Stateline Area Bike and Pedestrian System Plan

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I. INTRODUCTION

A. Intent of the Plan Update

The Stateline Area Transportation Study (SLATS) is the designated Metropolitan Planning Organization (MPO) covering the cities of Beloit and South Beloit, the village of Rockton, and the towns/townships of Turtle, Beloit, and Rockton (Map 1 shows the boundary of the SLATS area). The Township of Roscoe and the Village of Roscoe were included within the SLATS jurisdiction until recently, when the 2000 Census placed most of their area into the RATS (Rockford Area Transportation Study) jurisdiction. Because the Township and Village of Roscoe are so closely linked with the rest of the Stateline communities, they were included within the planning area of this Bike and Pedestrian System Plan.

The SLATS Policy Committee commissioned the first Bicycle and Pedestrian Master Plan for the Stateline Area in 1994. In 2002 and most recently in 2010, the Policy Committee called for an update to this Plan to re-examine the policies and include maps of existing and planned area bicycle and pedestrian facilities. A SLATS Bike and Pedestrian System Plan Technical and Advisory Committee was assembled to guide the 2004 Plan update, composed of community government staff, municipal consultants, and interested members of the public from each of the communities in the Stateline Area. The 2010 process focused on updating Plan maps, the priority recommendation tables, and the cost estimates for first priority recommendations, and was guided by a more ad hoc group of local government representatives and other stakeholders.

The purpose of the updated *Stateline Area Bike and Pedestrian System Plan* is to:

- Outline a strategy for designing and implementing a safe, convenient and comprehensive bicycle and pedestrian circulation network in the Stateline Area;
- Propose an area-wide network of bicycle and pedestrian facilities that links important destinations in the Stateline Area and within participating communities (including schools, parks, libraries, public buildings and similar community facilities, and shopping and employment districts);
- Provide a bicycle and pedestrian movement system and land development and community design recommendations that will encourage and enable people to ride bicycles or walk, rather than rely solely on motor vehicles for day to day trips;
- Connect the Stateline Area with region-wide facilities such as the Rock and Winnebago County bicycle routes and proposed State trails;
- Serve all age groups, bicycling ability levels, pedestrians, and persons with disabilities and special transportation needs. The Plan will incorporate American's with Disabilities Act (ADA) and American Association of State Highway and Transportation Officials (AASHTO) design guidelines and standards in order to meet the special non-motorized transportation needs of all residents and visitors.

Full implementation of the Plan's recommendations will be a long-term effort that will require coordinated actions of the all participating municipalities, including SLATS, participating local governments, Rock and Winnebago Counties, the Wisconsin and Illinois Departments of

Transportation, the Wisconsin and Illinois Departments of Natural Resources, other public agencies, and the private sector.

II. BACKGROUND INFORMATION

A. Overview of Community Development

The location of the Stateline Area's population, jobs and retail opportunities provides a logical framework for where bike and pedestrian facilities are most necessary. The information in this chapter was included in the 2004 Plan but was not updated in the 2010 update.

1. DEMOGRAPHICS

The Stateline Area, as the name implies, straddles the Wisconsin-Illinois State line in south-central Wisconsin and north-central Illinois. Since 1990, the Stateline Area's population has increased by 20.8%, as compared with the 9.2% increase in Rock County and an 8.6% increase in the States of Wisconsin and Illinois

Jurisdiction	1990	2000	Pop. Change	Percent Change
Stateline Area	73,616	89,306	+15,690	21.3%
City of Beloit	35,573	35,775	+202	0.6%
City of South Beloit	4,072	5,397	+1,325	32.5%
Village of Rockton	2,928	5,296	+2,368	80.9%
Village of Roscoe	2,079	6,244	+4,165	200.3%
Town of Beloit	6,778	7,038	+260	3.8%
Township of Rockton	10,423	13,534	+3,111	29.8%
Township of Roscoe	9,309	13,578	+4,269	45.9%
Town of Turtle	2,454	2,444	-10	-0.4%
Rock County	139,510	152,307	+12,797	9.2%
Winnebago County	252,913	278,418	+25,505	10.1%
Wisconsin	4,891,769	5,309,996	+418,227	8.6%
Beloit Urbanized Area*	56,184	56,487	+303	0.5%
Illinois	11,430,602	12,419,293	+988,691	8.6%

*In the 1990 Census, the Beloit Urbanized Area included the Cities of Beloit and South Beloit, the Villages of Roscoe and Rockton, and portions of the Towns/Townships of Turtle, Beloit, Rockton and Roscoe. In 2000, the Village of Roscoe was included in the Rockford Urbanized Area, which accounts for the low population change figure from 1990-2000.

Most population growth has occurred on the south side of the Stateline Area. Rockton, Roscoe, and South Beloit are experiencing significant residential pressure from nearby commercial and industrial development, and from the suburbanization in the area, particularly residents moving from Beloit and Rockford. In general, new residential development has not been provided with sidewalks.

The area's non-residential growth has been dominated by highway-oriented retail development, with some industrial development. The Interstate is the major attractor of non-residential growth. Illinois Highways 2 and 251 connecting to Rockford, and Wisconsin Highways 75/151 connecting to Interstate 39/90 have also attracted new non-residential development. In general,

providing bicycle and pedestrian access to this new development has been secondary to maximizing auto access.

2. TRENDS IN BIKING AND WALKING

An examination of Census data gives some indication of the number of Stateline Area residents who bike and walk to work. According to this data, the area does not support a high level of bicycle trips to work. Bicycle commuter rates have fallen steadily, from 0.80% of all trips to work in 1980, to 0.30% in 1990, and to 0.10% in 2000. Walking is a slightly greater means of commuting to work. The percentage of walking trips to work decreased from 5.7% in 1990 to 3.5% in 2000. The figures for the City of Beloit, where it might be expected that the greatest number people would bike and walk to work, are slightly stronger, especially for walking. The percentage of bicycle trips to work fell from .36% in 1990 to .13% in 2000, and the percentage of pedestrian trips fell from 6.7% on 1990 to 6.1% in 2000.

It is important to remember that the Census data is gathered in March, a time of year in which the weather is often unfavorable for bicycling and walking, particularly for those who bicycle or walk only occasionally to work. Still, the trends suggest a decrease in walking and biking in the Stateline Area as a means of getting to work.

Census figures do not account for bicycle or walking trips for recreation, which are far more difficult to measure. Anecdotal evidence, including demands for more parks, suggests that recreational biking and walking may be steady or increasing. According to the Wisconsin Bicycle Transportation Plan, a University of Wisconsin survey conducted in August of 1998 reported that more than one-third of all Wisconsin households included someone who took at least one bike trip in the previous week.

Census information also does not account for trips taken by children and students. According to the 2000 Census, there were 795 students enrolled in Kindergarten, 7,391 students in elementary school, 3,278 students in high school, and 2,746 students in college or graduate school (most of whom attend Beloit College in downtown Beloit) in the Stateline Area. Many of these students undoubtedly walk or bike to school or classes, and take trips to playgrounds and other non-school activities.

A total of 1,780 households in the Stateline Area do not own a car. Bicycle and pedestrian planning is extremely important when a household does not have access to private transportation. In many cases, these households are poor or elderly or both. Children, the elderly, and households in poverty are most likely to want to use bicycle and pedestrian facilities.

According to the 2000 Census, the number of households living below poverty level is highest in central Beloit. Because those living in or near poverty may not have adequate funds to maintain vehicles or use public transit, it is vitally important to consider bicycle and pedestrian access in this central area.

The falling number of bicycle and pedestrian trips (at least for commuting) fits with the growth patterns of the region. New housing, jobs, and shopping are being developed in relative isolation from each other, requiring the increasing use of vehicles and roads for even short shopping or commuting trips. Residential development density is also falling, with larger lots and smaller household sizes, which extends biking and walking trips.

B. Overview of Natural Resource Base

Connecting natural resource areas and considering use of the environmental corridor system for trails are important components of bike and pedestrian system planning. Environmental corridors are continuous environmentally sensitive areas, generally associated with a water body, and including floodplains and wetlands.

The Rock River is a defining natural feature in the Stateline Area.

The major natural resource areas in the Stateline Area are related to surface water features and forest preserves (often adjacent to water) on the Illinois side. There are four major water features in the area, and numerous smaller creeks and drainageways. These waterways are shown on Map 1. The following is further information about the main waterways:

1. ROCK RIVER

The Rock River unites the Stateline Area, flowing from north to south through the Town of Beloit, City of Beloit, South Beloit, and Rockton. The Rock joins the Pecatonica River in the Village of Rockton, and then continues through Roscoe. The river provides an important physical and natural amenity for communities along its length. Areas along the river have been designated as park and open space, and make suitable locations for bicycle and pedestrian facilities and other recreational opportunities.

2. TURTLE CREEK

Turtle Creek flows southwest from Walworth County through the Town of Turtle and east part of the City of Beloit, eventually joining the Rock River in South Beloit. It is listed by the Wisconsin DNR as an Exceptional Resource Water due to its rocky bottom, good water quality, and the presence of an endangered gravel chub. Some residential development borders the creek, but a large amount of the creek is bordered by Turtle Creek City Park, former agricultural land purchased to buffer flooding of the creek and provide recreational and conservation opportunities.

3. PECATONICA RIVER

The Pecatonica River flows into the Village of Rockton from the west. The river has a very wide floodplain west of the village, making land around it particularly suitable for conservation and some recreational activities. The Macktown Forest Preserve and Macktown Settlement lie just south of the confluence of the rivers, and Millrace Isle Forest Preserve just north of the confluence.

4. KINNIKINNICK CREEK

The North Branch of Kinnikinnick Creek flows into the Village of Roscoe from the northeast, eventually joining the Rock River. The North Branch provides a natural greenway and open space area. The South Branch flows through the Village of Roscoe from the east, eventually joining the Rock River. This Branch also provides a natural greenway and open space.

C. Overview of Transportation Facilities

Major transportation routes in the Stateline Area are shown on Map 1. Nearly all of these are north-south routes. The largest automobile transportation corridor in the area is Interstate 39/90, running from Janesville south to Rockford. Interstate 43 is another major link, running northeast to Milwaukee from the east side of Beloit. Wisconsin Highway 51 runs north-south, linking the area to Janesville to the north. Illinois Highways 2 and 251 link the Beloit and South Beloit areas to Rockton and Roscoe, and further south to Rockford. Biking and walking are not permitted along these routes, and they provide formidable barriers to east-west bike and pedestrian movement.

Several rail corridors traverse the Stateline Area; some are abandoned and are being utilized or considered as pedestrian and bicycle linkages. I.C. & E. Railroad line runs south from Janesville through the area, east of the Rock River. An abandoned rail line is located between Rockton and Freeport, and another between Clinton northeast to Delavan; a portion of this line has been converted into the Pelishek Nature Trail, connecting Clinton to Allens Grove. Another abandoned line is located between South Beloit and Roscoe; the section south of Roscoe has been converted to the Stone Bridge Trail and the Long Prairie Trail, portions of the Grand Illinois Trail System.

D. Existing Bicycle and Pedestrian Planning Framework

The Stateline Area communities have a number of existing plans that will influence the recommendations of the Bicycle and Pedestrian Plan Update:

1. ROCK COUNTY PARK AND OUTDOOR RECREATION PLAN, 2003-2008

In 2003, the Rock County Board of Supervisors adopted this Plan, which contains policies and maps pertaining to bicycle and pedestrian planning. The Rock County Bikeway is a Countywide system of signed bike routes which was funded by the Rock County Board of Supervisors and implemented by the County Planning and Highway Divisions in 1976. This system currently covers 212 miles of low-volume County and town roads, and connects population centers and County parks by a series of six interconnecting loops. The system extends into the Stateline Area in several locations: County Highways K and D through the Town of Beloit into the City of Beloit, County Highway J between Town Line Road and Wis 67 in the Town of Turtle, and County Highways S and P from the City of Beloit into the Town of Turtle. Creek Road and Patrick Road north out of Beloit are also shown as existing bicycle routes.

These bike routes were designated in 1976. Since that time, automobile traffic has increased on many of the routes, potentially rendering them less suitable for bicycle travel than they were at the time of designation. The Plan recommends adding paved shoulders on these routes where they are not present, to allow for safe biking.

2. TOWN OF BELOIT MASTER PLAN (1997)

The Town of Beloit Master Plan includes pedestrian/bikeway recommendations and a Park and Trail Plan Map. Off-street paths in the Town are currently located only within Town parks, and most streets do not have sidewalks. The Plan recommends installing paved shoulders, sidewalks or off-street paths on several streets, and requiring new subdivisions to install sidewalks or alternative off-street paths. The Plan recommends developing a safe and cost-effective pedestrian and bikeway system to connect existing residential neighborhoods, schools, parks, and the regional trail system. The Plan also recommends building cooperative relationships with the City of Beloit, Rock County, the Wisconsin DNR, and nonprofit groups such as the Rock Trail Coalition to achieve these recommendations.

3. CITY OF BELOIT PARKS AND OPEN SPACE PLAN (2001-2005)

In 2000 the City of Beloit prepared a Plan for Open Space and Recreation. The plan provides an inventory of existing parkland and open space, with numerous recommendations for future acquisition and dedication of parks and open space. The Plan does not directly address bicycle and pedestrian travel. This plan was updated in 2006.

4. ROSCOE AREA BICYCLE PATH AND OVERALL LOCATION PLAN MAP (2000)

The Village of Roscoe is very involved in planning new bicycle and pedestrian facilities, and expanding opportunities for snowmobiling in northern Illinois. All aggregate surfaced trails will be used for bikes, pedestrians, and snowmobiles; while asphalt surfaced paths will be used only for bikes and pedestrians. The trails and paths provide safe off-road access for users throughout the Village and under Highway 251 and Elevator Road. The Bicycle Path and Overall Location Plan map shows planned paths and trails, as well as off- and on-street improvements.

5. VILLAGE OF ROCKTON COMPREHENSIVE PLAN (2001)

The Comprehensive Plan stresses the importance of bicycle and pedestrian facilities for a small Village like Rockton, where uses are often within walking distance of one another and schools are such an important part of the community. The Plan recommends establishing bicycle routes and paths throughout the Village to connect neighborhoods with schools, parks, and shopping. Routes should be identified with appropriate signs, and connected to a regional bikeway system. The Plan also recommends requiring all new projects to accommodate pedestrians, bicyclists, through use of sidewalks, paths, and other pedestrian amenities. Sidewalks should be provided on both sides of all arterial and collector streets; both sides of key routes to schools, parks, and other key community facilities; and at least one side of all other local streets.

6. CITY OF BELOIT COMPREHENSIVE PLAN (1996)

The City of Beloit Comprehensive Plan recommends enhancing pedestrian corridors and coordinating bicycle/pedestrian path development with roadway improvements and offering alternative transportation systems to the automobile. The Plan emphasizes strong pedestrian linkages in most land use categories.

The Plan recognizes the Town of Beloit's recommendation to provide trail connection on the west side of the Rock River, from Pride Park to Big Hill Park, ultimately connecting to the statewide Ice Age Trail.

This plan was updated in 2009.

7. BOONE AND WINNEBAGO REGIONAL GREENWAYS PLAN (1997)

This Plan identifies existing and planned trails, and parks and recreational paths, and identifies priority projects in the two counties. The development of a continuous greenway along the Rock River in rural areas and to the extent possible in developed areas is listed as a priority project,

8. WISCONSIN PEDESTRIAN POLICY PLAN 2020 (2002)

The Wisconsin Pedestrian Policy Plan 2020 provides a policy framework for statewide pedestrian goals and objectives, identifies what the Wisconsin Department of Transportation and others will do to achieve these goals and objectives, and identifies ways for local officials to address pedestrian needs on local roads and streets.

9. WISCONSIN BICYCLE TRANSPORTATION PLAN 2020 (1998)

The Wisconsin Bicycle Transportation Plan 2020 presents a blueprint for improving conditions for bicycling, clarifies the Wisconsin Department of Transportation's role in bicycle transportation, and establishes policies for further integration of bicycling into the current transportation system. The Plan map shows existing State trails and future priority corridors and key linkages for bicycling along the State Trunk Highway system in Wisconsin. No routes within the Stateline Area are identified as State trails, priority corridors, or key linkages.

10. WISCONSIN STATE TRAILS NETWORK PLAN (2001)

The State Trail Network Plan provides a long-term vision for establishing a comprehensive trail network for Wisconsin. It identifies existing and proposed trails and connections that would serve as the main corridors for a statewide trail system. The Plan does not include every trail in the State, focusing instead on the major arteries. It focuses mainly on abandoned rail corridors, utility corridors, critical road connections and natural feature corridors such as the Ice Age National and State Scenic Trail that link places where people live and play, natural resource features, public lands and interstate connections.

Within the Stateline Area, the Rock River is recognized as a major natural resource corridor with trail potential. The 60-mile proposed trail corridor runs from Watertown to Beloit, and intersects the Glacial Drumlin trail east of Lake Mills. The trail has bi-State connection potential.

Several State trails are located outside the Stateline Area, providing opportunities for regional linkages. The Sugar River Trail runs 23 miles from New Glarus to Brodhead, northwest of the Stateline Area. The Glacial Drumlin Trail runs 51 miles from Waukesha to Cottage Grove, north of the Stateline Area. The southernmost portion of the Ice Age Trail (which is not designated for bike use) runs just north of Janesville. Linking the Stateline Area to these trails should be a focus of trail planning.

11. NORTH ROCK OPEN SPACES PLAN (2002)

This Plan, prepared by the Winnebago Forest Preserve District and the Upper Rock River Partnership, indicates routes are planned for the area along the upper reaches of the Rock River, including portions of South Beloit, Rockton, and Roscoe. The objective is to create a system of paths linking population centers, schools, parks, and other destinations along the Rock River Corridor. The paths shown in the Plan are taken from adopted plans of area jurisdictions.

12. ILLINOIS STATE TRAILS PLAN/GRAND ILLINOIS TRAIL (1995)

The Grand Illinois Trail is a planned 535 mile-long system of on and off-road trails that forms a ring around the perimeter of northern Illinois. The trail runs along the Mississippi River on the west, Lake Michigan on the east, follows a portion of the Pecatonica River on the north, and a portion of the Illinois River and Hennepin Canal on the south. The Grand Trail concept was conceived in the 1990's, with the Illinois Department of Transportation's suggestion of a framework to connect a number of small trails existing or planned for the future. Many local partners are involved in the Grand Illinois Trail. Many proposed off-road trails have yet to be completed, and many on-road portions are yet to be designated, though is possible to ride the entire route on existing trails, roads, and streets. The Stateline Area is connected to the trail system through several existing and planned routes.

13. SLATS TRANSPORTATION IMPROVEMENT PROGRAM 2003-2008 (2002)

The Transportation Improvement Program (TIP) provides the mechanism to list projects for federal funding. This program is the result of a comprehensive and continuing urban transportation planning process within the Stateline Area. The goal is to develop a program of short-and mid-range improvements to provide a balanced transportation system for the area. The TIP is updated annually to address needs and adjust plans accordingly. Included in the most recent TIP are improvements to I-90, Cranston Road, Hart Road, Henry Avenue, Union Street, Illinois Hwy 75, and the Newark Bridge, as well as extensions to Gardner Street, Gateway Boulevard, and Willowbrook Road.

III. REGIONAL BIKING AND WALKING SUITABILITY ANALYSIS

A. Bicycle and Pedestrian Trip Destinations

Connecting parks and recreational facilities, downtowns, libraries and schools to each other and the population is a central component of bicycle and pedestrian planning. The following is a summary of key trip destinations in the Stateline Area.

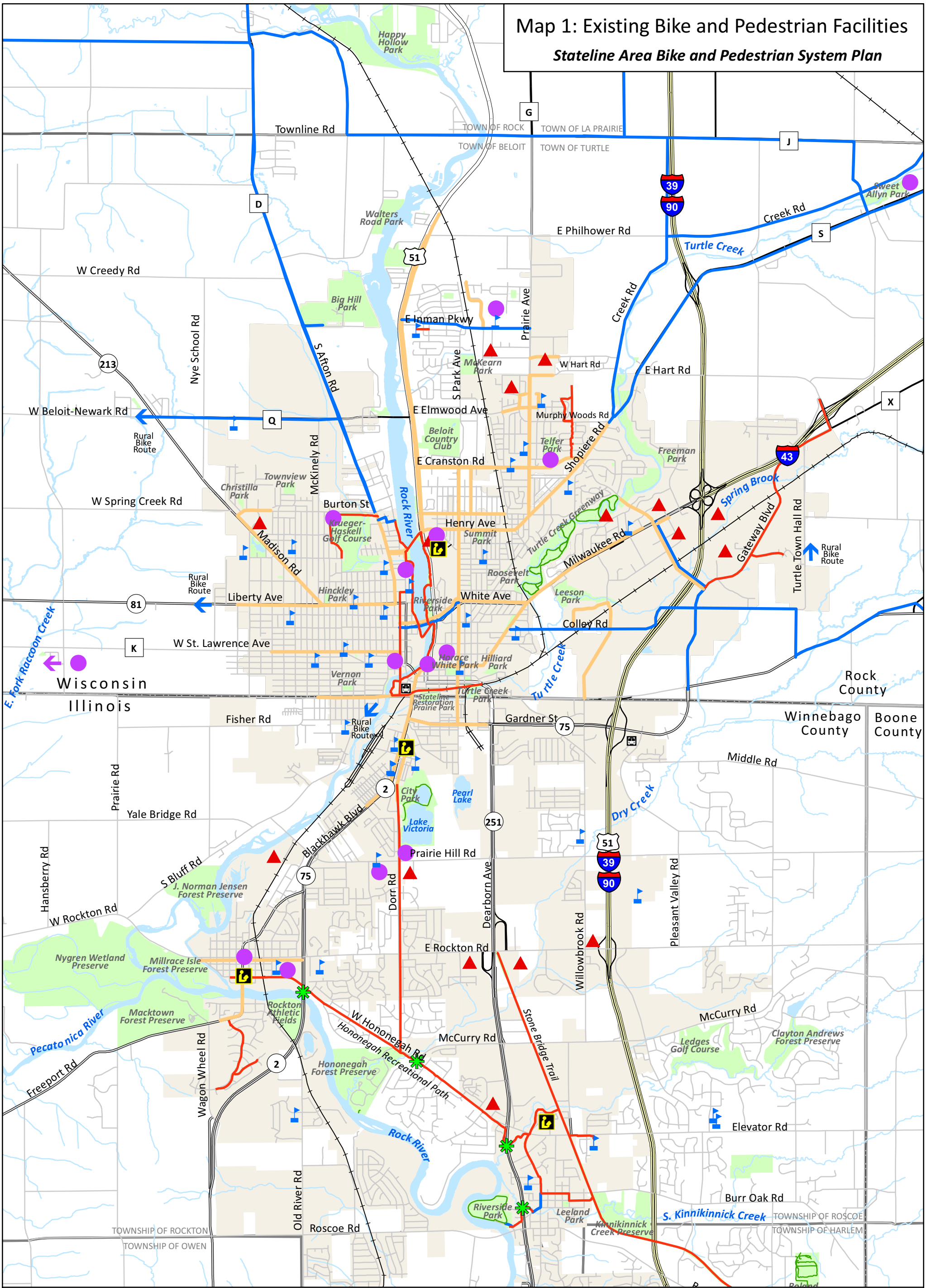
1. MAJOR PARKS, NATURAL AND RECREATIONAL AREAS

Parks and other recreational facilities are important trip destinations for many bicyclists and pedestrians—bicycling enthusiasts, joggers, nature lovers, and families. Some of the following area parks and are labeled on Map 1.

Park or Natural Area	Location
1. Happy Hollow Park	Town of Rock, Rock County
2. Preservation Park	Town of Beloit, Rock County
3. Big Hill Park	City of Beloit
4. McKearn Park	Town of Beloit, Rock County
5. Sweet Allyn Park	Town of Turtle, Rock County
6. Armstrong-Eddy Park	Town of Beloit, Rock County
7. Telfer Park	City of Beloit
8. Freeman Park	City of Beloit
9. Turtle Creek Natural Area	City of Beloit, Town of Turtle
10. Roosevelt Park	City of Beloit
11. Leeson Park	City of Beloit
12. Krueger Recreation Area & Golf Course	City of Beloit
13. Wooten Park	City of Beloit
14. Riverside Park	City of Beloit
15. Hancock Field	City of Beloit
16. Rockton Bog Nature Preserve	Rockton Township, Winnebago County
17. City Park	City of South Beloit
18. Nygren Wetlands	Rockton Township, Winnebago County
19. Millrace Isle Forest Preserve	Rockton Township, Winnebago County
20. Macktown Forest Preserve	Rockton Township, Winnebago County
21. Hononegah Forest Preserve	Rockton Township, Winnebago County
22. Riverside Park	Village of Roscoe
23. Kin-Stone Park	Village of Roscoe
24. Ledges Forest Preserve and Golf Course	Roscoe Township, Winnebago County
25. Leland Park	Village of Roscoe
26. Player's Park	Village of Roscoe
27. Porter Park Nature Learning Center	Village of Roscoe
28. Roland Olson Forest Preserve	Roscoe Township, Winnebago County
29. Kinnikinnick Conservation Area	Roscoe Township, Winnebago County

Map 1: Existing Bike and Pedestrian Facilities

Stateline Area Bike and Pedestrian System Plan



County Boundaries
Town & Township Boundaries
Cities & Villages
Surface Water

Interstate Highway
United States Highway
State Highway
County Highway
Local Roads
Railroads

Existing Bicycle & Pedestrian Facilities

Existing Bicycle/Pedestrian Under/Overpass
Off-Road Path
On-Road Bike Lane, Shoulder, or Route
Sidewalks along Primary Roads
Park Trails

Bicycle & Pedestrian Trip Destinations

Schools
Libraries
Stateline Area Major Attraction
Shopping & Employment Centers
Multimodal Transit Facility
Parks & Open Space

Date: 12/31/2010

Note: Within Winnebago County, bicycle use is a permitted use only on any existing or proposed bicycle paths, except where otherwise explicitly authorized by Winnebago County.

Source: WinGIS, Rock County, City of Beloit, V&A

0 0.5 1 2 Miles

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Shaping places, shaping change

2. PUBLIC LIBRARIES

Libraries are an important community resource, particularly for children, young adults, and the elderly, who often bicycle or walk to get around. The following public libraries are shown on Map 1.

Library	Location
Beloit Public Library	409 Pleasant St., Beloit
Talcott Free Library	101 E. Main St., Rockton
North Suburban Library-Roscoe	5562 Clayton Cir., Roscoe
South Beloit Public Library	630 Blackhawk Blvd., South Beloit

3. PUBLIC SCHOOLS

The Stateline Area contains six school districts: Beloit, Turner (Beloit), Hononegah (Rockton), Rockton, South Beloit, and Kinnikinnick (Roscoe). The schools in each district are listed below, and also are shown on Map 1. Beloit College, a private four-year college with an enrollment of about 1,100, is located near downtown Beloit.

Beloit School District		**Rockton School District**	
Kolak Education Center	1633 Keeler Ave.	Rockton Grade School	1050 E. Union
Beloit Memorial High	1225 4th St.	Whitman Post Elementary	1060 E. Union
Aldrich Middle School	1859 Northgate Dr.	Stephen Mack Middle School	11810 Old River Rd.
McNeel Middle School	1524 Frederick St.		
Burdge Elementary School	321 Olympian Blvd.	**South Beloit School District**	
Converse Elementary	1602 Townline Ave.	South Beloit High School	840 Blackhawk Blvd.
Cunningham Elementary	910 Townline Ave.	South Beloit Jr. High	840 Blackhawk Blvd.
Gaston Elementary	610 McKinley	Riverview Elementary School	306 Miller St.
Hackett Elementary	533 W. Grand Ave.	Clark Elementary	464 Oak Grove Ave.
McLenegan Elementary	2639 Sunshine Lane		
Merrill Elementary	1333 Copeland Ave.	**Kinnikinnick School District**	
Morgan Elementary	1811 Lee Lane	Ledgewood	11685 South Gate Rd.
Robinson Elementary	1801 Cranston Rd.	Stone Creek	11633 South Gate Rd.
Royce Elementary	825 Liberty Ave.	Kinnikinnick	5410 Pine Lane
Todd Elementary	1621 Oakwood Ave.	Roscoe Middle School	6121 Elevator Rd.
Wright Elementary	1033 Woodward Ave.		
		Hononegah School District	
Turner School District		Hononegah Community High School	307 Salem St.
F.J. Turner High School	1231 Inman Parkway		
Turner Middle School	1237 Inman Parkway		
Town View Elementary	2442 W. Beloit Newark Rd.		
Powers Elementary	620 Hillside Dr.		

4. DOWNTOWN AREAS AND RIVERFRONTS

Traditionally, the downtown was a city or village's main shopping and activity. Beloit, South Beloit, Rockton, and Roscoe retain concentrations of commercial uses in their older areas, which remain oriented to bicycle and pedestrian traffic, and are close to residential neighborhoods. These communities also possess valuable riverfront, which is being used as parks, open spaces,

trails, and riverfront commercial or residential development to draw people back to the historic center. These areas are labeled as "Historic Downtowns" on Map 1.

5. OTHER SHOPPING AND EMPLOYMENT CENTERS

These centers are shown on Map 1. As previously stated, shopping and employment centers are often developed far away from residential neighborhoods, decreasing the ability to commute by bike or on foot. These centers also tend to concentrate near the major auto transportation corridors. On the northeast side of the Stateline Area, shopping and employment centers are found near the intersection of I-39/90 and Milwaukee Road, along Prairie Avenue from Cranston to West Hart Road, and on the west side of the City on Wis 213. In the south part of the Stateline Area, they are found in several locations along the State Highway 251 corridor.

B. Bicycle and Pedestrian Trip Generators

Residential neighborhoods, particularly in Beloit, South Beloit, Roscoe and Rockton, are major regional generators of bicycle traffic within and through the Stateline Area. Major residential neighborhoods in Beloit are on the north, west, and east, and also in the central area. Large and growing residential concentrations are located on the south and east sides of South Beloit, the east and south sides of Rockton, and the north, east, west and south sides of Roscoe. These major residential areas are often physically detached from destinations, and poorly served by sidewalks, paths, or bike facilities.

C. Barriers for Bicycles and Pedestrians

Barriers for bicycles and pedestrians include both a lack of facilities and unsafe facilities. Where sidewalks do not exist, it is difficult for pedestrians to access necessary services. Streets with a great deal of vehicle traffic, particularly those that are narrow, pose a danger to on-street cycling. Lack of safe pedestrian or bicycle crossings of busy streets also poses significant danger. Some of the major roadways that interfere with bicycle and pedestrian traffic include Illinois Highways 2, 75, and 251, U.S. Highway 51, and Wisconsin Highways 81 and 213. Interstate 39/90 and Interstate 43, the largest roadways in the area, also form barriers to bicycling and pedestrian travel. The Interstates themselves are grade separated and access controlled. The facilities that cross over or under them are not always safe or suitable for bicycle and pedestrian traffic, and making improvements to these crossings is not always possible without major work. The Interstates also may pose a *psychological* barrier for bicyclists and pedestrians.

Rivers (particularly the Rock River), creeks, and railroad tracks also pose a barrier to bicycles and pedestrians. Separate bicycle and pedestrian crossing facilities are not often provided, and auto intersections can be difficult or dangerous on bike or on foot. It is noteworthy that the most significant barriers for bicycle and pedestrian travel in the area, such as the Rock River and Interstate, are oriented in a north-south direction.

D. Bicycle and Pedestrian Facility System

1. DEFINITIONS

The American Association of Highway and Transportation Officials' (AASHTO) *Guide for the Development of Bicycle Facilities* and the Federal Highway Administration's (FHWA) manual *Selecting*

Roadway Design Treatments to Accommodate Bicycles provide the following general definitions of types of improvements. The following definitions were derived from these sources, and form the basis for the symbols on Map 1, and recommendations that follow in Section VI.

a. **Bicycle Lane:** A portion of urban cross-section (curbed) roads that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

b. **Paved Shoulder:** On-street facility on rural cross-section (shoulder and pitch) roads with additional pavement outside of the travel lanes for the use of bicyclists, separated from the travel lanes by a stripe.

c. **Signed Bicycle Route:** A segment of a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational markers, with or without a specific bicycle route number. An on-road route may or may not have a bicycle lane or paved shoulder.

d. **Multi-use Paths:** Facility separated from a roadway and intended for multiple non-motorized user types, such as bikes and pedestrians. Paths may be surfaced with asphalt paving or crushed gravel, depending on their function and location. Non-asphalt surfaced paths may also be used by snowmobiles.

e. **Sidewalk or Walkway:** Off-street facility intended for pedestrian use only. Surface is generally concrete. As used in this Plan, a "sidewalk" is located along a roadway, while a "walkway" is not associated with any roadway.

f. **Bike and Pedestrian Over/Underpass:** A bridge above or tunnel below a major roadway that is designed to facilitate bike and pedestrian traffic without an at-grade roadway crossing.

2. EXISTING FACILITIES

Map 1 shows the existing bicycle and pedestrian facilities in the Stateline Area. The facilities are also listed below, by jurisdiction:

a. **Rock County:** Rock County bike facilities in the Town of Turtle include designated (but not signed) bike routes along Creek Road, Townline Road, and County Highways J and S. Existing County bike facilities in the Town of Beloit include a bike route on County Highway K (St. Lawrence Avenue), which enters Beloit from the west, and a route on County Highway D (Afton Road), which enters Beloit from the north.

b. **City of Beloit:** The City of Beloit has steadily worked to increase the number of pedestrian and bicycle accommodations. Most primary streets in the City have sidewalks on at least one side of the street. One key area where sidewalk connections are lacking is the portion of Cranston Road between County Highway S and the Turtle Creek Floodplain. The City also has a multi-use paved path loop along the Rock River north of downtown, and along the Fifth Street corridor between Middle Street and Grand Avenue. Streets with on-street bicycle lanes or shoulders include Afton Road, Gateway Boulevard and Cranston Road, east of Milwaukee Road.

c. **Winnebago County:** Existing bicycle and pedestrian facilities within the Stateline Area in unincorporated parts of Winnebago County include the Hononegah Recreational Path and the Stone Bridge Trail.

d. **City of South Beloit:** The City of South Beloit currently has sidewalks on at least one side of most primary streets. Other existing facilities include an off-street path around the north

end of Victoria Lake and a path along Dorr Road from City Park to the Hononegah Recreational Path in Rockton.

e. **Village of Rockton:** The central portion of the Village of Rockton has a system of sidewalks to provide for pedestrian and bicycle travel, but some gaps exist. Newer areas of the Village have not been provided with sidewalks, and primary roads still include rural cross sections, making bicycle and pedestrian travel between newer and older areas of the Village difficult. There are some existing on-street Village bike lanes in neighborhoods south of the Village center. The major bicycle and pedestrian facility is the Hononegah Recreational Path, an off-street path that runs along Hononegah Road from the Village center southeast to Roscoe.

f. **Village of Roscoe:** The Village of Roscoe currently has two major bicycle and pedestrian facilities. The Hononegah Recreational Path (paved) enters the Village from the northwest, connecting Roscoe with Rockton; the Kin-Wood Path continues this Path through Roscoe. The Stone Bridge Trail (aggregate) is located on the east side of the Village, and is aligned northwest to southeast. The improved portion of the trail ends at McCurry Road on the north, and is aligned southeast out of the village, connecting with the Long Prairie Trail at the County line. This connection ties the Village, Roscoe Township, and the entire Stateline Area, into the Grand Illinois Trail system of northern Illinois.

E. Suitability of Existing Road System

This section includes an analysis of the suitability of existing roads and intersections within the Stateline Area for biking and walking. Some of these may serve as potential bike routes in the future, and do today serve as informal routes where suitable.

1. BICYCLE COMPATIBILITY INDEX

Determining how existing traffic operations and geometric conditions impact a bicyclist's decision to use or not use a specific roadway is the first step in determining the bicycle compatibility of the roadway. The Bicycle Compatibility Index (BCI) was created to help bicycle coordinators, transportation planners, traffic engineers and others to evaluate existing facilities in order to determine what improvements may be required and the geometric and operational requirements for new facilities to achieve the desired level of bicycle service.

The index uses eight variables to determine the bicycle compatibility of a roadway. The variable is determined by factors such as the presence of a bike lane or paved shoulder, the speed of traffic on the roadway, the type of development on the roadside, and the amount of truck traffic. The data for each segment of a roadway are input into the BCI model and each segment is given a rating. The rating is used to determine the level of service for bicycling on each roadway, with "A" denoting an extremely high level of compatibility and "E" an extremely low level of compatibility.

2. ROADWAY BICYCLE COMPATIBILITY RESULTS (MAP 2)

Data for road segments for the Wisconsin portion of the Stateline Area were input into the BCI model to calculate their bicycle compatibility. Bicycle compatibility on these roads ranged from B (very high) to E (very low). Map 2 gives a complete view of the roads that were analyzed. Map 2 also includes an additional category, "Bicycles Prohibited or Not Recommended", to designated roads where biking is not advisable under any conditions. Date for road segments in

the Illinois portion of the Stateline Area was not readily available. The compatibility of the roads in Illinois was determined using the suitability guidelines in the Illinois Official Bicycle Map. In this system, roads are rated as "most suitable", "caution advised", or "not recommended." Map 2 shows "most suitable" roads with a B rating, and "caution advised" roads with a D rating. Many rural road segments in both Wisconsin and Illinois are unrated, because of incomplete data. Many of these rural road segments should be considered appropriate for bicycling.

The results of the BCI analysis were reviewed by the SLATS Bike and Pedestrian System Plan Technical and Advisory Committee, the 2010 ad hoc group, and by the public and other stakeholders. The compatibility of some roads was adjusted to reflect the Committee's and the local publics specific views about the safety of area roadways. The resulting ratings do not reflect the compatibility rating for all bicyclists. Experienced bicyclists will probably find these roads quite suitable, while inexperienced bicyclists and children may find some of them less suitable than the rating on Map 2 implies.

In the Stateline Area, roadways where bicycles are prohibited or not recommended include Interstates 39/90 and 43, State Highways 2 and 251, Hononegah Road, Blackhawk Boulevard, and portions of Rockton Road, and Prairie Hill Road. Dorr Road, Wis 213, Gardner Avenue., and portions of Riverside Drive, Rockton Road, and Prairie Hill Road were all rated "Very Low".

F. Regional Connections (shown on Map 3)

The Stateline Area bike and pedestrian facilities do not exist in a vacuum. One of the priorities of this Plan is to ensure connections with other regional facilities. Map 3 gives a visual representation of the larger regional facilities in relation to the Stateline system.

The Ice Age Trail and the Grand Illinois Trail are the largest trail corridors shown on Map 3. These trails are described in more detail in Section II of this Plan. The Rock River Corridor trail concept links the Stateline area to both of these larger trail corridors, running north to Janesville and the Ice Age Trail and Highway 26 Corridors, and south to Rockford and the Pecatonica Prairie Path, part of the Grand Illinois Trail. Another existing link to the Grand Illinois Trail is provided through the Stone Bridge Trail and Long Prairie Trail.

Several potential trail corridors connect in other directions. A trail along Turtle Creek would connect the Stateline area to the Pelishek Nature Trail. Potential linkages on the west side include a connection along WIS 213 to the northwest, and along the Pecatonica River to the west.

Also shown on Map 3 are major regional attractions, and "rural access routes", which are the roads most frequently used by bicyclists to gain access from the Stateline area to rural riding.

Map 2: Bicycle Compatibility of Existing Roadways

(intended for experienced cyclists only)

Stateline Area Bike and Pedestrian System Plan

Townline Rd
TOWN OF ROCK
TOWN OF BELOIT
TOWN OF LA PRAIRIE
TOWN OF TURTLE
G
J
D
39
90
E Philhower Rd
Creek Rd
S
Turtle Creek
51
W Creedy Rd
E Inman Pkwy
Prairie Ave
Creek Rd
213
Nye School Rd
S Afton Rd
S Park Ave
W Hart Rd
E Hart Rd
X
W Beloit-Newark Rd
Q
E Elmwood Ave
Murphy Woods Rd
McKinely Rd
E Cranston Rd
Shopiere Rd
43
Spring Brook
W Spring Creek Rd
Burton St
Rock River
Henry Ave
Madison Rd
Milwaukee Rd
Gateway Blvd
Turtle Town Hall Rd
81
Liberty Ave
White Ave
Colley Rd
E. Fork Raccoon Creek
K
W St. Lawrence Ave
Wisconsin
Illinois
Turtle Creek
Rock County
Winnebago County
Boone County
Fisher Rd
Gardner St
75
Middle Rd
Prairie Rd
2
Pearl Lake
Lake Victoria
Yale Bridge Rd
Blackhawk Blvd
251
Dry Creek
51
39
90
Hansberry Rd
S Bluff Rd
Prairie Hill Rd
75
Dorr Rd
Dearborn Ave
Willowbrook Rd
Pleasant Valley Rd
W Rockton Rd
E Rockton Rd
McCurry Rd
W Hononegah Rd
McCurry Rd
Pecatonica River
Freeport Rd
Wagon Wheel Rd
2
Rock River
Elevator Rd
Old River Rd
Burr Oak Rd
S. Kinnikinnick Creek
TOWNSHIP OF ROSCOE
TOWNSHIP OF HARLEM
TOWNSHIP OF ROCKTON
TOWNSHIP OF OWEN
Roscoe Rd
Belvidere

County Boundaries
Town & Township Boundaries
Cities & Villages
Surface Water

Interstate Highway
United States Highway
State Highway
County Highway
Local Roads
Railroads

Bicycle/Pedestrian Hazard Areas

Bicycle Compatibility Level (Intended for experienced cyclists only)

- B - Very High/IDOT "Most Suitable"
- C - Moderately High
- D - Moderately Low/IDOT "Caution Advised"
- E - Very Low
- Bicycles Prohibited or Not Recommended

Most local roadways are also suitable for bicycling.

Note: Within Winnebago County, bicycle use is a permitted use only on any existing or proposed bicycle paths, except where otherwise explicitly authorized by Winnebago County.

Date: 12/31/2010

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

N

0 0.5 1 2 Miles

Source: WinGIS, Rock County, City of Beloit, V&A, IDOT, WIDOT

Map 3: Regional Connections Concept

Stateline Area Bike and Pedestrian System Plan

Evansville
Milton
Janesville
Footville
Orfordville
ROCK COUNTY
Afton
Shopiere
Clinton
Beloit
Sharon
South Beloit
Rockton
Roscoe
Durand
WINNEBAGO COUNTY
Machesney Park
Poplar Grove
Capron
BOONE COUNTY
Winnebago
Rockford
Belvidere
Byron

Ice Age Trail Corridor
Highway 26 Trail
Rock River Corridor
Potential Northwest Connection
Pelishek Natural Trail
Turtle Creek Trail (Potential)
Long Range Connection
Pecatonica River
Long Prairie Trail
Pecatonica Prairie Path
Grand Illinois Trail
Grand Illinois Trail Corridor

- Riverside Park
- Palmer/Blackhawk Park System

UW-Rock County Extension
Happy Hollow Park
Blackhawk Tech
Big Hill Park
Sweet Allyn Park
Beckman Mill Park
Sugar River Forest Preserve
Nygren Wetlands & Macktown Forest Preserve
Hononegah Forest Preserve
Rock Cut Park

Afton Rd
Read Rd
Patrick Rd
Shopiere Rd
Hart Rd
St. Lawrence Rd
Colley Rd
(Potential)
Yale Bridge Rd
Prairie Hill Rd
Rockton Rd
Old River Rd
Burr Oak Rd
Belvidere Rd

WISCONSIN
ILLINOIS
Sugar River
Not Active

14
51
213
11
75
251
43
81
90
39
20
B20
173

Legend

- Rural Access Routes
- Major Regional Desire Lines
- Major Highway Barriers
- Major Parks
- Destinations

N

December 2010

5000 0 5000 Feet

IV. PUBLIC PARTICIPATION SUMMARY

The process to prepare the 2004 Plan included efforts to obtain public guidance on plan preparation. The following is a summary of these participation efforts. Efforts in 2010 included two public open houses.

A. Open House #1

An open house was held on March 18, 2003. Its primary purpose was to inform the public about the planning process and solicit early input regarding bicycle and pedestrian needs and concerns regarding bicycle and pedestrian facilities in the Stateline Area.

Participants at the open house were asked to map key biking and walking destinations, along with preferred routes. Participants were also given "play" money and asked to allocate City expenditure priorities toward possible types of bicycle and pedestrian improvements. The results are as follows:

Type of Facility (see illustrations for explanation)	**Amount Allocated (by each respondent) out of $100 (six responses total)**
1. Off-Street Facilities	$200
2. On-Street Facilities	$60
3. Bike Routes	$130
4. Re-Paving and Other Improvements to Local Roads	$65
5. Sidewalks on Existing Roads	$40
6. Sidewalks on Streets Leading to Schools	$60
7. Safer Crossings of Streets	$45

Issues raised at the open house include:

- Dorr Road is an important link between the north and south parts of the area, providing access to City Park and the South Beloit Boys and Girls Club, but it has no safe facilities for bicycles or pedestrians;
- A bike/pedestrian connection along the Rock River was favored;
- Lack of logical links between shopping, businesses, banks, libraries, schools, etc.;
- Children not able to or allowed to ride their bikes to school in some parts of the Stateline Area.

B. Focus Groups

In order to understand the wide range of bicyclist and pedestrian needs, several focus groups were held in May and June of 2003. The smaller groups allowed for a more informal discussion of bicycle and pedestrian facility needs and concerns.

1. CHILDREN'S FOCUS GROUPS

Two focus groups were held for children, at the Beloit and South Beloit Boys and Girls Clubs.

A. Beloit Children's Focus Group
Seven children, ages 10-12, met at the Beloit Boys and Girls Club on May 15, 2003. The children were asked a series of questions.

1. How many of you walk or bike to school now?

   The children attended four different schools in Beloit: McNeel, Converse, Gaston, and Merrill. Two of the children biked to school frequently, and three biked occasionally. Two never walked or biked, saying that they lived too far away from school.

2. What are some of the other places you walk or bike to?

   Two children said that they bike around their neighborhood. The children only occasionally said that they walk or bike to the Boys & Girls Club. They ride their bikes to McDonald's on Madison Road, to Woodman's at Burton and Madison, and to the Texas Grocery on St. Lawrence Ave. Two of the children said that they ride their bikes around the neighborhood streets.

3. What are some of the other places you <u>would like</u> to be able to walk or bike to?
   - Big Hill Park
   - YMCA
   - Beloit Mall
   - Wal-Mart
   - Shopko/Hospital area
   - Beloit Airport (to watch airplanes take off and land)

4. Do you feel safe walking and biking <u>in</u> your neighborhood? If not, why not?

   Most children felt safe walking or biking in their neighborhoods.

5. Do you feel safe walking and biking <u>outside</u> your neighborhood?

   Most children did not feel safe walking or biking outside their neighborhoods. Reasons included crime, lack of knowledge of other areas, heavy traffic, dangerous crossings, and lack of off-road bike paths, sidewalks, or lower-traffic streets.

6. Are there any roads, intersections, or other places around here that you think are dangerous for walking or biking?

- Madison Rd.—hard to cross
- Liberty Ave.—hard to cross
- Burton St.—no sidewalks on some of it
- Afton Rd.—no sidewalks on some of it

The children then completed the "fake" money exercise similar to that done at Open House #1 to identify priorities for new facilities. The results of this exercise were as follows:

1. Off-street bike paths (like the Hononegah Trail); $110
2. On-street striped bike lanes (like on Afton Road); $50
3. Bike routes on low-traffic streets, marked with signs; $190
4. Sidewalks along streets within neighborhoods/subdivisions, and that head to schools; $90
5. Safer crossings at busy roads; $70

Children were then asked to describe why they chose the types of facilities that they did, and more specifically, what some bike and pedestrian improvements should be. Answers included the following:

- Bike routes are cheap and easy to do—just put up signs
- Off-street bike paths are good—don't have to worry about cars and trucks
- Sidewalks are important for walking and skating, getting where you need to go

The following key concerns about biking and walking in the City of Beloit can be distilled from the children's comments:

- The children feel unsafe biking outside of their own neighborhood due to crime, the lack of sidewalks, and narrow roads with high-speed traffic.
- The main roads are hard to cross because of heavy, high-speed traffic—the "neighborhood' where the Boys & Girls Club is located is sort of an island cut off from the rest of the city by big streets that are dangerous to cross.
- The main places children want to or need to go—school, shopping, library—are hard to get to because there are not sidewalks in many places.

B. South Beloit Children's Focus Group

Five children, ages 10-12, were part of the group at City Park in South Beloit on May 20, 2003. The children were again asked a series of questions.

1. How many of you walk or bike to school now?

   Two of the children ride once in a while to school; the rest never do.

2. What are some of the other places you walk or bike to?

Three of the children live on the east side of Highway 251, and they think it's too dangerous to cross. Some of the children ride to the club, and some ride or walk from school to the club, which is only a couple of blocks away, on side streets.

3. What are some of the other places you would like to be able to walk or bike to?
   - Alcoa (Dad works there)
   - Krueger Park (swimming pool)
   - Sometimes ride on Hononegah Trail, but can't get to it on a bike
4. Do you feel safe walking and biking in your neighborhood? If not, why not?

   Most children felt safe walking or biking in their neighborhoods.
5. Do you feel safe walking and biking outside your neighborhood?

   Most children did not feel safe walking or biking outside their neighborhoods, especially in Beloit. Reasons included crime, lack of knowledge of other areas, heavy traffic, dangerous crossings, and lack of off-road bike paths, sidewalks, or lower-traffic streets.
6. Are there any roads, intersections, or other places around here that you think are dangerous for walking or biking?
   - Highway 251
   - Gardner Avenue
   - Main roads in general are problems for crossing with a bike or on foot.

   The children then completed the "fake" money exercise similar to that done at Open House #1 to identify priorities for new facilities. The results of this exercise were as follows:

   1. Off-street bike paths (like the Hononegah Trail); $190
   2. On-street striped bike lanes (like on Afton Road); $40
   3. Bike routes on low-traffic streets, marked with signs; $40
   4. Sidewalks along streets within neighborhoods/subdivisions, and that head to schools; $40
   5. Safer crossings at busy roads; $90

The following key concerns about biking and walking in the City of South Beloit can be distilled from the children's comments:

- The children feel unsafe bicycling outside of their own neighborhood due to crime, the lack of sidewalks, and narrow roads with high-speed traffic.
- Highway 251 is a barrier to east-west pedestrian and bicycle traffic.

2. BICYCLING FOCUS GROUP

A focus group for bicyclists was held on April 9, 2003, at the Rotary River Center in Beloit. Participants reviewed draft maps of the existing bicycle and pedestrian facilities, and gave input on where and what types of improvements were needed. Questions answered at the focus group included:

1. How do you use area facilities for biking? What routes?

Commonly used routes included routes roads, particularly Afton Rd., Colley Rd., Creek Rd., Manchester Rd., and St. Lawrence; Janesville bike paths, Hononegah Trail, Stone Bridge/Long Prairie Trails.

2. What are primary "escape routes" out of cities and villages?

   Again, rural roads were mentioned, particularly Colley, St. Lawrence, Creek, Manchester, Hart, Shopiere, Afton, and St. Lawrence.

3. What are primary routes to get through or around cities and villages?

   Frontage roads and quiet side streets were mentioned, as well as White Ave. through Beloit.

4. What are the primary destinations within the Stateline Area, for recreation, touring, and commuting?

   For recreation, responses included Big Hill Park, Leeson's Park, Riverside Park, and Sweet-Allyn Park; libraries; and banks. For touring, Rockton and Shopiere were mentioned.

5. What are the primary destinations and routes outside the Stateline Area, for recreation, touring, and commuting?

   For recreation: State trails, Madison, Dodgeville, Capron, Rock Cut Park, Sugar River Trail, Elroy-Sparta Trail, Camp Douglas Trail, Shopiere, Mill Pond Park, Carver's Rock, Palmer Park (Janesville), Sugar River State Park, Hononegah State Park, other County parks. For touring: Glacier Drumlin Trail, Sugar River and other State trails. For commuting: Love's Park.

6. What can the participating municipalities do to better accommodate recreational, commuter, and touring bicycling?

   For recreation: Add bike lanes, improve roads (maintenance); educate drivers to share the road; promote "healthy" fun; build rest stop with toilets, phone, soda machine, etc. For commuting: Bike lanes; educate drivers; improve road maintenance; help businesses provide bike storage, space, dressing areas, showers, etc. For touring: Promote bicycle trails.

7. Identify specific problem locations (safety/street maintenance, etc.)

   Glass and debris on bike lanes and along street edges, add bike lane on White from Harrison to Milwaukee, and improve Newark Bridge.

8. How can we design new development to accommodate bikes?

   Put bike paths or lanes along new or rebuilt roads, plan bike/recreational trails rather than bike lanes—they accumulate too much debris, i.e. glass, cans, gravel, etc.

C. Local Government Group Meetings

To obtain in-depth information regarding existing facilities, planned facilities, and desired local directions, six meetings were held with local governments. Project staff met with the Town of Beloit on April 16, 2003; the City of Beloit on April 17, 2003; the City of South Beloit on April 22, 2003; the Town of Turtle on April 23, 2003; and a group made up of representatives from the Villages of Rockton and Roscoe, the Townships of Rockton and Roscoe, and the Winnebago Forest Preserve on April 2, 2003. In 2010, two ad hoc local government meetings were also held. These meetings were invaluable in understanding local conditions and plans, and to identify how these local plans could be incorporated into the regional system described in this Plan.

D. Open House #2

A second public open house was held on July 23, 2003. Participants reviewed results of previous public participation and draft maps of planned bicycle and pedestrian facilities, and gave their opinions on a draft idea for prioritization of the planned facilities. The prioritization scheme emphasized the construction of a "backbone" route stretching along the Rock River and beyond, connecting the area north to south. The proposed facilities and priority backbone route were generally well received.

V. GOALS, OBJECTIVES AND POLICIES

A. Goals and Objectives

Goals and objectives express the basic values and aspirations with regard to the bicycle and pedestrian system. A **goal** is an ideal future condition to which the community aspires. A goal is usually expressed in general terms and is not quantifiable. An **objective** is an intermediate step toward attaining a goal and is more tangible and specific. Objectives are more measurable. These written statements set the planning and policy framework that should be carried forward through the implementation of the recommendations in Section VI of this Plan.

The goals and objectives listed below should be referred to by local officials, the SLATS MPO, property owners, residents, State and federal agencies, organizations and area visitors as the proposed bicycle and pedestrian system is planned, constructed and utilized.

1. GOAL: REDUCE MOTOR VEHICLE DEPENDENCY AND ASSURE ACCESS TO BIKING AND WALKING ROUTES FOR ALL WHO CHOOSE OR REQUIRE THEM.

Objectives:

a. Plan for pedestrian and bike connections between major generators and destinations of bike trips (such as residential neighborhoods and schools).

b. Incorporate bicycle and pedestrian facilities in new development projects, redevelopment projects, and reconstruction of existing roads.

c. Focus particularly on enabling children to walk or bike to school.

2. GOAL: ENCOURAGE COMMUNITY AND NEIGHBORHOOD PLANNING THAT SUPPORTS WALKING AND CYCLING.

Objectives:

a. Encourage Stateline Area communities to be selective about development proposals, denying them if they do not have the appropriate bike and pedestrian facilities as promoted in this Plan.

b. Design and update comprehensive plans, park and open space plans, and zoning and subdivision ordinances to facilitate bicycling and pedestrian access.

c. Refer to this Bike and Pedestrian System Plan in review of development proposals (e.g. add it to a development review checklist), making sure that recommendations are included in developer's plans.

d. Connect new neighborhoods (subdivisions) to provide a variety of safe and efficient transportation options for bikers and walkers.

e. Provide mixed-use development opportunities so that people may live, work, shop and play in the same general area.

3. **GOAL: INTEGRATE THE STATELINE AREA BIKE AND PEDESTRIAN SYSTEM WITH OTHER REGIONAL SYSTEMS.**

   Objectives:

   a. Link the bike and pedestrian system with environmental corridor protection, community planning, and road improvement processes

   b. Consider connections with regional and State recreational places and routes bicycle and pedestrian facilities in the Stateline Area.

   c. Continue to work with all Stateline communities, Rock and Winnebago Counties, the Winnebago Forest Preserve, and the State on future bicycle and pedestrian facilities planning.

   d. Work to integrate the bicycle and pedestrian facility system with public transit.

4. **GOAL: FOLLOW APPROVED STANDARDS TO CREATE A SAFE, CONVENIENT AND EFFICIENT BICYCLE AND PEDESTRIAN SYSTEM.**

   Objectives:

   a. Consider the safety of pedestrians and bicyclists above the convenience of motorists in an effort to reduce bicycle and pedestrian accidents.

   b. Design all new construction and reconstruction to meet American Association of Highway and Transportation Officials (AASHTO) and Americans with Disabilities Act (ADA) guidelines.

   c. Provide on-street facilities for cyclists, wherever possible, including bike lanes on arterial streets and routes on low-traffic streets.

   d. Plan for and provide appropriate levels of facility maintenance.

   e. Provide facilities for safe traffic interaction at intersections.

5. **GOAL: DEVELOP AND IMPLEMENT AN EDUCATION AND PUBLIC AWARENESS PROGRAM.**

   Objectives:

   a. Develop and implement a youth education program for schools.

   b. Provide a map of the bikeway system and update it as new facilities are provided.

   c. Educate the general public on needs and improvements for the system.

   d. Integrate environmental awareness into the information provided in signs and exhibits along the trail system.

B. Policies

Policies are principles of land use design or development management that are derived from goals and objectives but aimed more specifically at what can be done to attain the goals and objectives. Policies can be expressed as specific standards. The policies below express the Stateline Area MPO's position with regard to various factors that in some way influence pedestrian and bicycle facilities.

The MPO encourages local communities in the planning area to adopt and implement these policies as well.

1. COMMUNITY DESIGN, ZONING, AND LAND USE

a. The Stateline MPO should refer to this Plan when making transportation and land use plans and policies.

b. The Stateline MPO should make this Plan available to all communities and counties, State agencies, and non-profit agencies operating in the Stateline Area.

c. Individual Stateline communities should officially adopt this *Plan* as a component of local comprehensive plans, and refer to it when making transportation, land use, and park and recreational decisions.

d. Each Stateline community should officially map major bicycle and pedestrian facility rights-of-way where possible, well in advance of development of these facilities.

e. Stateline communities should adopt zoning and subdivision standards that meet the special needs of pedestrians and bicyclists, including the following (suggested ordinance language is included in Appendix D):

   i. Bike racks in all new commercial and multi-family residential developments;
   ii. Sidewalks on all new streets (see also Policy 2.e.);
   iii. Street connectivity standards within new subdivisions, designed to get pedestrians and cyclists safely from the street and sidewalks to the entrances of commercial, industrial, institutional, and multiple family residential projects;
   iv. Block lengths no greater than 800 feet;
   v. Mid-block connections on existing long blocks, to make bike and pedestrian connections more convenient;
   vi. Bike lanes, routes, or paths in new developments to connect new development to existing bike lanes, routes, or paths;
   vii. Bike-safe sewer grates, railroad crossings, and other infrastructure;
   viii. Demand-actuated traffic signals that respond to bicycles;
   ix. Neck downs and other traffic calming modifications on busy streets with high bicycle and/or pedestrian traffic.

f. Consider lowering the minimum requirements for the number of parking spots required for new developments as a way to promote biking, walking, mass transit, and better access to new developments for these types of users.

g. Make improvements to better accommodate bicyclists and pedestrians a part of <u>all</u> new or upgraded road projects, except for the Interstate.

h. Promote mixed-use developments to reduce the number of automobile trips needed through techniques such as planned unit developments, transit-oriented developments, and traditional neighborhood design zoning and economic development approaches.

i. Design neighborhoods to provide for multiple, safe, direct bike and pedestrian connections in all directions.

j. Link major activity centers such as schools, libraries, parks, employment centers, and shopping areas in the Stateline and surrounding area through bicycle and pedestrian facilities.

k. Provide shortcuts to bicyclists and pedestrians wherever possible, through continuing paths from dead-end roads or across railroad tracks and other barriers.

l. Provide restrooms, drinking fountains, information kiosks, supply shops, wayfinding signage, and similar facilities along bicycle and pedestrian routes.

m. Plan for new destinations and activity centers in locations that are accessible or are made accessible to pedestrian and bicycle travel.

n. Seek to develop multi-use trails and footpaths on abandoned railroads, along streams and rivers and other environmental corridors that are pleasant to use and provide logical travel corridors.

o. Adopt access control regulations for highways and arterial streets to reduce the number of access drives, making on-street bicycle lanes safer by reducing potential bicycle/motor vehicle conflict points.

2. BICYCLE AND PEDESTRIAN FACILITIES

a. On-street bicycle routes, lanes, and paved shoulders are preferred in the following locations:

   i. Streets that have rights-of-way wide enough to provide for adequate separation between bicycles and moving and parked motor vehicles.
   ii. Streets having speed limits of no more than 35 miles per hour.

b. Consider re-striping lanes to allow wider curb lanes as part of any new overlay or improvement project.

c. Discourage off-street bike paths along major streets where there is a high number of turning movements and side friction (e.g. multiple driveway access points).

d. Remove all obsolete and damaged bike route signs. Repost bike route signs where recommended (see the Recommendations section).

e. Sidewalks with a minimum width of five feet are recommended in the following locations:

   i. Commercial and Industrial streets: Both sides of new and existing streets.
   ii. Residential streets (arterial): Both sides of new and existing streets.
   iii. Residential streets (collector): Both sides of new streets, at least one side on existing streets.
   iv. Residential streets (local): Both sides of new streets and when adjacent to multiple family housing, at least one side on existing streets.
   v. Residential streets (rural): 4-foot paved shoulder along both sides.

f. Provide signed and marked crosswalks in school zones, at signalized intersections, 4-way stops, and at midblock locations where there is a need to accommodate crossings. Consider advance crosswalk warning beacons and audible crossing signals where additional warning is deemed necessary.

g. Use specially-surfaced, colored, and/or raised crosswalks in high-traffic areas.

h. Consider restricting "right turn on red" at intersections where significant pedestrian/bicycle-vehicle conflict exists.

i. Off-street bicycle and pedestrian facilities should be considered in situations where it would be unsafe to locate such facilities on the street and where off-street facilities are also considered safe.

j. Provide connections between and within residential areas and major destinations with off-street bicycle and pedestrian facilities.

k. Design bridges and street underpasses with on-ramps and off-ramps at right angle turns whenever possible to safely accommodate bicycles and pedestrians on intersecting streets.

l. Provide wayfinding signage throughout the Stateline Area in order to direct bicyclists and pedestrians to activity centers and destinations.

m. Maintain and upgrade bicycle and pedestrian facilities in the Stateline Area. Basic maintenance and upgrades of existing sidewalks and bicycle trails/lanes should be included in the capital improvement programs or annual budgets of the jurisdiction. Work with community groups, neighborhood and homeowner's associations to assist in maintenance.

n. Limit motorized vehicle access to bicycle and pedestrian facilities to those vehicles necessary to provide access for persons with disabilities or impaired mobility. This policy does not apply to trails where snowmobiles are allowed during the winter months.

o. Allow snowmobiles on aggregate surfaced trails in the Stateline Area only where the community has planned to ensure that they will not present a hazard or conflict with other traffic (for example, cross-country skiers or hikers).

3. EDUCATION AND ENCOURAGEMENT

a. The Stateline Area communities should work with Rock and Winnebago Counties, area schools, and non-profit groups to facilitate an education and public awareness program. The program should include educating pedestrians, bicyclists and motorists about the law and providing residents, employees, and visitors with a user-friendly map of the bicycle pedestrian system and destinations.

b. Encourage events during Bike-to-Work Week (the third week in May) in Stateline Area jurisdictions.

c. Work with employers to promote alternatives to driving, like carpooling, subsidized transit programs, and facilities for bicyclists, such as bike racks and shower/locker facilities.

d. Distribute the bicycle/pedestrian system user map, and update this map as needed to reflect new routes or safety information.

e. Develop and implement a "Recommended Routes to School Program", working with each school district.

f. Send teachers, police officers, and park personnel to safe cycling workshops. Enlist an Effective Cycling instructor to teach at least one course at Beloit College on safe cycling skills.

g. Work with Beloit Transit to expand the bikes on buses program.

h. Work with local media outlets to promote and increase awareness about bicycle and pedestrian safety and rights.

i. Expand the bicycle police program, and work to make the enforcement of bicycle traffic laws a higher priority within all law enforcement agencies.

VI. BICYCLE AND PEDESTRIAN SYSTEM RECOMMENDATIONS

When implemented, each of the bicycle and pedestrian facility recommendations proposed in the *Stateline Area Bike and Pedestrian System Plan* will foster the establishment of a network that will link important destinations within the Stateline Area, as well as link the area with important destinations in the south-central Wisconsin/north-central Illinois region.

This section of the Plan provides general system recommendations which adhere to the analysis presented in Map 3 (Regional Connections), and the goals, objectives, and policies of the previous section. This section provides overall directions for the Plan, and specific facility recommendations, grouped by facility type.

A. General Plan Recommendations

The recommendations in this Plan attempt to address the concerns of all user types, ranging in age, ability, and reasons for use of the system. The Plan provides recommended routes and facilities connecting key regional and local destinations points identified during the public participation process. It also provides recommendations that connect various bike and pedestrian facilities, both existing and recommended. One of the primary concerns made evident through the public involvement activities was a lack of connection from north to south in the Stateline Area. The "South Beloit Connector" corridor was identified as a primary "missing link" that would connect residential areas to recreational areas, and the southern portion of the Stateline Area with the northern portion. Another idea frequently expressed in the public involvement activities was a desire for a "Rock River" route that would provide a link to the north, potentially linking to Janesville's Rock River corridor. To address these concerns, the idea of a "backbone" path system was developed. This system is identified on Map 4a as the "Regional Path System".

The recommendations of this Plan are shown on Maps 4a, 4b, and 4c. The recommendations have been separated by facility type:

- On-street bicycling recommendations: bicycle lanes, routes, or paved shoulders (including "on-street connections", which link existing or planned facilities),
- Off-street multi-use path system recommendations (including "off-street connections", which link existing or planned facilities),
- Intersection improvement recommendations,
- Sidewalk, path, and walkway recommendations,
- Overpass/Underpass recommendations.

This Plan provides both short-term and long-term facility recommendations. Because the MPO and the Stateline Area communities cannot be expected to budget for all the recommendations at one time, each recommendation has been assigned a phasing priority ranging from first to third priority.

The MPO and the Stateline communities should consider implementing first priority recommendations within one to five years, second priorities within five to fifteen years, and third priorities fifteen years and beyond, or as opportunities present themselves, such as when new development projects or roadway resurfacing. Map 5 shows proposed first and second priority facilities. First priority recommendations are detailed in the table later in this section, while second

priority recommendations are listed in Appendix B. All other recommended facilities on Maps 4a, 4b, and 4c may be considered third priority recommendations.

It should be noted that the prioritization of these facilities was determined by the individual Stateline communities, with oversight from the MPO. The proposed facilities must be included in local Capital Improvement Plans and SLATS MPO and County Plans to be eligible for funding assistance. It should not be *assumed* that these facilities will be constructed according to this timeframe, or that funding assistance for all of the facilities will be obtained. Rather, this prioritization list is meant to represent the short- and long-term *desires* of the communities and of the SLATS MPO.

Map 4a: Planned Bike and Pedestrian Facilities

Stateline Area Bike and Pedestrian System Plan

Townline Rd
TOWN OF ROCK
TOWN OF BELOIT
TOWN OF LA PRAIRIE
TOWN OF TURTLE
G
J
D
S
Creek Rd
E Philhower Rd
Turtle Creek
Sweet Allyn Park
Happy Hollow Park
Walters Road Park
Big Hill Park
51
W Creedy Rd
Nye School Rd
213
S Afton Rd
E Inman Pkwy
Prairie Ave
Creek Rd
McKearn Park
W Hart Rd
E Hart Rd
X
S Park Ave
Upgrade Sidewalk
W Beloit-Newark Rd
Q
Elmwood Ave
Murphy Woods Rd
Beloit Country Club
Telfer Park
Freeman Park
Shopiere Rd
E Cranston Rd
43
Spring Brook
Townview Park
Christilla Park
McKinley Rd
W Spring Creek Rd
Burton St
Rock River
Henry Ave
Summit Park
Turtle Creek Greenway
Milwaukee Rd
Upgrade Sidewalk
Gateway Blvd
Turtle Town Hall Rd
Krueger-Haskell Golf Course
Madison Rd
Roosevelt Park
Leeson Park
Or
Liberty Ave
Hinckley Park
Riverside Park
White Ave
81
Colley Rd
K
W St. Lawrence Ave
E. Fork Raccoon Creek
Horace White Park
Hilliard Park
Vernon Park
Turtle Creek
Turtle Creek Park
Wisconsin
Illinois
State Line Restoration Prairie Park
Rock County
Fisher Rd
Gardner St
75
Winnebago County
Boone County
Middle Rd
Prairie Rd
2
City Park
Pearl Lake
Yale Bridge Rd
Dry Creek
Lake Victoria
251
Blackhawk Blvd
Prairie Hill Rd
51
39
90
Hansberry Rd
S Bluff Rd
J. Norman Jensen Forest Preserve
W Rockton Rd
Dorr Rd
Dearborn Ave
Pleasant Valley Rd
E Rockton Rd
Willowbrook Rd
Nygren Wetland Preserve
Millrace Isle Forest Preserve
Rockton Athletic Fields
Macktown Forest Preserve
Pecatonica River
W Hononegah Rd
Hononegah Recreational Path
McCurry Rd
Stone Bridge Trail
Ledges Golf Course
Clayton Andrews Forest Preserve
Wagon Wheel Rd
Freeport Rd
Hononegah Forest Preserve
Elevator Rd
Rock River
Old River Rd
Burr Oak Rd
Riverside Park
Leeland Park
S. Kinnikinnick Creek
Kinnikinnick Creek Preserve
TOWNSHIP OF ROCKTON
TOWNSHIP OF OWEN
Roscoe Rd
TOWNSHIP OF ROSCOE
TOWNSHIP OF HARLEM

County Boundaries
Town & Township Boundaries
Cities & Villages
Surface Water
Interstate Highway
United States Highway
State Highway
County Highway
Local Roads
Railroads

Existing Bicycle & Pedestrian Facilities

Existing Bicycle/Pedestrian Under/Overpass
Off-Road Path
On-Road Bike Lane, Shoulder, or Route
Sidewalks along Primary Roads

Bicycle & Pedestrian Trip Destinations

Schools
Libraries
Stateline Area Major Attraction
Shopping & Employment Centers
Multimodal Transit Facility
Parks & Open Space

Note: Within Winnebago County, bicycle use is a permitted use only on any existing or proposed bicycle paths, except where otherwise explicitly authorized by Winnebago County.

Planned Facilities

Proposed Intersection/Bridge/ Overpass Improvements
Off-Road Multi-Use Paths
On-Road Connections to Link Paths
On-Road Bike Lane, Shoulder, or Route
Sidewalks or Paths
Regional Path System

Date: 12/31/2010

Source: WinGIS, Rock County, City of Beloit, V&A

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

0 0.5 1 2 Miles

Map 4b: Planned Bike/Pedestrian Facilities - Central Area

Stateline Area Bike and Pedestrian System Plan

County Boundaries
Town & Township Boundaries
Cities & Villages
Surface Water
Interstate Highway
United States Highway
State Highway

County Highway
Local Roads
Railroads

Existing Bicycle & Pedestrian Facilities

Existing Bicycle/Pedestrian Under/Overpass
Off-Road Path
On-Road Bike Lane, Shoulder, or Route
Sidewalks along Primary Roads

Bicycle & Pedestrian Trip Destinations

Schools
Libraries
Stateline Area Major Attraction
Shopping & Employment Centers
Multimodal Transit Facility
Parks & Open Space

Note: Within Winnebago County, bicycle use is a permitted use only on any existing or proposed bicycle paths, except where otherwise explicitly authorized by Winnebago County.

Planned Bicycle & Pedestrian Facilities

Proposed Intersection/Bridge Improvements
Off-Road Multi-Use Paths
On-Road Connections to Link Paths
Bicycle Lanes/Paved Shoulders
Sidewalks or Paths

Date: 12/31/2010

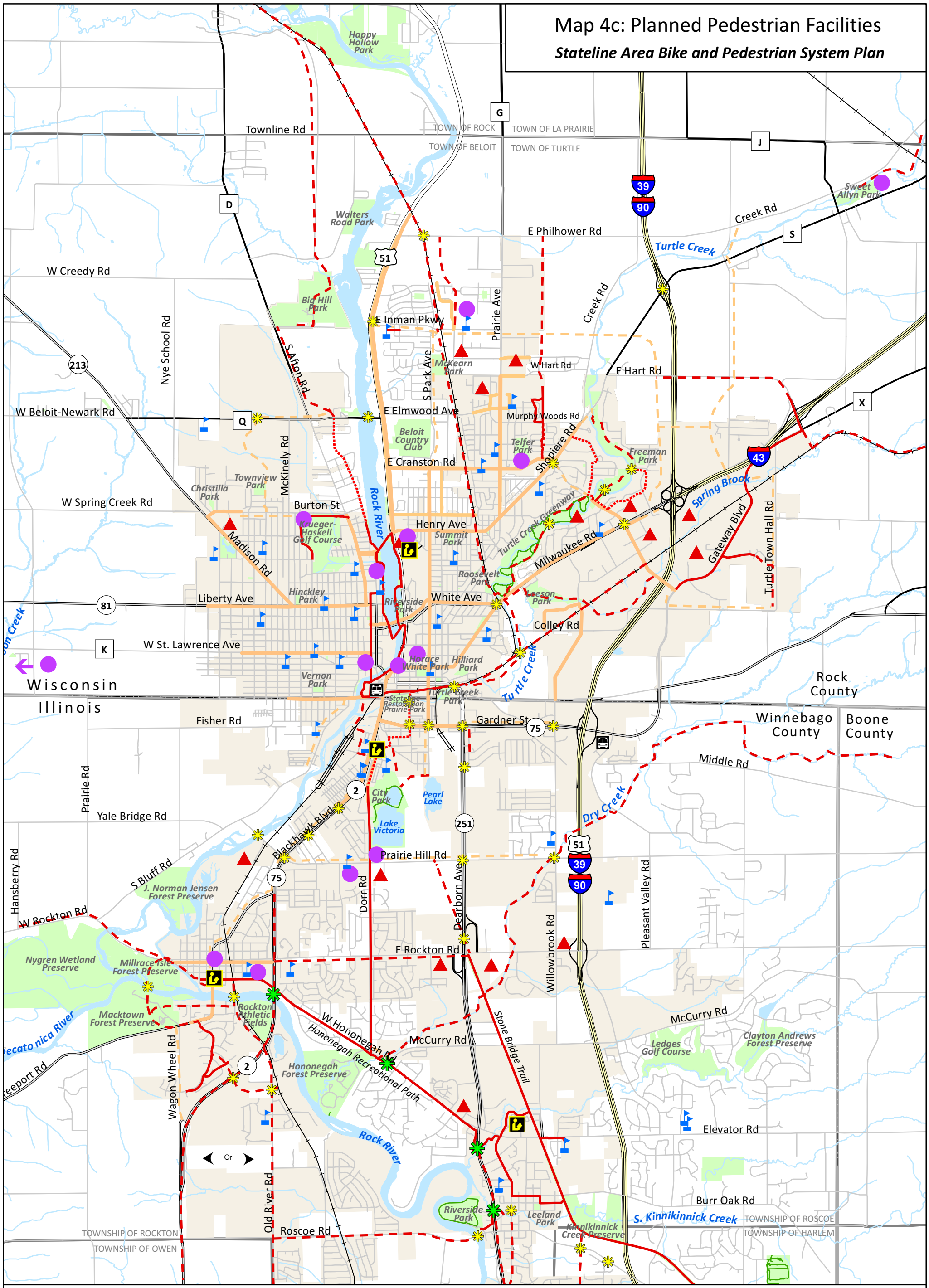
Source: WinGIS, Rock County, City of Beloit, V&A

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

0 0.25 0.5 1 Miles

Map 4c: Planned Pedestrian Facilities

Stateline Area Bike and Pedestrian System Plan



County Boundaries
Town & Township Boundaries
Cities & Villages
Surface Water
Interstate Highway
United States Highway
State Highway
County Highway
Local Roads
Railroads

Existing Bicycle & Pedestrian Facilities

Existing Bicycle/Pedestrian Under/Overpass
Off-Road Path
Sidewalks along Primary Roads

Bicycle & Pedestrian Trip Destinations

Schools
Libraries
Stateline Area Major Attraction
Shopping & Employment Centers
Multimodal Transit Facility
Parks & Open Space

Note: Within Winnebago County, bicycle use is a permitted use only on any existing or proposed bicycle paths, except where otherwise explicitly authorized by Winnebago County.

Planned Bicycle & Pedestrian Facilities

Proposed Intersection/Bridge Improvements
Off-Road Multi-Use Paths
On-Road Connections to Link Paths
Sidewalks or Paths

Date: 12/31/2010

Source: WinGIS, Rock County, City of Beloit, V&A

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

0 0.5 1 2 Miles

Map 5: Proposed Facility Improvements Timeframe

Stateline Area Bike and Pedestrian System Plan

Townline Rd
W Creedy Rd
W Beloit-Newark Rd
W Spring Creek Rd
Liberty Ave
W St. Lawrence Ave
Fisher Rd
Yale Bridge Rd
E Philhower Rd
E Inman Pkwy
W Hart Rd
E Hart Rd
E Elmwood Ave
Murphy Woods Rd
E Cranston Rd
Burton St
Henry Ave
White Ave
Colley Rd
Gardner St
Prairie Hill Rd
E Rockton Rd
McCurry Rd
W Hononegah Rd
Elevator Rd
Burr Oak Rd
Roscoe Rd
Creek Rd
Milwaukee Rd
Middle Rd
Dry Creek
Spring Brook
Turtle Creek
Rock River
Pecatonica River
S. Kinnikinnick Creek
E. Fork Raccoon Creek
Wisconsin
Illinois
TOWN OF ROCK
TOWN OF BELOIT
TOWN OF LA PRAIRIE
TOWN OF TURTLE
TOWNSHIP OF ROCKTON
TOWNSHIP OF OWEN
TOWNSHIP OF ROSCOE
TOWNSHIP OF HARLEM
Rock County
Winnebago County
Boone County
Happy Hollow Park
Walters Road Park
Big Hill Park
Sweet Allyn Park
McKearn Park
Beloit Country Club
Telfer Park
Freeman Park
Townview Park
Christilla Park
Krueger-Haskell Golf Course
Summit Park
Turtle Creek Greenway
Roosevelt Park
Leeson Park
Hinckley Park
Riverside Park
Horace White Park
Hilliard Park
Vernon Park
Turtle Creek Park
Stateline Prairie Restoration
City Park
Pearl Lake
Lake Victoria
J. Norman Jensen Forest Preserve
Nygren Wetland Preserve
Millrace Isle Forest Preserve
Rockton Athletic Fields
Macktown Forest Preserve
Hononegah Forest Preserve
Ledges Golf Course
Clayton Andrews Forest Preserve
Riverside Park
Leeland Park
Kinnikinnick Creek Preserve
Stone Bridge Trail
Hononegah Recreational Path
Turtle Town Hall Rd
Gateway Blvd
Prairie Rd
Hansberry Rd
Nye School Rd
McKinely Rd
Madison Rd
Wagon Wheel Rd
Old River Rd
Freeport Rd
S Bluff Rd
W Rockton Rd
S Afton Rd
S Park Ave
Prairie Ave
Blackhawk Blvd
Dorr Rd
Dearborn Ave
Willowbrook Rd
Pleasant Valley Rd
Shopiere Rd
D
G
J
S
K
Q
X
51
39
90
43
213
81
2
75
251

Bicycle & Pedestrian Trip Destinations

- Schools
- Libraries
- Stateline Area Major Attractions
- Shopping & Employment Centers
- Multimodal Transit Facility
- Parks & Open Space

Planned Bicycle & Pedestrian Facilities

- Proposed 1st Priority Intersection/Bridge Improvements
- Proposed 2nd Priority Intersection/Bridge Improvements
- First Priority Project: 0 - 5 Years
- Second Priority Project: 5 - 15 Years

Date: 12/31/2010

- County Boundaries
- Town & Township Boundaries
- Cities & Villages
- Surface Water

- Interstate Highway
- United States Highway
- State Highway
- County Highway
- Local Roads
- Railroads

Note: Within Winnebago County, bicycle use is a permitted use only on any existing or proposed bicycle paths, except where otherwise explicitly authorized by Winnebago County.

Source: WinGIS, Rock County, City of Beloit, V&A

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

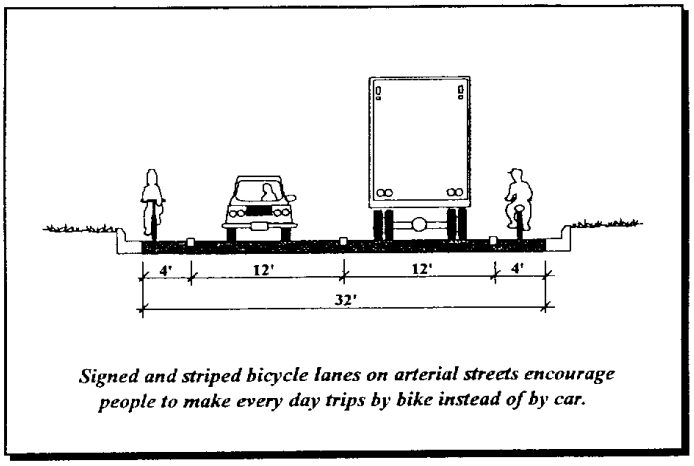
0 0.45 0.9 1.8 Miles

B. Detailed Facility Recommendations

1. DESIGN STANDARDS BY TYPE OF FACILITY

Several types of facilities are recommended in this Plan. This section includes an explanation of how each facility type functions within the bike and pedestrian system as a whole, as well as recommended locational and design criteria. *Note: This plan does not advocate specific auto-only travel lane widths. These recommendations are intended to guide the dimensions of bicycle facilities. Auto-only travel lane dimensions shown in the included figures are for illustrative purposes only.*

A. Bicycle Lanes



Signed and striped bicycle lanes on arterial streets encourage people to make every day trips by bike instead of by car.

Overview

Bicycle lanes are areas of the road striped off for exclusive use by bicyclists. They are the preferred bicycle facility for urban arterial and higher volume collector streets (generally more than 2,000 vehicles per day).

Function

Striping bicycle lanes establishes designated traffic channels that promote an orderly flow by both cyclists and motorists. Bicycle lanes have great potential for attracting new bicyclists, in part because of the psychological effect of having space reserved for them. Unlike off-street paths, bike lanes can be integrated into the street network. They can therefore serve important destinations and take advantage of existing travel patterns.

Design Standards:

- Recommended minimum width: 4 feet, 5 feet along arterial street.
- When used alongside a parking lane, should 5 feet wide and located to the inside (traffic side) of parking lane.
- Where combined bike lane and on-street parking is provided, minimum width (including gutter) should be 11 feet (13 feet where there is substantial parking or turnover of parked cars is high).
- Bike lanes should be painted with a 'bicycle' pavement symbol or the words 'bike lane' according to AASHTO standards.

Locational Criteria

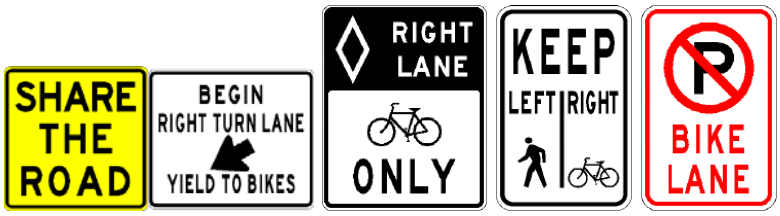
Typically, bicycle lanes are established on roadways that are 32 feet or wider with no on-street parking. Shared parking/bicycle lanes generally function well where sufficient space is provided and the parking turnover rate is not too high. They are generally not recommended on streets with little to no parking, because they tend to get used as an additional travel lane. Table 1 in Appendix D shows minimum street design requirements.

Shared bus/bicycle lanes are also possible on major arterial roads. The bus/bike lanes generally work well for bicyclists, helping to separate bicyclist from the large traffic volumes on these roads. However, combined bike/bus lanes create uncertainty in the minds of bikers and automobiles as to where in the lane bikers should ride. They also present right-turn conflicts. Separate bus and bike lanes are required where there are relatively large volumes of buses and bicycles and traffic speeds are high.

Signage

Bicycle facilities should be signed and marked in accordance with the AASHTO standards. Appropriately spaced signs should be used to identify bicycle lanes. Signs and pavement markings are especially important at approaches to intersections and at the ends of bicycle lanes.

Below are a few of examples of warning signs that may be used in different situations:



Treatment in Plan

This Plan recommends on-street bike lanes on many streets within the Stateline Area (see Map 4a, 4b, and the tables later in this section and in Appendix B). There are no combined parking/bicycle lanes recommended in this Plan. To ensure that bike lanes remain friendly to use, they should be maintained on a regular basis to remove any sand, gravel and/or debris. There are no shared bus/bicycle lanes recommended in this Plan.

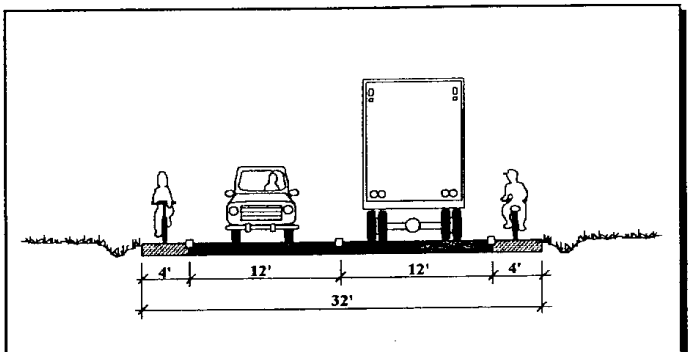
B. PAVED SHOULDERS

Overview

Paved shoulders are not a "bicycle facility" per se, but rather a roadway condition that improves bicycle travel and bicyclist safety.

Function

They function much like a bicycle lane to separate the motor vehicle travel from bikes. The use of paved shoulders benefits motorists as well by providing space in an emergency, improving drainage, and supporting the traveled portion of the roadway.



Paved shoulders, a minimum of 4 feet wide, are the recommended method of accommodating bicycles on rural highways.

Locational Criteria

On rural roadways with low traffic volumes (generally less than 1,000 vehicle per day), cyclists can "share" the roadway with motorists without widened shoulders. For higher volume streets or highways (generally more than 1,000 vehicles per day) with rural cross-sections (i.e. no curb and gutter), the addition or improvement of paved shoulders is generally the most effective way to accommodate bicyclists.

Design Criteria:

- Minimum width: 4 feet, or 5 feet where traffic speeds exceed 50 mph.
- Stripe separating shoulder from roadway recommended.
- Generally not marked as exclusive bicycle facility.

Treatment in Plan

This Plan recommends paved shoulders for many rural roads in the Stateline Area, generally County or State highways (see Map 4a, 4b, and the tables later in this section and in Appendix B).

C. SIGNED BICYCLE ROUTES

Overview

Maintaining bicycle route designations is a relatively inexpensive way to guide bicyclists through the existing street network.

Function

The purpose of a signed route system is to provide reasonably direct major routes through a community on streets that most bicyclists will feel comfortable using. Roads that are signed as bike routes may or may not include bicycle lanes or paved shoulders. Off-street paths may also serve as designated routes.

Design Criteria:

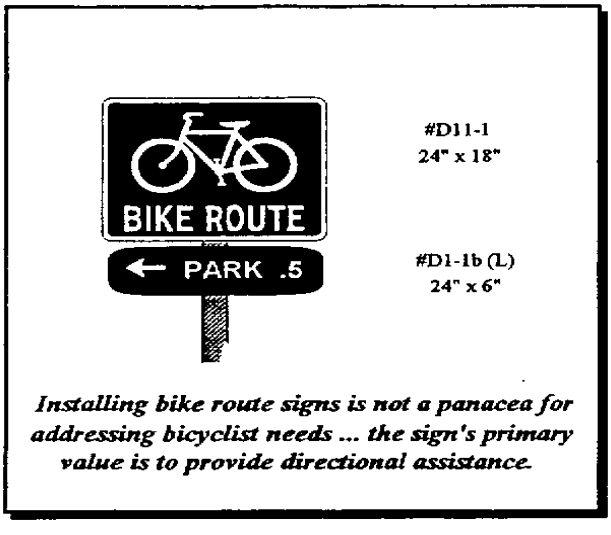
- All hazards to bicycle travel, such as unsafe drainage grates, rough railroad crossings, potholes, gravel and debris, should be removed.
- Bike routes should:
  - Direct riders to key destinations, such as schools, parks, and employment centers
  - Run on low-stress streets or designated bicycle facilities. Low-stress streets typically are those with traffic volumes less than 2,000 vehicles per day, speed limits less than 30 mph, and mostly residential surroundings.
  - Provide information regarding distances and directions to key destinations.
  - Help riders identify their location along the route.

Locational Criteria

Bike routes are located so as to provide access to frequent bicyclist destinations, such as schools, parks, and employment centers. However, the routes are not designed to link all of these possible destinations. Many other streets, including generally all local streets, are suitable for safe bicycle travel. Therefore actual route selection is determined more by directness, continuity, aesthetics and personal preference.

Signage

Except in rare cases where other alternatives are not available, signs should not be used to designate sidewalks as bikeways. "Bike Route" signage along rural roadways may encourage inexperienced riders to travel along routes which are not safe for their skill level. "Share the Road" warning signs may be used along some routes to warn vehicles of bicycle traffic without necessarily designating the signed roadway as a preferred route. This type of sign is sometimes used on roadways with high levels of bicycle traffic, but relatively hazardous conditions for bicyclists.



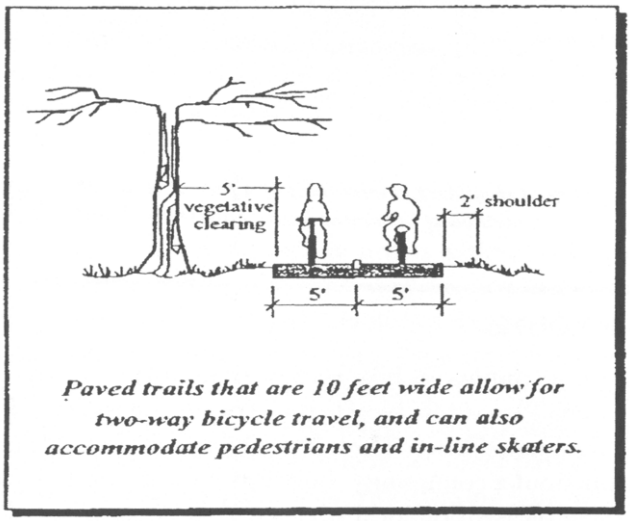
Treatment in Plan

This Plan advises signed bicycle routes in a few critical locations where are necessary disconnections in the proposed off-street path network, such as through the local street

network in South Beloit (see Map 4a, 4b, and the tables later in this section and in Appendix B).

D. OFF-STREET MULTI-USE PATHS

Bicycle facilities separated from the roadway are often referred to as bike paths or trails. In reality, these paths are open to public use by walkers, runners, and in-line skaters (where paved), and snowmobilers (where not paved and where allowed) as well as bicyclists. Therefore, "multi-use path" is the proper term for such facilities, and they need to be designed with these various user groups in mind.



Paved trails that are 10 feet wide allow for two-way bicycle travel, and can also accommodate pedestrians and in-line skaters.

Function

Multi-use paths are significant generators of bicycle use, particularly for less experienced cyclists, for which they provide a safe environment. They provide enjoyable recreation opportunities and, in may cases, desirable commuter routes. Their popularity is starting to negatively impact their generally low-stress travel experience in some cases.

Design Criteria:

- In urban areas, minimum 10 feet or wider to accommodate two-way bicycle travel. Paved surface is recommended to facilitate a wide variety of uses (e.g. biking, walking, in-line skating).
- In rural areas, minimum of 8 feet wide, surfaced with limestone screenings or similar material; minimum width of 10 feet preferred if snowmobile travel will be allowed.

Locational Criteria

A community's road system provides the best means of accessing various destinations within a community, but multi-use paths can enhance the primary on-road bikeway system. Multi-use paths are most effective when used to provide regional recreational loops, bikeway system continuity, linkages to on-street routes, and/or short cuts where no adequate on-street facilities are available.

Railroad rights-of-way, linear parks, watercourses, lakes and dead-end streets (if planned in advance) provide good opportunities for construction of paths.

Beloit's river trail provides recreational and transportation opportunities.

Signage

Communities in the Stateline Area should work with County and State agencies to place quarter-mile markers, like the one shown to the right, along lengthy off-street paths, such as the Stone Bridge Trail, in order to assist users in identifying their exact location on the trails in emergency situations.

Treatment in Plan

This Plan recommends various off-street multi-use path facilities to provide for users of all abilities. Maps 4a, 4b, and 4b, and the tables late in this section and in Appendix B provide the locations and details regarding the recommended facilities.

As denoted in this Plan and shown on Maps 4a, 4b, and 4c, on-street connections provide a connection between off-street paths, using an existing or planned roadway. These facilities may take the form of an on-street bike route, a paved shoulder, or a multi-use path that is adjacent to a roadway. On-street connections are an attempt to provide appropriate linkages in the path system. The Plan also recognizes that existing development and subdivision patterns do not allow for complete path connectors in all locations.

This bridge provides a separated crossing of the Rock River for pedestrians and bikes near downtown Beloit.

E. OVERPASSES/UNDERPASSES

Overview and Function

Bike and pedestrian over/underpasses separate pedestrians / bicyclists and vehicular traffic into different levels to provide walkers and bikers access across a street either through a bridge over the street or a tunnel going under it.

Locational Criteria

In some situations where there are wide, high traffic volume, high traffic speed streets, overpasses and underpasses can serve an important role in maintaining continuity of the pedestrian/bikeway network by providing safe access across a street, river, or railroad that would otherwise pose a significant barrier to travel.

The Wheeler Bridge is a recommended bicycle and pedestrian crossing.

Treatment in Plan

This Plan recommends overpasses/underpasses in several locations, most notably the Wheeler Bridge crossing Turtle Creek in South Beloit. This connection will provide a safe bike and pedestrian crossing of the Creek, and play a valuable role in linking the north and south portions of the Stateline Area.

F. SIDEWALKS AND PATHWAYS

Overview

A continuous pedestrian network connects neighborhoods and makes it possible for pedestrians to get from place to place. This category is meant to denote areas where a pedestrian facility *of some type* is needed. This Plan gives the community the flexibility to add a sidewalk, walkway, or a path in the areas where this category of facility is recommended.

Function

Sidewalks provide safe places for people to walk when they go to school, to the park, or to shop. They also facilitate safe neighborhoods by encouraging self-surveillance as people commute, exercise, socialize and play.

Locational Criteria

In addition to their placement along streets, sidewalks provide important connectivity for between streets, buildings, and community facilities such as parks. Short walkways often serve the purpose of making a direct connection between the public sidewalk network and a building, serving a valuable role in enhancing pedestrian access to destinations. Short walkways can also be used in the public right-of-way or easements to maintain pedestrian access through cul-de-sacs or long blocks. Longer pedestrian walkways are valuable for enhancing pedestrian mobility, especially where they provide the pedestrian with short cuts, such as through parks.

Treatment in Plan

This Plan advises the installation of sidewalks on new streets per the policies in Section Five. On existing streets, Map 4c advise the addition of sidewalks in several critical areas.

Design Criteria:

- Sidewalks along roadways should be:
  - Minimum 5 feet in width;
  - Surfaced with concrete;
  - Separated from the road by a landscaped terrace.
- Sidewalks through parks, at the end of cul-de-sacs, between blocks, and on private development sites may be developed to different width and surfacing standards, based on expected use, context, and ADA requirements.
- Sidewalks wider than five feet are warranted in areas with higher volumes of pedestrian traffic, including commercial areas, near schools, and higher density residential areas, and on collector and arterial streets with higher traffic volumes and speeds. In this case, the *combined width* of the sidewalk and the terrace should be wider. This can be achieved by either widening the terrace and/or widening the sidewalk.
- Parking meters, planters, mail boxes, light poles, signs and other street furniture should be located in the terrace adjacent to the sidewalk so that these potential obstructions do not narrow the width of the sidewalk. Where there area extreme right-of-way constraints and an obstruction of the sidewalk cannot be avoided, the sidewalk should have a minimum clear usable width of at least 36 inches at every point along its length.

G. INTERSECTION IMPROVEMENTS

Overview and Function

Adding improvements such as bike lanes, crosswalk striping, refuge medians, and bulb-outs to intersections results in a more bicycle and pedestrian friendly intersection.

Signage

This Plan recommends pedestrian crossing signs like the one shown below for uncontrolled intersections in the Stateline Area.

Locational Criteria and Treatment in Plan

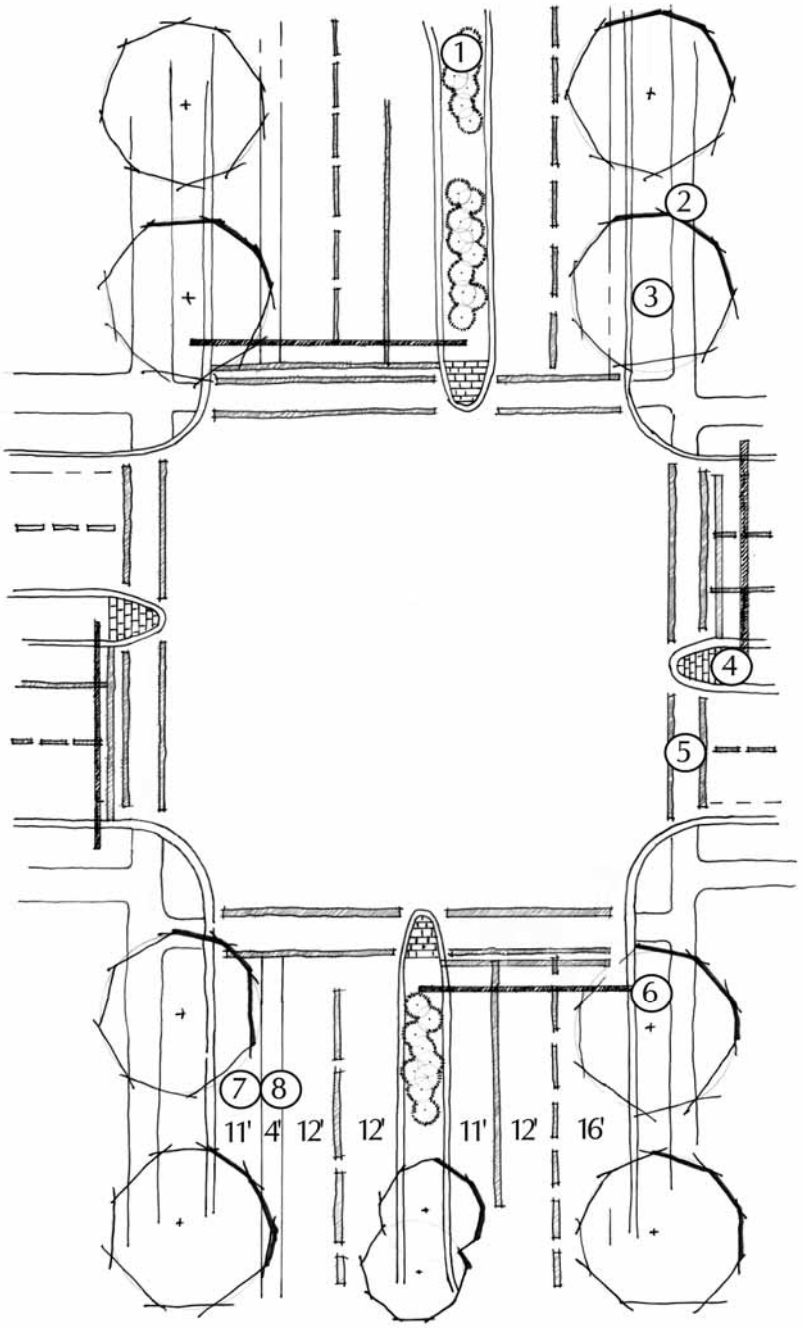
Certain intersections within the Stateline Area have been categorized as first priorities for improvements. Retrofitting these intersections with new improvements such as bike lane and crosswalk striping, refuge medians and bulb outs will provide much more user-friendly intersections for pedestrians, bikers and automobiles. New intersections should be designed with bicycle and pedestrian in mind. The following three pages include sketches for three types of intersections: major arterial and major arterial, major arterial and local street, and local collector and local street. These are conceptual drawings which provide a variety of proposed improvements. Each drawing includes elements that may or may not be applicable to all types of intersections.

Maps 4a, 4b, and 4c show the locations of intersections with proposed improvements. The improvements are described further in the tables later in this section, and in Appendix B.

I. MAJOR ARTERIAL AND MAJOR ARTERIAL INTERSECTION

Legend
1. Median Plantings
2. Sidewalk
3. Street Trees
4. Pedestrian Refuge Median
5. 10' wide Crosswalk
6. Overhead Lane Marking Signage (including bike lanes)
7. Bus Lane (if on route)
8. 4'-5' wide Bike Lane

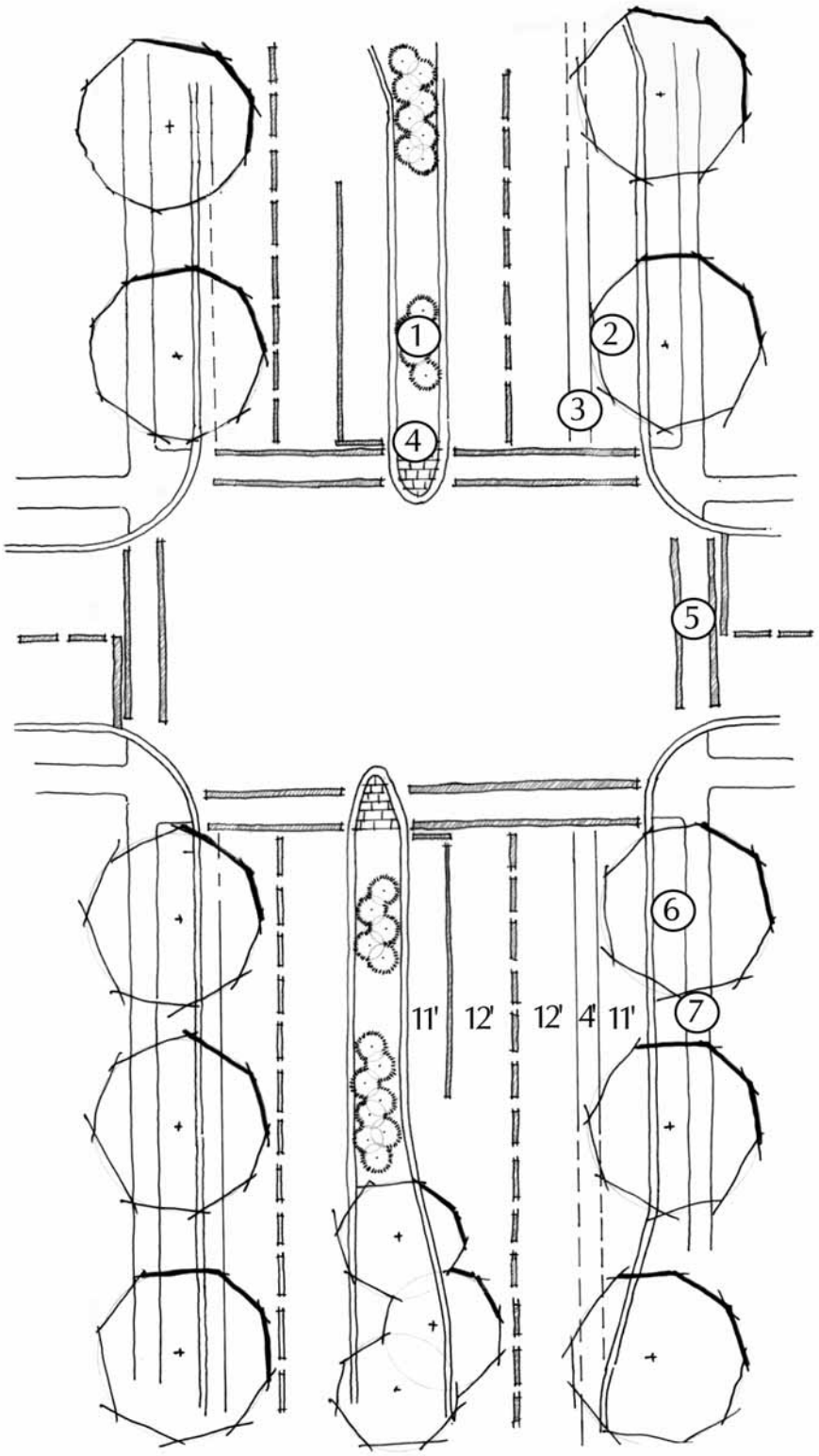
Intersection Examples
- Cranston Road and Milwaukee Road
- STH 75 and STH 251
- Dorr Rd. and Prairie Hill Rd.
- Dorr Rd. and Rockton Rd.



II. MAJOR ARTERIAL AND LOCAL STREET INTERSECTION

Legend
1. Median Plantings
2. Bus Lane
3. 4'-5' wide Bike Lane
4. Pedestrian Refuge Median
5. 10' wide Crosswalk
6. Street Trees
7. Sidewalk
8. "Begin Right Turn Lane" Sign

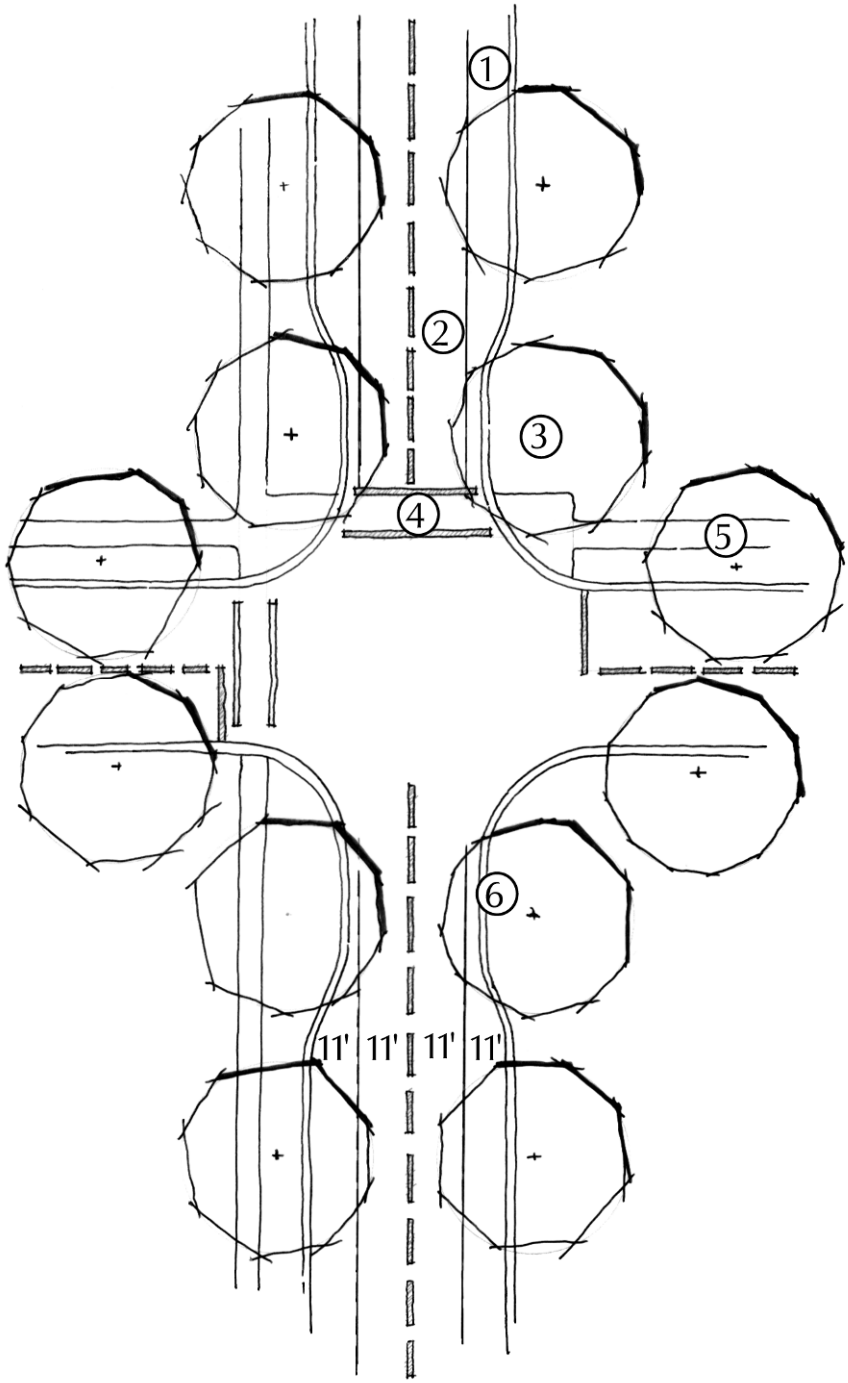
Intersection Example:
- Gardner Ave. and Wheeler Ave.



III. MAJOR COLLECTOR AND LOCAL STREET INTERSECTION

Legend
1. Bike/Parking Lane (11' +2' gutter pan)
2. Travel Lane
3. Street Trees
4. Cross Walk
5. Sidewalk
6. Intersection Traffic Calming Bumpout

Intersection Example
- Burton St. and Moore St.



2. FIRST PRIORITY RECOMMENDATIONS

The following tables provide details and cost estimates for proposed first priority facilities (as depicted on Map 5). It should be noted that the prioritization of these facilities was determined by the individual Stateline communities. The proposed facilities must be included in local Capital Improvement Plans and SLATS MPO and County Plans to be eligible for funding assistance. It should not be assumed that these facilities will be constructed within the next five years, or that funding assistance for all of the facilities will be obtained. Rather, this prioritization list represents the bike and pedestrian planning goals of the communities.

Cost estimates are provided for first priority projects only and do not include any costs for land acquisition. Per unit costs are given in year 2010 dollars and were prepared with the assistance of the engineering firm of Strand Associates. A breakdown of unit costs used to make these estimates is provided in Appendix C.

The following tables and Map 5 provide recommendations for "first priority" bicycle and pedestrian facilities. These facilities are also shown on Maps 4a and 4b.

On-Street Facility Recommendations

Street	Between	Proposed Bike/Ped Improvements	Community	Total Cost
East Hart Road	Shopiere Road and Interstate	Add paved shoulders and mark as bike lanes	Beloit	$262,108
Inman Parkway	Prairie Road and Creek Road	Add bike lanes and sign as bike route as part of new road construction	Beloit	Cost will be integrated with cost of new road construction
West Hart Road Option A (Bike Lane)	Prairie Avenue and Creek Road	Mark bike lanes; Will provide link to path running north-south through Parkmeadow North subdivision, and may aid in effort to control traffic to safe neighborhood speeds; as alternative, could use Huebbe Parkway	Beloit/T of Turtle	$5,946
West Hart Road Option B (Signage)	Prairie Avenue and Creek Road	Sign as bike route; Will provide link to path running north-south through Parkmeadow North subdivision, and may aid in effort to control traffic to safe neighborhood speeds; as alternative, could use Huebbe Parkway	Beloit/T of Turtle	$3,795
Madison Road	Burton Street and Nye School Road	Pave shoulder and mark as bike lane	Beloit/T of Beloit	$303,600
Murphy Woods Road Option A (Bike Lane)	Elmwood Avenue and Creek Road/Shopiere Road	Mark bike lanes; Will provide link to path running north-south through Parkmeadow North subdivision, and may aid in effort to control traffic to safe neighborhood speeds	Beloit	$7,084
Murphy Woods Road Option A (Signage)	Elmwood Avenue and Creek Road/Shopiere Road	Sign as bike route; Will provide link to path running north-south through Parkmeadow North subdivision, and may aid in effort to control traffic to safe neighborhood speeds	Beloit	$5,060
Roscoe Avenue	Elmwood Avenue and Hillside Drive	Sign as bike route as part of South Beloit connector (there is already existing sidewalk in this stretch)	South Beloit	$2,530
South Beloit/Wheeler Avenue Connector	Wheeler to Washington to Eastern to Lathrop to Blackhawk Boulevard	Sign as bike route when Wheeler Bridge reconstructed	South Beloit	$5,060
Shopiere Road	Cranston Road and Murphy Woods Road	Pave shoulders and mark as bike lanes	Beloit	$204,930
West Colley Road	Milwaukee Road and Town Hall Road	Pave shoulders and mark as bike lanes as part of Gateway neighborhood development and when reconstruction of Colley Road timely in other segment (cost would be less than shown if part of road reconstruction)	Beloit/T of Turtle	$1,260,952
West Rock River Route (Shore Drive/Harbor Drive)	Maple Avenue and Beloit/Newark Road	Sign as bike route with possible off-road path segment from Millar to Kelsey Road (see off-road bicycling recommendations; cost does not include path option)	Beloit/T of Beloit	$5,060

Off-Street Path Recommendations (see also Sidewalk and Pathway Recommendations)

Street/Name	Between	Proposed Bike/Ped Improvements	Community	Cost
Afton Road Path	Beloit-Newark Road and Big Hill Park	Paved off-street path	Beloit/Town of Beloit	$770,385
Big Hill Park Trail, Beloit	Through Big Hill Park north and Walters Road	Paved off-street path	Beloit	$416,185
Janesville/Beloit Regional Path	Walters Road and northern edge of Stateline planning area	Crushed rock off-street path	T of Beloit/T of Rock	$1,113,200
Park Avenue Option A (Sidewalk)	Cranston Road and Inman Parkway	Sidewalk on one side of street	Town of Beloit	$186,714
Park Avenue Option B (Paved off-street path)	Cranston Road and Inman Parkway	Paved off-street path on one side of street	Town of Beloit	$726,110
South Beloit/Rock River Connector Path	Shirland Avenue east of Rock River and State Highway 2 area in South Beloit	Paved off-street path (cost per 2010 grant application)	South Beloit	$446,460
Rockton Road Path	Old Meadow Lane and State Highway 251	Paved off-street path	Rockton	$549,010
Rockton Central Trail, railroad to Macktown	Railroad and Macktown Settlement, south of river	Paved off-street path	Rockton	$469,315
Rockton Central Trail, railroad corridor	Main Street and State Highway 2	Paved off-street path	Rockton/T. of Rockton	$398,475

Street/Name	Between	Proposed Bike/Ped Improvements	Community	Cost
Rockton Central Trail, Old River Road	State Highway 2 and Stephen Mack Middle School	Paved off-street path	Rockton	$398,475
Rockton Central Trail, Old River Road	Stephen Mack Middle School and Roscoe Road	Paved off-street path	Rockton	$566,720
South Beloit City Park Connector	City Park, crossing railroad tracks east and Caswell Street.	Off-street paved path connector	South Beloit	$177,100
Turtle Creek Path	Highway 51 and Milwaukee Road generally along Creek corridor/rail right-of-way	Paved off-street path	Beloit	$863,363
Hart-to-Athletic Fields Path	Extension of existing trail to athletic fields complex	Paved off-street path	Beloit/Town of Turtle	$398,475

Intersection Improvements

Intersection	Existing Traffic Control	Existing Bike/Ped Improvements	Proposed Bike/Ped Improvements	Community	Cost
Belvidere Road & Applegate Road	None	None	Add striped crosswalks and pedestrian crossing signs	T of Harlem	$1,961
Cranston Road & Shopiere Road	Signal	None	Add striped crosswalks and pedestrian crossing signs	Beloit	$1,898
Dorr Road & Prairie Hill Road	4-way stop	None	Add striped crosswalks and possibly or in the future incorporate pedestrian signals	Rockton	$3,163
Dorr Road & Rockton Road	4-way stop	None	Add striped crosswalks and possibly or in the future incorporate pedestrian signals	Rockton	$3,163
Gardner Avenue & Hwy. 251	Signal	None	Add striped crosswalks, pedestrian crossing signs, and pedestrian signals	South Beloit	$68,184
Gardner & Wheeler Avenue	None	None	Add striped crosswalks and pedestrian crossing signs	South Beloit	$4,428
Milwaukee Road & Cranston Road	Signal	None—this is a high-traffic intersection with many semi trucks and a history of accidents	Add striped crosswalks, pedestrian crossing signage, bike lane or path striping (if applicable), and pedestrian signals	Beloit	$68,690
Stone Bridge Trail & Rockton Road Crossing	None	None	Add striped crosswalk, median break, pedestrian crossing signage	Roscoe	$5,693
USH 51 and railroad crossing near Turtle Creek	None	None	Add striped crosswalks, pedestrian crossing signs, and HAWK pedestrian actuated signals	Beloit	$130,928

Sidewalk and Pathway Recommendations

Street	Between	Existing Sidewalk	Proposed Bike/Ped Improvements	Community	Cost
Burton Street	Dell Drive and Afton Road (one side only)	Discontinuous	Add sidewalks on at least one side of street where missing	Beloit/Town of Beloit	$132,066
Cranston Road	Shopiere Road and Fuller Road (one side only)	None	Add sidewalk or path on at least one side of street	Beloit	$95,634
Gardner Avenue	STH 251 and Willowbrook Road (one side only)	None	Add sidewalk on at least one side of street	South Beloit	$118,404
Inman Parkway	Highway 51 and Prairie Road (one side only)	None	Add sidewalk or path on at least one side of street	Town of Beloit	$170,775
Inman Parkway	Prairie Road and Creek Road	None	Add sidewalk as part of new road construction	Beloit	Cost will be integrated with cost of new road construction

Underpasses, Overpasses, and other Facility Recommendations

Name	Proposed Bike/Ped Improvements	Community	Cost
Wheeler Bridge	Restore bridge to carry pedestrian and bike traffic as part of the South Beloit/Wheeler Avenue Connector	City of Beloit	$134,000
Turtle Creek and Milwaukee Road	Build bike/ped underpass in conjunction with Turtle Creek Path	City of Beloit	$300,000
Turtle Creek and Spring Brook	Build bike/ped bridge in conjunction with Turtle Creek Path	City of Beloit	$75,000
Roscoe Road and Rock River	Enhance bridge with paths and/or on-street bike lanes in conjunction with Roscoe Road Trail project	Village of Rockton	TBD
Yale Bridge	Include bike lanes on IDOT bridge reconstruction project	Rockton Township	IDOT project

3. COMMUNITY NEIGHBORHOOD DESIGN RECOMMENDATIONS

A plan that advised only bike and pedestrian facility construction would be incomplete. When designing neighborhoods it is essential to consider the needs of pedestrians and bicyclists. A mix of land uses in close proximity, including residential, commercial, and recreational, should be provided so residents are able to fulfill their daily needs within or near the neighborhood. There are several principles of neighborhood design that the MPO should promote, and local governments should use when preparing, evaluating, reviewing and adopting development plans and subdivision plats. Local subdivision regulations should be amended to incorporate these principles in review of subdivision plats. The MPO encourages local adoption of the model subdivision regulations included in Appendix D. The Stateline communities should also use and adopt traditional neighborhood development and planned unit development zoning districts to help blend these principles into unified developments.

A. General Design Principles

- Encourage an integrated mix of uses to provide basic needs and services to minimize vehicle miles traveled.
- Provide public space within the neighborhood (e.g. parks, pathways).
- In and at the edge of larger neighborhoods, provide opportunities for retail, office, entertainment, civic, and recreational land uses.
- Design the neighborhood at a human scale, providing easy access and wayfinding opportunities.

B. Natural Systems, Open Space, and Landscaping Principles

- Integrate natural resources into the neighborhood as aesthetic and functional landscape elements for conservation and quality of life purposes.

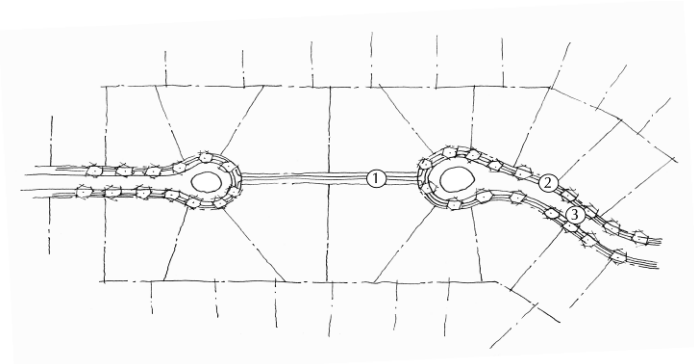
- Encourage or require conservation easements or public dedication for all ecological resources, buffers, trails, and other areas proposed for preservation.
- Provide wide areas for public access to parks and open space lands. Do not hide open space behind private lots.
- Seek to maximize preservation of common open space in the neighborhood through public dedication and/or private management of open space through a homeowner's association.

C. Pedestrian-friendly Neighborhood Design Principles

- Design a network of streets that connects within the subdivision, and to existing and future subdivisions.

Neighborhood with interconnected street pattern

- Minimize use of cul-de-sacs and require walkway connectors at cul-de-sac ends.
- Provide sidewalks on all public streets, with the possible exception of short cul-de-sacs.
- Create looped internal pedestrian trails within neighborhoods, and connect to the existing or planned regional path system.
- Provide landscaping along pedestrian pathways and sidewalks.

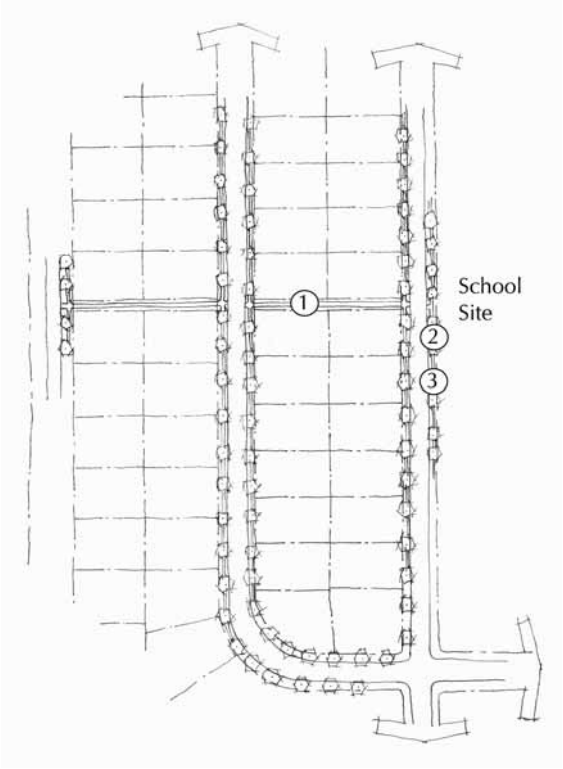


1. Mid-block/Cul-de-sac pedestrian crossing
2. Sidewalk
3. Street trees

- Provide street trees at regular intervals in terrace areas.

- Design streets to correspond to traffic volumes and adjacent use or density. Do not over-design streets.

Midblock connection in Beloit.



1. Mid-block/Cul-de-sac pedestrian crossing
2. Sidewalk
3. Street trees

- Reduce front yard building setbacks and orient entries and porches of buildings to streets and sidewalks. These steps will encourage walking by providing easy pedestrian connections, bring activities and visually interesting features to the street, and provide safety through watchful eyes.

- Pay special attention to garage placement. Ideally, garages should be set back from or, at a minimum, flush with the front façade of the house.

4. TRAFFIC CALMING MEASURES

Neighborhood traffic management goes hand in hand with making the Stateline Area a better place to bike and walk. This section discusses some traffic calming measures that can be used to manage neighborhood traffic. These measures can be implemented for a number of reasons, including as a neighborhood design feature or focal point, as a measure to slow vehicular traffic speeds, or as a mechanism to enhance bicycle and pedestrian travel. Traffic calming measures have the greatest potential to enhance pedestrian travel by: slowing vehicular traffic, shortening pedestrian crossing distances, and drawing attention to a pedestrian crossing.

A. Curb Extensions

Curb extensions are also known as bulb outs, bump outs, or neck downs. Just as the name implies, the curb is extended into the street from its usual position to create a bulbed out sidewalk area that narrows the street. As such, curb extensions can be an effective tool for reducing the crossing distance for pedestrians. Curb extensions can be applied to one or more corners of an intersection, and therefore can impact one or both sides of a crossing on one or more legs of an intersection. Curb extensions are beneficial in that they

- shorten the pedestrian crossing distance;
- provide better visibility for pedestrians to see and be seen;
- provide space for benches and other street furniture; and
- may reduce vehicle speeds.

This Plan recommends that these extensions be used in many applications on new or upgraded streets.

B. Refuge Medians

Refuge medians allow pedestrian to cross traffic in each direction of travel separately. Therefore, where refuge medians are provided, pedestrians only have to find an adequate gap in traffic in one direction of travel at a time. This can significantly reduce pedestrian delay and chances of conflict with motorists. This Plan recommends the installation of refuge medians on new or upgraded arterial and collector roads, at pedestrian crossing points.

C. Traffic Circles

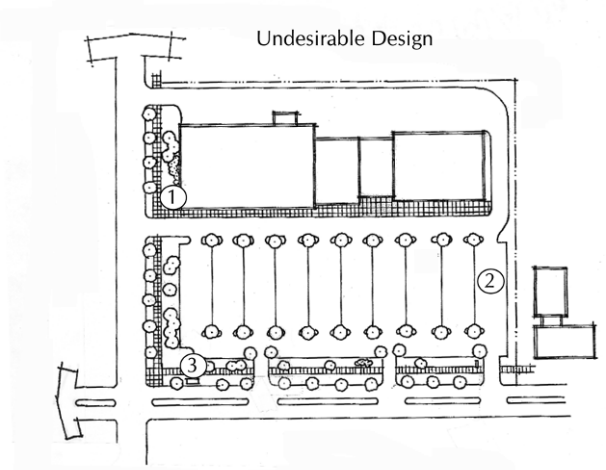
Traffic circles are circles of varying diameter formed by curbs placed in intersections that are usually classified as local streets. Motorists must drive around the circle. Traffic circles reduce motor vehicle speeds through the intersection, depending on the current intersection controls in place.

5. PEDESTRIAN-ORIENTED SITE DESIGN PRINCIPLES

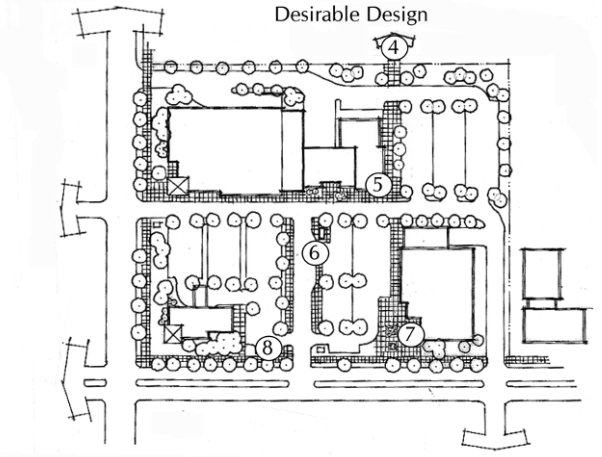
Commercial areas, industrial parks, and major institutions are often destinations for pedestrians and bicyclists, and multifamily housing developments are often key generators. It is important to consider the needs of pedestrians and cyclists when reviewing site plans for these developments. Appendix D provides model zoning regulations to facilitate bike and pedestrian access to these projects, and provide appropriate bike parking spaces.

The entire development should provide for safe pedestrian and bicycle access to all uses connections to existing and planned public pedestrian and bicycle facilities, and connections to adjacent properties. Walkways should be provided along the entire length of any façade containing a public entrance, leaving room for foundation planting beds. Walkways should be provided from all building entrances to existing and planned public sidewalks or pedestrian/bike facilities. Internal pedestrian walkways should be distinguished from driving surfaces. Site design should allow pedestrians to walk parallel to moving cars wherever possible. The buildings should provide awnings or other weather protection features over all entrances. The following graphic gives an example of undesirable and desirable site design when considering the needs of pedestrians and bikers for a commercial development.

Undesirable Design
1. Sidewalk
2. Large unbroken expanse of parking
3. Bus Stop on edge of the site



Desirable Design
4. Pedestrian link to neighborhood
5. Integrated pedestrian circulation and bike parking
6. Bus Stop integrated into the site
7. Pedestrian Plaza
8. Parking divided into smaller pods



The development should also provide secure, integrated bicycle parking and pedestrian furniture in appropriate quantities and locations. The model ordinances in Appendix D provide appropriate standards.

Site plans should emphasize pedestrian and bicycle access and amenities, such as bike racks.

VII. PLAN IMPLEMENTATION

A. Steps Towards Implementation

This Plan as written is an implementation-based plan. The general and detailed facility recommendations form the implementation framework. The following statements provide synopsis of the recommendations and implementation tools:

1. **MPO/Local Adoption:** This Plan should be adopted as an element of the SLATS MPO's Long-Range Transportation Plan. Each individual community in the Stateline Area should also adopt this document as an official element of the community's Comprehensive Plan. The Plan should be adopted as part of the community's Park and Open Space Plan to be eligible for stewardship funding. The Plan should be updated as needed, but at a minimum of once every ten years.
2. **TIP Inclusion:** The SLATS MPO should include major recommendations of this Plan in the annual update of the Transportation Improvement Program, to facilitate access to federal funds support.
3. **CIP/Capital Budget Inclusion:** The "first priority" recommendations of this Plan should be included in the capital improvements programs of the Stateline communities. Annual bicycle and pedestrian facilities budgets should be established to aid in funding recommendation improvements. Maintenance (such as street sweeping) should be included in annual operational budgets.
4. **Funding Assistance:** There are a number of State and federal funding sources available to help finance implementation of the facility recommendations in this Plan, providing financing for up to 100% (more commonly 80%) of project costs. Funding sources available in 2004 are listed in Appendix A. It should be noted that due to significant uncertainties regarding current federal and State budgets with regard to funding of recreational transportation systems programs, the current and future availability of program funds is subject to change. The SLATS MPO will provide technical support for the individual communities in applying for funding assistance.
5. **Ordinance Assistance:** Many of the recommendations presented in this Plan can be implemented in part by making strategic revisions to existing codes such as zoning and subdivision ordinances. If these ordinances are revised in each of the Stateline communities so that they include detailed design standards for pedestrian and bicycle facilities, new developments can be planned so that they address the special needs of pedestrians and bicyclists. Model ordinances are included in Appendix D.
6. **Official Mapping:** Updating the Official Maps of the communities will also help the Stateline communities to implement the recommendations of this Plan. The official map allows the communities to identify existing and future pedestrian and bicycle travel facilities and ensure that as lands in the community are developed, these facilities are incorporated into the design of subdivision plats, certified survey maps and site plans.
7. **Street Design and Maintenance:** The Stateline communities should also consider revising or refining existing design standards and policies for new street and sidewalk construction and replacement and maintenance of existing facilities. Periodic maintenance programs are needed to ensure that existing streets and sidewalks are maintained in a manner that keeps them in a condition that is safe for use by pedestrians and bicyclists of all ages.

8. **Partnerships:** The Stateline communities should seek partnerships with local nonprofit groups to implements this Plan. The Stateline Area communities should also work with Rock and Winnebago Counties, area schools, and non-profit groups to facilitate an education and public awareness program. The program should include educating pedestrians, bicyclists and motorists about the law, providing residents, employees, and visitors with a user friendly map of the bicycle pedestrian system and destinations, and providing a youth bike safety program for schools.
9. **Follow-up Program:** The MPO should convene a group to meet annually to consider progress and opportunities for implementing this Plan. The Technical and Advisory Committee assigned to the Plan drafting may be an appropriate body. This group should prepare and adopt rules for resolution of differences between area community's plans.

B. Public Process

The projects recommended within the Plan are required to go through a public process prior to budgeting and implementation. Typically, the projects would first need to be identified in the capital plan, if a capital plan expenditure, and then in the annual budget recommendations set forth by the head elected official of the community for approval by the appropriate approval body in each community. Each of the processes above involves public meetings and opportunities for public input.

Certain projects, if they involve new construction in existing neighborhoods, are also subject to informational meetings as part of the design stage, and additional public meetings if any assessments are involved. Therefore, just because a project is designed and funded involves public meetings and opportunity for input from the affected neighbors. Likewise, with this additional input and commentary it is possible that an identified project may not be undertaken.

Appendix A: Funding Sources

Potential Bicycle Facility Funding Sources in Wisconsin

Program	Purpose	Funding Details	App. Date	Notes	Administering Agency	Contact
Wisconsin Stewardship Programs						
Aids for the Acquisition and Development of Local Parks (ADLP)	To acquire or develop public outdoor recreation areas for "nature based" activities. Program rules being developed in 2000.	Program reauthorized and funding expanded for year 2000 as part of State Stewardship program.	May 1	A comprehensive outdoor recreation plan is required; priority is for land acquisition.	Wisconsin DNR	Duane Hofstetter (608) 266-5791 Eugene Park (414) 263-8676
Urban Greenspace Program (UGS)	To acquire land to provide natural space within or near urban areas, or to protect scenic or ecological features.	Program reauthorized and funding expanded for year 2000 as part of State Stewardship program.	May 1	A comprehensive outdoor recreation plan is required.	Wisconsin DNR	Duane Hofstetter (608) 266-5791 Eugene Park (414) 263-8677
Trails Program	To acquire lands for trails.	50% local match per project.	May 1	Funds available to organized conservation organizations.	Wisconsin DNR	Dave Hammer (608) 264-6034
Urban Rivers Grant Program (URGP)	To acquire lands or rights in land adjacent to urban rivers to preserve or restoring them for economic revitalization or outdoor recreation.	Program reauthorized and funding expanded for year 2000 as part of State Stewardship program.	May 1	A comprehensive outdoor recreation plan is required to participate.	Wisconsin DNR	Duane Hofstetter (608) 266-5791 Janet Beach Hanson (608) 266-0868
Land and Water Conservation Fund (LAWCON)						
	To acquire and develop public outdoor recreation areas and facilities.	50% local match per project. Wisconsin's annual share of approximately $740,000	May 1	A comprehensive outdoor recreation plan is required to participate.	Wisconsin DNR, with Federal funds.	Duane Hofstetter (608) 266-5791
National Recreational Trails Fund (RTA)						
a.k.a. "Symm's Fund"	To provide funds for acquisition, maintenance, rehabilitation and development of both motorized and non-motorized and diversified trails.	Part of TEA-21. 50% local match per project.	May 1	Funding may only be used on trails which have been identified in or which further a specific goal of a local, County, or State trail plan. Funds may be used on trails which are referenced in a statewide comprehensive outdoor recreation plan.	Wisconsin DNR, with Federal funds	Larry Friedig (608) 266-5797
Statewide Multi-Modal Improvement Program (SMIP)						
Bicycle and Pedestrian Facilities Program (BPFP)	For planning proposals and for facility development projects that implement a bicycle and/or pedestrian plan.	Part of TEA-21. 20% local match per project.	Feb 25	Large projects are encouraged.	WisDOT Bicycle / Pedestrian Program Tom Huber (608) 267-7757	District 1: Dave McCosh, (608) 246-5445
Statewide Transportation Enhancements Program (STEP)	Enhance a State transportation project, including pedestrian and bicycle facilities, acquiring scenic easements, and preserving abandoned railway corridors. Local projects must be adjunct to a State highway.	Part of TEA-21. State will pick up half of the mandatory 20% local match.	Feb 25	Minimum project size is $12,500; larger projects are encouraged. Program applications mailed November/December.	WisDOT Enhancements Program.	District 1: Dave McCosh, (608) 246-5445

Program	Purpose	Funding Details	App. Date	Notes	Administering Agency	Contact
Surface Transportation Discretionary Program (STP-D)	For projects that foster alternatives to single-occupancy vehicle trips.	Part of TEA-21. 20% local match per project. Program directed mainly at local communities.	Feb 25	Small projects, costing $5,000 or more, are encouraged.	WisDOT STP-D Program	Mary Forlenza (608) 264-8724
Federal Transit Administration Grants						
Includes Section 3 discretionary funds.	Transit capital projects; includes intermodal facilities such as bike racks on buses and bicycle parking at transit stations; most funds are to be directed toward transit itself.	20% local match per project.	Early spring	Finding for this program is allocated on a discretionary basis. Congress/Administration can pick the projects although the authorization bill contains a list of specific earmarks.	WisDOT Bureau of Transit	Linda Lovejoy (608) 266-1379
Congestion Mitigation / Air Quality (CMAQ) Improvement Program						
	Funds projects which will reduce vehicle trips and miles; reduce emissions due to traffic congestion; or reduce the per mile rate of vehicle emissions.	50% local match per project.	Early April	Limited to Milwaukee, Kenosha, Racine, Ozaukee, Waukesha, Washington, Sheboygan, Kewaunee, Manitowoc, Walworth and Door Counties.	US DOT	John Duffy (608) 264-8723
Section 402 – Highway Safety Funds						
Community Programs	Funds bicycle and pedestrian education and enforcement projects and projects such as helmet purchase, sponsorship of bicycle rodeos, development of brochures, etc.	20% local match per project.	Dec 1	Contact WisDOT regarding the criteria for project selection. Engineering and maintenance work not eligible for funding.	WisDOT Office of Transportation Safety	Joanne Pruit-Thunder (608) 267-3154
Highway Safety Program	Available for Bicycle/Pedestrian education. May also be used to develop safety classes for Bicycle/Pedestrian offenders.	20%-50% local match per project.	Dec. 1	Communities that can document bicycle crashes related to motor vehicle violations. Funds new enforcement programs up to $1,000.	WisDOT Office of Transportation Safety	Joanne Pruit-Thunder (608) 267-3154
Research Projects	Funds the research of data needed to substantiate unique local needs for safety funds.	Up to $5,000 per project, 4 to 8 projects annually funded statewide.	1st draft, Dec. 1	Participating communities combine enforcement efforts with an education program	WisDOT Office of Transportation Safety	Joanne Pruit-Thunder (608) 267-3154
Wisconsin Main Street Community Program						
	Comprehensive downtown revitalization program which includes fundraising, business retention and marketing, volunteer development, public streetscape improvements, etc.	Technical assistance is available for 5 years. Inclusion in the program is competitive, with approximately 3 communities accepted into the program each year.	Late spring	Communities must be able to dedicate at least $30,000 annually to the program.	National Main Street Center (202) 673-4219	Wisconsin Dept. of Commerce, Bureau of Downtown Development (608) 266-7531
Urban State Forestry Grant Program						
	To help communities increase their capability to manage threes through training, public awareness, inventory, tree planting, care and maintenance programs.	$450,000 to $500,000 available annually; $1,000 to $25,000 grants awarded with a 50% local match. Match may include in-kind services and donations.	Nov 1	50 to 60 grants made each year. Funds can be used for street tree planting if the communities demonstrate that this is its greatest need.	Wisconsin DNR Urban Forestry	Dick Rideout (608) 267-0843

Source: *Jefferson County Bikeway/Pedestrianway Plan*, May 1996, Prepared by Camiros, Ltd., Madison, Wisconsin; Bicycle & Inc., Bolingbrook, Illinois; and R.A. Smith & Associates, Inc., Brookfield, Wisconsin; Updated by Vandewalle & Associates in August 1999, May 2000, and October 2003.

Potential Bicycle Facility Funding Sources in Illinois

Program	Purpose	Funding Details	App. Date	Notes	Administering Agency	Contact
Bike Path Grant Program	Provides funding assistance for public recreation trails.	Funded by collection of a portion of the tax imposed on the disposal of used tires. No more than 15% of related architectural and engineering costs are eligible for reimbursement	March 1	Projects evaluated on a competitive basis according to established trail objectives and priorities, such as development of connector paths and trail systems, projects identified in plans, facilities in high demand areas, projects having minimal adverse environmental and social effects, projects offering diverse scenic and recreational experiences, and projects with long-term maintenance plans.	Illinois DNR	Bob Appleman Illinois Bike Path Grant Program Illinois Dept. of Natural Resources, Div. Of Grant Administration One Natural Resource Way Springfield, IL 62702-1271 (217) 782-7481 www.dnr.state.il.us
Illinois Transportation Enhancement Program	Allocate resources to well-planned projects that provide and support alternate modes of transportation, enhance the transportation system through preservation of visual and cultural resources, and improve the quality of life for members of the communities.	Funded by federal transportation dollars.	Historically, Nov. 1	Funds are fully programmed through 2003. Upon authorization of SAFETEA, IDOT will evaluate new or changed provisions in federal regulations and will redesign the Illinois Transportation Enhancement guidelines and applications to comply with federal requirements, while best meeting Illinois' needs.	IDOT	Keith M. Sherman, Chief Statewide Program Planning 2300 S. Dirksen Parkway Springfield, Illinois 62764 Phone: (217) 782-0379 Fax: (217) 785-8140
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Mitigate vehicular congestion or improve air quality.	Funded by federal transportation dollars.	Historically, March 1	Limited to projects in areas of the State that do not meet national air quality standards, currently the Chicago and St. Louis areas.	Chicago Areas Transportation Study (CATS)	Ross Patronsky Chicago Area Transportation Study 300 W. Adams, 2nd Floor Chicago, IL 60606 (312) 793-3474
Open Space Lands Acquisition and Development Program (OSLAD) and Land and Waterway Conservation Fund (LAWCON)	Acquisition and/or development of land for public parks and open space	50% local match per project. $20 million available annually. Maximum grant is $750,000 for acquisition and $400,000 for development/renovation projects.	July 1	This program essentially combines a State program with a federal program. A comprehensive outdoor recreation plan is required to participate. Any land acquired must be open to the public in perpetuity.	IDNR	Mick Rosendahl Open Space Lands Acquisition and Development Program IDNR Division of Grant Administration One Natural Resource Way Springfield, IL 62702-1271 (217) 782-782-7481
Bridge Rehabilitation and Replacement Program	Provides funding for rehabilitation and replacement of bridges on any public road.	20% local match per project.	?	Interested municipalities should contact the IDOT District 2 Bureau of Local Roads and Streets and inform them that a bridge in their area requires attention.	IDOT	Darrell Lewis Chief, Local Roads and Streets 2300 S. Dirksen Pkway. Springfield, IL 62764 (21) 782-3827
National Recreational Trails Program (RTP)	To provide funds for acquisition, maintenance, rehabilitation and development of both motorized and non-motorized and diversified trails.	Part of TEA-21. Approximately $1 million was available statewide in2003; up to 80% funding.	March 1	IDNR currently places the highest priority of the non-motorized trail portion of RTP funding to assist with the following activities, since no other trail funding source currently exists for them: equestrian, hiking, cross country ski, mountain bike, and water trail projects. IDNR further prioritizes projects that promote the Grand Illinois Trail.	IDNR	Bob Appleman National Recreational Trails Program IDNR, Division of Grand Administration One Natural Resource Way Springfield, IL 62702-1271 (217) 782-7481
Grade Crossing Protection Fund	Pays for highway and/or rail grade crossing signal improvements, construction or reconstruction of bridges (highways over railroads or railroads over highways) where railroads intersect a roadway, including independent pedestrian and bicycle grade crossing improvements.	Generated from motor fuel tax funds. $27 million available each year. Normally pays 85% of the cost of the crossing signal improvements, and up to 60% of the cost of bridges.	January	Evaluated on two criteria: the Crash Prediction Value of each crossing, and overall statewide geographic distribution based on safety needs. Must provide cost estimate, feasibility or preliminary design report, and preliminary engineering or planning studies.	Illinois Commerce Department	Mike Stead Illinois Commerce Commission 527 East Capitol Avenue Springfield, IL 62701 (217) 557-1285

Program	Purpose	Funding Details	App. Date	Notes	Administering Agency	Contact
Rail Safety Program	Improve railroad safety by reducing the number of accidents at highway/railroad grade crossings.	Improvements can be on State or local roads and streets, and include gates, cantilever gates or lights, crossbucks, flashing lights, and signals.	August 15	Evaluated on a need and merit basis, with the highest priority given to projects that reinforce safety at crossings.	IDOT	Jeff Harping, IDOT 2300 S. Dirksen Parkway Springfield, IL 62764 (217) 785-8542
Hazard Elimination Program	Provide funds for projects that improve traffic hazards. TEA-21 expanded the language of Hazard Elimination to specifically include bicycle and pedestrian improvements. IDOT has not established separate program rules or procedures for bicycle and pedestrian improvements, but has not specifically excluded them.	Provides reimbursement up to 80% for preliminary engineering, utility relocations, construction engineering, and construction costs.	Contact IDOT	Part of IDOT's roadway improvement program.	IDOT	Hazard Elimination Program IDOT, Office of Planning and Programming 2300 S. Dirksen Parkway, Rm. 307 Springfield, IL 62764 (217) 782-0378
Surface Transportation Program-Urban (STP)	Provides funds for engineering and construction for linear bikeways and related components, including bicycle parking.	ISTEA and TEA-21 allowed urban areas to devote portions of their STP set-asides to pay for bicycle facilities. Provides up to 80% of funding.	Typically early spring	Funding amount varies annually. Administered by IDOT.	IDOT	Randy Blankenhorn Urban Program Planning IDOT, Office of Planning and Programming 2300 S. Dirksen Parkway Springfield, IL 6264 (217) 782-7868
Illinois Tomorrow	Provide funding to improve chronic problems that threaten the quality of life in many of the developed and developing communities around the State.	Funding can be used for corridor studies and other planning activities that address open space protection, infrastructure rehabilitation, traffic mitigation, or plans that promote intergovernmental cooperation.	Historically September 1	The next application round has not been set at the time of writing.	CATS	Carl Mikyska, Air Quality Manager IDOT 2300 S. Dirksen Parkway Springfield, IL 62764 (217) 82-2863
Local Government Snowmobile Grant Program	Provide financial assistance to local units of government to assist in the purchase, development/rehabilitation and patrol of public snowmobile areas, trails, and facilities in Illinois.	Funds up to 100% of approved project costs. Annual appropriation level approximately $65,000.	May 1	Local government must have statutory authority to acquire and develop lands for public park and recreational purposes. This includes, but is not limited to, counties, municipalities, park districts, conservation districts, and forest preserve districts. Fund is established through a set-aside of 25% of snowmobile registration fees.	IDNR	David Sellman Illinois Dept. of Natural Resources One Natural Resource Way Springfield, IL 62702-1271 (217) 782-9599 www.dnr.state.il.us
Snowmobile Trail Establishment Fund (STEF)	Provide financial assistance to not-for-profit private snowmobile clubs or organizations for the construction, maintenance, and rehabilitation of snowmobile trails and facilities on public lands and designated roadways, and on private lands open to public snowmobile use.					
Sources: *Transportation Funding Sources for Municipalities.* Will County, IL Government League, July 2003. *Kane County Bicycle and Pedestrian Plan.* Edwards & Kelcey, 2003. Updated by Vandewalle & Associates in October 2003.						

Appendix B: Second Priority Facilities

The following tables and Map 5 provide recommendations for second priority bicycle and pedestrian facilities anticipated within 5-15 years.

On-Street Facility Recommendations

Street	Between	Existing Bike Facilities	Proposed Bike/Ped Improvements
Riverside Drive/USH 51	Henry Avenue to northern planning area limit	None	Install bicycle lane or pave shoulders as part of road expansion
Prairie Avenue/CTH G	Murphy Woods Road to northern planning area limit	None	Install bicycle lane or pave shoulders as part of road expansion
Hart Road	Creek Road and Shopiere Road	None	Install bicycle lane or pave shoulders as part of road/bridge construction
Turtle Creek Floodplain Trail Connection	Freeman Park and Cranston Road (Chathsworth Drive to Winchester Drive to Fuller Road)	None	Stripe bike lane, sign as bike route
Turtle Creek Floodplain Trail Connection	Shopiere Road and the Turtle Creek Floodplain Trail	None	Stripe bike lane, sign as bike route
Turtle Town Hall Road	Railroad and Colley Road	None	Install bicycle lane or pave shoulders as part of road expansion
St. Lawrence Avenue	Masters Street to western planning area limit	None	Install bicycle lane or pave shoulders as part of road expansion
Rockton Road	Dearborn Avenue/STH 251 and Willowbrook Road	None	Stripe bike lane, sign as bike route
Rockton Road	Old Meadow Lane and West Street	None	Stripe bike lane, sign as bike route
Bluff Road	Stateline and Rockton Road		Pave shoulders and mark as bike lane
Liddle Road	Old River Road and Roscoe Road	None	Pave shoulders and mark as bike lane
Philhower Road/Creek Road	Riverside Drive/USH 51 and Sweet Allyn Park	None	Install bicycle lane or pave shoulders as part of road expansion

Off-Street Path and Sidewalk Recommendations

Name	Between	Proposed Bike/Ped Improvements
Turner High School Trail	Inman Parkway and Philhower Road	Off-road path
Turtle Creek Floodplain Trail	Shopiere Road to Milwaukee Road	Off-road path
Springbrook Trail	Optional routes: (1) Turtle Creek to Cranston Road along railroad corridor or (2) Milwaukee Road to Cranston Road	Off-road path
Townview Park Trail	Burton Street to Beloit Neward Road/CTH Q	Sidewalk or path
Blackhawk Boulevard Trail/Sidewalk	Elmwood Avenue and Prairie Hill Road	Sidewalk or path
Prairie Hill Road Trail	Blackhawk Boulevard and Stone Bridge Trail Extension	Sidewalk or path
Stone Bridge Trail Extension	Rockton Road to Prairie Hill Road	Off-road path
Millrace Isle/Nygren Preserve Trail	West Street to western planning area limit	Off-road path
Wagon Wheel Road Trail	STH 2 to Macktown Forest Preserve	Sidewalk or path
Dearborn Avenue/STH 251 Trail	Hononegah Recreational Path to southern planning area limit	Off-road path
Roscoe/Rockford Connector Trail	Broad Street to southern planning area limit	Off-road path
Kinnikinnick Creek Trail	Stone Bridge Trail to the southern planning area limit	Off-road path and road crossing improvement
Town of Turtle Path	Extension of Claremont Drive from Philhower Road to 2/3 mile south	Off-road path
Beloit-Newark Road Trail	Proposed trail and Afton Road	Sidewalk or path

Underpasses, Overpasses, and other Facility Recommendations

Intersection	Existing Traffic Control	Existing Bike/Ped Improvements	Proposed Bike/Ped Improvements
Belvidere Rd. and Perryville Path, Roscoe	None	None	Add striped crosswalk and trail crossing signs
Beloit-Newark Road and proposed path west of McKinley	None	None	Add striped crosswalk and pedestrian crossing signs
Inman Pkwy. and Riverside Drive	Signal	None	Add striped crosswalk and pedestrian crossing signs
Inman Pkwy. and Turtle Creek	None	None	Add new bridge in conjunction with new road construction
White Avenue and Milwaukee Road	Stop sign on east bound Milwaukee	None	Add striped crosswalk and pedestrian crossing signs
STH 2 and Prairie Hill Road	Signals	None	Add striped crosswalks Long-term: Pedestrian actuated signals
STH 2 and Liston Avenue	Stop signs on Liston	None	Add striped crosswalk and pedestrian crossing signs
STH 2 and Whittemore Drive.	Stop signs on Whittemore	None	Add striped crosswalk and pedestrian crossing signs; consider bulb out
STH 2 and Hononegah Recreational Path	None	None	Add dedicated bike lane when bridge reconstructed
Turtle Creek and Hart Road	None	None	Add new bridge in conjunction with connection of existing Hart Road segments
Turtle Creek Trail Road Crossing	None	None	When Turtle Creek Trail constructed add crosswalks and pedestrian crossing signs at local road crossings
STH 75 and Willowbrook Road	Signals	None	Add striped crosswalk and pedestrian crossing signs
Belvidere Road and proposed Kinnikinnick Creek Trail	None	None	Add striped crosswalks and pedestrian crossing signs; consider pedestrian actuated signals

Appendix C: Facility Improvement Costs per Unit (2010)

Item[1]		Cost per lineal foot
Bike Lanes/Paved Shoulder (5' width/side; cost includes both sides of road)		$55
New 10' Accessible bike path (paved)		$70
New 10' Inaccessible bike path (paved; per foot of path)		$75
New 10' crushed rock path		$50
New 5' Sidewalk	(pre-graded; per foot of sidewalk)	$18
	(not pre-graded; per foot of sidewalk)	$35
New 5' Walkway (pre-graded; per foot of walkway)		$25
Crosswalk/Bike lane striping		
Crosswalk/Bike lane striping (paint; includes 5 lines)		$1
Combination striping (paint includes center lane striping, bike/parking lane striping, and bike lane symbols)		$5
4" inlaid tape	Controlled intersection	$5
8" inlaid tape	High traffic midblock /uncontrolled intersections	$10

Item[2]	Cost per item
Bike route sign, including post & installation	$500 per sign
Bike lane text/symbols	$500
Widen curb ramp openings to 10' (w/new sidewalk & domes)	$1,500
Refuge median package (w/new sidewalk & domes)	$2,500
Traffic Calming Bump out retrofit	$20,000
Intersection signalization	$200,000
Pedestrian actuated signals – add to an existing signalized intersection	$50,000
Pedestrian actuated signals – new Rectangular Rapid Flashing Beacon (RRFB)	$100,000
Pedestrian actuated signals – new High-intensity Activated crossWalK (HAWK)	$30,000
Overpass (w/approach ramps)	$1,200,000
Culvert extensions(10'x24")	$1,500 per side
Bike Rack	$800

Notes:

[1] Does not include any required utility/infrastructure relocation, or right-of-way/easement acquisition.

[2] Assumes complete reconstruction of the road would occur simultaneously. Assumes no additional right-of-way acquisition would be required. Does not include ditch relocation. Assumes that the paved shoulder would be provided over an existing road bed.

- These costs do not include maintenance and operational costs such as landscaping, snow removal, sweeping, or repair.

- These costs do not include land acquisition costs.

Appendix D: Model Ordinances

The following are local ordinance models to encourage bicycle and pedestrian activity and promote bike and pedestrian-friendly community development. The first section deals with regulatory changes that may be inserted into a local subdivision ordinance. The second section concerns bicycle parking and development site access standards that could be included in a local zoning ordinance.

MODEL SUBDIVISION ORDINANCE LANGUAGE

The following provisions support multi-modal transportation to new subdivisions, with special emphasis on promoting bicycle and pedestrian use. Included are requirements for interconnected streets, limited cul-de-sacs, sidewalks, and narrower street widths to calm traffic. These provisions can promote bicycle and pedestrian activity because a system of interconnected streets offers direct routes with minimal out-of-direction travel. Typical street patterns that include cul-de-sacs, long block lengths, and dead-ends, require a long circuitous route to cover a short distance, increasing out-of-direction travel for what could otherwise be a fairly short bicycle or walking trip. Where the right-of-way width is insufficient for a street, where block lengths are long, or where cul-de-sacs are incorporated into a development, paths or walkways can be required for bicycle and pedestrian access

Model Language:

SECTION [ ]: Circulation Standards

The circulation system shall allow for different modes of transportation, provide functional and visual links within the subdivision; connect to existing and proposed development outside the subdivision; provide adequate traffic capacity, provide connected pedestrian and bicycle routes and paths limit direct lot access on streets with higher expected traffic volumes; and promote safe and efficient mobility throughout the subdivision and between subdivisions. More specific design standards that shall be met are as follows:

1. ***Pedestrian Circulation.*** *Convenient and continuous pedestrian circulation systems, that minimize pedestrian-motor vehicle conflicts shall be provided throughout the subdivision through the following design characteristics:*
   a. *Any existing pedestrian routes through the site shall be preserved and enhanced.*
   b. *All public streets, except for alleys, shall be bordered by sidewalks on both sides in accordance with the specifications listed in Table 1. The Plan Commission may allow the substitution of a multi-use path for a sidewalk if applicable AASHTO design standards are met.*
   c. *Sidewalks and walkways shall comply with the applicable requirements of the Americans with Disabilities Act.*
   d. *Intersections of sidewalks with streets shall be designed with clearly defined edges. Crosswalks shall be well lit and clearly marked with contrasting paving materials at the edges, raised pavement, and/or striping. Curb bulb-outs, median refuges, and other related techniques are encouraged along collector streets and at key intersections to shorten the pedestrian-crossing distance.*
   e. *Where necessary to maintain the continuity of the pedestrian circulation system, such as for long blocks or at the ends of cul-de-sacs, between-lot walkways or paths may be required. The Plan Commission may require additional connections wherever access to parks, schools, and other services is desired as identified through the plat development review process, with the goal of maximizing pedestrian and bicycle access internal to the subdivision and adjoining land*
2. ***Bicycle Circulation.*** *Facilities for bicycle travel shall be included in the subdivision, and may include off-street bicycle paths (generally shared with pedestrians and other non-motorized users), separate striped, bicycle lanes on streets per Table 1, and/or signed bicycle routes. Any existing bicycle routes through the site shall be preserved, enhanced, or relocated if necessary. Bicycle routes, paths, and facilities shall implement the recommendations of the Comprehensive Plan, Official Map, and special adopted plans such as bicycle and pedestrian system plans and neighborhood development plans. The*

developer may be required to dedicate land or easements and construct bicycle and pedestrian facilities. All bicycle facilities shall meet applicable AASHTO design standards.

3. ***Motor vehicle circulation.*** *Motor vehicle circulation shall be designed to minimize conflicts with pedestrians and bicycles. Traffic calming features such as curb extensions, traffic circles, and medians are encouraged slow traffic speeds on local streets. Subdivisions shall include street plans, consistent with requirements that provide for the following:*

   a. *Street hierarchy.*

      - *Arterial streets are intended to carry through traffic and provide ready access to major activity centers and points beyond the boundaries of the subdivision, and are frequently subject to access controls.*
      - *Collector streets are intended to be used to carry traffic from minor streets to arterial streets, including the principal entrance street to a residential development, and may be subject to access controls.*
      - *Subcollector streets shall direct traffic from minor streets within a development to the collector or arterial network, to adjoining developments, or to neighborhood facilities.*
      - *Minor streets are intended to be used primarily for access to abutting properties, and are usually not subject to access controls.*
      - *Alleys are special public ways affording secondary access to abutting properties.*

   b. *Minimum street design standards. Minimum street design standards shall be in accordance with Table 1 and the graphic that follows.*

Table 1: Minimum Street Design Requirements

Type of Street	*Right-of-way width (feet)*	*Street Width, curb-face to curb-face (feet)*	*Curb & Gutter*	*Street Terrace*	*Sidewalks*	*Bicycle Lanes*
Arterial Street	*80+*	*52+*	*Both sides, 2 feet wide*	*Both sides, min. 8 feet wide*	*Both sides, min. 5 feet wide*[1]	*Where required, add 5 foot wide lanes*
Collector Street	*60-80*	*36 (2-sided parking) 30 (1-sided parking) 24 (no parking)*	*Both sides, 2 feet wide*	*Both sides, min. 8 feet wide*	*Both sides, min .5 feet wide*	*Where required, add 4 foot wide lanes*
Subcollector Street	*50-70*	*32 (2-sided parking) 28 (1-sided) 22 (no parking)*	*Both sides, 2 feet wide*	*Both sides, min. 8 feet wide*	*Both sides, min. 5 feet wide*	*Where required, add 4 foot wide lanes*
Minor Street or Cul-de-sac	*50-60*	*28 (2-sided parking) 26 (1-sided parking) 20 (no parking)*	*Both sides, 2 feet wide*	*Both sides, min. 6 feet wide*	*Both sides, min. 5 feet wide*	*None*
Alley	*20*	*14 (no parking)*	*None*	*None*	*None*	*None*

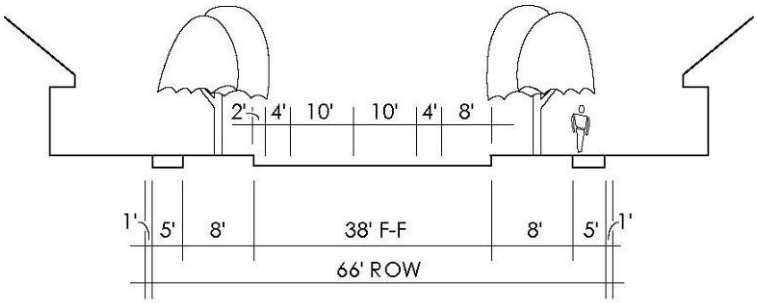


Figure 1: *Schematic sketch of a typical collector street cross-section with one-sided parking and bike lanes.*

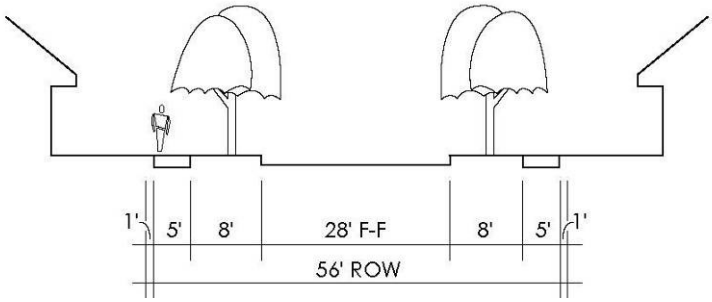


Figure 2: *Schematic sketch of a typical minor street cross-section with two-sided parking.*

c. ***Street Connectivity.*** *In new residential and mixed- use subdivisions, street connections shall be spaced at intervals of no more than 800 feet as measured from the near side right-of-way line, except where impractical due to physical or topographic constraints such as the spacing of existing adjoining streets, freeways, railroads, slopes in excess of City standards for maximum slopes, wetlands or other bodies of water. Cul-de-sacs or other closed-end streets shall be discouraged, except where except where impractical due to physical or topographic constraints such as freeways, railroads, slopes in excess of City standards for maximum slopes, wetlands, bodies of water, or other limitations established by natural areas or pre-existing development plans. No cul-de-sac longer than 800 feet or having more than 25 dwelling units shall be allowed, except when such streets act as connections to future phases or other sites outside the development. Streets may permanently terminate in a cul-de-sac only where there will be a through connection via a hard-surfaced pedestrian walkway or multi-use path at the terminus within a dedicated right-of-way or access easement.*

MODEL ZONING ORDINANCE LANGUAGE

The following bicycle parking and bike and pedestrian access requirements may be added to a local zoning ordinance to promote increased bicycle activity and walking, as part of new building developments projects. A bicyclist will be more likely to ride if they know there is a secure location to store their bikes. A pedestrian will be more likely to use a commercial development if it can be accessed safely.

Model Language:

SECTION [ ]: Bicycle and Pedestrian Access Standards

1. ***Required Provision of Bicycle Parking Areas.*** *For residential and non-residential sites having an off-street automobile parking requirement of one hundred (100) spaces or more, off-street bicycle parking spaces shall be provided in a number equal to five (5) percent of the automobile parking space requirement. For residential and non-residential sites having an off-street parking requirement of less than one hundred (100) spaces, a number of off-street bicycle parking spaces shall be provided equal to ten (10) percent of the automobile parking space requirement. Each Inverted-U type rack provided will count as two (2) bicycle parking spaces.*

2. ***Potential Reduction in Automobile Parking Spaces.*** *The Plan Commission may decrease the required number of off-street automobile parking spaces by up to twenty-five (25) percent of the normal requirements based upon one or more of the following criteria:*

   a. *Technical documentation furnished by the applicant which indicates, to the satisfaction of the Plan Commission, that actual off-street parking demand for that particular use is less than the required standard set forth in this Ordinance [must include automobile parking space standards elsewhere in the zoning ordinance].*

   b. *Bicycle parking spaces will be provided through racks, lockers, or equivalent structures located convenient to the proposed use.*

   c. *A public transportation route is located within five hundred (500) feet of the property.*

3. ***Specifications for Bicycle Parking Spaces.*** *The "Inverted U" type bike rack is the preferred bicycle parking rack and means of providing off-street bicycle parking spaces as required in this section. All bicycle parking provided should be on a hard-surfaced area, and be located a minimum of 24" from a parallel wall, and 30" from a perpendicular wall (as measured to the closest inverted U.) Bicycle parking lockers are specifically encouraged for assigned use by employees and bicycle commuters. Bicycle parking capacity provided via lockers will be considered as being in compliance with these rules. Lockers are to be placed in accordance with setback requirements applicable to vehicular parking lots.*

   Bicycle parking spaces should either be installed in the public street right-of-way or on private sites in conformance with setback requirements applicable to automobile parking lots. The spaces shall be placed within 50 feet of building entrances, or where bicyclists would naturally transition to pedestrian mode. The placement of the racks should minimize conflicts with both pedestrians and motorized traffic.

Figure 1: The standard U type bike rack supports the bike frame at two locations and allows users to secure their bikes with either a cable or a U type lock.

4. ***Bicycle and Pedestrian Access Standards.*** *The following bicycle and pedestrian access requirements are applicable to all new developments in the City, and expansions to existing developments to the extent practical, with the exception of single family and two-family residential development projects:*

   a. *All pedestrian walkways and multi-use paths shall be hard-surfaced, well-lit, and properly maintained, including snow removal.*

   b. *Pedestrian walkways shall be provided from all building entrances to existing or planned public sidewalks, parking lots, pedestrian/bike facilities, and adjacent developments.*

   c. *Sidewalks shall be provided along the entire length of any façade containing a public entrance, leaving room for foundation planting beds.*

   d. *Pedestrian walkways must be distinguished from driving surfaces. Site design shall generally allow pedestrians to walk parallel to* moving cars.

   e. *The building shall provide awnings or other weather protection features within thirty (30) feet of all public entrances.*