



MEMORANDUM

Date: May 13, 2015
To: Jessica Wolff – Village of Grafton
From: Adam Wood
Re: Village of Grafton Bicycle and Pedestrian Plan – Context

The development of concepts, strategies, and priorities as part of the Village of Grafton Bicycle and Pedestrian Plan is dependent on a thorough analysis and understanding of the context in which the planning occurs as well as the existing conditions in terms of infrastructure, demand, safety, and other factors.

This memo includes the following elements:

- Study Area Definition
- Population Characteristics
- Bicycle and Pedestrian Mode Share
- Existing Plans & Policies

This context will inform the identification of the bicycle study network and pedestrian priority improvement areas, which will become the focus of recommendations for this plan.

Study Area Definition

The Village of Grafton is located in the center of Ozaukee County and is bordered by the City of Cedarburg and the Town of Grafton. The Village’s planning area (including the incorporated civil division boundary and the surrounding unincorporated area over which the Village has planning authority) encompasses 10,127.5 acres. The study area for this project includes the entire incorporated Village, much of its surrounding planning area, and additional areas extending west to County Highway I and south to County Highway C/Pioneer Road. This plan will consider connections to the nearby City of Cedarburg and may include basic recommendations that cross the boundary between Grafton’s planning area and that of Cedarburg.

The base map provided as an accompaniment to this memo depicts the general study area for this plan.

Population Characteristics

Since the 1970 Census, the Village of Grafton has experienced a growth rate significantly outpacing the statewide average and the average for Ozaukee County. Table 1 illustrates the historic and projected populations for Grafton, several nearby peer communities, Ozaukee County, and the State of Wisconsin.

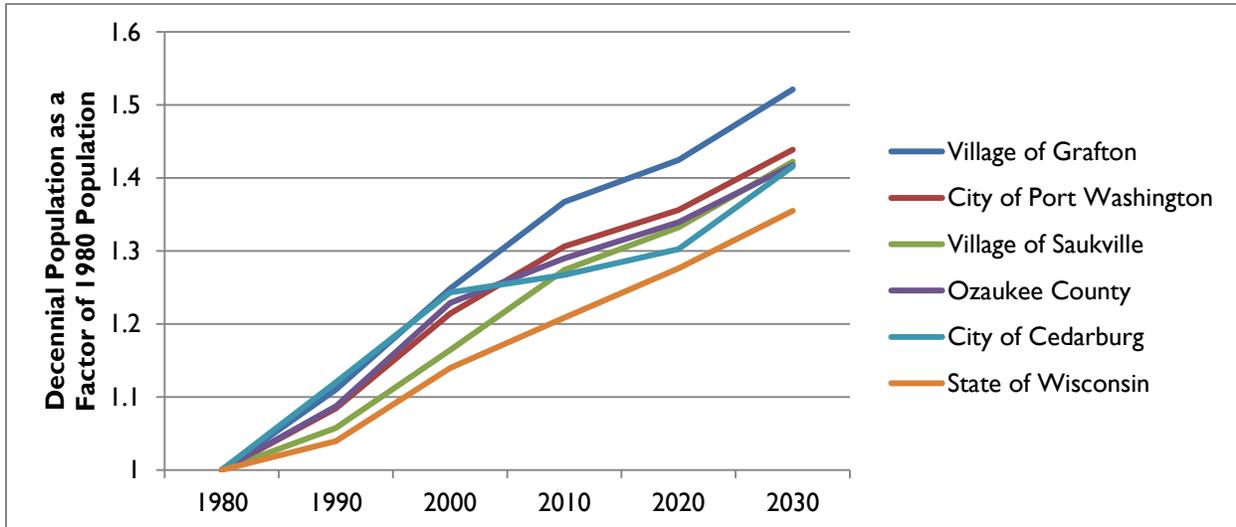
Table 1: Historic and Projected Populations for Grafton and Comparison Geographies

	1970	1980	1990	2000	2010	2014 (est)	2020	2030
Village of Grafton	5,998	8,381	9,304	10,464	11,459	11,490	11,940	12,750
City of Cedarburg	7,967	9,005	10,086	11,196	11,412	11,479	11,730	12,250
City of Port Washington	8,752	8,612	9,338	10,457	11,250	11,439	11,680	12,390
Village of Saukville	1,389	3,494	3,695	4,068	4,451	4,466	4,655	4,970
Ozaukee County	54,461	66,981	72,831	82,317	86,395	87,116	89,715	94,955
State of Wisconsin	4,417,821	4,705,642	4,891,769	5,363,715	5,686,986	5,732,981	6,005,080	6,375,910

Source: State of Wisconsin Department of Administration

When comparing population levels over time (historic and projected) relative to the 1980 Census, Grafton has grown and is forecasted to continue growing at a faster rate than other communities in Ozaukee County (see Figure 1).

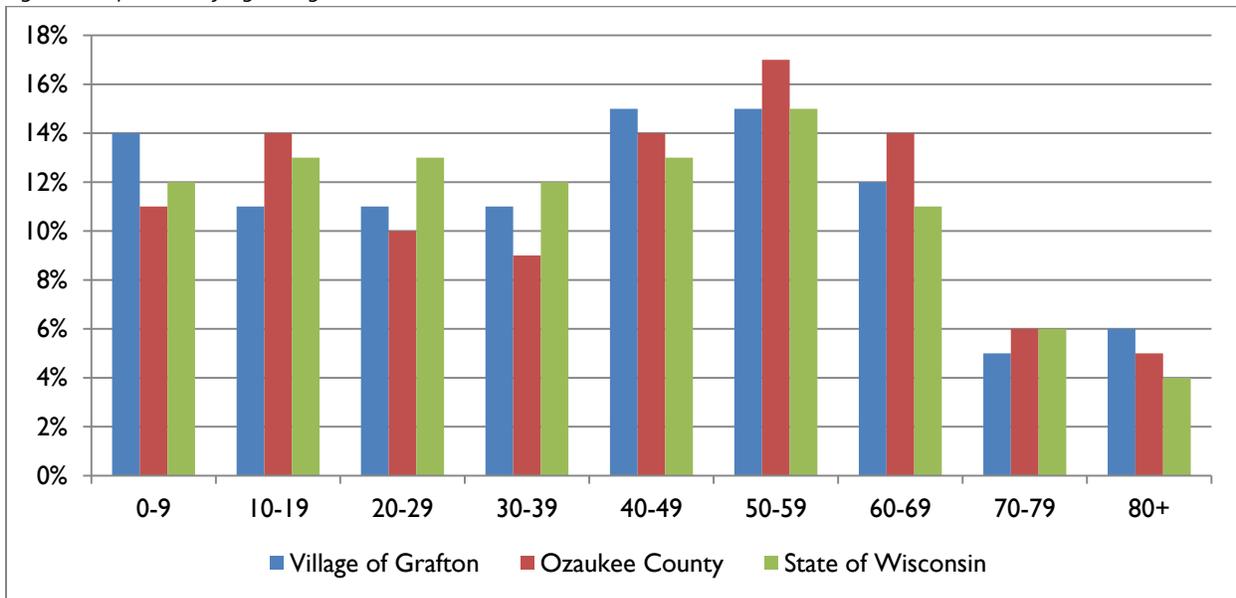
Figure 1: Growth Comparison of Grafton and Comparison Geographies



Source: State of Wisconsin Department of Administration

The median age in Grafton is 41.8 years, which is lower than the median in Ozaukee County (44.5) but significantly higher than the median age in Wisconsin (38.7). People age 65 and older comprise 16% of the population and people under age 18 comprise 22%. Not considering migration and assuming birth and death rates remain stable, in 10 to 20 years the portion of the population age 65 and older could increase to nearly 20% and the portion under age 18 could increase to nearly 25%. Figure 2 depicts the 2013 population breakdown by age range for the Village of Grafton and compares it to that of Ozaukee County and the State of Wisconsin as a whole.

Figure 2: Population by Age Range



Source: American Community Survey 2013 5-year (accessed via CensusReporter.org)

Bicycle and Pedestrian Mode Share

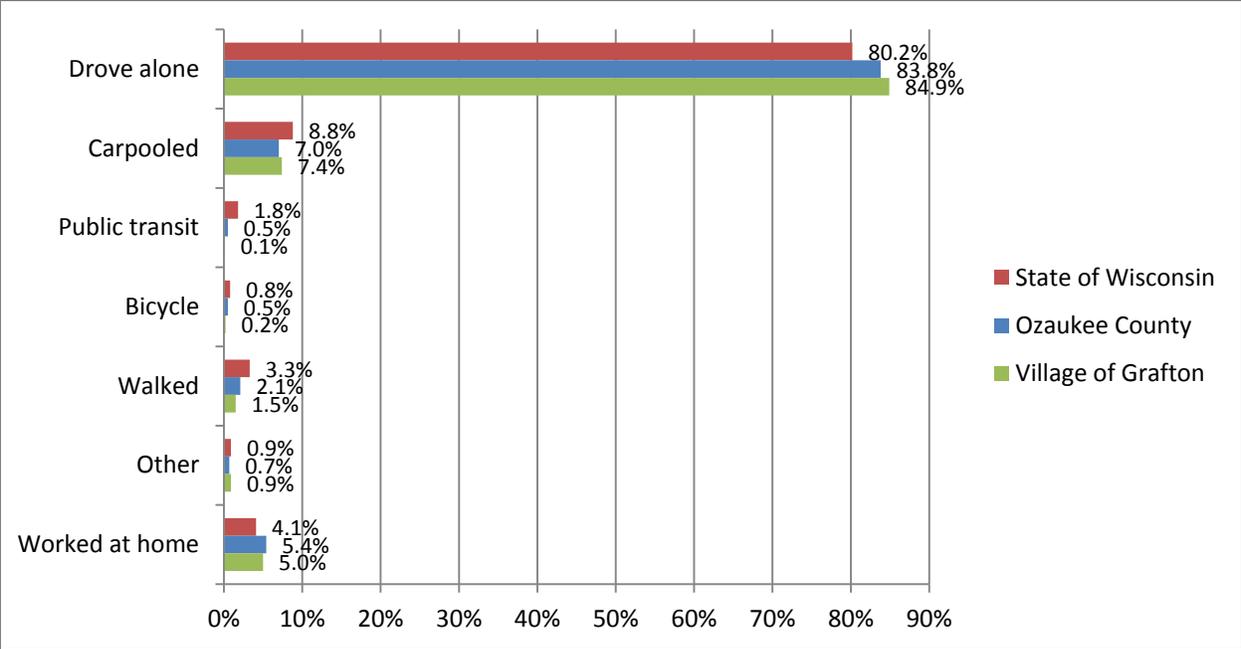
The American Community Survey (ACS) is the best and most reliable dataset relating to how people travel around Grafton. The survey includes questions about the modes of transportation that people use to get around. The results indicate the relative magnitude of walking and biking trips made in the community (that is, their mode share).

There are, however, some limitations to the ACS data. The survey asks “thinking about the previous week, what was your primary mode of transportation to work?” The narrow scope of this question presents some issues for accurately determining mode share:

- If someone drove to work three days out of the week and biked the other two days, they are recorded only as driving to work.
- The weather at the time the survey was administered can strongly impact results from year to year.
- The data only represent trips to work, which are a small percentage of the total number of trips people typically make over the course of a week. The survey ignores trips to a restaurant, park, playground, or school, as well as recreational trips.

Despite these drawbacks, ACS data is one of the best resources available for determining mode share because the survey maintains the same format for all municipalities from year to year. Figure 3 compares the commute mode share of the Village of Grafton with that of Ozaukee County and the State of Wisconsin as a whole.

Figure 3: Commute Mode: Village of Grafton, Ozaukee County, and State of Wisconsin



Data source: 2013 American Community Survey (ACS) 5-Year Estimates

Non-motorized transportation (bicycling and walking) currently comprises a total of 1.7% of commute-related travel in Grafton, compared to 2.6% in Ozaukee County as a whole and 4.1% in the state as a whole. People in Grafton are more likely to drive alone or work from home than the averages for Wisconsin. However, it is important to remember that this measure does not capture walking and bicycling for recreational purposes or for going to school, going shopping, running errands, or other non-work-related trips.

Review of Existing Plans and Policies

This section describes background plans and policy documents relevant to the Village of Grafton Bicycle and Pedestrian Plan. The summary identifies issues that may impact the findings and ultimate recommendations of this project.

The following plans were reviewed for this analysis:

Statewide Documents

- Wisconsin State Bicycle Transportation Plan 2020 (1998)
- Wisconsin Pedestrian Policy Plan 2020 (2002)
- Connections 2030
- Wisconsin Bicycle Planning Guidance (2003)
- Wisconsin Bicycle Facility Design Handbook (2004)
- Wisconsin Guide to Pedestrian Best Practices (2010)
- Wisconsin Rural Bicycle Planning Guide (2006)

Regional Documents

- SEWRPC Regional Transportation System Plan for Southeastern Wisconsin: 2035

Village of Grafton Documents

- 1996 Bicycle and Pedestrian Plan
- Comprehensive Plan for 2035
- Comprehensive Outdoor Recreation Plan 2014–2018
- Downtown Vision 2025 Workshop Report
- Capital Improvement Program 2015–2019
- Village Municipal Code (Title 10 Vehicles and Traffic and Title 11 Streets, Sidewalks and Public Places)
- Village Subdivision Code (Title 18)

Statewide Documents

Wisconsin State Bicycle Transportation Plan 2020

This plan provides guidance on the state-owned and state-supported transportation systems in Wisconsin. Several policies included in the plan apply to state-owned roadways within Grafton:

- Bicycle provisions on urban arterial streets (i.e., wide curb lanes, bicycle lanes or paved shoulders) should be made in accordance with Metropolitan Planning Organization (MPO) and community bicycle plans.
- On urban state trunk highways, where suitable accommodations for bicyclists now exist, new highway improvements will be planned to continue an acceptable level of service and safety for bicyclists.
- WisDOT will cooperate with local jurisdictions to help develop "stand alone" bikeway projects, including bicycle path facilities, when they are consistent with an approved plan and provide important bicycle transportation improvements.
- Intersection design should consider the needs of bicyclists. All intersections should be wide enough for safe bicyclist crossing.
- Multi-use paths (separated, primarily two-way bikeway facilities often referred to as trails) should be considered when: 1) bicyclists cannot be safely accommodated with on-street facilities; or, 2) an

opportunity exists to improve the transportation aspects of bicycling by locating a rural bicycle path within an abandoned rail corridor, utility corridor, or river grade.

- Safe crossings should be maintained when bikeways, streets, and paths (trails) intersect highways. Additionally, crossing controls or grade separations (overpasses or underpasses) should be considered where gaps in traffic are inadequate for safe crossing.

Wisconsin Pedestrian Policy Plan 2020

The Pedestrian Policy Plan encourages local governments, MPOs, and Regional Planning Commissions (RPCs) to devote attention to meeting pedestrian needs on roadways in their areas. Key WisDOT policy statements and actions include:

- WisDOT will review all state trunk highway projects for pedestrian needs using scoping criteria and guidelines.
- WisDOT supports stand-alone sidewalk projects through such programs as the Transportation Enhancement Program for sidewalk retrofit projects to fill in gaps.
- WisDOT commits to minimizing the “barrier effect” to walking. This is sometimes posed by inadequate or high-stress pedestrian crossings of state trunk highways. Particular attention will be paid to needs near high traffic generators such as schools and commercial areas.

Connections 2030

WisDOT’s comprehensive transportation plan (Connections 2030) not only supports the recommendations of Wisconsin’s State Bicycle Transportation Plan 2020 and Pedestrian Policy Plan 2020, but calls for the incorporation of bicycle and pedestrian accommodations into projects now widely known as “complete streets.” The plan states that WisDOT and other agencies should “include bicycle and pedestrian facilities on state and federally funded projects, following the federal ‘Complete Streets’ policy.” The plan specifically calls on WisDOT to evaluate and work to expand opportunities to include bicycle and pedestrian accommodations on urban state trunk highway projects. The plan goes on to recommend changes to policies, practices, and standards to fully implement complete streets. The plan also lends support for the use of ADA design guidelines and community sensitive design solutions. A state law was passed in 2009 that made complete streets a requirement for new and reconstructed streets, with limited exceptions.

Wisconsin Bicycle Facility Design Handbook

This handbook is the primary source for facility design guidance in the state of Wisconsin. It discusses the operating characteristics and needs of bicyclists and presents the wide range of design options for enhancing a community’s bicycle transportation system. The guide covers basic roadway improvements for shared streets, details for on-street bicycle lanes, and the design of shared-use paths. Shared Lane Markings (SLMs), introduced into the 2009 edition of the FHWA Manual on Uniform Traffic Control Devices and in common use around the country, are not included in this guide.

Wisconsin Guide to Pedestrian Best Practices

The Wisconsin Guide to Pedestrian Best Practices provides detailed design, planning and program information for improving all aspects of the pedestrian environment. The guide serves as a companion document to the Wisconsin Pedestrian Policy Plan 2020 to assist in the implementation of the goals, objectives and actions of the plan and serve as a reference or guidebook for state and local officials.

Wisconsin Rural Bicycle Planning Guide

This guide, like the Wisconsin Bicycle Planning Guidance, focuses primarily on “the utilitarian and transportation aspects of bicycling.” Its stated purpose is to provide general guidelines for planning and developing bicycle

facilities in the counties and smaller communities of Wisconsin. Some limited design guidance is provided, but the emphasis is primarily on the planning process.

Regional Documents

SEWRPC Regional Transportation System Plan for Southeastern Wisconsin: 2035

A *Regional Transportation System Plan for Southeastern Wisconsin: 2035* is the fifth-generation regional transportation plan (prepared in 2006) produced by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), the regional planning agency for Southeastern Wisconsin, including Ozaukee County. The bicycle and pedestrian facilities element of the plan was “designed to provide for safe accommodation of bicycle and pedestrian travel, encourage bicycle and pedestrian travel, and to provide modal choice.” The plan identifies 633 miles of existing on-street bikeways (paved shoulders, bicycle lanes, and sidepaths—see photo below) and 203 miles of regional off-street shared use paths, although these numbers have grown significantly since the release of the plan.



A sidepath is a shared-use path for bicyclists and pedestrians that is located immediately adjacent and parallel to a roadway.

While there are no Grafton-specific recommendations, the plan calls for the accommodation of bicycles on all arterial streets and highways (except freeways) upon construction, reconstruction, or resurfacing (on rural cross-sections). Accommodation should be provided through bicycle lanes, wide outside lanes, paved shoulders, or, under certain circumstances, a paved sidepath. The plan also calls for providing a regional system of off-street shared use paths in accordance with the recommendations of the park and open space plan for each county in the region; these paths would total 575 miles.

Additional recommendations call for all transit stations being readily accessible by bicyclists and pedestrians, providing secure bicycle parking at all park-ride lots and where off-street parking is provided, providing bicycle parking at the entrance to buildings, and consideration of providing bicycle transport on transit vehicles.

Village of Grafton Documents

1996 Bicycle and Pedestrian Plan

Adopted nearly two decades ago, Grafton's previous Bicycle and Pedestrian Plan (1996 Plan) was developed around and in recognition of Grafton's two primary land use and transportation patterns:

1. Gridded streets and denser land use in the older parts of the Village, which is naturally conducive to walking and bicycling because distances between destinations are short and low-traffic routes are easily found.
2. Newer, lower density land uses at the Village's edges served by streets that emphasize traffic speed and volume over connectivity, which is not naturally conducive to walking and bicycling due to greater distances between destinations and fewer, yet busier streets.

The 1996 Plan makes the astute observation that "All urban streets and rights-of-way, with the possible exception of expressways and freeways, will be used at one time or another by bicyclists and pedestrians" and that "Generally, motorized and non-motorized transportation users share similar origins and destinations..." The narrative goes on to say that the same streets that people choose when driving are those that people would prefer to use when bicycling or walking. This plan therefore sets the stage for the development of Grafton's existing active transportation system, including influencing the development of the Ozaukee County Interurban trail (referred to in the plan as the "WEPCO corridor"). It also identified opportunities for bicycle and pedestrian corridors along the Milwaukee River, cedar Creek, and future street and bridge connections.

The network recommendations of the 1996 Plan include numerous signed/shared roadways, mostly along low-traffic neighborhood streets, and a select number of wide curb lanes, paved shoulders, and bike lanes along busier streets (1st Avenue, 12th Avenue, Cheyenne Avenue, Falls Road, North Green Bay Road, South Green Bay Road, and Washington Street). The plan identifies Wisconsin Avenue between the intersections of Bridge Street and Cedar Street as the location of a high proportion of bicyclist-involved crashes that occurred in the Village between 1990 and 1995; however, it does not recommend any bicycle accommodations along this street. Since adoption, some of the 1996 Plan's network recommendations have been implemented. Namely, major sections of the Interurban Trail have been completed and bike lanes have been provided on 1st Avenue between North Street and the Interurban Trail. Washington Street, identified in the plan as the primary east-west arterial for bicycling only has bike lanes east of 17th Avenue.

The primary pedestrian recommendations within the 1996 Plan include curb extensions (or bump-outs) downtown and along Wisconsin Avenue, uniform sidewalk design criteria, and for providing marked crosswalks at the following intersections:

- Wisconsin Avenue/Falls Road
- Wisconsin Avenue/Bridge Street
- 12th Avenue/Washington Street
- Midblock intersection of Hickory Street with the Interurban Trail

Included in the plan are design guidelines, facility selection guidelines, and cost estimates for various types of bicycle accommodations, such as paved shoulders, shared lanes, and bike lanes. However, the plan was developed prior to the adoption of current planning and design guidance on both the national level (such as the 2012 AASTHO *Guide for the Development of Bicycle Facilities*) and state level (such as WisDOT's 2004 *Wisconsin Bicycle Facility Design Handbook* and the 2010 *Wisconsin Guide to Pedestrian Best Practices*). Therefore, the plan's guidance regarding the design and application of bicycle facilities is considerably outdated.

Comprehensive Plan for 2035

The Village of Grafton's current Comprehensive Plan was adopted in 2009 and was prepared as part of a multi-jurisdictional partnership including Ozaukee County and 13 other local governments. The transportation element of the Comprehensive Plan closely aligns with the SEWRPC Regional Transportation System and shares many of its recommendations. State statute requires municipalities to have current comprehensive plans and governs the contents of and process used to develop such documents. The Comprehensive Plan serves as Grafton's primary guiding document for decision-making in the areas of agriculture, land use, housing, transportation, utilities, and economic development.

The Comprehensive Plan recognizes the strong interrelatedness between transportation and land use by encouraging compact development patterns and a multi-modal, regionally-connected transportation system that encourages bicycling, walking, and transit use. The Transportation element of the Comprehensive Plan is intended to provide for safe accommodation of bicycle and pedestrian travel, encourage bicycle and pedestrian travel as an alternative to personal vehicle travel, and to provide a variety of transportation choices. A survey was conducted during the development of the Comprehensive Plan, and respondents "placed a high priority on the development of bike paths, pedestrian access to open space, and increased bus service and a low priority on widening and major improvements to existing roads." Therefore, expanding bicycle and pedestrian facilities as an alternative to alleviate traffic congestion, rather than increasing roadway capacity for motor vehicles, was considered.

The plan includes several goals, objectives, and policy and program recommendations that relate to bicycling and walking, including:

- Improve transportation infrastructure and land use design to support a range of transportation choices for all citizens.
- Provide an integrated, efficient, and economical transportation system that affords mobility, convenience, and safety and that meets the needs of all citizens, including transit-dependent residents, persons with disabilities, and the elderly.
- Establish land use development patterns that can be efficiently served by public transportation, such as the Ozaukee County Express Bus System, and alternative transportation systems such as bicycle and pedestrian trails.
- Work with neighboring communities and the County to ensure the arterial street network, transit services, and bicycle and pedestrian facilities are appropriately sized and located to serve Village residents.
- Design and operate Village streets and highways to provide safe access for all users, including bicyclists and pedestrians.
- The plan recommends that bicycle accommodation be provided on all arterial streets, except freeways, as those streets are constructed or reconstructed.
- The plan recommends providing sidewalks on both sides of all new and existing streets, with the exception of a few conditions (such as low-density residential areas) in which sidewalks should be provided on at least one side if not both.

Other than completing connections to the Ozaukee Interurban Trail, the Comprehensive Plan does not make recommendations for specific bicycle and pedestrian links. However, it does identify two transportation projects that will have a significant effect on bicycling and walking in Grafton. The first is to extend 1st Avenue from its current terminus at Rose Street north to Cedar Creek Road. This extension could change the traffic dynamic on this street, which has bike lanes and is a primary connection between the north and south segments of the Interurban Trail through Grafton. The second is to widen WIS 60/Washington Street from two to four lanes.

Increasing the capacity of this street could negatively affect bicycling along or across it. However, for both 1st Avenue and Washington Street there exist opportunities to leverage the projects to enhance walking and bicycling by incorporating bikeways and sidewalks in the construction of the roadways.

Comprehensive Outdoor Recreation Plan 2014–2018

The Comprehensive Outdoor Recreation Plan (CORP) reflects Grafton’s vision and near-term priorities for developing its parks system. It includes an inventory of existing park and recreational facilities, quantitative and qualitative analyses of future needs, and recommendations for additional parkland, new recreational facilities, signage, public art, and other outdoor recreational facilities. The CORP also includes consideration of bicycle and pedestrian infrastructure, including an inventory of existing trails, general trail and bikeway design guidance, and recommendations for future trail alignments.

The plan includes several goals, objectives, and recommendations related to bicycling and walking, including:

- Continue to develop interconnected biking and walking trails that provide easy and safe access to all neighborhoods.
- Parks and open spaces should be interconnected with off-street trails and on-street bike lanes.
- The provision of safe and convenient bike connections between parks, open spaces, recreational facilities, and other destinations should be emphasized in on-going Village planning and acquisition efforts.
- Work with Board of Public Works to improve greenway landscaping and help define possible trails through the greenways.
- Develop a River and Trail Task Force to spearhead in trail and bike path planning.
- Work with Plan Commission and Board of Public Works to add routes or bike lanes, when needed, on newly constructed streets that will serve to connect the existing system of biking and walking facilities.

The plan identifies the opportunity to utilize the multiple We Energies rights-of-way, which cross the Village, as corridors for paths that connect neighborhoods, shopping areas, and recreational facilities. This opportunity would allow new connections to the Ozaukee Interurban Trail and ultimately to Lake Michigan. These opportunities, as well as others, are included on a map of future parks and facilities as “future bicycle/pedestrian facilities.” The map also identifies future river access and canoe launch locations, but does not identify any new crossings of the Milwaukee River.

A discussion of access to the Milwaukee River points out that much of the land along the river’s banks is privately-owned and inaccessible to the general public. However, it does recommend expanding the Village’s riverwalk system and incorporating it with regional trails (such as the Ozaukee Interurban Trail). The plan identifies the need for the adoption of a statutory redevelopment plan to outline and redirect redevelopment efforts, including relocating larger industrial uses away from the river, developing mixed-use areas along the river, and establishing and maintaining easements all along the river.

The plan identifies the need for the Village to work with the Wisconsin Department of Transportation and Ozaukee County to ensure safe connections across major roadways including WIS 60, Wisconsin Avenue, Port Washington Road, CTH V/WIS 32, and Green Bay Road.

Finally, the plan includes descriptions/definitions, objectives, and guidelines for off-street recreation trails and on-street bicycle facilities. This includes recommending widths and appropriate contexts for providing bike lanes, paved shoulders, and shared-use paths. The guidelines provided align with the 2012 AASHTO *Guide for the Development of Bicycle Facilities* and WisDOT standards.

Downtown Vision 2025 Workshop Report

This document summarizes the outcomes of a workshop, held in June 2010, to formulate the future direction of downtown for the next 15 years. The workshop focused on five topics: Redevelopment, Land Use and Linkage, Transportation and Parking, Architecture and Aesthetics, and Marketing. A portion of the workshop was dedicated to judging several completed downtown redevelopment projects based on their resulting outcomes relative to each of these topics. Following this, a brainstorming session was held in which participants were asked “what do you like about the downtown redevelopment that has occurred?” and “what would you like to see improved in the future?” Relevant responses include:

“What do you like about the downtown redevelopment that has occurred?”

- Walkability
- Bike trail leading into downtown area
- Streetscape = walkability and aesthetically pleasing
- Riverwalk, dam overlook and the bike trail brings walkers and bikers downtown
- Well designed, accessible for walkers and bikers
- Streetscape and Wisconsin Avenue bike path

“What would you like to see improved in the future?”

- Maximizing year-round riverwalk usage
- Linkage between assets- strengthen connections between downtown and other community assets
- Make WIS 60 & 13th Avenue crossing safer for pedestrians
- Extend riverwalk to the north across WIS 60
- Wayfinding signage – develop kiosks with all community amenities and maps
- The Ozaukee Interurban Trail needs more signage to direct trail users through the downtown
- Better pedestrian crossing at 13th Avenue and Washington Street is needed

Capital Improvement Program 2015–2019

The Capital Improvement Program (CIP) is the Village of Grafton’s five-year budget and plan for capital projects. It details how much will be spent each year on specific projects and specifies the source of the funding. The plan is revised each year, at which time individual project/purchase budgets may be added, modified, delayed, accelerated, or removed. The development of the CIP each year goes through a roughly nine-month process that includes input from Village staff, committees, commissions, and the general public. The Village Board provides input and approves the CIP each year. For the 2015–2019 CIP, the total budget for expenditures is \$19,984,387.

Each year, the CIP budget includes roadway projects of varying degrees, from full construction/reconstruction to minor pavement overlays. In many years, it also includes unique projects related to bicycling and walking, such as streetscape enhancements, pedestrian walkways, sidewalk replacement, etc. As illustrated in Table 2, there are a number of projects related to bicycle and pedestrian mobility contained within the current CIP. The Village of Grafton has budgeted a total of approximately \$4.6 million for these selected projects.

Table 2: Village of Grafton Capital Improvement Program 2015-2019 (Selected Projects)

Project	2015	2016	2017	2018	2019	5-Year Total
Sidewalk Replacement Program	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
Urbanize Falls Rd	\$714,000	\$0	\$0	\$0	\$0	\$714,000
Overlay - 9th Av (Washington St to Spring St)	\$0	\$74,240	\$0	\$0	\$0	\$74,240
Overlay - 7th Av (Washington St to North St)	\$0	\$171,600	\$0	\$0	\$0	\$171,600
Overlay - Spring St (9th Av to 12th Av)	\$0	\$115,200	\$0	\$0	\$0	\$115,200
Overlay - Elm St (5th Av to 7th Av)	\$0	\$0	\$84,480	\$0	\$0	\$84,480
Overlay - Power St (5th Av to 7th Av)	\$0	\$0	\$84,480	\$0	\$0	\$84,480
Overlay - Sixth Av (Spring St to Elm St)	\$0	\$0	\$200,960	\$0	\$0	\$200,960
Overlay - Audubon Av (W. Juniper Dr to Audubon Ct)	\$0	\$0	\$0	\$149,160	\$0	\$149,160
Overlay - Audubon Ct (Audubon Av to End)	\$0	\$0	\$0	\$39,600	\$0	\$39,600
Overlay - W Althea Dr (1st Av to Audubon Av)	\$0	\$0	\$0	\$76,560	\$0	\$76,560
Overlay - W Maple St (Audubon Av 200 ft W)	\$0	\$0	\$0	\$26,400	\$0	\$26,400
Overlay - W Aspen St (Audubon Av 200 ft W)	\$0	\$0	\$0	\$26,400	\$0	\$26,400
Overlay - Woodridge Dr (11th Av to Greenfield Dr)	\$0	\$0	\$0	\$0	\$163,040	\$163,040
Overlay - Northbrooke Dr (Woodridge Dr to Green Bay Rd)	\$0	\$0	\$0	\$0	\$79,200	\$79,200
Overlay - Greenfield Dr (Woodridge Dr to Brookside Dr)	\$0	\$0	\$0	\$0	\$125,400	\$125,400
Overlay 13th Av (Washington St to North St)	\$0	\$0	\$305,000	\$0	\$0	\$305,000
Pedestrian Walkway - 13th Av North	\$0	\$0	\$0	\$0	\$82,500	\$82,500
ADA Path on Cedar St	\$0	\$0	\$0	\$0	\$155,000	\$155,000
Old Mill Prop - Streetscape	\$0	\$0	\$0	\$0	\$120,000	\$120,000
Falls Rd and 1st Av Streetscape	\$0	\$0	\$0	\$0	\$210,000	\$210,000
Falls Rd Reconstruction (Wisconsin Av to 1st Av)	\$0	\$0	\$0	\$0	\$370,000	\$370,000
1st Av (Ozaukee Interurban Tr to Oak St)	\$0	\$0	\$0	\$0	\$515,000	\$515,000
1st Av (Oak St to Wisconsin Av)	\$0	\$0	\$0	\$0	\$380,000	\$380,000
Chateau Dr (Wisconsin Av to 1st Av)	\$0	\$0	\$0	\$0	\$132,000	\$132,000
Totals	\$756,015	\$403,056	\$716,937	\$360,138	\$2,374,159	\$4,600,220

Village Municipal Code

The following are policies extracted from the Village of Grafton Municipal Code. They specifically relate to bicycle and pedestrian issues within the Village. Where needed, commentary has been added in *red italic type*. According to state law, local authorities may adopt traffic regulations in strict conformity with state law. For subjects addressed by state law, local authorities may not adopt regulations that are stricter or substantially different from the state law.

10.16 Speed Limits – This chapter specifies statutory speed limits across the Village. The default speed limit is 25 miles per hour, which applies to all streets unless specified otherwise. A permissible speed of 30 miles per hour is provided on portions of Wisconsin Avenue, Cedar Creek Road, and Washington Street. A permissible speed of 35 miles per hour is provided on portions of Keup Road, Cheyenne Avenue, Washington Street, and Pleasant Valley Road. A permissible speed of 40 miles per hour is provided on portions of Washington Street (east of 17th Avenue). A permissible speed of 55 miles per hour is provided on portions of Grafton Avenue (CTH V) from Willow Lane to the north Village limits.

10.36 Stopping, Standing and Parking – This section details requirements associated with on-street parking. It identifies locations where on-street parking is not allowed at any time, locations where parking is prohibited during certain times of the day, and locations where parking is limited to periods of various durations (e.g., 15 minute parking, one-hour parking, etc.).

10.64.010 [Bicycle] License Required – No person who is a resident of the Village shall ride or use a bicycle upon any public street in the Village, unless the same shall have been registered and a registration sticker attached in a designated area of the frame as provided in this chapter.

10.64.020 Issuance of License – Application for license shall be made to the Police Department upon forms provided containing the name, date of birth, address and phone number of the owner, together with a complete description of the bicycle. Upon proper application and payment of the license fee, the Police Department shall issue a bicycle registration sticker. The sticker shall be issued for the life of the bicycle beginning January 01, 1998. The fee for the bicycle sticker shall be Five Dollars (\$5.00). The Police Department shall keep a record of the date of the issuance of each sticker, to whom issued, and the number thereof. Registration shall be serially numbered and kept on file at the Police Department. If a licensed bicycle is transferred to another Village resident, a new license must be purchased by the new owner.

It is unclear how residents are to go about registering their bicycles. A search of the Village website (using the term "bicycle registration") does not return any results.

10.64.040 Violation–Penalty – Any person violating any of the provisions of [Chapter 10.64] shall, upon conviction thereof, forfeit a sum not less than ten dollars (\$10.00), and not to exceed fifty dollars (\$50.00), plus court costs.

11.04.010 [Sidewalk] Construction and maintenance responsibility of abutting owner – A) It shall be the duty of the abutting property owner to build, repair, construct and perpetually maintain sidewalks along or upon any street in the village and to pay the entire cost thereof, except as indicated in section B. B) As part of the Village of Grafton Sidewalk Replacement Program, the Village replaces concrete sidewalk that poses a trip hazard based upon specific review criteria. There is no cost to the property owner for sidewalk replacement work completed within the scope of the Sidewalk Replacement Program.

11.36.010 Removal of snow and ice required – The person in charge of any real property abutting or fronting upon a paved public sidewalk shall remove and clear away or cause to be removed or cleared away, all snow and ice by ten p.m. of the day following a snowfall; provided, that when ice has so formed on any sidewalk that it cannot be removed, then the persons referred to in this section shall cause the ice from remaining and presenting a hazard to the users of the sidewalk by the use of sand, abrasive material or any product designed to prevent ice from forming or to remain in its form and not be injurious to the health and safety of the public.

11.36.020 Complaints—Investigation—owner responsibility – The police department shall, upon complaint of any person, investigate and cause the arrest of either the owner, occupant or person in charge of the premises if there is a failure to have complied with the provisions of [Section 11.36.010], or cause the charging of such person with violation of this chapter.

When snow removal enforcement is carried out by the police department, is there any coordination with public works or private contractors to remove the violating snow or ice, or is a ticket simply written for the infraction?

Subdivision Code (Village Code Title 18)

The Subdivision Code (Title 18 of the Municipal Code) is a special provision that dictates how land is divided into smaller lots or parcels when being developed for residential, commercial, industrial, or other purposes. It specifies particulars such as building setback lines, easements, lot width, street width, etc. Grafton’s Subdivision Code applies to all land within the corporate limits of the Village, as well as the Village’s extra-territorial jurisdiction (planning area).

The following are policies extracted from the Subdivision Code. They specifically relate to bicycle and pedestrian issues within the Village. Where needed, commentary has been added in *red italic type*.

18.20.070 Streets—Width – This section defines the right-of-way and roadway pavement (curb face to curb face) widths of various street types. It specifies that boulevards (divided roadways) shall have dual 34-foot wide pavements with a 24-foot wide median, major streets shall be 48 feet wide, and collector streets shall be 44 feet wide.

Depending on the lane configuration of each street, the specified pavement widths may not allow for the provision of bike lanes.

18.20.190 Blocks – This section states that the maximum residential block length is 1,800 feet and the minimum length is 900 feet unless approved by the Plan Commission. It goes on to state that the minimum distance between parallel street centerlines shall be 286 feet. It also states that pedestrian crosswalks not less than 12 feet wide may be required by the Plan Commission where deemed desirable to provide convenient pedestrian circulation or access to schools, playgrounds, shopping centers, transportation, and other community facilities.

The typical block size in the older, more bicycle- and pedestrian-friendly parts of Grafton is approximately 330 by 700 feet. Setting as standard a 900 foot length will encourage continued car-oriented development patterns that are not naturally conducive to walking and biking.

18.20.280 Sidewalks and pedestrian trails – This section requires sidewalks to be provided in subdivisions. It specifies 5-foot wide concrete sidewalks constructed on both sides of all internal streets as well as on the subdivision's side of streets on its edges. Cul-de-sacs, dead ends, etc. may be allowed to have sidewalks on only one side and may be exempted from sidewalk provision altogether. This section allows minimum 5-foot wide asphalt pedestrian trails in lieu of or in addition to sidewalks within duplex, multifamily, and planned developments. It goes on to state that where such trails are also to be used as bikeways they shall be a minimum of 8 feet wide.

The AASHTO Guide for the Development of Bicycle Facilities allows paths or trails to be as narrow as 8 feet if they will receive limited use. The standard width to be applied in most situations is 10 feet.

18.28.100 Sidewalks – This section restates that subdividers shall install concrete sidewalks along both sides of all streets shown on the plat. It also states that the subdivider shall pay for sidewalk construction, inspection, supervision, and engineering fees.