# CITY OF GREENFIELD
# BICYCLE & PEDESTRIAN PLAN 2020

ADOPTED MARCH 2, 2021

KL Engineering
[A] Better Experience

CITY OF Greenfield
Pledged to Progress

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# LIST OF EXHIBITS



# REFERENCES


- Wisconsin Bicycle Facility Design Handbook, Wisconsin Department of Transportation, 2018 .
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- Guide for Development of Bicycle Facilities, American Association of State Highway and Transportation Officials, 1999
- Americans with Disabilities Act, U.S. Congress, 1990
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- A Guide for Maintaining Pedestrian Facilities for Enhanced Safety, Federal Highway Administration, 2013
- "Bicycle and Pedestrian Elements Affecting Complete Streets" Wisconsin Department of Transportation Facilities Development Manual, 2019
- Designing Pedestrian Facilities, Wisconsin Department of Transportation, 2010
- Community Health Improvement Plan: Healthiest Greenfield, City of Greenfield, 2018
- City of Greenfield Comprehensive Plan, Vandewalle & Associates , 2008 (and DRAFT 2020)
- City of Greenfield Park and Open Space Plan: 2017-2022, Stantec, 2017

# ACKNOWLEDGMENTS

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# EXECUTIVE SUMMARY

The purpose of this Bicycle and Pedestrian Plan is to help the City of Greenfield become a more pedestrian- and bicycle-friendly community and to integrate these facilities within the City's growing transportation network. The Plan will assist the City of Greenfield land use and transportation planning efforts.

This plan will provide a framework to develop more detailed plans and objectives to further meet these goals.

The plan is divided into the following sections:

- Introduction
- On-Road Bicycle Facilities
- Pedestrian Facilities
- Multi-use Pathways
- Implementation

The **Introduction** details the purpose of the plan and provides an overview of the City's demographics, benefits of multi-modal facilities, and related planning documents that the City references in multi-modal transportation planning.

This section highlights the unique connectivity the City has to many surrounding communities. It is also notes that over 30% of the City's population is under 18 and over 65 --- age populations that typically rely more heavily on multi-modal transportation than others. With the higher age distribution, the health benefits of these facilities are also key.

The next three sections focus specifically on the three multi-modal types: **On-Road Bicycle Facilities, Pedestrian Facilities, and Multi-use Pathways.** The first step of the plan is to identify the existing users, facilities, and policies currently in place. Summarizing standard design policies for bicycle and pedestrian facilities is then critical to developing future plans to expand the transportation network. From here, a general review of areas within each that can be improved upon (infrastructure, policy development, education, etc) is helpful in creating goals that can lead to the connectivity that the City is striving to create.

The **Implementation** section summarizes the various goals from each of the multi-modal sections. They are further synthesized to create objectives that will support these goals. As with any planning document, the goals need to be paired with "next steps" and an action plan to support their accomplishment. This section further details the action items that should be completed following the plan's formal adoption.

This section delineates the needed inclusion of the Plan recommendations within other City documents and outlines the recommended frequency of updates. Finally, a discussion is included on potential funding sources for these multi-modal facilities.

# INTRODUCTION

## DETAILS & PURPOSE

The purpose of this Bicycle and Pedestrian Plan is to help the City of Greenfield become a more pedestrian- and bicycle-friendly community. The Plan will assist the City of Greenfield land use and transportation planning efforts.

The main goals within the document are the following:

- Articulate the benefits to the City of Greenfield for the expansion of their multi-modal facilities.
- Identify multi-modal design strategies that are currently being utilized in Wisconsin.
- Catalog design standards that the City will use for expanding multi-modal facilities.
- Provide an overall assessment of current multi-modal facilities within the City.
- Identify future corridors for multi-modal facilities.
- Establish future goals that will help strengthen the multi-modal planning effort within the City.
- Summarize funding sources for multi-modal facilities.

This plan provides a strategy for the integration of facilities for bicyclists and pedestrians in the City of Greenfield's growing transportation network.

## CITY OVERVIEW

The City of Greenfield was originally named after the vast grasslands that were characteristic of the region's native landscape. Historically, the borders were 27th Street on the east, 124th Street on the west, College Avenue on the south, and Greenfield Avenue on the north, covering a massive 36 square miles.

After years of neighboring municipalities' annexations, the area was reduced to the current 11.5 square miles. In 1957, Greenfield was the last town in Milwaukee County to incorporate as either a city or village.

The City has benefited substantially from its position as a first-ring suburb of Milwaukee. The City is situated only seven miles from downtown Milwaukee, and just minutes from Milwaukee Mitchell International Airport. The Villages of Greendale and Hales Corners and the City of Franklin border Greenfield on the south; the City of New Berlin lies to the west; the City of West Allis borders the northwestern corner; and the City of Milwaukee bounds Greenfield to the north and east.

Currently a mixture of residential and commercial land uses, Greenfield continues to develop mostly through infill and redevelopment, as there is very little vacant land left in the City. (*Greenfield Comprehensive Plan, Vandewalle & Associates, 2020)*

*Exhibits 1 & 2 show the City Land Use and Zoning Maps respectively.*

## CITY DEMOGRAPHICS

Per the Department of Administration (DOA), in 2015, the City of Greenfield's official population was 37,480. It was projected to increase to 38,250 in 2020, and is projected to increase to 41,750 in 2040.

Based on historical data gathered from the City, from 2000-2017, the City's compounded annual growth rate equates to 0.43%. With this in mind, the population growth is slightly lower based on this model with **37,372** people projected to live in Greenfield in 2020 and by 2040, 39,360 residents.

The 2010 census identified that nearly 89% of Greenfield

is Caucasian, with Asian and African-American rounding out the top three. Eighty-three percent of residents are non-Hispanic, and two percent cite two or more races. Eight percent of Greenfield residents are foreign-born, and 13% speak a language other than English at home.

Per census data, poverty impacts nearly 7% of residents. The median household income is $50,864.

In reference to age distribution, the City of Greenfield has estimated that 20.7% of its population is over the age of 65 and 18.8% of its population is under the age of 18. Although the median age is currently estimated at 43.3 years of age, **it is important to note that the combined school-age and over 65 years old populations equate to 31.5% of the total population.** Both of these age groups typically have higher usage of multi-modal transportation.

# BENEFITS OF BICYCLE & PEDESTRIAN FACILITIES

The addition and expansion of bicycle and pedestrian facilities can help the City of Greenfield in a myriad of ways. **The main benefits are detailed below:**

## ECONOMIC DEVELOPMENT

It is widely thought that the greater the access to business, the better for their growth. When bicycle and pedestrian access increases in retail districts, businesses in the area typically see an increase in customer traffic. Added multi-modal access is especially beneficial for entertainment facilities, restaurants, convenience stores, retail centers, and other facilities which sell causal goods.

In Wisconsin, the economic impact of bicycle recreation and tourism is more than $900 million each year. Vibrant regional trail systems are proven economic drivers, sparking neighborhood-scale economic development with tourism, new investment in trailside businesses, and commercial opportunities along trail routes.

## SAFETY

Traditionally, roadways were designed with the primary goal to move vehicles as efficiently as possible. Whereas this provided for faster vehicular travel, it did not address the needs of both the bicyclists and pedestrians that needed to travel those same corridors.

Without dedicated facilities, these users are required to share the corridor, which is often unsafe due to vehicle speeds, required travel width, etc. For the safety of the pedestrians, bicyclists, and drivers, corridor design that has the use of multiple modes of transportation should be designed accordingly. If not possible, then alternate, safe routes should be provided to the appropriate level based on the need.

## ENVIRONMENTAL

A typical bicycle trip by a casual user is up to three miles and a pedestrian trip is typically one-mile or less. The more multi-modal facilities that we have that increase overall connectivity within the City and surrounding communities, the greater the chance for reducing single Occupancy Vehicle (SOV) trips. Additionally, offering strong connectivity for the transit

routes also offers the flexibility for users to opt for partial walking or biking and then finishing their trip via transit. The reduction of the SOV trips then leads to reduced carbon dioxide from vehicles.

## ECONOMIC JUSTICE

In Milwaukee County as many as 1 in 5 residents do not own a car, which means their transportation options are limited. With increased access to multi-modal facilities, residents will have more transportation options that safely and conveniently connect users to the places they need to go.

Added multi-modal facilities promote social equity by bridging gaps in access to safe transportation, physical activity and outdoor recreation, while improving health and quality of life.

Furthermore, the connectivity of these facilities to public transportation facilities, then expands the benefit of accessibility to other schools, employment

centers, government buildings, etc.

### PUBLIC HEALTH

Regular physical activity is vital for healthy aging. It can help delay, prevent, or manage many costly chronic diseases faced by adults 50 years and older. Helping inactive people become more active is an important step towards better health. This trail system creates a safe, easy option for people of all ages and abilities to be active. Specific health benefits of this trail include the following:

- **Help with weight control.** Along with diet, exercise plays an important role in controlling weight and preventing obesity.
- **Reduce risk of heart diseases.** Exercise strengthens your heart and improves circulation. The increased blood flow raises the oxygen levels. This helps lower risk of heart diseases such as high cholesterol, coronary artery disease, and heart attack. Regular exercise can also lower blood pressure and triglyceride levels.
- **Help manage blood sugar and insulin levels.** Exercise can lower blood sugar level and help insulin work better. This can cut down on risk for metabolic syndrome and type 2 diabetes.
- **Help with smoking cessation.** Exercise may make it easier to quit smoking by reducing cravings and withdrawal symptoms. It can also help limit the weight gain for smoking cessation.
- I**mprove mental health and mood**. During exercise, the body releases chemicals that can improve mood. This can help reduce stress and reduce risk of depression.
- **Help keep one's thinking, learning, and judgment skills sharp as you age**. Exercise stimulates the body to release proteins and other chemicals that improve the structure and function of the brain.
- **Strengthen bones and muscles**. Regular exercise can help kids and teens build strong bones. Later in life, it can also slow the loss of bone density that comes with age. Doing muscle-strengthening activities can help increase or maintain muscle mass and strength.
- **Reduce risk of some cancers, including colon, breast, uterine, and lung cancer.**
- **Reduce risk of falls**. For older adults, research shows that doing balance and muscle-strengthening activities in addition to moderate-intensity aerobic activity can help reduce the risk of falling.
- **Improve your sleep.** Exercise can help you to fall asleep faster and stay asleep longer.
- **Increase your chances of living longer.** Studies show that physical activity can reduce the risk of dying early from the leading causes of death, like heart disease and some cancers.
- **Social connectiveness**. Creating connections through daily activity directly addresses isolation of many residents and leads to social connectives and a higher quality of life.

## PLANNING DOCUMENTS

The Bicycle/Pedestrian Plan was last updated in 2009. This document is one of many documents which help guide the City of Greenfield in its transportation growth.

**Other municipal planning documents** that are referenced in multi-modal planning activities include the following:

### CITY OF GREENFIELD PARK & OPEN SPACE PLAN: 2017-2022 (2017)

This document is key in future planning for the open space needs for the City. Specifically, the CORP

serves to ensure the provision of a sufficient number of parks, recreational facilities, and open space areas to enhance the health and welfare of City residents and visitors. Such facilities should accommodate special groups such as the elderly, persons with disabilities, and young children. Secondly, the CORP provides direction on reserving the City's natural resources and amenities for the benefit of current and future residents and visitors.

### CITY OF GREENFIELD COMPREHENSIVE PLAN

This document guides the City in developing, redeveloping, and preserving land uses over the next twenty years. It also identifies transportation expectations for the community. The plan was adopted November 2008 and an update is currently being developed, with an expected adoption in 2020.

### COMMUNITY HEALTH IMPROVEMENT PLAN (2018): HEALTHIEST GREENFIELD 2022

This document guides the City in strengthening community health with their three main goals- Behavioral Health, Healthy Aging, and Nutrition and Physical Activity.

The City also draws from other **regional planning** documents with their multi-modal transportation planning which includes the following:

### MILWAUKEE BY BIKE PLAN

This is the City of Milwaukee's Bicycle master plan and references a multitude of connections to the City of Greenfield.

### MILWAUKEE COUNTY PARK & OPEN SPACE PLAN

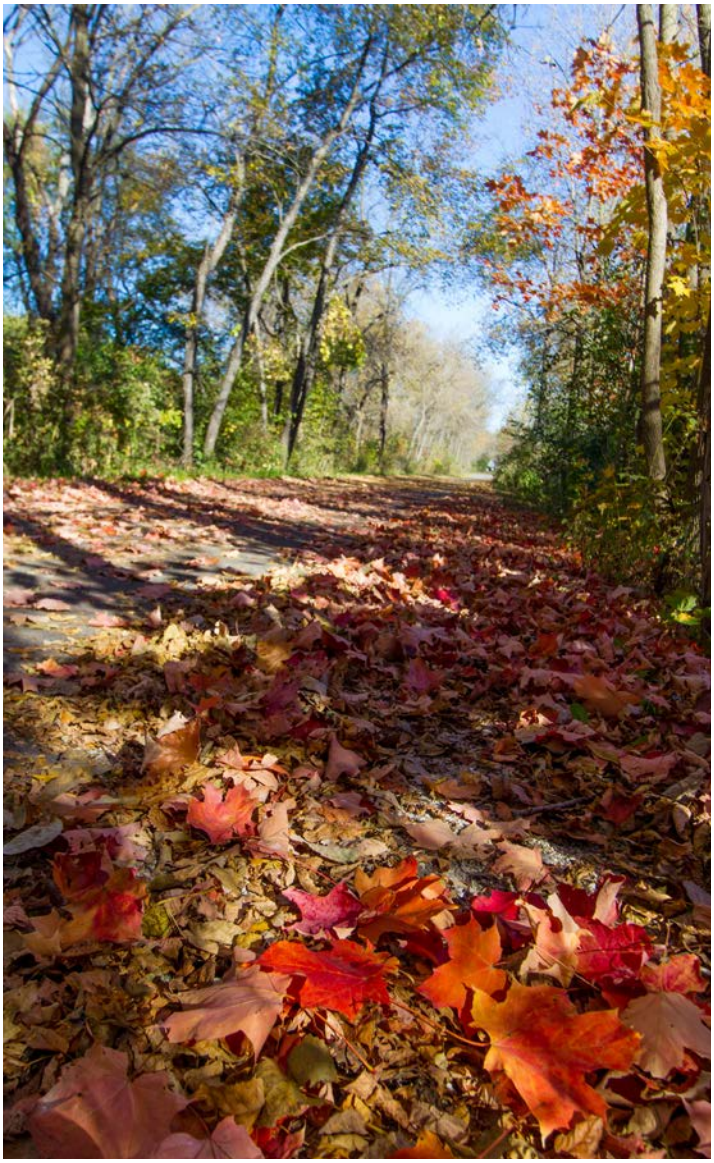
This planning document outlines the multi-modal facilities, policies, etc. that exist and are planned for Milwaukee County.

### SEWRPC BICYCLE & PEDESTRIAN PLAN

This planning document outlines the multi-modal facilities, policies, etc that exist and are planned for the SE Region of Wisconsin. It is the Southeast Wisconsin Regional Plan Commission's main planning document for multi-modal facilities and is updated on a regular basis.

### ROUTE OF THE BADGER

This planning document advocates for the conversion of rails to trails throughout the United States, but then more specifically in SE Wisconsin. The City of Greenfield is featured within this document in reference to the We Energies/ ATC corridor that runs through the heart of the City.

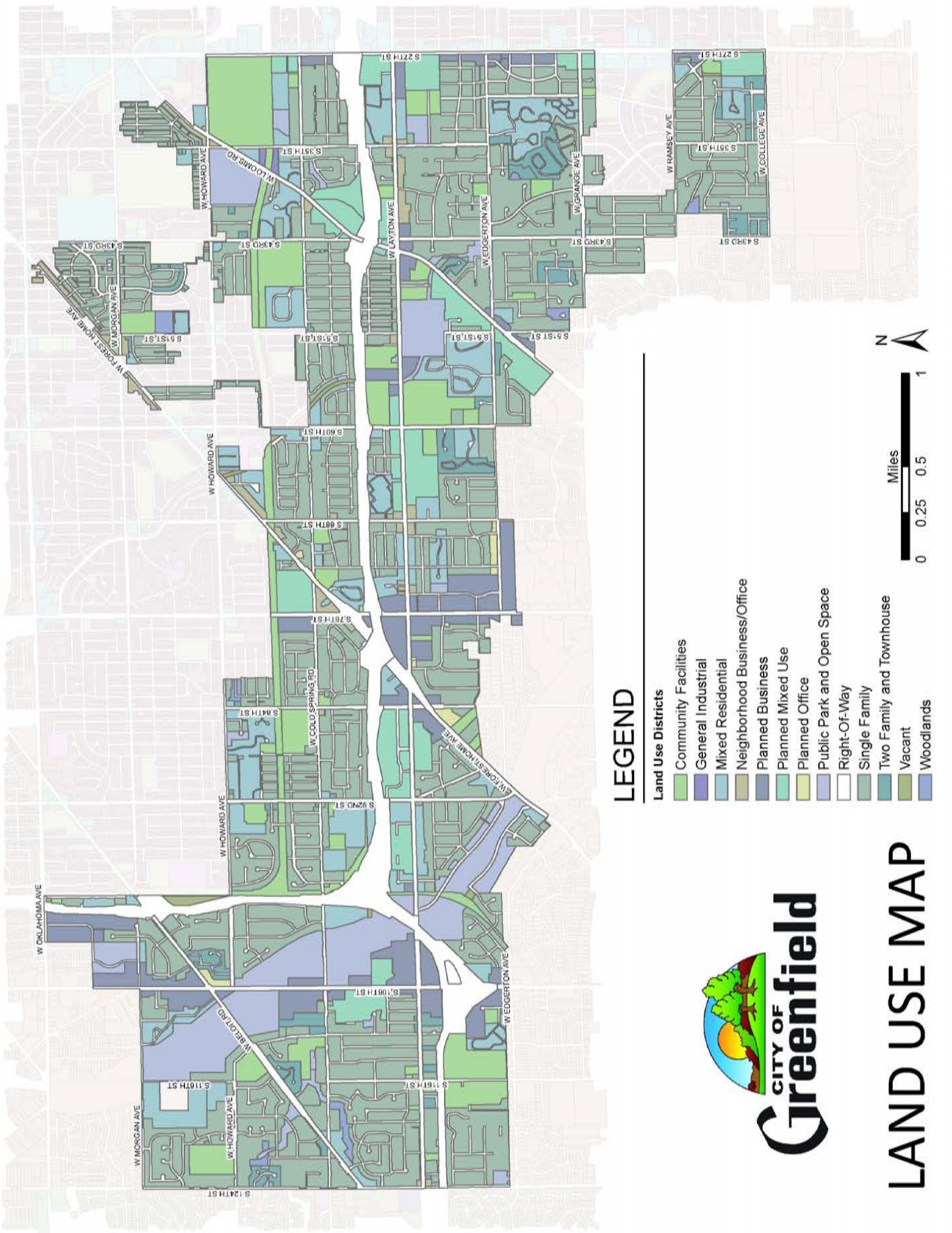


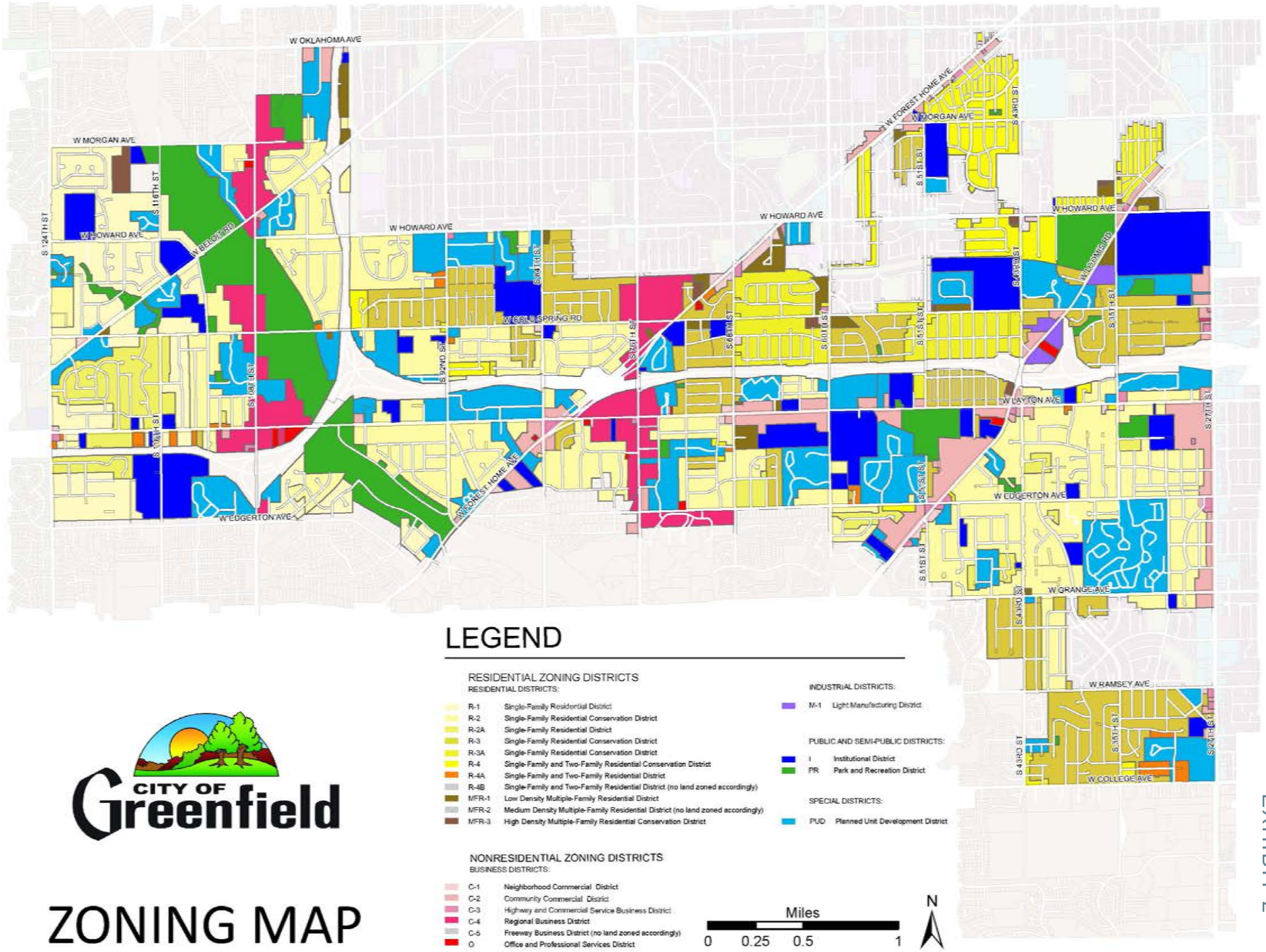
## PUBLIC INVOLVEMENT

The update to the City's bike/ped Plan was first published on the City's website in draft form for public comment. Notification of the draft Plan was publicized on the City's website and through various social media venues.

After the initial review was completed, modifications to the Plan were made and then the Plan was presented to the Parks & Recreation Board on Monday, August 17, 2020. The presentation of the Plan to the Park & Recreation Board was also publicized and the public was invited for comment. The Plan was adopted on March 2, 2021 by the Common Council.

Upon approval of the document, a specific bicycle/ pedestrian committee is to be formed with members of City staff and the public to then further detail specific objectives.


LAND USE MAP
CITY OF Greenfield
LEGEND
Land Use Districts
Community Facilities
General Industrial
Mixed Residential
Neighborhood Business/Office
Planned Business
Planned Mixed Use
Planned Office
Public Park and Open Space
Right-Of-Way
Single Family
Two Family and Townhouse
Vacant
Woodlands
Miles
0 0.25 0.5 1
N
W OKLAHOMA AVE
W HOWARD AVE
W MORGAN AVE
W FOREST HOME AVE
W COLD SPRING RD
W LOOMIS RD
W LAYTON AVE
W EDGERTON AVE
W GRANGE AVE
W RAMSEY AVE
W COLLEGE AVE
S 124TH ST
S 116TH ST
S 108TH ST
S 92ND ST
S 84TH ST
S 76TH ST
S 68TH ST
S 60TH ST
S 51ST ST
S 43RD ST
S 35TH ST
S 27TH ST




# LEGEND

## RESIDENTIAL ZONING DISTRICTS

RESIDENTIAL DISTRICTS:

- R-1 Single-Family Residential District
- R-2 Single-Family Residential Conservation District
- R-2A Single-Family Residential District
- R-3 Single-Family Residential Conservation District
- R-3A Single-Family Residential Conservation District
- R-4 Single-Family and Two-Family Residential Conservation District
- R-4A Single-Family and Two-Family Residential District
- R-4B Single-Family and Two-Family Residential District (no land zoned accordingly)
- MFR-1 Low Density Multiple-Family Residential District
- MFR-2 Medium Density Multiple-Family Residential District (no land zoned accordingly)
- MFR-3 High Density Multiple-Family Residential Conservation District

INDUSTRIAL DISTRICTS:

- M-1 Light Manufacturing District

PUBLIC AND SEMI-PUBLIC DISTRICTS:

- I Institutional District
- PR Park and Recreation District

SPECIAL DISTRICTS:

- PUD Planned Unit Development District

## NONRESIDENTIAL ZONING DISTRICTS

BUSINESS DISTRICTS:

- C-1 Neighborhood Commercial District
- C-2 Community Commercial District
- C-3 Highway and Commercial Service Business District
- C-4 Regional Business District
- C-5 Freeway Business District (no land zoned accordingly)
- O Office and Professional Services District

Miles

0 0.25 0.5 1

N

CITY OF Greenfield

# ZONING MAP

EXHIBIT 2

# ON-ROAD BICYCLE FACILITIES

## OVERVIEW

Within the City of Greenfield, the following on-road bicycle facilities are currently utilized:

- Bike lanes
- Shared parking/bike lane (urban road cross-section)
- Paved shoulder (rural road cross-section)

The discussion to follow will focus on the users and the various on-road accommodations that are available. The applicability of each on-road facility based on the specific roadway configuration and users will be discussed. A brief summary of policies currently in place will then follow. Finally, the section will highlight the goals and objectives that the City would like to implement specific to the growth of the on-road bicycle facilities.

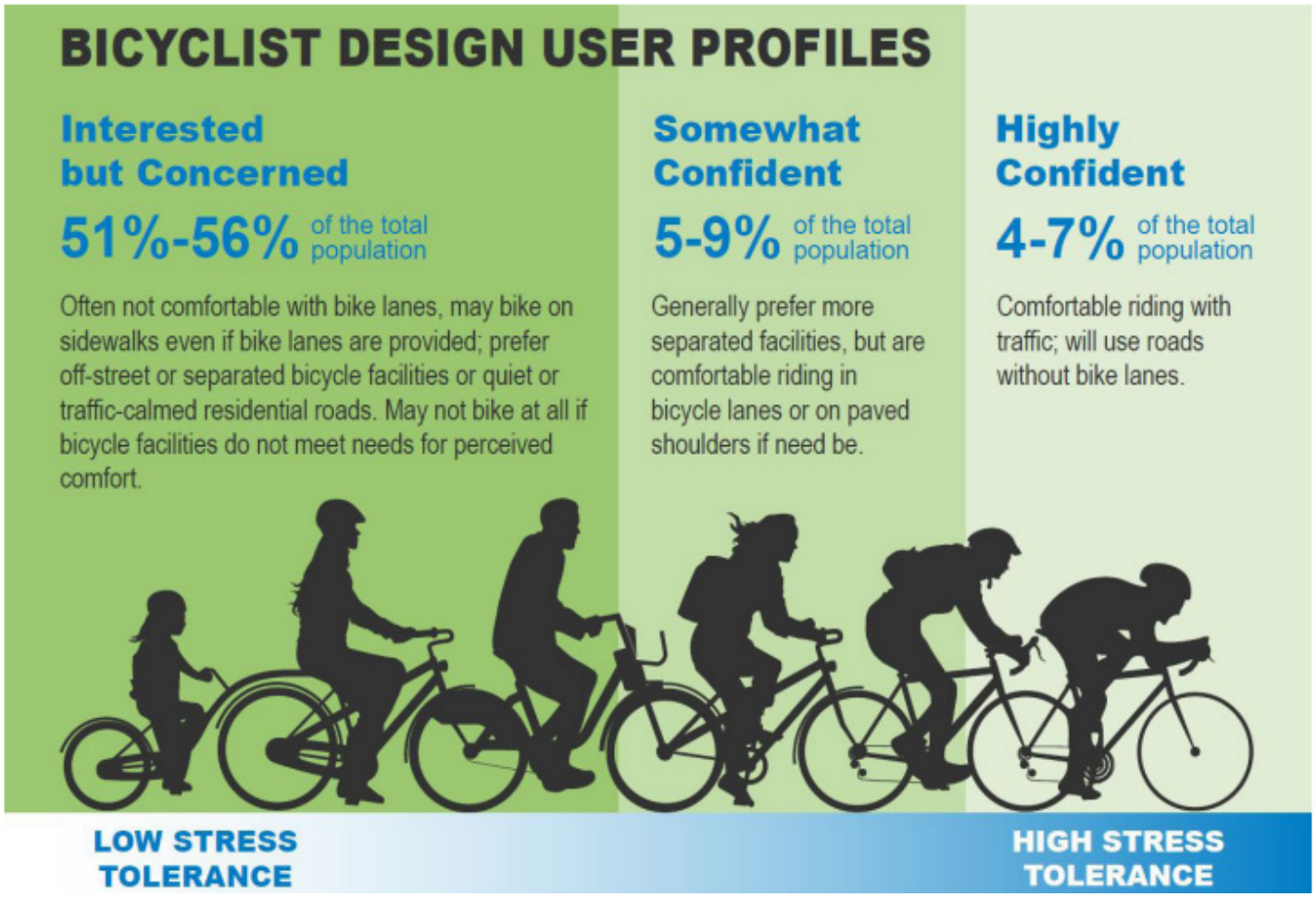
## USER GROUPS

Per the exhibit below, the use of bicycle facilities is somewhat dependent on the user profiles. However, the "Field of Dreams" mantra then also applies.... "If you build it, they will come." In other words, if the facilities do not exist, then the comfort level of users will not increase.

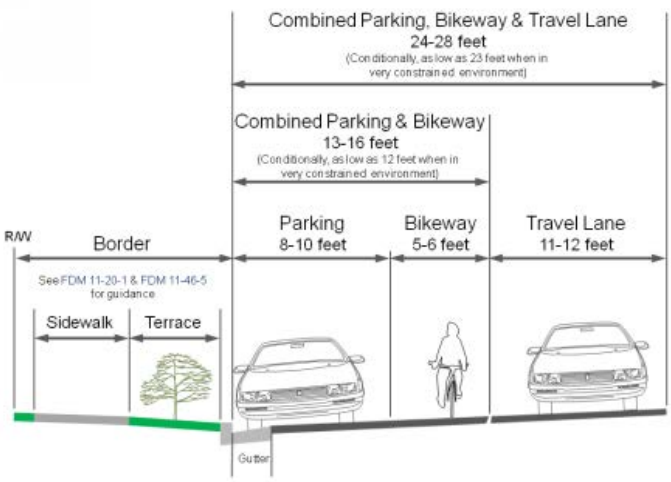
Use of bicycle facilities also is driven by the need for the specific individual--utilitarian or recreational. Whereas off-road facilities are more heavily used in a recreational setting, the on-road facilities are typically a combination of utilitarian and recreational, with the slant more towards utilitarian. For utilitarian use, the focus is to provide a direct connection for travel to community destinations, traveling the same routes as the vehicles.

Users can be further classified into the following categories:

- **NON-Technical Recreational Cyclists**: Consists of the general public looking for exercise, neighborhood kids, and youth traveling to close destinations. This rider is generally a slow to moderate speed rider looking for quiet, smooth places to ride away from high speed motor vehicles.



- **Technical Recreational Cyclists**: Bicyclists that are in-tune with the physics of bicycling and research routes before taking them to assure a smooth ride and ability to ride long distances for exercise. They are comfortable in vehicular traffic and are riding for the maximization of mileage.
- **Commuter Cyclists**: These cyclists utilize their bicycles in lieu of vehicle transportation for daily commuting. They are very comfortable alongside vehicular traffic and will use the same main routes as vehicles for the most efficient travel. These cyclists typically use on-street facilities vs. off-road.




# FACILITY TYPES

## BIKE LANE

The Bike Lane is the most well-known on-road bicycle accommodation. They provide a distinct, dedicated travel lane for bicycles that are free of obstructions and allow for the same direct routes to destinations that vehicles have on the roadways.

**Current City of Greenfield policy is a 5-feet wide (not including gutter) dedicated bicycle lane with striping.**

In order to be effective, bike lanes are placed in both directions of vehicle travel. When utilized on streets without parking, the bike lane is placed adjacent to the curb. While there are a number of variances allowed, the generally accepted layout is for a space which is 6' wide from face of curb to edge of bike lane. At a minimum, the design standard requires 4' of usable space from the gutter joint for the bike lane.

Bike lanes are typically used on higher ADT roadways and therefore, at a minimum should have a vehicle driving lane width of at least 10'. On high speed, high volume roadways , it is likely that only the "somewhat confident" and "highly confident" users will be comfortable using the provided bike lanes.

On a two-way street, bike lanes will require 12' of roadway cross section, so these are sometimes challenging to retrofit roadways without requiring real estate. As mentioned above, on higher-speed roadways, the use of the bike lanes may be limited to only the more confident users.

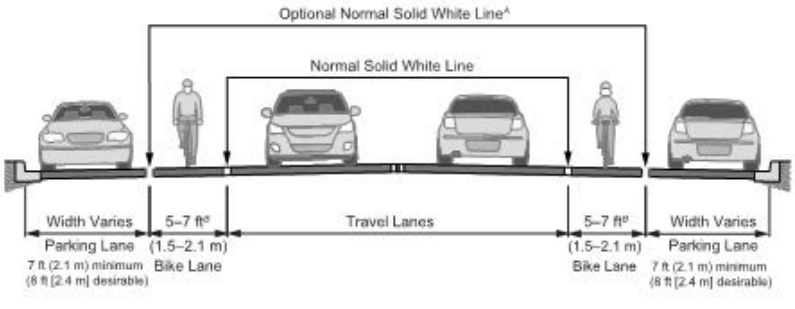
If the required roadway width is available, the cost for bike lanes is relatively inexpensive as it requires paint for the markings and the symbols and periodic signage along the route. Additional costs can be included for specialty markings at busy intersections such as bike boxes.

## PARKING WITH BIKE LANE

Similar to the traditional bike lanes, but key differences include the following:

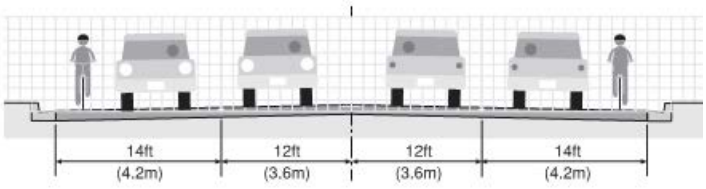
- Need an additional 8' desirable (7' minimum) roadway width (each side) for parking.
- Minimum width of bike lane adjacent to parking is 5'.
- A minimum of 18" of buffer between the parking lane and bike lane may be desirable in locations with high parking turnover or volume and where R/W and roadway width allow in order for bicyclists to avoid conflict with open doors.

**Current City of Greenfield standard is 13-feet wide minimum, 15' wide preferred shared parking/bike lane.**



## WIDE OUTSIDE LANE

Where available space is inadequate to provide formal bike lanes within roadways classified as collectors or arterials, wide outside lanes are a possible solution to accommodate vehicles and bikes side by side. The required width for the wide lane is 14' from the gutter joint line to the lane line.




This solution is generally used on higher volume (>3,000 ADT) roadways with speeds greater than 25 MPH and is most accommodating to the high confidence users.

## WIDE SHOULDERS

On roadways where no curb is present and insufficient space is available to provide bike lanes it is possible to pave a wider shoulder to accommodate bikes. Where no vertical barrier, such as fence or guardrail, is present a minimum paved shoulder width of 4' is required to accommodate bicycles.

**Current City of Greenfield standard is 4-feet wide minimum paved shoulder.**

This roadway treatment can be applied on roads of all volumes and traffic speeds. It is likely that the users that will be the most comfortable with this solution are somewhat to highly confident users with concerned users also feeling accommodated as long as the roadway is low volume and low speed.

## BIKE BOULEVARDS

Bicycle boulevards are best implemented in areas with gridded street networks where local/residential roads run parallel to collector and arterial roadways. These local roads with low speeds (<25 mph) and traffic volumes (<3,000 ADT) are ideal locations to implement bicycle boulevards. A combination of signing, marking, and traffic calming are implemented on these roadways to give priority to bicyclists rather than vehicular traffic. Bicycle boulevards accommodate users of all confidence levels.

**City of Greenfield does not currently use bike boulevards.**

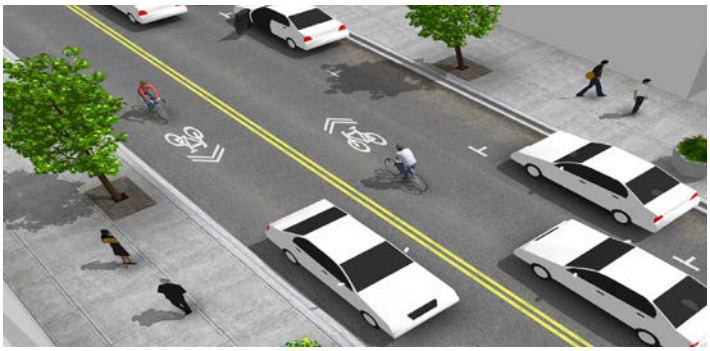
## SHARED LANES WITH MARKINGS

Another option for bike accommodation on roadways with insufficient space for bike lanes is a shared lane with markings (sharrows). This treatment can be used congruently with wide outside lanes but may also be used in situations where less lane width is available.

Sharrows may be used on roadways that are classified as collectors or minor arterials in which the speed limit is 35 mph or less. The placement of sharrows should be 4' from the face of curb where no parking is permitted and 11' from the face of curb when parking is permitted. This encourages bike user alignment away from potential door conflicts with parked cars.

This solution is again geared towards somewhat confident and high confident users and will likely not be comfortable for concerned users.

**City of Greenfield does not currently use sharrows.**



## BIKE ROUTES (SIGNED ONLY)

On roads with inadequate space for bike lanes or wide outside lanes and are also unsuitable for shared lanes with markings there may still be a demand for bicycle traffic based on route connectivity. In these situations, it is common to use bike route signing in order to assist in user wayfinding between one bicycle facility type to another. The signage may also have the secondary effect of keeping vehicular traffic aware that they may encounter bicycle traffic on that roadway.

Bike routes that are signed on low volume, low speed, residential type roads can be very attractive to all user types.

**City of Greenfield does not currently use bike routes.**


# EXISTING POLICIES

## CITY OF GREENFIELD:

Many factors are utilized when determining enhancements including type of road improvement, public input and financial constraints.

Bike accommodations are considered on all road reconstruction projects. **Special consideration is given to reconstruction projects on roads classified as arterial or collector.** A bike lane or shared parking/bike lane is often added on these types of roads. Bike accommodations are also considered on road projects classified as resurfacing or rehabilitation; although it is often more difficult and not feasible to add bike facilities during these types of improvements.

## STATE:

***Complete Streets***

State Statute 84.01(35) adopted in 2009 and modified in 2014 requires that due consideration be given to establishing bikeways and pedestrian ways on modernization projects when funded in whole or in part by state or federal funds.

***Connections 2030 Statewide Long-Range Transportation Plan***

Within the Connections 2030 planning document, Chapter 8 calls for the state to provide mobility and transportation choice with a specific policy calling for WisDOT to "support bicycle and pedestrian facilities and plans." In order to implement the policy WisDOT has 3 objectives:

- Implement state bicycle and pedestrian plan goals and objectives.
- Include bicycle and pedestrian facilities in state and federally funded projects, following the federal "Complete Streets" policy.
- Implement identified bikeways in corridors and on the Wisconsin bicycle plan map.

## FEDERAL:

***SAFETEA-LU, 2005***

The Save, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users was passed by the US Congress and signed into law in 2005. This law reaffirms the principle that safe accommodation of bicycling and walking is the responsibility of state and local transportation agencies and that these transportation modes must be considered in the planning, design, operation, maintenance, and management of the transportation system.

**USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations, 2010:**

*Within this statement the Department of Transportation reaffirms the federal commitment to accommodate bicycling and walking as equal forms of transportation modes and dictates that "every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems." The statement also provides a list of recommended actions as well as reference to the Code of Federal Regulations that provides authority for these recommendations.*

# EXISTING FACILITIES

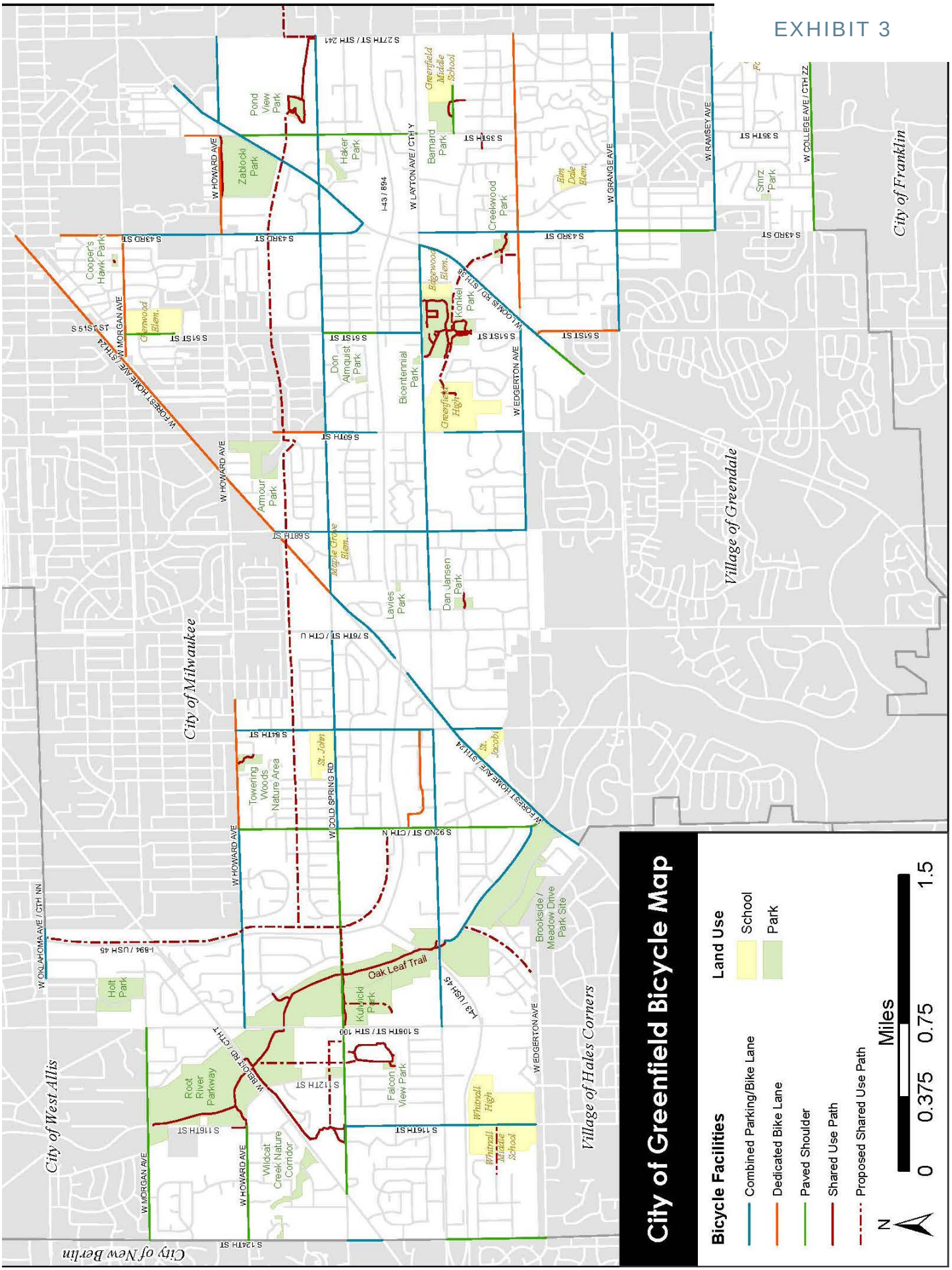
*Exhibit 3 (City of Greenfield Bicycle Map)* highlights the existing bicycle facilities within the City of Greenfield. As noted within the Policies section, they are largely located along the arterial and collector streets. The majority of the facilities are combined parking/bike lanes, but both dedicated bike lanes and paved shoulders also exist within the City.

# GOALS

Greenfield seeks to proactively improve bike accommodations throughout the City. In addition to the policies discussed, the following goals are noted:

- Continue to remove gaps in the bicycle network.
- Expand the on-street bicycle network with the City of Greenfield and connecting in with adjacent communities.
- Increase awareness of bicycle facilities within the City.
- Formalize the design standards for on-road bicycle facilities.

Detailed objectives to accomplish these goals are then further discussed in the **Implementation Section.**


City of Greenfield Bicycle Map
Bicycle Facilities
Combined Parking/Bike Lane
Dedicated Bike Lane
Paved Shoulder
Shared Use Path
Proposed Shared Use Path
Land Use
School
Park
Miles
0
0.375
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City of Milwaukee
City of West Allis
City of New Berlin
Village of Greendale
City of Franklin
Village of Hales Corners
Oak Leaf Trail
W HOWARD AVE
W LAYTON AVE / CTH Y
W EDGERTON AVE
W FOREST HOME AVE / STH 24
W COLD SPRING RD
W OKLAHOMA AVE / CTH NN
W MORGAN AVE
W RAMSEY AVE
W COLLEGE AVE / CTH ZZ
W GRANGE AVE
W LOOMIS RD / STH 36
W BECHER RD / CTH T
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S 124TH ST
Pond View Park
Zablocki Park
Haker Park
Greenfield Middle School
Bamard Park
Creekwood Park
Elm Dale Elem.
Smrz Park
Cooper's Hawk Park
Glenwood Elem.
Edgewood Elem.
Konikel Park
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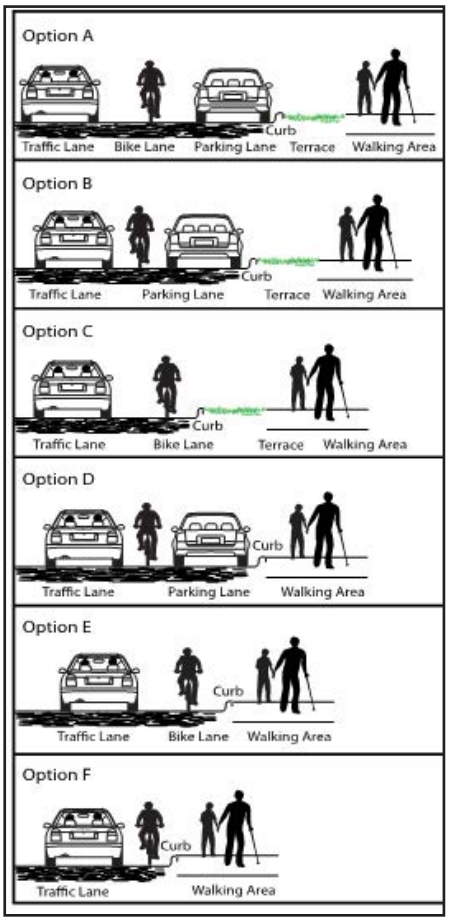
Bicentennial Park
Greenfield High
Armour Park
Maple Grove Elem.
Lavies Park
Dan Jansen Park
Towering Woods Nature Area
St. John
St. Jacobi
Brookside / Meadow Drive Park Site
Holt Park
Kulwicki Park
Falcon View Park
Root River Parkway
Wildcat Creek Nature Corridor
Whitnall High
Whitnall Middle School

# PEDESTRIAN FACILITIES

## OVERVIEW

Currently, the City has more rural roadways without sidewalk because when the City was developed there was not a high demand for sidewalks. Now, when City streets are reconstructed, sidewalks are added whenever feasible in specific areas as further discussed in the Policy section.

The narrative that follows will discuss the typical elements of pedestrian infrastructure and the land uses that typically merit a higher concentration of pedestrian facilities. A brief summary of policies currently in place will then follow. Finally, this chapter will highlight the goals and objectives that the City would like to implement specific to the growth of the pedestrian facilities.




## PEDESTRIAN INFRASTRUCTURE

### SIDEWALKS

Sidewalks are the most well-known piece of pedestrian infrastructure that are commonly provided in urban areas. According to the FHWA, providing a separated walkway can reduce crashes involving pedestrians walking along roadways by 65-89 percent. (https://safety.fhwa.dot.gov/provencountermeasures/walkways)

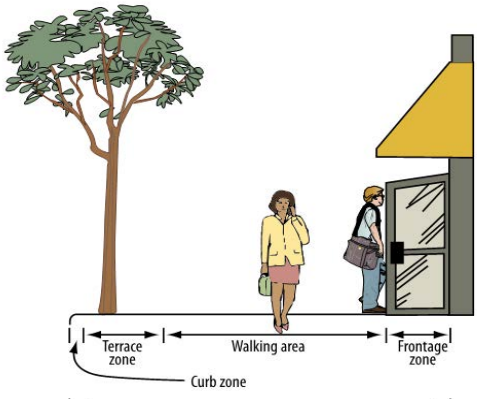
**The City's standard for sidewalks is 5' in width with a terrace, if the sidewalk is directly adjacent to the roadway this is increased to 6'**

**A sidewalk corridor** is typically broken into 4 separate parts: the curb zone, the terrace or furniture zone, the walking area, and the frontage zone (see display).

The main functions of the **curb zone** are to facilitate drainage by conveying water to storm sewer systems and to discourage vehicles from leaving the roadway area and encroaching the pedestrian area.

**Furniture zones or terrace zones** often contain elements that don't belong in the roadway or within the walking area including trees and landscaping, fire hydrants, benches, signs, and light and signal poles. Wider furniture zones can serve to increase the comfort of pedestrians using the walkway, but terrace widths are often constricted due to available RW and a desire to keep project cost low.

The **pedestrian zone** is the space occupied by moving pedestrians. No obstructions should be located within this zone. The minimum width to accommodate two-way pedestrian

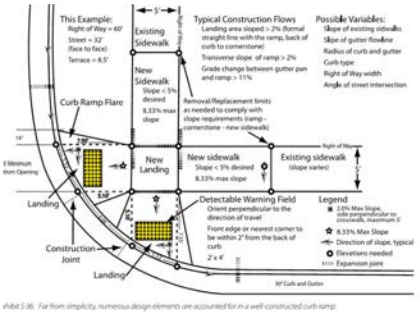



traffic is 5 feet, but wider zones may be warranted based on high pedestrian volumes.

**Frontage zones** are defined as the area between the pedestrian walkway and the right of way. These areas serve as a buffer area between vertical obstructions like fences, buildings, and landscaping. In addition to containing elements that are commonly found in furniture zones, frontage zones, where wide enough, may provide space for businesses to incorporate outdoor dining areas or simply provide space for doors to open without inhibiting pedestrian traffic.

### CURB RAMPS

Curb ramps are required in locations where roadways intersect with sidewalks in order to provide access to people with disabilities as well as other users like people walking their bikes or parents using strollers. Curb ramps must be designed to meet strict standards for widths, slopes, and contain detectable warning fields in order to be compliant with



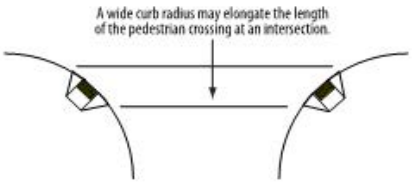




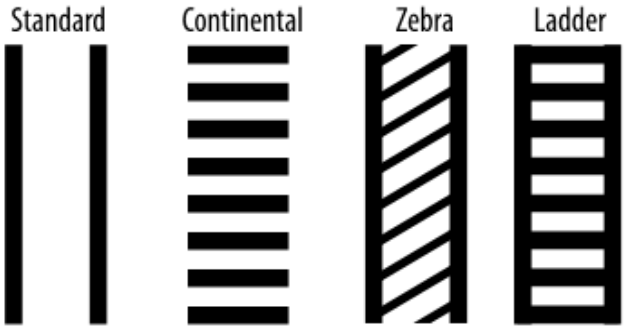
Exhibit 5-4: Pedestrian crossing distances for wide turning radii are longer than when using a tight radii.

the Americans with Disabilities Act.

Where possible, curb ramps should align users to cross directly through the crosswalk. This typically requires two ramps per intersection quadrant. This alignment is a best practice as it properly aligns visually impaired pedestrians to directly cross roadways and is more accessible for those in wheelchairs as it doesn't require sharp turns at the bottom of curb ramps like diagonal ramps do.

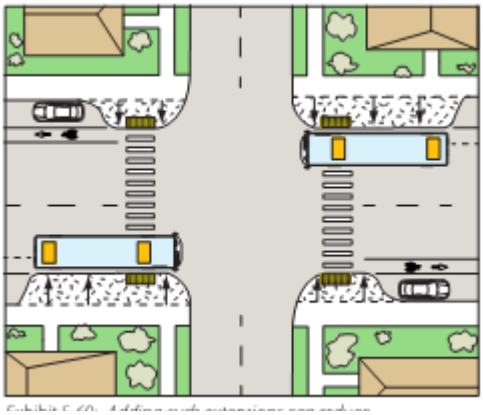
## CROSSINGS

Crossings are a critical feature of pedestrian infrastructure due to the introduction of conflict points between vehicular and pedestrian traffic. There are a number of best practices that can be implemented in the design of pedestrian crossings to mitigate these risks including increasing visibility of crosswalks using approved markings and lighting, decreasing crossing lengths, proper crossing location, and roadway design to decrease vehicle speeds.




To increase the visibility of marked crosswalks a variety of approved marking options are availability in the MUTCD as shown in the figure above. Proper lighting of crossings is also very important as most fatal pedestrian accidents occur while in dark light conditions according to data provided by the NHTSA (https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812493).

Decreasing crossing lengths is important as it decreases exposure time to pedestrian/vehicle conflicts. Solutions to decrease crossing length are geometric in nature including providing perpendicular crossings, curb extensions or providing raised median refuge areas (see images below).



Properly locating crossings, both at intersections as well as outside of intersection areas, is important to meet driver expectations. Drivers expect pedestrians to cross the roadway near intersection areas and it is important that crossings are not offset from the intersection too far as pedestrians will not be expected to be in those locations and drivers may not be looking for them in these areas. Where the need for mid-block crossings arise, it is important that sight distance is accounted for when choosing the crossing location and that clear vision triangles are maintained.

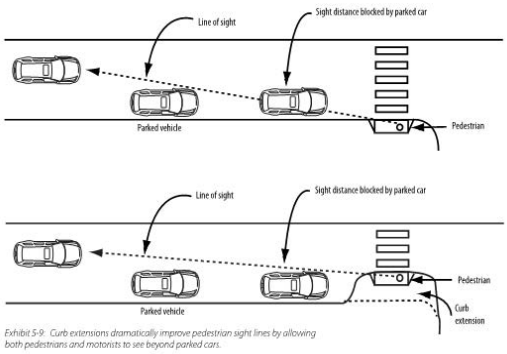
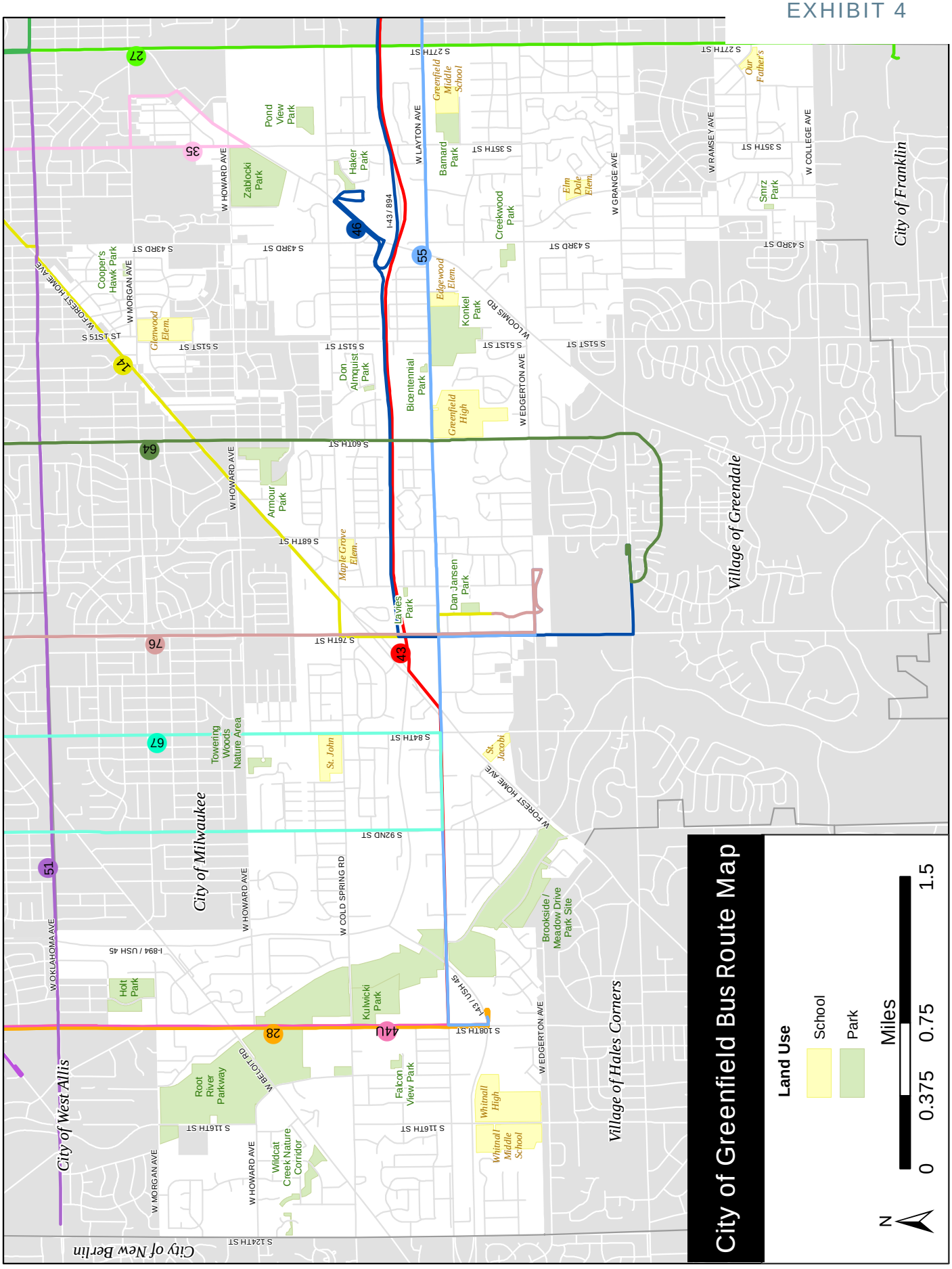



Exhibit 5-9: Curb extensions dramatically improve pedestrian sight lines by allowing both pedestrians and motorists to see beyond parked cars.


City of Greenfield Bus Route Map
Land Use
School
Park
Miles
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City of Franklin
Village of Greendale
Village of Hales Corners
City of Milwaukee
City of West Allis
City of New Berlin
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Greenfield High
Whitnall High
Whitnall Middle School
St. John
St. Jacobi
Our Father's
Cooper's Hawk Park
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51
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44U

Lowering vehicle speeds allows drivers more time to perceive and react to pedestrians crossing the roadway. Methods to decrease vehicle speed at intersections include decreasing the roadway width by using raised medians and curb extensions. Also, turning speeds can be decreased by using as small of a curb radius as possible based on the intersection design vehicle.

### SIGNALS

At crossing locations where traffic signals are present it is important that the signals also have pedestrian accommodations. The walk/don't walk symbols are the very least that should be done to accommodate pedestrians at signalized intersection crossings. One possible enhancement to the crossing is countdown signals for pedestrians. When used properly, fewer pedestrians enter the crosswalk at times in the signal phase that will cause them to still be crossing after the conflicting traffic has been permitted to cross the intersection.

Pedestrian actuation at signalized intersections is another feature that should be considered. This feature allows the pedestrian phase to only be implemented when a pedestrian pushes a button to call for the right of way to cross the intersection. Push buttons should be located in accessible locations for pedestrians and people in wheelchairs to use.

## LAND USES

Areas that typically see higher concentrations of pedestrian travel include schools, parks, & retail centers. With the ultimate goal to provide connectivity throughout the City to the greatest extent possible, providing safe facilities for pedestrians in these areas is key.

### SCHOOLS:

The City of Greenfield has the following composition of public schools in the general area:

- (2) High Schools (Whitnall and Greenfield)
- (2) Middle Schools (Whitnall & Greenfield)
- (4) Elementary Schools.

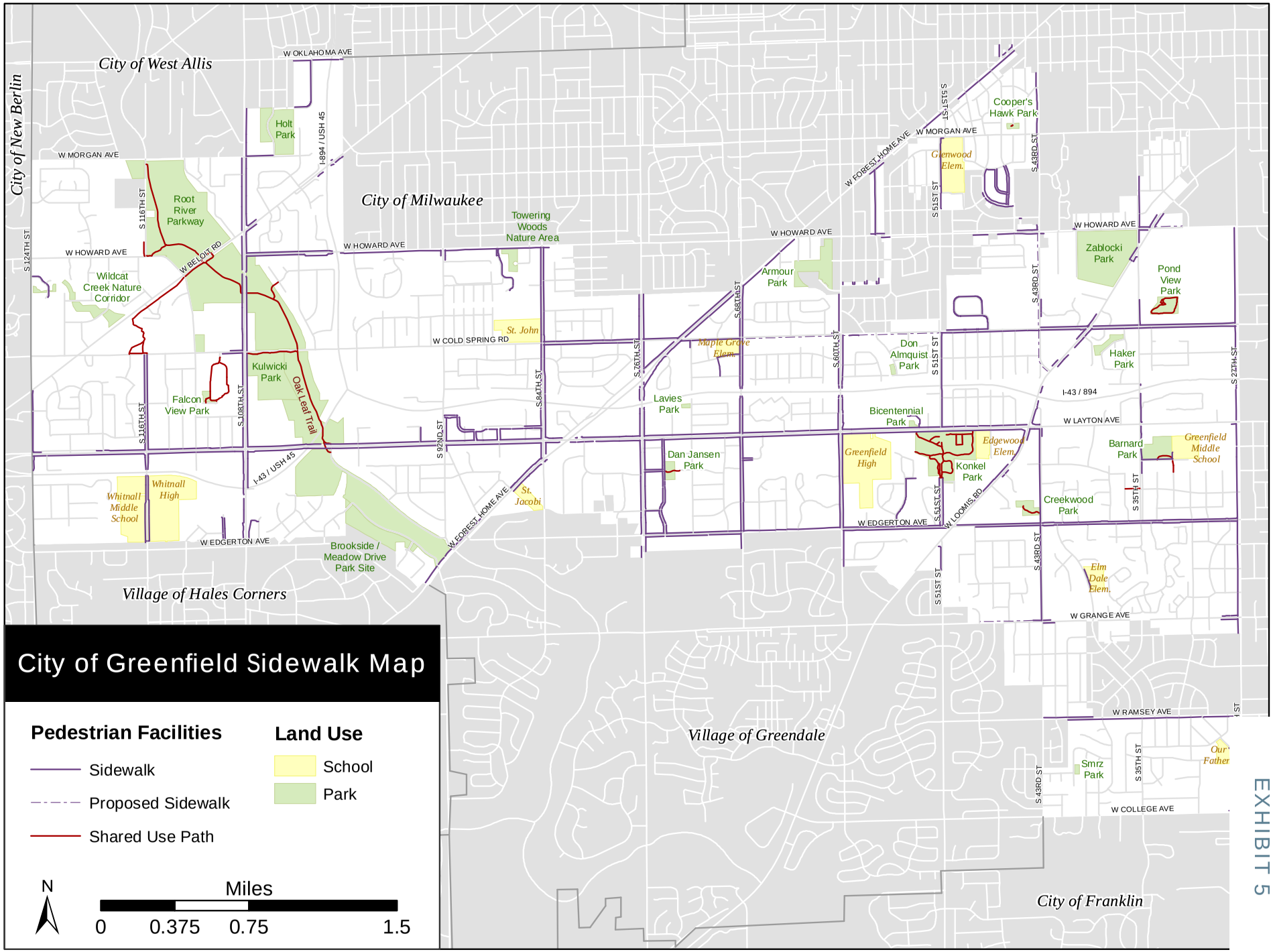
The City also has an additional (3) multi-grade private schools.

Although generally neighborhood streets do not have sidewalks, some exceptions to this exist, especially where schools are in close proximity. With a high concentration of youth in these areas, it is important to provide for pedestrian facilities for safe, off-road travel.

### PARKS & COMMUNITY GATHERING AREAS:

With citizens walking to and then congregating at these facilities, the presence of pedestrian facilities is key to provide a safe environment for pedestrians. These destinations are for all ages and include a wide range of users from single individuals to families, sports teams, and neighborhood groups. Within the destinations, there is typically an extensive sidewalk or trail network, the key is providing the connectivity for those that are not traveling via vehicle.

Assuring connectivity to already existing sidewalks and the nearby transit stops is critical to establishing a comprehensive pedestrian network as well. *See Exhibit 4 (City of Greenfield Bus Route Map) .*


City of West Allis
City of New Berlin
City of Milwaukee
Village of Hales Corners
Village of Greendale
City of Franklin
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Brookside / Meadow Drive Park Site
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Smrz Park
Our Father
City of Greenfield Sidewalk Map
Pedestrian Facilities
Sidewalk
Proposed Sidewalk
Shared Use Path
Land Use
School
Park
N
Miles
0
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EXHIBIT 5

### RETAIL CENTERS:

Similar to parks, retail centers typically have a high pedestrian volume. Having a strong pedestrian network within and surrounding the facilities is important for pedestrian safety, but also helps the overall success of the retail facility. With public transit stops typically located nearby, the connectivity to the retail centers is key for both access to shopping and for employment.

With sidewalks adjacent to storefronts, retail shops typically enjoy higher traffic and sales as well.

## EXISTING POLICIES

### CITY OF GREENFIELD:

Greenfield seeks to proactively improve bike and pedestrian accommodations throughout the city. Many factors are utilized when determining enhancements including type of road improvement, public input, and financial constraints.

Chapter 9.02 of the City of Greenfield municipal code states the requirement of sidewalk installation on all section, quarter-section, state and county trunk highways. It also states that sidewalk installation in other commercial, institutional, and recreational areas shall be considered on an individual basis with the health and safety of the public in mind. See *Exhibit 5 (City of Greenfield Sidewalk Map).*

Sidewalk is added to collector roadways when reconstructed. This includes funding sidewalk on County highways that are reconstructed. The County does not fund sidewalk construction. See *Exhibit 6 (City of Greenfield 2025 Pavement Improvement Plan).*

The City does not build sidewalk on low volume neighborhood streets when they are reconstructed, but there could be exceptions, such as if the neighborhood street is adjacent to a school or park.

New commercial and multifamily residential development reviews include determining if public sidewalk or multi-use paths should be included. If so, the construction and maintenance is the developer's and the owner's responsibility.

The City's annual capital improvement program includes a small amount of new sidewalk construction, creating connections between existing sidewalks. The City is currently focusing on short connections first where a small project will make a big improvement in connectivity. Once the shorter connections are completed, the next step is to shift the focus to larger projects where the gaps are longer.

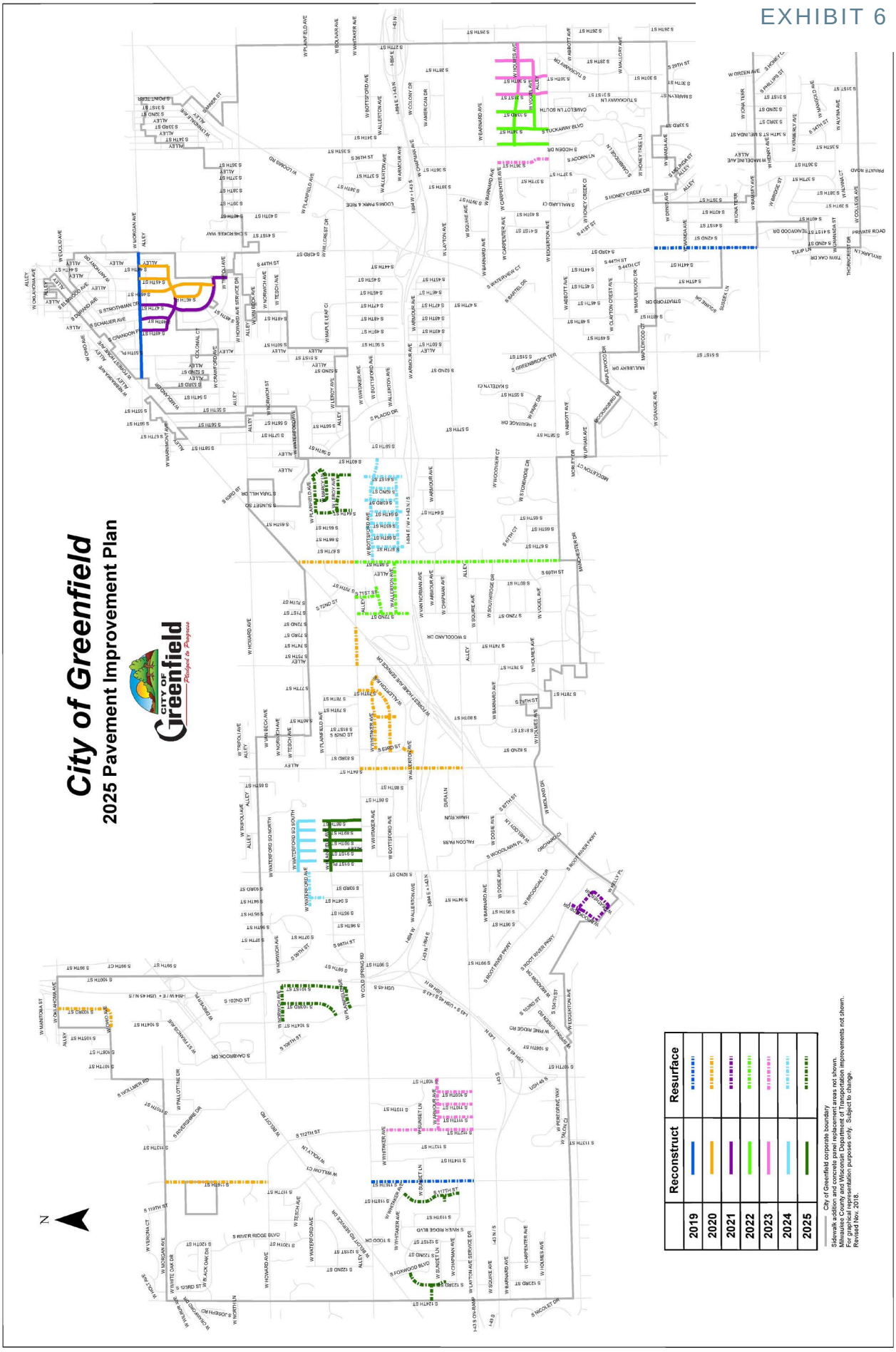
Other sidewalk construction occurs throughout the City to provide safe routes to school and to make meaningful connections between the existing sidewalk network. This work occurs on a case-by-case basis as dictated in Greenfield's annual capital improvement budget.

### STATE & FEDERAL:

Many of the same policies mentioned under the on-road bicycle facilities apply to pedestrians as well. Additionally, the following are applicable to pedestrians:

***Americans with Disabilities Act (ADA)/Americans with Disabilities Act Accessibility Guidelines***

The ADA requires that pedestrian facilities and routes be accessible to pedestrians with mobility, visual, cognitive, and other types of impairments. Following the passing of the ADA in 1990, the U.S. Access Board developed specific accessibility guidelines known as the Americans with Disabilities Act


City of Greenfield
2025 Pavement Improvement Plan
CITY OF Greenfield
Pledged to Progress
N
Reconstruct
Resurface
2019
2020
2021
2022
2023
2024
2025
City of Greenfield corporate boundary
Sidewalk, curb and gutter and storm sewer improvements not shown.
Milwaukee County and Wisconsin Department of Transportation improvements not shown.
For graphical representation purposes only. Subject to change.
Revised Nov. 2018.

Accessibility Guidelines (ADAAG), for the design of pedestrian facilities. The ADAAG are enforceable by law and facilities must comply with those guidelines.

## EXISTING FACILITIES

As per the previous two exhibits, the City focuses the sidewalk on all section, quarter-section, state and county trunk highways. Low-volume, residential streets typically do not have sidewalks.

## GOALS

Greenfield seeks to proactively improve pedestrian accommodations throughout the City. In addition to the policies discussed, the following goals are noted:

- Continue to remove gaps in the pedestrian network.
- Maintain the existing pedestrian network to provide safe travel.
- Expand the pedestrian network to target the key land uses.
- Formalize the design standards  and land use placement for pedestrian facilities.

Detailed objectives to accomplish these goals are further discussed in the **Implementation Section.**

# MULTI-USE PATHWAYS

## OVERVIEW

Currently, the City has a few off-road pathways within the City, but these are limited to the County's Oakleaf Trail and then pathways that are largely contained within existing park facilities. Although largely developed, there are still opportunities to develop off-road pathways within utility, and to some extent, environmental corridors. Connectivity within the park system and open space corridors should also be considered.

The discussion to follow will focus on the user groups, facility types and design considerations typically applied with multi-use pathways. A brief summary of policies currently in place will then follow. Finally, this section will highlight the goals that the City would like to implement specific to the growth of multi-use pathways.

## USER GROUPS

Multi-use pathways can still provide direct connectivity to community destinations and therefore serve a utilitarian purpose. These pathways also provide an alternate route for users not comfortable using on-road facilities.

## FACILITY TYPES

Multi-use paths are off-street facilities that accommodate bikes, pedestrians and other non-motorized users. Generally, multi-use paths can run parallel to roadways within the right of way or can be completely independent of roadways located within old railway corridors, utility corridors, park corridors or other privately owned corridors.

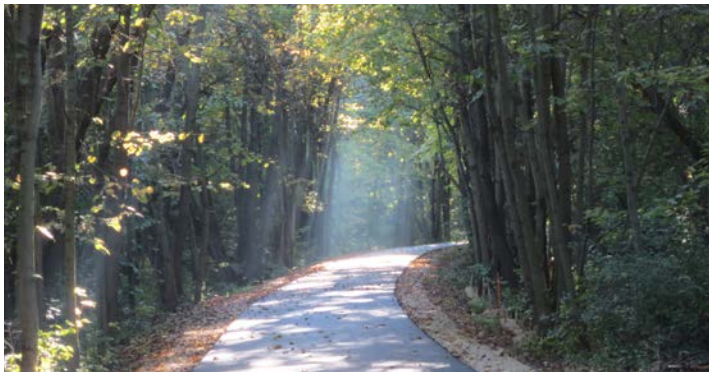
### PARALLEL ROADWAY PATHWAYS

A multi-use path running parallel to a roadway is a good bike/pedestrian accommodation alternative when high roadway speeds and volumes make on-street accommodation undesirable.

This is a positive accommodation alternative as it will encourage use of users of all confidence groups and abilities. This alternative is only feasible when there is sufficient roadway right of way to accommodate an expanded pathway (vs. sidewalk). Typically, these pathways do have two main concerns:

1) Parallel multi-use paths result in potential conflicts at driveways and side roads. Careful design needs to occur to prevent path user/vehicle crashes from occurring when the path crosses side roads at locations that are outside of driver expectations.

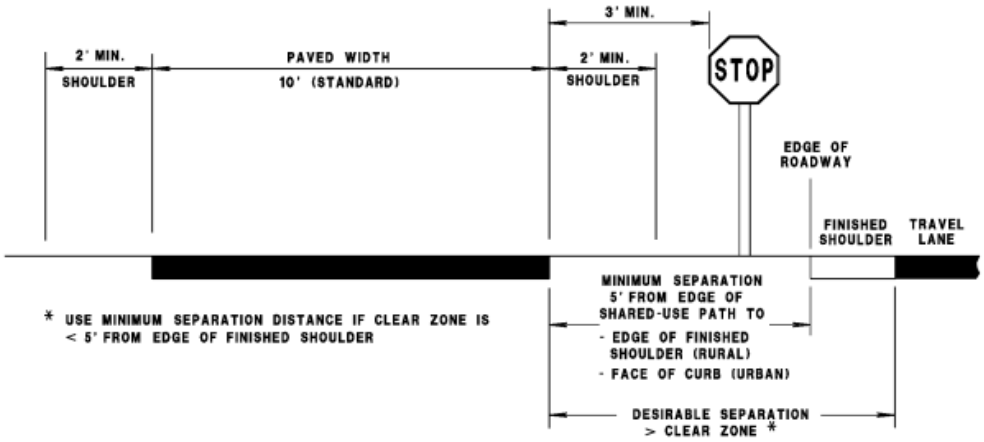
2) The proximity of the pathway to the adjacent land uses. If residential, many times neighbors are not supportive of the facility in close proximity to their houses.



### INDEPENDENT MULTI-USE PATHWAYS

Multi-use paths that are independent of roadways provide further connectivity to supplement on-road bike accommodations and provide another option for users of all abilities and confidences. These provide the added benefit of typically being off-set further from private properties.

Oftentimes, these pathways are located within environmental corridors and have the added benefit of a less urban setting. Conversely, abandoned railroad or utility corridors oftentimes provide the needed real estate for these corridors.




Again, careful attention needs to be paid where the multi-use path will intersect with roadways.

# DESIGN CONSIDERATIONS

## MATERIAL

Multi-use paths are commonly composed of HMA Pavement over crushed aggregate base course.

Where applicable, boardwalk composed of timber, composite timber, or concrete may be implemented.

## WIDTH

Path width is typically a desirable 10' but can be decreased to a minimum of 8' where available space dictates and may also be increased to 12' wide when user volume is high enough for this to be necessary. **The City of Greenfield's standard is 10' wide, with a minimum of 8' width in special circumstances.**

## CLEARANCE

The desirable clear zone for multi-use paths is 3' with a 2' minimum clear distance. In locations where obstructions would be located within the clear zone it is possible to install railing a minimum of 1' off the edge of path.

## SIDE SLOPES

Maximum side slopes within the clear zone and recovery area (5' total) are 6:1.

Where slopes are greater than 4:1 within the recovery area it may be necessary to install railing as shown in the above figure.

## SIGNING/WAYFINDING

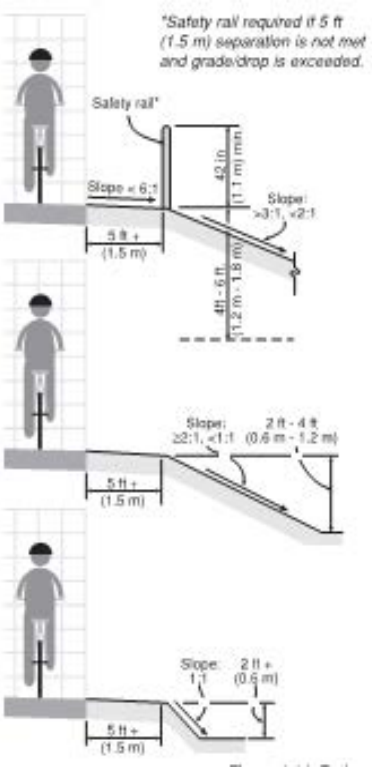
Proper signing is required to allow users to safely traverse the multi-use path (i.e. proper intersection signing including warning signs, stop signs etc.)

Proper signing to inform users the proper routes to take to their desired destination should be implemented.

This could be done with standard way-finding signs as described in the MUTCD or with more advanced mapping at info kiosks located along the multi-use path.

## OVERPASSES/UNDERPASSES

It may be desirable to provide an overpass or underpass while crossing major roadways rather than accommodating an at grade crossing.



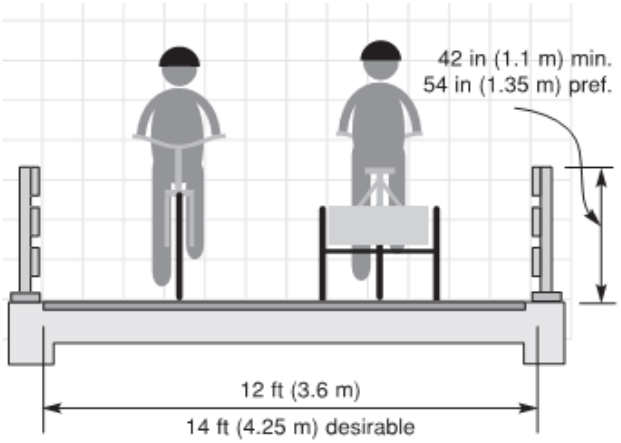

Desirable bridge clear width and tunnel clear width for a multi-use path is 14' (12' minimum).

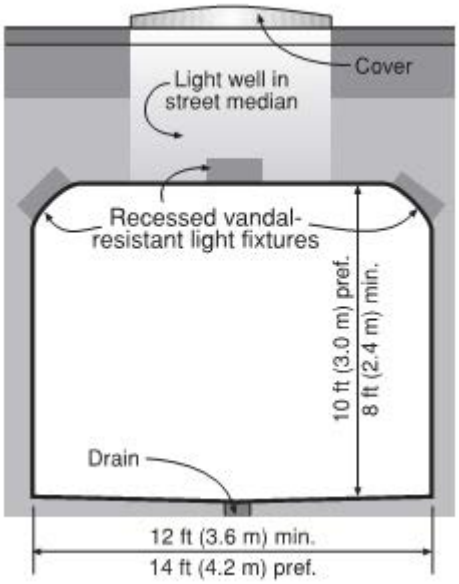
Desirable vertical clearance for tunnels is 10' (8' minimum).

Berkeley, CA

Chicago, IL

Oakland, CA




## MISC SITE FURNISHINGS (LIGHTING, AMENITIES)

Depending on the setting of the path and the expected use it may be advantageous to provide lighting along the path. This should be considered in urban areas where more year-round commuter use is anticipated

Bike care stations with bike tools and air pumps are another feature that could be included when implementing multi-use paths and on-road bicycle facilities.

Benches are often provided on longer trails as budget allows.


Information kiosks with way-finding maps may be placed along multi-use paths. These provide increased visibility and awareness of the trail systems for citizens and added assistance for navigating within the urban corridor. They also can provide revenue opportunities through advertising.

Trash receptacles are sometimes provided, but this is largely dependent on the location of the trail (receptacles not desired near residences), staffing of the municipality (ability to add additional maintenance duties), and the budget. If provided, these are typically focused at roadway intersections for easier maintenance access.

# EXISTING POLICIES

## CITY OF GREENFIELD:

Greenfield seeks to proactively improve bike and pedestrian facilities throughout the City. The City understands that shared use pathways allow for a more relaxed multi-modal transportation corridor for users.

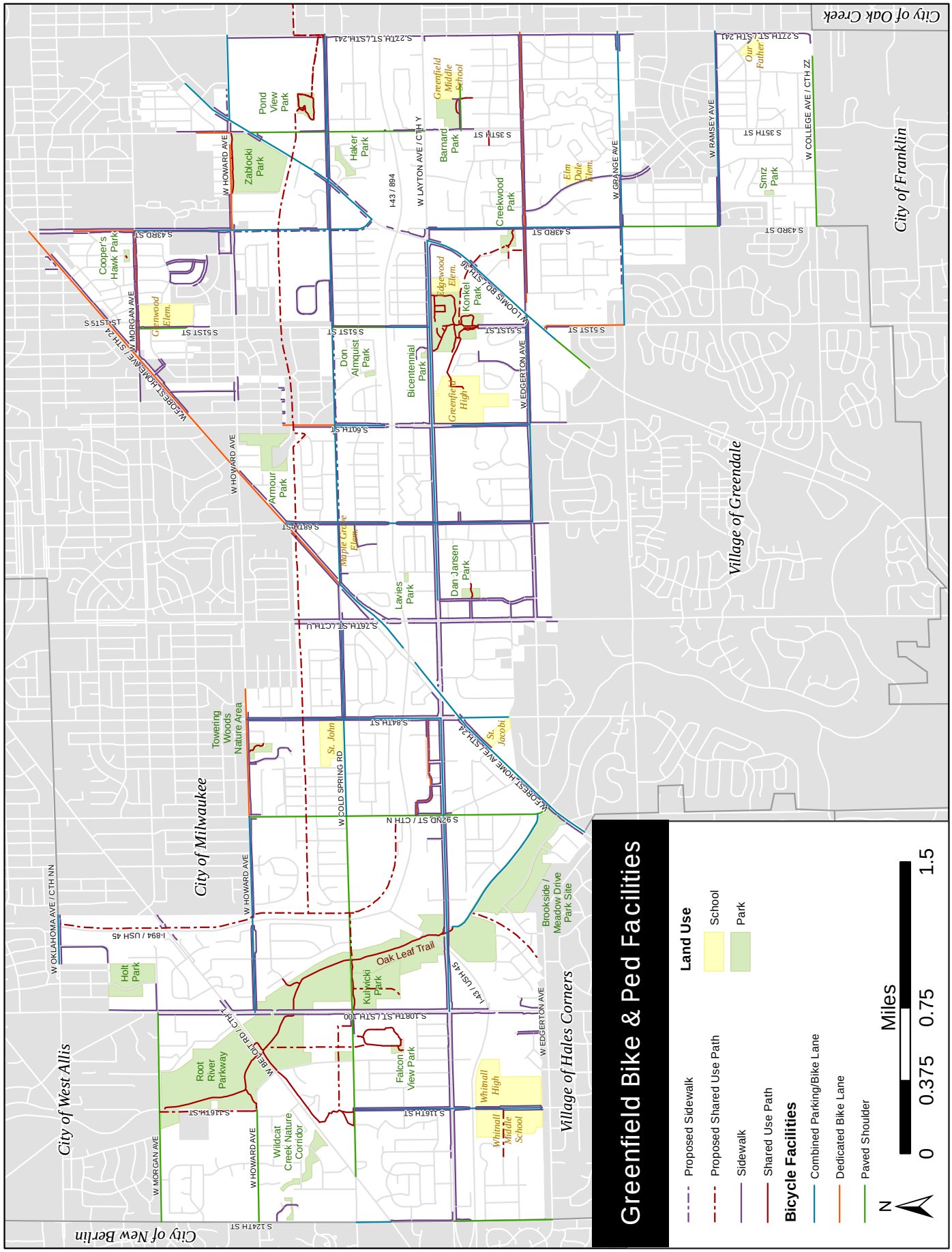
The City's intention is to build shared use paths in all available We Energies right-of-way and any available public or private land that would create a connected system.

## STATE & FEDERAL

The same policies and regulations applicable to the bicycle and pedestrian facilities discussed in previous chapters also apply to multi-use pathways.

# EXISTING FACILITIES

As per *Exhibit 7 (City of Greenfield Bike & Ped Facilities Map),* Milwaukee County's Oakleaf Trail travels through Greenfield within the County's Root River Parkway. The City also has multi-use pathways in Pond View Park, Falcon View Park, & Konkel Park. There is also a pathway at Maple Grove and some other smaller connector trails to neighborhood open spaces.


Greenfield Bike & Ped Facilities
Land Use
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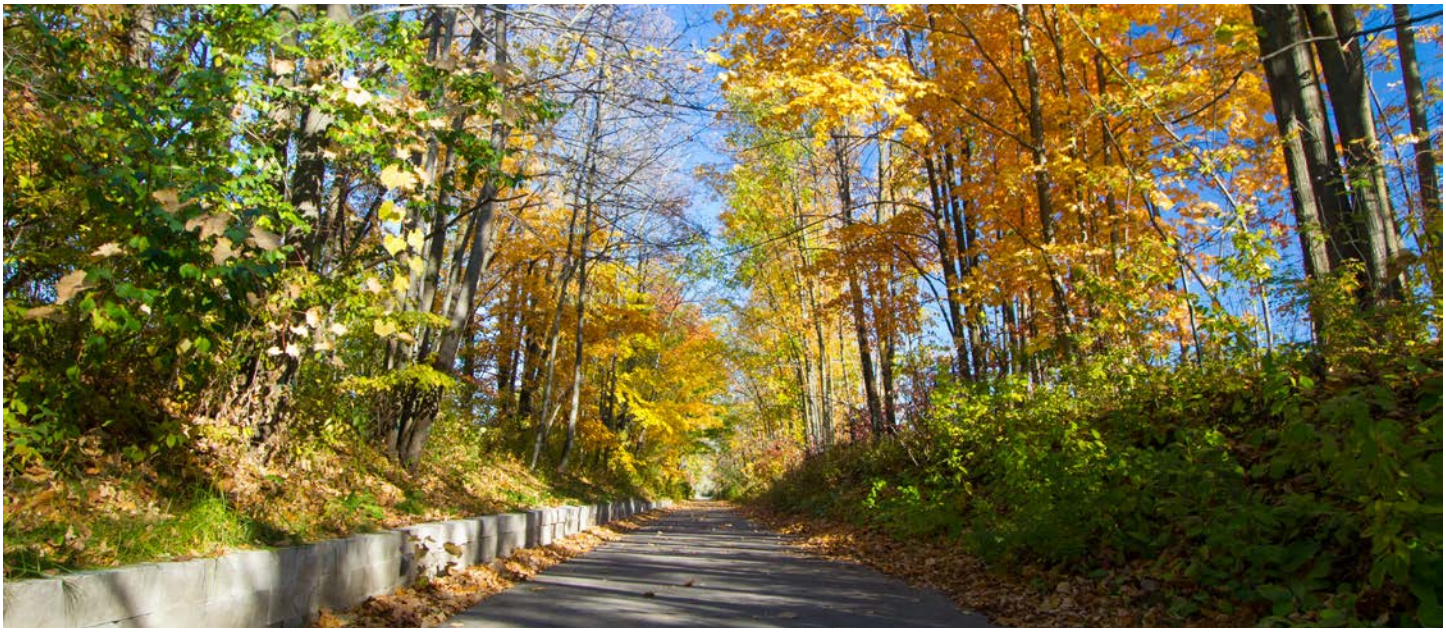
Holt Park
Kulwicki Park
Oak Leaf Trail
Brookside / Meadow Drive Park Site
Falcon View Park
Root River Parkway
Wildcat Creek Nature Corridor
Cooper's Hawk Park
Greenwood Elem.
Edgewood Elem.
Greenfield High
Greenfield Middle School
Elm Dale Elem.
Whitnall High
Whitnall Middle School
St. John
St. Jacobi
Our Father
Smrz Park



# PROPOSED FACILITIES

As per *Exhibit 7 (City of Greenfield Bike & Ped Facilities Map),* the proposed shared use trail facilities concentrate on two prime objectives at this time.

One objective is to connect existing trail systems to other trail systems within the park system. This is a prime objective for the following reasons:

- With off-road trails primarily serving the more recreational bicyclists and pedestrians, this connectivity offers an extension of recreational opportunities.
- By connecting the open spaces, this provides for safe off-road travel for users, many of which are users without vehicular transportation.

The second objective is to develop the central E/W trail system within the existing We Energies/ ATC corridor. This trail system, the Powerline Trail, is then further detailed within **Exhibit 8.**

- This project will be the catalyst to start the major east/west corridor in SE Wisconsin—known as the Route of the Badger (ROTB) from Rails to Trails (RTT). Total planned new on-road and multi-use trails specific only to the ROTB for Milwaukee County (not accounting for additional in other planning documents) equates to an additional 77.75 miles (60.27 of which is trail).
- This 3.0 mile segment then starts the 13-mile Powerline segment reaching from USH 41 on the west all the way to Lake Michigan.
- With the construction of the trail, existing multi-modal facilities will be strengthened and extended. This includes the Oak Leaf Trail on the west, existing City of Milwaukee roadway improvements to the north, and connectivity with major multi-modal facilities on the larger roadways the trail transects.
- The project will allow for greater bike and pedestrian connectivity throughout the County, and ultimately, the SE Region.

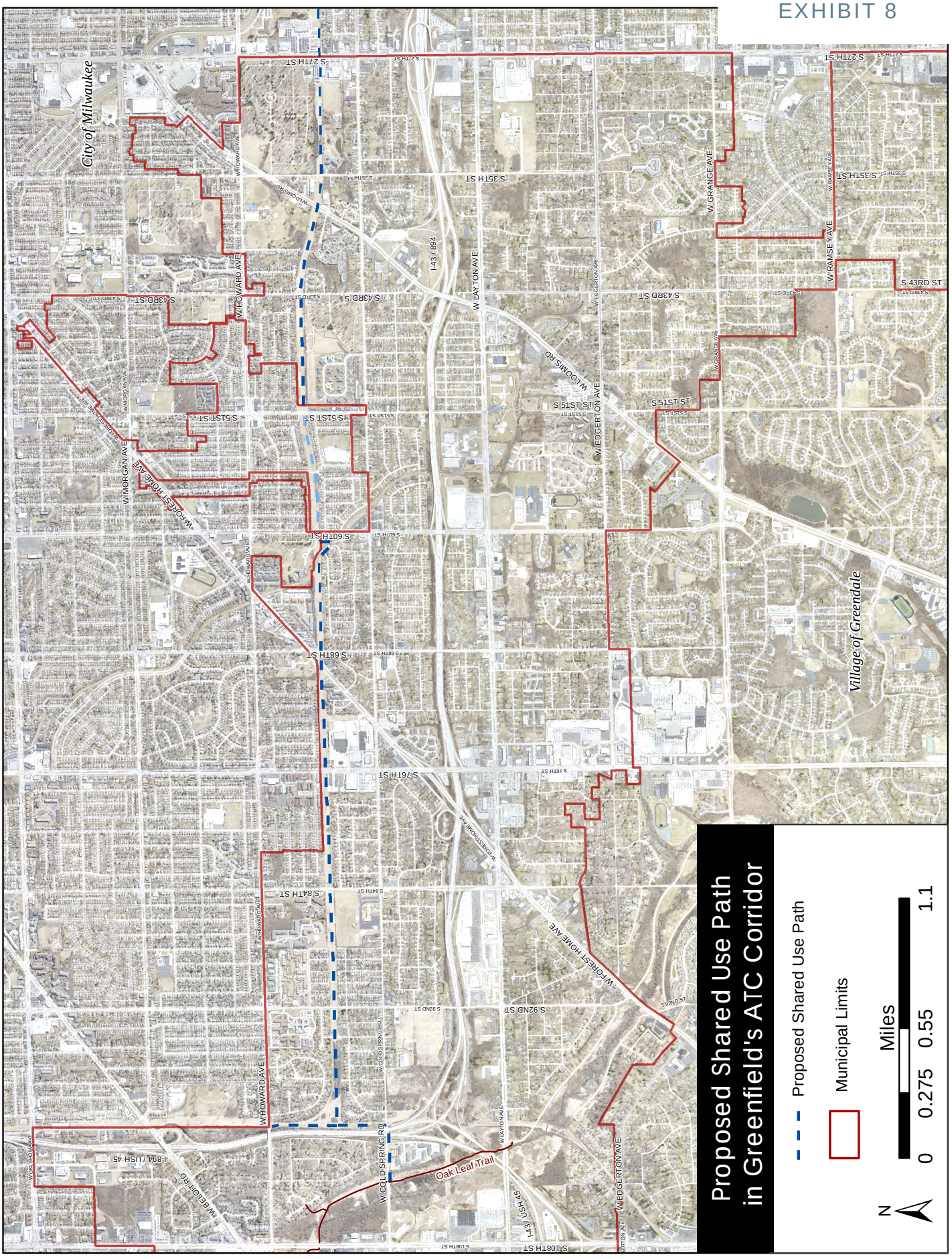
# GOALS

Greenfield seeks to proactively improve bike & pedestrian accommodations throughout the City and the implementation of multi-use pathways is one component of this goal. In addition to the policies discussed, the following goals are noted:

- Continue to provide opportunities for off-road multi-modal recreation and utilitarian travel.
- Maintain the existing network to provide safe travel.
- Develop utility corridors that will allow for dual-use as shared use pathways.
- Expand the shared use pathways to further connect the open space system and tie-in with on-road bicycle facilities and sidewalks, thereby expanding the bicycle/pedestrian system as a whole.
- Continue to expand the system as opportunities allow.
- Increase awareness of bicycle and pedestrian facilities within the City.

Detailed objectives to accomplish these goals are further discussed in the **Implementation Section.**

EXHIBIT 8


Proposed Shared Use Path in Greenfield's ATC Corridor
Proposed Shared Use Path
Municipal Limits
Miles
0
0.275
0.55
1.1
N
City of Milwaukee
Village of Greendale
Oak Leaf Trail
S 27TH ST
S 35TH ST
S 43RD ST
S 51ST ST
S 60TH ST
S 68TH ST
S 76TH ST
S 84TH ST
S 92ND ST
S 108TH ST
W HOWARD AVE
W LAYTON AVE
W EDGERTON AVE
W RAMSEY AVE
W GRANGE AVE
W MORGAN AVE
W FOREST HOME AVE
W COLDSPRING RD
W BELOIT RD
I-43 / 894
I-894 / USH 45
I-43 / USH 45

# IMPLEMENTATION

## GOALS & OBJECTIVES

Throughout this document, a multitude of goals were identified. From the goals, we further provide action items through the development of objectives. These are summarized below with the objectives listed underneath each goal:

- **Maintain the existing bicycle & pedestrian network to provide safe travel.**
  - Create an annual sidewalk/trail field review protocol to evaluate condition and safety hazards.
  - Establish a 5-year Sidewalk/Trail Pavement Improvement Plan similar to the roadway plan.
  - Establish an annual sidewalk/trail maintenance budget.
- **Continue to remove gaps in the bicycle & pedestrian network.**
  - Continue to annually evaluate opportunities to improve connectivity with roadway improvements.
  - With new or redevelopment areas, require the developer to include appropriate facilities.
  - Develop a safety action plan which will include further public input to establish priority connections.
- **Expand the bike/ped network with the City of Greenfield and connecting in with adjacent communities.**
  - Participate in the regional bike/ped committee to collaborate in future planing.
  - Investigate cost-share opportunities for future projects.
  - Collaborate with WisDOT and SERPC on future bike/ped planning efforts.
  - Further evaluate the high-use land use areas for key future development of pedestrian and bicycle facilities.
  - Target gaps for development priority of sidewalks and on-road facilities.
  - Develop utility corridors that will allow for dual-use as shared use pathways.
  - Expand the shared use pathways to further connect the open space system and tie-in with on-road bicycle facilities and sidewalks.
  - Identify and apply for grant funds as applicable.
- **Formalize the design standards and requirements for on-road bicycle facilities and pedestrian facilities.**
- **Increase awareness of bicycle facilities within the City.**
  - Add way-finding signage and kiosks as appropriate.
  - Investigate the use of sharrows and bicycle boulevards for added connectivity.
  - Create on-line mapping for public use.
  - Provide educational materials for the public for the use of the facilities.
  - Partner with other organizations to cross-promote facilities and educate the public.
  - Sponsor bicycle and pedestrian events to promote multi-modal transportation.

## PLAN USE & UPDATES

The intent is for this Plan to serve as a guide for future bike and pedestrian infrastructure improvements across the City. These recommendations should be incorporated into the City's other planning documents.

### NEXT STEPS

With the adoption of the Plan, the next steps would be the following:

1. Assign staff to head a bike/pedestrian committee.
2. Invite community members to participate with the committee.
3. Determine priority of the goals and associated objectives.
4. Create a 5-year plan with detailed objectives.
5. Assign individual staff to objectives.
6. Start work on 2020 objectives.

## MONITORING & REPORTING

It is recommended that quarterly meetings occur with staff to report on progress of objectives.

The Parks and Recreation Department will report annually to the Parks Board on progress in implementing the Plan. This will include identification of action items that have been initiated and the results of those actions. The Parks and Recreation Department report will also include a discussion of any barriers to implementation that have been encountered.

Annually, the five-year plan should be revisited and modified as necessary.

## PLAN LONGEVITY

The Plan's time horizon is intended to be twenty years; however, every 5 years this Plan should be completely reviewed and updated. Related, it would make sense if this Plan is updated near the same time as the City's Comprehensive Outdoor Recreation Plan, which is required every five years.

As part of the Plan updates, the Parks and Recreation Department will review and evaluate the success of implementing the Plan. This review will then shape modifications of policies and plans for the update.

Any amendments to the Plan should then undergo a review process and be adopted by the City in the same manner as the original Plan.

# FUNDING SOURCES

It is important to note that bicycle and pedestrian improvements cannot be funded through grants alone. However, in addition to City tax dollars, the following are funding sources that can be explored for bicycle and pedestrian facilities:

## FEDERAL

**Transportation Alternatives Program (TAP)**

WisDOT manages the TAP program, which is funded through the Federal Surface Transportation Block Grant Program. The Transportation Alternative Program (TAP) includes (Safe Routes to School (SRTS) as a separate subcategory. Transportation Enhancement (TE) and Bicycles & Pedestrian Facilities Program (BPFP) grants were combined into the overall TAP category.

Eligible projects include planning, design, and construction of bicycle and pedestrian facilities; recreational trails; safe routes to school projects; community improvements such as historic preservation and vegetation management; and environmental mitigation related to stormwater and habitat connectivity. This program is highly competitive and is available to all government units throughout the state.

Funding is broken out with part of it being distributed directly to the Regional Plan Commissions to award and then the residual being distributed throughout the state.

The grant program applications are typically released in late fall of the odd years and due in January of the even years. Grant awards are typically between $50,000 and $1.2 million. The program is a reimbursement program and federal funds will match 80% of the project budget up to the project's cap amount. The design process related to these projects take 1.5 to 2.5 years based on the project's complexity.

**Congestion Mitigation and Air Quality Improvement Program (CMAQ)**

CMAQ-eligible projects aim to reduce the number of vehicle trips and/or vehicle miles traveled and must be in one of the Wisconsin counties that is in an air quality non-attainment area. This program is only available to the counties within WisDOT's SE Region and Sheboygan County.

A multitude of projects types are eligible including traffic studies, bus facility and equipment, roadway traffic improvements that will decrease emissions, CNG retrofits, and bike/ped projects. For a bike/ped project, applicants must show a significant potential for the planned facility to reduce vehicle trips and/or vehicle miles traveled and thereby reduce emissions. Because the focus of the program is on transportation trips, grantees are typically required to plow snow on CMAQ-funded paths during the winter.

The grant program applications are typically released in late winter of the odd years and due in May of the odd years. Grant awards are typically between $50,000 and $1.2 million. The program is a reimbursement program and federal funds will match 80% of the project budget up to the project's cap amount. The design process related to these projects take 1.5 to 2.5 years based on the project's complexity.

**Community Development Block Grants (CDBG)**

The Community Development Block Grant (CDBG) Program provides annual grants on a formula basis to states, cities, and counties to develop viable urban communities by providing decent housing

and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons. Block grants have been a part of the American federal system since 1966, and are one of three general types of grant-in-aid programs: categorical grants, block grants, and general revenue sharing. CDBG funds can be utilized for specific outdoor recreation or transportation facilities if they meet the requirements of the program.

## STATE

**Knowles-Nelson Stewardship Program Grants**

The Knowles-Nelson Stewardship is managed by the Wisconsin DNR and will provide up to 50% of the cost of land acquisition and or trail development projects that provide public access for outdoor recreation purposes. These funds can help pay for the land acquisition for future trail development, trail construction costs, and other recreational items like construction of shelters and restrooms at trailheads. These are annual grants that are typically due in May of each year.

**Recreational Trails Aids (RTA) Program**

This program is administered through the DNR and is included within the Stewardship grant application process. This program allocates federal Recreational Trails Program (RTP) funding for trails. RTP funds may only be used on trails that have been identified in or further a goal of a plan that has been included or referenced in a statewide comprehensive outdoor recreation plan. Eligible activities (in order of priority) are: maintenance or restoration of existing trails; development or rehabilitation of trailside/trailhead facilities and trail linkages; construction of new trails; and property acquisition for trails.

The grant program applications are typically released in November of each year and then due on May 1st of the following year. Any grant requests over $500,000 require additional state review and approval by legislature.

This program is highly competitive and if the funds are not used, the state then loses their funding, so there is a strong need for projects without potential barriers that would delay the planned completion.

## LOCAL

**Municipal Development Requirements**

Implementation of some of the Plan's recommendations can be facilitated by development projects at the city-level. Examples include requiring new development and redevelopment to dedicate easements, pay municipal impact fees, or construct specific improvements.

**Tax Incremental Funding**

Some municipalities include bike/pedestrian facility construction as part of their improvements planned for an individual Tax Incremental District. With the continual push for multi-modal facilities for redeveloped areas, trails and other multi-modal improvements are included within the overall plan.

**Redevelopment Authorities**

Many municipalities have public/private partnerships that focus on redeveloping areas within the City. Many of these allow for new multi-modal facilities within the redeveloped area to be an eligible expenses.

**Local Service Groups**

Local Rotary, Kiwanis, and Lions clubs oftentimes are strong supporters of park & open space projects, which can many times incorporate multi-modal facilities.

**Private Foundations**

Foundations such as the Greater Milwaukee Foundation have been established to help fund projects which promote their mission statement. These are typically very competitive and very specific, so finding foundation grants that match your project is key. Multi-modal projects can appeal to mission statements for outdoor activity, health, multi-modal opportunity expansion, connectivity with the outdoors, safety, and economic justice.

**Corporate Foundations**

Corporate foundations are typically most successful when your project is within the same community that the corporate headquarters is located. However, if your project has very strong ties to the foundation's mission statement, there is still potential for funding. As mentioned above, multi-modal projects can appeal to mission statements for outdoor activity, health, multi-modal opportunity expansion, connectivity with the outdoors, safety, and economic justice.

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