Although there are few existing bikeways in Whitewater, many miles have been proposed in existing planning documents. See Appendix B: Plan and Policy Review.

Map 3-2: Opportunities and Constraints





4 Recommended Bikeway Network

This chapter lays out a 20-year plan for completing the system of bikeways in Whitewater. The recommended network builds upon previous and on-going local and regional planning efforts and reflects the extensive input offered by city staff, the project Steering Committee, bicycle and pedestrian stakeholder groups, and Whitewater residents.

The recommended bikeway network includes a comprehensive and diverse set of bicycle and trail facilities connecting key destinations in and around Whitewater. System improvements include establishing a formalized on-street bikeway system, upgrading intersections for safer trail crossings, improvements to bicycle and pedestrian facilities downtown and projects to enhance safety and encourage bicycling and walking. Suggested improvements include low-cost measures yielding immediate results, such as re-stripping of streets to accommodate bike lanes (Figure 4-2), map development and low cost signage. Other improvements, such as expanding the local trail system, represent longer-term strategies for transforming Whitewater into a truly bicycle- and pedestrian-friendly community.

Facility Definitions for the Whitewater Network

Many on-street bicycle facilities can be developed inexpensively with paint and signs. These facilities include bike lane restriping, shared lane markings, and neighborhood greenways. The Draft Bicycle Network for Whitewater has recommendations for four facility types: bike lanes, shared lanes, neighborhood greenways and shared use paths. Each facility type is illustrated below and describe in detail in Appendix D: Bicycle and Pedestrian Design Guidelines.

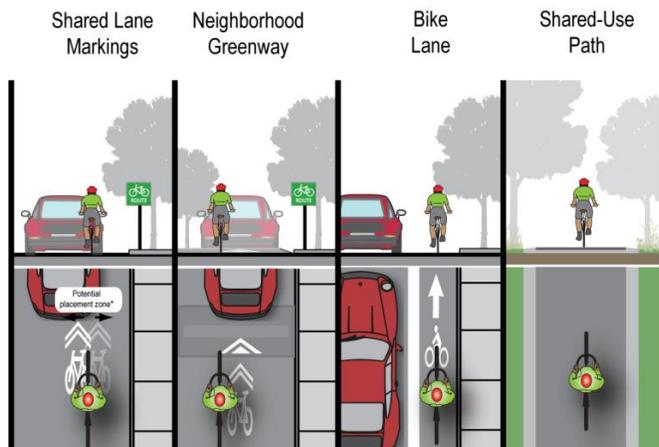


Figure 4-1: Bikeway facility types recommended in the Whitewater Bicycle and Pedestrian Plan

On-Street Bikeways

A list of recommended on-street bikeways was developed based on public comments, street widths, and providing an interconnected network that links schools, parks, commercial areas, paths and other attractions. Wherever possible, bike lanes were recommended over shared lane markings as they provide both bicyclists and motor vehicle operators with a higher level of comfort. However a number of streets, particularly in the downtown area, are not wide enough to provide bike lanes. In those cases, shared lane markings are recommended.

The proposed network provides formal bicycle facilities in most areas of the city, and will greatly increase the visibility of existing routes. When combined with the existing and proposed shared-use paths, the on-street bikeways will provide a comprehensive network connecting all parts of the city.

Bike Lanes

Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and are denoted by pavement stencils and signs. On streets in Whitewater that have higher vehicle speeds and carry higher levels of traffic, dedicated bike lanes are appropriate to separate bicyclists from motor vehicle travel and turn lanes.

On many roads in Whitewater, sufficient space exist to accommodate bike lanes without removing parking or narrowing drive lanes to less than 11-foot width.



Figure 4-2. Restriping bike lanes is a cost effective infrastructure improvement.

Recommendations for Bike Lanes Requiring Construction

While several of the bike lane projects can be accomplished simply by restriping a roadway, other projects would require additional construction and engineering effort. These projects may be able to reallocate existing street width through road diets or parking reduction to accommodate bike lanes, while some projects may require road widening. Future roads should be constructed with sufficient right-of-way to accommodate bicyclists via bike lanes.

Shared Lane Markings

Shared lane markings are often used on streets where bike lanes are desirable but are not possible due to width constraints, and where motor vehicle speeds are moderate (less than 35 mph). High visibility pavement markings (MUTCD Section 9C.07) are placed in the travel lane to alert motorists of bicycle traffic, while also encouraging cyclists to ride at an appropriate distance from the “door zone” of adjacent parked cars. Placed in a linear pattern along a corridor, shared lane markings also encourage cyclists to ride in a straight



Figure 4-3. Shared lane markings alert motorists of bicycle traffic.

line so their movements are predictable to motorists. These pavement markings have been successfully used in many small and large communities throughout the U.S.

Neighborhood Greenways

Neighborhood greenways are lower-order, lower-volume streets that employ various treatments to promote safe and convenient bicycle travel. These roadways accommodate bicyclists and motorists in the same travel lanes, often with no specific vehicle or bicycle lane delineation. Greenways assign higher priority to through bicyclists, with secondary priority assigned to motorists. These facilities can also include treatments to slow vehicle traffic to enhance the bicycling environment. Neighborhood greenways serve multiple bicyclist types, including commuter cyclists, family cyclists and less-experienced cyclists. Most of the streets selected for this treatment in Whitewater currently have low traffic volumes and low traffic speeds and will only require signage (and in some cases pavement markings) to become part of the neighborhood greenway system.



Figure 4-4. Neighborhood greenways offer a calm bicycling environment.

Shared Use Trails

A shared use trail is defined as a paved or gravel path (minimum width of 10-feet or 12- to 14-feet if heavy traffic is expected) that accommodates all sorts of non-motorized traffic such as pedestrians, bicycles, in-line skates, strollers, etc. The shared use trail may have a right of way of its own or it may share a right of way with a street or highway. A shared use path that shares right of way with a street or highway has special issues with crossing traffic and careful design is necessary to provide a safe facility. Even when the shared use path has its own right-of-way, careful design at each street or rail road crossing is necessary to assist users safely across the street.

Street Corridor Recommendations

Table 4-1, Table 4-2, and Table 4-3 list recommended on-street bike lanes, neighborhood greenways and shared lane bike routes, respectively. Figure 4-5 through Figure 4-10 depict how the bike lanes might fit with existing curb to curb street widths typically found in Whitewater. Further study will be necessary before any recommendations can be implemented. Map 4-1 provides an overview of the proposed network.

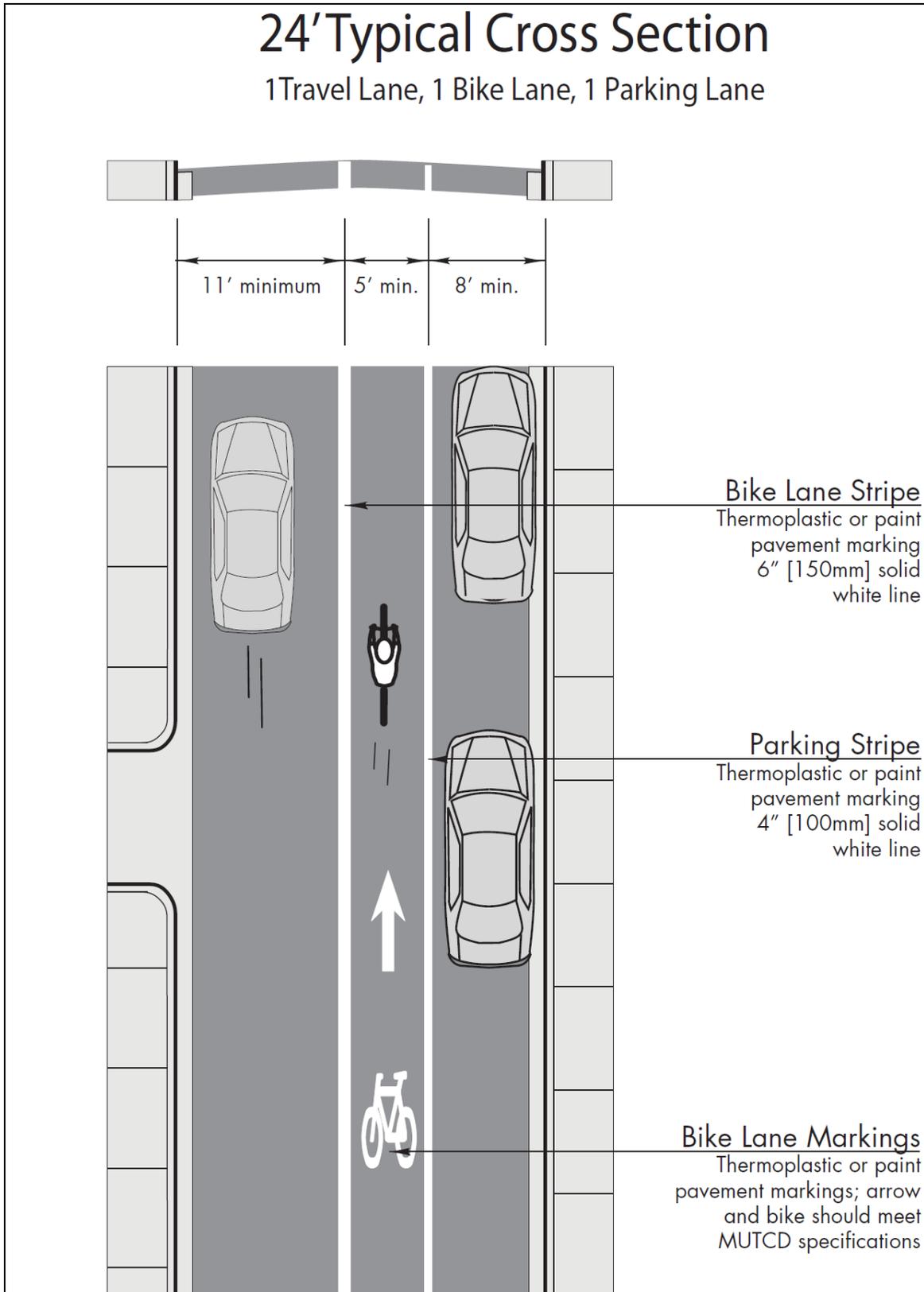


Figure 4-5: Typical 24' Wide Roadway Cross Section

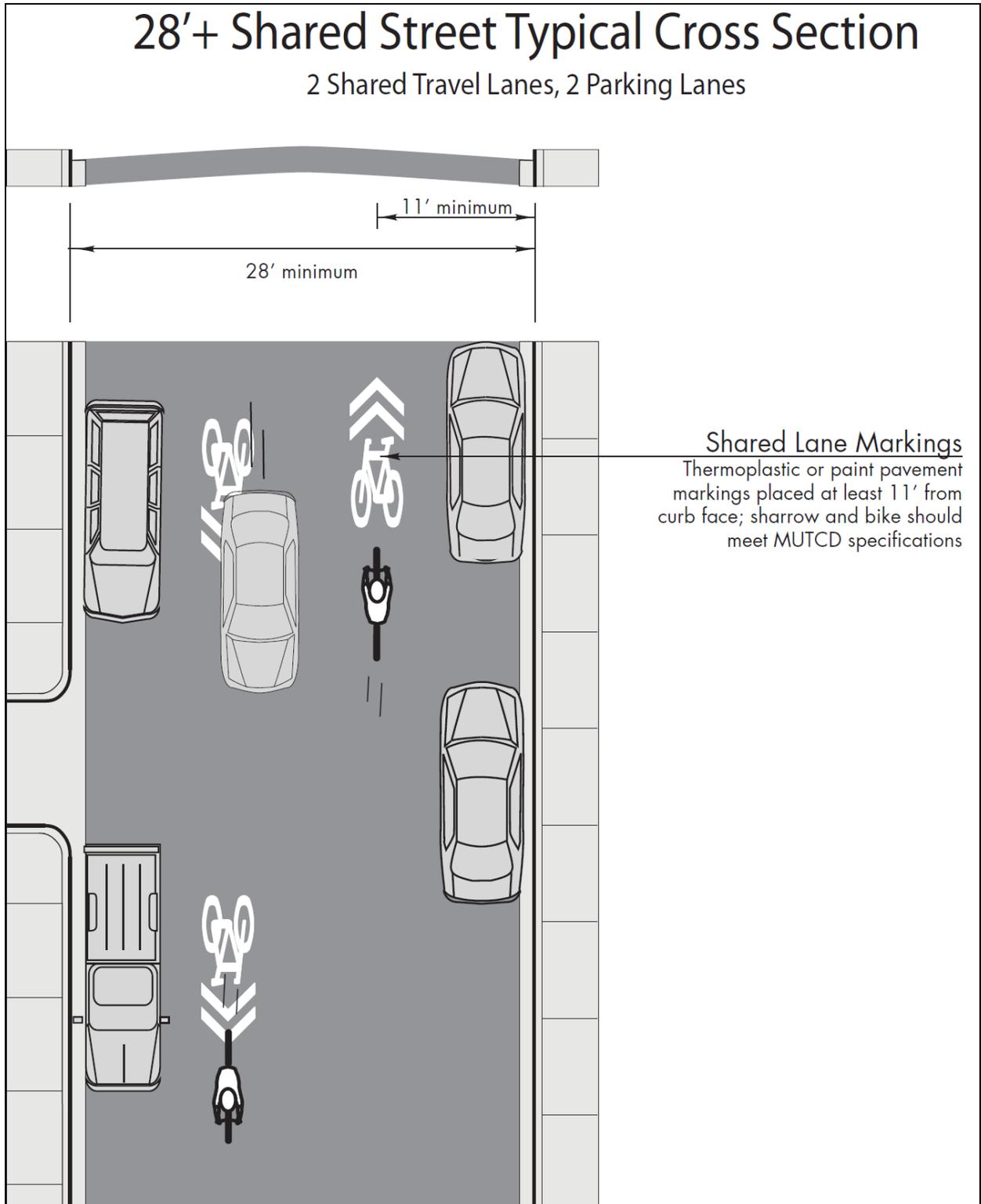


Figure 4-6: Typical 28' Wide Roadway Cross Section

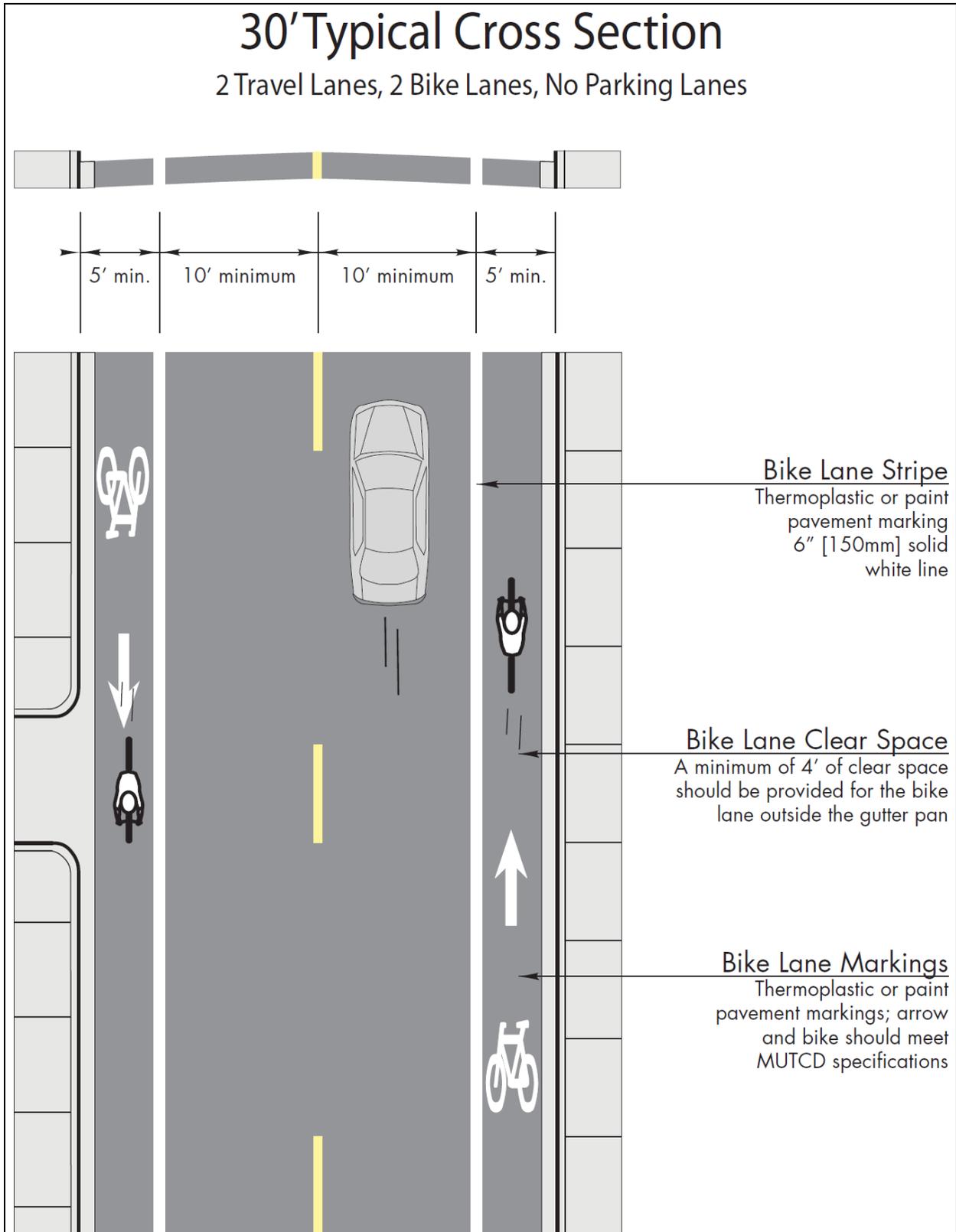


Figure 4-7: Typical 30' Wide Roadway Cross Section

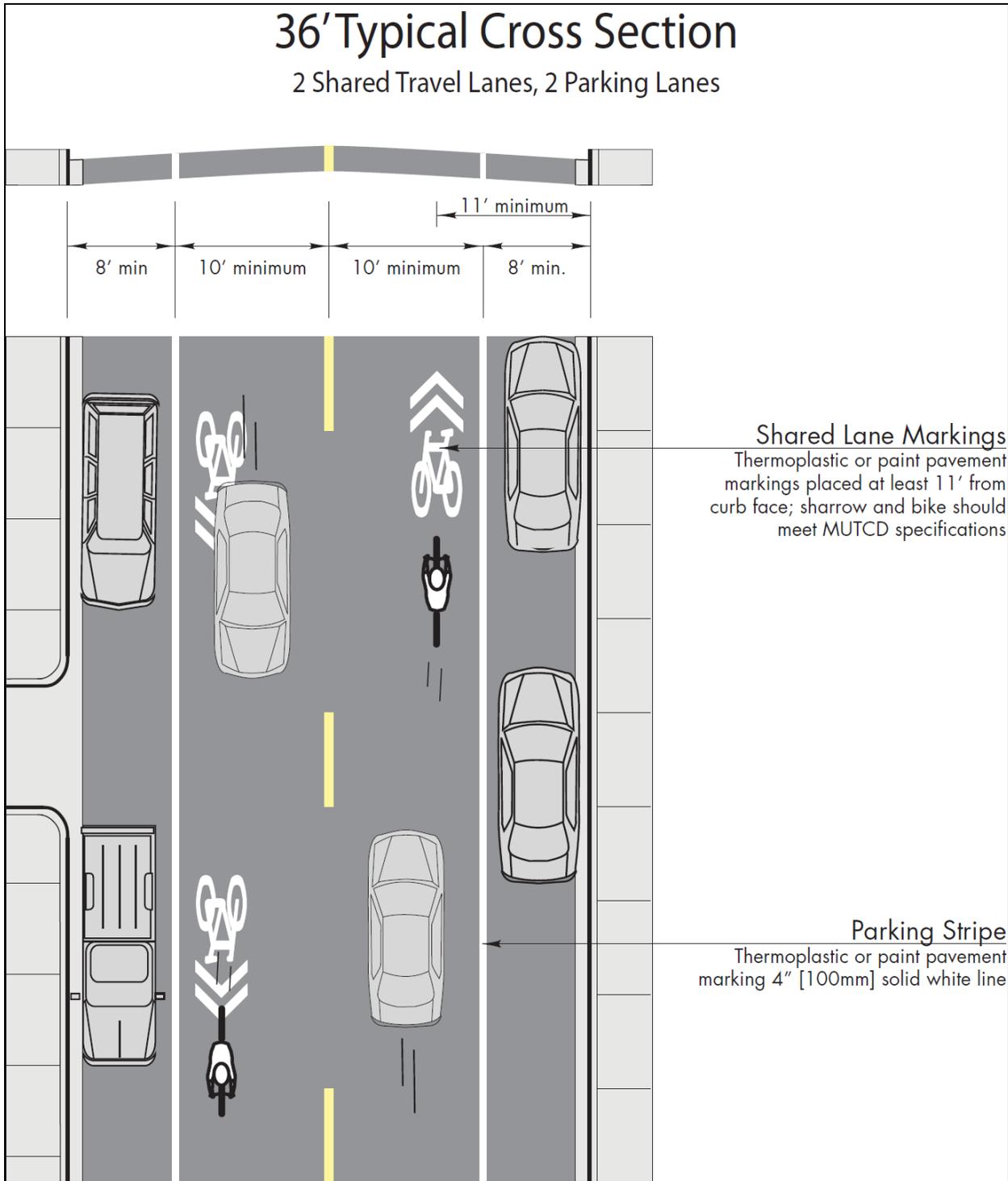


Figure 4-8: Typical 36' Wide Roadway Cross Section

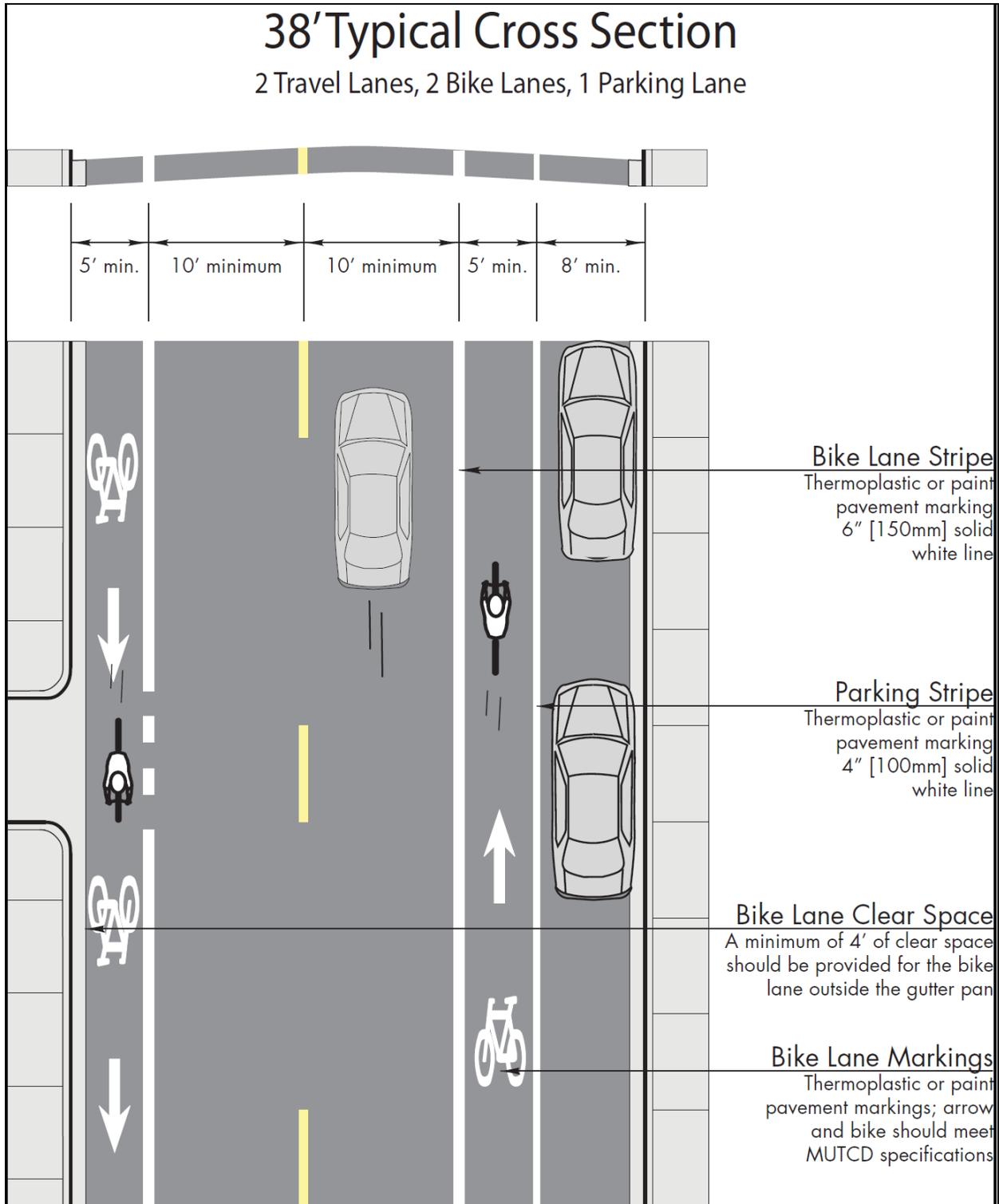


Figure 4-9: Typical 38' Wide Roadway Cross Section

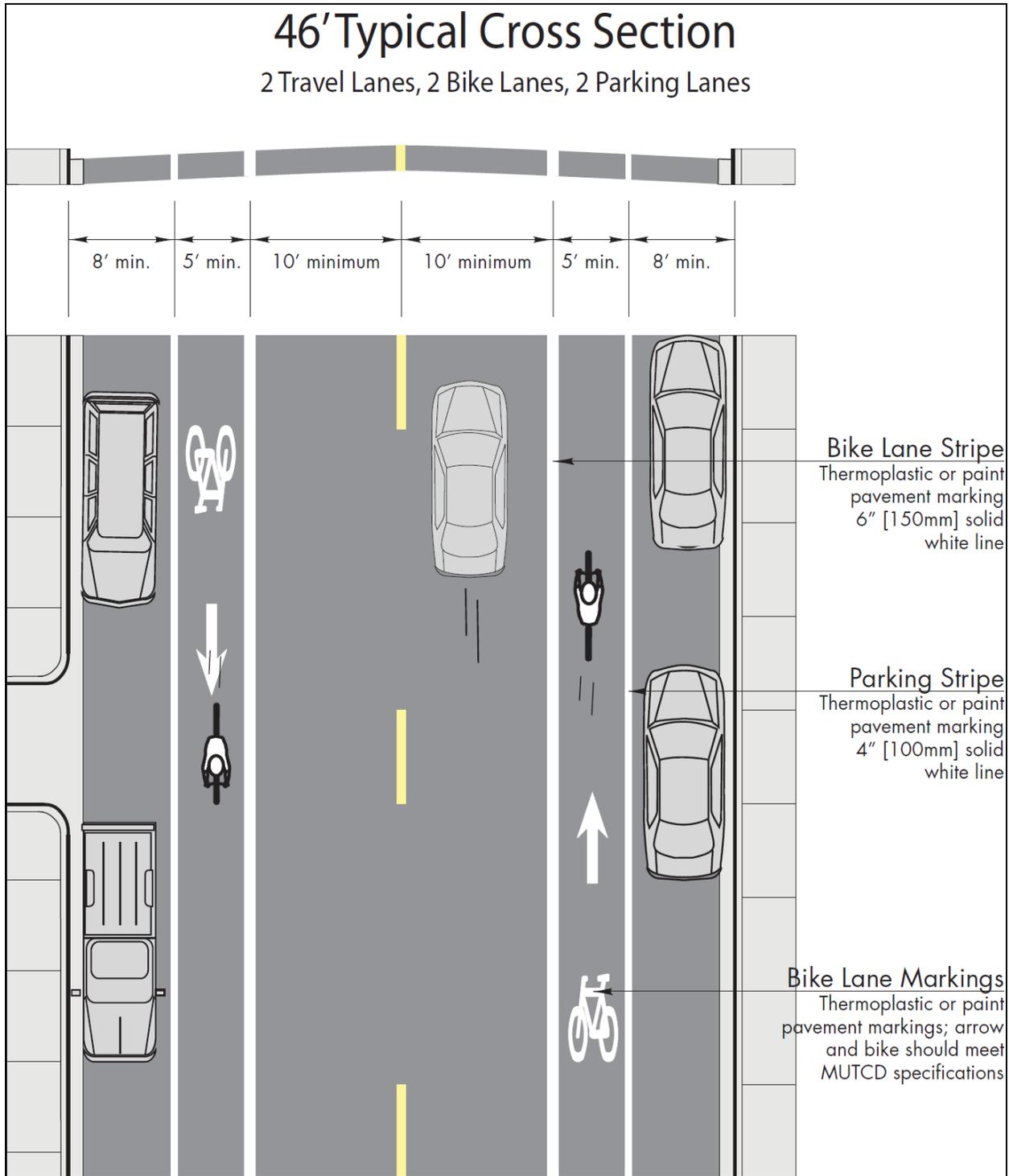


Figure 4-10: Typical 46' Wide Roadway Cross Section

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Table 4-1: Proposed Bike Lanes

Street	From	To	Miles
E County Line Rd	N McMillen Rd	Indian Mound Pkwy	1.99
Indian Mound Pkwy	Indian Mound Pkwy	W Walworth St	0.63
Indian Mound Pkwy	W Walworth St	W Main St	0.54
W Walworth St	STH 12	Indian Mound Pkwy	0.37
W Main St	Indian Mound Pkwy	S Prince St	0.71
W Walworth St	Indian Mound Pkwy	S Prince St	0.83
S Elizabeth St	S Elizabeth St	W Main St	0.76
W Walworth St	S Prince St	S Franklin St	0.50
W Main St	S Prince St	S Franklin St	0.48
S Franklin St	S Janesville St	W Main St	0.96
N Prairie St	W Main St	E Schwager Dr	0.74
CTH N	W Main St	Bloomingtonfield Dr	1.00
CTH N	Bloomingtonfield Dr	E Schwager Dr	2.39
N Fremont St	W North St	E Schwager Dr	0.80
E Main St	S Franklin St	S Newcomb St	1.08
E North St	S Franklin St	N Newcomb St	0.99
E Milwaukee St	E Main St	S Newcomb St	0.53
N Newcomb St	E Milwaukee St	E Executive Dr	0.62
E Bluff Rd	Elkhorn Rd	Howard Rd	0.66
E Main St	N Newcomb St	E Bluff Rd	0.57
E Milwaukee St	N Newcomb St	E Bluff Rd	0.41
STH 89	Willis Ray Rd	STH 12	0.22
S Wisconsin St	Willis Ray Rd	E Milwaukee St	1.16
Total			18.94

Table 4-2: Proposed Neighborhood Greenways

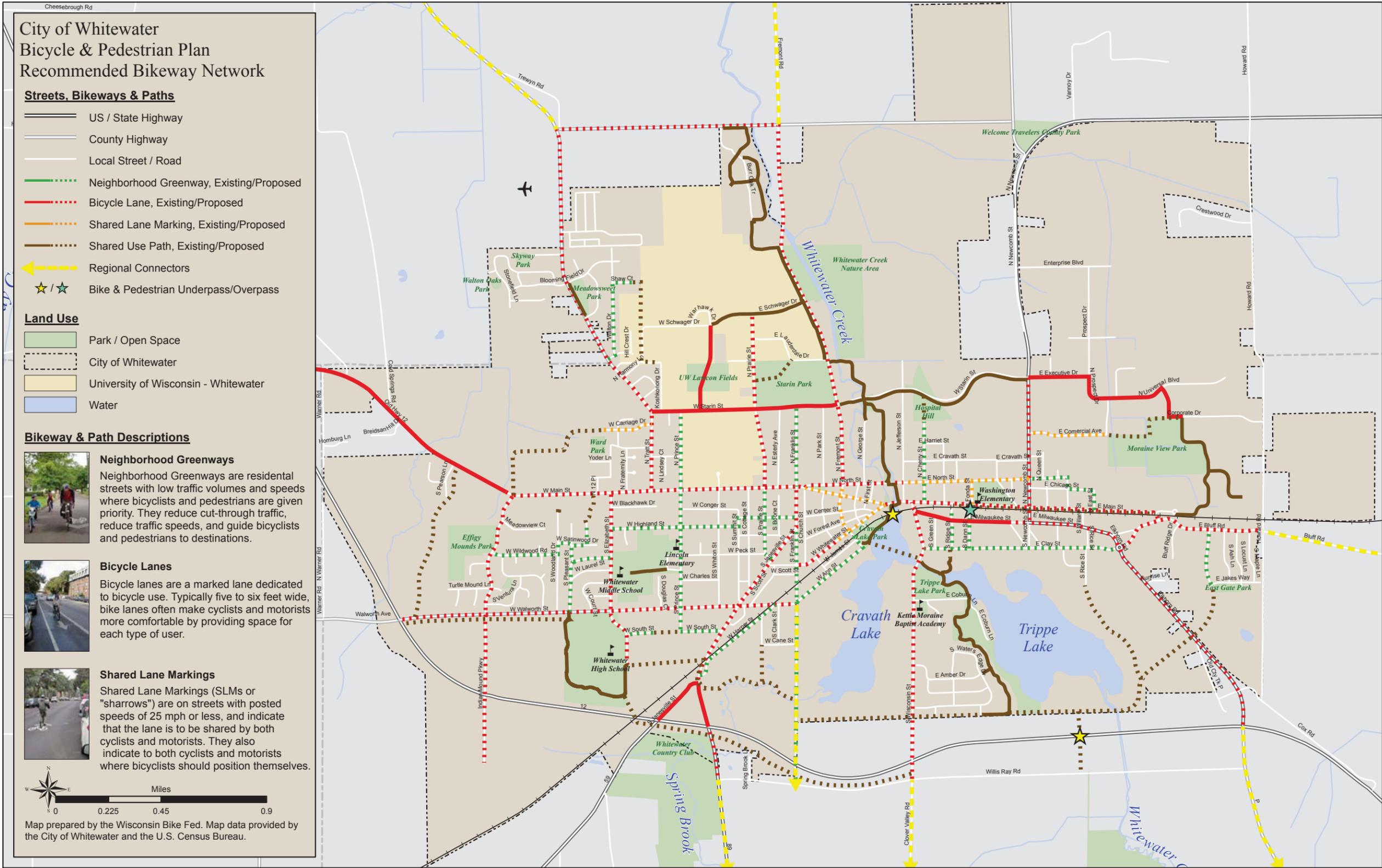
Street	From	To	Miles
S Pleasant St	W Walworth St	S Ardmore Dr	0.38
W Melrose St	S Pleasant St	S Elizabeth St	0.18
W Wildwood Rd	Indian Mound Pkwy	S Pleasant St	0.39
S Prince St	W South St	W Starin St	0.94
W Peck St	S Prince St	S Janesville St	0.40
S Prairie St	W Peck St	W Main St	0.28
W Harper St	S Janesville St	W Walworth St	0.46
S Franklin St	Willis Ray Rd	S Janesville St	1.09
W Ann St	S Franklin St	W Whitewater St	0.45
N Franklin St	W Main St	W Starin St	0.34
N Cherry St	E Main St	N Cherry St	0.34
E Clay St	S Wisconsin St	Elkhorn Rd	0.83
S Moraine View Pkwy	E Jakes Way	E Bluff Rd	0.24
Total			6.32

Table 4-3: Proposed Shared Lane Bike Routes

Street	From	To	Miles
S Janesville St	STH 12	STH 59	0.19
W Carriage Dr	W Carriage Dr	N Tratt St	0.21
W Main St	W Main St	E Main St	0.35
S Fremont St	W Whitewater St	W North St	0.21
N Fonda St	E Main St	E North St	0.10
E Commercial Ave	N Newcomb St	Industrial Dr	0.33
Total			1.39

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Map 4-1: Recommended Bikeway Network



Shared Use Paths

A number of shared use paths are recommended for Whitewater. These paths range from short segments of a few hundred feet to longer paths of up to two miles. All of these paths serve the same purpose: they increase bicycle and pedestrian access in areas where access does not currently exist, or where users do not feel safe or comfortable using existing streets.

A number of shared use paths are proposed for Whitewater. These paths range from short segments of a few hundred feet to longer paths of up to two miles. All of these paths serve the same purpose: they increase bicycle and pedestrian access in areas where access does not currently exist, or where users do not feel safe or comfortable using existing streets.

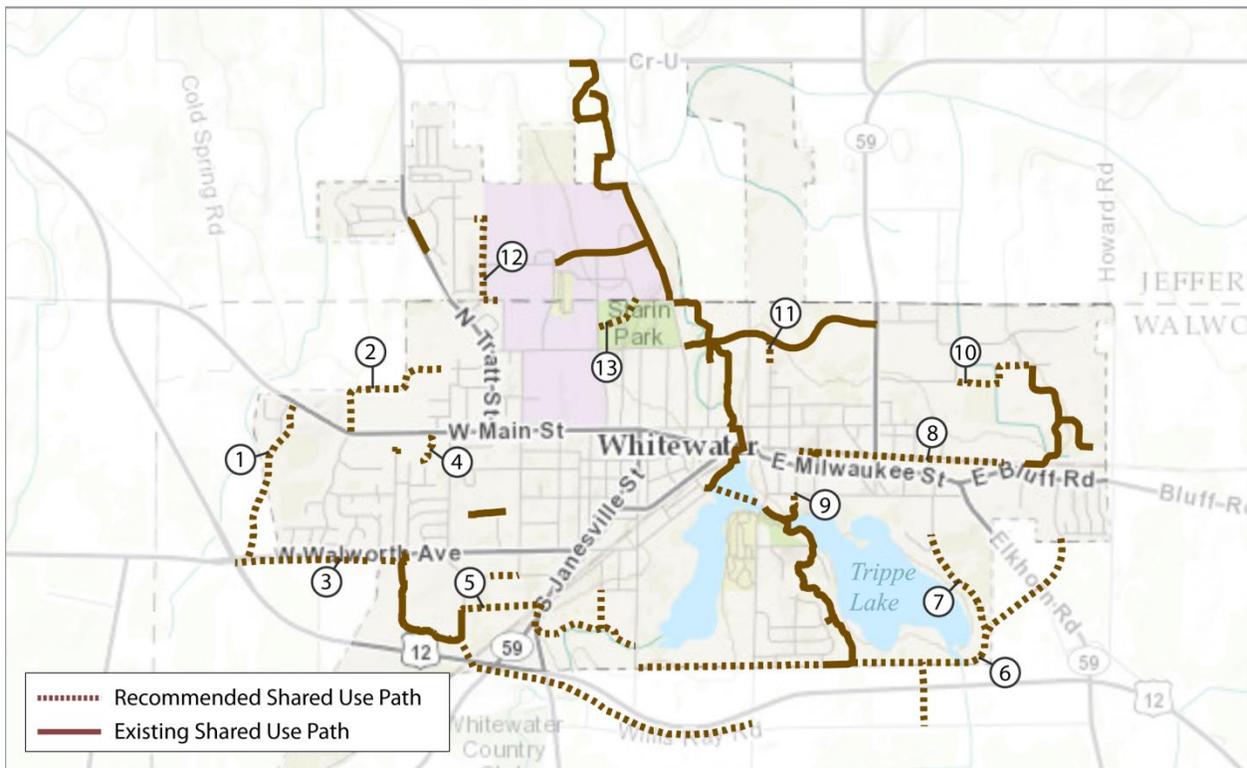


Figure 4-11. Recommended Shared use paths.

1. West Walworth – West Main Connector

This 0.68 mile path will provide an off-street connection between West Walworth Avenue and West Main Street, west of the Effigy Mounds Park. This connection would create a pleasant north/south connection in the city as well as provide access to the park via a spur.

2. West Main to West Carriage Drive Connector

This path will connect users from the proposed bike lane on Indian Mound Parkway to the proposed shared lane markings on West Carriage Drive. The proposed 0.62 mile trail will allow users to avoid West Main Street when accessing the southwest part of the UW campus.

3. West Walworth Street Trail

This 0.36 mile proposed trail will allow users to connect off street from the proposed bike lanes on Indian Mound Parkway to the trail that circumnavigates Whitewater High School. Providing this connection will allow for students to ride their bikes to school in a more comfortable atmosphere.

4. South Ardmore Street Extension

This short segment (0.07 miles) will allow users to connect from the proposed Neighborhood Greenway on South Ardmore Drive to the back of St. Patrick's Catholic Church, where they can continue on to access West Main Street.

5. Whitewater High School to S. Franklin Street Connector

This 0.9 mile trail will create a connection between the existing trail at the high school, which terminates on South Elizabeth Street, and the proposed neighborhood greenway on South Franklin Street. The trail is proposed to follow the outlet for Cravath Lake – which will make for a pleasant ride. There is also a 0.16 mile spur proposed from this trail to connect with South Gault Street.

6. South Franklin Street/East Gate Park Connector

This proposed 1.2 mile trail will travel parallel the city boundary on the southeast side and connect the proposed neighborhood greenway on South Franklin to East Gate Park. It will utilize a segment of the existing trail located on the west side of Trippe Lake. From East Gate Park, cyclists will be able to access Moraine View Park to the north, where many recreational and youth sports events are held.

7. Spur connection from East Gate Park Trail to S. Rice Street

This 0.48 mile path will connect from the proposed trail mentioned above (East Gate Park) to South Rice Street, on the east side of Trippe Lake. This connection will help to complete a Trippe Lake off –street loop.

8. East Main Street Rail with Trail

This 0.86 mile trail will run alongside the active rail line from Ridge Street to the existing trail located at the end of East Main Street on the city's northeast side. This trail will facilitate traffic to Washington Elementary School and allow for convenient access to Moraine View Park, home to many sporting events.

9. East Clay Street Connector

This very short 0.05 mile connection will fill the gap between the existing trail segment that travels to the east of the Trippe Lake condominium development, and East Clay Street.

10. East Commercial Avenue/Corporate Drive Connector

This 0.39 mile path will provide access from the current terminus of the trail in Moraine View Park to East Commercial Avenue, utilizing existing City of Whitewater parkland. East Commercial Avenue is slated to receive shared lane markings as well.

11 . Hospital Hill Extension

This 0.11 mile proposed trail will connect the proposed Neighborhood Greenway on North Cherry Street to the existing trail that parallels West Starin Street.

12 . Shaw Court Extension

This trail extension, 0.45 miles, will formalize the footpath between Shaw Court and the UW Whitewater Miller Stadium, located on the northwest side of campus (Figure 4-12). The trail will continue to the n/s portion of Koshkonong Drive.



Figure 4-12. The footpath/desire line pictured was created by students accessing campus from Shaw Court.

13 . Treyton’s Field of Dreams Trail

This 0.3 mile trail is a part of the Treyton’s Field of Dreams project in Starin Park.

Bike/Ped Bridge over Cravath Lake

This bike/ped bridge would connect the two sides of the lake. One side would originate from Cravath Lakefront Park and the other end on public land on the east side of the lake. This bridge would directly connect the residential neighborhood on the east side of the lake to downtown and could be a landmark icon for the city.

Bicycle Facility Selection

The Table 4-4 on the following page is provided to assist the City of Whitewater in making decisions in the future as to which facility to use for streets with various posted speed limits and average daily traffic (ADT) levels. Guidance from the Minnesota Department of Transportation (MNDOT) was used as a basis for these recommendations. Other factors beyond speed and volume which affect facility selection include traffic mix of automobiles and heavy vehicles, the presence of on-street parking, intersection density, surrounding land use, and roadway sight distance. These factors are not included in the facility identification chart above, but should always be a consideration in the facility selection and design process.

Table 4-4: Bicycle Facility Selection Matrix

2 Lane, ADT	<500	500-1,000	1,000-2,000	2,000-5,000	5,000-10,000
4 Lane, ADT	<2,000	2,000 to 4,000	4,000 to 10,000	10,000 to 20,000	20,000+*
25 MPH	RSO/NG	RSO/NG	SLM	5' BL	6' BL
30 MPH	RSO/NG	SLM	5' BL	5' BL	6' BL
35 MPH	SLM	SLM	5' BL	5' BL	6' BL
40 MPH	5' BL	5' BL	5' BL	6' BL	6' BL
45 MPH	5' BL	5' BL	6' BL	6' BL	6' BL

- RSO/NG Route Signs Only/Neighborhood Greenway
- SLM Shared Lane Marking
- BL Bike Lane, width increases to six feet at higher speeds and ADTs
- Source Based on guidance provided by Minnesota Department of Transportation

It should be noted that providing bicycle lanes on certain streets or designating certain streets as shared signed routes does not imply that bicycles should not be accommodated on all streets. The majority of bicycling takes place on undesignated city streets within neighborhoods. Bicyclists are legally allowed on all city streets and roads regardless of whether the roads are designated as a bikeway or not.

Safe Routes to School Recommendations

As a part of the Whitewater Bicycle and Pedestrian Plan, a condensed SRTS audit was performed for two schools in the City of Whitewater. These audits included establishing the existing conditions of a school site and operations, assessing the existing conditions and proposing a series of recommendations. Recommendations are based around the 4 E's. Summarized recommendations for each school are included on the following pages and the full audit reports are available in Appendix E: Safe Routes to School Audits.

Washington Elementary School SRTS Issues/Recommendations



Washington Elementary List of Issues and Recommendations

Key	Location	Issue/Problem	Recommendation
A	Dann Street Pedestrian Bridge	Bridge is old and not ADA compliant, trails/sidewalks leading to the bridge are in rough condition	Replace the bridge, consider moving the location to S Ridge Street, replace the trails and sidewalks leading to the bridge
B	E Main Street crosswalk	Key SRTS crosswalk	Upgrade to a ladder crosswalk and consider its maintenance a high priority
C	Back parking lot	Currently a mix of student drop off and staff parking	Do not allow parents to drop off here
D	Fonda Street	Parent drop off area, congested	Consider loading the cars in platoons and adding student or staff safety patrols
E	Fonda Street and E North Street	Key SRTS crosswalk	Upgrade to a ladder crosswalk and consider its maintenance a high priority
F	E Main Street from Fonda St to N Harris Street	School zone area	Formalize school zone pavement markings and signing following MUTCD guidance
G	E Main Street near school entrance	Parents dropping off on Main along with the buses	Formalize parent pick up area on Fonda Street, add written policy, and enforce it
H	E North Street from Fonda Street to N Harris Street	Lack of sidewalk on the campus side	Install sidewalks on the campus side of E North Street
I	Dann Street and Milwaukee	Recent pedestrian improvements are an asset	
J	Ridge Street and Milwaukee Street	Recent pedestrian improvements are an asset	
K	Cravath Lake Park parking lot	Parking lot about 3.5 blocks from the school is an asset	Consider a Walking Wednesdays program where students are walked into the campus from here with an adult escort

LINCS SRTS Issues/Recommendations



LINCS List of Issues and Recommendations

Key	Location	Issue/Problem	Recommendation
A	Peck Street and South Prince Street	Congestion at arrival and pick up, skewed crosswalk makes crossing longer, parked cars on Peck and Lincoln cause sight distance issues for the guard	Sign and enforce "no parking" for 50 feet east from the intersection of Peck and Prince, (at least during arrival and pick up hours), consider constructing bump outs on the north east and southeast corners of Peck Street to lessen the crossing distance, add a crosswalk to the east leg of intersection
B	Trail through campus	Paved trail exists on campus but it not a direct route to Middle School	Consider formalizing the dirt trail the students use between campuses to provide a more direct connection
C	Trail connection at Middle School	Paved trail deadends into the parking lot/driveway on the east side of the building	Install a formal paved path to connect to the school and the sidewalk on S Elizabeth Street
D	S Elizabeth and W Melrose	Due to students crossing into neighborhoods west of here, this is a key SRTS crossing	Install crosswalks and associated pedestrian crossing signs, place location high on the maintenance list
E	S Elizabeth and W Court	Due to students crossing into neighborhoods west of here, this is a key SRTS crossing	Install crosswalks and associated pedestrian crossing signs, place location high on the maintenance list
F	S Elizabeth and W Melrose	Due to students crossing into neighborhoods west of here, this is a key SRTS crossing	Install crosswalks and associated pedestrian crossing signs, place location high on the maintenance list
G	Parking lot on W Highland Street	Due to its location close to the north parking lot and the connection via the running track, this would be an excellent place for remote drop off or pick up	Formalize the connection between the north lot and this lot, train staff to watch from students from this location, encourage parents to consider dropping or picking up their student from here rather than use the north lot
H	School Driveway on north end of campus on S Prince Street	Key location for SRTS	Continue to staff this driveway to help students cross during arrival and dismissal, consider a cross walk and maintain the stop bar/stop sign combination
I	North parking lot	Lot is congested during arrival and dismissal	Consider platooning the cars for drop off and pick up, ask the parents not to idle their motors while waiting in the afternoons, encourage car pooling to decrease the numbers of private cars on campus



5 Recommended Pedestrian Policies

In order to fulfill the vision outlined for this plan and create a safe, connected pedestrian system, an update to City policies should be pursued to establish a Complete Streets policy. This policy would be in support of State of Wisconsin Complete Street legislation, and further advance the needs of pedestrians and bicyclists in Whitewater.

A Complete Street is a roadway that, in addition to general purpose vehicular travel lanes, includes sidewalks, bike lanes or shoulders, bus lanes, transit stops, crosswalks, median refuges, curb extensions, appropriate landscaping, and other features that add to the usability and livability of the street as determined by context. Complete streets principles aim to provide a balanced transportation system for all modes of travel providing transportation options that are safe, comfortable, and convenient for anyone to travel by foot, bicycle, transit, and automobile regardless of age or ability. Most importantly, complete streets are based on community desires and are the outcome of good planning and design.

The City of La Crosse Experience

Wisconsin's Pedestrian and Bicycle Accommodations law addressing complete streets was codified in 2009 as State statute SS 84.01(35) and later into administrative rule as Transportation 75 (Trans-75). The rule aims to “ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds of federal funds.”

In 2011 the City of La Crosse became the first local municipality in Wisconsin to adopt a complete streets policy. This major milestone was the natural partner to the state- and county-level complete streets policy.

Figure 5-1 on the following page displays the full text of the policy passed by the City of La Crosse, and identifies the key elements of their policy. The City of Whitewater should use the language and content of the La Crosse policy as a starting point for a Whitewater specific Complete Streets policy.

Figure 5-1: Breakdown of a city-level complete streets policy

City of La Crosse Municipal Code 5.18 GREEN COMPLETE STREETS	
(A) PURPOSE	
<p>The purpose of the City’s Green Complete Street regulation is to establish standards to safeguard life and property and promote and preserve public welfare and community aesthetics and to allow citizens to enjoy the use of streets and corridors within the city of La Crosse by the establishment of comprehensive standards, regulations and procedures governing the planning, design and construction or major construction of corridors within the City. The regulations found in this section attempt to balance the needs of all users of city streets and corridors including motorists, transit users, pedestrians and cyclists. The purpose of this ordinance is to ensure that the streets of the City of La Crosse provide safe, convenient, and comfortable routes for walking, bicycling, and public transportation, encourage increased use of these modes of transportation, enable convenient travel as part of daily activities, improve the public welfare by addressing a wide array of health and environmental problems, and meet the needs of all users of the streets, including children, older adults, and people with disabilities. This ordinance is further intended to provide a mechanism to combine the principles of complete streets and traffic calming with improving the stormwater quality and quantity problems that the City faces by incorporating stormwater considerations into each and every complete street or traffic calming activity where feasible.</p>	Vision and Goals
(B) FOCUS AREAS	
<p>The City shall focus Green Complete Streets implementation in areas where the Green Complete Streets infrastructure is most immediately needed such as missing links in sidewalks, along transit routes and stops, areas where non-motorized transportation modes are common or anticipated to become common, corridors which provide primary access to significant destinations such as parks, schools, commercial areas, or employment centers, and streets/intersections which have high pedestrian and/or bicycle crash rates. In addition to focus areas, all corridor projects shall be considered for Green Complete Streets. Green Complete Streets may be achieved through single projects or incrementally through a series of smaller improvements or maintenance activities over time. It is the Council’s intent that all sources of transportation funding be drawn upon to implement Green Complete Streets. The City believes that maximum financial flexibility is important to implement Green Complete Streets principles.</p>	Description and Clarification
(C) DEFINITIONS	
<p>The following words and phrases, whenever used in this ordinance shall have the meanings defined in this section unless the context clearly requires otherwise:</p>	
<p>(1) Green Complete Streets. Green Complete Streets are streets that safely accommodate all users of the right-of-way, including pedestrians, people requiring mobility aids, bicyclists and drivers and passengers of transit vehicles, trucks, automobiles and motorcycles, while at the same time incorporating best management practices for addressing stormwater runoff.</p>	
<p>Examples of green complete street design features that contribute to a safe, convenient, or</p>	

comfortable travel experience for users, include but are not limited to incorporating a combination of treatments such as: sidewalk; shared use paths; bicycle facilities; automobile lanes; paved shoulders; street trees and landscaping; planting strips; curbs; accessible curb ramps; bulb outs; crosswalks; refuge islands; pedestrian and traffic signals, including countdown and accessible signals; signage; street furniture; bicycle parking facilities; public transportation stops and facilities; transit priority signalization; traffic calming devices such as rotary circles, traffic bumps, and surface treatments such as paving blocks, textured asphalt, and concrete; narrow vehicle lanes; raised medians; and dedicated transit lanes, as well as stormwater and native vegetation features such as curb cuts to vegetation and permeable pavements, and those features identified in the City of La Crosse Bicycle/Pedestrian Master Plan.

(2) Corridor. Any right of way, public or private, including arterials, connectors, alleys, ways, lanes, and roadways by any other designation, as well as bridges, tunnels, and any other portions of the transportation network.

(3) Projects. The Construction, reconstruction, retrofit, alteration, or repair of any corridor, including the planning, design, approval, and implementation processes, but does not include minor routine upkeep such as cleaning, sweeping, mowing, spot repair, or interim measures on detour routes.

(4) Users. People of all ages and abilities that use corridors, including pedestrians, bicyclists, motor vehicle drivers, public transportation riders and drivers.

(D) REQUIREMENT OF INFRASTRUCTURE ENSURING SAFE TRAVEL

(1) The City Engineering Department, Street Department, Board of Public Works and Planning Department shall make Green Complete Streets practices a routine part of everyday operations and shall approach every transportation project and program as an opportunity to improve public and private corridors and the transportation network for all user groups, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Green Complete Streets.

(2) Every corridor project on public or private property shall incorporate Green Complete Streets infrastructure sufficient to enable reasonable safe travel along and across the right of way for each category of use; provided, however, that such infrastructure may be excluded, upon written approval by the Board of Public Works where documentation and data indicate that:

- (a) Use by non-motorized users is prohibited by law;
- (b) The cost would be excessively disproportionate (greater than 20 percent) to the need or probable future use over the long term (stormwater and facilities for non-motorized users are weighted equally);
- (c) There is a demonstrable absence of current or future need;
- (d) Inclusion of such infrastructure would be unreasonable or inappropriate in light of the scope of the project, or because it would be contrary to public safety;
- (e) Loss of on-street parking shall not be considered a singular criterion for exclusion of a Green Complete Street Project.

Actions to Achieve Complete Streets

Including discussion of Planning, Design, Operations and Construction standards

Exceptions

- (f) Public transit facilities are not required on streets not serving as transit routes.
- (g) For repairs made pursuant to the pavement openings and restorations or to ordinary maintenance activities designed to keep assets in serviceable condition (e.g., mowing, cleaning, sweeping, spot repair and surface treatments such as chip seal, or interim measures on detour or haul routes;
- (h) Because freight is important to the basic economy of the City and has unique right-of-way needs to support that role, freight shall be the major priority on streets classified as truck routes. Green Complete Street improvements that are consistent with freight mobility but also support other modes shall be considered on these streets.
- (3) The City of La Crosse shall incorporate Green Complete Streets infrastructure into existing and future public and private streets to improve the safety and convenience of users, construct and enhance the transportation network for each category of users, and create employment.
- (4) If the safety and convenience of users can be improved within the scope of pavement resurfacing, restriping, or signalization operations on public or private streets, such projects shall implement Green Complete Streets infrastructure to increase safety for users.
- (5) Trainings in how to integrate, accommodate, and balance the needs of each category of users shall be provided for planners, civil and traffic engineers, project managers, plan reviewers, inspectors, and other personnel responsible for the design, construction, and maintenance of streets.

Exceptions (cont.)

(E) DATA COLLECTION, STANDARDS, AND PUBLIC INPUT

- (1) The City of La Crosse shall collect data measuring how well the streets of The City of La Crosse are serving each category of users. Data may include latent demand, existing levels of service for different modes of transport and users, collision statistics, bicycle and pedestrian injuries and fatalities, or others.
- (2) The City of La Crosse shall put into place performance standards with measurable benchmarks reflecting the ability of users to travel in safety and comfort. Performance standards may include transportation mode shift, miles of new bicycle facilities or sidewalks, percentage of streets with tree canopy and low design speeds, public participation, or others.
- (3) The City of La Crosse shall establish procedures to allow full public participation in policy decisions and transparency in individual determinations concerning the design and use of streets.
- (4) The City of La Crosse shall incorporate Green Complete Street principles into all appropriate plans, zoning and subdivision codes, laws, manuals, rules, regulations and programs as appropriate; including Confluence The La Crosse Comprehensive Plan and the Bicycle/Pedestrian Master Plan; to integrate, accommodate, and balance the needs of all users on public and private streets.

Process and Assessment

Proposed Complete Street Policies for the City of Whitewater

To achieve a roadway network that is safe, comfortable, and attractive for all users, the City of Whitewater should adopt a complete streets policy that is consistent with Trans-75 and considers the following topics:

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • Planning • Design • Construction | | <ul style="list-style-type: none"> • Operations • Exceptions |
|--|--|--|

Action items listed below can form the basis for either a formally adopted policy, or an informal action plan.

Planning

1. Regularly discuss current roadway projects to provide seamless transitions between existing facilities.
2. Adopt a green transportation hierarchy as a common basis for transportation planning.
3. Review and provide comment on the Transportation Plans of Jefferson and Walworth Counties
4. Coordinate trail development with Jefferson and Walworth Counties to prioritize trail segments that provide connectivity to the regional system.

Design

1. When appropriate, consider roadway design that slows motor vehicles and/or limits access so as to provide greater safety for cyclists, pedestrians, and motorists (e.g. lane narrowing or the reduction of lanes; reduction of access etc.).
2. Adopt consistent design principles for cyclists and pedestrians as recommended in this Plan and other Statewide planning documents.
3. Evaluate existing and potential on-road bicycle use in all repaving and re-striping projects (i.e. striping of bicycle lanes, wide curb lanes, paving of roadway shoulders or widening of curb lanes) as well as new roadway construction and reconstruction projects.
4. Evaluate the effectiveness of narrowing pedestrian crossing distances at intersections where high motor vehicle counts and high pedestrian counts are expected.
5. Provide appropriate bicycle accommodation on and along all highway, arterial and collector streets.
6. Maintain the function of existing freight corridors, but evaluate design treatments to improve function of the corridor for cyclists and pedestrians.
7. Provide pedestrian accommodation in the form of sidewalks or shared-use paths adjacent to all arterial, highway and collector streets.
8. Develop a complete streets checklist to guide the development of individual transportation projects.¹²

Construction

1. Provide alternate routes for cyclists and pedestrians during construction, reconstruction, and repair of streets.
2. Develop standards to maintain pedestrian and cyclist access during construction activities.

Operations

¹² A sample checklist from the Metropolitan Transportation Commission in the San Francisco, CA area can be found here: http://www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist_FINAL.pdf

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1. Time traffic signals to provide adequate/comfortable pedestrian and cyclist crossing time.
2. In pedestrian areas, provide audible and countdown signal heads. Consider exclusive pedestrian timing or leading pedestrian intervals where appropriate.
3. Provide bicycle signal detection at all actuated signals along bikeways and major roads typically used as cycling routes.
4. Develop a coordinated maintenance schedule or program to address bikeway, sidewalk, and shared use path maintenance needs.
5. Establish performance metrics to track the implementation of this policy. These metrics should be consistent with or included in the Policy, Vision, Goals, Objectives and Benchmarks and could include:
 - a. Miles of bikeways, shared use paths, and sidewalks in relation to miles of roadway
 - b. Reduced collisions involving people who ride bikes or pedestrians
 - c. Improvements to air quality
 - d. Reduced transportation system maintenance costs
 - e. Increased numbers of people walking and riding bicycles (counted annually)
 - f. Increased percentage of traffic signals with countdown signalization and/or bicycle detection

Exceptions

Not every street can be ideal for every traveler. However, it is still important to provide basic, safe, and direct access for users regardless of the design strategy used.

Exceptions to the complete streets policy should be made by the mayor or other transportation authority where:

1. A suitable or more desirable alternative is available within a reasonable distance based on public and staff input or criteria defined in Trans-75.
2. The cost of accommodation would be excessively disproportionate to the need or probable use as defined by Trans-75.



6 Recommended Programs

The infrastructure recommendations in the Plan provide safer, more comfortable places for further growth in bicycling and trail use. While improving infrastructure is critical to increasing walking and bicycling rates, the importance of non-infrastructure strategies should not be underestimated. This chapter contains recommendations for education, encouragement, enforcement, and evaluation programs that should be pursued in conjunction with infrastructure investments.

Safe Routes to School (SRTS) Program

A SRTS program in Whitewater should address all "Five E's": Engineering, Education, Encouragement, Enforcement, and Evaluation. Several potential partners are already working on or have expressed willingness to address one or more of the E's. The Working for Whitewater's Wellness (W3) organization, a community-based coalition of healthcare, school systems and municipalities within the community, is the right forum for determining the correct next step in light of the organization's mission and membership, especially since the school district is already a partner. The City will take leadership in the Engineering component of SRTS by pursuing funding for school-specific infrastructure recommendations that emerge from this Plan; the School District will actively support this effort. The City should further support the School District as they develop leadership around the remaining 4 E's together. The School District should assign high-level leadership to this effort and plan to support the program on a site-specific level as the program may begin locally with interested parents and teachers rather than the district level. W3 can provide additional support, particularly in the health and encouragement components. Potential first steps include promoting walking school buses and park-and-walk routes and implementing infrastructure recommendations at LINCS Middle School and Washington Elementary School.



Figure 6-1. Walking schoolbuses are an effective programmatic component of SRTS programs.

Whitewater Biking Map

This biking map, which was created as part of this Plan, should be oriented at residents (rather than planners), and should show both biking routes as well as destinations. The City will print and distribute copies of the map, but online distribution will be an important way to extend the reach of the product, including exploring the option of offering it for use on mobile devices. There would be great benefit in having the City partner with the University to print and distribute additional copies of the map as part of university orientation, as well as at other community events. Other potential partners for printing and distribution include the Whitewater Tourism Council, the Whitewater Area Chamber of Commerce, and Downtown Whitewater, Inc.

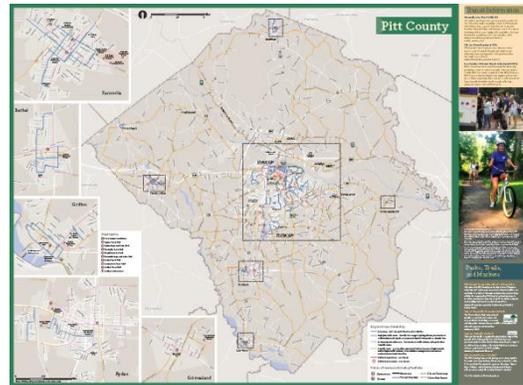


Figure 6-2. Sample biking map

UW-Whitewater New Student Orientation

Incoming students (at least freshmen, but preferably all students annually) should receive the walking/biking map and a list of existing community resources, rides, and classes (e.g. Everyone's Biking Group, Lady Flyer's Biking Group, and volunteer opportunities). In addition, workshops and clinics could be offered, such as Bike Commuting 101, flat tire and basic maintenance clinics, or women's biking classes.

Crosswalk Enforcement Actions and Speeding Enforcement Campaigns

The goal of these campaigns is to reduce vehicle speeding, increase yielding to pedestrians by both drivers and cyclists, and reduce jaywalking. These campaigns should be organized to garner maximum media attention (e.g. a "Santa sting" in costume during December) and should focus on the beginning of the school year and the end of daylight savings. Main/Old Hwy 12 south of campus should be one priority corridor for these campaigns. For campaigns specific to school traffic safety, state Safe Routes to School grants may be able to fund police overtime for the purposes of enforcement activities.

Bicycle/Pedestrian Counts

The City should identify key locations for bicycling and walking, and organize consistent annual counts at these locations. The counts should follow the National Bicycle and Pedestrian Documentation Project guidelines, and could be manual counts (supported by W3 and local volunteers), automated counts, or a combination of the two. A volunteer training should be coordinated with a professional who is familiar with count procedure (Figure 6-3).



Figure 6-3. Volunteers can be trained to assist with annual bicycle and pedestrian counts.

Pedestrian and Bicycle Advisory Committee (PBAC)

It is recommended that the City formalize the current Plan advisory committee as a standing quarterly or bimonthly committee that advises the City on walking and bicycling issues (Figure 6-4). If a City bicycle/pedestrian coordinator is identified, that person should be the staff liaison to the PBAC.

Bicycle/Pedestrian Coordinator

Identify a single staff person at the City who is the community liaison for answering walking/bicycling questions, working with W3 and other community organizations, and coordinating Plan implementation.



Figure 6-4. Ongoing community input and support is critical for Plan implementation.

Professional Development Courses for Engineers and Planners

The City should continue to allow staff to participate in Wisconsin Active Communities Action Institute trainings, and other webinars and on-site trainings (such as webinars offered by the Association of Pedestrian and Bicycle Professionals). These opportunities can support City staff by imparting technical expertise on pedestrian and bicycle infrastructure issues.

Annual Report Card

The City should publish an annual report summarizing accomplishments (both infrastructure and programs), partnerships, and count results. This report should be co-authored by the PBAC and reviewed by W3 for presentation by the Bicycle/Pedestrian Coordinator to the City Council. The goal is to celebrate accomplishments and raise the overall profile of bicycling and walking efforts in the community (Figure 6-5).



Figure 6-5. Tracking Plan implementation progress is useful for the community, staff and visitors alike.

Walk & Bicycle Friendly Community Designation

The City, assisted by W3, should apply for both Bicycle Friendly Community (BFC) and Walk-Friendly Community (WFC) designations, and celebrate the awards with media outreach and a public event (e.g. group ride or walk) when they are received. The application process is involved but very valuable. To reduce the impact on City staff, it is recommended that BFC and WFC applications be completed during different years, and supported by partners from W3.

Bike/Pedestrian Resources Website

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The City website should include all official planning documents and reports related to bicycling and walking in Whitewater, including the adopted Plan, any updates about implementation of the Plan, media releases (e.g. about crosswalk enforcement actions), bike/ped counts, the annual report card, and PBAC agendas/minutes. In addition, the City website should include any bicycle and pedestrian events in the community as well as the network map. There should be coordination between the City website and the W3 website and events calendar to reduce duplication of effort.

Open Streets Event

Open Street Events (also called Summer Streets, Ciclovias, or Play Streets) are periodic street closures (usually on Sundays) that create a park-like experience on the street, encouraging walking, bicycling, dancing, hula hooping, roller skating, and more. The purpose of the event is to promote walking and biking to the general public by providing a car-free street event, an especially effective strategy in neighborhoods without close access to parks. The city should partner with W3 and interested downtown businesses to identify the appropriate roadway corridor and time of year for an open street event. W3 can take the lead on coordination with support from city staff.



7 Implementation

The Whitewater Bicycle and Pedestrian Plan is a 20-year plan that city residents and decision makers can use to guide Whitewater’s progress towards becoming a great place to walk and bike. This chapter highlights short-term infrastructure recommendations and associated costs, discusses programmatic actions that should be implemented first and provides a suggested timeframe for various actions recommended in previous chapters. Table 7-1 and Table 7-2 provide a summary of key recommended Plan actions and priority projects, along with implementation timeframes.

Table 7-1: Short Term Implementation Work Plan for Programs (see chapter 6 for descriptions)

Project	2013	2014	2015	2016	2017	2018	2019	2020
Programs (see chapter 6)								
User Map Creation	✓							
UW-W New Student Orientation	✓	✓	✓	✓	✓	✓	✓	✓
Crosswalk & Speed Enforcement	✓							
Volunteer Bike/Ped Coordinator	✓	✓	✓	✓	✓	✓	✓	✓
Bike/Ped Advisory Committee	✓	✓	✓	✓	✓	✓	✓	✓
Annual Report Card	✓	✓	✓	✓	✓	✓	✓	✓
Safe Routes to School Program		✓	✓	✓	✓	✓	✓	✓
Bicycle Friendly Community Application		✓						
Open Streets Event				✓	✓	✓	✓	✓

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Table 7-2: Short Term Implementation Work Plan for Infrastructure

Project	Description	2013	2014	2015	2016	2017	2018	2019	2020
Infrastructure									
E Main Street bike lanes	S Franklin Street to S Newcomb Street	✓							
Treyton's Field of Dreams	Shared Use Path	✓							
Waters Edge Path Ext to WHS	Shared Use Path	✓							
East Gate Project	Shared Use Path / Bike lanes on Wisconsin St from Milwaukee St to Tripp Lake Path		✓						
W Main Street	S Prince Street to S Franklin Street		✓						
Advocacy with Walworth Co. and WisDOT	Ped improvements on CTY N for connections to mobile home park and to HWY 26 Shared Use Path Network			✓					
E North Street	S Franklin Street to N Newcomb Street		✓						
Indian Mound Parkway	W Walworth Street to W Main Street			✓					
W Walworth Street	STH 12 to S Franklin Street			✓					
S Elizabeth Street	S Elizabeth Street to W Main Street			✓					
E Clay Street Connector Path	Shared Use Path				✓				
N Fremont Street	W North Street to E Schwager Drive					✓			
N Newcomb Street	E Milwaukee Street to E Executive Drive					✓			
E Bluff Road	Elkhorn Road to Howard Road					✓			
W Main Street	Indian Mound Parkway to S Prince Street					✓			
Tratt Street	W Main Street to Bloomingfield Drive						✓		
E Milwaukee Street	Easterley Street to E Bluff Road						✓		
Elkhorn Road Resurfacing - Bike Lane Markings							✓		
Indian Mound Parkway	Indian Mound Parkway to W Walworth Street							✓	
Dann Street Bridge Replacement	Shared Use Path							✓	
STH 89	Willis Ray Road to STH 12								✓
Shaw Court Ext Path	Shared Use Path								✓
South Franklin/East Gate Path/S Rice	Grants, Include in CIP								✓

Infrastructure Project Prioritization

The Whitewater Bicycle and Pedestrian plan provides a comprehensive set of trail and on-street infrastructure recommendations that Whitewater and other project partners can implement, allowing residents and visitors alike to walk and bike more safely and comfortably. The order in which projects in this plan are constructed will depend on many factors including budget and grant availability, community support and various city policies.

While all projects represent important steps for improving Whitewater’s cycling environment, prioritizing projects will allow the City to program limited financial and staff resources in the most strategic fashion. Project prioritization was driven by data and knowledge of future planned construction, available funding, and local priorities. Projects were first prioritized using objective criteria and then reviewed by city staff to develop the short term implementation plan that is presented in Table 7-2.

The objective project scoring criteria are shown in Table 7-3. Points were assigned and then scores for each criterion were weighted, based on input from the steering committee.

Table 7-3: Bicycle Facility Prioritization Criteria

Steering Committee Ranking*	Criterion	Description	Scoring Definitions
1	System Connectivity	To what degree does the project fill a missing gap in the bicycle system?	Projects will receive five points if they fill a gap of less than one-quarter mile and 3 points for gap measuring between one-quarter and one-half mile.
2	Safety and Comfort	How well can the project potentially improve bicycling on routes that will likely be used by children and the elderly,	Projects within one-quarter mile of a school receive 5 points; projects within one-half mile of a school receive 2 points.
3	Provides Access to Community Destinations	Score each project based on its proximity to commercial areas, parks and civic areas. Projects receive a higher score if they are located closer to community destinations.	Projects within one-half mile of a park, school or commercial area receive 5 points; projects within one mile receive 3 points.
4	Roadway Function	Does the street become more complete with a dedicated bicycle facility? Projects are scored based on roadway types. Projects on arterials score higher than projects on local roadways.	Projects will receive 5 points if they are located on state or county highway, 3 points if they are located on a local roadway and 1 point if they are a pathway.

The proposed bikeway system is comprised of about 80 projects which have been organized into three tiers representing the relative project priority and a suggested construction timeframe:

- Short Term (0 – 7 Years)
- Medium Term
- Long Term

BICYCLE AND PEDESTRIAN PLAN

Project prioritization is shown on Map 7-1 through 7-4 and described in Table 7-4: Recommended Bikeway Project Phasing. The City should regularly revisit the project list to schedule near term projects, as there are many factors that can and should affect project implementation, including:

- Any changes to existing grant programs, or creation of new grant or funding programs that affect the type or number of large-budget projects that can be implemented
- Any changes in City policy that could affect how local, state or federal funds can be spent
- Changes to zoning and land use that will affect where and how development occurs in Whitewater
- Changes to staff capacity to manage project implementation
- Community input (e.g., through the Bicycle Advisory Committee)
- Directives (policy or otherwise) from elected officials and other governing bodies
- Interest from partners (i.e., University of Wisconsin Whitewater) in implementing projects that are partially or entirely within their jurisdiction

Table 7-4: Recommended Bikeway Project Phasing (Medium and Long Term)

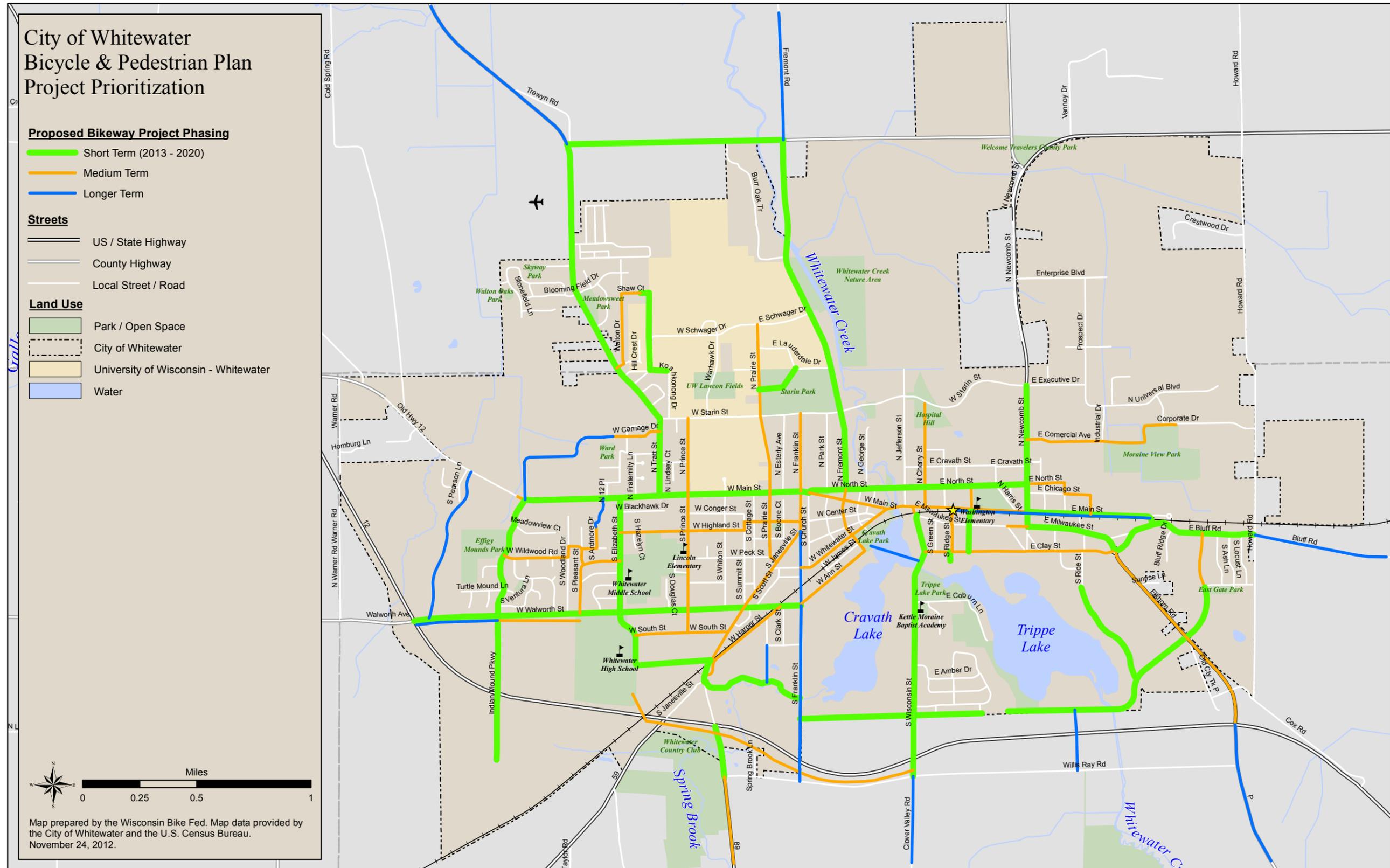
Name	From	To	Facility Type	Length (Mi.)	Priority
E Cty Line Rd	W Main St	Indian Mound Pkwy	Bike Lane	0.04	Medium
W Whitewater St	S Franklin St	S Fourth St	Bike Lane	0.20	Medium
W Highland St	S Elizabeth St	S Summit St	Neighborhood Greenway	0.54	Medium
N Franklin St	W Main St	W Starin St	Neighborhood Greenway	0.34	Medium
S Ridge St	E Clay St	E Main St	Neighborhood Greenway	0.17	Medium
S Pleasant St	W Walworth St	S Ardmore Dr	Neighborhood Greenway	0.45	Medium
S Prince St	W South St	W Starin St	Neighborhood Greenway	0.94	Medium
W South St	S Elizabeth St	Proposed MUP	Neighborhood Greenway	0.11	Medium
W Melrose St	S Pleasant St	S Elizabeth St	Neighborhood Greenway	0.18	Medium
Proposed MUP West Walworth Street Path	W South St	S Prince St	Off Street Trail	0.12	Medium
Hospital Hill Trail Extension	Indian Mound Pkwy	High school MUP	Off Street Trail	0.36	Medium
N Fonda St	N Cherry St	Existing MUP	Off Street Trail	0.11	Medium
E Milwaukee St	E Main St	E North St	Shared Lane Marking	0.10	Medium
N Prairie St	N Newcomb St	E Bluff Rd	Bike Lane	0.41	Medium
S Franklin St	W Main St	E Schwager Dr	Bike Lane	0.74	Medium
W Center St	S Franklin St	W Main St	Bike Lane	0.96	Medium
E Clay St	S Wisconsin St	S Summit St	Neighborhood Greenway	0.25	Medium
		Elkhorn Rd	Neighborhood Greenway	0.83	Medium

Name	From	To	Facility Type	Length (Mi.)	Priority
N Cherry St	E Main St	N Cherry St	Neighborhood Greenway	0.34	Medium
N Oak St	E North St	E Chicago Ave	Neighborhood Greenway	0.41	Medium
W Peck St	S Prairie St	S Janesville St	Neighborhood Greenway	0.04	Medium
S Moraine View Pkwy	E Jakes Way	E Bluff Rd	Neighborhood Greenway	0.24	Medium
S Prairie St	W Peck St	W Main St	Neighborhood Greenway	0.28	Medium
W South St	S Janesville St	S Prince St	Neighborhood Greenway	0.18	Medium
W Summit St	W Highland St	W Center St	Neighborhood Greenway	0.04	Medium
W Ann St	S Franklin St	W Whitewater St	Neighborhood Greenway	0.45	Medium
W Harper St	S Janesville St	W Walworth St	Neighborhood Greenway	0.46	Medium
W Wildwood Rd	Indian Mound Pkwy	S Pleasant St	Neighborhood Greenway	0.39	Medium
Walton Dr	CTH N	Shaw Ct	Neighborhood Greenway	0.43	Medium
E Commercial Ave / Moraine View Park	Industrial Dr	Corporate Dr	Off Street Trail	0.39	Medium
STH 89	Willis Ray Rd	Willis Ray Rd	Regional Connection	0.44	Medium
E Commercial Ave	N Newcomb St	Industrial Dr	Shared Lane Marking	0.33	Medium
S Fremont St	W Whitewater St	W North St	Shared Lane Marking	0.21	Medium
W Carriage Dr	W Carriage Dr	N Tratt St	Shared Lane Marking	0.21	Medium
W Main St	W Main St	E Main St	Shared Lane Marking	0.35	Medium
Whitewater	Fourth	Main	Shared Lane Marking	0.27	Medium
E Main St	N Newcomb St	E Bluff Rd	Bike Lane	0.57	Long
S Franklin St	Willis Ray Rd	S Janesville St	Neighborhood Greenway	1.09	Long
Proposed MUP	N Tratt Rd	Existing MUP	Off Street Trail	0.74	Long
Proposed MUP spur	Existing MUP	S Gault Street	Off Street Trail	0.16	Long
West Walworth-West Main Path	West Walworth	West Main	Off Street Trail	0.68	Long
West Main-West Carriage Path	West Main St	West Carriage Dr	Off Street Trail	0.62	Long
Proposed MUP	South Ardmore Drive	St Patrick's Church Property	Off Street Trail	0.07	Long
E Main Street Path	S Ridge St	East Main end	Off Street Trail	0.86	Long

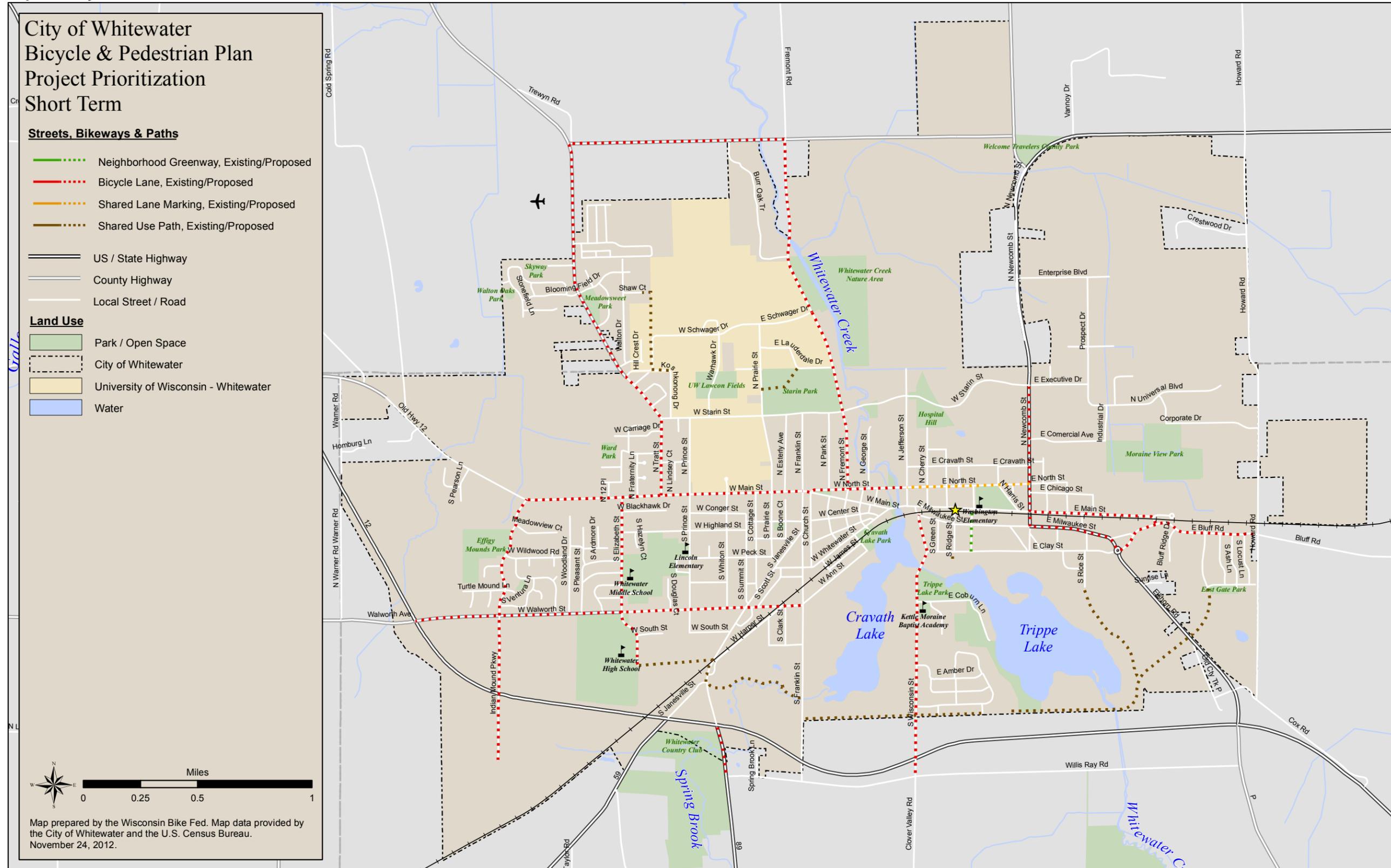
BICYCLE AND PEDESTRIAN PLAN

Name	From	To	Facility Type	Length (Mi.)	Priority
Proposed MUP	STH 12	Indian Mound Pkwy	Off Street Trail	0.36	Long
Proposed MUP	Proposed MUP with underpass	Willis Ray Rd	Off Street Trail	0.26	Long
WHS-S Franklin Path	Whitewater High School	S Wisconsin St	Off Street Trail	1.36	Long
Bluff Rd	Howard Rd	Regional destination	Regional Connection	0.59	Long
Clover Valley Rd	Willis Ray Rd	Regional destination	Regional Connection	0.38	Long
CTH N	CTH U	Regional destination	Regional Connection	0.86	Long
S Franklin St	W Walworth St	Regional destination	Regional Connection	0.77	Long
Freemont Rd	CTH U	Regional destination	Regional Connection	0.56	Long
CTH P	STH 12	Regional destination	Regional Connection	0.62	Long

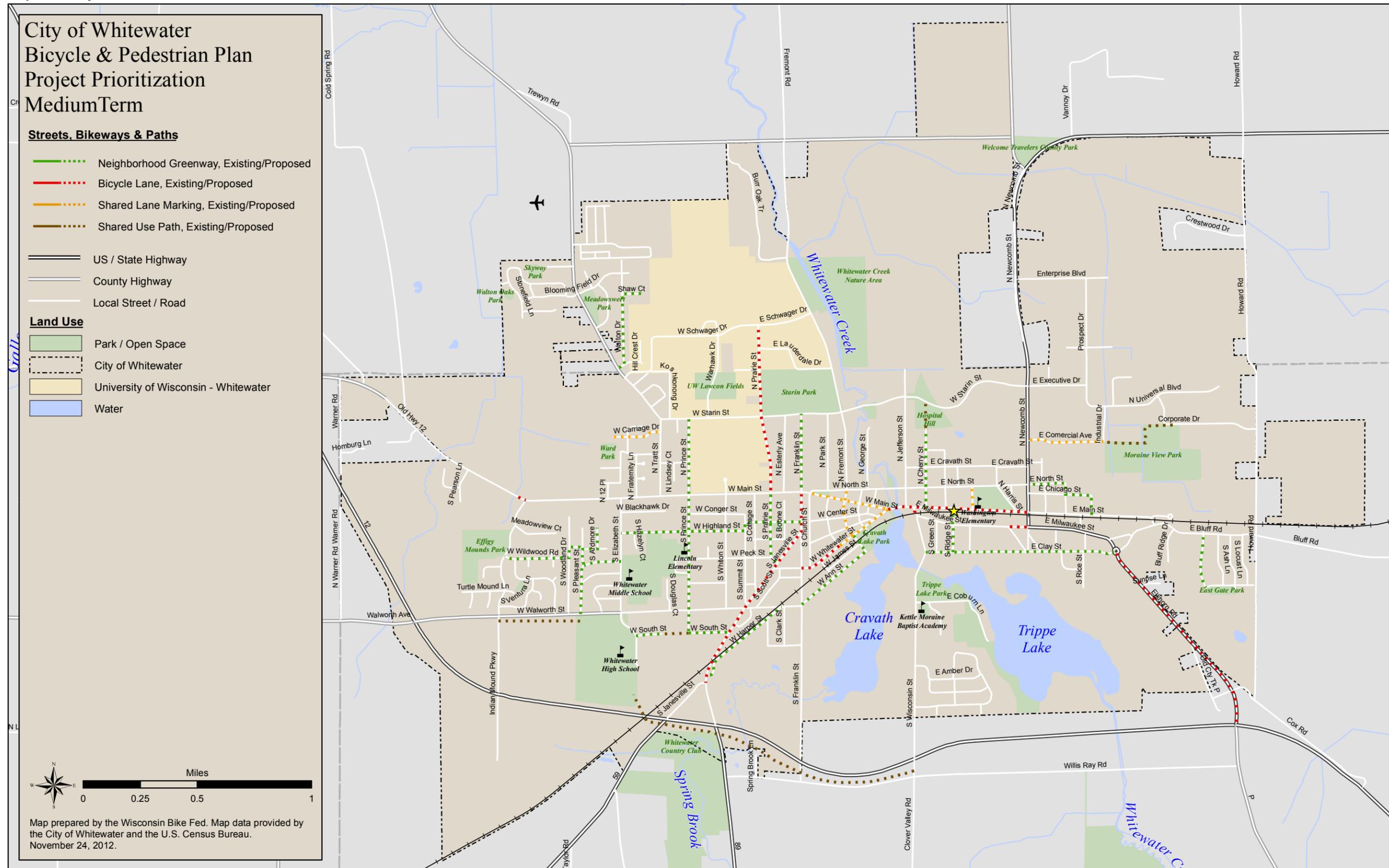
Map 7-1: Project Prioritization: Overview



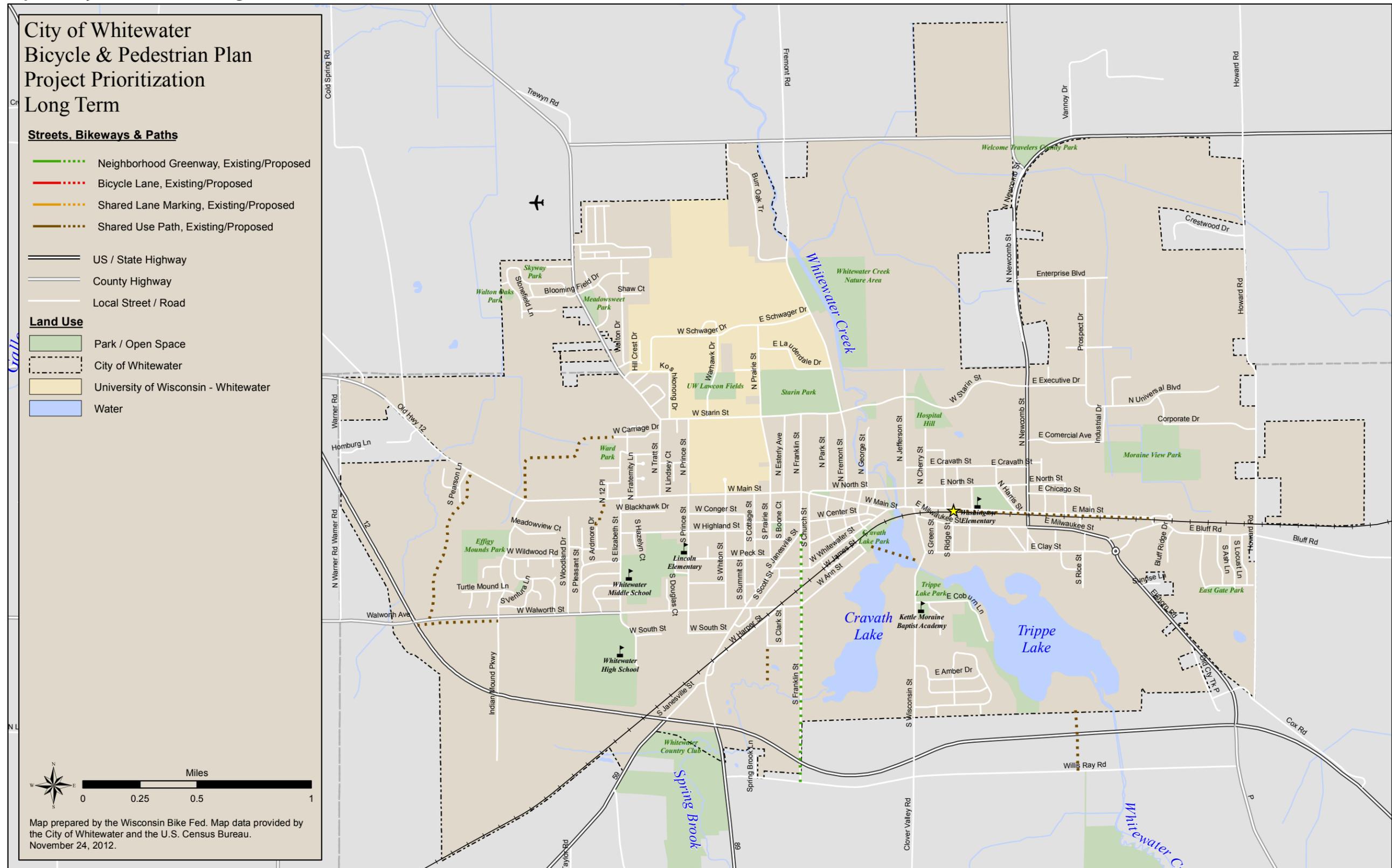
Map 7-2: Project Prioritization: Short Term (0 – 5 Years)



Map 7-3: Project Prioritization: Medium Term (5 – 10 Years)



Map 7-4: Project Prioritization: Long Term (More than 10 Years)

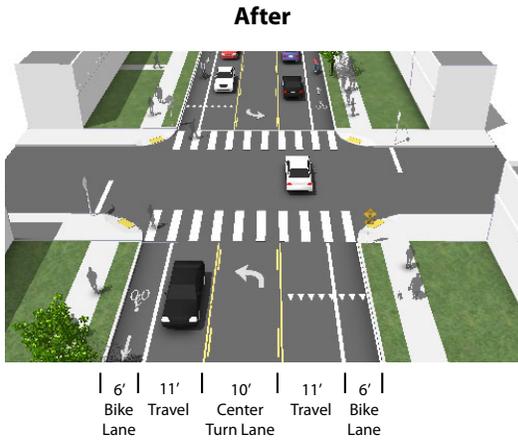
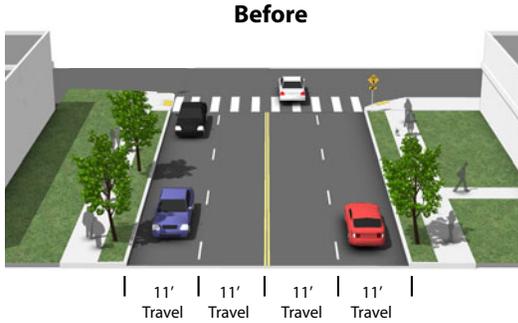


Priority Project Sheets

The following pages provide project description sheets with specific recommendations and maps for three high priority projects, which represent the first stage of Plan implementation. Specific recommendations were based on field visits, high-resolution aerial photos, and discussions with local and regional planning staff and system users. Each map depicts the recommended bikeway or trail under focus, as well as selected nearby connections. Please refer to the larger system maps for each project's context within the overall surrounding bikeway and trail networks.

Appendix F: West Main Street Safety Project provides a more detailed description and needs analysis for improvements on West Main Street, including detailed planning level cost estimates.

Roadway Reconfiguration Cross Section Dimensions:



Description:

The West Main Street Traffic Safety Project proposes a series of related roadway improvements to reduce excessive speeding, promote smooth traffic flow, and increase safety and mobility for non-motorized transportation. This project proposes the following:

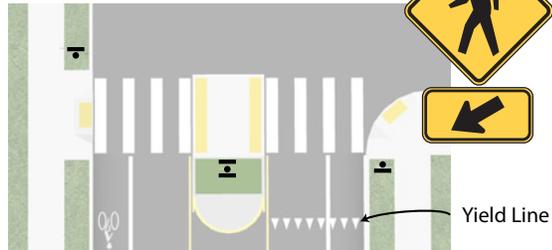
- **Roadway reconfiguration**
Going from 4 lanes to 3 lanes to provide a two-way center turn lane provides dedicated space for turning vehicles, encourages consistent through travel speed and removes the “double threat” at pedestrian crossings.
- **New bicycle lanes**
- **One new mid block pedestrian crossing.**
- **Three new median refuge islands**
Median Refuge islands enhance new and existing unsignalized marked pedestrian crossings.
- **High Visibility Striping**
Black backing striping will be used to increase the contrast and visibility of roadway markings.

The plan is separated into three phases. Phase I implements striping changes from Franklin to Tratt. Phase II introduces median refuge islands. Phase III extends the treatment to Indian Mound Parkway.

Planning Level	Franklin to Tratt (Phase I)	\$80,000
Cost Opinion:	Franklin to Tratt (Phase II)	\$20,000
	Tratt to Indian Mound Pkwy (Phase III)	\$142,000

Typical Signing at Median Refuge Island Crossing:

W11-2, W16-7p



Pedestrian Crossing Enhancement Locations:

New midblock crossing and median Island on west side of crossing

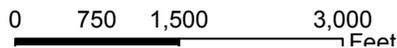
Relocate crossing to west side of intersection, add median refuge island

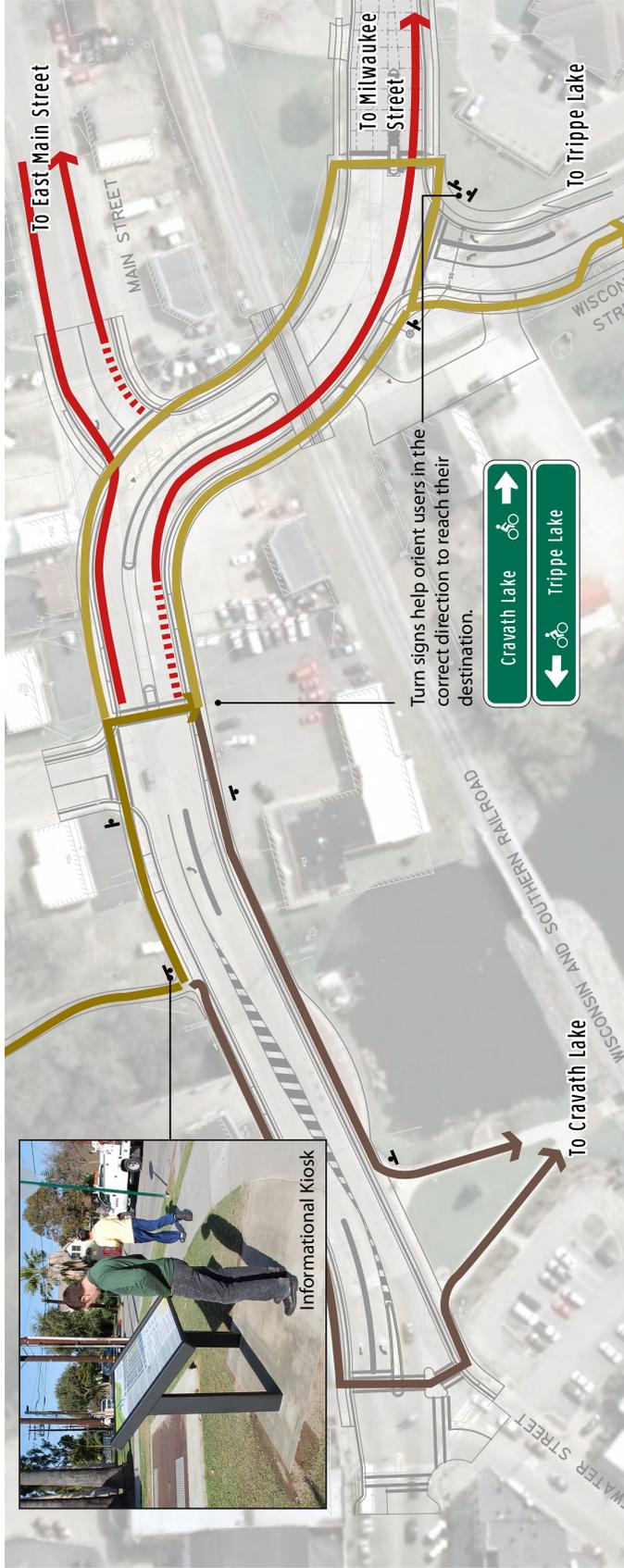
Median refuge island on west side of crossing



Project Sheet: West Main Street Traffic Safety Project

City of Whitewater
Whitewater Bicycle and Pedestrian Plan





Informational Signs: Clear wayfinding and informational signs should direct users onto and off of the path where it joins Main Street. There are many potential routings bicyclists may use to reach destinations, and an informational sign including a map may help users identify the most appropriate route to their destination. Likely routes to the two lakes are described below:

To Cravath Lake: Path users should travel east toward the intersection with Jefferson Street; cross on the marked crosswalk when safe and continue westbound along the south side of Main Street to connect with Cravath lake pathways. Alternatively, users may take the north-side sidewalks to cross at the intersection of Whitewater St.

To Trippe Lake: Path users should cross to the south side of Main Street at the Jefferson street marked crosswalk. Continue along Main street until it becomes Milwaukee Street. Head south on Wisconsin street to connect with the Trippe Lake pathways.

East Gateway Bicycle Circulation

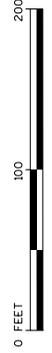
City of Whitewater

Whitewater Bicycle and Pedestrian Plan

Source: Downtown East Gateway: Street Reconstruction Concept, City of Whitewater, 2013.

Author: NE

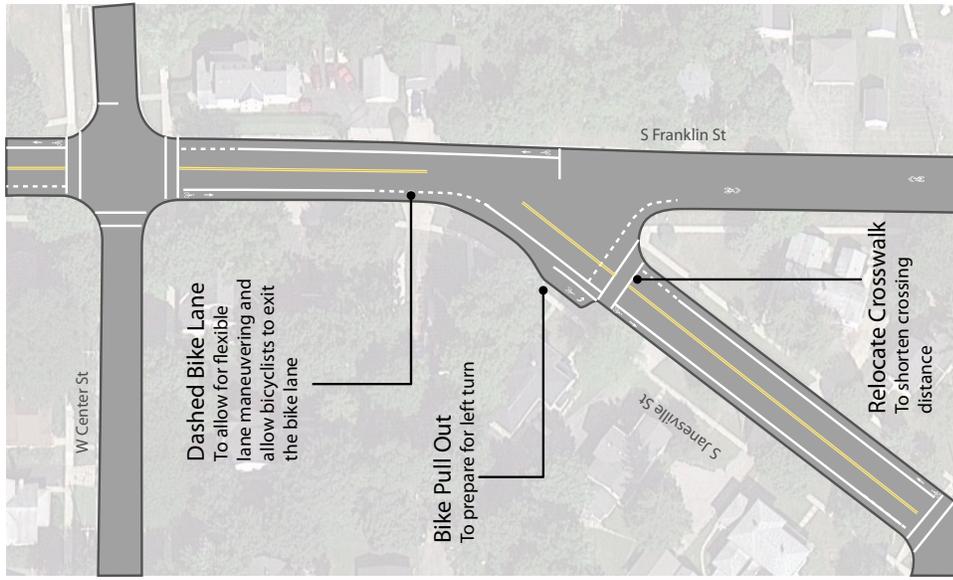
Date: June 2013



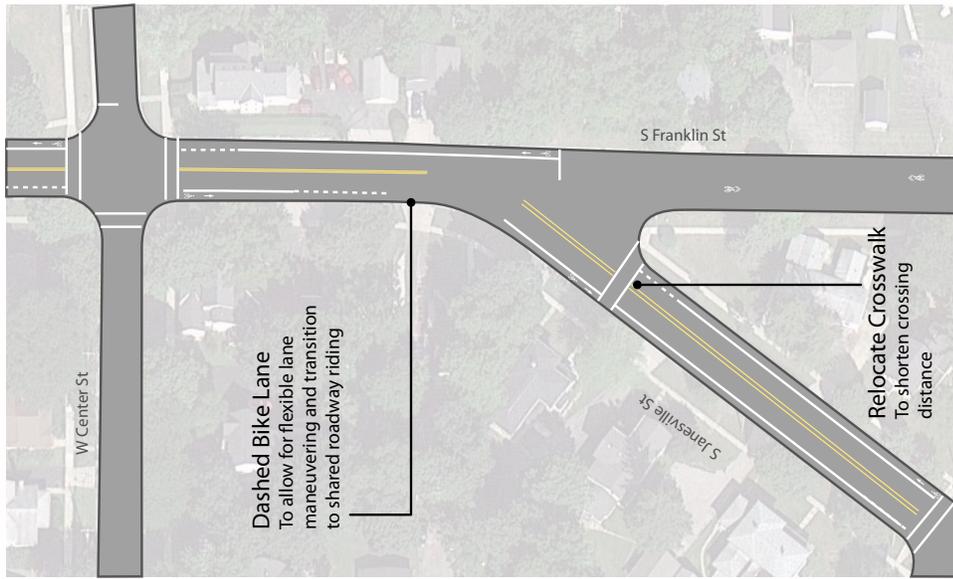
Description:

South Janesville Street intersects with South Franklin Street at an angle from the southwest. Most vehicles traveling south on South Franklin, take the easy right and continue south on South Janesville, most bicyclists however, will wish to cross South Janesville here, and continue south on South Franklin. This plan presents two options to make that movement more comfortable for the bicyclist. In either case, the bicyclist will need to look back at traffic coming from South Franklin, wait for a gap in traffic from behind, then continue south on South Franklin.

Option 2 - Two Stage Turn



Option 1 - Drop Bike Lane



Project Sheet: Intersection of South Franklin Street and South Janesville Street

City of Whitewater
Whitewater Bicycle and Pedestrian Plan
Author: NF
Date: December 2012

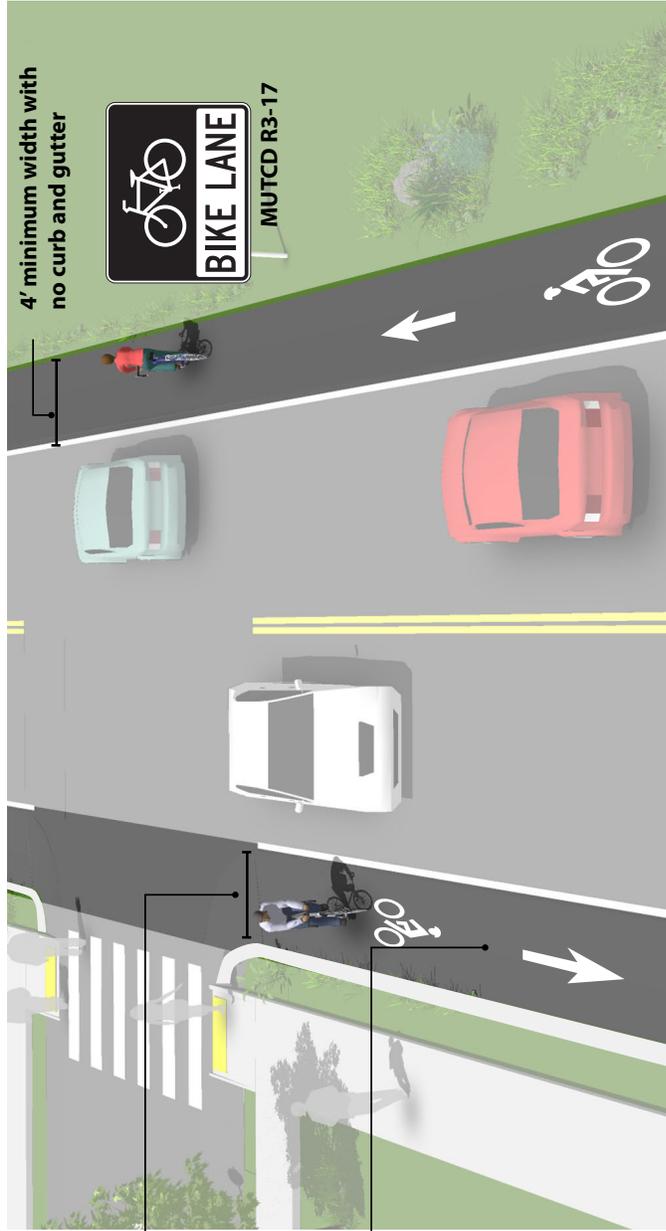


East Main carries traffic volumes and speeds to warrant a separate bicycle lane for safe bicycle travel. Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lanes are located on the right side of the street, between the adjacent travel lane and curb, and is used in the same direction as motor vehicle traffic.

Design considerations:

When adjacent to on-street parallel parking, bicycle lanes should be expanded to up to 7' wide to avoid door zone hazards.

When adjacent to front-in angled parking, consider the use of Shared Lane Markings rather than bicycle lanes to reduce conflict with reversing automobiles.



**Project Length: .62 mi
Medium Term (5-10 Years)**

5' adjacent to curb. 3' minimum rideable surface outside of gutter pan

Bike Lane Marking



East Main Street Bike Lanes (W Main St. to N Newcomb St.)

City of Whitewater
Whitewater Bicycle and Pedestrian Plan

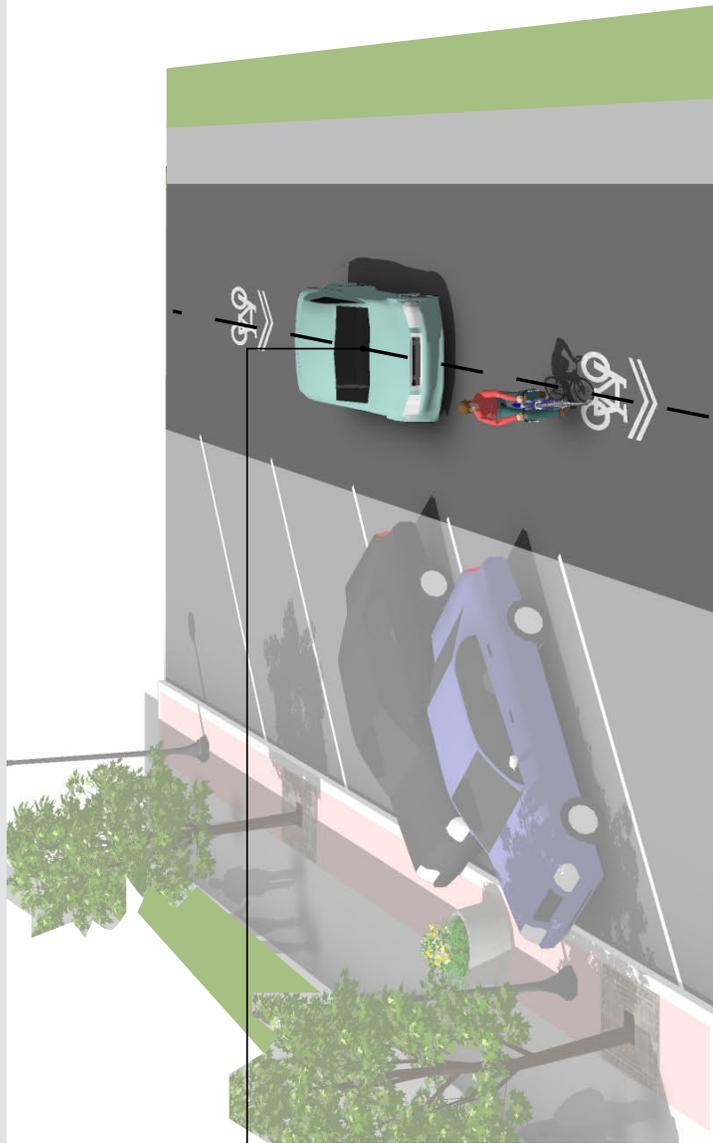
Author: NF
Date: June 2013



North Fonda Street is a narrow, one-way street with front-in angled parking. The best bicycle facility on this street is to provide a shared-roadway marked with Shared Lane Markings. This configuration differs from a neighborhood greenway due to a lack of traffic calming, wayfinding, and other enhancements designed to provide a higher level of comfort for a broad spectrum of users.

Conventional front-in diagonal parking is not compatible or recommended with the provision of bike lanes, as drivers backing out of conventional diagonal parking have limited visibility of approaching bicyclists. Under these conditions, shared lane markings should be used to guide bicyclists away from reversing automobiles.

Project Length: 0.1 mi
Medium Term (5-10 Years)



Place Shared Lane Markings in the center of the roadway to encourage single-file operation.



North Fonda Shared Lane Markings (E Main St. to E. North St.)

City of Whitewater
 Whitewater Bicycle and Pedestrian Plan

Author: NF
 Date: June 2013



North Franklin St. is a local neighborhood street connecting W Main St. to Starin Park. The best bicycle facility to take advantage of the low-stress setting is a neighborhood greenway.

Neighborhood greenways are low-volume, low-speed streets modified to enhance bicyclist by using treatments such as signage, pavement markings, traffic calming and/or traffic reduction, and intersection modifications. These treatments allow through movements of bicyclists while discouraging similar through-trips by non-local motorized traffic.

Potential design features are illustrated below (not all will be appropriate for North Franklin St):

Project Length: .34 mi
Medium Term (5-10 Years)



Signs and Pavement Markings identify the street as a bicycle priority route.

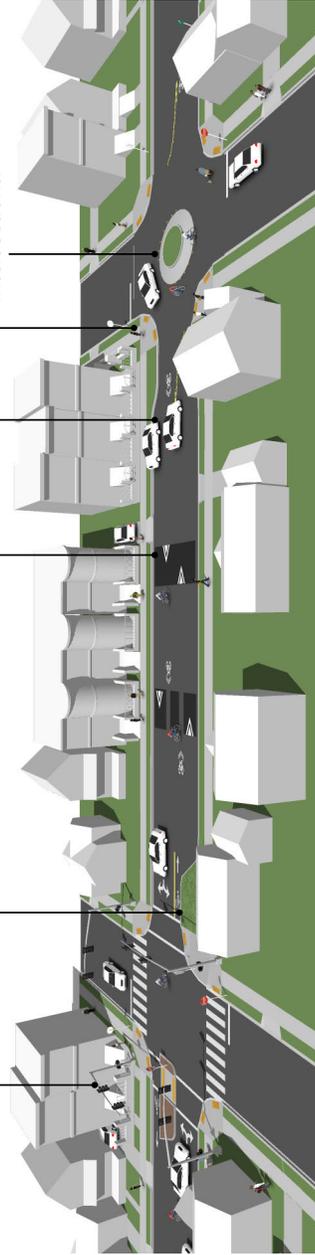
Enhanced Crossings use signals, beacons, and road geometry to increase safety at major intersections.

Partial Closures and other volume management tools limit the number of cars traveling on the bicycle boulevard.

Speed Humps manage driver speed.

Curb Extensions shorten pedestrian crossing distance.

Mini Traffic Circles slow drivers in advance of intersections.



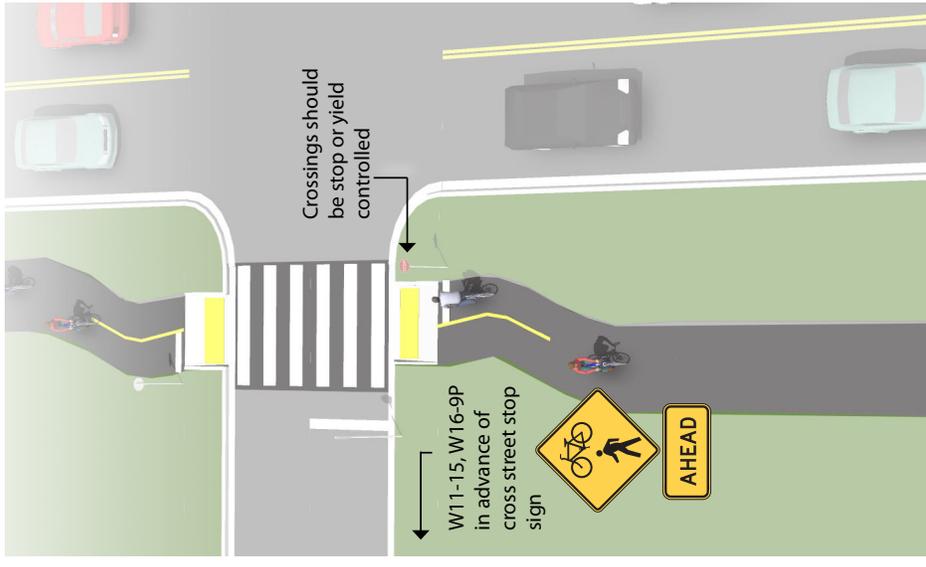
North Franklin Neighborhood Greenway (W Main St. to W Starin St.)

City of Whitewater
 Whitewater Bicycle and Pedestrian Plan



Author: NF
 Date: June 2013

Pay special attention to the entrance/exit of the path as bicyclists may continue to travel on the wrong side of the street.



West Walworth St is a fast street, and extra separation from moving vehicles may improve bicyclist comfort. With relatively no street crossings on the south side of the street, a two-way shared use path is an appropriate bicycle facility at this location. Shared-use paths allow for two-way, off-street bicycle use and also may be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users.

This path will connect to an existing path at Whitewater High School and a proposed bike lanes at Indian Mound Parkway.

Key features of shared use paths include:

- Access points from the local road network.
- Directional signs to direct users to and from the path.
- A limited number of at-grade crossings with streets or driveways.
- Terminating the path where it is easily accessible to and from the street system.

Project Length: .36 mi
Medium Term (5-10 Years)

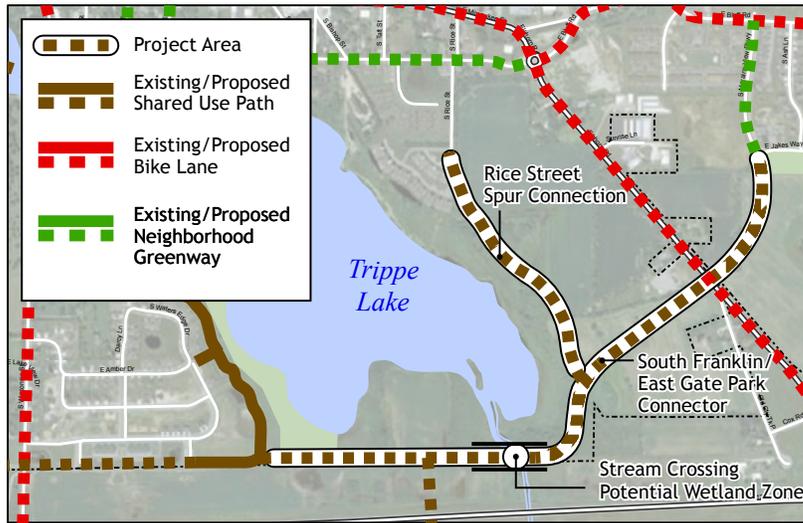


West Walworth Street Shared Use Path (Indian Mound Pkwy. to Whitewater High School)

City of Whitewater
 Whitewater Bicycle and Pedestrian Plan

Author: NF
 Date: June 2013





A shared use path loop around Trippe Lake could serve both transportation and recreational purposes in Whitewater. The project consists of two parts as identified in the Whitewater Bicycle and Pedestrian Plan:

South Franklin Street/East Gate Park Connector (2 miles)

This proposed 2 mile trail will travel parallel the city boundary on the southeast side and connect the proposed neighborhood greenway on South Franklin

Typical Shared Use Path



Typical Boardwalk



to East Gate Park. It will utilize a segment of the existing trail located on the west side of Trippe Lake.

This project will require a stream crossing of Whitewater Creek at the southeast corner of the lake.

Rice Street Spur Connection (0.48 miles)

Spur connection from East Gate Park Trail to S. Rice Street This 0.48 mile path will connect from the proposed trail mentioned above (East Gate Park) to South Rice Street, on the east side of Trippe Lake.

The path alignment close to Trippe Lake brings the potential of traveling through wetland areas. Boardwalk path designs are available to reduce impacts to natural areas such as wetlands, and may be required in environmentally sensitive areas. Cost estimates presented here assume .1 miles of wetland boardwalks.

Shared-Use Path 2.25 mi	\$2,800,000
Boardwalk Segments (.1 mi)*	\$450,000
Stream Crossing (50 ft)	\$900,000
Total	\$4,150,000

*Precise length of boardwalk and stream crossing segments to be determined with further analysis.

These cost opinions were developed based on initial planning-level examples and industry averages. These costs are fully burdened estimates provided in 2013 dollars rounded to the nearest ten thousand and do not include costs for right-of-way acquisition, wayfinding signs or other site-specific costs.

Implementation Phasing: The Whitewater Bicycle and Pedestrian Plan identifies two separate projects to result in the Trippe Lake loop. If construction of the loop is a high priority, it is possible to implement only a portion of the South Franklin Street/East Gate Park Connector project necessary to connect to the Rice Street Spur Connection.

Project Sheet: Trippe Lake Shared Use Path Loop

City of Whitewater
 Whitewater Bicycle and Pedestrian Plan
 Source: Bing Maps
 Author: NF
 Date: May 2013



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Cost Estimates

A project cost for each type of on-street bicycle and trail facility is shown in Table 7-5: Cost Assumptions. These cost opinions were developed based on initial planning-level examples of similarly constructed projects and industry averages. These costs are fully burdened estimates provided in 2012 dollars rounded to the nearest thousand and do not include costs for right-of-way acquisition, wayfinding signs or other site-specific costs.

Table 7-5: Cost Assumptions

Facility Type	Cost Per Mile	Annualized On-Going Costs*	Notes
Shared Lane Markings	\$20,000	\$7,000	Assumes SLM marking every 200' each direction, regulatory signage every 400' each direction. May reduce on-going costs by using thermoplastic markings.
Neighborhood Greenways	\$100,000	\$7,000	Assumes an "Average" treatment, including speed humps, median refuge islands, curb extensions and sidewalk curb ramps as needed along the corridor.
Bike Lane	\$36,000	\$29,000	Assumes striping removal and restriping. Bike lane markings every 800' in both directions. May reduce on-going costs by using thermoplastic markings.
Shared-Use Path	\$1,250,000	Varies***	Assumes 12' path. Estimates do not include ROW acquisition costs; costs for potentially required bridges or retaining walls; or costs for amenities including lighting, benches, bicycle parking, interpretive kiosks, etc.

*Costs include engineering (25%), contingency (15%), and design (20%) allowances.

**Annualized costs assume repainting stripes and pavement markings twice per year.

*** Asphalt paths typically require repaving every 7 – 15 years and concrete pathways every 25

Maintenance Costs

On-street bikeways and trails require regular maintenance and repair. On-street bikeways are typically maintained as part of standard roadway maintenance programs, and extra emphasis should be placed on keeping bike lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility or creeping into the roadway.

Funding Sources

Acquiring funding for projects and programs is considerably more likely if it can be leveraged with a variety of local, state, federal and public and private sources. This section identifies potential matching and major funding sources available for bicycle and trail projects and programs. A detailed description of these funding programs is available in Appendix G: Funding Sources.

Moving Ahead for Progress in the Twenty-First Century (MAP-21)

The largest source of federal funding for bicycle and pedestrian projects is the United States Department of Transportation's (US DOT) Federal-Aid Highway Program, which Congress has reauthorized roughly every six years since the passage of the Federal-Aid Road Act of 1916. The latest act, Moving Ahead for Progress in the Twenty-First Century (MAP-21) was enacted in July 2012 as Public Law 112-141.

BICYCLE AND PEDESTRIAN PLAN

MAP-21 authorizes funding for federal surface transportation programs including highways and transit until September 2014. There are a number of programs identified within MAP-21 that are applicable to bicycle and pedestrian projects. These programs include:

- Transportation Alternatives (TAP)
 - Transportation Alternatives
 - Recreational Trails
 - Safe Routes to School
 - Planning, designing, or constructing roadways within the right-of-way of former Interstate routes or divided highways
- Surface Transportation Program (STP)
- Highway Safety Improvement Program (HSIP)
- Congestion Mitigation/Air Quality Program (CMAQ)
- New Freedom Initiative
- Pilot Transit-Oriented Development Planning

Other Federal Grant Programs

- Partnership for Sustainable Communities
- Community Development Block Grants
- Community Transformation Grants
- Land and Water Conservation Fund
- Rivers, Trails, and Conservation Assistance Program

The City of Whitewater should track federal communications and be prepared to respond proactively to announcements of grant availability.

State Funding Sources

The State of Wisconsin has historically funded bicycle and pedestrian projects above and beyond Federal Transportation Enhancement (TE) dollars through two State grant programs: the Bicycle and Pedestrian Funding Program (BFPF) and the Surface Transportation Program – Discretionary (STP-D). Funding levels and cycles for both programs has been somewhat sporadic since the early 1990s. In 2002 the Surface Transportation Program – Discretionary (STP-D) was dismantled, but the Bicycle and Pedestrian Funding Program (BFPF) still exists.

WisDOT Bicycle and Pedestrian Funding Program (BFPF)

The most recent funding cycle of the BFPF in 2010 provided more than half a million dollars for bicycle and pedestrian planning and design throughout the state. Funding through the program is competitive – a

committee ranks projects and makes funding recommendations to the Wisconsin Department of Transportation Secretary.

All BFPF funds have been awarded through FY 2014. Information on the next BFPF funding cycle will be posted on the WisDOT Bicycle and Pedestrian Facilities Program webpage in 2013: <http://www.dot.wisconsin.gov/localgov/aid/bike-ped-facilities.htm>.

State Recreation Grant Programs

The Wisconsin Department of Natural Resources administers several grant programs that may support bicycle and pedestrian facilities that provide a recreational benefit to the state. Grants are due on May 1st of each year. With the exception of the Recreational Trail Aids program, each program below is part of the Knowles-Nelson Stewardship Program, a fund created by the Wisconsin Legislature in 1989 to “preserve valuable natural areas and wildlife habitat, protect water quality and fisheries, and expand opportunities for outdoor recreation.”

- Acquisition & Development of Local Parks
- Friends of State Lands
- Habitat Area
- Recreational Trail Aids (RTA)
- State Trails
- Urban Green Space
- Urban Rivers

Private Foundations

Private foundations are an increasingly important source of funds for bicycle and pedestrian planning and implementation. For example, planners in Ozaukee County successfully secured a \$10,000 grant from the Bikes Belong Coalition and a \$25,000 grant from the Wisconsin Energy Corporation Foundation to partially fund the Ozaukee Interurban Trail.

To read a case study of the Ozaukee Interurban Trail, visit:

<http://www.bicyclinginfo.org/library/details.cfm?id=4154>

For more information on private foundations, including an extensive list of national foundations visit:

<http://www.foundationcenter.org/>

Table 7-6: Summary of Potential Funding Sources

		Planning Design and/or Construction			
Funding Program		On-Street Pedestrian Facilities	On-Street Bicycle Facilities	Off-Street Shared-Use Paths	Non-Infrastructure Programs
Federal Sources	MAP-21	Transportation Alternatives (TAP)	✓	✓	✓
		Recreational Trails Program (RTP)		✓	
		Safe Routes to School (SRTS)	✓	✓	✓
		Surface Transportation Program (STP)	✓	✓	✓
		Highway Safety Improvement Program (HSIP)	✓	✓	✓
		Congestion Mitigation/Air Quality (CMAQ)	✓	✓	✓
		New Freedom Initiative	✓	✓	✓
		Pilot Transit-Oriented Development (TOD)			
		Partnership for Sustainable Communities	✓	✓	
		Community Development Block Grants (CDBG)	✓		✓
		Community Transformation Grants (CTG)	✓	✓	✓
		Land and Water Conservation Fund (LWCF)		✓	✓
		Rivers, Trails, and Conservation Assistance (RTCA)		✓	✓
State Sources		WisDOT Bicycle and Pedestrian Funding Program (BPPF)	✓	✓	
		Acquisition & Development of Local Parks		✓	
		Friends of State Lands		✓	
		Habitat Area		✓	
		Recreational Trails Aids (RTA)		✓	
		State Trails		✓	
		Urban Green Space		✓	
		Urban Rivers		✓	
		Private Foundations	✓	✓	✓

Appendices

This report references detailed appendix items for additional data and support of Plan recommendations. The following appendices are available:

Appendix A: Best Practices Review of Vision, Goals and Objectives

Appendix B: Plan and Policy Review

Appendix C: Demand Benefits Model

Appendix D: Bicycle and Pedestrian Design Guidelines

Appendix E: Safe Routes to School Audits

Appendix F: West Main Street Safety Project

Appendix G: Funding Sources

The appendices to this plan may be viewed at:

City of Whitewater Parks and Recreation Department

<http://www.whitewater-wi.gov/departments/recreation>

312 W Whitewater Street

Whitewater, WI 53190