
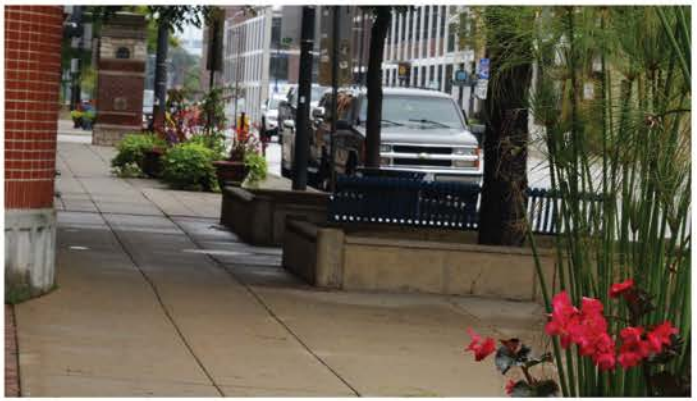

FINAL DRAFT

Green Bay Safe Walk & Bike Plan

May 29, 2019

Green Bay Area Public School District
Engagement. Equity. Excellence.

Safe WALK & BIKE
GREEN BAY SCHOOLS AND COMMUNITY

CITY OF GREEN BAY 1854
Titletown, USA

Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, cost opinions and commentary contained herein are based on limited data and information, and on existing conditions that are subject to change.

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Contents

1. Introduction

The Green Bay Safe Walk & Bike Plan is a joint effort of the Green Bay Area Public School District (GBAPS) and the City of Green Bay (the City). **The purpose of the plan is to identify ways to empower adults and children of all ability levels throughout the Green Bay area to make walking and biking a part of their daily routines in getting to schools and other community destinations in an equitable way.**

This plan serves two main roles:

- A Safe Routes to School (SRTS) plan focused on improving the safety of students who walk and bicycle to school and to encourage more students to do so.
- A Pedestrian and Bicycle Master plan with a goal of facilitating walking and bicycling throughout the City of Green Bay.

What is Safe Routes to School?

Safe Routes to School (SRTS) programs aim to make it safer for students to walk and bicycle to school and encourage more walking and bicycling where safety is not a barrier. Nationally, walking and bicycling to school has declined dramatically, from 48% to 13% between 1969 and 2009[1]. Safe Routes to School programs seek to reverse this decline by promoting walking and bicycling through a holistic approach, employing a set of strategies known as the five "Es" (see below). By encouraging more physical activity, SRTS can help improve academic performance as well as the social, emotional, and physical health of children and their families.

The Five Es:

- Engineering: Provide infrastructure that allows people to walk and bicycle safely within the community and to and from schools
- Encouragement: Promote walking and bicycling as ways to travel, including trips to and from school
- Education: Ensure that everyone learns how to travel safely
- Enforcement: Enforce traffic safety laws in the community and around schools and target risky behaviors
- Evaluation: Track progress toward achieving goals

[1] The National Center for Safe Routes to School and the Safe Routes to School National Partnership. *U.S. Travel Data Show Decline In Walking And Bicycling To School Has Stabilized: Safe Routes to School Programs Encourage Active, Safe Trips to School.* Chapel Hill, NC & Boulder, CO. 2010

Plan Approach

This plan includes both school-specific and community-wide recommendations:

Chapter 1: Introduction. This chapter makes the case for walking and bicycling and includes a summary of the planning process.

Chapter 2: Facility Types. Chapter 2 introduces the types of facilities that will be proposed in the recommendations. Only treatments that have been shown to improve safety for all street users are recommended in the Plan.

Chapter 3: Bicycle Network Recommendations. This chapter includes recommendations for improving the bicycle network, including the types of facilities proposed, proposed actions to achieve each facility, and prioritization of the recommendations.

Chapter 4: Sidewalk Network Recommendations. This chapter includes recommendations for improving the sidewalk network, including prioritization of sidewalk projects.

Chapter 5: Analysis of Unusually Hazardous Transportation Areas. Chapter 4 proposes changes to the criteria used to evaluate unusually hazardous transportation areas.

Chapter 6: Pedestrian and School Recommendations. Chapter 5 provides recommendations for improving conditions, particularly for walking, around the GBAPS schools. This chapter prioritizes which schools are highest priority for implementation. It also includes some recommendations regarding crossing guards.

Chapter 7: Non-Infrastructure Action Plans. The Non-Infrastructure Action Plans include recommendations for strategies related to Encouragement, Education, Enforcement, and Evaluation, including implementation strategies.

Appendix: The appendix includes more detailed recommendations related to the evaluation of Unusually Hazardous Transportation Areas, a review of existing plans and policies, an explanation of the Level of Traffic Stress Analysis, an explanation of the Demand Analysis, and a section on implementation and funding.

The Case for Bicycling and Walking

Many Wisconsin communities are embracing walking and bicycling as viable transportation modes and great forms of recreation. These communities are not alone; they join many others from across the country in which decision-makers, community and business leaders, and residents are discovering the many ways that bicycling and walking can improve overall quality of life. The benefits of improving conditions for walking and bicycling are broad and far-reaching, affecting numerous aspects of the community. These benefits are described in more detail in the following pages.

> *Residents who move away to another city often return home for the quality of life, family-friendly values and strong business community – not to mention the area's contagious spirit and personality.*
>
> *From www.greenbay.com*

Support Learning

Walking and bicycling to school gets the wiggles out, boosting students' academic performance. In 2010, a Centers for Disease Control and Prevention (CDC) literature review found substantial evidence that higher rates of exercise improve academic achievement among children.[2] Safe Routes to School programs offer opportunities for students to get physical activity as part of their daily routine. This increased physical activity is associated with student achievement, which leads to higher rates of high school completion and college attendance, and, over time, higher wages. School administrators frequently report that they have fewer discipline problems on walk and bicycle to school days. Exercise has also been shown to improve concentration in adults.[3] Safe Routes to School programs also teach safe walking and bicycling practices to students, who then keep and develop these skills over their lifetimes.

Public Support

Public outreach was a key component of the development of this plan and the outreach demonstrated that there is a great deal of support for improving conditions for walking and bicycling in Green Bay. As part of the planning process, planners and advisory committee members connected with different groups of Green Bay residents, parents of school-age children, employers, employees, and others to gauge interest in bicycling and walking and to address concerns about bicycling and walking. Large numbers of people visited the project booth at the Open Streets Event, entered input on an online interactive map, and responded to surveys about the project. Support for the project was expressed by many groups, including active road cyclists; bicycle commuters and people who would like to commute by bicycle; parents of children who walk and bike to school; and recreational bicyclists, walkers and runners. At the same time, significant concerns were noted about the lack of on-street bikeways, lack of connectivity to key destinations, and the perception that bicycling and walking are not safe on many Green Bay area streets. The public outreach activities for this project are detailed later in this chapter.

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[2] Centers for Disease Control and Prevention. *The Association Between School Based Physical Activity, Including Physical Education, and Academic Performance.* Atlanta, GA: U.S. Department of Health and Human Services; 2010.

[3] Gomez-Pinilla, Fernando, and Charles Hillman. "The Influence of Exercise on Cognitive Abilities." *Comprehensive Physiology* vol. 3,1 (2013): 403-28. doi:10.1002/cphy.c110063

Health

The CDC recommends that adults get two and a half hours of moderate-intensity aerobic activity every week, which is equivalent to 10 minutes of brisk walking, three times per day, five days per week. Children need even more physical activity; the CDC recommends at least 60 minutes of moderate activity a day, ideally more.[4] Most adults and children are not getting the recommended amounts of physical activity. Numerous health advocacy organizations recommend walking and biking for physical activity, as they are easy, widely accessible, relatively low impact, and walking and running require no specialized equipment. Those who are physically active are healthier and less likely to develop the chronic diseases that are more common amongst inactive children and adults. In Wisconsin, 13.7% of high school students are obese (compared with 14.2% nationally).[5] The 2011 Leading Indicators for Excellence (LIFE) Study found that 67% of Brown County adults are overweight or obese, compared with 64% in Wisconsin as a whole.[6] The number of children walking and bicycling to school nationwide has dropped substantially over the past 50 years (from 48% to 13% between 1969 and 2009).[7] Expanded and improved bicycle and walking facilities—as well as SRTS efforts—enable children, adolescents, and adults to get exercise as a part of their daily routines.

Replacing car trips with bicycling and walking trips can also improve health by reducing airborne pollution and particulates associated with asthma-related ailments. A large-scale study of school siting found that those schools located in areas with good street and sidewalk networks and more students bicycling and walking, have better air quality than schools without these characteristics.[8]

[4] U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans, 2nd edition.* Washington, DC: U.S. Department of Health and Human Services; 2018.
[5] Centers for Disease Control and Prevention. *Youth Risk Behavior Surveillance – United States, 2017.* Atlanta, GA: U.S. Department of Health and Human Services; 2018.
[6] Greater Green Bay Community Foundation and Brown County United Way. *2016 Leading Indicators for Excellence (LIFE) Study.* Green Bay, WI; 2018
[7] McDonald, Noreen, Ruth Steiner et al. "Impact of the Safe Routes to School Program on Walking and Bicycling." *Journal of the American Planning Association* vol. 80, 2 (2014): 153-167. doi: 10.1080/01944363.2014.956654
[8] Office of Sustainable Communities, Smart Growth Program. *The Smart School Siting Tool: User Guide.* Washington DC: U.S. Environmental Protection Agency; 2015.

Economic Vitality and Tourism

Good bicycling infrastructure can provide economic benefits to residents affecting the value of their homes, their out-of-pocket transportation costs, and a stronger tourism-based economy. Studies in communities nationwide show that:

- The construction of shared-use paths and trails has been shown to increase nearby property values. A study in Brown County found that homes near the Mountain Bay Recreational Trail in the Brown County Village of Howard sold more quickly and for a higher price (an average of 9% more) than homes further away.[9]
- A motor vehicle is the second-highest household expense in the United States after housing: Americans spend on average $9,122 each year to own and operate a car.[10] In a period of high-variability in the cost of fuel, bicycling offers a lower-cost transportation option. Bicycling has an annual operating cost of approximately $300-$400—less than five percent of average annual car operating costs.[11] Providing transportation options can give households the option of owning fewer cars, thus freeing up household money that can be spent in the local economy. These transportation options are particularly useful to help those without vehicles reach areas not served by transit.
- Tourism and events related to bicycling and walking can have significant economic impacts to communities. A study in North Carolina found that every $1 million of spending on off-street paths and paved shoulders generated an annual $9 million worth of economic activity linked to bicycle tourism—an annual nine-to-one return on the investment.[12] Statewide, bicycle recreation and tourism contributed $924 million ($535 million from out-of-state tourism) to Wisconsin's economy in 2010.[13] Locally, events such as BayCare Clinic Century and facilities including the Fox River Trail, the East River Trail, and the Mountain

[9] Green Bay-Brown County Planning Commission. *Recreational Trails, Crime, and Property Values: Brown County's Mountain Trail and the Proposed Fox River Trail.* Green Bay, WI: Green Bay-Brown County Planning Commission; 1998.
[10] American Automobile Association (AAA). "Your Driving Costs." *Newsroom AAA,* 13 September 2018. url: www.newsroom.aaa.com/auto/your-driving-costs/
[11] Blue, Elly. "How Much Do You Spend on Cycling Every Year?" *Bicycling*, 21 February 2017. url: www.bicycling.com/rides/a20024531/how-much-do-you-spend-on-cycling-gear-every-year/#sidepanel.
[12] Lawrie, Judson, John Guenther, et al. *Pathways to Prosperity: The Economic Impact of Investments in Bicycle Facilities.* Raleigh, NC: Institute for Transportation Research and Education, North Carolina State University: 2004.
[13] Grabow Maggie, Micah Hahn, et al. *Valuing Bicycling's Economic and Health Impacts in Wisconsin*. Madison, WI: Nelson Institute for Environmental Studies and the Center for Sustainability and the Global Environment, UW-Madison; 2010.

Bay Recreational Trail bring many people to Brown County every year to bicycle, run, or walk while also spending money at local businesses.

Transportation Options

Improving bicycling and walking conditions will expand transportation options for Green Bay residents and visitors. Approximately one third of the United States population does not drive because they are too young or too old, have a physical disability, do not have the economic resources to own and operate a car, or simply do not want to drive.[14] However, many of these people can bicycle or walk to destinations if safe and convenient bikeways and pedestrian facilities are present. Bicycling and walking may also be an option for the elderly who reach an age where driving is no longer possible. Older adults still need to travel to the grocery store, to medical appointments, to social gatherings, and to worship services. Improvements to bicycling and walking conditions make it easier for Green Bay residents to age-in-place, while also lowering transportation costs.

Providing safe and convenient bicycle and walking facilities also benefits people who rarely or never take advantage of them: for each person who bicycles to the grocery store or other destination, there is one less car on the street and one more parking space available for people who drive to the same destination. Bicycling also provides options to those who temporarily lose access to a vehicle. Households that replace a small to moderate number of trips by car with walking or bicycling trips may be able to reduce the number of cars in the household.

Recreation

Creating a comprehensive network of bikeways and pedestrian facilities in Green Bay increases the opportunities for close-to-home, affordable recreation for people of all ages. Bicycle and pedestrian networks are valuable ways to enhance access to the many public parks and other recreational venues throughout Green Bay, and to provide links into neighboring communities. On their own, shared-use paths such as the Fox River Trail and the East River Trail provide excellent recreation opportunities. Bicycling, walking and running along shared-use paths and trails are great ways to de-stress, exercise, and experience nature.

Traffic and Public Safety

Safe, clear, and consistent accommodations for bicyclists and pedestrians enhance safety for all roadway users. Research indicates that areas with more walking and bicycling trips per capita have a lower frequency of pedestrian and bicycle/motor vehicle crashes than areas with lower numbers of walking and bicycling trips per capita; when pedestrians and bicyclists are encountered more frequently on streets, motorists become more accustomed to sharing the street with them.[15] Walking and bicycling can also improve public safety. More bicycling and walking also means more eyes on the streets and paths. An effective deterrent to crime is the active presence of people in the public realm who are engaged in constructive activities.[16]

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[14] Policy and Government Affairs, Office of Highway Policy Information. *Highway Statistics.* Washington, DC: US Department of Transportation Federal Highway Administration; 2017.
[15] Jacobsen PL. Safety in numbers: more walkers and bicyclists, safer walking and bicycling. *Injury Prevention* 2003;9:205-209.
[16] Jacobs, Jane. *The Death and Life of Great American Cities.* New York*:* Random House;1961.

Environment

Replacing motor vehicle trips with bicycling or walking trips can make small, but meaningful contributions to solving environmental issues like air pollution and climate change. Increased levels of bicycling and walking reduce fossil fuel consumption, air pollution, and carbon emissions. While every car trip cannot be replaced with a non-motorized trip, every trip that is replaced by bicycling or walking does reduce pollution, especially when the trip covers a short distance. Based upon research conducted by the U.S. Environmental Protection Agency, it is estimated that up to 80% of the pollution created by automobiles is emitted in the first few minutes of operation, before pollution control devices begin to work effectively.[17] Therefore, replacing very short motor vehicle trips with bicycle or walking trips can have an outsized environmental impact.

Quality of Life

All the factors noted above can contribute to an increased quality of life for Green Bay residents, specifically by lessening vehicular traffic. Considering that 10-14% of morning rush-hour vehicular traffic is estimated to come from school drop-offs, replacing some of those trips can lead to decreased congestion, safer transportation systems, improved air quality, and more robust local economies for all residents.[18]

Plan Process

This plan was created with input from a wide variety of stakeholders and members of the public. A core team guided the project, consisting of GBAPSD and City staff, a representative from the Brown County Planning Department/the Green Bay Metropolitan Planning Organization and a representative from Wello, a local nonprofit working to increase health and wellness in the Green Bay area. The project was also guided by sixteen advisory committee members and seven community experts as detailed in Table 1. The advisory committee members and community experts attended seven meetings throughout the planning process, providing key feedback that guided the development of this plan.

Table 1: Advisory Committee Members

Advisory Committee Members		
City of Green Bay		
Bill Galvin	Alderman, District 4	Common Council
Steve Grenier	Director	Department of Public Works
Stephanie Hummel	Planner II	Department of Community and Economic Development
Dan Ditscheit	Director	Department of Parks, Recreation and Forestry

[17] Karpuk, M. *Catalysts for Control of Automotive Cold Start Emissions*. Washington, DC: US Environmental Protection Agency (EPA); 1994.
[18] McDonald, N., Brown, A., et al. "U.S. School Travel 2009: An Assessment of Trends." *American Journal of Preventative Medicine* vol 41, 2 (2009): 146-151. doi: 110.1016/j.amepre.2011.04.006

Green Bay Area Public Schools		
Rhonda Sitnikau	Board Member	GBAPS Board of Education
Katie Maloney	Board Member	GBAPS Board of Education
Laura McCoy	Board Member	GBAPS Board of Education
Ann Barszcz	Executive Director	Elementary Education
Mike Stangel	Executive Director	Facilities
Chris Collar	Coordinator	Safety and Security
Trina Lambert	Principal	Aldo Leopold Community School
Kim Van Pay	Principal	MacArthur Elementary School
Stephanie Zander	Coordinator	Teaching and Learning
Community Members		
Natalie Bomstad	Director	Wello
Devon Christianson	Director	Brown County Aging and Disability Resource Center
Community Experts		
City of Green Bay		
Dave Hansen	Traffic Engineer	Department of Public Works
Stephanie Hummel	Planner II	Department of Community and Economic Development
Ken Brodhagen	Administrator	Green Bay Police Department
Green Bay Area Public Schools		
Jeremy Wildenberg	Manager	Transportation Services
Community Members		
Cole Runge	Director	Green Bay Metropolitan Planning Organization
Kimberly Hess	Director	Center for Childhood Safety
Becky Nyberg	Advocate	Brown County Health Department

In July 2018, the project hosted a booth at Aurora Bay Care Open Streets Green Bay. The event closed streets to vehicle traffic and provided opportunities for members of the public to try bicycling, walking, running, and skating. Members of the project team and advisory committee staffed the project booth and gathered input from members of the public participating in the event. The booth was busy all day with people stopping by to offer their opinions about conditions for walking and bicycling in Green Bay.

Members of the public also provided feedback about this plan through an online interactive map, called a WikiMap. Over 300 users used the map to provide input on where they like to walk, run, and bicycle, and about the safety issues that create barriers for doing so safely. Key stakeholders also provided input through stakeholder meetings held in December 2018 and in stakeholder interviews conducted in early 2019.

To obtain input from parents of school-age children, GBAPSD released a survey to all the parents of school-age children within the school district. 2,338 parents responded to the survey offering their opinions about the safety and convenience of walking and bicycling to school. Individual schools also completed tallies to learn how GBAPS students are currently traveling to and from school. In addition, summaries of existing conditions around individual GBAPS schools were produced and distributed to schools for comments. Comments from school administrators and parents will be incorporated into the second draft of this document.

Finally, a public meeting was held on Tuesday, May 14. At the meeting, members of the public had an opportunity to view the plan recommendations and provide comments. About 25 people attended the meeting, and the comments from the meeting have been incorporated into this document.

2. Facility Types

Bicycle Network Facility Types

The bicycle facilities recommended in this plan can be categorized into the facility types listed below. Some of these facility types include variations, such as the addition of a striped buffer to a standard bike lane.

Shared-Use Path A shared-use path is a paved surface in an independent right-of-way such as in a park, stream valley, greenway, along a utility corridor, or an abandoned railroad corridor. Shared-use paths are open to non-motorized users including bicyclists, pedestrians, skaters, people in wheelchairs, joggers, and sometimes equestrians. The life span of a shared-use path can be as many as 20 years with regular maintenance. Section 9B of the Manual on Uniform Traffic Control Devices (MUTCD) and Section 5.4.2 of the American Association of State Highway Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities (4th Edition) provide guidance for application of signs for paths. **Typical Cost:** $490,000 per mile for a 10' wide path (if constructed as a stand-alone project)	
Sidepath A sidepath is a shared use path located adjacent to a street. It is designed for two-way use by bicyclists and pedestrians. Sidepaths are sometimes created by designating a wide sidewalk for shared use, or they may be a segment of a longer path system. Sidepaths sometimes facilitate connections to on- and off-street bicycle facilities. A sidepath is not generally a substitute for on-street bicycle facilities, but may be considered in constrained conditions, or as a supplement to on-street facilities. The use of sidepaths should be limited to streets with few intersections and driveways. Section 9B of the MUTCD and Section 5.4.2 of the AASHTO Guide for the Development of Bicycle Facilities (4th Edition) provide guidance for the selection and application of signs for shared use paths. **Typical Cost:** $470,000 per mile for a 10' wide path (if constructed as part of roadway project)	

Bike Lane

A bike lane is a pavement marking that designates a portion of a street for the exclusive use of bicycles. Bike lane markings are typically dashed where vehicles are allowed to cross the bike lane, such as for right turns or at bus stops. Bike lanes are best suited for arterial and collector streets where there is enough width to accommodate a bike lane in both directions.

While typically provided on both sides of the street, bike lanes can be provided individually to address unique challenges. On streets that have a steep slope and are too narrow to permit bike lanes in both directions, a climbing bike lane is provided in the uphill direction to accommodate slow-moving bicyclists and a shared lane marking is provided in the downhill direction, where bicyclists can typically travel at speeds close to motor vehicles.

The “Bike Lane” sign (R3-17) is commonly used in conjunction with bike lane pavement markings (described in section 9C.04 in the MUTCD).

Typical Cost: $35,000-$80,000 per mile (depends on whether other lanes are being removed or narrowed)

Signed Bike Route with Shared Lane Markings

Shared lane markings (sharrows) are used on low-traffic streets where bicyclists and motor vehicles share the same travel lane. The sharrow helps position bicyclists in the most appropriate location to ride. It also provides a visual cue to motorists that bicyclists have a right to use the street. Sharrows should be placed at least 4 feet (on center) from the face of curb where on-street parking is prohibited, or 11 feet (on center) from the face of curb where on-street parking is allowed. The "Bicycles May Use Full Lane" sign (R4-11) is commonly used in conjunction with shared lane markings (Figure 9C-9 in the MUCTD). Sharrows should be marked with durable marking materials such as epoxy or thermoplastic for longevity and durability.

This plan generally recommends combining sharrows with signed bicycle routes to help cyclists navigate the local street network. Section 9B of the MUTCD and Section 4.11 of the AASHTO Guide for the Development of Bicycle Facilities (4th Edition) has guidance for the placement of bicycle route signs. To help bicyclists navigate, it is recommended that the City consider adding destination information to wayfinding signs, and potentially also distance information.

This plan includes two different types of signed bike routes with shared lane markings:

1) routes comfortable for bicyclists of all ages and abilities and
2) routes comfortable for most adult bicyclists.

The City of Green Bay may wish to consider designing a special logo to use on the signs for the all ages and abilities routes, such as the Neighborhood Greenway sign pictured on the right.

Typical Cost: $13,000 per mile for shared lane markings
$4,000 per mile for bicycle route signs

Bicycle Parking

The City of Green Bay should develop policies that require the provision of bicycle parking as part of new development, both for short- and long-term parking. In the absence of new development, the City may need to add bicycle parking to popular bicycling destinations, such as parks, commercial districts, and grocery stores.

Short-term bicycle parking should be located close to the entrance it serves, preferably within 50 feet. Bicycle racks should support bicycles upright without putting stress on the wheels. The racks should provide two points of contact with the frame. Racks should accommodate a variety of bicycles and attachments and allow locking of the frame and at least one wheel with a U-lock. The Association of Pedestrian and Bicycle Professionals publishes best standards guidance for bike racks: https://www.apbp.org/page/publications

Typical Cost: Varies depending on the design of the racks. Average cost is about $100 per bike

Pedestrian Facility Types

The greatest barriers to pedestrian mobility are street crossings and gaps in the sidewalk network. There are a variety of treatments that can improve the safety of Green Bay pedestrians. This chapter includes descriptions of the types of facilities recommended in this plan. Facilities that improve safety and access at intersections are listed in the “Intersection Facilities” section and facilities that improve safety and access for pedestrians walking along the roadway are included in the “Along the Roadway” section. The pedestrian recommendations can be found in the “Key Safety Improvements Around Schools” section of this chapter.

Intersection Facilities

The following facilities improve safety at crossings, either by shortening crossing distances or by improving crossing visibility. The appropriateness of each of these interventions depends upon the context of each location.

High-Visibility Crosswalks

Crosswalks marked with continental (shown in the photo), ladder, or zebra patterns have been found to be significantly more visible to motorists than parallel line crosswalks and to reduce crashes. High-visibility crosswalks are especially beneficial at uncontrolled locations (where there is no traffic signal or stop sign) or on multi-lane streets in conjunction with additional countermeasures, such as median refuge islands. High-visibility crosswalks are most visible when they are at least 10 feet wide.

In Wisconsin, crosswalks are typically marked with waterborne paint or epoxy. Waterborne paint is usually less expensive than epoxy but may last less than a year. Epoxy costs more than waterborne paint but is substantially more durable, lasting two to four years. The most expensive and durable option is thermoplastic, but it must be inlaid in the pavement to avoid damage from snowplows.

For high-visibility crosswalks, it is recommended that the transverse bars (the bars that are parallel to traffic) extend the full width of the crosswalk and measure 12-24 inches deep. The spacing of the bars should not exceed 2.5 times the depth of the bar, for example, if 12-inch deep bars are used, the bars should be spaced no more than 30-inches apart.

For locations without traffic signals or stop signs, consider installing crosswalk markings in conjunction with the treatments recommended in the Federal Highway Administration *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*.

The City of Green Bay Department of Public Works maintains pavement markings in Green Bay. This plan recommends a substantial increase in the number of high-visibility crosswalks to meet best practice guidelines. However, current Green Bay staffing is likely insufficient to maintain the number of high-visibility crosswalks recommended in this plan. It is estimated that one or two new seasonal employees may be needed to maintain the crosswalks proposed in this plan.

Typical Cost: $1,050 (32 feet long, epoxy paint, ladder style, using WisDOT unit costs)

Curb Extensions

Curb extensions shorten crossing distances for pedestrians, thereby reducing exposure to conflicts with motor vehicles. They also have a traffic calming effect. Curb extensions can be used to reduce excessive corner radii at intersections (as shown in the photo). Near schools, they can help address problems of parents parking too near the crosswalk and increase the visibility of students or school crossing guards waiting to step into the intersection.

To reduce conflicts with bicyclists, best practice is for curb ramps to extend no further than 6 feet into the street. This provides the safety benefits for pedestrians without infringing on bicyclists' space at intersections.

Typical Cost: $10,000 per curb extension if no drainage modification required
$60,000 per curb extension if drainage modifications required

Pedestrian Refuge Islands

Raised median islands located along the centerline of a street provide refuge for pedestrians and allow multi-stage crossings of wide streets. Refuge islands provide a significant crash reduction factor for crashes involving pedestrians. These features also have traffic calming effects and improve crossings at unsignalized locations or locations with flashing beacons, since pedestrians are only required to negotiate one direction of traffic at a time. Refuge islands should be a minimum of 6 feet wide, but ideally are 8 feet wide or wider to accommodate strollers and bicycles.

Typical Cost: $14,000 (labor and materials for one island, 8 feet wide x 12 feet long)

Leading Pedestrian Intervals (LPI)

Leading Pedestrian Intervals (LPI) are used at traffic signals. They initiate the pedestrian WALK signal three to seven seconds before motorists traveling in the same direction are given the green indication. This allows pedestrians to enter the intersection prior to turning motorists, increasing visibility between all modes. LPIs give pedestrians a head start to establish themselves in the intersection before the green phase which results in increased compliance of motorists yielding to pedestrians. LPIs have been shown to reduce pedestrian-vehicle collisions by as much as 60%. LPIs should be installed in conjunction with "NO TURN ON RED" signs.

Typical Cost: $1,200 per intersection (labor to study traffic patterns and reprogram existing traffic signals)

Right Turn on Red (RTOR) Prohibitions

Drivers are required to come to a full stop and yield to cross-street traffic and pedestrians prior to turning right on red, however it is common for drivers to fail to do so. Motorists are sometimes focused on looking for traffic approaching on their left and may not be alert to pedestrians approaching on their right. In addition, drivers sometimes pull up into the crosswalk to wait for a gap in traffic, blocking pedestrian crossing movements. In some instances, motorists simply do not come to a full stop before turning.

Prohibiting RTOR may lead to higher right-turn-on-green conflicts when there are concurrent signals. The installation of leading pedestrian intervals is helpful to address this issue.

The City of Green Bay may wish to consider adding new RTOR prohibitions, particularly in locations with high crashes between turning vehicles and pedestrians and bicyclists. The City of Green Bay currently prohibits RTOR in certain school zones, however the signs used are small and inconspicuous and include the text, "WHEN CHILDREN ARE PRESENT". The City may wish to consider installing more conspicuous signs and/or using simpler signs without the "WHEN CHILDREN ARE PRESENT" message since the more words that are present on a sign, the longer it takes for a driver to process the message.

Typical Cost: About $200 per intersection

Rectangular Rapid Flash Beacons (RRFB)

The Rectangular Rapid Flash Beacon (RRFB) can be used in conjunction with pedestrian or school crossing warning signs to provide a high-visibility strobe-like warning to drivers when a user is present. RRFBs differ from other flashing lights because the LED lighting is aimed at the eye-level of approaching drivers; the flashing frequency is rapid and noticeable; and has a brighter flash. Studies have shown that motorists are much more likely to yield to pedestrians when they activate an RRFB.

The beacons should not flash continuously; they should be activated only when a crossing user is present.

Typical Cost: $30,000 (labor and materials for 2 signs, one posted in each direction, with battery and solar panel)

Pedestrian Hybrid Beacon (HAWK Signal)

The Pedestrian Hybrid Beacon, also known as the High Intensity Activated Crosswalk (HAWK) signal, is a special type of signal that operates as a “stop light” for a crosswalk. Pedestrian hybrid beacons have a strong effect on driver yielding rates. Pedestrian hybrid beacons must pass certain engineering “warrants” to justify their installation, but those warrants are lower than for full traffic signals.

Typical Cost: $90,000-$150,000 (labor and materials for mid-block, 4-lane roadway, one posted in each direction)

Advance Yield Lines

Advance yield lines, which are composed of solid white isosceles triangles (often referred to as "shark's teeth"), indicate where drivers should yield to pedestrians in crosswalks. It is recommended that they be installed in conjunction with "Yield Here to Pedestrians" signs (R1-5 or R1-5a). Particularly on multi-lane streets, they improve visibility between pedestrians in the crosswalk and drivers and reduce the incidence of multiple-threat crashes in which a vehicle in one lane yields for a pedestrian in the crosswalk and the vehicle in the adjacent lane does not. When applied to mid-block crosswalks, advance yield lines should be 20 to 50 feet from the crosswalk. See MUTCD Section 3B.16 for more information.

Typical Cost: $600 (four-lane street, epoxy paint, 4 signs, City employees install)

In-Street Pedestrian Crossing Signs

Vertical, in-street Yield to Pedestrian Signs are somewhat successful at increasing driver yielding rates (R1-6). The installation may be removed in winter to avoid damage from snow plows. Alternatively, school staff or crossing guards can place and remove the signs during each school arrival and dismissal period.

Typical Cost: $1,000 (3 signs, 2 travel lanes, City employees install)

Curb Ramps

Curb ramps improve street crossings for people with disabilities, children on bicycles, and people pushing strollers. Curb ramps must include detectible warnings that are detectible by people with vision impairments. The Americans with Disability Act's Proposed Guidelines for Pedestrian Facilities in the Right of Way (PROWAG) includes detailed recommendations for curb ramp slope and detectible warnings.

The State of Wisconsin allows corner curb ramps, in which one curb ramp in the middle of the corner serves both crosswalks (although extensive documentation is required in these cases). However, this design creates longer crossing distances for pedestrians and can cause people with disabilities and children to roll into the middle of the intersection. Especially at intersections near schools, curb ramps should orient pedestrians into the correct crosswalk.

Typical Cost: $1,200 per curb ramp (City employees install)

Linear Facilities

The following facilities improve the safety of pedestrians walking along the roadway.

Sidewalk The sidewalk network is a basic precondition for encouraging walking and bicycling to school. Sidewalks improve access and livability for people with disabilities, children on bicycles, people walking dogs, and joggers. The PROWAG includes detailed requirements for sidewalk width, slope, and cross-slope. Most sidewalks in residential areas should be a minimum of five feet wide to accommodate two people walking side by side or passing comfortably. In downtown areas sidewalks should be wider than five feet. Near schools, sidewalks can be crowded with groups of students and families walking in both directions. Sidewalks adjacent to a school should be at least 8 feet wide to accommodate heavy pedestrian traffic in both directions. **Typical Cost:** $35 per linear foot (City employees install)	
Sidewalk Maintenance and Repair Over time, sidewalks can become overgrown and uneven from tree roots or years of frost heaves. Where sidewalk is simply overgrown, the property owner should be responsible for removing the soil and vegetation over the old sidewalk. However, in some cases, the sidewalk may be so cracked or uneven that it requires repair or replacement. **Typical Cost**: $0-35 per linear foot (Property owner or City employees perform work)	

School Zone Facility Types

Slower speeds allow drivers more time to see and react to pedestrians; if collisions occur, they are less likely to cause serious injuries or fatalities. Within Green Bay and GBAPS school zones, the following treatments are recommended to alert drivers that they are nearing a school and announce reduced speed limits. Signs must be consistent with state requirements so that drivers from outside Green Bay recognize and understand them. Signs alone may not be effective at changing driver behavior, but they are a minimal investment and, when paired with other countermeasures, can increase safety.

School Zone Assembly The Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD) requires school zones to be announced to drivers with a school zone assembly sign consisting of an S1-1 sign, AHEAD plaque (W16-9P), and FINES HIGHER plaque (R2-6P). Usually these assemblies are placed between 200-400 feet in advance of the school property or school crossing. According to the WMUTCD, if yellow flashing beacons are used to indicate the times when fines are higher, they should be installed in conjunction with this sign, **not** the school speed limit sign, unless the school speed limit sign is a changeable message sign. **Typical Cost**: $70 (sign panels and post, City employees install)	
School Speed Limit Assembly / End School Zone sign Reduced school speed limit zones temporarily lower the speed of the roadway to 15 miles per hour. If used, the School Speed Limit Assembly consists of the school speed limit sign (R2-1) with a fluorescent SCHOOL sign above the speed limit sign and "WHEN CHILDREN ARE PRESENT" text below the speed limit. The END SCHOOL ZONE sign (S5-2) designates the end of the school zone. It is not required under the WMUTCD. It should be placed as close as practical across the street from the School Speed Limit Assembly in the opposite direction. **Typical Cost**: $50 (sign and post, City employees install)	 

School Crossing Assembly

Designated school crossings should be marked with a school crossing assembly, except for any approaches controlled by stop or yield signs. These signs help improve driver yielding to pedestrians in the crosswalk. The School Crossing Assembly consists of the school zone sign (S1-1) supplemented with a diagonal downward pointing arrow (W16-7P).

Typical Cost: $60 (sign panels and post, City employees install)

Changes to Parking Restrictions Around Schools

It is common for parents and caregivers to drive students to school. Lack of designated space to drop off and pick up students can result in drivers engaging in unsafe behaviors, such as parking on the crosswalk, causing safety problems for pedestrians and bicyclists. Many schools see two types of pick-up and drop-off behaviors: 1) drivers who pull over to the curb to drop off or pick up students without exiting the vehicle and 2) drivers who park and walk students to or from the school building. It is recommended that separate spaces be designated for each of these behaviors that typically occur at a given school. These spaces should also be completely separated from school bus loading areas and transit bus stops. It is highly recommended that all pick-up and drop-off activity occur on the school side of the street. However, if that is not possible, care should be taken to provide for safe crossings between the pick-up and drop-off location and the school.

The school arrival and dismissal rules should be clearly communicated to parents as described in Encouragement Strategy 3, Arrival and Dismissal Rules.

Wisconsin state law prohibits parking on through highways adjacent to schools (school side of the street) for schools with students below grade 9, unless local ordinance allows parking.

Typical Cost: $50 (sign and post, City employees install)

3. Bicycle Network Recommendations

This chapter identifies a network of bikeways throughout Green Bay. This network includes off-street facilities such as paths and trails, on-street bikeways such as bicycle lanes and shared lane markings, and a range of other facilities that will make bicycling more convenient and more comfortable for a range of bicyclists. This network will make bicycling in Green Bay a more realistic travel option than it is today for many people.

The bicycle facilities recommended for specific locations are a direct response to existing conditions and user needs along various streets in the area. They also are based on national standards and guidelines, proven best practices, use of emerging designs and technologies, and the experiences of other jurisdictions in the Midwest. The analytical process used to identify the recommended network integrates local knowledge, engineering judgment, and input received through the Advisory Committee, City staff, the public, and others.

Network Development

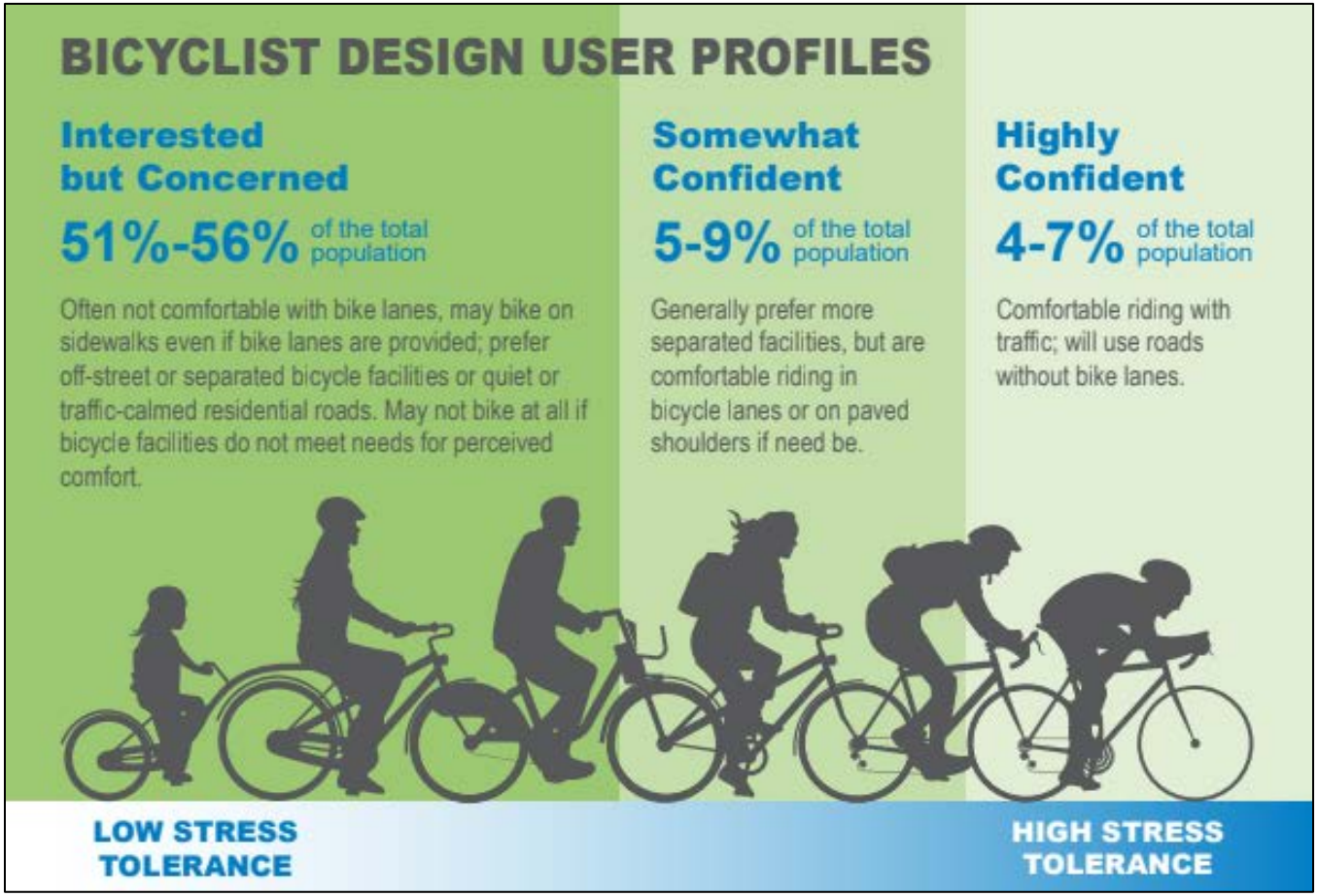
The recommended bikeway network is designed to meet the needs of people already bicycling as well as the needs of potential and future cyclists in Green Bay. This Plan places a high value on developing a network that over the long run will allow children and senior cyclists, novice and experienced cyclists, regular and occasional commuters, students, visitors, tourists, and recreational riders to all feel comfortable and safer bicycling in Green Bay.

It is important to recognize that some bicyclists will only venture onto busier streets if they are provided with a facility that clearly delineates space in which they can operate or offers a significant degree of separation from traffic. Some bicyclists will avoid streets with high speeds and heavy volumes, regardless of the accommodations. Some will seek only quiet local streets, and some experienced bicyclists will actually prefer thoroughfares because they provide the most direct route to their destination with a minimum of traffic controls.

Bicyclist User Types

There is a wide range in the types of people that bicycle in Green Bay, from people who are highly confident and are comfortable riding with traffic, to people who are much more cautious, to people who do not bicycle at all. Among those who may bicycle, researchers and advocates often break the population into three primary groups: Interested but Concerned, Somewhat Confident, and Highly Confident, as shown in Figure 1 (people who do not bicycle comprise the remaining 30-40% of the population). The largest group is the Interested but Concerned group, comprising just over half of the total population. Providing more bicycling infrastructure that is separated from traffic for this group can significantly lift overall bicycling participation.

Figure 1: Bicyclist User Types



Facility Selection

When deciding on which specific type of bicycle facility to include on a given street, the Level of Traffic Stress (LTS) was considered. The LTS model was developed by the Mineta Transportation Institute to classify streets according to how stressful they are for people bicycling. The model uses four classifications, LTS 1-4. LTS 1 streets are comfortable for people of all ages and abilities, including children. LTS 2 streets are comfortable for most adults, including people who are interested but concerned about bicycling. LTS 3 streets are comfortable for those who are confident bicyclists. LTS 4 streets are the most stressful and are uncomfortable for most people except for very confident bicyclists. The LTS analysis completed for this plan is described in more detail in the Appendix.

This Plan recommends improving thoroughfare and collector streets to accommodate bicycles, and providing paths, sidepaths, and parallel routes along local streets, when possible, to meet the needs of different bicyclists. Streets and trails were selected for inclusion in the recommended bicycle transportation network to create direct, convenient, and logical connections throughout all Green Bay neighborhoods. The network includes streets and trails that cyclists currently use as well as streets they would like to use according to public input received during the development of this report.

The network is intended to encourage maximum use and comfort, while fostering safe and responsible riding. At the same time, bikeway recommendations were developed to take advantage of the city's existing street network. In some cases, this may result in bikeways that are comfortable primarily for experienced bicyclists, and not for the full range of bicyclists in Green Bay.

Facility Implementation Methods

Implementation of the proposed bikeways would require a variety of different implementation methods which are described here. Before individual projects are implemented, they would be subject to the funding process and would go through typical public involvement processes.

Install Path This action indicates that a path should be installed. **Typical Cost:** $488,000 per mile	

Install Signage and Shared Lane Markings, Consider Traffic Calming

This action involves the installation of bicycle route signage and shared lane markings. For routes designated as being comfortable for all ages and abilities of bicyclists, consider designing a customized logo to use on the bike route signs.

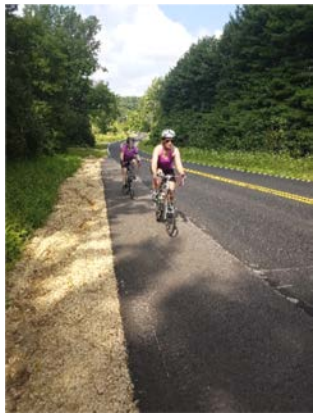
Traffic calming is a broad category that includes incorporating elements such as curb extensions, pedestrian islands, speed humps, and neighborhood traffic circles into neighborhood streets where speeding traffic is a concern or where there is a desire to ensure that a street remains comfortable for bicyclists of all ages and abilities. In addition to lowering traffic stress for bicyclists, traffic calming can also improve conditions for pedestrians.

Typical Cost: Varies per treatment. $13,000 per mile for shared lane markings
$4,000 per mile for bicycle route signs

Pave Shoulders

Paving and/or widening existing shoulders can provide space for bicyclists to ride. In some cases, shoulders can be paved to provide space for designated bike lanes and in other cases, paved shoulders alone can be an adequate bicycle facility.

Typical Cost: $225,000 per mile (assuming 4 feet each side of the street)



Reconfiguration

Roadway reconfiguration describes a variety of ways that streets can be rearranged to improve conditions for motorists, pedestrians, and bicyclists. For the facilities proposed in this plan, this action typically indicates that existing features such as medians would need to be changed to add a bicycle facility.

Typical Cost: Varies per project

Removal of Parking

Many existing Green Bay roadways can fit bike lanes if parking is removed from one or both sides of the street. This Plan attempts to limit the number of streets from which parking is proposed to be eliminated entirely, particularly in residential areas. If a proposed facility lists the action as “remove parking on one side of the street,” that indicates that once the bicycle facility is added there would only be parking allowed on one side of the street. In some cases, parking may already be restricted to one-side only for portions of the proposed facility. The only streets where parking would be eliminated entirely are noted via the proposed action, “remove parking on both sides of the street.”

It is recognized that the removal of parking may be unpopular with residents, particularly in residential areas. As the facilities in this plan are implemented, they would undergo typical public involvement processes which would give residents the opportunity to weigh in before implementation.

Typical Cost: $5,000 per mile

Restriping

Restriping indicates that the proposed bicycle facility can fit within the existing curb to curb width by changing the way the existing travel and/or parking lanes are striped.

Typical Cost: Costs vary depending on how the roadway will be restriped, $37,000 per mile

Road Diet

A four-to-three lane conversion (also called a “road diet”) involves converting a four-lane road to three lanes, with one travel lane in each direction and a center two-way left-turn lane. This arrangement has been found to reduce speeds and eliminate most turning conflicts. Four-to-three lane configurations should be considered for streets with less than 15,000 average daily traffic, although they can work on streets with up to 25,000 average daily traffic.

Converting a one-way street to a two-way street can reduce motor vehicle speeds due to perceived “friction,” or fear of oncoming vehicles. It can also reduce confusion and circuitous travel.

Typical Cost: Costs vary depending on how the roadway will be reconfigured. The cost for restriping a four-lane street to one travel lane in each direction plus a center two-way left-turn lane is about $45,000-$90,000 per mile.

Implementation Timeframes

The recommendations presented in this plan are presented as short, medium, and long-Term recommendations. In general, timeframes were assigned based on the complexity of each recommendation:

- **Short term:** The simplest recommendations were listed as short-term. If implementation began immediately, it is estimated that they could be installed within **5 years.**
- **Medium term:** Projects of moderate complexity were shown as medium-term. It is estimated that they could be implemented within **5-10 years.**
- **Long term:** The most complex projects were recommended as long-term. It is estimated that they could be implemented **10 years** or more in the future.

Recommendations

The following proposed bicycle facilities are shown on Maps 1 and 2. Full size versions of the maps are included as a separate document. The numerical labels for each line or point on the map correspond to the numbers in the tables that follow. As Green Bay moves toward implementation of this plan, it may be possible that the facilities planned for a particular street may not be feasible. In this case, it will be important for alternate routes to be identified for bicyclists such that there is a complete network for bicycle facilities that is comfortable for a majority of bicyclists. It is also important to note that any time a street is resurfaced or reconstructed, the feasibility of and need for providing bicycle facilities should be evaluated, regardless of if the street is included on the map below.


Green Bay Safe Walk & Bike Plan
MAP 1
Proposed Bicycle Network
Existing Bikeways
Sidepath
Bike Lane
Bike Route
Marked Shared Lane
Wide Curb Lane
Paved Shoulder
Shared-Use Path
Informal Path
Previously Planned Bikeways
Shared-Use Path
Proposed Bikeways
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Shared-Use Path
Spot Improvement
0 1 2 3 4 5 mi
RIVERVIEW DR
VELP AV
HURLBUT ST
ATKINSON DR
RIVERDALE DR
PACKERLAND DR
TAYLOR ST
MILITARY AV
MATHER ST
DOUSMAN ST
SHAWANO AV
WESTERN AV
FISK ST
GRAY ST
MASON ST
MASON
WEST POINT RD
SOUTH POINT RD
WOOD LN
I-41
I-43
QUINCY ST
IRWIN AV
EAST SHORE DR
RADISSON ST
STURGEON BAY RD
EASTMAN AV
UNIVERSITY AV
DANZ AV
HENRY ST
DECKNER AV
BADER ST
ALPINE DR
MAIN ST
MASON ST
LOMBARDI AV
RIDGE RD
ONEIDA ST
9TH ST
12TH AV
ASHLAND AV
WALNUT
ADAMS ST
MONROE AV
BAIRD ST
STATE ST
MORRIS AV
SHADY LN
AIRPORT
KALB AV
WEBSTER AV
DEBRA LN
LIME KILN RD
MANITOWOC RD
GUNS ST
VERLIN RD
BELLEVUE ST
LIBAL ST
RIVERSIDE DR
EAST RIVER DR
ALLOUEZ AV
17/2


Green Bay Safe Walk & Bike Plan
MAP 2
Proposed Bicycle Network
Existing Bikeways
Sidepath
Bike Lane
Bike Route
Marked Shared Lane
Wide Curb Lane
Paved Shoulder
Shared-Use Path
Informal Path
Previously Planned Bikeways
Shared-Use Path
Proposed Bikeways
Sidepath
Bike Lane
Signed Bike Route
Shared-Use Path
Spot Improvement
0 1 2 3 4 5 mi
HURLBUT ST
VELP AV
ATKINSON DR
I-43
MATHER ST
GRAY ST
DOUSMAN ST
WALNUT ST
12TH AV
ASHLAND AV
STATE ST
ADAMS ST
MONROE AV
BAIRD ST
KALB AV
RIVERSIDE DR
LIBAL ST
ALLOUEZ AV
BELLEVUE ST
VERLIN RD
DEBRA LN
LIME KILN RD
GUNS ST
MAIN ST
MASON ST
BADER ST
DECKNER AV
HENRY ST
DANZ AV
EASTMAN AV
UNIVERSITY AV
WEBSTER AV
QUINCY ST
IRWIN AV
RADISSON ST
EAST SHORE DR
STURGEON BAY RD
SCOTTWOOD DR
NICOLET DR
BAY SETTLEMENT RD
ALGOMA RD
STURGEON BAY RD
HUMBOLDT RD
ALPINE DR
SUPERIOR RD
SITKA ST
HURON RD
ONTARIO RD
MANITOWOC RD
GREENBRIER RD

Linear Facilities

#	Location	Recommendation	Action	Timeframe
1001	Open Gate Trail from Ted Fritsch Park to La Count Road / La Count Road from Open Gate Trail to West Point Road	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming.	Short
1002	Mason Frontage Road from La Count Road to Country Club Road	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1106 **1003**	Country Club Road • from Indian Hill Drive to the Northeast Wisconsin Technical College driveway • from the Northeast Wisconsin Technical College driveway to Mason Street	Signed route with shared lane markings (comfortable for adult bicyclists) Bike lane	• Install signage and shared lane markings, consider traffic calming. • Restripe	Short Short
1004	Mason Street from Country Club Road to just east of Hinkle Street (near Walmart and Festival Foods)	Shared-use path	Install path	Medium
1005	Larsen Road from west of Packerland Drive to Taylor Street	Bike lane	Remove parking on one side of the street	Medium
1006	Hinkle Street from Larsen Road to Mason Street	Bike lane	Road Diet	Long
1007	Hobart Drive from Mason Street to West Point Road	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Short
1008 **1009** **1010** **1011**	9th Street / West Point Road • from Packerland Drive to Argonne Drive • from Argonne Drive to St Agnes Drive • from St Agnes Drive to Ridge Road • from Ridge Road to 12th Avenue	Bike lane	• Remove parking on one side of the street • Reconfigure • Remove parking on one side of the street • Remove parking on both sides of the street	Medium

#	Location	Recommendation	Action	Timeframe
1012	• from 12th Avenue to Broadway		• Remove parking on one side of the street	
1013	Wood Lane from West Point Road / 9th Street to Hazelwood Lane	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Short
	Hazelwood Lane	Bike lane		
1014	• from South Point Road to Packerland Drive		• Restripe: narrow travel lanes to 11', eliminate existing fog lines	Short
1015	• from Packerland Drive to Wood Lane		• Reconfigure (existing curb extensions would need to be rebuilt to extend no more than 6' into the parking lanes)	Long
	Taylor Street	Bike lane		Medium
1016	• from Western Avenue to Mason Frontage Road		• Remove parking on one side of the street	
1017	• from Mason Frontage Road to 7th Street		• Reconfigure	
1018	• From 7th Street to 9th Street		• Remove parking on one side of the street	
	Western Avenue	Bike lane		Medium
1019	• from Taylor Street to Rutgers Street		• Remove parking on both sides of the street	
1020	• Rutgers Street to Military Avenue		• Remove parking on one side of the street	
1021	Shawano Avenue / Walnut Street from Taylor Street to Baird Street	Bike Lane	Road Diet (much of this would also require reconstruction due to existing medians)	Long

#	Location	Recommendation	Action	Timeframe
1024	Bond Street • from Taylor Street to Military Avenue	• Bike Lane	• Remove parking on both sides of the street	Medium
1025	• from Military Avenue to Broadway	• Signed route with shared lane markings (comfortable for adult bicyclists)	• Install signage and shared lane markings, consider traffic calming	
1026	Fisk Street • Perkins Park	• Shared-use path through Perkins Park to connect to Moraine Terrace	• Install path	Long
1027	• from Perkins Park to Dousman Street	• Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	• Install signage and shared lane markings, consider traffic calming	Short
1028	• from Dousman Street to 9th Street	• Bike Lane	• Remove parking on one side of the street	Medium
1029	Military Avenue / Lombardi Avenue from Biemeret Street to Ridge Road (Note: this recommendation could still be implemented if this street segment is modified per the Military Avenue Market Analysis & Corridor Design Plan and public amenities could also be included in the project)	Sidepath	Install sidepath	Medium
1030	Locust Street from Thomas Street to Bond Street	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1031	Thomas Street from Locust Street to Neville Avenue	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short

#	Location	Recommendation	Action	Timeframe
1032	Desnoyers Street / Holzer Street from Locust Street to Mather Street	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1033	Gray Street from Velp Avenue to Shawano Avenue	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Short
1034	Ridge Road from Mason Street to Lombardi Avenue	Bike lane	Remove parking on one side of the street	Short
1035 **1036**	12th Avenue • from Shawano Avenue to 9th Street • From 9th Street to Lombardi Avenue	• Bike lane • Signed route with shared lane markings (comfortable for adult bicyclists)	• Remove parking on both sides of the street • Install signage and shared lane markings, consider traffic calming	Medium Short
1037	Dousman Street from Norwood Avenue to Broadway	Bike lane	Road diet	Long
1038	Bart Starr Drive from the city boundary to Lombardi Avenue	Bike lane	Remove parking on one side	Short
1039	Lombardi Avenue from 12th Avenue to Ashland Avenue	Sidepath	Install path	Long
1040	Liberty Street / State Street / 7th Street from Broadway to Broadway	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1041	Washington Street from Main Street to Crooks Street	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming (shared lane markings are already present)	Short

#	Location	Recommendation	Action	Timeframe
1042	Cherry Street from Washington Street to Baird Street	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming (shared lane markings are already present)	Short
1043	Crooks Street from Washington Street to the East River	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming (shared lane markings are already present to the west of Baird Street)	Short
1044	Jefferson Street from Walnut Street to Chicago Street	Bike lane	Restripe (one-way bike lane)	Short
1045	Madison Street from Walnut Street to Mason Street	Bike lane	Restripe (one-way bike lane)	Short
1046	Porlier Street from Adams Street to the East River	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Short
1048	Webster Avenue from University Avenue to the city boundary	Bike lane	Road diet	Long
1049	Bay Beach Road from Quincy Street to Irwin Avenue	Bike lane	Remove parking on one side of the street	Medium
1051	Irwin Avenue from Bay Beach Road to Main Street	Bike Lane	Remove parking on one side of the street	Medium
1052	Klaus Street from Quincy Street to Baird Street	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1053	University Avenue from Webster Avenue to Peters Street	Bike lane	Reconfigure	Long

#	Location	Recommendation	Action	Timeframe
1054	East Shore Drive from Irwin Avenue to existing bike lanes (Note, since this is a scenic/tourist area, in the long term it is recommended that both a sidepath and bike lanes be present to accommodate a variety of uses)	Bike lane Sidepath	Remove parking on one side of the street Install path	Medium Long
1056	East Shore Drive from East Shore Circle to Nicolet Drive	Sidepath	Install path	Long
1057 **1058** **1060** **1061** **1063**	Danz Avenue / Bader Street • from East Shore Drive to University Avenue • University Avenue to Deckner Avenue • Deckner Avenue to Mason Street • Mason Street to Main Street • Main Street to Imperial Lane	• Bike lane • Shared-use path • Signed route with shared lane markings (comfortable for adult bicyclists)	• Remove parking on one side of the street • Remove parking on both sides of the street • Remove parking on one side of the street • Install path • Install signage and shared lane markings, consider traffic calming	Long
1064	Imperial Lane from Bader Street to Winter Lane	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Short
1065	East of Lime Kiln Road at the southern city boundary	Shared-use path	Install path connecting the existing path to the proposed path along Kalb Avenue/ Main Street	Long
1066	Newberry Avenue from Bader Street to Alpine Drive	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1067	Hartung Street from Deckner Avenue to Charles Street	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short

#	Location	Recommendation	Action	Timeframe
1068	Deckner Avenue • from Hartung Street to Bellevue Street	• Signed route with shared lane markings (comfortable for adult bicyclists) • Bike lane	• Install signage and shared lane markings, consider traffic calming	Short
1069	• Bellevue Street to Lau Street		• Remove parking on one side of the street • Road diet	Medium
1070 **1071**	• Lau Street to Danz Avenue • Danz Avenue to Alpine Drive		• Remove parking on one side of the street	Long
1107	Bellevue Street • from Deckner Avenue to Foeller Drive		• Relocate Sullivan Loading Zone	Short
1072	• from Foeller Drive to Mason Street	Bike lane	• Restripe	
1073	Alpine Drive • from Deckner Avenue to Finger Road	• Bike lane	• Restripe • Install signage and shared lane markings, consider traffic calming	Medium
1074	• Finger Road to previously proposed trail near Interstate 43	• Signed route with shared lane markings (comfortable for adult bicyclists)		Short
1075	Hillside Lane from Bader Street to Skyline Boulevard	Bike lane	Remove parking on both sides of the street	Medium
1076	Skyline Boulevard from Hillside Lane to Finger Road	Shared-use path	Install path in the boulevard	Long

#	Location	Recommendation	Action	Timeframe
1077	Finger Road • from Skyline Boulevard to Interstate 43	• Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	• Install signage and shared lane markings, consider traffic calming	Short
1078	• Along I-43 from Finger to Mason Street	• Shared-use path	• Widen existing connection	Medium
1079	• Superior Road to just past Grandview Road	• Signed route with shared lane markings (comfortable for adult bicyclists)	• Install signage and shared lane markings, consider traffic calming	Short
1080	Mason Street from Interstate 43 to the eastern city boundary	Sidepath	Install path	Long
1081	Superior Road from previously proposed trail near Baird Creek Road to Mason Street	Signed route with shared lane markings (comfortable for adult bicyclists)	• Install signage and shared lane markings, consider traffic calming	Short
1083	Sitka Street from Superior Road to Huron Road	Signed route with shared lane markings (comfortable for adult bicyclists)	• Install signage and shared lane markings, consider traffic calming	Short
1085	Erie Road from Whittier Drive to the southern city boundary	Bike lane	Pave shoulders (there is a short segment which would require the removal of parking on one side of the street)	Long
1088	Nicolet Drive • from East Shore Drive to Main Entrance Drive (UWGB main entrance)	Bike lane	• Road diet	Long
1089	• from Main entrance Drive (UWGB main entrance) to Au Sable Drive		• Pave shoulders	Short
1090	Curry Lane / Gershwin Drive from University Avenue to near Sturgeon Bay Road	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Long

#	Location	Recommendation	Action	Timeframe
1091	Humboldt Road • from University Avenue to existing bike lane near Lake Largo Drive	• Bike lane	• Remove parking on one side • Install path	Medium
1092	• from previously proposed trail near Mt Mary Drive to Laverne Drive	• Sidepath		Long
1093	Beverly Road from Humboldt Road to Baird Creek trails	Shared-use path	Install path	Long
1094	Church Road from Nicolet Drive to the eastern city boundary	Bike lane	Pave shoulder	Medium
1095	Country Club Road / Onaste Drive / Chief Hill Drive / Clinch Way / Swamp Road / Ferndale Drive / Crestwood Drive from Mason Street to West Point Road	Signed route with shared lane markings (comfortable for adult bicyclists)	Install signage and shared lane markings, consider traffic calming	Short
1097	Neville Avenue from Thomas Street to Desnoyers Street	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1098	Baird Street • from Crooks Street to Chicago Street	Bike lane	• Remove parking on one side of the street	Short
1099	• from Chicago Street to Cass Street		• Road diet	Long
1100	• from Cass Street to the city boundary		• Remove parking on both sides of the street	Short
1101	• From Telamark Circle to the previously proposed path	Shared-use path	Install path	Long
1102	• Broadway from Dousman Street to Bond Street	Bike lane	Restripe	Short

#	Location	Recommendation	Action	Timeframe
1103	• Clinton Street from 12th Avenue to 15th Avenue, 15th Avenue from Clinton Street to Lake Street, Lake Street from 15th Avenue to Oak Street, Oak Street from Lake Street to Western Avenue, and Western Avenue from Oak Street to Oneida Street (connecting to Sgt Benjamin Edinger Corridor West Side Trail)	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1104	• University Avenue/University Way from near Peters Street to Humboldt Road	Sidepath	Install sidepath (may require ROW acquisition)	Long
1105	• East River Trail Connection to Fox River Trail (From Quincy Street to Baird Street)	Shared-use path	Install path	Medium
1108	• 3rd Street from 12th Avenue to 11th Avenue, 11th Avenue from 3rd Street to 5th Street, and 5th Street from 11th Avenue to Broadway.	Signed route with shared lane markings (comfortable for bicyclists of all ages and abilities)	Install signage and shared lane markings, consider traffic calming	Short
1109	• Military Avenue from Dousman Street to Bond Street	Sidepath	Install path	Long

Spot Locations

#	Location	Recommendation	Action	Timeframe
2001	Mason Street and La Count Road	Enhance crossing	Add high-visibility crosswalk markings, parking restrictions on crosswalk approach, and adequate nighttime lighting levels to one leg crossing Mason Street at La Count Road Also add advance yield here to pedestrians sign and yield line AND extend the existing median to provide a raised pedestrian refuge for pedestrians OR add a traffic signal	Long
2002	Military Avenue and Biemeret Street	When installing the sidepath, make sure to design effective transitions from the one-way bike lanes to the two-way sidepath	Design and install transitions between the bike lanes and sidepath	Medium
2003	Military Avenue and Lombardi Street / Marlee Lane	Construct a grade separated crossing	Construct grade separated crossing	Long
2004	Mason Street at the East River Trail	Option 1: Construct a grade separated crossing of both the East River and Mason Street. Option 2: Install a traffic signal at Hartung Street. Option 3: Install a Pedestrian Hybrid Beacon and high visibility crosswalk near the trail access on the west of the river.	Option 1: Construct grade separated crossing Option 2: Install traffic signal Option 3: Install a pedestrian hybrid beacon and high visibility crosswalk	Long
2006	Sitka Street at Interstate 43	Construct a grade separated crossing	Construct grade separated crossing	Long

#	Location	Recommendation	Action	Timeframe
2007	Sturgeon Bay Road near Curry Lane/Gershwin Drive	Construct a grade separated crossing	Construct grade separated crossing	Long
2008	Huron Road between Woodside Road and Indigo Bluff Drive	Improve railroad crossing for bicyclists	Improve crossing	Long
2009	Baird Creek Trail Crossing/Danz Avenue	• Mark a crosswalk across Danz Avenue at either the north or south trail access. Adding high visibility markings to the southern access would be simplest since signs and curb ramps are already present, however putting the trail crossing at the northern trail access may provide more benefit to Danz Elementary School students. • For whichever trail crossing is marked, add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and ensure there are crossing signs for the proposed trail crossing. • Consider adding wayfinding signs directing trail users to the location of the trail crossing.	Add/improve crossing	Short Term
2010	State Street at Railway Crossing South of 10th Street	Providing warning signs to alert bicyclists to use care to avoid getting their tires caught in the railroad tracks.	Add signs	Short

#	Location	Recommendation	Action	Timeframe
2011	Mason Street at Bader Street	Improve the crossings of Mason Street and Main Street at the proposed trail connecting Bader Street.	Add high-visibility crosswalk markings, parking restrictions on crosswalk approach, and adequate nighttime lighting levels to one leg crossing Mason Street and Main Street at Bader Street. Also add advance yield here to pedestrians sign and yield line AND extend the existing median to provide a raised pedestrian refuge for pedestrians. OR add a Rectangular Rapid Flashing Beacon.	Long
2012	Ashland Avenue and 9th Street	Enhance crossing	Explore whether the traffic signal timing could be changed to benefit pedestrians and bicyclists. Add curb ramps that meet current USDOT standards. Explore changes of the intersection geometry to improve pedestrian safety and accessibility, such as changes to the design of the right-turn slips. Explore the addition of a marked crosswalk on the west leg.	Medium
2013	University Avenue near Peters Street and Humboldt Road	When installing the sidepath, make sure to design effective transitions from the one-way bike lanes to the two-way sidepath	Design and install transitions between the bike lanes and sidepath	Long
2014	Military Avenue and Dousman Street	When installing the sidepath, make sure to design effective transitions from the one-way bike lanes to the two-way sidepath	Design and install transitions between the bike lanes and sidepath	Long

Bicycle Network Prioritization

The Advisory Committee and key City and GBAPS staff voted on criteria for prioritizing the recommendations in this plan. The top three criteria for ranking the bikeway network were safety, potential use, and connectivity. The recommended bikeway network was scored according to these criteria. The scores were used to generate a ranking for each recommendation. For each type of recommendation, the project ranked 1 is the highest priority. Slightly different methodologies were used for prioritizing the on-street bikeway network, spot improvements, and off-street bikeway network, as described in the tables below:

Scoring Method for On-Street Bikeway Recommendations and Spot Improvements:

Factor	Weight	Variables	Source	Notes
Safety	35	Crash Density (Within 200ft)	Wisconsin Crashes 2013 - 2018. Selected only those involving bicyclists and pedestrians.	Weighted by severity of injuries Killed/Severely Injured = 3 All others = 1
		Functional Class	Recommended network street centerline	Scores: Principal Arterial = 10 Minor / Future Arterial = 8 Collector / Rural Major Collector = 5 Rural Minor Collector = 3 All others = 0
Potential Use	35	Demand Analysis (within 500 Feet)	Demand Analysis, see Appendix 4	
Connectivity	30	Connections to existing facilities (Within 100 ft)	Data: *bicycle_facilities.shp*	
		Connections to proposed facilities (Within 100 ft)	Recommended Projects	

Scoring Method for Off-Street Bikeway Recommendations:

Factor	Weight	Variables	Source	Notes
Safety	35	Crash Density (Within 200ft)	Wisconsin Crashes 2013 - 2018. Selected only those involving bicyclists and pedestrians.	Weighted by severity of injuries Killed/Severely Injured = 3 All others = 1
Potential Use	35	Demand Analysis (within 500 Feet)	Demand Analysis, see Appendix 4	
Connectivity	30	Connections to existing facilities (Within 100 ft)	Data: *bicycle_facilities.shp*	
		Connections to proposed facilities (Within 100 ft)	Recommended Projects	

Maps 3 and 4 show how the recommended projects were ranked according to these criteria. Full size versions of the maps are included as a separate document. On the full size maps, each recommended project is labeled with its ranking. For example, the highest priority on-street bikeway is labeled as “1”, the highest priority off-street bikeway is labeled as “1”, and the highest priority spot improvement is labeled as “1”. In the future, the priority ranking may be further refined to account for upcoming roadway projects into which the recommendations could be incorporated, and to incorporate public feedback or other criteria.


Green Bay Safe Walk & Bike Plan
MAP 3
Bicycle Network Prioritization
Shared-Use Path
Informal Path
Previously Planned Shared-Use Path
Spot Improvement Ranking
Top Priority (1.0 - 4.5)
High to Mid Priority (4.5 - 8.0)
Mid to Lower Priority (8.0 - 11.5)
Lower Priority (11.5 - 15.0)
On-Street Bikeway Ranking
Top Priority (1 - 23)
High to Mid Priority (23 - 46)
Mid to Lower Priority (46 - 68
Lower Priority (68 - 90)
Off-Street Bikeway Ranking
Top Priority (1.0 - 3.3)
High to Mid Priority (3.3 - 5.
Mid to Lower Priority (5.5 - 7
Lower Priority (7.8 - 10.0)
0 1 2 3 4 5 mi
MASON ST
WEST POINT RD
SOUTH POINT RD
WOOD LN
PACKERLAND DR
TAYLOR ST
MILITARY AV
WESTERN AV
FISK ST
DOUSMAN ST
SHAWANO AV
MATHER ST
GRAY ST
VELP AV
HURLBUT ST
ATKINSON DR
RIVERDALE DR
I-41
I-43
LOMBARDI AV
RIDGE RD
ONEIDA ST
9TH ST
12TH AV
ASHLAND AV
WALNUT
ADAMS ST
MONROE AV
STATE ST
BAIRD ST
QUINCY ST
IRWIN AV
RADISSON ST
EAST SHORE DR
EASTMAN AV
UNIVERSITY AV
STURGEON BAY RD
HENRY ST
DANZ AV
DECKNER AV
BADER ST
MAIN ST
ALPINE DR
KALB AV
DEBRA LN
LIME KILN RD
VERLIN RD
GUNS ST
MANITOWOC RD
WEBSTER AV
RIVERSIDE DR
LIBAL ST
BELLEVUE ST
EAST RIVER DR
ALLOUEZ AV


Green Bay Safe Walk & Bike Plan
MAP 4
Bicycle Network Prioritization
Shared-Use Path
Informal Path
Previously Planned Shared-Use Path
Spot Improvement Ranking
Top Priority (1.0 - 4.5)
High to Mid Priority (4.5 - 8.0)
Mid to Lower Priority (8.0 - 11.5)
Lower Priority (11.5 - 15.0)
On-Street Bikeway Ranking
Top Priority (1 - 23)
High to Mid Priority (23 - 46)
Mid to Lower Priority (46 - 68)
Lower Priority (68 - 90)
Off-Street Bikeway Ranking
Top Priority (1.0 - 3.3)
High to Mid Priority (3.3 - 5.5)
Mid to Lower Priority (5.5 - 7.8)
Lower Priority (7.8 - 10.0)
0 1 2 3 4 5 mi
N
NICOLET DR
SCOTTWOOD DR
BAY SETTLEMENT RD
ALGOMA RD
STURGEON BAY RD
EAST SHORE DR
RADISSON ST
HURLBUT ST
VELP AV
ATKINSON DR
I-43
MATHER ST
GRAY ST
DOUSMAN ST
WALNUT ST
12TH AV
QUINCY ST
WEBSTER AV
IRWIN AV
EASTMAN AV
UNIVERSITY AV
HUMBOLDT RD
HENRY ST
DANZ AV
DECKNER AV
ADAMS ST
ASHLAND AV
STATE ST
MONROE AV
BAIRD ST
BADER ST
MASON ST
MAIN ST
ALPINE DR
SUPERIOR RD
SITKA ST
HURON RD
KALB AV
DEBRA LN
LIME KILN RD
RIVERSIDE DR
LIBAL ST
BELLEVUE ST
ALLOUEZ AV
VERLIN RD
GUNS ST
MANITOWOC RD
GREENBRIER RD
ONTARIO RD

4. Sidewalk Network Recommendations

This chapter identifies a network of proposed sidewalks throughout Green Bay and the Green Bay Area Public School District. Outside the City limits, the only sidewalks recommended are those that would improve safety for students walking to school, while within the City limits there are school-related recommendations as well as citywide recommendations.

The City of Green Bay has a relatively complete network of sidewalks in the central portions of the city, however the network become more incomplete further from the central core. Many miles of streets lack sidewalks within Green Bay. These recommendations call for providing sidewalks on arterial and collector streets before local streets since these streets tend to carry heavier volumes of vehicular traffic and are more likely to be on Metro Transit routes. Sidewalks are also recommended on local streets with high concentrations of students to help support walking and bicycling to school.

In some instances, sidewalks are recommended on only one side of the street. While the presence of sidewalks on both sides of all streets is ideal for walking, it was thought that recommending sidewalks everywhere they are missing would be cost-prohibitive. In most cases, when this plan recommends sidewalk for only one side of the street, the sidewalk could be constructed on either side. However, in areas where sidewalk is only provided on one side of the street, care should be taken to create a network that minimizes the need for extra street crossings.

Implementation Timeframes

The recommendations presented in this plan are presented as short, medium, and long-Term recommendations. In general, timeframes were assigned based on the complexity of each recommendation:

- **Short term:** The simplest recommendations were listed as short-term. If implementation began immediately, it is estimated that they could be installed within **5 years.**
- **Medium term:** Projects of moderate complexity were shown as medium-term. It is estimated that they could be implemented within **5-10 years.**
- **Long term:** The most complex projects were recommended as long-term. It is estimated that they could be implemented **10 years** or more in the future.

Recommendations

The following proposed sidewalks are shown on Maps 5 and 6. Full size versions of the maps are included as a separate document. The numerical labels for each line on the map correspond to the numbers in the table that follows.


Green Bay Safe Walk & Bike Plan
MAP 5
Proposed Sidewalk Network
Proposed Sidewalks
Proposed Shared-Use Path
Proposed Sidepath
Planned Shared-Use Path
Existing Sidepath
Existing Shared-Use Path
Existing Informal Path
RIVERVIEW DR
VELP AV
I-41
HURLBUT ST
RIVERDALE DR
HILLCREST DR
TAYLOR ST
BOND ST
MILITARY AV
DOUSMAN ST
MATHER ST
PACKERLAND DR
WESTERN AV
SHAWANO AV
GRAY ST
I-43
EAST SHORE DR
RADISSON ST
MASON ST
FISK ST
QUINCY ST
IRWIN AV
EASTMAN AV
WEST POINT RD
9TH ST
RIDGE RD
ASHLAND AV
WALNUT
12TH AV
UNIVERSITY AV
HAZELWOOD LN
SOUTHPOINT RD
WOOD LN
LOMBARDI AV
ONEIDA ST
ADAMS ST
HENRY ST
DANZ AV
DECKNER AV
SHADY LN
MORRIS AV
CORMIER RD
STATE ST
MONROE AV
WEBSTER AV
BAIRD ST
MAIN ST
BADER ST
HOLMGREN WY
KALB ST
DEBRA LN
LIBAL ST
ALLOUEZ AV
BELLEVUE ST
VERLIN RD
LIME KILN RD
GUNS ST
MANITOWOC RD
STH 172
CAROLE LN
PILGRIM WY
HANSEN RD
WAUBE LN
GREENE AV
RIVERSIDE DR


Green Bay Safe Walk & Bike Plan
MAP 6
Proposed Sidewalk Network
Proposed Sidewalks
Proposed Shared-Use Path
Proposed Sidepath
Planned Shared-Use Path
Existing Sidepath
Existing Shared-Use Path
Existing Informal Path
EAST SHORE DR
STURGEON BAY RD
HUMBOLDT RD
UNIVERSITY AV
MASON ST
GREENBRIER RD
EATON RD
ALLOUEZ AV
MAIN ST
SITKA ST
FINGER RD
NEW FRANKEN RD
KEWAUNEE RD
ALGOMA RD
NICOLET DR
BAY SETTLEMENT RD
STURGEON BAY RD
MATHER ST
DOUSMAN ST
SHAWANO AV
WALNUT ST
9TH ST
QUINCY ST
IRWIN AV
EASTMAN AV
RADISSON ST
HENRY ST
DANZ AV
DECKNER AV
ALPINE DR
SUPERIOR RD
BADER ST
BAIRD ST
ADAMS ST
MONROE AV
ASHLAND AV
RIVERSIDE DR
WEBSTER AV
LIBAL ST
BELLEVUE ST
VERLIN RD
DEBRA LN
LIME KILN RD
GUNS ST
ONTARIO RD
HURON RD
MANITOWOC RD
HOFFMAN RD
GREENE AV
ERIE ST
MONROE RD
I-43
STH 172

Recommended Sidewalk Details

#	Location	Recommendation	Timeframe
3001	Monroe Avenue from Porlier Street to Eliza Street	Perform sidewalk maintenance to correct damage (east side)	Medium
3002	Webster Avenue from Lawe Street to Porlier Street	During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street (west side)	Long
3003	Monroe Avenue from existing sidewalk / Green Bay city boundary to halfway to Quincy Court (including new crosswalk across Monroe Avenue)	Construct new sidewalk (west side)	Medium
3004	Webster Avenue from Lawe Street to Porlier Street	During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street (east side)	Long
3005	Humboldt Road from Laverne Drive to existing sidewalk	Construct new sidewalk (south side)	Short
3006	Laverne Drive from Humboldt Road to Concordia Lane	Construct new sidewalk (east side)	Short
3007	Laverne Drive from parking lot to Brook Park Drive	Construct new sidewalk (west side)	Short
3008	Van Caster Drive from Humboldt Road to Greenview Drive	Construct new sidewalk (one side)	Long
3009	Greenview Drive from Laverne Drive to Van Caster Drive	Construct new sidewalk (one side)	Long
3010	Concordia Lane from existing sidewalk to Van Caster Drive	Construct new sidewalk (north side)	Long
3011	Mount Mary Circle from Saint Anthony Drive to end of street and then connecting to Curry Court	Construct new sidewalk (one side)	Medium
3012	Mount Mary Drive from Humboldt Road to Saint Anthony Drive	Construct new sidewalk (one side)	Long
3013	Greenview Drive from Van Caster Drive to existing path at Lorraine Lane	Construct new sidewalk (one side)	Long
3014	Colleen Drive from Laverne Drive to Vancaster Drive	Construct new sidewalk (one side)	Medium
3015	Sue Lane from Biemeret Street to Liberty Street	Construct new sidewalk (west side)	Short
3016	From Sue Lane to Beaumont Elementary School	Construct new sidewalk	Short
3017	Fisk Street from Fisk Street cul-de-sac to Bond Street	Construct new sidewalk (one side)	Long
3018	Shawano Avenue from Military Avenue to Alvina Street	During the next roadway reconstruction, explore widening the sideway or adding a buffer zone between the sidewalk and the street (south side)	Long
3019	Shawano Avenue from Military Avenue to Alvina Street	During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street (north side)	Long
3020	East River Drive from Hoffman Road to Lebrun Street	Construct new sidewalk (east side)	Short
3021	Libal Street from Longview Avenue to Lebrun Street	Construct new sidewalk (east side)	Short
3022	Lebrun Street from Webster Avenue to Libal Street	Construct new sidewalk (north side)	Short

3023	Delahaut Street from Hilltop Drive to Lebrun Street	Construct new sidewalk (one side)	Short
3024	Longview Avenue from Delahaut Street to Libal Street	Construct new sidewalk (one side)	Short
3025	Longview Avenue from Doty Elementary School property to East River Drive	Construct new sidewalk (one side)	Short
3026	Lebrun Street from Libal Street to McCastlen Street	Construct new sidewalk (one side)	Short
3027	East River Drive from Hoffman Road to Lebrun Street	Construct new sidewalk (west side)	Short
3028	Briar Lane and Briar Terrace from Libal Street to existing path connecting to existing path east of Glenhaven Lane	Construct new sidewalk (north side)	Medium
3029	Briar Lane and Briar Terrace from Libal Street to existing path connecting to existing path east of Glenhaven Lane	Construct new sidewalk (south side)	Medium
3030	Sunrise Lane from existing path connecting to school to existing path east of Glenhaven Lane	Construct new sidewalk (one side)	Medium
3031	Kenney Street from Clay Street to Libal Street	Construct new sidewalk (one side)	Long
3032	Clay Street from Longview Avenue to Lebrun Street	Construct new sidewalk (one side)	Long
3033	Vande Hei Road from Delahaut Street to Libal Street	Construct new sidewalk (one side)	Long
3034	Vande Hei Road from Webster Avenue to Delahaut Street	Construct new sidewalk (one side)	Long
3035	Somerset Drive from Libal Street to East River Drive	Construct new sidewalk (one side)	Long
3036	Briar Lane from existing path east of Glenhaven Lane to East River Drive	Construct new sidewalk (one side)	Long
3038	Menlo Park Road from existing sidewalk in front of school to Finger Road	Construct new sidewalk (one side)	Medium
3039	Alpine Drive from Deckner Avenue to Newberry Avenue	Construct new sidewalk (west side)	Short
3040	Mason Street from Edgewood Drive to Alpine Drive	Construct new sidewalk (north side)	Short
3041	Mason Street from Edgewood Drive to Alpine Drive	Construct new sidewalk (south side)	Short
3042	Mason Street from Alpine Drive to Stonehedge Road	Construct new sidewalk (north side)	Short
3043	Melo Park Road from existing sidewalk in front of school to Newberry Avenue	Construct new sidewalk (one side)	Medium
3044	Sherry Lane from Harvest Road to Alpine Drive	Construct new sidewalk (one side)	Medium
3045	Finger Road from Edgewood Drive to Alpine Drive	Construct new sidewalk (one side)	Medium
3046	Malcore Drive from Alpine Drive to Tyrolian Drive	Construct new sidewalk (one side)	Long
3047	Tyrolian Drive from Le Capitaine Circle to Sherry Lane	Construct new sidewalk (one side)	Long
3048	Stonehedge Road from the Stonehedge Road cul-de-sac to Finger Road	Construct new sidewalk (one side)	Long
3049	Sherry Lane / Edward Drive from Tyrolian Drive to Stonehedge Road	Construct new sidewalk (one side)	Long
3050	Sherry Lane from Alpine Drive to Tyrolian Drive	Construct new sidewalk (one side)	Long

3051	Edgewood Drive from Finger Road to Mason Street	Construct new sidewalk (one side)	Long
3052	Alpine Drive from Deckner Avenue to Mason Street	Construct new sidewalk (east side)	Short
3053	Harvest Road from Sherry Lane to Finger Road	Construct new sidewalk (one side)	Long
3054	Hillside Lane from Harvest Road to Menlo park Road	Construct new sidewalk (one side)	Medium
3055	Delwood Drive from Delwiche Road to Menlo Park Road	Construct new sidewalk (one side)	Medium
3056	Delwood Drive from Harvest Road to Delwiche Road	Construct new sidewalk (one side)	Long
3057	Newberry Avenue from Menlo Park Road to Alpine Drive	Construct new sidewalk (south side)	Medium
3058	Newberry Avenue / Le Capitaine Circle from Alpine Drive to Tyrolian Drive	Construct new sidewalk (one side)	Long
3059	Ethel Avenue from Bond Street to Elmore Street	Perform sidewalk maintenance to correct damage (east side)	Medium
3060	Ethel Avenue from Bond Street to Elmore Street	Perform sidewalk maintenance to correct damage (west side)	Medium
3061	Hudson Street from 60 feet north to 60 feet south of the railroad crossing	During the next roadway reconstruction, explore widening the sidewalk (east side)	Long
3062	Washington Street from Crooks Street to Adam Street	Construct new sidewalk (west side)	Short
3063	Ridge Road from 9th Street to Langlade Avenue	During the next roadway reconstruction, explore widening the sidewalk (west side)	Long
3064	Augusta Street / Harrison Street from Ashland Avenue to Garden Street	Construct new sidewalk (one side)	Medium
3065	Taylor Street from Dousman Street to existing sidewalk	Construct new sidewalk (east side)	Short
3066	Bond Street from existing sidewalk near Westplain Drive to Taylor Street	Construct new sidewalk (north side)	Medium
3067	Bond Street from east edge of school property to Morley Road	Construct new sidewalk (north side)	Short
3068	Bond Street from Morley Road to Military Avenue	Construct new sidewalk (north side)	Short
3069	Nancy Avenue from Westplain Drive to existing sidewalk near Conover Drive	Construct new sidewalk (north side)	Long
3070	Nancy Avenue from existing sidewalk near Conover Drive to David Drive	Construct new sidewalk (north side)	Long
3071	Nancy Avenue from existing sidewalk west of Steven Street to Steven Street	Construct new sidewalk (north side)	Long
3072	Nancy Avenue from existing sidewalk west of Steven Street to Steven Street	Construct new sidewalk (south side)	Long
3073	Steven Street from existing sidewalk near Susan Lane to Nancy Avenue	Construct new sidewalk (east side)	Medium
3074	Steven Street from Boland Road to Nancy Avenue	Construct new sidewalk (west side)	Long
3075	Murphy Drive (filling in the gap south of Murphy Court)	Construct new sidewalk (west side)	Long
3076	Nancy Avenue from Steven Street to existing sidewalk west of Murphy Drive	Construct new sidewalk (south side)	Medium

3077	Nancy Avenue from Steven Street to existing sidewalk west of Murphy Drive	Construct new sidewalk (north side)	Medium
3078	Westfield Avenue (filling in the gap west of Murphy Drive)	Construct new sidewalk (south side)	Long
3079	Steven Street from Nancy Avenue to existing sidewalk south of Westfield Avenue	Construct new sidewalk (east side)	Long
3080	Taylor Street from Bond Street to existing sidewalk north of Dousman Street	Construct new sidewalk (west side)	Short
3081	Regan Street / Badger Street from Christiana Street to existing sidewalk	Construct new sidewalk (south/ west side)	Long
3082	Badger Street /Blithe Street / Christiana Street from Taylor Street to Regan Street	Construct new sidewalk (one side)	Long
3083	Badger Street from Reserve Street to existing sidewalk east of Siegler Street	Construct new sidewalk (south side)	Long
3084	Badger Street (filling in the gap west of Badger Lane)	Construct new sidewalk (south side)	Long
3085	Badger Lane from existing sidewalk north of Badger Street to Badger Street)	Construct new sidewalk (west side)	Long
3086	Mason Street from Taylor Street to east of Bentwood Drive	Construct new sidewalk (south side)	Short
3087	Mason Street from east of Bentwood Drive to Mitchell Street	Construct new sidewalk (south side)	Short
3088	Stony Brook Lane from Birch Street to existing sidewalk to the south	Construct new sidewalk (east side)	Long
3089	Spruce Street and Mitchell Street from existing sidewalks on Spruce Street to Mason Street	Construct new sidewalk (one side)	Long
3090	Taylor Street from 7th Street to 9th Street	Construct new sidewalk (west side)	Short
3091	Taylor Street from existing sidewalk at the traffic circle to 9th Street	Construct new sidewalk (east side)	Short
3092	7th Street from Taylor Street to Chantel Street	Construct new sidewalk (south side)	Medium
3093	7th Street from Taylor Street to Wentworth Street	Construct new sidewalk (north side)	Long
3094	Beaver Dam Drive and Wentworth Street from Mason Street to 7th Street	Construct new sidewalk (one side)	Long
3095	Michaline Drive from 7th Street to Chantel Street	Construct new sidewalk (one side)	Long
3096	Florence Avenue and Janice Avenue from existing sidewalk on south side of Janice Street to 9th Street	Construct new sidewalk (west / south side)	Long
3097	Langlade Avenue from Rosalie Lane to existing sidewalk east of Katers Drive	Construct new sidewalk (north side)	Long
3098	Argonne Drive from Langlade Avenue to existing sidewalk south of Richland Drive	Construct new sidewalk (one side)	Medium
3099	Argonne Drive from Langlade Avenue to Forest Glen Drive	Construct new sidewalk (one side)	Medium
3100	Argonne Drive from Forest Glen Drive to Kennedy Drive	Construct new sidewalk (one side)	Long

3101	Biemeret Street from Argonne Drive to existing sidewalk east of Arnold Drive	Construct new sidewalk (south side)	Medium
3102	Biemeret Street from existing sidewalk east of Wiesner Street to Argonne Drive	Construct new sidewalk (south side)	Long
3103	Nelson Street from 9th Street to existing path intersecting Nelson Street	Construct new sidewalk (one side)	Long
3104	Wiesner Street from Forest Glen Drive to Biemeret Street and Biemeret Street from Nelson Street to Wiesner Street	Construct new sidewalk (west side on the north-south segment and one side on the east-west segment)	Long
3105	Nelson Street from existing path intersecting Nelson Street to Biemeret Street	Construct new sidewalk (one side)	Long
3106	Chantel Street from Beaver Dame Drive to 7th Street	Construct new sidewalk (one side)	Medium
3107	Dancing Dunes Drive from Painted Trail Court to Telemark Court	Construct new sidewalk (one side)	Medium
3108	Dancing Dunes Drive from West Point Road to Painted Trail Court	Construct new sidewalk (west side)	Medium
3109	West Point Road from Hillcrest Drive to King of Arms Drive	Construct new sidewalk (south side)	Short
3110	West Point Road from Hillcrest Drive to King of Arms Drive	Construct new sidewalk (north side)	Short
3111	Ferndale Drive from Crestwood Drive to existing sidewalk west of Rona Lane and Crestwood Drive from Ferndale Drive to West Point Road	Construct new sidewalk (east and south sides)	Medium
3112	Ferndale Drive from La Count Road to Dancing Dunes Drive and Dancing Dune Drive from Ferndale Drive to West Point Road	Construct new sidewalk (one side)	Long
3113	Hillcrest Drive from Mason Street to West Point Road	Construct new sidewalk (one side)	Medium
3114	Crusade Lane / Arabian Drive / Painted Trail from north of Squire Court to Dancing Dunes Drive	Construct new sidewalk (one side)	Long
3115	King of Arms Drive from West Point Road to Crusade Lane	Construct new sidewalk (one side)	Long
3116	Roselawn Boulevard from Riverside Drive to Webster Avenue	Construct new sidewalk (one side)	Medium
3117	Broadview Drive from Webster Avenue to Pennwood Circle	Construct new sidewalk (north side)	Short
3118	Briar Lane from Riverside Drive to Webster Avenue	Construct new sidewalk (one side)	Medium
3119	From Broadview Drive to Langlade Elementary School	Construct new sidewalk	Short
3120	From Libal Street to the Langlade Elementary School playground	Construct new sidewalk	Short
3121	From Libal Street to existing path (south of the playground and north of Terraview Drive properties)	Construct new sidewalk	Short
3122	Broadview Drive from Grande Rue to East River Drive	Construct new sidewalk (one side)	Short
3123	Waubenoor Drive from Hoffman Road to Broadview Drive	Construct new sidewalk (one side)	Long
3124	Terraview Drive from Grande Rue to Ridgeview Court	Construct new sidewalk (one side)	Long

3125	Grande Rue from Terraview Drive to Broadview Drive	Construct new sidewalk (one side)	Long
3126	Greenwald Street from Greene Avenue to Simonet Street	Construct new sidewalk (one side)	Long
3127	East River Drive from Green Avenue to Hoffman Road	Construct new sidewalk (west side)	Medium
3128	Broadview Drive from East River Drive to Broadview Drive cul-de-sac	Construct new sidewalks (one side)	Medium
3129	Bellevue Street from Allouez Avenue to the city boundary	Construct new sidewalk (west side)	Medium
3130	Webster Avenue from Broadview Drive to Roselawn Boulevard	During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street (east side)	Long
3131	From Popple Court to Longview Avenue	Construct new sidewalk	Medium
3132	East River Drive from Merlin Drive to Hoffman Road	Construct new sidewalk (east side)	Long
3133	Riverside Drive from Roselawn Boulevard to city boundary	Construct new sidewalk (east side)	Medium
3134	Saint Mary's Boulevard from Riverside Drive to Webster Avenue	Construct new sidewalk (one side)	Medium
3135	Riverside Drive from Lazarre Avenue to existing sidewalk south of Saint Mary's Boulevard	Construct new sidewalk (east side)	Long
3136	Riverside Drive from STH 172 to Stambaugh Road	Construct new sidewalk (west side)	Medium
3137	Greene Avenue from Libal Street to cul-de-sac east of East River Drive	Construct new sidewalk (south side)	Medium
3138	Webster Avenue from Broadview Drive to Roselawn Boulevard	During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street (west side)	Long
3139	Bellevue Street from existing sidewalk north of Allouez Avenue to the city boundary	Construct new sidewalk (east side)	Long
3140	From Wolf Court to Longview Avenue	Construct new sidewalk	Medium
3141	Shawano Avenue from Hudson Street to Oak Street	Construct new sidewalk (south side)	Long
3142	Vestco Court / Brocoin Way / Ramada Lane / Baumgart Road from existing sidewalk west of Brocoin Way to West Point Road	Construct new sidewalk (one side)	Medium
3143	Crestwood Drive from Tradewinds Trail to Ferndale Drive	Construct new sidewalk (one side)	Long
3144	Ferndale Drive from Crestwood Drive to existing sidewalk west of Rona Lane	Construct new sidewalk (north side)	Long
3145	Sorenson Drive from La Count Road to Sorenson Drive	Construct new sidewalk (one side)	Long
3146	South Point Road from Henrisa Lane to Hazelwood Lane	Construct new sidewalk (east side)	Short
3147	Hazelwood Lane from South Point Road to Packerland Drive	Construct new sidewalk (north side)	Short
3148	Hazelwood Lane from South Point Road to Packerland Drive	Construct new sidewalk (south side)	Short
3149	Hazelwood Lane from Packerland Drive to Parkwood Drive	Construct new sidewalk (south side)	Short

3150	Hazelwood Lane from Packerland Drive to Wood Lane	Construct new sidewalk (north side)	Medium
3151	South Point Road from Hazelwood Lane to Cormier Road	Construct new sidewalk (west side)	Short
3152	South Point Road from Hazelwood Lane to Cormier Road	Construct new sidewalk (east side)	Medium
3153	Cormier Road from existing sidewalk east of Packerland Drive to city boundary	Construct new sidewalk (one side)	Medium
3154	Hobart Drive from Mason Frontage Road to West Point Road	Construct new sidewalk (west side)	Short
3155	Hobart Drive from existing sidewalk south of Bellwood Lane to Mason Frontage Road	Construct new sidewalk (east side)	Long
3156	Beech Tree Drive from 9th Street to Shamrock Lane	Construct new sidewalk (one side)	Long
3157	Acorn Drive and West Point Terrace from 9th Street to Beech Tree Drive	Construct new sidewalk (one side)	Long
3158	Mason Frontage Road from Hobart Drive to the end of Mason Frontage Road	Construct new sidewalk (one side)	Medium
3159	Mason Street from existing sidewalk east of Hinkle Street to Hinkle Street	Construct new sidewalk (north side)	Short
3160	Larsen Road and Hinkle Street from Mason Street to Interstate 41	Construct new sidewalk (one side)	Medium
3161	Wood Lane from West Point Road to Hazelwood Lane	Construct new sidewalk (one side)	Medium
3162	From Red Oak Drive to 9th Street	Construct new sidewalk	Long
3163	Mason Street from Bader Street to Edgewood Drive	Construct new sidewalk (north side)	Short
3164	Mason Street from Bader Street to Edgewood Drive	Construct new sidewalk (south side)	Short
3165	Bader Street from Hillside Lane to Mason Street	Construct new sidewalk (east side)	Short
3166	Hillside Lane from Bader Street to Skyline Boulevard	Construct new sidewalk (south side)	Medium
3167	Finger Road from Ravenswood Drive to Pinehurst Avenue	Construct new sidewalk (one side)	Medium
3168	Finger Road from Pinehurst Avenue to Edgewood Drive	Construct new sidewalk (one side)	Medium
3169	Pinehurst Avenue from Sunrise Court to Finger Road	Construct new sidewalk (east side)	Medium
3170	Crest Lane from Pinehurst Avenue to Edgewood Drive	Construct new sidewalk (one side)	Long
3171	Sunrise Court from Pinehurst Avenue to Crest Lane	Construct new sidewalk (one side)	Long
3172	Pinehurst Avenue from Hillside Lane to Sunrise Court	Construct new sidewalk (one side)	Long
3173	Edgewood Drive from Crest Lane to Finger Road	Construct new sidewalk (one side)	Long
3174	Finger Road from Eastview Drive to Ravenswood Drive	Construct new sidewalk (one side)	Long
3175	Eastwood Drive from Sunrise Court to Finger Road	Construct new sidewalk (one side)	Long
3176	Hillside Lane from Skyline Boulevard to Wesley Avenue	Construct new sidewalk (one side)	Long
3177	Hillside Lane from Wesley Avenue to Pinehurst Avenue	Construct new sidewalk (one side)	Long

3178	Sunnycrest Street from existing sidewalk north of Finger Road to Finger Road	Construct new sidewalk (east side)	Long
3179	Hillside Lane from Pinehurst Avenue to Harvest Drive	Construct new sidewalk (one side)	Long
3180	Ontario Road from Eaton Road to Essen Road	Construct new sidewalk (west side)	Short
3181	Ontario Road from Essen Road to Willow Road	Construct new sidewalk (west side)	Short
3182	Ontario Road from Essen Road to Willow Road	Construct new sidewalk (east side)	Short
3183	Ontario Road from Egan Lane to Essen Road	Construct new sidewalk (east side)	Short
3184	Joy Lane cul-de-sac (southern side from existing sidewalk)	Construct new sidewalk (south side)	Long
3185	Joy Lane cul-de-sac (northern side from existing sidewalk)	Construct new sidewalk (north side)	Long
3186	Essen Road from Dorset Drive to Emerald Drive	Construct new sidewalk (north side)	Medium
3187	Dorset Drive / Madrid Drive from Brighton Place to the eastern leg of Lucerne Circle	Construct new sidewalk (south side)	Medium
3188	Continental Drive / Madrid Drive from Manitowoc Road to the eastern leg of Lucerne Circle	Construct new sidewalk (south side)	Long
3189	Spring Creek Circle from Juneberry Drive to Blue Moon Drive	Construct new sidewalk (south side)	Medium
3190	Essen Road from Ontario Road to existing sidewalk east of Wheat Way	Construct new sidewalk (south side)	Medium
3191	Essen Road from Ontario Road to existing sidewalk east of Wheat Way	Construct new sidewalk (north side)	Medium
3192	Egan Lane from Ontario Road to Egan Lane cul-de-sac	Construct new sidewalk (south side)	Long
3193	Egan Lane from Ontario Road to Egan Lane cul-de-sac	Construct new sidewalk (north side)	Long
3194	Emerald Drive / Blue Moon Drive / proposed east/west path from Eaton Road to Ontario Road	Construct new sidewalk (east side)	Long
3195	Ontario Road from Blue Moon Drive to Eaton Road	Construct new sidewalk (west side)	Medium
3196	Ontario Road from Blue Moon Drive to Eaton Road	Construct new sidewalk (east side)	Long
3197	Ontario Road (filling in the gap immediately north of Blue Moon Drive)	Construct new sidewalk (east side)	Long
3198	Ontario Road (filling in the gap ~250 feet north of Blue Moon Drive	Construct new sidewalk (east side)	Long
3199	Ontario Road from Greenbrier Road to existing sidewalk south of the city limit	Construct new sidewalk (east side)	Long
3200	Happiness Circle / Carnation Drive / Mayflower Road / Juneberry Drive from Greenbrier Road to Eaton Road	Construct new sidewalk (west side)	Long
3201	Greenbrier Road from I-43 to Happiness Circle	Construct new sidewalk (one side)	Long
3202	Ontario Road from Greenbrier Road to Blue Moon Drive	Construct new sidewalk (west side)	Long
3203	Continental Drive from Main Street to Manitowoc Road	Construct new sidewalk (south side)	Long

3204	Eaton Road from Continental Drive to Manitowoc Road	Construct new sidewalk (east side)	Long
3205	From Crystal Springs Drive to Ontario Road (near Evening Star Drive)	Construct new sidewalk	Medium
3206	Evening Star Drive from Ontario Road to Evening Star Drive cul-de-sac	Construct new sidewalk (one side)	Long
3207	Manitowoc Road from existing sidewalk south of Allouez Avenue to Klondike Road	Construct new sidewalk (west side)	Medium
3208	Manitowoc Road from existing sidewalk south of Allouez Avenue to Willow Road	Construct new sidewalk (east side)	Medium
3209	Willow Road from Manitowoc Road to Ontario Road	Construct new sidewalk (north side)	Medium
3210	Manitowoc Road from Klondike Road to Ontario Road	Construct new sidewalk (south side)	Medium
3211	Manitowoc Road from Willow Road to Ontario Road	Construct new sidewalk (east side)	Medium
3212	Manitowoc Road / Kewaunee Road from Ontario Road to Huron Road / Cottage Road	Construct new sidewalk (west and south sides)	Medium
3213	Manitowoc Road / Kewaunee Road from Ontario Road to Huron Road / Cottage Road	Construct new sidewalk (east and north sides)	Medium
3214	Huron Road from existing sidewalk north of Willow Road to Kewaunee Road	Construct new sidewalk (west side)	Medium
3215	Willow Road from Ontario Road to Huron Road	Construct new sidewalk (one side)	Long
3216	Klondike Road / Main Street from Vail Court to ~ 900 feet north of Kewaunee Road	Construct new sidewalk (south side)	Medium
3217	Main Street from existing sidewalk south of the traffic circle at Allouez Avenue to Klondike Road	Construct new sidewalk (west side)	Medium
3218	Allouez Avenue from existing sidewalk on Main Street to existing sidewalk west of Gemini Road	Construct new sidewalk (north side)	Medium
3219	Main Street from existing sidewalk south of the traffic circle at Allouez Avenue to Manitowoc Road	Construct new sidewalk (east side)	Medium
3220	Klondike Road from Main Street to Manitowoc Road	Construct new sidewalk (one side)	Medium
3221	Eaton Road from Huron Road to 2,500 feet east of Grandview Road	Construct new sidewalk (one side)	Short
3222	Willow Road from Huron Road to Erie Road	Construct new sidewalk (one side)	Long
3223	Erie Road from Eaton Road to Willow Road	Construct new sidewalk (one side)	Long
3224	Erie Road from Eaton Road to the city boundary	Construct new sidewalk (one side)	Long
3225	Willow Road from Manitowoc Road to Ontario Road	Construct new sidewalk (south side)	Long
3226	Ontario Road from Willow Road to Main Street	Construct new sidewalk (west side)	Medium
3227	Ontario Road from Willow Road to Main Street	Construct new sidewalk (east side)	Medium

3228	Greenbrier Road from Happiness Circle (left entrance) to Ontario Road	Construct new sidewalk (one side)	Long
3229	Essen Road from Dorset Drive / Madrid Drive to Emerald Drive	Construct new sidewalk (south side)	Medium
3230	Allouez Avenue from I-43 to Main Street	Construct new sidewalk (one side)	Medium
3231	Main Street from Continental Drive / Continental Court to Allouez Avenue	Construct new sidewalk (one side)	Medium
3232	Eaton Road from Juneberry Drive / Spring Creek Circle (west entrance) to Huron Road	Construct new sidewalk (north side)	Medium
3233	Continental Drive / Madrid Drive / Dorset Drive from Manitowoc Road to Brighton Place	Construct new sidewalk (north side)	Long
3234	Spring Creek Circle from Juneberry Drive to Blue Moon Drive	Construct new sidewalk (east, north, and west sides)	Long
3235	Happiness Circle / Carnation Drive / Mayflower Road / Juneberry Drive from Greenbrier Road to Eaton Road	Construct new sidewalk (east side)	Long
3236	Continental Drive / Eaton Road from Main Street to Manitowoc Road	Construct new sidewalk (north and west sides)	Long
3237	Emerald Drive / Blue Moon Drive / proposed east/west path from Blue Moon Drive cul-de-sac to Ontario Road	Construct new sidewalk (west side)	Long
3238	Continental Drive from Eaton Road to Manitowoc Road	Construct new sidewalks (north side)	Long
3239	Deckner Avenue from Swiss Hill Drive to Alpine Drive	Construct new sidewalk (south side)	Short
3240	Deckner Avenue from Apple Tree Court to Alpine Drive	Construct new sidewalk (north side)	Short
3241	Brook Street from Danz Avenue to existing path east of Berwyn Avenue	Construct new sidewalk (south side)	Medium
3242	Wildwood Drive from Wesley Avenue to Hillside Lane	Construct new sidewalk (one side)	Long
3243	Wesley Avenue from existing sidewalk south of Newberry Avenue to Wildwood Drive	Construct new sidewalk (one side)	Long
3244	Durham Road from Church Road to Baywatch Drive	Construct new sidewalk (one side)	Medium
3245	Durham Road from Fagerville Way to Yorkshire Road and Yorkshire Road from Durham Road to Fagerville Way	Construct new sidewalk (one side)	Medium
3246	Durham Road from Yorkshire Road to cul-de-sac south of Wiggins Way	Construct new sidewalk (one side)	Medium
3247	Fagerville Way from Durham Road to Sussex Road	Construct new sidewalk (south side)	Medium
3248	Durham Road from Baywatch Drive to Fagerville Way	Construct new sidewalk (west side)	Medium
3249	Davies Avenue from Nicolet Drive to Durham Road	Construct new sidewalk (one side)	Long
3250	Cottage Hill Drive and Classic Drive from Davies Avenue to Durham Road	Construct new sidewalk (one side)	Long
3251	Nicolet Drive from Church Road to Scottwood Drive	Construct new sidewalk (one side)	Short
3252	Nicolet Drive from creek to Church Road	Construct new sidewalk (one side)	Short

3253	Scottwood Drive from Nicolet Drive to Sussex Road	Construct new sidewalk (one side)	Short
3254	Sussex Road from Wiggins Way to Scottwood Drive / Algoma Road	Construct new sidewalk (one side)	Medium
3255	Algoma Road from Sussex Road to Bay Settlement Road	Construct new sidewalk (one side)	Short
3256	Bay Settlement Road from Church Road to Algoma Road	Construct new sidewalk (one side)	Short
3257	Church Road from Durham Road to Bay Settlement Road	Construct new sidewalk (one side)	Short
3258	Church Road from Nicolet Drive to Durham Road	Construct new sidewalk (one side)	Short
3259	Wiggins Way from Durham Road to Sussex Road	Construct new sidewalk (one side)	Long
3260	Sussex Road from existing sidewalk south of Church Road to existing sidewalk north of Glen Abbey Drive	Construct new sidewalk (west side)	Long
3261	Sussex Road from Church Road to existing sidewalk south of Church Road	Construct new sidewalk (west side)	Long
3262	From Bay Settlement Road to the proposed shared use path	Construct new sidewalk	Long
3263	Nicolet Drive from Scottwood Drive to the proposed shared use path near Highwood Lane	Construct new sidewalk (one side)	Medium
3264	Sussex Road from Church Road to existing sidewalk near Blackwolf Run	Construct new sidewalk (east side)	Long
3265	Mason Street from Hillcrest Drive to Mason Frontage Road	Construct new sidewalk (south side)	Medium
3266	Mason Frontage Road from Green Ridge Drive to end of Mason Frontage Road	Construct new sidewalk (one side)	Medium
3267	From end of Mason Frontage Road to La Count Road	Construct new sidewalk	Medium
3268	Mason Street from La Count Road to Crestwood Drive	Construct new sidewalk (south side)	Short
3269	Crestwood Drive from Mason Street to Mason Frontage Road and Mason Frontage Road from Crestwood Drive to Country Club Road	Construct new sidewalk (one side)	Short
3270	Mason Frontage Road from Country Club Road to Packerland Drive	Construct new sidewalk (one side)	Short
3271	Mason Frontage Road from Packerland Drive to Hobart Drive	Construct new sidewalk (one side)	Short
3272	Oakwood Drive from Packerland Drive to Wood Lane	Construct new sidewalk (one side)	Medium
3273	Edgewood Drive from West Point Road to Forestville Drive and Forestville Drive from Edgehill Drive to De Grand Street	Construct new sidewalk (one side)	Medium
3274	De Grand Street from Forestville Drive to Oakwood Drive	Construct new sidewalk (one side)	Long
3275	Cormier Road from South Point Road to Packerland Drive	Construct new sidewalk (one side)	Long
3276	Crestwood Drive from Mason Frontage Road to Tradewinds Trail	Construct new sidewalk (one side)	Long
3277	Larsen Road from Packerland Drive to Hinkle Street	Construct new sidewalk (one side)	Medium
3278	Packerland Drive from Mason Street to Larsen Road	Construct new sidewalk (east side)	Medium

3279	Mason Frontage Road from Packerland Drive to existing sidewalk connecting to Larsen Road	Construct new sidewalk (one side)	Medium
3280	Trojan Drive from Packerland Drive to Sorrento Drive	Construct new sidewalk (one side)	Medium
3281	Sorrento Drive and San Lorenzo Drive from Trojan Drive to Hobart Drive	Construct new sidewalk (one side)	Medium
3282	Packerland Drive from Southwest High School to West Point Road	During the next roadway reconstruction, explore widening the sidewalk (west side)	Long
3283	Packerland Drive from southern edge of school property to West Point Road	Perform sidewalk maintenance to correct damage (east side)	Medium
3284	Packerland Drive from existing sidewalk south of Trojan Drive to southern edge of school property	During the next roadway reconstruction, explore widening the sidewalk (east side)	Long
3285	Baird Street from Stuart Street to Crooks Street	Perform sidewalk maintenance to correct damage (east side)	Long
3286	Allouez Avenue from Webster Avenue to Libal Street	Construct new sidewalk (south side)	Short
3287	Libal Street from Allouez Avenue to Greene Avenue	Construct new sidewalk (west side)	Short
3288	East River Drive from Clover Lane to Greene Avenue	Construct new sidewalk (one side)	Short
3289	Beaumont Street from existing sidewalk south of Saint Matthews Street to Green Avenue	Construct new sidewalk (west side)	Medium
3290	From Beaumont Street to the back of Saint Matthew's Catholic Church	Construct new sidewalk	Medium
3291	Beaumont Street from Whitney Street to Saint Matthews Street	Construct new sidewalk (west side)	Medium
3292	Mission Road from Webster Avenue to Woodrow Way	Construct new sidewalk (south side)	Long
3293	Woodrow Way from Mission Road to Allouez Avenue	Construct new sidewalk (one side)	Long
3294	Woodrow Way from Allouez Avenue to Brookridge Street	Construct new sidewalk (one side)	Medium
3295	Dauphin Street from existing sidewalk west of Woodrow Way to Woodrow Way	Construct new sidewalk (south side)	Medium
3296	Dauphin Street from Webster Avenue to Woodrow Way	Construct new sidewalk (north side)	Medium
3297	From east edge of Webster Park to the back of the school	Construct new sidewalk	Long
3298	Saint Joseph Street from existing sidewalk near Webster Avenue to Libal Street	Construct new sidewalk (south side)	Short
3299	Saint Joseph Street from Libal Street to East River Drive	Construct new sidewalk (one side)	Long
3300	East River Drive from Saint Joseph Street to Allouez Avenue	Construct new sidewalk (one side)	Long
3301	Saint Joseph Street from existing sidewalk east of Riverside Drive to Webster Avenue	Construct new sidewalk (south side)	Short
3302	Riverside Drive from Allouez Avenue to Lazare Avenue	Construct new sidewalk (one side)	Short
3303	Riverside Drive from Allouez Avenue to Derby Lane	Construct new sidewalk (east side)	Short
3304	Derby Lane from Monroe Avenue to Webster Avenue	Construct new sidewalk (one side)	Short

3305	Jackson Street from existing sidewalk ending south of Catherine Street to Derby Lane	Construct new sidewalk (west side)	Long
3306	McCormick Street from Webster Avenue to existing sidewalk west of Roosevelt Street	Construct new sidewalk (north side)	Long
3307	McCormick Street from Roosevelt Street to Irwin Avenue	Construct new sidewalk (north side)	Medium
3308	Baird Street from existing sidewalk south of Grignon Street to Hastings Street	Construct new sidewalk (east side)	Long
3309	McCormick Street from Baird Street to the existing sidewalk west of Short Street	Construct new sidewalk (south side)	Long
3310	McCormick Street from Goodell Street to existing sidewalk west of Goodell Street	Construct new sidewalk (south side)	Long
3311	McCormick Street from Goodell Street to existing sidewalk west of Goodell Street	Construct new sidewalk (north side)	Long
3312	McCormick Street from existing sidewalk west of Short Street to existing sidewalk east of Short Street	Construct new sidewalk (north side)	Long
3313	McCormick Street from Baird Street to the existing sidewalk west of Short Street	Construct new sidewalk (north side)	Long
3314	Kalb Avenue from Webster Avenue to Libal Street	Construct new sidewalk (one side)	Short
3315	Libal Street from Kalb Avenue to existing sidewalk south of Beaupre Street	Construct new sidewalk (east side)	Short
3316	Allouez Avenue from Riverside Drive to Webster Avenue	Construct new sidewalk (south side)	Long
3317	Mission Road from Libal Street to existing sidewalk west of Jourdain Lane	Construct new sidewalk (one side)	Long
3318	Mission Road from Libal Street to East River Drive	Construct new sidewalk (one side)	Long
3319	Clover Lane from existing sidewalk west of Greenwald Street to East River Drive	Construct new sidewalk (one side)	Long
3320	Woodrow Way from Saint Joseph Street to school property	Construct new sidewalk (one side)	Short
3321	Miramar Drive from existing sidewalk west of Nelson Court to Webster Avenue	Construct new sidewalk (one side)	Long
3322	Schroeder Lane from Saint Joseph Street to existing path at Floral Drive	Construct new sidewalk (one side)	Long
3323	Greene Avenue from Libal Street to East River Drive	Construct new sidewalk (north side)	Short
3324	Riverside Drive from Allouez Avenue to a point equal to Webster Heights Drive	Construct new sidewalk (west side)	Long
3325	Webster Avenue from Saint Joseph Street to Allouez Avenue	During the next roadway reconstruction, explore widening the sideway or adding a buffer zone between the sidewalk and the street (east side)	Long
3326	From Riverside Drive to the Fox River	Construct new sidewalk	Medium

3327	Wequiock Elementary School traffic loop	Construct new sidewalk (one side)	Medium
3328	From intersection of Reed Street / O'Brien Street to the rear of school	Construct new sidewalk	Short
3329	Shawano Avenue from Oak Street to Woodlawn Avenue	During the next roadway reconstruction, explore widening the sidewalk (south side)	Long
3330	Shawano Avenue from Oak Street to Woodlawn Avenue	During the next roadway reconstruction, explore widening the sidewalk (north side)	Long
3331	Manitowoc Road from Main Frontage Road to Hemlock Drive	Construct new sidewalk (east side)	Short
3332	Hemlock Drive from Manitowoc Road from existing sidewalk south of Eileen Street	Construct new sidewalk (north side)	Short
3333	Hemlock Drive from Manitowoc Road to existing sidewalk south of Eileen Street	Construct new sidewalk (south side)	Short
3334	Manitowoc Road from Main Street to proposed trail south of Greenbrier Road	Construct new sidewalk (west side)	Short
3335	Manitowoc Road from Hemlock Drive to Greenbrier Road	Construct new sidewalk (east side)	Short
3336	Manitowoc Road from Greenbrier Road to Verlin Road	Construct new sidewalk (east and south sides)	Short
3337	Greenbrier Road from Manitowoc Road to I-43	Construct new sidewalk (one side)	Short
3338	Morgan Lane from Hampton Avenue to Edgewood Drive	Construct new sidewalk (one side)	Long
3339	Pecan Street from Main Street to Manitowoc Road	Construct new sidewalk (one side)	Long
3340	Van Beek Road from Edgewood Drive to Aphrodite Road	Construct new sidewalk (one side)	Medium
3341	Van Beek Road from Aphrodite Road to Alpine Drive	Construct new sidewalk (one side)	Medium
3342	Van Beek Road from Manitowoc Road to Edgewood Drive	Construct new sidewalk (one side)	Medium
3343	Pecan Street from Manitowoc Road to Edgewood Drive	Construct new sidewalk (one side)	Long
3344	Pecan Street from Edgewood Drive to Radinz Road	Construct new sidewalk (one side)	Long
3345	Aphrodite Road from Van Beek Road to existing sidewalk south of Van Beek Road	Construct new sidewalk (east side)	Long
3346	Aphrodite Road from Radinz Road to an existing sidewalk north of Radinz Road	Construct new sidewalk (east side)	Long
3347	Pecan Street from Radinz Road to an existing sidewalk south of Radinz Road	Construct new sidewalk (west side)	Long
3348	Alpine Drive from existing sidewalk south of Mason Street to Van Beek Road	Construct new sidewalk (west side)	Long
3349	Path and Main Frontage Road from Manitowoc Road to Mason Street	Construct new sidewalk (one side)	Long
3350	Steffens Way and Steffens Court from Verlin Road / Maitowoc Road to cul-de-sac	Construct new sidewalk (one side)	Long
3351	Mason Street from Ontario Road to Northview Road	Construct new sidewalk (north side)	Long

3352	Mason Frontage Road from Packerland Drive to Isbell Street	Construct new sidewalk (one side)	Long
3353	Mason Street from Ontario Road to Northview Road	Construct new sidewalk (south side)	Long
3354	Mason Street from Isbell Street to Hinkle Street	Construct new sidewalk (north side)	Long
3355	Packerland Drive from Larsen Road to the city boundary	Construct new sidewalk (east side)	Long
3356	Mason Street from existing sidewalk east of Taylor Street to Burns Avenue	Construct new sidewalk (north side)	Long
3357	Mason Frontage Road from La Count Road to Country Club Road	Construct new sidewalk (one side)	Long
3358	Mason Street from Superior Road to Ontario Road	Construct new sidewalk (north side)	Long
3359	Mason Street from Hillcrest Drive to La Count Road	Construct new sidewalk (north side)	Long
3360	Hillcrest Drive from Mason Street to the city boundary	Construct new sidewalk (one side)	Long
3361	Country Club Road from Indian Hill Drive to Mason Street	Construct new sidewalk (east side)	Medium
3362	Country Club Road from Indian Hill Drive to Mason Street	Construct new sidewalk (west side)	Long
3363	Ontario Road from Mason Street to Greenbrier Road	Construct new sidewalk (west side)	Long
3364	Ontario Road from Mason Street to Greenbrier Road	Construct new sidewalk (east side)	Long
3365	Indian Hill Drive from Country Club Road to Packerland Drive	Construct new sidewalk (one side)	Long
3366	Mason Street from Alpine Drive to Ontario Road	Construct new sidewalk (south side)	Long
3367	Packerland Drive from Mason Frontage Road to the city boundary	Construct new sidewalk (west side)	Long
3368	Humboldt Road from University Avenue to existing sidewalk west of Interstate 43	Construct new sidewalk (south side)	Medium
3369	Nicolet Drive from west of Circle Drive to Highwood Lane	Construct new sidewalk (one side)	Medium
3370	Irwin Avenue from Reber Street to north of East Shore Drive	Construct new sidewalk where missing (east side)	Long
3371	Curry Lane/Gershwin Drive from University Avenue to proposed trail	Construct new sidewalk (one side)	Long
3372	Military Avenue from Langlade Avenue to Biemeret Street	Construct new sidewalk (east side)	Medium
3373 **3374**	Military Avenue from Military Access Road to Lombardi Avenue	Construct new sidewalk (both sides)	Medium
3375	Military Avenue from Moraine Terrace to northern terminus	Construct new sidewalk (at least one side)	Long

Sidewalk Network Prioritization

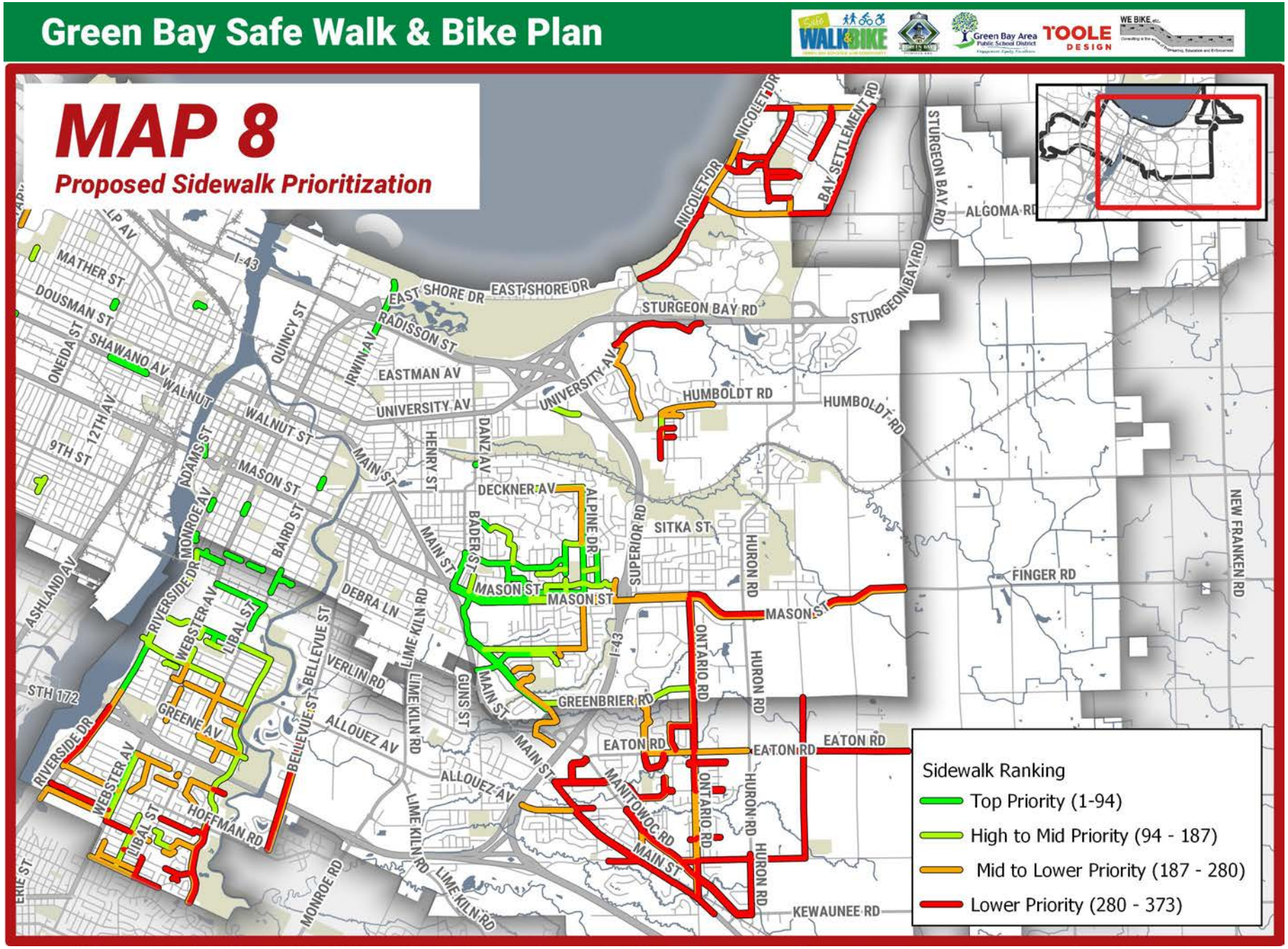
The Advisory Committee and key City and GBAPS staff voted on criteria for prioritizing the recommendations in this plan. The top three criteria for ranking the sidewalk network were safety, potential use, and connectivity. The recommended sidewalk network was scored according to these criteria. The scores were used to generate a ranking for each recommendation. For each type of recommendation, the project ranked 1 is the highest priority. The table below summarizes the scoring method:

Scoring Method for Sidewalks:

Factor	Weight	Variables	Source	Notes
Safety	35	Crash Density (Within 200ft)	Wisconsin Crashes 2013 - 2018. Selected only those involving bicyclists and pedestrians.	Weighted by severity of injuries Killed/Severely Injured = 3 All others = 1
Potential Use	35	Demand Analysis (within 500 Feet)	Demand Analysis, see Appendix 4	
Connectivity	30	Connections to existing facilities (Within 100 ft)	Data: *Sidewalks_Crosswalks.shp*	
		Connections to proposed facilities (Within 100 ft)	Recommended Projects	

Maps 7 and 8 show how the recommended projects were ranked according to these criteria. Full size versions of the maps are included as a separate document. On the full sized maps, each recommended project is labeled with its ranking. For example, the highest priority sidewalk is labeled as “1”. In the future, the priority ranking may be further refined to account for upcoming roadway projects into which the recommendations could be incorporated, and to incorporate public feedback or other criteria.


Green Bay Safe Walk & Bike Plan
MAP 7
Proposed Sidewalk Prioritization
Sidewalk Ranking
Top Priority (1-94)
High to Mid Priority (94 - 187)
Mid to Lower Priority (187 - 280)
Lower Priority (280 - 373)
VELP AV
VIEW DR
I-41
HURLBUT ST
VELP AV VELP AV
TAYLOR ST
BOND ST
MILITARY AV
DOUSMAN ST
MATHER ST
VELP AV
I-43
EAST SHORE DR
EAST SHORE DR
RIVERDALE DR
RIVERDALE DR
LLCREST DR
PACKERLAND DR
WESTERN AV
DOUSMAN ST
SHAWANO AV
GRAY ST
FISK ST
MASON ST
MASON ST
MASON ST
MASON ST
MASON ST
HILLCREST DR
WEST POINT RD
SOUTHPOINT RD
HAZELWOOD LN
WOODLN
9TH ST
MILITARY AV
FISK ST
RIDGE RD
MASON
12TH AV
ASHLAND AV
WALNUT
QUINCY ST
IRWIN AV
RADISSON ST
EASTMAN AV
UNIVERSITY AV
HENRY ST
DANZ AV
DECKNER AV
MAIN ST
ADAMS ST
LOMBARDI AV
RIDGE RD
ONEIDA ST
9TH ST
STATE ST
LOMBARDI AV
SHADY LN
MORRIS AV
AIRPORT DR
CORMIER RD
CORMIER RD
I-41
ONEIDA ST
HOLMGREN WY
ASHLAND AV
STH 172
PILGRIM WY
HANSEN RD
STH 172
RIDGE RD
ASHLAND AV
MONROE AV
WEBSTER AV
BAIRD ST
MAIN ST
BADER ST
MASON ST
KALB AV
DEBRA LN
LIME KILN RD
MAIN ST
RIVERSIDE DR
WEBSTER AV
LIBAL ST
ALLOUEZ AV
ALLOUEZ AV
BELLEVUE ST
VERLIN RD
LIME KILN RD
GUNS ST
MANITOWOC RD
MAIN ST
GREENE AV
ALLOUEZ AV
BELLEVUE ST
GUNS ST
I-43


Green Bay Safe Walk & Bike Plan
MAP 8
Proposed Sidewalk Prioritization
Sidewalk Ranking
Top Priority (1-94)
High to Mid Priority (94 - 187)
Mid to Lower Priority (187 - 280)
Lower Priority (280 - 373)
EAST SHORE DR
STURGEON BAY RD
HUMBOLDT RD
UNIVERSITY AV
MASON ST
GREENBRIER RD
EATON RD
ALLOUEZ AV
KEWAUNEE RD
FINGER RD
NEW FRANKEN RD
ALGOMA RD
I-43
STH 172

5. Analysis of Unusually Hazardous Transportation Areas

According to Wisconsin law[1], a student attending a public elementary or secondary school is entitled to free school bus transportation by the public school district if the student lives over two miles away from the school in their attendance area. Generally, students who live within two miles of the public school they attend are not entitled to free bussing.

However, due to unusually hazardous conditions, a school district may need to provide free bussing to students living less than two miles from their school. An "unusual hazard" is an existing transportation condition that constitutes more than an ordinary hazard and seriously jeopardizes the safety of students traveling to and from school. A school board may develop a plan to designate such an area as "unusually hazardous." Wisconsin statutes establish the procedures to be followed in the development of an unusually hazardous transportation (UHT) plan, and the Wisconsin Department of Public Instruction identifies potential criteria to use in identifying UHT areas.

Evaluation Criteria Recommendations

In order to fairly and consistently evaluate areas where a student may face an unusual hazard, GBAPS has developed a point scoring system. GBAPS is unusual among Wisconsin school districts in having such a transparent and objective standard for determining UHT areas. The following tables summarize the criteria used by GBAPS for determining UHT areas and provide recommendations to improve the scoring system. Appendix 1 provides additional detail on improvements that could be made at individual schools to remove UHT areas and reduce ongoing school busing costs.

[1] (S. 121.54 (9)(a))

Table 1: Recommended Changes to Criteria Used to Evaluate Hazards for Students Crossing a Street

Criteria	Points	Recommendation
Grade Level	**Maximum**: 5 points for schools with Kindergarten or Grade 1 students **Minimum**: 0 points for above Grade 5	Consider accounting for students in 4K
Gaps in Traffic (The percent of time there are adequate gaps in traffic for a child to cross the road)	**Maximum**: 10 points for almost no adequate gaps **Minimum**: 0 points for gaps that occur over 90% of the time	Clarify the instructions for determining safe gaps
Crossing Volume of Pedestrians	**Maximum**: 5 points for 150 or more students **Minimum**: 0 points for less than 10 students	Replace with roadway characteristics such as: • 5 points for four or more travel lanes • 4 points for three travel lanes • 3 points for two travel lanes with on-street parking • 1 point for two travel lanes without on-street parking
Type of Intersection or Crossing	**Maximum:** 5 points for no crossing of any type (as with an interstate crossing) **Minimum**: 1 point for a stop or signal controlled intersection	No change
Other Concerns (not currently in GBAPS UHT criteria)	**Maximum:** 3 points for special concerns such as sight distance, high number of turning vehicles, lack of pedestrian signal heads	Add this category

Table 2: Recommended Changes to Criteria Used to Evaluate Hazards for Students Walking Along a Street

Criteria	Points	Recommendation
Grade Level	**Maximum**: 5 points for schools with Kindergarten or Grade 1 students **Minimum**: 0 points for schools above Grade 5	Consider accounting for students in 4K
Traffic Volume	**Maximum**: 5 points for over 160 vehicles/hour during arrival **Minimum**: 0 points for less than 60 vehicles/hour	Consider replacing with a wider range of traffic volumes, and use publicly available traffic volume data for roads that have centerlines: • Over 5,000 AADT: 5 points • Over 4,000 AADT: 4 points • Over 3,000 AADT: 3 points • Over 2,000 AADT: 2 points • Over 1,000 AADT: 1 point For roads without centerlines, use vehicles/hour measure: • Over 280 vehicles/hour: 3 points • Over 190 vehicles/hour: 2 points • Over 90 vehicles/hour: 1 point
Posted Speed Limit	**Maximum**: 5 points for 55 mph speed limit **Minimum**: 1 point for 15 mph speed limit	Replace with a narrower range of speeds: • 40 mph and over: 5 points • 35 mph: 4 points • 30 mph: 3 points • 25 mph: 2 points • 20 mph: 1 point
Walkway Availability	**Maximum:** 9 points for no walkway **Minimum**: 0 points for existing sidewalks	No change
Special Concerns	**Maximum:** 3 points for railroad crossing, intersections, sight distance problems, or other	No change

6. Pedestrian and School Recommendations

This chapter presents detailed recommendations to improve conditions for walking and bicycling around GBAPS schools. Each school has its own summary which includes a description of existing conditions at the school, a map, a summary of primary issues observed, and recommendations for improving safety at the school.

It is anticipated that these recommendations would be implemented in a few primary ways: 1) by applying for and receiving grant funding, such as SRTS funds, 2) as part regularly occurring roadway resurfacing and reconstruction projects, and 3) gradually over time, as part of routine business. Implementation of the recommendations would be subject to normal budgetary processes and approvals, as well as to typical public involvement processes.

Implementation Timeframes

The recommendations presented in this plan are presented as short, medium, and long-Term recommendations. In general, timeframes were assigned based on the complexity of each recommendation:

- **Short term:** The simplest recommendations were listed as short-term. If implementation began immediately, it is estimated that they could be installed within **5 years.**
- **Medium term:** Projects of moderate complexity were shown as medium-term. It is estimated that they could be implemented within **5-10 years.**
- **Long term:** The most complex projects were recommended as long-term. It is estimated that they could be implemented **10 years** or more in the future.

Prioritization of Pedestrian and School Recommendations

The Advisory Committee and key city and GBAPS staff voted on criteria and methods for prioritizing the recommendations. For recommendations around schools, they voted on whether to prioritize all the projects around a particular school individually as a group. More votes were cast for prioritizing all the projects around a particular school around a group. Making substantial safety improvements to a smaller number of schools can be advantageous compared with making less substantial safety improvements to a greater number of schools. This is because the substantial improvements are more likely to be noticed by parents and especially when combined with SRTS non-infrastructure strategies, have a better chance to change behavior and result in increased walking and bicycling to school.

Some prioritization criteria were deemed important to the advisory committee but were not included in the school prioritization. The advisory committee rated connectivity as an important criterion, however it is not relevant when scoring schools rather than projects. The advisory committee also rated upcoming projects as an important criterion, meaning that extra points would be given if there is are existing roadway projects to which a given recommendation could be incorporated. Data on upcoming projects was not available and so this criterion was not used.

The schools were prioritized on the three most relevant criteria for which data was available. The prioritized list of schools could be adjusted in the future based on upcoming projects, cost, and stakeholder input.

The schools were prioritized based on the following criteria:

- **Safety:** Crash density involving pedestrians and bicyclists within the school walk zone, weighted by severity of injuries.
- **Potential Use:** The likelihood that people will walk and bicycle for transportation around each school, as measured by 1) the number of students living within the walk zone that attend the school and 2) the weighted pedestrian demand within the school walk zone (see Appendix 4 for more details about the demand analysis).
- **Equity:** Percent of students who are economically disadvantaged (as reported in the 2017/2018 Wisconsin School Report Card).

The schools were assigned numerical scores based on those criteria. Because safety and potential use got more votes from the advisory committee than equity, those factors were assigned higher weight when assigning scores. Safety was weighted at 35%, potential use at 35% and equity at 30%. When applying for funding to implement the school recommendations, a recommended approach is to apply for funding to construct all the improvements for one (or more) highest-priority school in each City quadrant.

Prioritized List of Schools:

Rank	School	Weighted Score
1	Fort Howard Elementary School	10
2	Howe Elementary School	8.92
3	Sullivan Elementary School	7.96
4	East High School	7.91
5	Washington Middle School	7.83
6	Nicolet Elementary School	7.30
7	Lincoln Elementary School	7.10
8	Franklin Middle School	6.13
9	West High School	6.05
10	Tank Elementary School	6.03
11	Chappell Elementary School	5.72
12	Eisenhower Elementary School	5.66
13	Danz Elementary School	5.36
14	Preble High School	5.26
15	Aldo Leopold Community School	5.15
16	Keller Elementary School	4.81
17	Edison Middle School	4.76

18	Jefferson Elementary School	4.68
19	Kennedy Elementary School	4.24
20	Jackson Elementary School	4.18
21	Beaumont Elementary School	3.98
22	Leonardo da Vinci School for the Gifted	3.86
23	Doty Elementary School	3.44
24	Southwest High School	3.24
25	Webster Elementary School	3.16
26	Elmore Elementary School	3.15
27	Lombardi Middle School	3.05
28	Wilder Elementary School	3.03
29	Baird Elementary School	2.95
30	MacArthur Elementary School	2.87
31	Martin Elementary School	2.75
32	King Elementary School	2.71
33	Langlade Elementary School	1.33
34	McAuliffe Elementary School	1.07
35	Red Smith Elementary School	0.41
36	Wequiock Elementary School	0.00

Aldo Leopold Community School

About the School	
Address	622 Eliza Street
Grade Levels	K4-8
Number of Students	587*
Students Eligible for School Bus	0.36%
Economically Disadvantaged	31.9%*
Students with Disabilities	10.6%*
Arrival / Dismissal Times	8:00 AM / 3:00 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
South Monroe Avenue	14,800
Webster Avenue	10,800
Porlier Street (east of South Monroe Avenue)	2,200
Grignon Street	1,400

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Friday, September 19.
Entrances/Exits	• At arrival, students entered the school through multiple entrances on South Quincy Street.
School Bus Loading	• No school buses were observed although school buses do drop off and pick up students from the school.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students from all surrounding streets. Most parents dropped off students along South Quincy Street and along Emilie Street. However, many students and parents walked to school.
School Staff Roles	• School staff served as crossing monitors at the intersection of Quincy Street and Emilie Street. School staff were also present supervising students on the playground and outside the school door.
School Crossing Guards	• School crossing guards were present at the intersection of Eliza Street and Quincy Street; and at the intersection of South Monroe Avenue and Porlier Street.
Law Enforcement	• No law enforcement officers were observed.

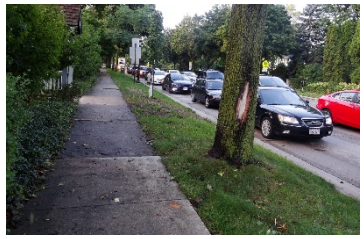

Aldo Leopold Community School
Location within GBAPS District
Aldo Leopold Community School
SPRING ST
CASS ST
CONGRESS ST
LAWE ST
MADISON ST
MONROE
PORLIER ST
QUINCY ST
WEBSTER AV
VAN BUREN ST
CLAY ST
ROOSEVELT ST
JACKSON ST
ELIZA ST
EMILIE ST
GRIGNON ST
IRWIN AV
CATHERINE ST
DERBY LN
MARINE ST
MONROE AV
9TH ST
JEFFERSON S
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
0 400 800 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Aldo Leopold Community School map.

#	Location	Observations	Recommendations

1	Monroe Avenue and Eliza Street; Monroe Avenue and Emilie Street; Monroe Avenue and Grignon Street
	 
	 
	 
	Photo Credit: Google Streetview
		• Stop signs are present for Eliza Street, Emilie Street, and Grignon Street , but Monroe Avenue is uncontrolled.
		• The existing crossings lack high visibility crosswalk markings (school crossing signs are present at Eliza and Emilie Streets).
		• Vehicles appear to exceed the posted speed limit during school arrival and dismissal times.
		• At Eliza Street, existing curb ramps at all corners except the northeast corner do not meet current USDOT standards. At Emilie Street, existing curb ramps on the east side of the street do not meet current USDOT standards. At Grignon Street, the existing curb ramp on the southeast corner does not meet current USDOT standards.
		• Existing single curb ramps on the east side of the street at Grignon Street do not orient users directly into the crosswalks.
		• The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not.
		• Parents report that drivers do not yield to pedestrians in the crosswalk.
			• Assess these intersections and decide which crossing(s) will receive crossing treatments. Consider removing the marked crosswalks and school crossing signs for any intersections that will not receive crossing treatments.
			• For the intersection(s) that will receive crossing treatments:
			  o Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for legs across Monroe Avenue. (Short Term)
			  o Add Advance Yield Here to Pedestrians sign and yield line for both approaches of Monroe Avenue. (Short Term)
			  o If warranted, add a Rectangular Rapid Flashing Beacon on Monroe Avenue to further improve the safety of the crossing. (Medium Term)
			• Conduct regular speed enforcement. (Short Term)
			• Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
			• During the next reconstruction of the intersections, explore the installation of new curb ramps that line up with crosswalks on the east legs of the intersection at Grignon Street.

#	Location	Observations	Recommendations
2	Monroe Avenue 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • Parents report that vehicles appear to dramatically exceed the posted speed limit during school arrival and dismissal times. • Sidewalks need repairs for heaving and settling to provide a safe and accessible pedestrian facility for all users, especially near the intersection with Porlier Street. • The northbound Monroe Avenue curb lane in front of the school backs up into the Emilie Street intersection when drivers are turning right into the school parking lot.	• Conduct regular speed enforcement. (Short Term) • Perform sidewalk maintenance to correct damage. (Medium Term)
3	Monroe Avenue and Porlier Street 	• The intersection is signalized. • Many students cross the street at this intersection and according to observations and the crossing guard, vehicular speeds and volumes are high. • The existing school reduced speed zone ends before the busy pedestrian crossing (there are school reduced speed zones immediately north and south of this location). • Existing curb ramps at all corners except the southeast do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings on all legs. (Short Term) • Extend the reduced school speed zone so that it includes this intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with the crosswalks on all legs of the intersection. (Long Term)

#	Location	Observations	Recommendations
4	Quincy Street and Eliza Street 	• Stop signs are present for Quincy Street but Eliza Street is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Parents report that turning vehicles do not always yield to pedestrians in the crosswalk and drivers frequently exceed the speed limit. • The existing school reduced speed zone on Quincy Street ends before the busy pedestrian crossing. • Existing curb ramps at all corners except the southeast do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the legs crossing Eliza Street. (Short Term) • Conduct regular speed enforcement and general enforcement of traffic laws. (Short Term) • Extend the reduced school speed zone so that it includes this intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Consider adding stop signs on Eliza Street to facilitate safer crossings in all directions (if warranted). (Short Term)
5	Quincy Street in front of the School 	• Quincy Street gets congested with parents picking up and dropping off students. • Parents report that sometimes parents double park picking up and dropping off students, and that car mirrors have been damaged when vehicles tried to drive through without enough space to do so. • Parents are concerned about the speed of traffic on Quincy Street.	• On the school side of Quincy Street (and potentially also along Emilie Street), designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Make sure double parking is addressed in the school's arrival and dismissal rules. (Short Term)

#	Location	Observations	Recommendations
6	Quincy Street and Emilie Street 	• Yield signs are present for Quincy Street, but Emilie Street is uncontrolled. • The existing crossing where school staff serve as crossing monitors is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The existing school reduced speed zones on both Quincy Street and Emilie Street end before the busy pedestrian crossings. • This is a busy pedestrian crossing and there is a heavy volume of parents in vehicles passing through this intersection after dropping off students. • Emilie Street is yield controlled. This is the only yield controlled intersection adjacent to the school which may be confusing to drivers. • Parents park in the No Parking zone on Emilie Street east of Quincy Street causing congestion.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Emilie Street. (Short Term) • Extend the reduced school speed zone so that it includes this intersection. (Short Term) • Add curb extensions to shorten the pedestrian crossing distance. (Medium Term) • Consider adding stop signs on Quincy Street and Emilie Street to facilitate safer crossings in all directions (if warranted). (Short Term)
7	Bicycle Racks 	• Existing bike racks were well used. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

#	Location	Observations	Recommendations
8	Grignon Street and Quincy Street  *Photo Credit: Google Streetview*	• Stop signs are present for Quincy Street but Grignon Street is uncontrolled. • Parents have concerns about the safety of students crossing the street in this location. • No marked crosswalks or school crossing signs are present.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Grignon Street. (Short Term) • Add parallel line crosswalk markings for the legs crossing Quincy Street. (Short Term)
9	Webster Avenue and Porlier Street 	• The intersection is signalized. • Narrow sidewalks with minimal buffer next to a busy, 4-lane arterial creates an uncomfortable walking/cycling environment on Webster Avenue. • Posts impede mobility for those in wheelchairs. • Community members report that it is difficult to cross the street in this location to travel between the hospital and the parking ramp.	• During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street. (Long Term) • Ensure that an ADA-accessible path is present. (Long Term) • Add high visibility crosswalk markings. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • During the next reconstruction of the intersection, explore tightening up the curb radii on the southwest corner of the intersection. (Long Term)

#	Location	Observations	Recommendations
10	Webster Avenue and Eliza Street 	• Stop signs are present for Eliza Street but Webster Avenue is uncontrolled. • Parents report that drivers do not yield to pedestrians in the crosswalk. • Pedestrian warning signs and high-visibility pavement markings are present. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at all corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for legs crossing Webster Avenue. (Short Term) • Add advance yield here to pedestrians sign and yield line at each approach on Webster Avenue. (Short Term) • If warranted, add a Rectangular Rapid Flashing Beacon to further improve the safety of the crossing. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore tightening up the curb radii on the north side of the intersection and the installation of new curb ramps that line up with crosswalks at all corners. (Long Term)

#	Location	Observations	Recommendations
11	Webster Avenue and Emilie Street 	• Stop signs are present for Emilie Street but Webster Avenue is uncontrolled. • Parents report that drivers do not yield to pedestrians in the crosswalk. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at all corners do not orient users directly into the crosswalks. • Pedestrian warning signs and high-visibility pavement markings are present. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not.	• Add higher visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for legs crossing Webster Avenue. (Short Term) • Add advance yield here to pedestrians sign and yield line at each approach on Webster Avenue. (Short Term) • If warranted, add a Rectangular Rapid Flashing Beacon to further improve the safety of the crossing. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks at all corners. (Long Term)

Baird Elementary School

About the School	
Address	539 Laverne Drive
Grade Levels	K4-5
Number of Students	404*
Students Eligible for School Bus	27.9%
Economically Disadvantaged	64.1%*
Students with Disabilities	13.9%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Humboldt Road	3,300
Huron Road	6,200
University Avenue	4,200

Dismissal Observations

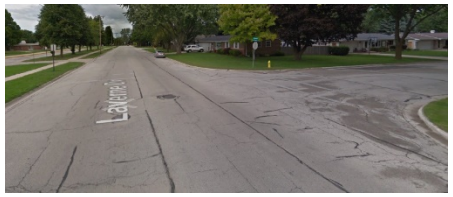
Observation Details	
Observation Date	• The consultant team observed dismissal on Tuesday, September 18.
New Construction	• A new Henry S. Baird Elementary School is under construction, just west of the existing school. The new building will be a K4-5 grade school for 600 students.
Entrances	• Students exited through one of the 3 doors facing Laverne Drive (center/main door and one at each end of the building).
School Bus Loading	• Four school buses loaded students on the loop lane in front of the school along Laverne Drive.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students primarily on Laverne Drive (both sides). • A few parents picked up their children on Humboldt Road.
Student Roles	• Student safety patrols were stationed in front of the loop drive and reminded students to stay on the sidewalk and not to run.
School Staff Roles	• School staff were present during dismissal.
School Crossing Guards	• One crossing guard was stationed at the intersection of Laverne Drive and Humboldt Road.
Law Enforcement	• No law enforcement officers were observed.


Baird Elementary School
Location within GBAPS District
STURGEON B.
CURRY LN
ST ANTHONY DR
UNIVERSITY AV
ST CHARLES DR
ST LAWRENCE DR
MT CAROL DR
LAVERNE DR
MARVIN LN
BAY VIEW DR
REGENT LN
ST GREGORY DR
ALBERT DR
ST ANN DR
MT MARY DR
LINDEN DR
I-43
HUMBOLDT RD
BEVERLY RD
BAIRD CREEK RD
Baird Elementary School
CORNELIUS DR
MASTERS LN
LORRAINE LN
CONCORDIA LN
MCKENZIE LN
VAN CASTER DR
BROOK PARK DR
SAGE DR
Arnie Wolff Sports Complex
Triangle Sports Area
Baird Creek Parkway
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 700 1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Baird Elementary School map.

#	Location	Observations	Recommendations
1	Laverne Drive and Humboldt Road 	• Stop signs are present for Laverne Drive, but Humboldt Road is uncontrolled. • School speed limit flashing beacons are present on both approaches of Humboldt Road. • The intersection was very heavily used by students. One crossing guard was stationed at this location. • Parents report that drivers don't always yield to pedestrians in the crosswalk. • The west crosswalk is marked with parallel lines and is not highly visible to drivers. • The south crosswalk has faded and is not highly visible to drivers. This crosswalk appears to be scheduled to be eliminated. • One curb ramp is missing at the southeast corner. • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for leg crossing Humboldt Road. (Short Term) • Construct new curb ramp to meet USDOT standards. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore tightening up the curb radii on the southwest corner of the intersection, being careful not to interfere with the proposed bicycle facility plans. (Long Term)

#	Location	Observations	Recommendations
2	Laverne Drive between Humboldt Road and Concordia Lane 	• "SCHOOL" pavement markings are present for the southbound approach, but not for the northbound approach. Reduced school speed limits are present in both directions • Missing sidewalks on the east side of Laverne Drive present a barrier to walking and bicycling to school. The sidewalk on the west side of the street ends just south of the school property.	• Construct sidewalks on the east side of Laverne Drive between Concordia Lane and Humboldt Road, and on the west side of Laverne Drive between the school property and Brook Park Drive. (Medium Term)
3	Laverne Drive and Colleen Drive  *Photo Credit: Google Streetview*	• A stop sign is present for Colleen Drive, but Laverne Drive is uncontrolled. • Crosswalks appear faded and not highly visible to motorists. • No school crossing signage exists. • No sidewalk exists along Colleen Drive. • Existing large curb radii increase pedestrian crossing distance and allow vehicles to turn at high speed.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, curb ramps, and school crossing signs for the leg crossing Laverne Drive. (Medium Term) • Construct sidewalks on the north side of Colleen Drive between Laverne Drive and Van Caster Drive. (Medium Term) • During reconstruction, explore whether it is possible to reduce the curb radii to reduce pedestrian crossing distance. (Long Term)
4	Humboldt Road between Laverne Drive and Mt. Mary Drive  *Photo Credit: Google Streetview*	• "SCHOOL" pavement markings and reduced school speed limit flashing beacons are present on both approaches. • No existing bicycle facilities are present. • Pavement conditions are poor.	• Bike lanes are proposed for Humboldt Road. (Medium Term) • A sidepath is proposed along the north side of the school property. (Long Term)

#	Location	Observations	Recommendations
5	Humboldt Road and Mt. Mary Drive  *Photo Credit: Google Streetview*	• A stop sign is present for Mt. Mary Drive, but Humboldt Road is uncontrolled. • This intersection may see increased use when the new school is completed. • The west crosswalk is marked with parallel lines and is not highly visible to drivers. • The curb ramp on the northeast corner does not meet current USDOT standards. • The existing single curb ramp at the northwest corner does not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for leg crossing Humboldt Road. (Short Term) • Rebuild the curb ramp on the northeast corner to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of a new curb ramp on the northwest corner that lines up with crosswalk. (Long Term)
6	General School Walking Zone  *Photo Credit: Google Streetview*	• Throughout the school walking zone, missing sidewalks present a barrier to walking and bicycling to school.	• Construct new sidewalks as shown in the Baird Elementary School map. (Short, Medium, and Long Term)
7	New Baird School Site Plan 		• Pedestrian access should be provided to both Laverne Drive and Humboldt Rd. If possible, the pedestrian walkways should avoid crossing parking lots and driveways. (Short Term) • At the new school site be sure to provide bicycle racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Beaumont Elementary School

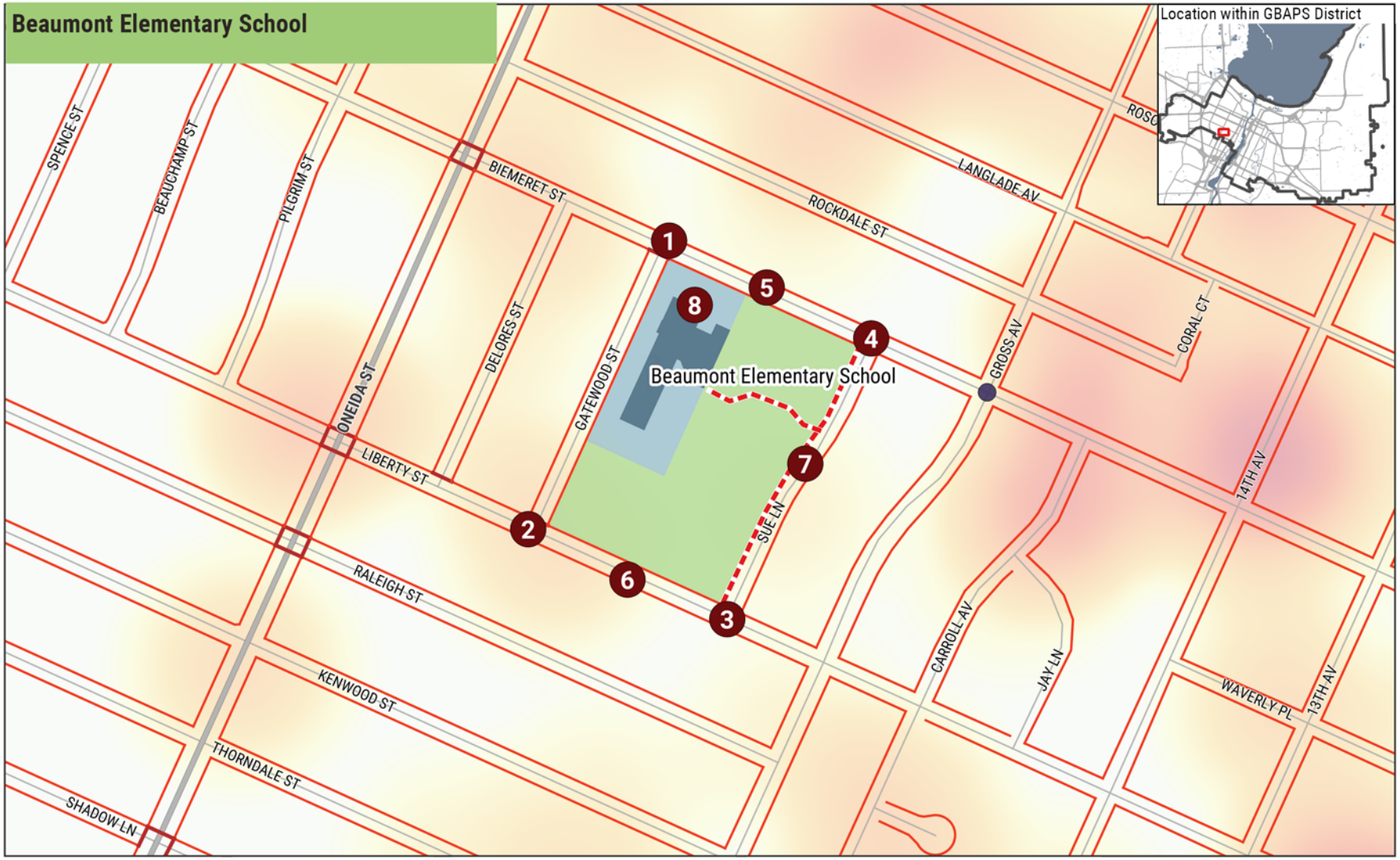
About the School	
Address	1505 Gatewood Street
Grade Levels	K4-5
Number of Students	287*
Students Eligible for School Bus	5.0%
Economically Disadvantaged	52.6%*
Students with Disabilities	21.3%*
Arrival / Dismissal Times	7:57 AM / 2:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Liberty Street	1,400
Oneida Street	7,100
Ninth Street	4,200

Arrival Observations

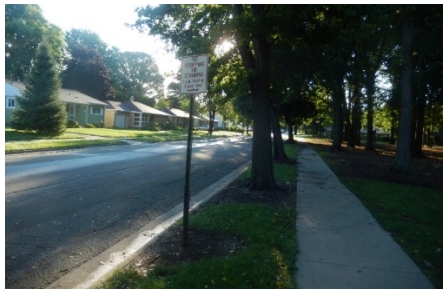
Observation Details	
Observation Date	• The consultant team observed arrival on Friday, September 21.
Entrances	• The youngest students enter the school from the door on Biemeret Street. Parents escort the youngest children to the school building. • Middle students enter the south entrance, facing the parking lot. • Older students enter the school from the rear door, facing the playground.
School Bus Loading	• School buses unload students in front of the school along Gatewood Street.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students primarily on Biemeret Street, across the street from the school. Students were observed darting across the street. • Vehicular drop-offs also occurred on Gatewood Street and in the parking lot south of the school.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• School staff were present during arrival.
School Crossing Guards	• A crossing guard is stationed at 9th Street and Gross Avenue during arrival and dismissal.
Law Enforcement	• No law enforcement officers were observed.


Beaumont Elementary School
Location within GBAPS District
Beaumont Elementary School
SPENCE ST
BEAUCHAMP ST
PILGRIM ST
BIEMERET ST
ROCKDALE ST
LANGLADE AV
ROSC
ONEIDA ST
DELORES ST
GATEWOOD ST
GROSS AV
CORAL CT
LIBERTY ST
SUE LN
14TH AV
RALEIGH ST
CARROLL AV
JAY LN
WAVERLY PL
13TH AV
KENWOOD ST
THORNDALE ST
SHADOW LN
1
2
3
4
5
6
7
8
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Beaumont Elementary School map.

#	Location	Observations	Recommendations
1	Biemeret Street and Gatewood Street 	• A step sign is present for Gatewood Street but Biemeret Street is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Two existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for leg crossing Biemeret Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore tightening the curb radii and installing new curb ramps that line up with crosswalks on the south and east legs of the intersection. (Long Term)
2	Gatewood Street and Liberty Street 	• A stop sign is present for Gatewood Street, but Liberty Street is uncontrolled. • The existing crossing is not highly visible to drivers (no crosswalk markings or school crossing signs are present). • Curb ramps are missing to cross Liberty Street.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the east leg crossing Liberty Street. (Short Term) • Construct missing curb ramps to meet current USDOT standards. (Medium Term)
3	Liberty Street and Sue Lane 	• A stop sign is present for Sue Lane but Liberty Street is uncontrolled. • The existing crossing is not highly visible to drivers (no crosswalk markings or school crossing signs are present). • The intersection is not within a reduced school speed limit zone. • Curb ramps are missing to cross Liberty Street.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the east leg crossing Liberty Street. (Short Term) • Extend the existing reduced school speed limit eastward to encompass this intersection. (Short Term) • Construct missing curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
4	Biemeret Street and Sue Lane  *Photo Credit: Google Streetview*	• A yield sign is present for Sue Lane but Biemeret Street is uncontrolled. • The existing crossing is not highly visible to drivers (no crosswalk markings or school crossing signs are present). • The intersection is not within a reduced school speed limit zone. • Curb ramps are missing to cross Biemeret Street.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Biemeret Street. (Short Term) • Extend the existing reduced school speed limit eastward to encompass this intersection. (Short Term) • Construct missing curb ramps to meet current USDOT standards. (Medium Term)
5	Biemeret Street between Gatewood Street and Sue Lane 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • There is a "NO STOPPING OR STANDING" restriction adjacent to the school and parents were observed picking up and dropping off students across the street from the school. Students were observed darting across the street, outside crosswalks. The school requested these signs in hopes that parents would pick up students east of the school property, adjecent to Beaumont Park.	• On the school side of Biemeret Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Make sure that the importance of picking up and dropping students off on the school side is addressed in the school's arrival and dismissal rules and that parents are aware of the designated loading/unloading areas.

#	Location	Observations	Recommendations
6	Liberty Street between Gatewood Street and Sue Lane  *Photo Credit: Google Streetview*	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • NO PARKING ANY TIME signs are present along the park property.	• On the school side of Liberty Street, consider designating signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)
7	Sue Lane between Liberty Street and Biemeret Street 	• Missing sidewalk on the west side of Sue Lane, adjacent to the school property, presents a barrier to walking and bicycling to school. • An existing goat path leads from the school building, behind the diamond field, and towards the playground.	• Construct new sidewalk on the west side of Sue Lane between Liberty Street and Biemeret Street. (Short Term) • Construct new sidewalk on the school grounds connecting the school to the playground and to Sue Lane. (Short Term)
8	Bicycle rack in front of building along Biemeret Street 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term) • Consider placing bike racks near each of the entrances typically used by students. (Short Term)

Chappell Elementary School

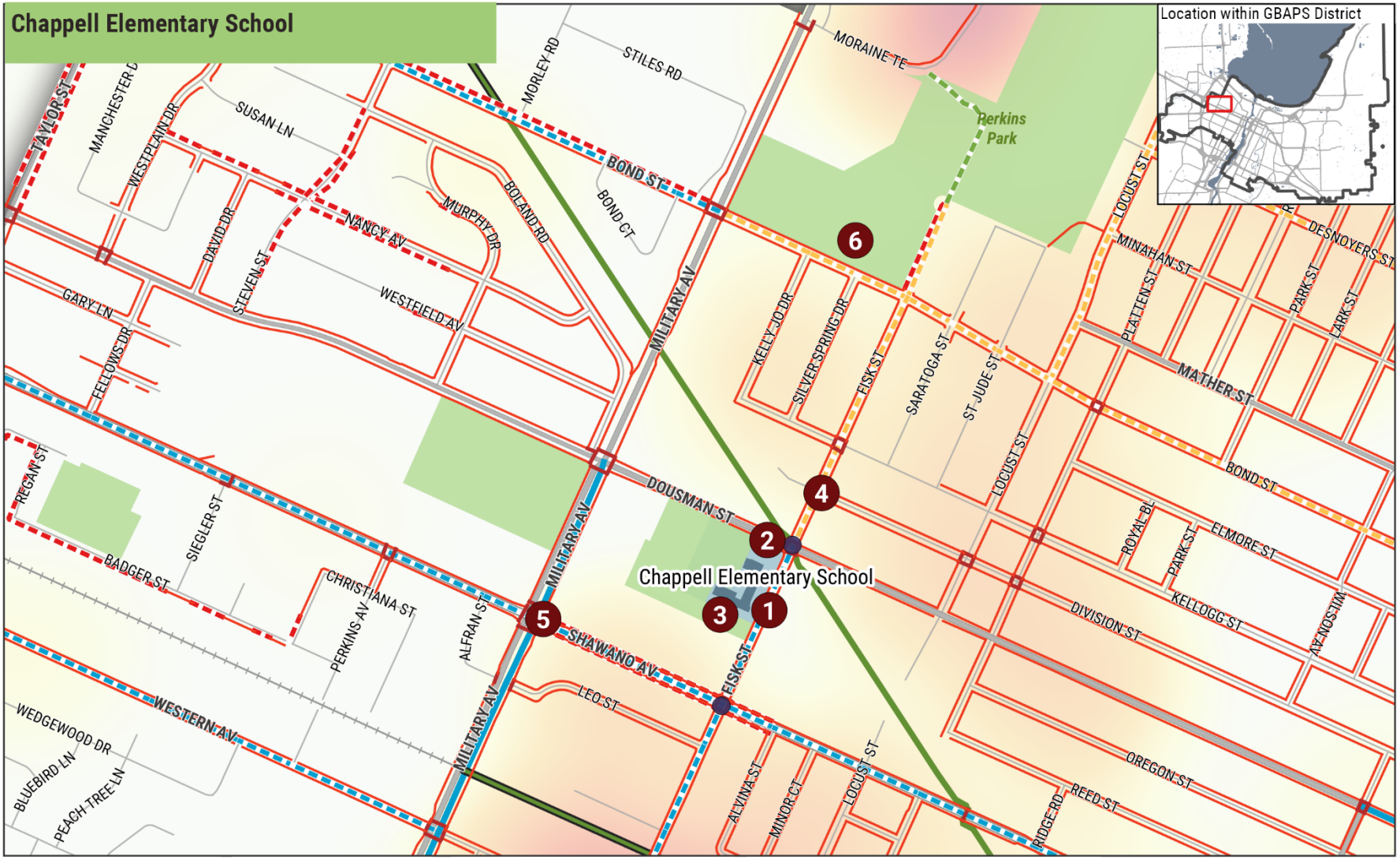
About the School	
Address	205 N. Fisk Street
Grade Levels	K4-5
Number of Students	389*
Students Eligible for School Bus	5.5%
Economically Disadvantaged	66.3%*
Students with Disabilities	12.1%*
Arrival / Dismissal Times	8:42 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Dousman Street	5,900
Shawano Avenue	10,400
N. Military Avenue	14,100
S Fisk Street	4,400

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Wednesday, September 19.
Entrances	• The students entered the school at either front door on Fisk Street or at the side door on Dousman Street.
School Bus Loading	• Two school buses and one daycare van unloaded students in the parking lot at the rear of the building.
Parent Drop-off/Pick-up	• Parents in vehicles drop off students primarily on Fisk Street. • Parents have been told NOT to drop off students from across the street, however several parents did so. • Parents are encouraged to use the church parking lot across Fisk Street, however there is no safe crossing of Fisk at that location.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during arrival.
School Crossing Guards	• A crossing guard was stationed at the signalized intersection of Fisk and Dousman and a crossing guard was stationed at the intersection of Fisk and Shawano.
Law Enforcement	• No law enforcement officers were observed.


Chappell Elementary School
Location within GBAPS District
Chappell Elementary School
Perkins Park
MORAINE TE
STILES RD
MORLEY RD
BOND ST
BOND CT
BOLAND RD
MURPHY DR
NANCY AV
SUSAN LN
TAYLOR ST
MANCHESTER D
WESTPLAIN DR
DAVID DR
STEVEN ST
WESTFIELD AV
GARY LN
FELLOWS DR
REGAN ST
SIEGLER ST
BADGER ST
CHRISTIANA ST
PERKINS AV
ALFRAN ST
MILITARY AV
DOUSMAN ST
SHAWANO AV
WESTERN AV
WEDGEWOOD DR
BLUEBIRD LN
PEACH TREE LN
LEO ST
FISK ST
ALVINA ST
MINOR CT
LOCUST ST
RIDGE RD
REED ST
OREGON ST
KELLY JO DR
SILVER SPRING DR
SARATOGA ST
ST JUDE ST
LOCUST ST
MINAHAN ST
PLATTEN ST
PARK ST
LARK ST
DESNOYERS ST
MATHER ST
BOND ST
ROYAL BL
PARK ST
ELMORE ST
KELLOGG ST
DIVISION ST
WILSON AV
1
2
3
4
5
6
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 600 1200 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Chappell Elementary School map.

#	Location	Observations	Recommendations
1	Fisk Street between Shawano Avenue and Dousman Street 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • Parents are encouraged to use the church parking lot across Fisk Street for pick-up and drop-off, however there is no safe crossing of Fisk at that location. • Parents have been told NOT to pick up and drop off students from across the street, however several parents did so.	• Consider adding high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for a new marked crossing connecting from the school to the church parking lot, preferably next to the northeast driveway exit. (Short Term) • On the school side of Fisk Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Make sure that the importance of picking up and dropping students off on the school side is addressed in the school's arrival and dismissal rules. (Short Term)

#	Location	Observations	Recommendations
2	Fisk Street and Dousman Street 	• The intersection is signalized. • The existing school reduced speed zone on Fisk Street ends before the busy pedestrian crossing at Dousman Street. • Parents indicated that the crossing guard at this location doesn't step far enough into the street and that he only helps students across Dousman Street although some students also need to cross Fisk Street.	• Extend the reduced school speed zone so that it includes this intersection. (Short Term) • Add high visibility crosswalk markings. (Short Term) • Conduct crossing guard training to ensure that the crossing guard is performing effectively. (Short Term)
3	Bike rack south side of building 	• 7-10 bikes were observed. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles. • Parents indicated that it takes too long to walk from their dismissal door to the bike racks and unlock their bikes.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term) • Consider placing bike racks near each of the entrances typically used by students. (Short Term)
4	Fisk Street and Division Street  *Photo Credit: Google Streetview*	• Stop signs are present for Division Street but Fisk Street is uncontrolled. • Parents indicated that drivers don't always yield to pedestrians in the crosswalk. • Parents said that there have been close calls between pedestrians and drivers at this intersection. • Two existing curb ramps on the west side of the intersection do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for legs crossing Fisk Street. (Short Term) • Rebuild the curb ramps on the west side of the intersection to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
5	Military Avenue and Shawano Avenue  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents have indicated that drivers don't always yield to pedestrians in the crosswalk. • Sidewalks with minimal buffer on Shawano Avenue next to a busy, 4-lane arterial create an uncomfortable walking/cycling environment.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street (between South Military Avenue and North Fisk Street, and on both sides of the street).
6	Perkins Park  *Photo Credit: Google Streetview*	• The principal noted that several students walk from the north, through Perkins Park. There is not a trail through the park connecting Fisk Street & Bond Street to Moraine Way.	• Add sidewalk on the west side of N Fisk Street from Bond Street. (Long Term) • Add a path through Perkins Park. (Long Term)

Danz Elementary School

About the School	
Address	2130 Basten Street
Grade Levels	K4-5
Number of Students	432*
Students Eligible for School Bus	4.67%
Economically Disadvantaged	84.0%*
Students with Disabilities	13.4%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Morrow Street	1,400
North Danz Avenue	10,000*
University Avenue (west of North Danz Avenue)	13,100*

**Preliminary AADT figures are from 07/16/2018*

Arrival Observations

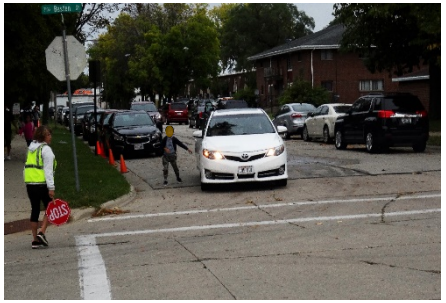
Observation Details	
Observation Date	• The consultant team observed arrival on Tuesday, September 18.
Entrances/Exits	• Students generally entered the school through the playground on the west side of the school. Teachers lined up students here and then guided them into the classroom.
School Bus Loading	• Only two buses were observed, and they parked right in front of the school in a "No Stopping or Standing" zone along Basten Street just east of Spinaker Lane.
Parent Drop-off/Pick-up	• Parents in vehicles generally dropped off students either along the school side of Basten Street or along the west side of Spinaker Lane. While parking is disallowed along Basten Street, many parents parked there and walked students into school.
School Staff Roles	• Several different staff members were observed playing a role in guiding students into the school at arrival.
School Crossing Guards	• One crossing guard was observed at Basten Street and Spinaker Lane. • One crossing guard was observed at Basten Street and Danz Avenue.
Law Enforcement	• No law enforcement officers were observed.


Danz Elementary School
Location within GBAPS District
MACCAUX DR
STARLITE LN
LARSCHEID ST
NEWTOLS ST
SPINNAKER LN
BASTEN ST
DANZ AV
Danz Elementary School
Triangle Sports Area
MORROW ST
1
2
3
4
5
6
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 100 200 Feet

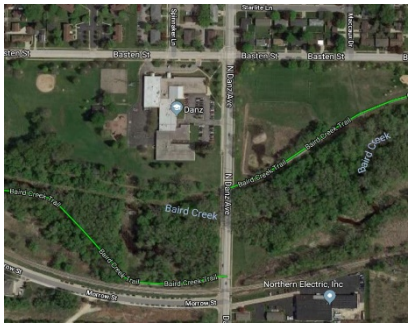
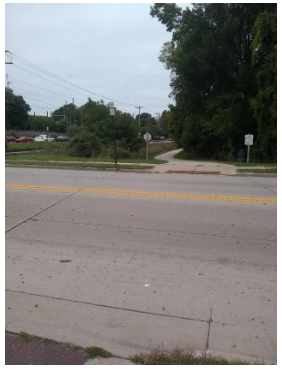
Recommendations

The numbered observations in the table below correspond to the points in the Danz Elementary School map.

#	Location	Observations	Recommendations
1	Basten Street (school side) 	• Although Basten Street from Danz Avenue to Larscheid Street has “No Parking 7 AM to 4 PM” signs, about half the parents pulling up here were observed parking and walking students into school. Staff and other parents alike mentioned that this can make it difficult to find spaces for those who are just picking up or dropping off students.	• On the school side of Basten Street and/or Danz Avenue, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)
2	Basten Street (non-school side) 	• Because the school side of the street is crowded, many parents stop and some even park on the non-school side. • Near the intersection with Spinnaker Lane, orange cones disallow stopping or parking. • Most parents who park here escort students across the street although few use the marked crosswalk at Spinnaker Lane.	• Make sure that the importance of walking students to the marked crosswalk at Spinnaker Lane is addressed in the school's arrival and dismissal rules. (Short Term)

#	Location	Observations	Recommendations
3	Basten Street and Spinnaker Lane  	• A stop sign is present for Spinnaker Lane but Basten Street is uncontrolled. • Many students cross the street at this intersection (the crossing guard estimated that she usually crosses 120 students at both arrival and dismissal times). • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). Orange cones and yellow-painted curbs, however, do help define the crossing area near the intersection. • A high volume of left-turning vehicles from Basten Street onto Spinnaker Lane was observed and noted as a concern by the crossing guard. It was reported that this may be a result of the signal timing at the intersection of Danz Avenue and Basten Street (see #4). • Although discouraged by the crossing guard, the curbsides near Spinnaker Lane are filled with idling cars that block travel lanes. • Drivers dropping off students within the area of the orange cones corner impede the visibility of students in or approaching the crosswalk. • Existing single curb ramps on the north corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the crossing of Basten Street. (Short Term) • To further reinforce the parking restrictions in advance of the crosswalk, consider painting the curb. Consider placing the cones near the intersection further out in the street. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
4	Danz Avenue and Basten Street 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Danz Avenue. • The intersection is signalized. • A moderate number of students were observed crossing east-west at this intersection. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings are present). • Even though all legs of the intersection have advance stop bars, the crossing guard mentioned that east-bound vehicles on Basten Street often block the intersection as they make right turns onto Danz Avenue. "NO RIGHT TURN ON RED WHILE CHILDREN ARE PRESENT" signs are present. • Parents report that the traffic signal phase is not sufficient for all the vehicles that wish to turn left from Basten Street onto Danz Avenue, resulting in cut-thru traffic on Spinnaker Lane. • Existing curb ramps at all corners except the northwest corner do not meet current USDOT standards. • Existing single curb ramps at all corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Explore whether the traffic signal phasing could be modified to reduce back-ups on Basten Street and reduce cut-thru traffic on Spinnaker Lane. • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks at all legs of the intersection. (Long Term)

#	Location	Observations	Recommendations
5	Baird Creek Trail Crossing  	• The Baird Creek Trail is slightly to the south of the school property; however, the trail is offset by about 400 feet on either side of Danz Avenue and no marked crossing is provided to cross Danz Avenue at either the north or south trail access. Curb ramps and trail crossing signs are present at the southern trail access. • Parents observed that the sidewalks on the bridge over Baird Creek are narrow with no barrier between the sidewalk and the street. This gives parents concern about biking in this location with children who are not yet steady bicycle riders. • Parents observed that some students attempt to cross Danz Avenue midblock to access the back of school.	• Bike lanes are proposed for Danz Avenue. (Long Term) • Mark a crosswalk across Danz Avenue at either the north or south trail access. Adding high visibility markings to the southern access would be simplest since signs and curb ramps are already present, however putting the trail crossing at the northern trail access may provide more benefit to Danz students. (Short Term) • For whichever trail crossing is marked, add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and ensure there are crossing signs for the proposed trail crossing. (Short Term) • Consider adding wayfinding signs directing trail users to the location of the trail crossing.
6	Bicycle Racks	• Existing bike racks are located behind the school, on the playground. Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Doty Elementary School

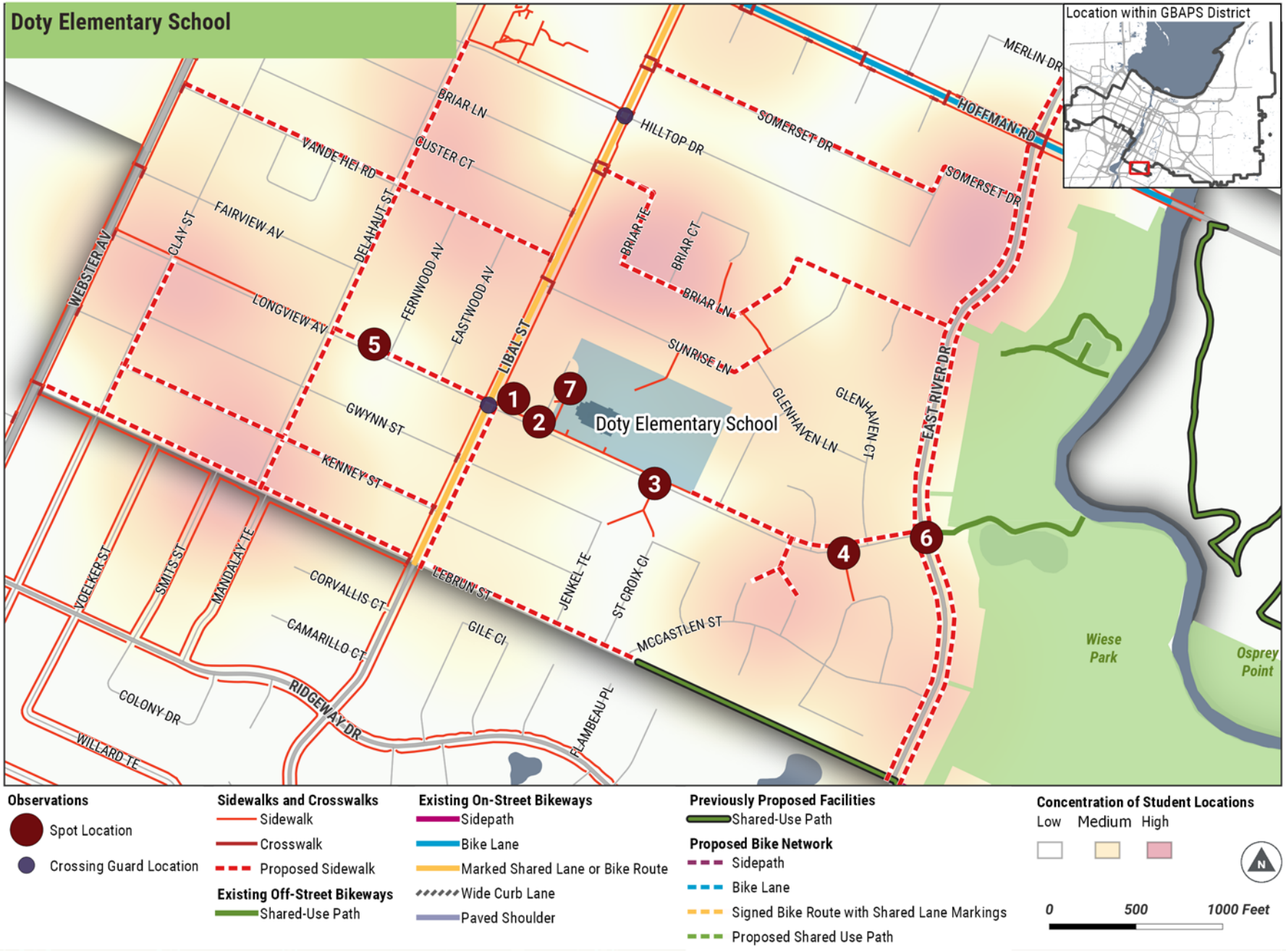
About the School	
Address	525 Longview Avenue
Grade Levels	K4-5
Number of Students	294*
Students Eligible for School Bus	72.4%
Economically Disadvantaged	78.6%*
Students with Disabilities	13.3%
Arrival / Dismissal Times	8:12 AM / 2:45 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Libal Street	4,400
East River Drive	3,600
Ridgeway Drive	3,600
Hoffman Road	6,700
Webster Avenue	10,300

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Wednesday, September 19.
Entrances	• Students exited the school from the entrance along the parking lot on Longview Avenue
School Bus Loading	• School buses loaded students from the parking lot in front of the school. • The parking lot has two entrances, serving as a bus loop. • More buses arrived than could fit in the parking lot and so some buses staged along both sides of Longview Avenue, waiting for the first buses to clear before entering the parking lot to load students.
Parent Drop-off/Pick-up	• Parents and caregivers in vehicles picked up students along Longview Court.
Student Roles	• No students were observed participating in dismissal.
School Staff Roles	• School staff were present during dismissal at the bus loading area.
School Crossing Guards	• School crossing guards were stationed at the intersection of Libal Street and Longview Avenue and at Libal Street and Hilltop Drive.
Law Enforcement	• No law enforcement officers were observed.


Doty Elementary School
Location within GBAPS District
Doty Elementary School
MERLIN DR
HOFFMAN RD
BRIAR LN
HILLTOP DR
SOMERSET DR
VANDE HEI RD
CUSTER CT
CLAY ST
FAIRVIEW AV
DELAHAUT ST
FERNWOOD AV
EASTWOOD AV
BRIAR TE
BRIAR CT
WEBSTER AV
LONGVIEW AV
LIBAL ST
SUNRISE LN
GLENHAVEN LN
GLENHAVEN CT
EAST RIVER DR
GWYNN ST
KENNEY ST
VOELKER ST
SMITS ST
MANDALAY TE
CORVALLIS CT
CAMARILLO CT
LEBRUN ST
JENKEL TE
ST CROIX CI
MCCASTLEN ST
GILE CI
COLONY DR
RIDGEWAY DR
WILLARD TE
FLAMBEAU PL
Wiese Park
Osprey Point
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 500 1000 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Doty Elementary School map.

#	Location	Observations	Recommendations
1	Libal Street and Longview Avenue 	• Stop signs are present for Longview Avenue but Libal Street is uncontrolled. • Missing sidewalk on the east side of Libal Street between Longview Avenue and Lebrun Street creates a barrier to walking and bicycling to school. • The existing crosswalk, where a crossing guard is posted, is not highly visible to drivers (no high visibility crosswalk markings are present). • The Allouez Safe Routes to School Plan proposes curb extensions at this location after the completion of an engineering study. • Existing curb ramps do not meet existing USDOT standards.	• Construct new sidewalk on the east side of Libal Street between Longview Avenue and Lebrun Street. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the marked crosswalk across Libal Street. (Short Term) • Construct curb extensions to shorten pedestrian crossing distances. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
2	Longview Avenue and Longview Court 	• A stop sign is present for Longview Court but Longview Avenue is uncontrolled. • Existing curb ramps do not meet current USDOT standards. • Parents pick up students from Longview Court so there is a relatively high volume of vehicles at this intersection. • The existing path from the school to Longview Court does not have a curb ramp. Children getting picked up were entering the road from between parked cars.	• Construct the missing curb ramp. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • On the school side of the street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)

#	Location	Observations	Recommendations
3	Longview Avenue at the walking path west of Glenbrooke Lane 	• The existing crosswalk is not highly visible to drivers (no high visibility crosswalk markings are present). • The Allouez Safe Routes to School plan proposes curb extensions at this intersection. These are planned for construction. • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the crossing of Longview Avenue. (Short Term) • Construct curb extensions to shorten pedestrian crossing distances. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
4	Longview Avenue at the walking path west of Glenhaven Court  *Photo Credit: Google Streetview*	• No crosswalk is marked at the intersection of Longview Avenue and the walking path. • The Allouez Safe Routes to School Plan proposes curb extensions on both sides of the street at this location. • The existing curb ramp does not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the crossing of Longview Avenue. (Short Term) • Construct curb extensions to shorten pedestrian crossing distances. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
5	Residential streets surrounding the school 	• Many of the streets surrounding the school lack sidewalks, creating barriers to walking and bicycling to school. • The Allouez Safe Routes to School Plan proposes new sidewalk on the north side of Longview Avenue between the school and East River Drive. • New sidewalk is planned and funded on the west side of East River Drive from East Briar Lane to Lebrun Street. • The Allouez Safe Routes to School Plan proposes new sidewalk on the north side of Longview Avenue between Libal Street and Webster Avenue.	• Construct new sidewalks as shown in the Doty Elementary School map. (Long Term) • Construct new sidewalk on the north side of Longview Avenue between the school and East River Drive. (Short Term) • Construct new sidewalk on both sides of East River Drive between Hoffman Road and Lebrun Street. (Short Term) • Construct new sidewalk on the north side of Longview Avenue between Libal Street and Webster Avenue. (Short Term)
6	Longview Avenue and East River Drive 	• A stop sign is present on Longview Avenue but East River Drive is uncontrolled. • There are no crosswalk markings leading to the existing path which leads to the East River Trail. • No sidewalks are present on Longview Avenue or East River Drive. • The Allouez Safe Routes to School Plan proposes new sidewalks on the west side of East River Drive and the north side of Longview Avenue, and the construction of curb extensions at this location.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs on the north leg crossing East River Drive. (Short Term) • Construct curb extensions to shorten pedestrian crossing distances. (Medium Term)

#	Location	Observations	Recommendations
7	Bike Parking 	• A few bikes were observed at the existing bike racks. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

East High School

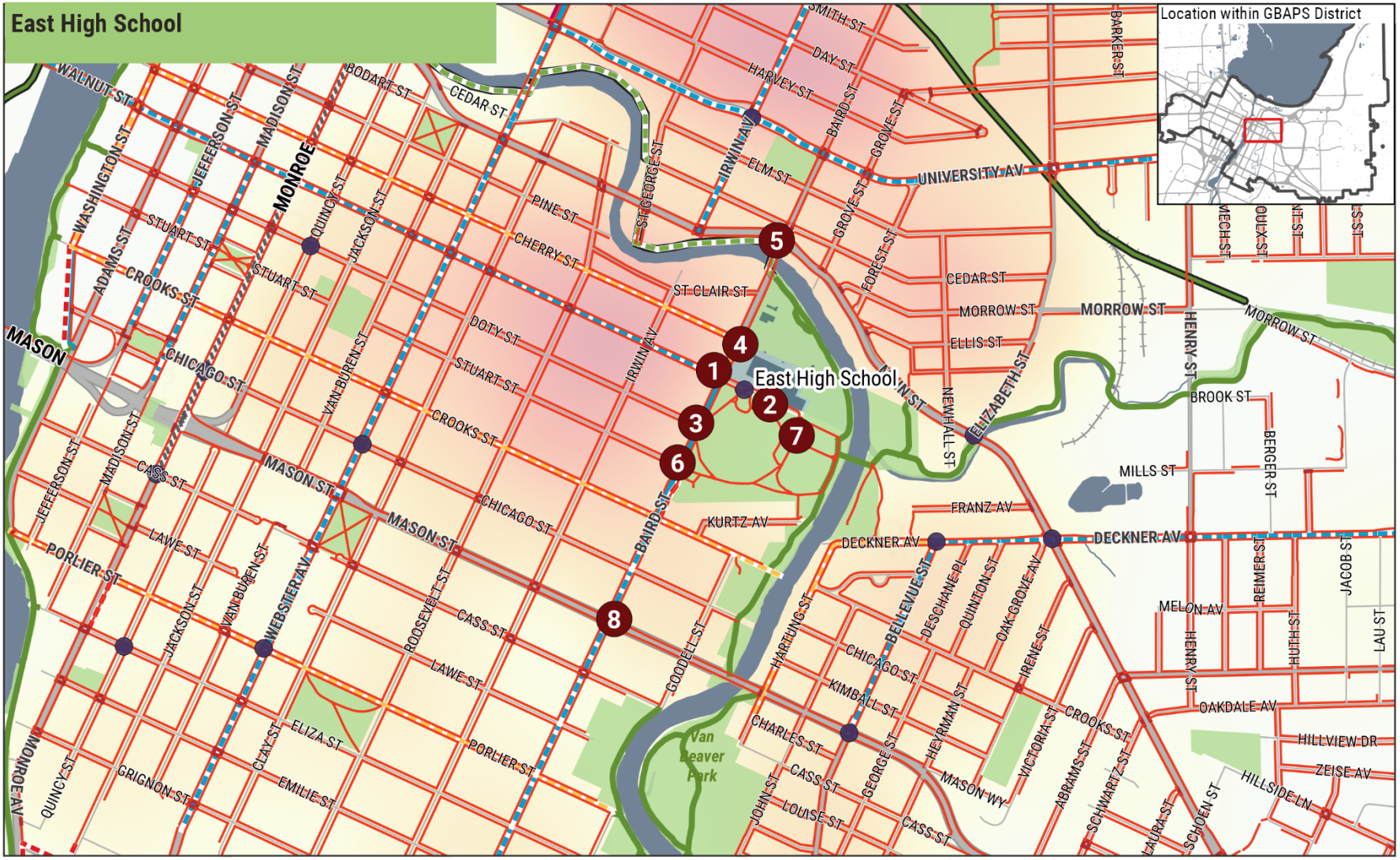
About the School	
Address	1415 E Walnut Street
Grade Levels	9-12
Number of Students	1,279*
Students Eligible for School Bus	23.5%
Economically Disadvantaged	63.8%*
Students with Disabilities	16.7%
Arrival / Dismissal Times	7:35 AM / 3:00 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Walnut Street	4,100
Baird Street	9,500
Main Street	19,300

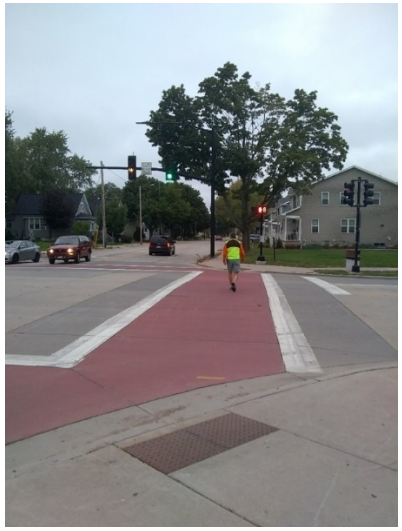
Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Wednesday, September 19.
Entrances	• Students entered primarily at the main entrance along Walnut Street on the south side of the building.
School Bus Loading	• School buses unloaded students on Walnut Street near the east edge of the school building.
Parent Drop-off/Pick-up	• Parents and caregivers in vehicles dropped off students along Walnut Street. • Cones were placed along Walnut Street, which results in a loop for pick-up and drop-off: cars access the school via the parking lot and exit onto west-bound Walnut Street. • Some parents dropped off students outside of the intended drop-off area. • Many students drove and parked in the parking lot. • Many students rode bicycles and parked at the existing bike racks or many locations surrounding the school.
Student Roles	• No students were observed participating in arrival.
School Staff Roles	• School staff are typically present during arrival and dismissal.
School Crossing Guards	• A school crossing guard was stationed at the Walnut Street crosswalk near the school main entrance.
Law Enforcement	• A law enforcement officer was observed parked near the intersection of Baird Street and Doty Street.


East High School
Location within GBAPS District
East High School
1
2
3
4
5
6
7
8
MASON
MONROE
UNIVERSITY AV
MORROW ST
MASON ST
CHICAGO ST
CROOKS ST
STUART ST
DOTY ST
PINE ST
CHERRY ST
ST CLAIR ST
CEDAR ST
ELM ST
IRWIN AV
BAIRD ST
GROVE ST
FOREST ST
ELLIS ST
NEWHALL ST
ELIZABETH ST
HENRY ST
BROOK ST
BERGER ST
MILLS ST
FRANZ AV
DECKNER AV
KURTZ AV
CASS ST
LAWE ST
PORLIER ST
WEBSTER AV
ROOSEVELT ST
GOODELL ST
HARTUNG ST
BELLEVUE ST
DESCHANE PL
QUINTON ST
OAK GROVE AV
IRENE ST
MELON AV
REIMER ST
JACOB ST
LAU ST
HUTH ST
OAKDALE AV
HILLVIEW DR
ZEISE AV
HILLSIDE LN
CHARLES ST
KIMBALL ST
HEYRMAN ST
VICTORIA ST
ABRAMS ST
SCHWARTZ ST
LAURA ST
SCHOEN ST
MASON WY
JOHN ST
LOUISE ST
GEORGE ST
Van Heaver Park
WALNUT ST
WASHINGTON ST
ADAMS ST
JEFFERSON ST
MADISON ST
BODART ST
QUINCY ST
JACKSON ST
VAN BUREN ST
CLAY ST
ELIZA ST
EMILIE ST
GRIGNON ST
SMITH ST
DAY ST
HARVEY ST
ST GEORGE ST
BARKER ST
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 900 1800 Feet

Recommendations

The numbered observations in the table below correspond to the points in the East High School map.

#	Location	Observations	Recommendations
1	Baird Street and East Walnut Street 	• The intersection is signalized, and the crossings are marked with white parallel markings and red-colored pavement. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Baird Street and East Walnut Street. • Parents are concerned about drivers exceeding the speed limit on Baird Street. • A high-volume of vehicles turn at this intersection during school arrival and dismissal. • The existing northbound bike lane on Baird Street ends just to the south of the intersection. The extra travel lane created serves as an unmarked right-turn lane during school arrival times. • Parents report concerns about the safety of students crossing the street at this location and say that turning vehicles do not always yield to pedestrians in the crosswalk.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Conduct speed and traffic enforcement. (Short Term) • Consider adding driver speed feedback signs or trailers to slow traffic on Baird Street. (Medium Term)

#	Location	Observations	Recommendations
2	Walnut Street in front of the school 	• The crossing guard working at this interesction said that a large number of parents drop off students outside of the designated drop-off area. Parents dropping off students between the midblock crosswalk on Walnut and Baird Street may contribute to traffic backing up to the intersection with Baird Street. • A drainage issue results in mud and debris on the existing curb ramps. • While the existing crosswalk is marked with high-visibility style markings, the markings are so widely spaced as to not be highly visible. • Parents note that pick-up and drop-off can be time consuming due to the volume of vehicles all accessing the school at the same time.	• On the school side of Walnut Street, designate signed areas to allow student pick-up and drop-off. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Conduct ocassional enforcement of parent drop off locations. (Short Term) • Perform maintenance to correct the drainage issue. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs. (Short Term)
3	Baird Street and Doty Street 	• A stop sign is present for Doty Street but Baird Street is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The existing crossing is heavily used by students, but is not located within the existing reduced school speed limit zone. • The existing curb ramp on the northwest corner does not meet current USDOT standards. • Existing single curb ramps at western corners do not orient pedestrians directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for legs crossing Baird Street. (Short Term) • Extend the reduced school speed zone so that it includes this intersection. (Short Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with the crosswalks. (Long Term)

#	Location	Observations	Recommendations
4	Baird Street and Cherry Street  *Photo Credit: Google Streetview*	• A stop sign is present for Cherry Street but Baird Street is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The existing curb ramp on the northwest corner does not meet current USDOT standards. • The existing single curb ramps on the southwest and northwest corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for leg crossing Baird Street. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for each approach on Baird Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks on the north and west sides of the intersection. (Long Term)

#	Location	Observations	Recommendations
5	Baird Street and Main Street 	• The intersection is signalized and the crosswalks are marked with a retro-reflective decorative brick pattern. • Parents are concerned about the safety of students crossing the street at this intersection. • Existing marked crosswalks measure less than the recommended minimum of 10 feet in width. • Main Street is a high speed and high-volume street. • Existing curb ramps may not meet current USDOT standards (adequate level landings appear not to be present). • The existing single curb ramp on the northwest corner does not orient users directly into the crosswalk.	• Refresh the crosswalks with high visibility markings measuring 10 feet in width. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for free right turn from Baird Street to Main Street. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Prior to next reconstruction of the intersection, conduct a traffic study to determine the need for dedicated right and left turn lanes on all approaches. Reducing the number of turn lanes would reduce pedestrian crossing distance and exposure time. (Long Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks on all legs of the intersection. (Long Term)

#	Location	Observations	Recommendations
6	Baird Street and Stuart Street 	• A stop sign is present for Stuart Street, but Baird Street is uncontrolled. • The intersection was very heavily used by students from both East High School and Washington Middle School (particularly by Washington Middle School students). A district-employed adult crossing guard was present. • Existing pedestrian-actuated flashing school crossing signs are present. • Only one existing curb ramp meets current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add higher visibility crosswalk markings for the approach on Baird Street and ensure that nightime lighting and parking restrictions on the crosswalk approaches are adequate. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • Consider adding a pedestrian refuge island. (Long Term)
7	Bicycle Parking 	• While there are bicycle racks near the parking lot, a great number of bicycles were observed all over the school grounds, locked to trees and sign posts, and hidden behind shrubs. This shows a demand for additional bicycle parking racks in convenient locations, such as near the school entrances. • The existing bicycle racks are of an unusual style that may make it difficult to securely lock many bicycles, and the metal loops to which bicycles are intended to be locked are not spaced far enough apart to accommodate bicycle handlebars.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term) • Add bike racks in a variety of locations, particularly in locations more convenient to the school entrances. (Short Term)

#	Location	Observations	Recommendations
8	Baird Street and Mason Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents indicate concern about the safety of students crossing the street in this location. • Mason Street is a high speed and high-volume street. • Existing single curb ramps at all corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • During the next reconstruction of the intersection, explore reducing curb radii and the installation of new curb ramps that line up with crosswalks. (Long Term)

Edison Middle School

About the School	
Address	442 Alpine Drive
Grade Levels	6-8
Number of Students	1,172*
Students Eligible for School Bus	58.8%
Economically Disadvantaged	58.8%*
Students with Disabilities	14.1%*
Arrival / Dismissal Times	7:35 AM / 2:44 PM

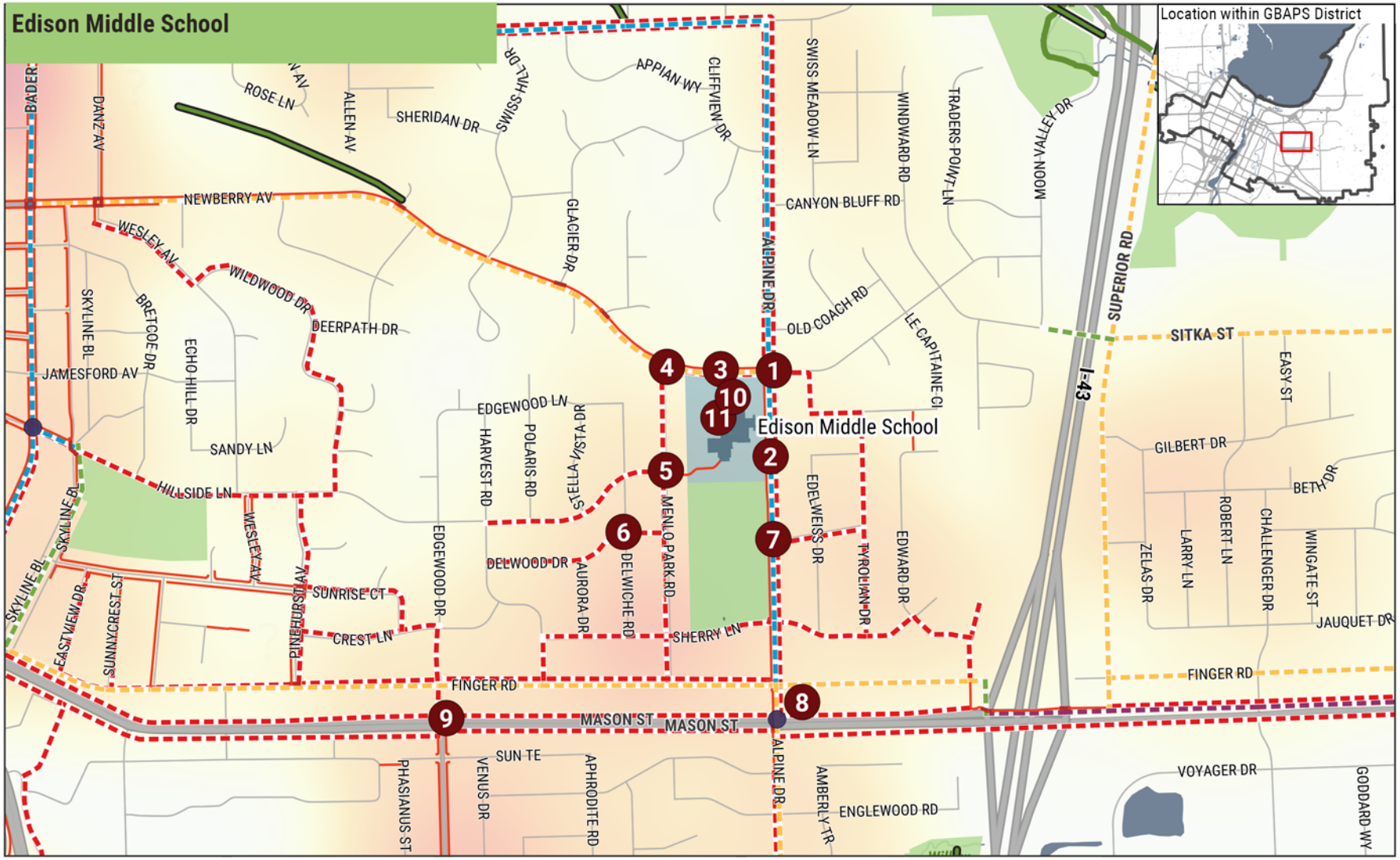
** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Alpine Drive	5,200**
Newberry Avenue	1,400
E. Mason Street (e/o Alpine)	22,600**
E. Mason Street (w/o Alpine)	16,500

*** Preliminary AADT 7/23/2018*

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Tuesday September 18.
Entrances	• Most students exited the school from the front door on Alpine Drive. • Some students exited the school from the rear door facing Newberry Avenue.
School Bus Loading	• 5 school buses loaded students in the rear of the school. • Approximately 12 buses loaded students in front, in both the circular drive and the street.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students on Newberry Avenue, Alpine Drive, and Menlo Park Road, on both sides of the streets.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal, generally keeping order.
School Crossing Guards	• One crossing guard was stationed at the intersection of Alpine Drive and E. Mason Street.
Law Enforcement	• No law enforcement officers were observed.


Edison Middle School
Location within GBAPS District
Edison Middle School
BADER
DANZ AV
ROSE LN
ALLEN AV
SHERIDAN DR
SWISS HALL DR
APPIAN WY
CLIFFVIEW DR
SWISS MEADOW LN
WINDWARD RD
TRADERS POINT LN
MOON VALLEY DR
NEWBERRY AV
WESLEY AV
WILDWOOD DR
GLACIER DR
CANYON BLUFF RD
ALPINE DR
SUPERIOR RD
SKYLINE BL
BRETCOE DR
ECHO HILL DR
DEERPATH DR
OLD COACH RD
LE CAPITAINE CI
SITKA ST
JAMESFORD AV
EDGEWOOD LN
HARVEST RD
POLARIS RD
STELLA VISTA DR
I-43
EASY ST
GILBERT DR
SANDY LN
HILLSIDE LN
EDELWEISS DR
TYROLIAN DR
EDWARD DR
BETH DR
ROBERT LN
CHALLENGER DR
WINGATE ST
ZELAS DR
LARRY LN
JAUQUET DR
EAST VIEW DR
SUNNYCREST ST
SUNRISE CT
CRESTLINE DR
EDGEWOOD DR
DELWOOD DR
AURORA DR
DELWICHE RD
MENLO PARK RD
SHERRY LN
CREST LN
FINGER RD
MASON ST
SUN TE
PHASIANUS ST
VENUS DR
APHRODITE RD
AMBERLY TR
ENGLEWOOD RD
VOYAGER DR
GODDARD WY
1
2
3
4
5
6
7
8
9
10
11
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 700 1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Edison Middle School map.

#	Location	Observations	Recommendations
1	Alpine Drive and Newberry Avenue 	• The intersection is an all-way stop. • The intersection was very heavily used by students. No crossing guard was stationed at this intersection. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Neighbors and parents report that it is very difficult to cross Alpine Drive during school arrival. • Reduced speed limit school zone starts on school property and does not encompass this intersection. • Parents report that there is no sheltered place for students to wait at the Metro Transit bus stop near this intersection. Snow banks make it difficult for students to board or exit the bus in the winter. • Some existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Explore adding a bus shelter. (Medium Term) • Instruct those performing snow removal to ensure that pathways are clear all the way to the street at the bus stops. (Short Term) • Add high visibility crosswalk markings. (Short Term) • Study the intersection to determine if the all-way stop is the correct treatment. Parents report that a high number of vehicles run the stop signs at this intersection, so an alternative countermeasure to help pedestrians crossing Alpine Drive may be preferable to stopping traffic on Alpine Drive. If the stop sign for traffic on Alpine Drive is removed, consider adding: high-visibility crosswalk markings, parking restrictions on crosswalk approaches, adequate nighttime lighting levels, and crossing warning signs as well as in-street pedestrian crossing signs, curb extensions, or pedestrian refuge islands. (Short Term) • Extend the reduced school speed zone so that it includes this intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
2	Alpine Drive in Front of School 	• "SCHOOL" pavement markings and School Speed Limit flashing beacons are present on both approaches. • Parents report that other parents park in "No Parking" areas. • Parents use circular drive for drop offs despite signage prohibiting that behavior.	• On the school sides of Alpine Drive and Newberry Avenue, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. (Medium Term) • Consider 1.) Placing cones or a chain across the entryway of the circular drive; 2.) Placing a "DO NOT ENTER" sign at the entryway of the circular drive; and/or 3.) Ensuring that this policy is addressed in the school's arrival and dismissal rules. (Short Term)
3	Newberry Avenue between Alpine Drive and Menlo Park Road 	• Missing sidewalks on the south side of the street between Alpine Drive and Menlo Park Road present a barrier to walking and bicycling. • Vehicles appeared to exceed the posted speed limit during school dismissal. • Parents were observed parked on both sides of the street. Students crossed the street midblock to get to waiting vehicles. • Several teachers park on Newberry Avenue. • Parents report that teachers make U-turns on Newberry Avenue while attempting to park and then cross the street midblock.	• Construct new sidewalks along the south side of the street, between Alpine Drive and Menlo Park Road. (Medium Term) • On the school sides of Alpine Drive and Newberry Avenue, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. (Medium Term)

#	Location	Observations	Recommendations
4	Newberry Avenue and Menlo Park Road  *Photo Credit: Google Streetview*	• Stop signs are present for Menlo Park Road but Newberry Avenue is uncontrolled. • No marked crosswalks are present. • No school crossing signage is present. • Missing sidewalks on the south side of Newberry Avenue between Alpine Drive and Menlo Park Road, and on both sides of Menlo Park Road between Newberry Avenue and Finger Road, present barriers to walking and bicycling to school. On streets without sidewalks, parents observe that students are not always walking on the correct side of the street (facing traffic).	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Newberry Avenue. (Short Term) • Construct new sidewalks on the south side of Newberry Avenue between Alpine Drive and Menlo Park Road, and on the west side of Menlo Park Road between Newberry Avenue and Finger Road. (Medium Term)
5	Menlo Park Road and Hillside Lane  *Photo Credit: Google Streetview*	• A stop sign is present for Hillside Lane but Menlo Park Road is uncontrolled. • An existing trail connects this intersection to the rear of the school, however it is not always cleared after a snow event. • No marked crosswalks exist at this intersection. • Many parents drop off students at this intersection to access the school via the trail connection. • Parents indicate that parked cars create a problem for students crossing Menlo Park Road. • Parents indicate that many drivers are speeding or generally inattentive. No school reduced speed zone is present.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Menlo Park Road. In addition, add sidewalks and curb ramps. (Short Term) • Add school reduced school speed limit signs to encompass this intersection. (Short Term) • Ensure timely snow removal for the trail that connects the school to this intersection.

#	Location	Observations	Recommendations
6	Residential Streets Surrounding School  *Photo Credit: Google Streetview*	• Missing sidewalks present barriers to walking and bicycling to school. On streets without sidewalks, parents observe that students are not always walking on the correct side of the street (facing traffic).	• Construct new sidewalks as shown in the Edison Middle School map. (Short, Medium, and Long Term)
7	Alpine Drive and Malcore Drive  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • The intersection was observed to have a heavy volume of vehicular traffic. • Vehicles appeared to exceed the posted speed limit during school dismissal. • Parents report that drivers frequently run the stop signs. One parent reported that a student was struck by a car at this intersection when bicycling. • No bicycle facilities are present. • Missing sidewalk on the east side of Alpine Drive between Deckner Avenue and Mason Street presents a barrier to walking and bicycling to school.	• Add high visibility crosswalk markings. (Short Term) • Study the intersection to determine if the all-way stop is the correct treatment. Parents report that a high number of vehicles run the stop signs at this intersection, so an alternative countermeasure to help pedestrians crossing Alpine Drive may be preferable to stopping traffic on Alpine Drive. If the stop sign for traffic on Alpine Drive is removed, countermeasures to consider include: high-visibility crosswalk markings, parking restrictions on crosswalk approaches, adequate nighttime lighting levels, and crossing warning signs. In addition, consider in-street pedestrian crossing signs, curb extensions, or pedestrian refuge islands. (Short Term) • Conduct speed and stop sign enforcement. (Short Term) • Bike lanes are recommended.(Medium Term) • Construct a new sidewalk on the east side of Alpine Drive between Deckner Avenue and Finger Road. (Short Term)

#	Location	Observations	Recommendations
8	Alpine Drive and Mason Street 	• The intersection is signalized. • A crossing guard is stationed at this intersection. • Mason Street is a high speed and high volume street. Many parents indicated concern about the safety of students crossing at this intersection and Mason Street in general. • Only the western leg of the intersection has a marked crosswalk, which is marked with parallel line crosswalk markings. In addition to lacking crosswalk markings, the eastern leg of the intersection also lacks pedestrian signal heads. • The southeast corner has excessive grades. • Missing sidewalks on the east side of Alpine Drive between Deckner Avenue and Finger Road, and on both sides of East Mason Street between Alpine Drive and Bader Street, present barriers to walking and bicycling to school. • Parents report observing drivers run red lights at this intersection. • Curb ramps are missing except for the western leg of the intersection to cross E. Mason Street.	• Install pedestrian signal heads and a marked crosswalk for pedestrians crossing the east leg of Alpine Drive. (Medium Term) • Construct missing sidewalks on the east side of Alpine Drive between Deckner Avenue and East Mason Street. (Short Term) • Construct missing sidewalks on both sides of East Mason Street between Alpine Drive and Bader Street, and on the north side between Alpine Drive and Interstate 43. (Short Term) • Conduct enforcement of traffic laws. (Short Term) • Construct missing curb ramps. (Medium Term)

#	Location	Observations	Recommendations
9	Mason Street and Edgewood Drive  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents note that vehicles exceed the speed limit on Mason Street and sometimes run red lights. • Mason Street is a high speed and high-volume street. • Missing sidewalks on both sides of Mason Street between Alpine Drive and Bader Street, and on both sides of Edgewood Drive between Mason Street and Crest Lane, present barriers to walking and bicycling to school. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Construct new sidewalks on both sides of Mason Street between Bader Street and Alpine Drive, and on the north side between Alpine Drive and Interstate 43. (Short Term) • Construct new sidewalks on the west side of Edgewood Drive between Mason Street and Crest Lane. (Long Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
10	Rear Parking Lot on north side of school 	• Vehicular access to the parking lot was restricted during dismissal (except for buses). • The parking lot was recently repaved. • Bus queueing area not laid out most optimally for efficient loading and unloading of students. The bus drivers indicate that the layout is too tight for buses to pass at the turnaround.	• Consider redesigning the bus queueing area for more efficient loading and unloading of students. (Long Term)
11	Bike Parking 	• Six bicycles were observed. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Eisenhower Elementary School

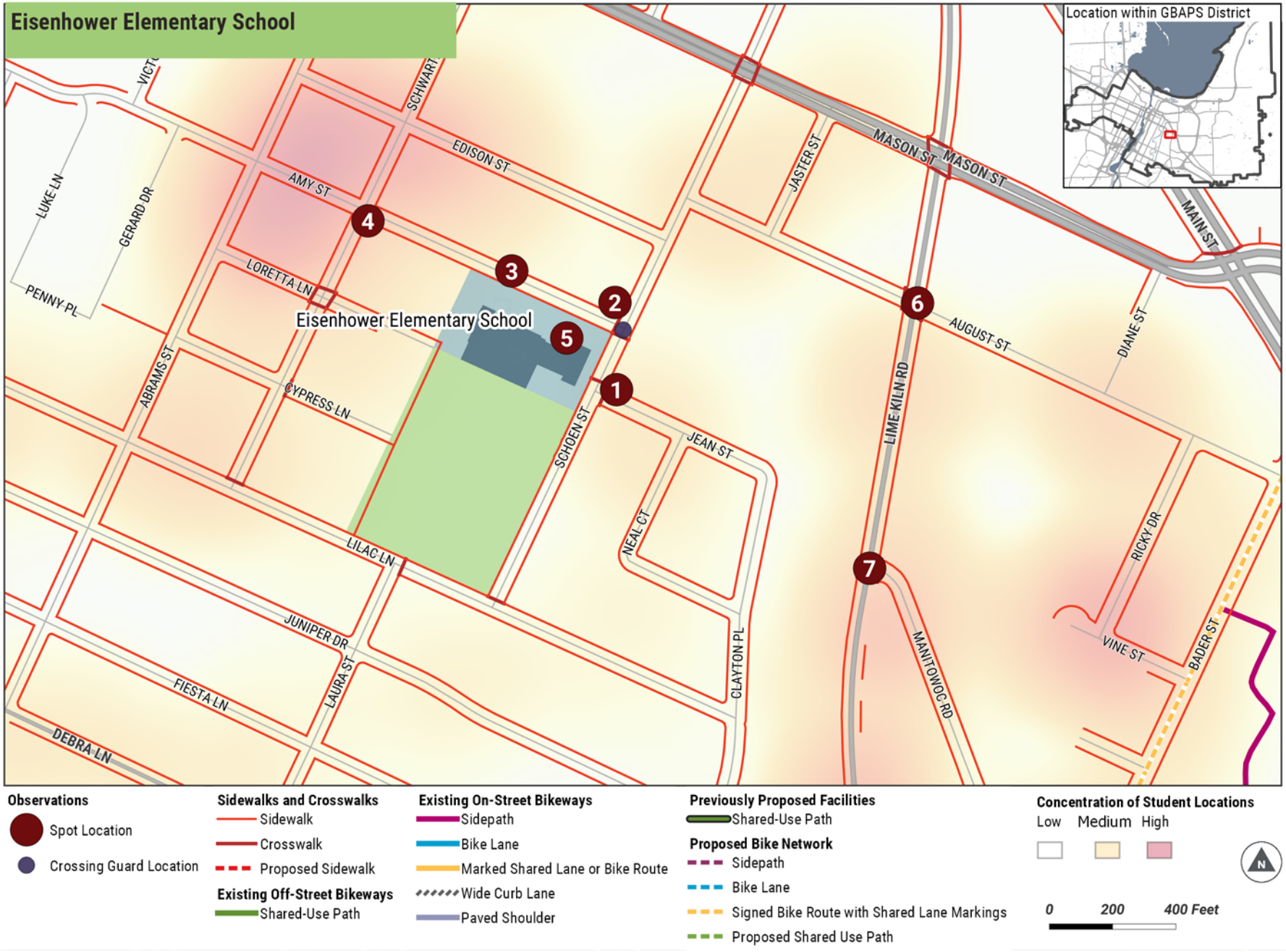
About the School	
Address	1770 Amy Street
Grade Levels	1-5
Number of Students	409*
Students Eligible for School Bus	15.1%
Economically Disadvantaged	84.1%*
Students with Disabilities	13.7%*
Arrival / Dismissal Times	8:27 AM / 3:00 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Debra Lane	1,500
Lime Kiln Road	9,500
Mason Street	15,900
Main Street	15,100

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Thursday, September 20. It was raining, and students entered the school upon arrival.
Entrances	• All students enter the building at one of 3 front doors along Amy Street.
School Bus Loading	• Buses dropped off students in the bus loop in front of the school, on Amy Street.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students primarily on both sides of Amy Street. • Vehicular drop-off also occurred on other nearby streets and in parking lots surrounding the school.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• School staff were present during arrival. • There were staff members present at each driveway along Amy Street. • A school staff member worked as a crossing monitor at the intersection of Schoen Street and Jean Street.
School Crossing Guards	• One crossing guard was stationed at the intersection of Amy Street and Schoen Street. • A crossing guard was stationed at the intersection of Lime Kiln Road and August Street. • A crossing guard was stationed at the intersection of Lime Kiln Road and Manitowoc Road.
Law Enforcement	• No law enforcement officers were observed.
New Construction	• Eisenhower will be constructing an addition to increase capacity to 600 students. The addition will include 11 classrooms, 2 special education rooms, a new music room, a multi-purpose community room, and space for collaborative learning.


Eisenhower Elementary School
Location within GBAPS District
Eisenhower Elementary School
EDISON ST
AMY ST
LORETTA LN
CYPRESS LN
LILAC LN
JUNIPER DR
FIESTA LN
DEBRA LN
LAURA ST
ABRAMS ST
PENNY PL
LUKE LN
GERARD DR
SCHWARTZ
SCHOEN ST
JEAN ST
NEAL CT
CLAYTON PL
JASTER ST
MASON ST
MASON ST
LIME KILN RD
MANITOWOC RD
AUGUST ST
DIANE ST
MAIN ST
RICKY DR
VINE ST
BADER ST
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Eisenhower Elementary School map.

#	Location	Observations	Recommendations
1	Schoen Street and Jean Street 	• Stop signs are present for Jean Street but Schoen Street is uncontrolled. • The intersection was very heavily used by students. A school staff member served as a crossing monitor. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the leg with the crosswalk across Schoen Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
2	Schoen Street and Amy Street 	• A stop sign is present for Schoen Street, but Schoen Street is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Schoen Street. • The intersection was very heavily used by students. A school crossing guard was present. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Parents sometimes park too close to the intersection, impeding visibility of the crossing.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the leg with the crosswalk across Schoen Street. (Short Term) • Consider painting the curbs to further reinforce the parking restrictions near the intersection. (Short Term)

#	Location	Observations	Recommendations
3	Amy Street between Schoen Street and Schwartz Street 	• "SCHOOL" pavement markings are present on the eastbound approach and reduced school speed limits are present in both directions. • A few students were observed crossing the street midblock in this location after being dropped off by their parents.	• On the school side of Amy Street and/or Schoen Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)
4	Amy Street and Schwartz Street  *Photo Credit: Google Streetview*	• Stop signs are present for Amy Street but Schwartz Street is uncontrolled. • The existing crossing on Amy Street is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Schwartz Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Consider curb extensions to improve visibility and shorten crossing distances. (Long Term)
5	Bike Racks in front of building 	• Approximately 10 bikes observed. • The existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles. (Short Term)

#	Location	Observations	Recommendations
6	Lime Kiln Road and August Street  *Photo Credit: Google Streetview*	• Stop signs are present for August Street but Lime Kiln Road is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings are present). • The crossing has pedestrian warning signs rather than school crossing signs. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Lime Kiln Road. (Short Term) • Consider curb extensions to improve visibility and shorten crossing distances. (Long Term)
7	Lime Kiln Road and Manitowoc Road  *Photo Credit: Google Streetview*	• A stop sign is present for Manitowoc Road but Lime Kiln Road is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings are present). • The crossing has pedestrian warning signs rather than school crossing signs. • The existing single curb ramp at the southeast corner does not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Lime Kiln Road. (Short Term) • Consider curb extensions to improve visibility and shorten crossing distances. (Long Term)

Elmore Elementary School

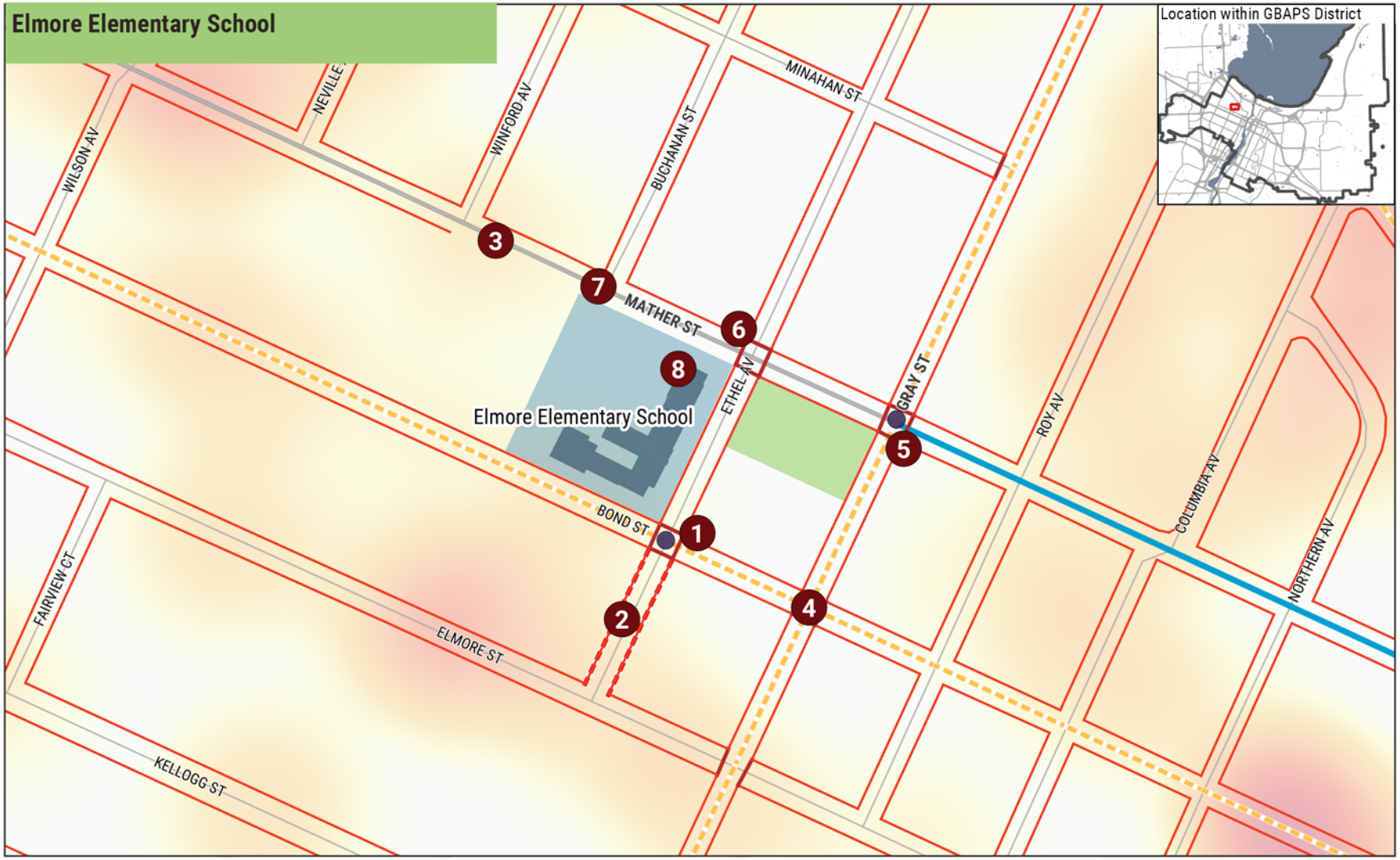
About the School	
Address	615 Ethel Avenue
Grade Levels	K4-5
Number of Students	318*
Students Eligible for School Bus	12.5%
Economically Disadvantaged	60.4%*
Students with Disabilities	13.8%*
Arrival / Dismissal Times	7:57 AM / 2:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Mather Street	1,000
Gray Street	3,600
Velp Avenue	13,400
Dousman Street	4,400
Shawano Avenue	9,800

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Wednesday, September 19.
Entrances/Exits	• At dismissal, older students exited the school from the front (onto Ethel Avenue) and from the north side (onto Mather Street). Younger students exited the school from the south side onto Bond Street.
School Bus Loading	• Three school buses were lined up along Ethel Avenue.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students from all surrounding streets around the school. Parents parked or idled on the non-school sides of Bond Street, Mather Street, and Ethel Avenue, and along both sides of Ethel Avenue north and south of the school.
School Staff Roles	• School staff were present during dismissal and guided students out to waiting parents or onto the waiting buses.
School Crossing Guards	• There were three crossing guards observed in the school's vicinity: one at the intersection Bond Street and Ethel Avenue; one at the intersection of Gray Street and Mather Street; and one at the intersection of Ethel Avenue and Mather Street.
Law Enforcement	• No law enforcement officers were observed, although staff and parents mentioned that officers are often observed in the vicinity to ensure parking compliance.


Elmore Elementary School
Location within GBAPS District
WILSON AV
NEVILLE
WINFORD AV
BUCHANAN ST
MINAHAN ST
MATHER ST
ETHEL AV
GRAY ST
ROY AV
COLUMBIA AV
NORTHERN AV
BOND ST
FAIRVIEW CT
ELMORE ST
KELLOGG ST
Elmore Elementary School
1
2
3
4
5
6
7
8
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Elmore Elementary School map.

#	Location	Observations	Recommendations
1	Bond Street and Ethel Avenue 	• Yield signs are present for Ethel Avenue but Bond Street is uncontrolled. • The existing north-south crossings are not highly visible to east-west drivers (no school crossing signs are present). • Along Ethel Avenue, buses parked close to the intersection with Bond Street, which degraded visibility for pedestrians and drivers. • Existing single curb ramps at corners meet current USDOT standards but do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Bond Street. (Short Term) • Consider painting the curbs to further reinforce the parking restrictions near the intersection and communicate with bus drivers to ensure they do not park so close to the intersection as to degrade visibility. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
2	Ethel Avenue between Bond Street and Elmore Street 	• Parents indicate that the sidewalk is badly deteriorated and in need of repair to provide a safe facility for all users.	• Perform sidewalk maintenance to correct damage. (Medium Term)

#	Location	Observations	Recommendations
3	Bond Street and Mather Streets near Elmore Elementary 	• "NO STOPPING OR STANDING" restrictions adjacent to school force parents to pick up and drop off students across the street from the school. Parents and childrens were observed crossing Bond and Mather Streets midblock. • Staff and parents noted that speeding is common on these two streets because of their long, uninterrupted nature. • Bond Street near Elmore Elementary lacks reduced speed zone signs (Mather Street has 15 mph school speed limit signage).	• On the school sides of Bond and Mather Streets, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Add school speed limit zone signs for Bond Street. (Short Term) • Conduct speed enforcement. (Short Term)

#	Location	Observations	Recommendations
4	Gray Street and Bond Street  *Photo Credit: Google Streetview*	• Stop sign are present for Bond Street but Gray Street is uncontrolled. • A large number of students live to the east on Bond Street and may cross here even though the crossing guard is stationed one block north. • This intersection is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • This intersection is not within a reduced school speed zone. • One existing curb ramp at the southwest corner of the intersection does not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for legs crossing Gray Street. (Short Term) • Consider moving the crossing guard from Gray and Mather Street to this intersection. Mather Street has a four-way stop, while there is no traffic control for students crossing Gray Street at Bond Street. (Short Term) • If a crossing guard is placed in this location, add school reduced speed limit signs to encompass this intersection. (Short Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
5	Gray Street and Mather Street  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • A moderate number of students crossed the street at this intersection which is staffed by a school crossing guard. • The intersection is not within a reduced school speed limit zone. • Two curb ramps--at the northeast and southwest corners—do not meet current USDOT standards. • Existing single curb ramps at all corners do not orient users directly into the crosswalk.	• If the crossing guard remains at this intersection, add school reduced speed limit signs to encompass this intersection. (Short Term) • Rebuild the curb ramps at the northeast and southwest corners to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
6	Mather Street and Ethel Avenue 	• Stop signs are present for Ethel Avenue but Mather Street is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Mather Street. • Many students were observed walking northward and eastward from the school along Mather Street and Ethel Avenue. • The existing north-south crossings are not highly visible to east-west drivers (no school crossing signs are present). Additionally, crosswalks lack high visibility treatments. • Existing curb ramps on the eastern legs of the intersection do not meet current USDOT standards. • Except for the northwestern corner, existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for legs crossing Mather Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
7	Mather Street and Buchanan Street 	• A stop sign is present for Buchanan Street, but Mather Street is uncontrolled. • The intersection of Mather Street and Buchanan Street has ramps facing across Mather Street. No crosswalk is marked here even though a moderate number of students crossed here. • Existing curb ramps at all corners do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Mather Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
8	Bicycle Racks 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Fort Howard Elementary School

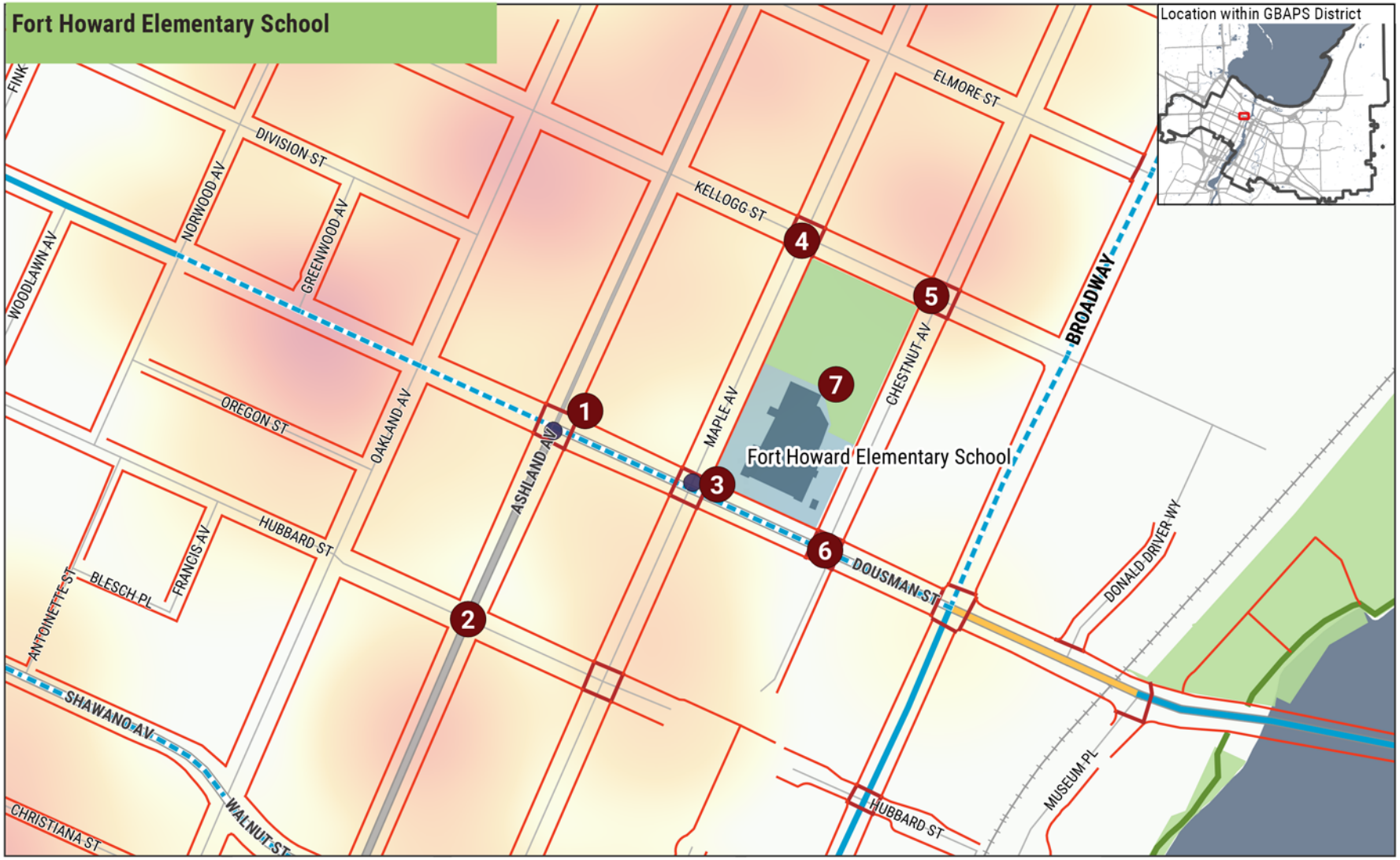
About the School	
Address	520 Dousman Street
Grade Levels	K4-5
Number of Students	174*
Students Eligible for School Bus	9.47%
Economically Disadvantaged	91.4%*
Students with Disabilities	16.1%*
Arrival / Dismissal Times	8:00 AM / 2:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Dousman Street	9,500
North Ashland Avenue	5,800
North Broadway Street	8,400
Mather Street	11,900
Walnut Street	10,700

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Monday, September 17.
Entrances/Exits	• All students exited from the rear door facing the playground. Most students then exited on to Maple Avenue. • Special education students requiring bussing exited on to Chestnut Avenue.
School Bus Loading	• A single bus loaded special education students along Chestnut Avenue.
Parent Drop-off/Pick-up	• Most parents in vehicles picked up students on the school side of Maple Avenue. • Vehicular pick-up also occurred on other nearby streets surrounding the school. • Some parents pulled into parking lot along Maple Ave.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal and released students to parents behind the school.
School Crossing Guards	• Six crossing guards were observed, one at Dousman Street and Maple Avenue; one at Dousman Street and Ashland Avenue; one at Ashland Avenue and Walnut Street; one at the intersection Bond Street and Ethel Avenue; one at the intersection of Gray Street and Mather Street; and one at the intersection of Ethel Avenue and Mather Street.
Law Enforcement	• No law enforcement officers were observed.


Fort Howard Elementary School
Location within GBAPS District
Fort Howard Elementary School
FINK
DIVISION ST
NORWOOD AV
GREENWOOD AV
WOODLAWN AV
ELMORE ST
KELLOGG ST
BROADWAY
CHESTNUT AV
MAPLE AV
OREGON ST
OAKLAND AV
ASHLAND AV
HUBBARD ST
BLESCH PL
FRANCIS AV
ANTOINETTE ST
DOUSMAN ST
DONALD DRIVER WY
SHAWANO AV
CHRISTIANA ST
WALNUT ST
MUSEUM PL
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Fort Howard Elementary School map.

#	Location	Observations	Recommendations
1	Dousman Street and Ashland Avenue 	• The intersection is signalized. • The existing crossing, where a crossing guard is stationed, is not highly visible to drivers (no high visibility crosswalk markings are present). • This intersection is not within a reduced school speed zone. • Parents indicate that drivers don't always yield to pedestrians in the crosswalk. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term) • During the next reconstruction of the intersection, explore tightening the curb radii and the installation of new curb ramps that line up with crosswalks. (Long Term)
2	Hubbard Street and Ashland Avenue 	• Stop signs are present for Hubbard Street but Ashland Avenue is uncontrolled. • No crosswalk is marked on any leg of the intersection. • Existing curb ramps at all corners do not meet current USDOT standards. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The intersection is not within a reduced school speed limit zone. • Parents indicate that drivers don't always yield to pedestrians in the crosswalk.	• Students should be strongly discouraged from crossing Ashland Avenue at this location—crossing guards and traffic signals make crossing Ashland at either Dousman Street or Walnut Street a safer choice. (Short Term) • Crosswalk markings should be added for pedestrians crossing Hubbard Street at both legs. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
3	Dousman Street and Maple Avenue 	• Stop signs are present for Maple Avenue but Dousman Street is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Dousman Street. • Most students who walked crossed here. A crossing guard helped about 20 students cross, although he says he sometimes crosses 50-60 students. The guard indicated that drivers do not always yield to pedestrians in the crosswalk. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Vehicles appear to exeed the posted speed limit of 15 mph during arrival and dismissal times and parents indicated concern over this issue. • Dousman Street is a four-lane street with two lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps on the two western corners of the intersection do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the leg crossing Dousman Street. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line to each approach on Dousman Street. (Short Term) • If warranted, install a Rectangular Rapid Flashing Beacon. (Medium Term) • Consider enforcement of traffic speeds. (Short Term) • Bike lanes are recommended on Dousman Street as a part of a road diet. (Long Term) • Rebuild the curb ramps to meet current USDOT standards. (Long Term)

#	Location	Observations	Recommendations
4	Kellogg Street and Maple Avenue  *Photo Credit: Google Streetview*	• Yield signs are present for Kellogg Street, but Maple Avenue is uncontrolled. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • This intersection is not within a reduced school speed zone. • Existing double curb ramps at corners do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Maple Avenue. (Short Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
5	Kellogg Street and Chestnut Avenue 	• Yield signs are present for Kellogg Street but Chestnut Avenue is uncontrolled. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • This intersection is not within a reduced school speed zone.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Kellog Street. (Short Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term)

#	Location	Observations	Recommendations
6	Dousman Street and Chestnut Avenue 	• Stop signs are present for Chestnut Avenue but Dousman Street is uncontrolled. • No students were observed crossing here, but the existing crossings are not highly visible to drivers (no high-visibility crosswalk markings or school crossing signs are present). • The existing school reduced speed zone ends before this intersection. • Existing curb ramps on the two western corners of the intersection do not meet current USDOT standards. • Dousman Street is a four-lane street with two lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not.	• Fort Howard students should be discouraged from crossing Dousman Street in this location, particularly if the treatments recommended at Maple Avenue are implemented. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
7	Bicycle Racks 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Franklin Middle School

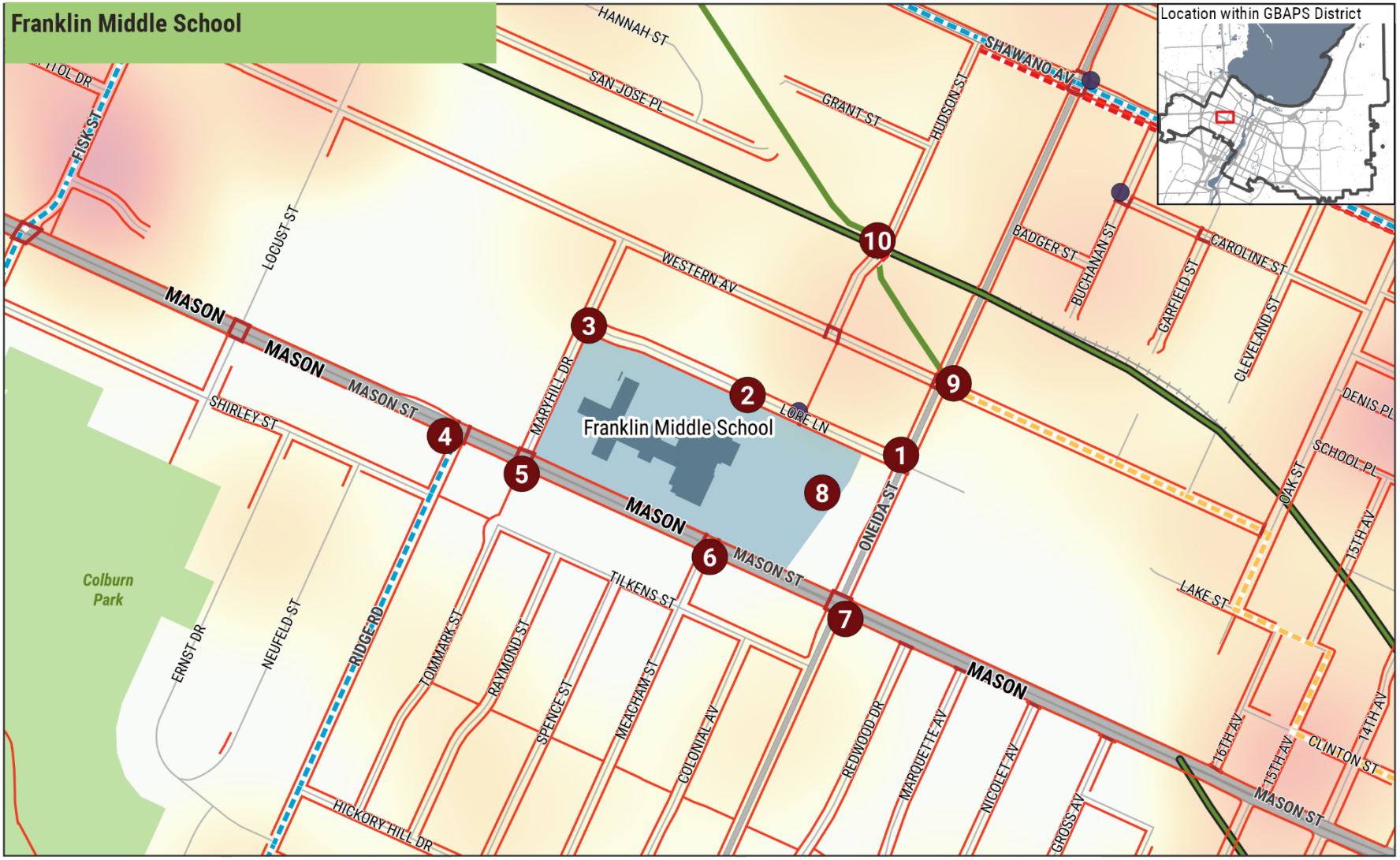
About the School	
Address	1233 Lore Lane
Grade Levels	6-8
Number of Students	694*
Students Eligible for School Bus	12.6%
Economically Disadvantaged	71.5%*
Students with Disabilities	19.7%*
Arrival / Dismissal Times	7:30 AM / 2:40 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
S. Oneida Street	7,700
W. Mason Street	21,500
Shawano Avenue	9,800
Ridge Road	3,100
Fisk Street	4,400

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Wednesday, September 19.
Entrances	• Students entered the school from one of the three doors on Lore Lane.
School Bus Loading	• A few school buses drop off students in front of the school along Lore Lane.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students primarily on both sides of Lore Lane. • Parents have been notified to NOT drop off students on the north side of Lore Lane, however several parents did so. Some parents walked their student across the street.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• School staff were present during arrival, generally keeping order and speaking with parents.
School Crossing Guards	• Three crossing guards were present, one stationed at the mid-block crossing of Lore Lane, just east of the school; one at the intersection of W. Mason Street and Meacham Street; and one at the intersection of W. Mason Street and 12th Avenue.
Law Enforcement	• No law enforcement officers were observed.


Franklin Middle School
Location within GBAPS District
Franklin Middle School
MASON
MASON ST
HANNAH ST
SAN JOSE PL
GRANT ST
HUDSON ST
SHAWANO AV
FISK ST
LOCUST ST
WESTERN AV
BADGER ST
BUCHANAN ST
GARFIELD ST
CAROLINE ST
CLEVELAND ST
DENIS PL
SCHOOL PL
OAK ST
15TH AV
LAKE ST
14TH AV
CLINTON ST
16TH AV
15TH AV
MARYHILL DR
LORE LN
ONEIDA ST
SHIRLEY ST
TILKENS ST
Colburn Park
ERNST DR
NEUFELD ST
RIDGE RD
TOMMARK ST
RAYMOND ST
SPENCE ST
MEACHAM ST
COLONIAL AV
REDWOOD DR
MARQUETTE AV
NICOLET AV
GROSS AV
HICKORY HILL DR
1
2
3
4
5
6
7
8
9
10
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 400 800 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Franklin Middle School map.

#	Location	Observations	Recommendations
1	Lore Lane and Oneida Street  *Photo Credit: Google Streetview*	• A stop sign is present for Lore Lane but Oneida Street is uncontrolled. • Parents indicate that drivers do not always yield to pedestrians in the crosswalk. • The crosswalk across Oneida Street is marked with high-visibility crosswalk markings and has school crossing signage. However, the narrow crosswalk width and narrow lateral bars mean that the crosswalk is not as highly visible as it could be. • Oneida Street has turn lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The intersection is not within a school reduced speed zone.	• Refresh the high visibility crosswalk markings at 10’ width and add parking restrictions on the crosswalk approach and adequate nighttime lighting levels for the crossing of Oneida Street. (Short Term) • Add advance yield here to pedestrians sign and yield line at each approach. (Short Term) • Add school speed limit zone signs to encompass this intersection. (Short Term)

#	Location	Observations	Recommendations
2	Lore Lane between Maryhill Drive and Oneida Street 	• Used heavily for student drop offs. Both sides of the street have “No Parking 7 AM to 4 PM School Days” signs. • “SCHOOL” pavement marking are present on the westbound approach and reduced school speed limits are present in both directions. • Parents have been notified to NOT drop off students on the north side of Lore Lane, however several parents did so. • Parents report that students frequently cross the street midblock, outside of the existing marked crosswalk (some of these students are crossing after being dropped off on the far side of the street). • There is potential for parents to park near the mid-block crosswalk, thereby blocking view of pedestrians in the crosswalk. • Parents are concerned about speed on streets surrounding the school. • Parents indicate that they think arrival and dismissal can be unsafe.	• On the school side of Lore Lane, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • To maintain visibility of the crosswalk, “NO STOPPING, OR STANDING” signs should be placed in advance of the crosswalk. To further reinforce the parking restrictions in advance of the crosswalk, consider painting the curbs or using cones during arrival and dismissal. (Short Term)

#	Location	Observations	Recommendations
3	Lore Lane and Maryhill Drive 	• A stop sign is present for Lore Lane but Maryhill Drive is uncontrolled. • "SCHOOL" pavement markings are present on the southbound approach of Maryhill Drive. • No marked crosswalks exist. • The intersection is not located within a school reduced speed zone. • Some curb ramps are missing, and others do not comply with current USDOT standards. Detectable warnings are not intended to be provided at locations where sidewalks intersect driveways.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Maryhill Drive. (Short Term) • Add parallel line crosswalk markings for the leg crossing Lore Lane. (Short Term) • Add school speed limit zone signs to encompass the intersection. (Short Term) • Construct missing curb ramp to meet current USDOT standards. Rebuild the curb ramps to meet current USDOT standards (removing the detectable warnings from the driveway crossing). (Medium Term)
4	Mason Street and Ridge Road  *Photo Credit: Google Streetview*	• The intersection is signalized. • "SCHOOL" pavement markings and reduced school speed limits are present on Mason Street and "SCHOOL" pavement markings are present for northbound traffic on Ridge Road. • This intersection serves Franklin students as well as students at Notre Dame Academy. • Mason Street is a high speed and high volume street. • The existing curb ramps on the north side of Mason Street do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
5	Mason Street and Maryhill Drive 	• A stop sign is present for Maryhill Drive but Mason Street is uncontrolled. • Mason Street is a high speed and high volume street. • The existing uncontrolled crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Mason Street is a four-lane street with two lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The interesction is not located within a school reduced speed zone in the eastbound direction. • Existing curb ramps do not meet current USDOT standards.	• If this location remains as a crossing, substantial treatments should be added to improve its safety. This intersection is less than 250 feet from the signalized intersection at Mason Street and Ridge Road. If substantial treatments cannot be added, consider removing this crossing and directing pedestrians to cross at Ridge Road. (Short Term) • To improve the safety of the crossing, add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Mason Street. (Short Term) • Explore whether the existing medians could be extended to provide a raised pedestrian refuge island. Add advance yield line and yield here to pedestrians signs at each appraoch. If warranted, install a Rectangular Rapid Flashing Beacon. (Medium Term) • Add school speed limit zone signs in the eastbound direction. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
6	Mason Street and Meacham Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Mason Street. • A school crossing guard is stationed here. • Mason Street is a high speed and high volume street. • The interesction is not located within a school reduced speed zone in the eastbound direction. • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings. (Short Term) • Add school speed limit signs to encompass this intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
7	Mason Street and Oneida Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • The signalized crossings of both Mason and Oneida Streets are very wide. • Mason Street is a high speed and high volume street. • The interesction is not located within a school reduced speed zone. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings. (Short Term) • Add school speed limit signs to encompass this intersection. (Short Term) • During the next reconstruction of the intersection, explore tightening the curb radii and the installation of new curb ramps that line up with crosswalks. (Long Term)
8	Bike Racks at east side of school 	• Approximately 40 bicycles observed. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles. • Parents indicated that more racks are needed to accommodate bicycle parking demand.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking and add additional racks to accommodate the demand. (Short Term)

#	Location	Observations	Recommendations
9	Western Avenue and Oneida Street  *Photo Credit: Google Streetview*	• Stop signs are present for Western Avenue but Oneida Street is uncontrolled. • Parents indicate that drivers do not always yield to pedestrians in the crosswalks. • The crosswalks across Oneida Street are marked with high-visibility crosswalk markings but lack school crossing signage. • Oneida Street has turn lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The Sgt. Benjamin Edinger Corridor West Side Trail is accessed from this intersection. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Add higher visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Oneida Street. (Short Term) • Add advance yield here to pedestrians sign and yield line at each approach. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks, and are wide enough to accommodate bicyclists using the trail. (Long Term)
10	Hudson Street at the Sgt. Benjamin Edinger Corridor West Side Trail  *Photo Credit: Google Streetview*	• Yield signs are present for the rail line and the trail. • The Sgt. Benjamin Edinger Corridor West Side Trail is accessed from this intersection. • The existing trail crossing is not highly visible to drivers (no high visibility crosswalk markings are present).	• Add high visibility crosswalk markings to the existing crosswalk. (Short Term) • Explore widening the sidewalk on the east side of Hudson Street to provide an improved connection between the two legs of the Sgt. Benjamin Edinger Corridor West Side Trail. (Long Term)

Howe Elementary School

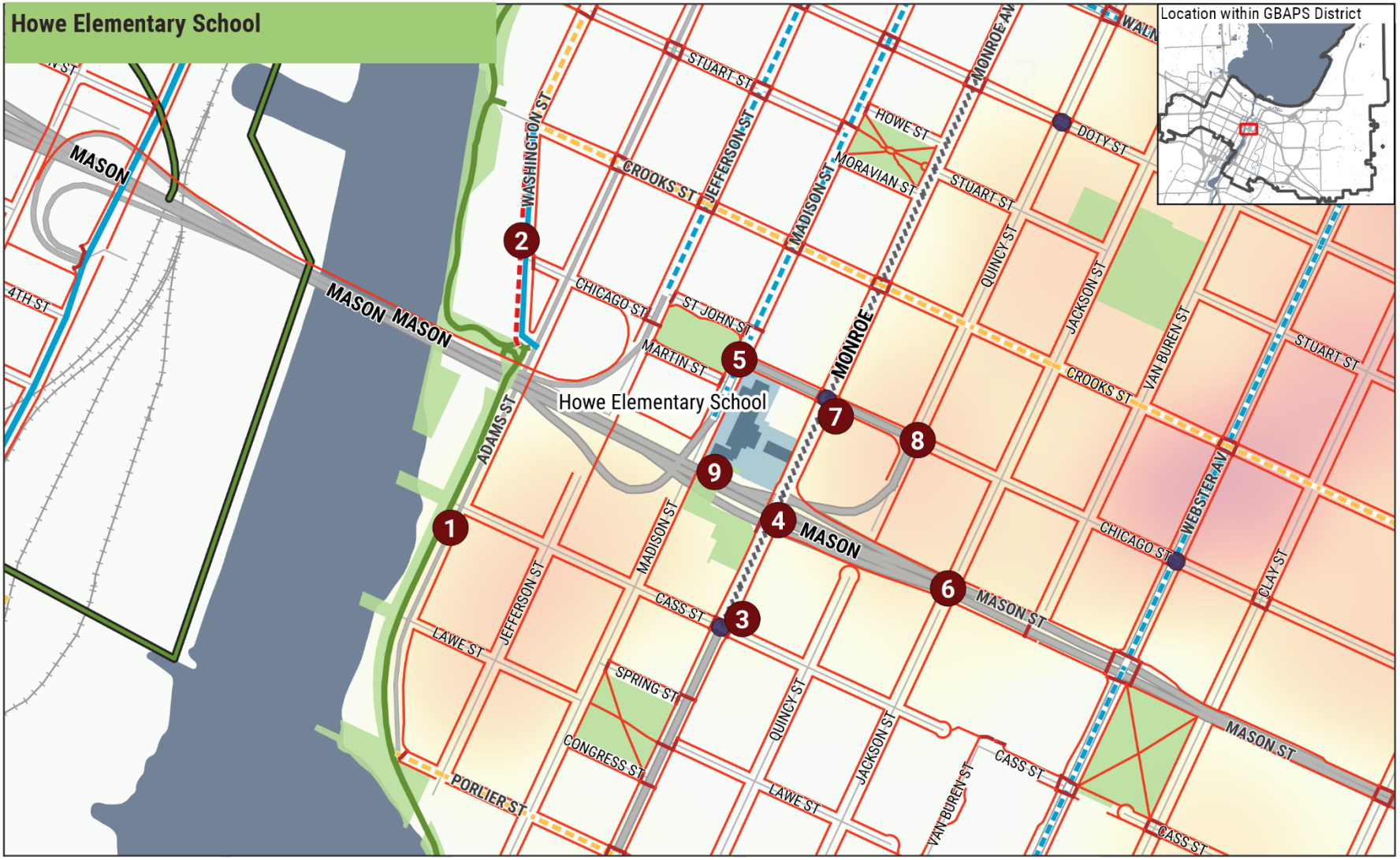
About the School	
Address	525 South Madison Street
Grade Levels	K4-5
Number of Students	422*
Students Eligible for School Bus	10.5%
Economically Disadvantaged	83.2%*
Students with Disabilities	14.9%*
Arrival / Dismissal Times	7:57 AM / 2:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
South Monroe Avenue	12,600
Chicago Street	990
South Madison Street	2,300
East Mason Street	28,500

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Thursday, September 19.
Entrances/Exits	• At dismissal, most students exited the school from the front (onto South Madison Avenue). Some students—those whose parents were parked in the parking lot to the east—exited from the east.
School Bus Loading	• Two buses were lined up along South Madison Street.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students from all surrounding streets. Parents picked up students on the school side of South Madison Street at and slightly north of the school, and on both sides of Martin Street.
School Crossing Guards	• There were three crossing guards observed in the school's vicinity: one at the intersection of Mason Street and Monroe Avenue; and two at the intersection of Chicago Street and Monroe Avenue.
Law Enforcement	• No law enforcement officers were observed.


Howe Elementary School
Location within GBAPS District
Howe Elementary School
MASON
MASON MASON
4TH ST
WASHINGTON ST
STUART ST
CROOKS ST
JEFFERSON ST
MADISON ST
MONROE AV
HOWE ST
MORAVIAN ST
DOTY ST
QUINCY ST
JACKSON ST
VAN BUREN ST
CHICAGO ST
ST JOHN ST
MARTIN ST
ADAMS ST
MONROE
WEBSTER AV
CLAY ST
MASON ST
CASS ST
LAWE ST
SPRING ST
CONGRESS ST
PORLIER ST
1
2
3
4
5
6
7
8
9
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 400 800 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Howe Elementary School map.

#	Location	Observations	Recommendations
1	Adams Street between Porlier Street and Mason Street 	• There are no east-west marked crossings of Adams Street between Porlier Street and East Mason Street. A lack of crossings limits north-south use of the Fox River Trail for students. • Existing curb ramps at the two eastern corners do not meet current USDOT standards.	• Add at least one marked crossing of Adams Street. Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and crossing signs for the leg crossing Adams Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
2	South Washington Street between Crooks Street and Adams Street  *Photo Credit: Google Streetview*	• Missing sidewalk on the west side of South Washington Street between Crooks Street and Adams Street presents a barrier to walking along Washington Street.	• Construct new sidewalk on the west side of South Washington Street between Crooks Street and Adams Street. (Short Term)

#	Location	Observations	Recommendations
3	Monroe Avenue and Cass Street 	• Stop signs are present for Cass Street but Monroe Avenue is uncontrolled. • Monroe Avenue has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Vehicles appear to exceed the posted speed limit during school arrival and dismissal times. • Although this intersection has school crossing signs, southbound traffic is not within a reduced school speed zone. • Very few Howe students are currently served by this crossing.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the crossings over Monroe Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for both approaches of Monroe Avenue. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Monroe Avenue and Cass Street. (Short Term) • If warranted, install a Rectangular Rapid Flashing Beacon to further improve the safety of the crossing. (Medium Term)

#	Location	Observations	Recommendations
4	Mason Street and Monroe Avenue 	• This intersection is signalized. • A crossing guard is currently stationed here. This guard helps students cross Monroe Avenue (east-west), as well as the East Mason Street off-ramp (north-south). • The current crossing guard noted that right turning drivers from East Mason Street often fail to watch for students in the crosswalk. Their attention is focused leftward, at oncoming traffic. • Because it is located under a bridge, the existing crossing under the bridge is not highly visible to drivers (no high visibility crosswalk markings are present). • Several parents indicated that they found this intersection difficult for students to navigate. One specified that this intersection is the cause of not allowing his or her children to walk or bicycle to school despite living nearby.	• Consider adding “Turning Vehicles Yield to Pedestrians” signs for drivers turning from Mason Street onto Monroe Avenue. (Short Term) • Add high visibility markings for all crosswalks. (Short Term)

#	Location	Observations	Recommendations
5	Chicago Street and Madison Street  *Photo Credit: Google Streetview*	• A stop sign is present for Chicago Street, but Madison Street is uncontrolled. • "SCHOOL" pavement markings and school zone flashing beacons are present on the southern approach of Madison Street (Madison Street is one-way). • The roadway has multiple lanes in one direction and as a result, there is the possibility of multiple threat crashes. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • The curb ramps at the northeast and southwest corners do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the crossings over Madison Street. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for the approaches on Madison Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
6	Mason Street and Jackson Street  *Photo Credit: Google Streetview*	• Because Jackson Street does not connect to Mason Street, the intersection is uncontrolled. • Mason Street is a high speed and high-volume street. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present).	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and crossing signs for the Mason Street crossings. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for approach on Mason Street. (Short Term) • If warranted, add a Rectangular Rapid-Flashing Beacon (RRFB) or pedestrian-activated signal on Mason Street. (Medium Term)

#	Location	Observations	Recommendations
7	Monroe Avenue and Chicago Street 	• The intersection is signalized. • Two crossing guards are stationed at this intersection. Many students cross the street at this intersection. Additionally, about 20 minutes after school dismissal, students from Leonardo da Vinci School's after-school program cross here to reach Saint John's Park. • Vehicles appear to exceed the posted speed limit of 15 mph during school arrival and dismissal times. • An existing pedestrian crossing light and a "NO TURN ON RED WHEN CHILDREN ARE PRESENT" sign on the northeast side of the intersection is blocked by vegetation. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Consider enforcement of traffic speed. (Short Term) • Trim vegetation blocking "NO TURN ON RED WHEN CHILDREN ARE PRESENT" sign. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
8	Chicago Street and Quincy Street 	• Stop signs are present for Quincy Street but Chicago Street is uncontrolled. • Many students cross the street at the yield-controlled slip lane and drivers often don't yield to pedestrians here. No crosswalk is marked across the slip lane. • In the slip lane, vehicles appear to dramatically exceed the posted speed limit during school arrival and dismissal times. • No crosswalks are marked on any other legs of the intersection. • This intersection is not within a reduced school speed limit zone. East- and west-bound traffic on Chicago Street lacks school crossing signage. • Curb ramps at all corners do not meet current USDOT standards. • The northeast corner of the intersection has a single curb ramp that does not orient users directly into the crosswalk.	• Add high visibility crosswalk markings and school crossing signs for the Chicago Street the slip lane. (Short Term) • Add reduced school speed limit signs to encompass this crossing. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of a new curb ramp that lines up with crosswalk. (Long Term)
9	Bicycle Racks 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Jackson Elementary School

About the School	
Address	1306 Ridge Road
Grade Levels	K4-5
Number of Students	424
Students Eligible for School Bus	24.5%
Economically Disadvantaged	56.4%
Students with Disabilities	12.5%
Arrival / Dismissal Times	7:57 AM / 2:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
S. Ridge Road	3,400
9th Street	4,700
S. Fisk Street	3,100
Oneida Street	6,900

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Thursday, September 20.
Entrances	• Bused students exit via the front door on Ridge Road and are escorted to their busses. • Most students exit from the side door or back door.
School Bus Loading	• School buses loaded students in front of the school along Ridge Road and on 9th Street.
Parent Drop-off/Pick-up	• Many parents park in the church parking lot across Ridge Road and come to the school to escort their children back to their vehicles. • Many parents wait for their children at the side door along Langlade Avenue. • Some parents waited in vehicles to pick up students on 9th Street and in the cul-de-sac on Russell Street (behind the school). • Some parents waited in their vehicles on the east side of Ridge Road (across the street from the school).
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal escorting students to their busses.
School Crossing Guards	• Three crossing guards were present: one at the intersection of S. Ridge Road and 9th Street; one at the intersection of S. Ridge Road and Langlade Avenue; and one at the intersection of 9th Street and Fisk Street.
Law Enforcement	• No law enforcement officers were observed.

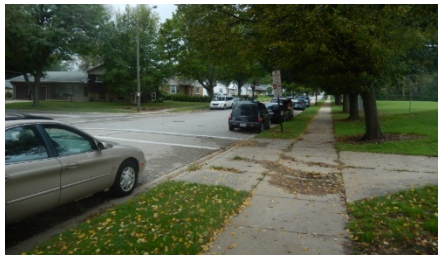

Jackson Elementary School
Location within GBAPS District
Colburn Park
Jackson Elementary School
LOCH DR
FISK ST
RUSSELL ST
9TH ST
HIGHVIEW LN
RIDGE RD
RIDGEDALE CT
MARIAN LN
8TH ST
SPENCE ST
MEAGHAM ST
ROCKDALE ST
LOCUST ST
LANGLADE AV
BIEMERET ST
BRIQUELET ST
SERVAIS ST
LIBERTY ST
ROSCOE ST
FRANK ST
ROCKDALE ST
1
2
3
4
5
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Jackson Elementary School map.

#	Location	Observations	Recommendations
1	Ridge Road between 9th Street and Langlade Avenue 	• The existing sidewalk is very narrow and gets congested during bus loading. • Many parents park in the church parking lot across from the school. • Parents report that drivers appear to exceed the reduced school speed limit during school arrival and dismissal.	• During the next roadway reconstruction, explore widening the sidewalk. (Long Term) • Consider traffic calming or speed enforcement. (Short Term)

#	Location	Observations	Recommendations
2	Ridge Road and 9th Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • "SCHOOL" pavement markings and reduced school speed limits are present in all directions on Ridge Road and 9th Street. • The intersection was very heavily used by students. One crossing guard was present. • Parents report that drivers appear to exceed the reduced school speed limit during school arrival and dismissal and sometimes run red lights. • Parents report that turning vehicles do not always yield to pedestrians in the crosswalk, particularly when the crossing guard is not present. "NO RIGHT TURN ON RED WHEN CHILDREN PRESENT" signs are present. • Parents indicate that 9th Street is a good street for biking, however it lacks bicycle facilities. • Two existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Consider enforcement of traffic speed. (Short Term) • Add bike lanes to Ridge Road (Short Term) and to 9th Street (Medium Term). Both bike lanes would require the removal of parking on one side of the street—this would need to be coordinated to ensure that parent and bus loading is still accommodated on both streets. • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • On the school sides of Langlade Avenue and 9th Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)

#	Location	Observations	Recommendations
3	Ridge Road and Langlade Avenue  *Photo Credit: Google Streetview*	• Stop signs are present for Langlade Avenue but Ridge Road is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Ridge Road • The intersection was very heavily used by students. One crossing guard was present. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings are present). • Two existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the leg crossing Ridge Road. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • On the school sides of Langlade Avenue and 9th Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)
4	Langlade Avenue and Briquelet Street 	• The intersection is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Cars parked close to intersection impede visibility of pedestrians in the crosswalk.	• Install a stop or yield sign on the Briquelet Street approach. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Langlade Avenue. (Short Term) • To further reinforce the no parking restrictions in advance of the crossing, consider painting the curb. (Short Term)

#	Location	Observations	Recommendations
5	Bike Racks in Rear of Building 	• 1 bike was observed. • The existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Jefferson Elementary School

About the School	
Address	905 Harrison Street
Grade Levels	K4-5
Number of Students	134*
Students Eligible for School Bus	12.8%
Economically Disadvantaged	80.6%*
Students with Disabilities	14.9%*
Arrival / Dismissal Times	7:57 AM / 2:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Mather Street	11,900
Velp Avenue	13,400
Broadway Street	1,500

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Thursday, September 20.
Entrances	• Most students exited via the front door on Harrison Street.
School Bus Loading	• School buses loaded on Harrison Street between the north leg of Phoebe Street and Garden Street.
Parent Drop-off/Pick-up	• Parents picked up students from the streets surrounding the school, particularly Phoebe Street (both to the west and east of Harrison Street) and Harrison Street.
Student Roles	• No students were observed participating in dismissal.
School Staff Roles	• School staff helped students cross the street at Phoebe Street and Harrison Street.
School Crossing Guards	• A crossing guard was stationed at Ashland Avenue and Mather Street.
Law Enforcement	• No law enforcement officers were observed.


Jefferson Elementary School
Location within GBAPS District
Jefferson Elementary School
AUGUSTA ST
COPPENS RD
GALLAGHER AV
VELP AV
LINCOLN ST
GARDEN ST
ALEXANDER ST
WARREN ST
PHOEBE ST
HARRISON ST
ASHLAND AV
MAPLE AV
CHESTNUT AV
MATHER ST
VROMAN ST
MELROSE AV
UNION CT
JAMES ST
BOND ST
NORWOOD AV
ELMORE ST
KELLOGG ST
MC DONALD ST
ALMA ST
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

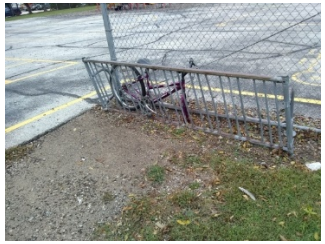
Recommendations

The numbered observations in the table below correspond to the points in the Jefferson Elementary School map.

#	Location	Observations	Recommendations
1	Harrison Street and Phoebe Street 	• Stop signs are present for both sections of Phoebe Street but Harrison Street is uncontrolled. • "SCHOOL" pavement markings are present on both approaches of Harrison Street and a reduced school speed limit is present for northbound traffic. "SCHOOL" pavement markings are alo present for westbound traffic on the eastern leg of Phoebe Street. • The existing intersection is offset. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Vehicles were observed parked near the crosswalks, blocking pedestrians from view. • No school reduced speed zone is present for southbound vehicles. • Parents note that the area gets congested during arrival and dismissal. • Parents indicate concerns about the safety of students crossing here. • Parents say that drivers sometimes exceed the speed limit. • No curb ramps exist on the northern leg. • One existing curb ramp does not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the legs crossing Harrison Street. (Short Term) • To further reinforce the no parking restrictions in advance of the crossings, consider painting the curb. (Short Term) • Add a reduced school speed limit sign for southbound vehicles. (Short Term) • Consider traffic calming or speed enforcement. (Short Term) • Construct missing curb ramps to meet current USDOT standards. (Medium Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
2	Harrison Street and Garden Street 	• A yield sign is present for Garden Street, but Harrison Street is uncontrolled. • No marked crossing exists. • Existing yellow curb markings have faded. • Existing "SCHOOL" pavement markings to the north of this intersection have faded. • A school reduced speed zone is present is present for northbound vehicles, but not for southbound vehicles. • Missing sidewalks on the east side of Harrison Street between Garden Street and Augusta Avenue, and along the south side of Augusta Avenue between Harrison Street and Ashland Avenue. • Existing curb ramps do not meet current USDOT standards. • One curb ramp is missing.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Harrison Street. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Harrison Street and Garden Street. (Short Term) • Refresh "SCHOOL" pavement markings and yellow curb markings. (Short Term) • Construct a new sidewalk on the east side of Harrison Street between Garden Street and Augusta Street, and along the south side of Augusta Street between Harrison Street and Ashland Avenue. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Construct missing curb ramp to meet current USDOT standards. (Medium Term)
3	Crocker Street and Phoebe Street 	• Yield signs are present for Crocker Street but Phoebe Street is uncontrolled. • No marked crossing exists. • Existing school crossing signs do not meet current MUTCD standards. • No reduced school speed limit is present. • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Phoebe Street. (Short Term) • Replace the existing school crossing signage with signage that complies with existing MUTCD standards. (Short Term) • Add school reduced speed limit signs. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
4	Mather Street and Harrison Street 	• A stop sign is present for Harrison Street, but Mather Street is uncontrolled. • The school has a rule prohibiting students from crossing Mather Street without a parent in this location, yet the crossing guard posted at Ashland Avenue reports that students still do so. • No crosswalk markings are present across Mather Street.	• Repeat the school rules for this crossing several times a year and using at least five different means (school newsletter, parent meeting, etc.) (Short Term)
5	Mather Street and Ashland Avenue 	• The intersection is signalized. • A crossing guard is posted at this high speed, high-volume crossing. • No reduced school speed limit zone is present. • Existing curb ramps do not meet current USDOT standards. • Drivers were observed running red lights.	• Extend the reduced school speed zone so that it includes the intersection of Mather Street and Ashland Avenue. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Conduct regular enforcement. (Short Term)
6	Existing sidewalks surrounding the school 	• Many of the sidewalks surrounding the school are in disrepair, causing trip hazards.	• Perform sidewalk maintenance. (Short Term)

#	Location	Observations	Recommendations
7	Existing bike rack 	• One bike that appeared to be abandoned was observed at the existing bike rack. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Keller Elementary School

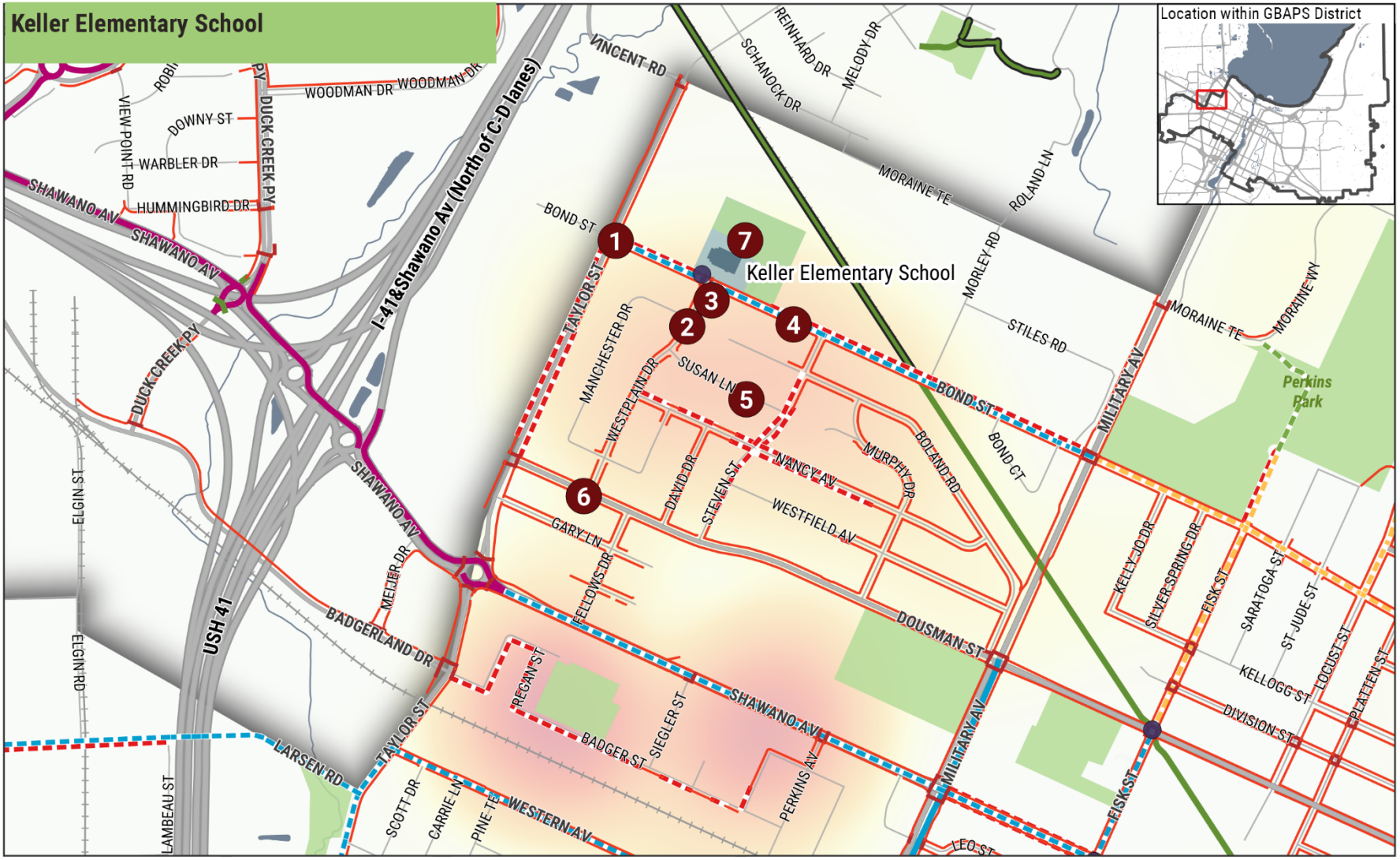
About the School	
Address	1806 Bond Street
Grade Levels	K4-5
Number of Students	285*
Students Eligible for School Bus	43.9%
Economically Disadvantaged	82.1%*
Students with Disabilities	17.2%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Bond Street	3,300
Military Avenue (south of Bond Street)	11,400
Taylor Street	5,900

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Wednesday, September 19.
Entrances/Exits	• Students exited the school from the front entrance/exit.
School Bus Loading	• Three to four buses were lined up near the front of the school, in the driveway.
Parent Drop-off/Pick-up	• Most parents in vehicles picked up students from a parking lot immediately to the east of the school. Some parents parked or idled on the school side of Bond Street or on both sides of Westplain Drive across Bond Street, while a few parked or idled on the non-school side of the street across from the school. In most of these on-street locations, only stopping or standing is allowed but parents generally disregard these rules.
School Staff Roles	• Several school staff members were present during dismissal and guided students out to parents or onto the waiting buses.
School Crossing Guards	• There was one crossing guard observed in the school's vicinity, at the intersection of Bond Street and Westplain Drive.
Law Enforcement	• No law enforcement officers were observed.


Keller Elementary School
Location within GBAPS District
Keller Elementary School
I-41&Shawano Av (North of C-D lanes)
USH 41
VINCENT RD
REINHARD DR
SCHANOCK DR
MELODY DR
MORAINE TE
ROLAND LN
MORLEY RD
STILES RD
MORAINE WY
BOND ST
TAYLOR ST
MANCHESTER DR
WESTPLAIN DR
SUSAN LN
NANCY AV
MURPHY DR
BOLAND RD
BOND CT
MILITARY AV
Perkins Park
DAVID DR
STEVEN ST
WESTFIELD AV
GARY LN
FELLOWS DR
MEIJER DR
SHAWANO AV
DUCK CREEK PY
WOODMAN DR
DOWNY ST
VIEW POINT RD
WARBLER DR
HUMMINGBIRD DR
ELGIN ST
ELGIN RD
BADGERLAND DR
LARSEN RD
LAMBEAU ST
REGAN ST
SIEGLER ST
BADGER ST
PERKINS AV
SCOTT DR
CARRIE LN
PINE TE
WESTERN AV
DOUSMAN ST
KELLY JO DR
SILVERSPRING DR
FISK ST
SARATOGA ST
ST JUDE ST
LOCUST ST
KELLOGG ST
DIVISION ST
PLATTEN ST
LEO ST
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low
Medium
High
N
0
700
1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Keller Elementary School map.

#	Location	Observations	Recommendations
1	Bond Street and Taylor Street  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • The intersection of Bond Street and Taylor Street has marked crosswalks on its eastern and northern legs, connecting to existing sidewalks. However, these existing crossings are not highly visible to drivers (existing crosswalk lines are faded and no high visibility crosswalk markings are present). • Vehicles appeared to exceed the posted speed limit. • Neither crossing is located within a reduced school speed limit.	• Refresh crosswalk markings. (Short Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term)
2	Westplain Drive south of Bond Street  *Photo Credit: Google Streetview*	• Many students and parents walk south to access parked vehicles on Westplain Drive. • Northbound traffic on Westplain Drive has advance school crossing signage, but this street is not within a reduced school speed limit zone.	• Add a reduced school speed limit zone for Westplain Drive. (Short Term)

#	Location	Observations	Recommendations
3	Bond Street and Westplain Drive 	• A stop sign is present for Westplain Drive but Bond Street is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Bond Street. • A moderate number of students cross the street at this intersection and according to the crossing guard, drivers don't always yield to pedestrians in the crosswalk. • Drivers picking up and dropping off students along Bond Street impede the visibility of students in or approaching the crosswalk. • Vehicles appear to exceed the posted speed limit during school arrival and dismissal times. This is partially due to the fact that the street is severely underparked with the exception of the area immediately in front of the school. • The existing crossing across Bond Street is not highly visible to drivers (no high visibility crosswalk markings are present). Additionally, the east-facing school crossing sign is missing. • Existing curb ramps at all corners—with the exception of the southeast corner—do not meet current USDOT standards. • Existing single curb ramps do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the legs crossing Bond Street. (Short Term) • Add a school crossing sign for the east approach of Bond Street. (Short Term) • To further reinforce the parking restrictions on the approaches to the crosswalks, consider painting the curb. (Short Term) • Consider traffic calming or speed enforcement. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
4	Bond Street east of Keller Elementary  *Photo Credit: Google Streetview*	• Though the number of walkers observed was small, they all went east using the sidewalk on the south side of Bond Street. This direction connects to the Sergeant Benjamin Edinger Corridor West Side multi-use path to the east. However, no bicycle connections to this path currently exist and there is no marked trail crossing where it joins Bond Street. • The planned extension of the multi-use trail will connect to the back of the school through an existing open field. • The north side of Bond Street lacks sidewalk to the east of the school property.	• Construct sidewalk on the north side of Bond Street. (Short Term) • When the sidewalk on the north side of Bond Street is constructed, or when the planned trail is built connecting to the back of the school, provide a marked trail crossing. Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and crossing signs for the crossing on Bond Street. (Short Term)
5	Residential neighborhood south of Bond Street  *Photo Credit: Google Streetview*	• While sidewalks exist in much of the school walking zone south of Bond Street, there are frequent small gaps in the network, presenting barriers to walking and bicycling to school. • Missing sidewalks on the the west side of Taylor Street between Bond Street and Dousman Street, and on the east side of the street between the end of the sidewalk and Dousman Street, present a barrier to walking and bicycling to school.	• Construct new sidewalks as shown in the Keller Elementary School map. (Short, Medium, and Long Term) • Construct new sidewalks on the west side of Taylor Street between Bond Street and Dousman Street, and on the east side of the street between the end of the sidewalk and Dousman Street. (Short Term)

#	Location	Observations	Recommendations
6	Westplain Drive and Dousman Street  *Photo Credit: Google Streetview*	• A stop sign is present for Westplain Drive but Dousman Street is uncontrolled. • The existing crossings across Dousman Street are not highly visible to drivers (no high visibility crosswalk markings are present). • Existing curb ramps at all corners—with the exception of the northeast corner—do not meet current USDOT standards. • On the north side of the intersection, single curb ramps at corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the crossings across Dousman Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with the crosswalk on the north side of the intersection. (Long Term)
7	Bicycle Racks 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Kennedy Elementary School

About the School	
Address	1754 Ninth Street
Grade Levels	K4-5
Number of Students	277*
Students Eligible for School Bus	44.1%
Economically Disadvantaged	72.6%*
Students with Disabilities	20.2%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Ninth Street	6,000
Military Avenue	14,100
Mason Street	22,500

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Thursday, September 20.
Entrances	• Students exited the school from the front door on Chantel Street.
School Bus Loading	• School buses loaded students in front of the school along N Chantel Street.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students primarily on Chantel Street, across from the school. • Some vehicular pick-up also occurred on Wiesner Street. • Some parents pull into the parking lot. They are required to get out of their vehicles and pick up their children at the yellow square that was painted on the ground.
Student Roles	• Two student safety patrols assisted the crossing guard at 9th Street and Wiesner Street and two student safety patrols assisted the crossing guard at 9th Street and Chantel Street.
School Staff Roles	• School staff were present during dismissal generally monitoring and keeping order. • School staff members worked as crossing monitors at the intersection of Chantel Street and Michaline Drive.
School Crossing Guards	• One crossing guard was stationed at the intersection of 9th Street and Chantel Street. • One crossing guard was stationed at the intersection of 9th Street and Wiesner Street.
Law Enforcement	• No law enforcement officers were observed.

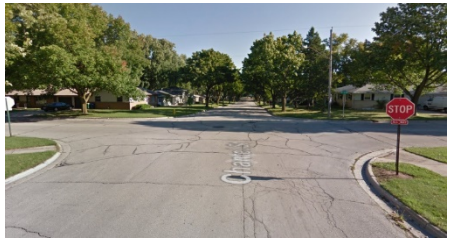

Kennedy Elementary School
Location within GBAPS District
Kennedy Elementary School
MASON ST
MASON
MASON FRONTAGE RD
WEST POINT RD
WESTERN AV
BURNS AV
ASPEN LN
SPRUCE ST
BEAVER DAM DR
MICHALINE DR
TAYLOR ST
IRVINGTON ST
LOCUST ST
SHIRLEY ST
6TH ST
FISK ST
JANICE AV
9TH ST
7TH ST
ST AGNES DR
MILITARY AV
RANCHLAND DR
Colburn Park
ERNST DR
NEUFELD ST
RIDGE RD
LOCH DR
RUSSELL ST
LANGLADE AV
ROCKDALE ST
BIEMERET ST
SERVAIS ST
LIBERTY ST
BRIQUELET ST
MARIAN LN
SPENCE ST
NELSON ST
SHANNON ST
WIESNER ST
KATERS DR
ROSALIE LN
OAK RIDGE DR
ARGONNE DR
BIRCHWOOD DR
FOREST GLEN DR
KENNEDY DR
CAREFUL DR
ARNOLD DR
I-41
LAREDO LN
TROJAN DR
SORRENTO DR
DELRAY DR
HOBART DR
WEST POINT TE
RED OAK DR
SHAMROCK LN
WHITE OAK TE
OAKWOOD DR
OAK LEAF DR
WOOD LN
TREELAND DR
BEECH TREE DR
HENISRA LN
VALIANT LN
FORESTVILLE DR
SHADY OAK DR
IRONWOOD DR
BELMONT DR
ZAK LN
HAZELWOOD LN
LOMBARDI AV
PARK PL
SBELL ST
IKLE ST
1
2
3
4
5
6
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low
Medium
High
N
0
800
1600 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Kennedy Elementary School map.

#	Location	Observations	Recommendations
1	9th Street and Wiesner Street  *Photo Credit: Google Streetview*	• A stop sign is present for Wiesner Street but 9th Street is uncontrolled. • The intersection was very heavily used by students. One crossing guard was present as well as two student safety patrols. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Two existing curb ramps do not meet current USDOT standards. • Parents report that drivers do not always yield to pedestrians in the crosswalk, even when the crossing guard is present.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the crossing on 9th Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
2	9th Street and Chantel Street 	• A stop sign is present for Chantel Street but 9th Street is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of 9th Street. • The intersection was very heavily used by students. One crossing guard and two safety patrols were present. • The intersection was observed to have a heavy volume of vehicular traffic and conflicts were observed between pedestrians and right-turning vehicles. • Parents indicate that Chantel Street does not get plowed in the winter despite being the direct route to the school for all parents and staff. • All existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the crossing on 9th Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Ensure that the street gets plowed in winter. (Short Term)
3	Chantel Street and Michaline Drive  *Photo Credit: Google Streetview*	• A yield sign is present for Michaline Drive but Chantel Street is uncontrolled. • School staff members work as crossing monitors at this intersection with support from student safety patrols. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • A school bus loads just south of the crosswalk, impeding visibility of pedestrians in the crosswalk. • Existing curb ramps at two corners do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach adequate nighttime lighting levels, and school crossing signs on the marked crosswalk on Chantel Street. (Short Term) • Consider painting the curbs to further reinforce the parking restrictions near the intersection and communicate with bus drivers to ensure they do not park so close to the intersection as to degrade visibility. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
4	Chantel Street and 7th Street  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • The existing crossing is not highly visible to drivers (no crosswalk markings are present). • Missing sidewalks on both sides of Chantel Street between 7th Street Beaver Dame Road, on both sides of 7th Street between Taylor Street and Chantel Street, and on the north side of 7th Street between Chantel Street and Wentworth Street present barriers to walking and bicycling to school. • Parents report that vehicles speed down Chantel Street and 7th Street. • Two curb ramps are missing. Existing curb ramps at two corners do not meet current USDOT standards.	• Add parallel crosswalk markings for all four legs of this intersection. (Short Term) • Consider traffic calming or speed enforcement. (Short Term) • Construct new sidewalks on both sides of 7th Street between Taylor Street and Chantel Street, and on the north side of 7th Street between Chantel Street and Wentworth Street. (Medium and Long Term) • Construct missing curb ramps and rebuild existing curb ramps to meet current USDOT standards. (Medium Term)
5	Bicycle Racks located directly in front of school building, near Chantel Street. 	• 5 bikes observed in bike racks. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

#	Location	Observations	Recommendations
6	Existing Path Connecting to Beaver Dam Drive 	• Parents report that the path is in disrepair with loose gravel and concrete presenting hazards, especially for bicycling.	• Perform path maintenance. (Short Term)

King Elementary School

About the School	
Address	1601 Dancing Dunes Drive
Grade Levels	K4-5
Number of Students	413*
Students Eligible for School Bus	10.4%
Economically Disadvantaged	50.8%*
Students with Disabilities	14.8%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
West Point Road	5,000
South Point Road	3,300
W. Mason Street	15,100
Packerland Drive	14,200

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Wednesday, September 19.
Entrances	• No dismissal occurs through the front door. • Most of the students exited the school from the side door on south side of the building. • Older students exited the school from the rear door facing the playfields.
School Bus Loading	• Two school buses loaded students in front of the school along Dancing Dunes Drive.
Parent Drop-off/Pick-up	• Many parents waited for their children directly at the side door. • Parents in vehicles picked up students primarily on Dancing Dunes Drive.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal. Staff members escorted students to buses.
School Crossing Guards	• Two crossing guards were stationed at the intersection of West Point Road and Dancing Dunes Drive.
Law Enforcement	• No law enforcement officers were observed.

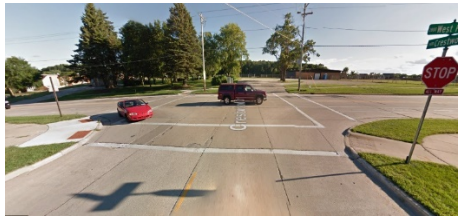
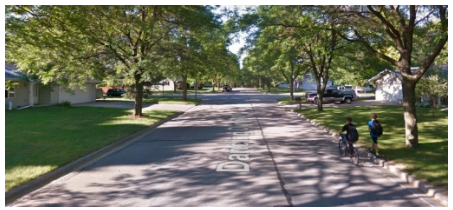

King Elementary School
Location within GBAPS District
MASON
MASON FRONTAGE RD
SORENSON DR
SUMMER PL
SHEPHERDS PA
FLEETWOOD DR
SUNDANCE AV
CACTUS AV
LA COUNT RD
CRESTWOOD DR
SHIEF HILL DR
BAUMGART RD
SANDIA DR
SUNSHINE PL
DANCING DUNES DR
TRADEWINDS TR
SWAMP RD
RONA LN
SAND HILL DR
FERNDALE DR
WEST POINT RD
CRUSADE LN
King Elementary School
HENISRA LN
CANARY LN
WHIPPOORWILL DR
OAKWOOD DR
SOUTH POINT RD
He-Nis-Ra Park
ULBERRY LN
ROYAL CROWN CT
CORONATION CT
KING OF ARMS DR
KALAHARI DR
GOBI TR
SONORAN TR
TIMBERLINE DR
TELEMARK CI
RENAISSANCE CT
GOTHIC CI
HAVEN PL
WESTWAY DR
HILLCREST DR
PLEASANT LN
MOJAVE TR
TARA MARIE LN
SANDSTONE PL
MASON ST
1
2
3
4
5
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 600 1200 Feet

Recommendations

The numbered observations in the table below correspond to the points in the King Elementary School map.

#	Location	Observations	Recommendations
1	West Point Road and Dancing Dunes Drive  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • None of the existing curb ramps meet current USDOT standards. • There are existing bike lanes on West Point Road. • Parents report that drivers regularly exceed the speed limit.	• Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • Consider traffic calming or speed enforcement. (Short Term)

#	Location	Observations	Recommendations
2	Dancing Dunes Drive in front of the school  *Photo Credit: Google Streetview*	• "SCHOOL" pavement markings and reduced school speed limit flashing beacons are present in both directions on West Point Road. • Missing sidewalks on the west side of Dancing Dunes Drive south of West Point Road, and on the east side of Dancing Dunes Drive south of Painted Trail, present a barrier to walking and bicycling to school. • Parents report that the street is heavily congested during arrival and dismissal and that sometimes parents are asked to move their vehicles to allow school buses to enter the driveway. • Parents say that students frequently cross the street midblock, outside of crosswalks. • Parents indicate that they observe other parents stopping their vehicles in unsafe locations to drop off or pick up students. • Parents say that drivers regularly exceed the speed limit. • Parents report that Lamers buses driving on this street (not accessing the school) contribute to the congestion. • Parents indicate that the parking restrictions in front of the school are not well enforced and that sometimes parents park too close to the parking lot driveway, creating blind spots.	• Construct sidewalks on the west side of Dancing Dunes Drive south of West Point Road, and on the east side of Dancing Dunes Drive south of Painted Trail. (Medium Term) • On the school side of Dancing Dunes Drive and possibly also West Point Road, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • To maintain visibility from the driveway, "NO STOPPING, OR STANDING" signs should be placed in advance of the driveway. (Short Term)

#	Location	Observations	Recommendations
3	West Point Road and Crestwood Drive  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • "SCHOOL" pavement markings and school speed limit flashing beacons are present on both approaches of West Point Road. • Missing sidewalks on both sides of Crestwood Drive between West Mason Frontage Road and West Point Road, present a barrier to walking and bicycling to school. • There are existing bike lanes on West Point Road. • Parents report that drivers frequently roll through the stop signs at this intersection without looking for pedestrians. • Parents say that drivers exceed the speed limit. • Parents complain about aggressive driving around this intersection. • Two existing curb ramps do not meet current USDOT standards. • The southwest corner lacks a curb ramp and the crosswalk feeds into an existing driveway. • Existing single curb ramps at one corner do not orient users directly into the crosswalk.	• Explore whether this intersection meets the warrants for a 3-way stop. If it does not, consider removing the stop signs on West Point Road and provide other treatments to help pedestrians safely cross West Point. Alternatively, provide enforcement of the traffic laws at this intersection. (Short Term) • Construct new sidewalks on the east side of Crestwood Drive between West Mason Frontage Road and West Point Road. (Long Term) • Construct missing curb ramp to meet current USDOT standards. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
4	Residential neighborhoods surrounding King Elementary School.  *Photo Credit: Google Streetview*	• Many of the streets surrounding the school lack sidewalks, presenting barriers to walking and bicycling to school.	• Construct new sidewalks as shown in the King Elementary School map. (Short, Medium, and Long Term)

#	Location	Observations	Recommendations
5	Bike Racks along south side of school. 	• 7 to 10 bikes observed. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Langlade Elementary School

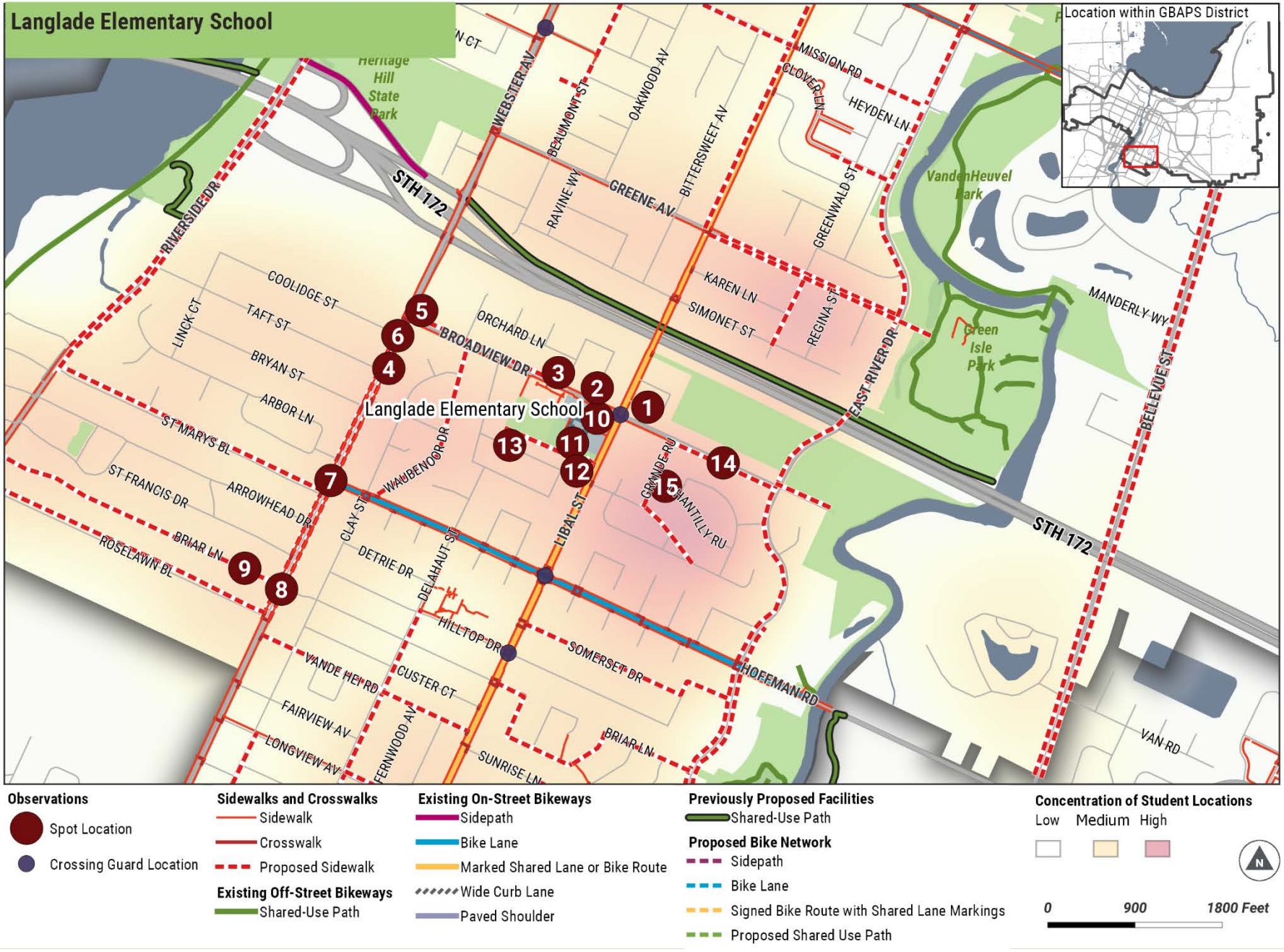
About the School	
Address	400 Broadview Drive
Grade Levels	K4-5
Number of Students	321*
Students Eligible for School Bus	44.4%
Economically Disadvantaged	31.8%*
Students with Disabilities	13.1%*
Arrival / Dismissal Times	8:56 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Broadview Drive	3,500
Libal Street	5,200
Webster Avenue	13,700
Hoffman Road	6,800
Greene Avenue	2,200

Dismissal Observations

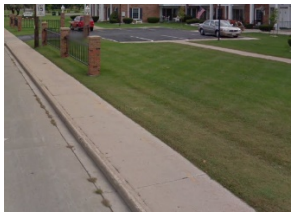
Observation Details	
Observation Date	• The consultant team observed dismissal on Wednesday, September 19.
Entrances	• Bus riders exited the school on the Broadview Drive side and most other students exited toward Libal Street.
School Bus Loading	• School buses loaded in the bus loop on Broadview Drive.
Parent Drop-off/Pick-up	• Some parents in vehicles pick up their students from the parking lane on Libal Street in front of the school, while others park in the church parking lot across the street and walk to pick up their students.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal. Some staff members staffed the bus loop while others were observing students with walkie talkies.
School Crossing Guards	• A crossing guard was stationed at Broadview Drive and Libal Street and one was stationed at Hilltop Drive and Libal Street.
Law Enforcement	• No law enforcement officers were observed.


Langlade Elementary School
Location within GBAPS District
Heritage Hill State Park
STH 172
RIVERSIDE DR
WEBSTER AV
BEAUMONT ST
OAKWOOD AV
BITTERSWEET AV
MISSION RD
CLOVER LN
HEYDEN LN
GREENWALD ST
GREENE AV
RAVINE WY
VandenHeuvel Park
Green Isle Park
KAREN LN
SIMONET ST
REGINA ST
EAST RIVER DR
MANDERLY WY
BELLEVUE ST
COOLIDGE ST
TAFT ST
LINCK CT
BRYAN ST
ARBOR LN
ORCHARD LN
BROADVIEW DR
Langlade Elementary School
ST MARYS BL
ST FRANCIS DR
ARROWHEAD DR
BRIAR LN
ROSELAWN BL
WAUBENOOR DR
CLAY ST
DETRIE DR
DELAHAUT ST
LIBAL ST
GRANDE RU
CHANTILLY RU
HILLTOP DR
SOMERSET DR
HOEFMAN RD
VANDE HEI RD
CUSTER CT
FAIRVIEW AV
LONGVIEW AV
FERNWOOD AV
SUNRISE LN
BRIAR LN
VAN RD
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 900 1800 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Langlade Elementary School map.

#	Location	Observations	Recommendations
1	Libal Street and Broadview Drive 	• Stop signs are present for Broadview Drive but Libal Street is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings are present). • Parents are concerned about the speed and volume of traffic on Libal Street. Speeding was observed. • Parents note that the pick-up and drop-off area gets congested. Some parents park in the parking lot across the street and cross the street midblock. • The Allouez Safe Routes to School Plan proposes to study the addition of curb extensions at this intersection.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the leg crossing Libal Street. (Short Term) • Add curb extensions per the Allouez Safe Routes to School Plan. Due to the presence of existing drain inlets, consider making them edge islands with a 1-2 foot gap from the curb for drainage. (Medium Term) • Ensure that the school arrival and dismissal rules instruct parents and students to cross the street in the crosswalk. (Medium Term)
2	Broadview Drive in front of school 	• Some parents were observed crossing Broadview Drive midblock. • Parents note that drivers seem to exceed the speed limit on Broadview Drive.	• Conduct regular speed enforcement. (Short Term)

#	Location	Observations	Recommendations
3	Broadview Drive and West Pennwood Circle  *Photo Credit: Google Streetview*	• A stop sign is present for West Pennwood Circle but Broadview Drive is uncontrolled. • Broadview Drive lacks a sidewalk on the north side of the street west of West Pennwood Circle. • No marked crosswalk is present. • The Allouez Safe Routes to School Plan proposes to add a concrete pad in this location to accommodate people entering and exiting Metro buses at the bus stop in this location. • The Allouez Safe Routes to School Plan proposes to "possibly add crosswalk at West Pennwood Circle," noting that the location is frequently used by middle and high school students who take buses to the YMCA across the street. However, the plan notes that marking a crossing here could encourage Langlade students to cross in this location isntead of with the crossing guard at the intersection of Broadview Drive and Libal Street. • The existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Broadview Drive. (Short Term) • Add a concrete pad near the bus stop per the Allouez Safe Routes to School Plan. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
4	Sidewalks along Webster Avenue  *Photo Credit: Google Streetview*	• Parents note that Webster Avenue has narrow sidewalks without any buffer next to a busy, 4-lane arterial, creating an uncomfortable walking environment.	• During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street. (Long Term)

#	Location	Observations	Recommendations
5	Broadview Drive and Webster Avenue  *Photo Credit: Google Streetview*	• A stop sign is present for Broadview Drive, but Webster Avenue is uncontrolled. • Parents report that drivers frequently fail to yield to pedestrians crossing the street in this location. • Webster Avenue is a high speed and high-volume street. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). A school crossing sign is only present in one direction. • Existing curb ramps at all but the southwest corner do not meet current USDOT standards. • Existing curb ramps on the east side of the intersection do not orient pedestrians directly into the crosswalks.	• Due to the proximity of this location to the crossing at Coolidge, consider consolidating and providing marked crossings at only one of the two intersections. (Short Term) If this is the crossing that remains: • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Webster Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line. (Short Term) • Explore whether the existing medians could be extended to provide pedestrian refuge. (Long Term) If not consider adding a Rectangular Rapid Flashing Beacon, if warranted. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
6	Webster Avenue and Coolidge Street  *Photo Credit: Google Streetview*	• A stop sign is present for Coolidge Street, but Webster Avenue is uncontrolled. • Parents report that drivers frequently fail to yield to pedestrians crossing the street in this location. • Webster Avenue is a high speed and high-volume street. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • The existing curb ramps on the east side of the street does not meet current USDOT standards. • The existing single curb ramp on the northwest side of the intersection does not orient pedestrians directly into the crosswalks.	• Due to the proximity of this location to the crossing at Broadview, consider consolidating and providing marked crossings at only one of the two intersections. (Short Term) If this is the crossing that remains: • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the leg crossing Webster Street. (Short Term) • Add Advance Yield to Pedestrians sign and yield line. (Short Term) • Explore whether the existing median could be extended to provide pedestrian refuge. (Long Term) If not consider adding a Rectangular Rapid Flashing Beacon, if warranted. (Medium Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of a new curb ramp that lines up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
7	Webster Avenue and Hoffman Road  *Photo Credit: Google Streetview*	• The intersection is an all-way stop with red flashing beacons. • Parents report that drivers frequently roll through the stop sign, making it difficult for pedestrians to cross the street. • Webster Avenue is a high speed and high-volume street. • Existing curb ramps on the west side of the street do not meet current USDOT standards	• Conduct regular enforcement. (Short Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
8	Webster Avenue and Briar Lane  *Photo Credit: Google Streetview*	• Stop signs are present for Briar Lane but Webster Avenue is uncontrolled. • Community members note that drivers frequently fail to yield to pedestrians crossing the street in this location and that this crossing is frequently used by bus riders and those accessing the Fox River Trail. • Webster Avenue is a high speed and high-volume street. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or pedestrian warning signs are present). • The existing curb ramps do not meet current USDOT standards. • The existing single curb ramps on the north side of the intersection do not orient pedestrians directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and crossing signs for the legs crossing Webster Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line. (Short Term) • If warranted, add a Rectangular Rapid Flashing Beacon. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
9	Briar Lane west of Webster Avenue  *Photo Credit: Google Streetview*	• Community members note that this street is an important connection to the Fox River Trail but that it lacks sidewalks. • Community members note that drivers are not always attentive, making it feel unsafe to walk or bicycle along this roadway.	• Construct new sidewalks. (Medium Term)

#	Location	Observations	Recommendations
10	Driveway in front of school  *Photo Credit: Google Streetview*	• The Allouez Safe Routes to School plan proposes adding sidewalk along the eastern school driveway.	• Construct new sidewalk. (Short Term)
11	Bike Racks 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)
12	Connection between playground and Libal Street 	• The Allouez Safe Routes to School plan proposes adding a paved path connecting the sidewalk to the playground.	• Construct path. (Short Term)
13	Connection between playground and existing Terraview Drive path  *Photo Credit: Google Streetview*	• The Allouez Safe Routes to School plan proposes adding a paved path connecting the playground to the existing Terraview Drive path.	• Construct path. (Short Term)

#	Location	Observations	Recommendations
14	Broadview Drive from Grande Rue to the East River Trail  *Photo Credit: Google Streetview*	• Broadview Drive lacks sidewalk to the east of Grande Rue creating barriers to walking and bicycling to school. • The Allouez Safe Routes to School plan proposes adding a sidewalk along the south side of Broadview Drive.	• Construct new sidewalk. (Short Term)
15	Residential Streets surrounding the school  *Photo Credit: Google Streetview*	• Parents note that many of the streets surrounding the school lack sidewalks, creating barriers to walking and bicycling to school.	• Construct new sidewalks as shown in the Langlade Elementary School map. (Short, Medium, and Long Term)

Leonardo da Vinci School for the Gifted

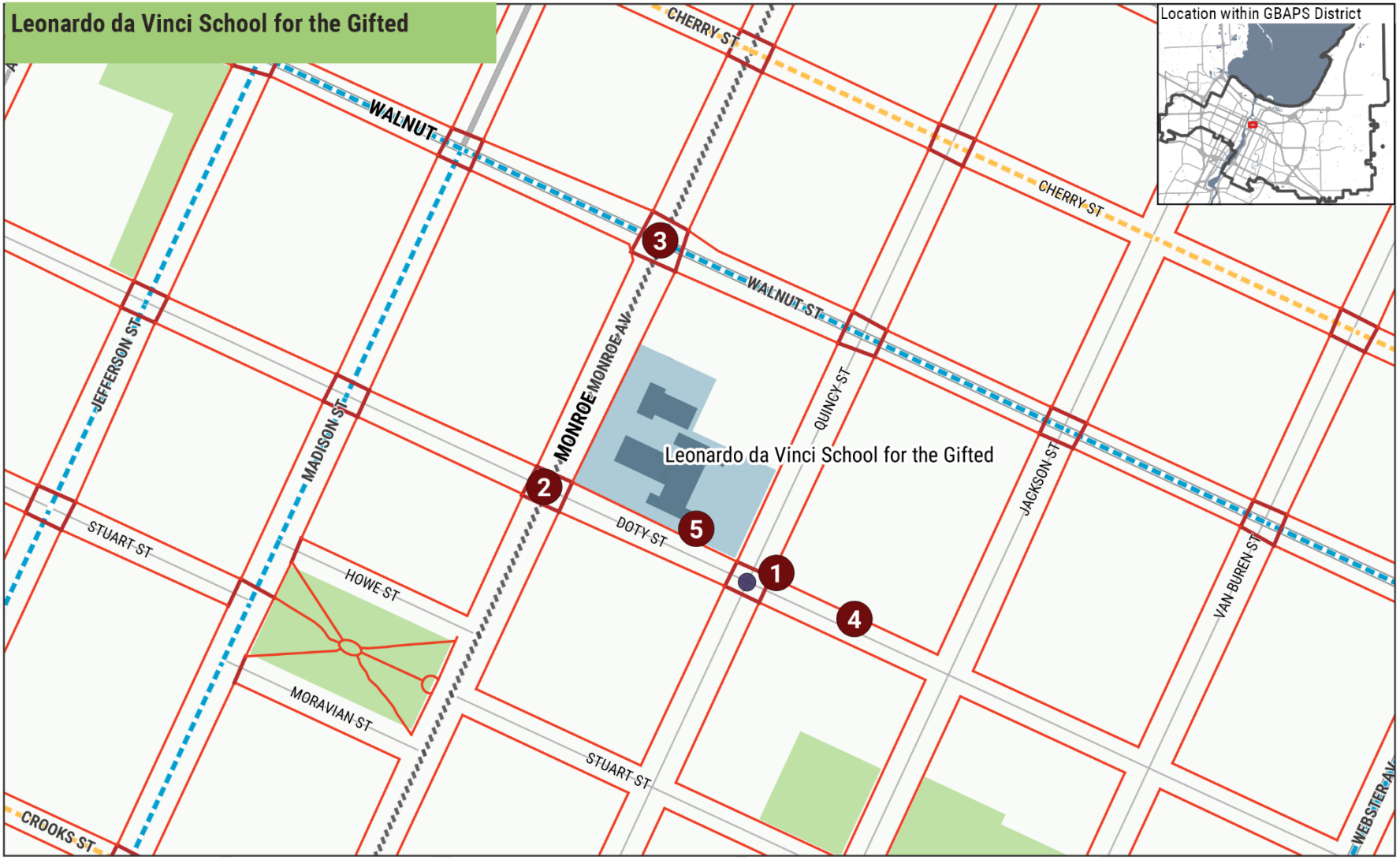
About the School	
Address	139 S Monroe Avenue
Grade Levels	K-8
Number of Students	380*
Students Eligible for School Bus	0%
Economically Disadvantaged	8.4%*
Students with Disabilities	3.2%*
Arrival / Dismissal Times	7:30 AM / 2:35 PM (Grades 6-8) 7:45 AM / 2:35 PM (Grades K-5)

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Walnut Street	8,700
Monroe Avenue	10,000
Webster Avenue	10,900
Madison Street	2,500

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Thursday, September 20.
Entrances	• Students entered the school via the door on Doty Street.
School Bus Loading	• No school buses were observed.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students on the streets surrounding the school, particularly Doty Street. • School staff place cones at the driveway entrances to keep parents from using the parking lot for arrival and dismissal.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• School staff were present during arrival.
School Crossing Guards	• A crossing guard was stationed at Doty Street and Quincy Street.
Law Enforcement	• No law enforcement officers were observed.


Leonardo da Vinci School for the Gifted
Location within GBAPS District
CHERRY ST
WALNUT ST
MONROE AV
QUINCY ST
JACKSON ST
VAN BUREN ST
JEFFERSON ST
MADISON ST
STUART ST
DOTY ST
HOWE ST
MORAVIAN ST
CROOKS ST
WEBSTER AV
Leonardo da Vinci School for the Gifted
1
2
3
4
5
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 100 200 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Leonardo da Vinci School for the Gifted map.

#	Location	Observations	Recommendations
1	Doty Street and Quincy Street 	• Stop signs are present for Doty Street but Quincy Street is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • No reduced school speed zone is present on Doty Street. • Parents report that vehicles exceed the speed limit. • Drivers traveling southbound on Qunciy and turning west onto Doty Street were observed blocking the crosswalk and disobeying the crossing guard.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Quincy Street. (Short Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term) • Conduct regular speed enforcement. (Short Term)

#	Location	Observations	Recommendations
2	Doty Street and Monroe Avenue 	• Stop signs are present for Doty Street but Monroe Avenue is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Parents note that drivers fail to yield to pedestrians in the crosswalks at this location. It is also noted that there is demand for students attending after school programs at the YWCA to cross the street in this location. • Parents report that vehicles exceed the speed limit. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • The intersection is not located within a reduced school speed zone. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• Until the time that the intersection can be improved, continue to encourage students to cross at the traffic signal one block to the north. • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Monroe Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for Monroe Avenue. (Short Term) • Consider adding a pedestrian refuge island or Rectangular Rapid Flashing Beacon (if warranted) to further improve the safety of the crossing. (Medium/Long Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term) • Conduct regular enforcement. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
3	Monroe Avenue and Walnut Street 	• The intersection is signalized. • The traffic signal pole/ light pole placement narrows the sidewalk and creates a pinch-point. Clear width is approximately 44 inches. Further, narrow sidewalks with minimal buffer next to a busy, 4-lane arterial creates an uncomfortable walking/cycling environment. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• During the next reconstruction of the intersection, explore relocating the poles or widening the sidewalk to elimintate the pinch points and add a buffer. Also explore the installation of new curb ramps that line up with crosswalks. (Long Term)
4	Streets surrounding the school 	• Parents report that many of the existing sidewalks have tripping hazards due to trees pushing up the sidewalks.	• Perform sidewalk maintenance. (Short Term)
5	Bike Racks	• No bicycle parking was observed, and parents noted that the school lacks a bicycle rack.	• Provide bike racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Lincoln Elementary School

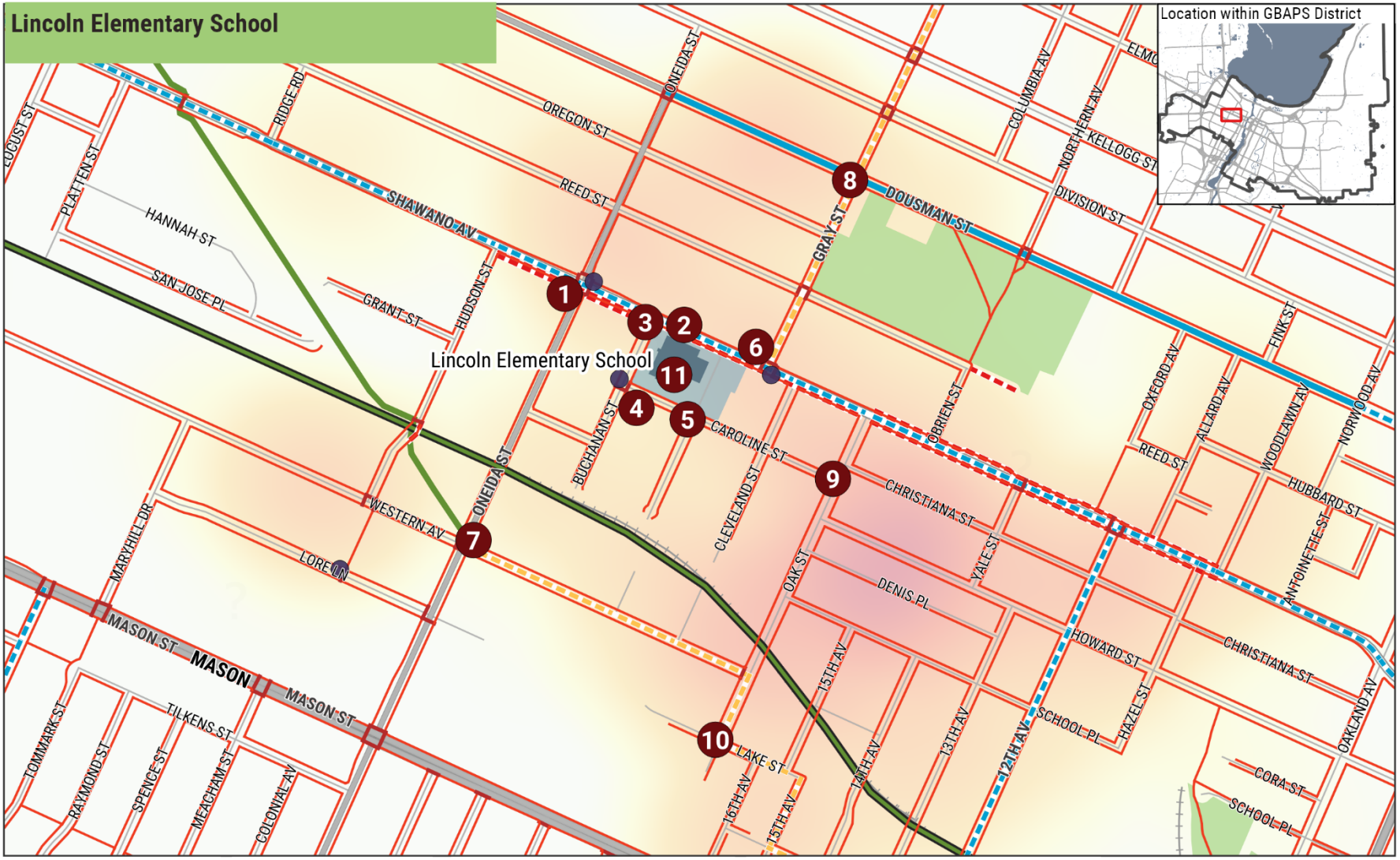
About the School	
Address	105 South Buchanon Street
Grade Levels	K4-5
Number of Students	201*
Students Eligible for School Bus	7.6%
Economically Disadvantaged	68.7%*
Students with Disabilities	26.4%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Shawano Avenue/State Highway 29	10,200
North Oneida Street (at Oregon Street)	3,500
Gray Street	4,300

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Monday, September 17.
Entrances	• All students used one of two exits (both access Caroline Street).
School Bus Loading	• Four to six buses lined up in the parking lot along Buchanan Street.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students on both sides of Caroline Street (on the south side of the school), despite Caroline Street having signs prohibiting parking on the school side of the street and the far side of the street having "No Stopping or Standing 3-4 PM School Days" signs. Parents also pick up students on both sides of South Buchanan Street (on the west side of the school). Existing signs on the school side of the street that say, "No Parking During School Hours".
Student Roles	• The school uses a student safety patrol program. Fifth grade students stand at the corner of Shawano Avenue and Buchanan Street and direct younger students east or west towards the crossing guards.
School Staff Roles	• School staff were present during dismissal and guided students out to waiting parents from the playground.
School Crossing Guards	• Four crossing guards were observed in the school's vicinity: two at the intersection of Buchanan Street and Caroline Street; one at the intersection of Shawano Avenue and Oneida Street; and one at the intersection of Shawano Avenue and Gray Street.
Law Enforcement	• No law enforcement officers were observed.


Lincoln Elementary School
Location within GBAPS District
Lincoln Elementary School
SHAWANO AV
OREGON ST
REED ST
DOUSMAN ST
KELLOGG ST
DIVISION ST
ONEIDA ST
GRAY ST
COLUMBIA AV
NORTHERN AV
RIDGE RD
CUCUST ST
PLATTEN ST
HANNAH ST
SAN JOSE PL
GRANT ST
HUDSON ST
BUCHANAN ST
CAROLINE ST
CLEVELAND ST
O'BRIEN ST
OXFORD AV
ALLARD AV
WOODLAWN AV
NORWOOD AV
FINK ST
REED ST
HUBBARD ST
ANTOINETTE ST
CHRISTIANA ST
YALE ST
OAK ST
DENIS PL
HOWARD ST
HAZEL ST
SCHOOL PL
OAKLAND AV
CORA ST
WESTERN AV
LORE LN
MARYHILL DR
MASON ST
MASON
TILKENS ST
TOMMARK ST
RAYMOND ST
SPENCE ST
MEACHAM ST
COLONIAL AV
LAKE ST
15TH AV
14TH AV
13TH AV
12TH AV
16TH AV
1
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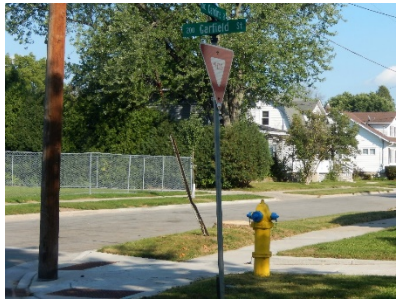
9
10
11
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low
Medium
High
N
0
500
1000 Feet

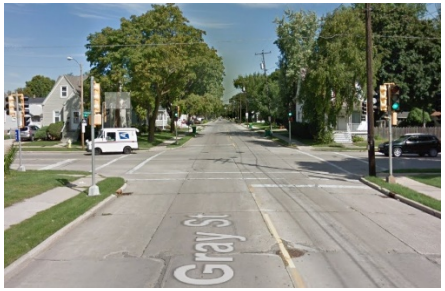
Recommendations

The numbered observations in the table below correspond to the points in the Lincoln Elementary School map.

#	Location	Observations	Recommendations
1	Shawano Avenue and Oneida Street 	• The intersection is signalized. • Vehicles appear to exceeed the posted speed limit at this intersection (30 mph). This intersection is just outside the reduced school speed limit zone. • Parents report that this intersection is difficult for students to cross. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high-visibility crosswalk markings for all four approaches of the intersection of Shawano Avenue and Oneida Street. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Shawano Avenue and Oneida Street. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
2	Shawano Avenue between Hudson Street and Oak Street 	• "SCHOOL" pavement markings are present on both approaches and reduced school speed limits are present for part of this segment. • Narrow sidewalks with minimal buffer next to a busy, 4-lane arterial create an uncomfortable walking environment along Shawano Avenue. • Sidewalks are cracked and uneven, which creates tripping hazards and creates a barrier for pedestrians in wheelchairs.	• During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street. (Long Term) • Perform sidewalk maintenance to correct damage. (Short Term)

#	Location	Observations	Recommendations
3	Shawano Avenue and Buchanan Street 	• A stop sign is present for Buchanan Street but Shawano Avenue is uncontrolled. • Cars coming from Shawano Avenue often make fast-moving right-turns onto South Buchanan Street. • Existing single curb ramps at corners do not orient users directly across South Buchanan Street.	• Consider speed enforcement at this intersection. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with the crosswalk. (Long Term)
4	Caroline Street and Buchanan Street 	• A stop sign is present for Caroline Street but Buchanan Street is uncontrolled. The two crossings at the intersection of Caroline Street and South Buchanan Street were heavily used by students, with two crossing guards assisting students across the two marked crosswalks on the south and east sides of the intersection. • The intersection is not within a reduced school speed limit zone. • The existing crossings lack high visibility crosswalk markings. • The crossing across South Buchanan Street lacks a school crossing sign. • While stopping is allowed on the school side of Caroline Street, drivers often park or idle close to the intersection, which blocks visibility of pedestrians in the crosswalk. • Existing single curb ramp at the southeastern corner of the intersection does not orient users directly into the crosswalk.	• Extend the reduced school speed zone so that it includes the intersection of Caroline Street and Buchanan Street. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the uncontrolled legs on Buchanan Street. Add crossing warning signs for the approaches on Buchanan Street. (Short Term) • Consider painting the curb to further reinforce the parking restrictions in advance of the crosswalk. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
5	Caroline Street and Garfield Street 	• A yield sign is present for Garfield Street, but Caroline Street is uncontrolled. • A moderate number of students were observed walking eastward from the school along Caroline Street. • Northbound traffic has a yield sign; several staff members noted that they were concerned about this intersection. • This intersection is not within a reduced school speed limit zone and lacks school crossing signs.	• Extend the reduced school speed zone so that it includes the intersection of Caroline Street and Garfield Street. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the crossings on Caroline Street. (Short Term)
6	Shawano Avenue and Gray Street 	• The intersection is signalized. • School crossing assemblies are present. • The existing school speed zone for eastbound traffic ends before the busy pedestrian crossing at Gray Street. • The existing single curb ramp at the northwest corner does not orient users directly into the crosswalk.	• Extend the reduced school speed zone so that it includes the intersection of Shawano Avenue and Gray Street. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
7	Oneida Street and Western Avenue  *Photo Credit: Google Streetview*	• Stop signs are present for Western Avenue but Oneida Street is uncontrolled. • The Sargent Benjamin Edinger Corridor West Side Trail ends at this intersection. Parents report that there is not a safe connection from the trail to the Boys and Girls Club across the street. Some parents report students crossing the street just to the north of this location near the railroad tracks. • Oneida Street has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not.	• Add higher visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the crossings over Oneida Street. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for both approaches on Oneida Street. (Short Term)
8	Dousman Street and Gray Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents report that turning vehicles do not always yield to pedestrians. • Existing single curb ramps do not direct pedestrians directly into the crosswalks.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
9	Oak Street and Caroline Street  *Photo Credit: Google Streetview*	• The intersection is uncontrolled. • Parents report that students cross the street midblock on Oak Street instead of crossing at this intersection. • The intersection of Oak Street and Caroline Street is lacking traffic control.	• Install a stop or yield sign for Caroline Street. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for one leg crossing Oak Street. (Short Term)
10	Oak Street and Lake Street  *Photo Credit: Google Streetview*	• Stop signs are present for Lake Street but Oak Street is uncontrolled. • Parents report that there are frequently conflicts between pedestrians and driver accessing the employers located at this intersection. • There are no existing crosswalk markings. • The existing curb ramp on the northwest corner does not meet current USDOT standards. • There are no curb ramps on the south side of the intersection, although there is a driveway that provides some access to the sidewalk.	• Add parallel crosswalk marking for all three approaches. (Short Term) • Rebuild the curb ramp on the northwest corner to meet current USDOT standards. (Medium Term) • Construct missing curb ramps to meet current USDOT standards. (Medium Term)
11	Bicycle Racks 	• 7 bicycles were observed on bike racks. However, existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Lombardi Middle School

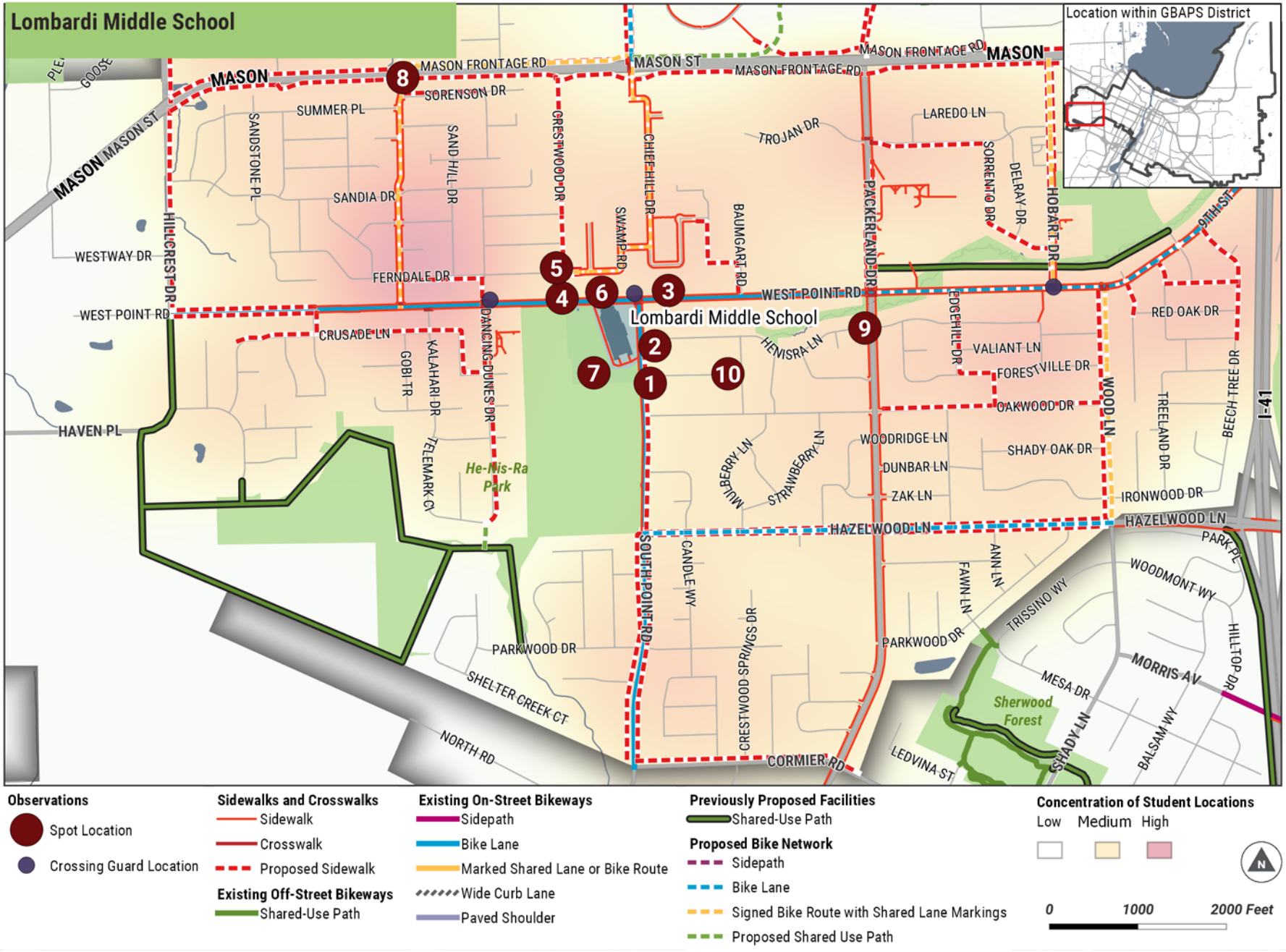
About the School	
Address	1520 S. Point Road
Grade Levels	6-8
Number of Students	838*
Students Eligible for School Bus	51.3%
Economically Disadvantaged	47.4%*
Students with Disabilities	14.6%*
Arrival / Dismissal Times	7:30 AM / 2:40 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
W. Point Road	5,000
S. Point Road	3,300
W. Mason Street	14,300

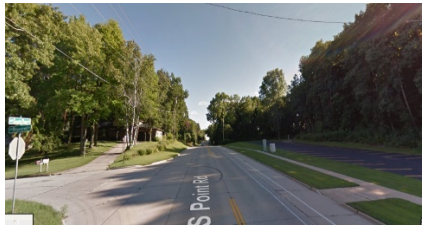
Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Wednesday, September 19.
Entrances	• Parent pick-ups, walkers and bicyclists exit the building from the front, along S. Point Road. • Bus students exit from the back of the building.
School Bus Loading	• 14 school buses loaded students in rear of the school building.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students primarily on South Point Road and West Point Road. • Vehicular pick-up also occurred on other nearby streets and in parking lots surrounding the school. • Parents park on both sides of the street to wait for their children.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal, generally keeping order.
School Crossing Guards	• One crossing guard was stationed at the intersection of West Point Road and South Point Road.
Law Enforcement	• No law enforcement officers were observed.

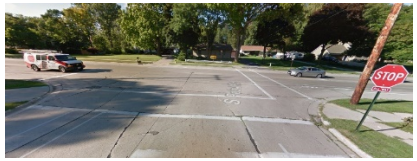

Lombardi Middle School
Location within GBAPS District
Lombardi Middle School
MASON
MASON ST
MASON FRONTAGE RD
SORENSON DR
SUMMER PL
SANDSTONE PL
SANDIA DR
SAND HILL DR
CRESTWOOD DR
CHIEF HILL DR
SWAMP RD
BAUMGART RD
TROJAN DR
LAREDO LN
SORRENTO DR
DELRAY DR
HOBART DR
PACKERLAND DR
9TH ST
WESTWAY DR
HILLCREST DR
FERNDALE DR
WEST POINT RD
CRUSADE LN
GOBI TR
KALAHARI DR
DANCING DUNES DR
HEMISRA LN
EDGEHILL DR
VALIANT LN
FORESTVILLE DR
OAKWOOD DR
RED OAK DR
WOOD LN
TREELAND DR
BEECH TREE DR
I-41
HAVEN PL
TELEMARK CT
He-Nis-Ra Park
MULBERRY LN
STRAWBERRY LN
WOODRIDGE LN
DUNBAR LN
ZAK LN
SHADY OAK DR
IRONWOOD DR
HAZELWOOD LN
SOUTH POINT RD
CANDLE WY
CRESTWOOD SPRINGS DR
FAWN LN
ANN LN
PARK PL
WOODMONT WY
TRISSINO WY
PARKWOOD DR
MESA DR
MORRIS AV
HILLTOP DR
Sherwood Forest
SHADY LN
BALSAM WY
LEDVINA ST
CORMIER RD
NORTH RD
SHELTER CREEK CT
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 1000 2000 Feet

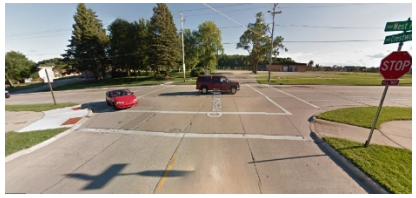
Recommendations

The numbered observations in the table below correspond to the points in the Lombardi Middle School map.

#	Location	Observations	Recommendations
1	South Point Road and Whippoorwill Drive  *Photo Credit: Google Streetview*	• A stop sign is present for Whippoorwill Drive, but South Point Road is uncontrolled. • No marked crosswalks exist. • Missing sidewalks on the east side of South Point Road between Henrisa Lane and Cormier Road, and on the west side of South Point Road, between Hazelwood Lane and Cormier Road, present a barrier to walking and bicycling to school. • There are existing bike lanes on South Point Road. • Only one curb ramp is present and it does not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for both legs crossing South Point Road. (Short Term) • Construct a sidewalk on the east side of South Point Road between Henrisa Lane and Cormier Road, and on the west side of South Point Road, between Hazelwood Lane and Cormier Road. (Short Term) • Construct missing curb ramps and rebuild existing curb ramp to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
2	South Point Road and He Nis Ra Lane  *Photo Credit: Google Streetview*	• A stop sign is present for He Nis Ra Lane but South Point Road is uncontrolled. • No marked crosswalks exist. • There are existing bike lanes on South Point Road. • Parents report that vehicles exceed the speed limit on He Nis Ra Lane. • No reduced school speed limit zone is present on He Nis Ra Lane. • Parents report that students run across the street midblock to get to parent vehicles. • Only one curb ramp is present and it does not meet current USDOT standards. • A significant number of students travel to and from school on Metro transit buses that stop at this intersection.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for both legs crossing South Point Road. (Short Term) • Add school speed limit signs on He Nis Ra Lane. (Short Term) • On the school sides of South Point and West Point Roads, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Construct missing curb ramps and rebuild existing curb ramp to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
3	South Point Road and West Point Road  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • "SCHOOL" pavement markings and reduced school speed limits are present on all approaches. • There are existing bike lanes on both South Point Road and West Point Road. • Parents report that drivers frequently roll through the stop signs at this intersection without looking for pedestrians. • Parents say that drivers exceed the speed limit. • Parents indicate that students frequently cross the street midblock, sometimes to reach their parent's vehicle on the far side of South Point Road. Parents report that this sometimes results in students nearly being hit by vehicles. • Parent vehicles stopped for drop-off and pick-up can sometimes block the way for vehicles turning right from West Point Road onto South Point Road. • None of the curb ramps meet existing USDOT standards. • Existing single curb ramps at the southern corners do not orient users directly into the crosswalk.	• Explore whether this intersection meets the warrants for a 3-way stop. If it does not, consider removing the stop signs on West Point Road and provide other treatments to help pedestrians safely cross West Point. Alternatively, provide enforcement of the traffic laws at this intersection. (Short Term) • On the school sides of South Point and West Point Roads, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Add "No Parking No Standing" on West Point Road in advance of the intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
4	West Point Road and Crestwood Drive  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • Missing sidewalks on both sides of Crestwood Drive between Mason Street and West Point Road, present a barrier to walking and bicycling to school. • There are existing bike lanes on West Point Road. • Parents report that drivers frequently roll through the stop signs at this intersection without looking for pedestrians. • Parents say that drivers exceed the speed limit. • Parents complain about aggressive driving around this intersection. • Some parents use the park parking lot during arrival and dismissal, blocking the sidewalk as they exit. • Two existing curb ramps do not meet current USDOT standards. • The southwest corner lacks a curb ramp and the crosswalk feeds into an existing driveway. • Existing single curb ramps at one corner do not orient users directly into the crosswalk.	• Explore whether this intersection meets the warrants for a 3-way stop. If it does not, consider removing the stop signs on West Point Road and provide other treatments to help pedestrians safely cross West Point. Alternatively, provide enforcement of the traffic laws at this intersection. (Short Term) • Construct new sidewalks on the east side of Crestwood Drive between Mason Street and West Point Road. (Long Term) • Consider adding signs to discourage parents from blocking the sidewalk when exiting the park parking lot. • Construct missing curb ramp to meet current USDOT standards. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
5	Crestwood Drive and Ferndale Drive  *Photo Credit: Google Streetview*	• Stop signs are present for Ferndale Drive but Crestwood Drive is uncontrolled. • There are no marked crosswalks or curb ramps. • Missing sidewalks on the east side of Crestwood Drive, between Mason Street and West Point Road, and on both sides of Ferndale Drive between Crestwood Drive and the existing sidewalk, present a barrier to walking and bicycling to school. • Parents report that students walk in the street and vehicles turning East on Ferndale from Crestwood are unable to see children walking in the street in time.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for both legs crossing Crestwood Drive. (Short Term) • Construct a sidewalk on the east side of Crestwood Drive between Mason Street and West Point Road, and on both sides of Ferndale Drive, from Crestwood Drive to the existing sidewalk. (Medium Term)

#	Location	Observations	Recommendations
6	West Point Road between South Point Road and Crestwood Drive 	• There are existing bike lanes on West Point Road. • Steep grade. • Parents park on both sides of the street waiting for their children. • Parents say that drivers frequently stop or park in the bike lanes. • Parents indicate that students frequently cross the street midblock. • Parents indicate that many drivers enter the teacher parking lot the wrong way each day (the driveway onto West Point Road is signed as exit only, with “Wrong Way” signs facing West Point Road).	• On the school side of West Point Road, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • If not all parent drop-off and pick-up can be accommodated on the school side of the street, consider adding a mid-block crosswalk and add crossing treatments to improve its safety, such as high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs. (Short Term) • Add a “Do Not Enter” sign at the school driveway. (Short Term) • Enforce traffic laws in this location, including stopping and parking in the bike lanes, and entering the parking lot in violation of the Do Not Enter. (Short Term)

#	Location	Observations	Recommendations
7	Bike Rack in front of building 	• Approximately 20-30 bikes were observed. • Existing bike racks do not support the bicycles in two places which may result in bikes being tipped over when parked.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term) • Consider adding additional bike racks to accommodate demand.
8	Mason Street  *Photo Credit: Google Streetview*	• Parents indicate that it is difficult for students to cross Mason Street. Coming from Lombardi Middle School, students could be crossing at Packerland Drive, Country Club Road, or La Count Road (currently more students live near Country Club Road and La Count Road). There are existing traffic signals on Packerland Drive and Country Club Road, but not at Lacount Road. • Missing sidewalks on both sides of Mason Street between Hillcrest Drive and Packerland Drive, and in the neighborhoods north of that street present a barrier to walking and bicycling to school.	• Add high-visibility crosswalk markings, parking restrictions on crosswalk approach, and adequate nighttime lighting levels to one leg crossing Mason Street at Lacount Road. (Short Term) • Also add advance yield here to pedestrians sign and yield line AND extend the existing median to provide a raised pedestrian refuge for pedestrians OR explore whether a traffic signal is warranted (Medium/Long Term) • At the intersection of Packerland Drive and Mason Street, add pedestrian signal heads, and high visibility crosswalk markings. (Medium Term) • At the intersection of Country Club Road and Mason Street, add high visibility crosswalk markings. (Short Term) • Construct new sidewalks on the south side of Mason Street between Hillcrest Drive and Packerland Drive, and on the north side of Mason Street, along sections of the Frontage Road. (Short Term)

#	Location	Observations	Recommendations
9	Packerland Drive and He Nis Ra Lane  *Photo Credit: Google Streetview*	• Stop signs are present for He Nis Ra Lane but Packerland Drive is uncontrolled. • The crossing of Packerland Drive is uncontrolled, marked with a parallel line crosswalk and school crossing signs. • Parents report that vegetation on both sides of the street greatly reduces the visibility of students crossing Packerland and makes it difficult for cars on He Nis Ra Lane to see oncoming traffic.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels, for the Packerland Drive crossing. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for the existing marked crosswalk on Packerland Drive. (Short Term) • If warranted, add a Rectangular Rapid-Flashing Beacon (RRFB). (Medium Term) • Clear vegetation blocking the existing crossing from view for vehicles travelling on Packerland Drive. (Short Term)
10	Residential neighborhoods surrounding Lombardi Middle School  *Photo Credit: Google Streetview*	• Many of the streets surrounding the school lack sidewalks, presenting barriers to walking and bicycling to school.	• Construct new sidewalks as shown in the Lombardi Middle School map. (Short, Medium, and Long Term)

MacArthur Elementary School

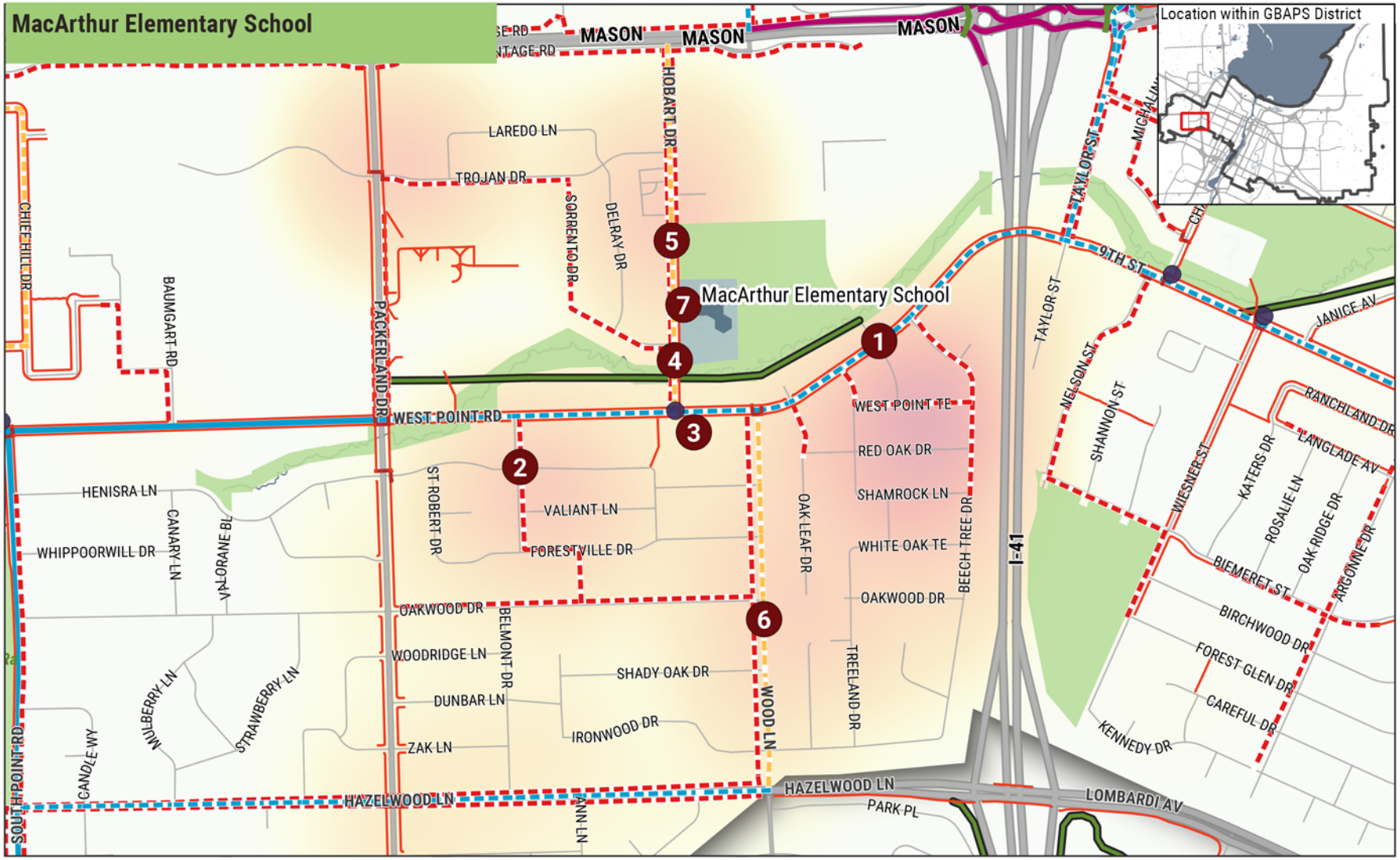
About the School	
Address	1331 Hobart Drive
Grade Levels	K4-5
Number of Students	273*
Students Eligible for School Bus	30.4%
Economically Disadvantaged	48.0%*
Students with Disabilities	8.4%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
West Point Road	4,100
West Mason Street	30,300
Packerland Drive	14,200
9th Street	5,800

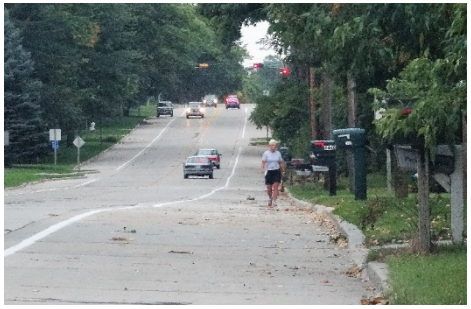
Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Wednesday, September 19.
Entrances	• All students entered through the Hobart Drive entrance (some used the front entrance itself, while other students headed to the playground behind the school and met classmates and staff there).
School Bus Loading	• Three school buses were observed unloading students along Hobart Drive.
Parent Drop-off/Pick-up	• Parents in vehicles mostly dropped off students along the southern portion of Hobart Drive (south of the school buses). A smaller number of parents dropped off students north of the school bus unloading zone and an even smaller number dropped off students on the non-school side of the street.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• Four different school staff members were present (including the principals).
School Crossing Guards	• One crossing guard was stationed at the intersection of West Point Road and Hobart Drive.
Law Enforcement	• No law enforcement officers were observed.


MacArthur Elementary School
Location within GBAPS District
MacArthur Elementary School
MASON
MASON
MASON
HOBART DR
LAREDO LN
TROJAN DR
SORRENTO DR
DELRAY DR
CHIEFHILL DR
BAUMGART RD
PACKERLAND DR
WEST POINT RD
WEST POINT TE
RED OAK DR
SHAMROCK LN
WHITE OAK TE
OAKWOOD DR
HENISRA LN
WHIPPOORWILL DR
CANARY LN
VALORANE BL
ST ROBERT DR
VALIANT LN
FORESTVILLE DR
OAK LEAF DR
BEECH TREE DR
I-41
TAYLOR ST
NELSON ST
SHANNON ST
9TH ST
JANICE AV
RANCHLAND DR
LANGLADE AV
WIESNER ST
KATERS DR
ROSALIE LN
OAK RIDGE DR
ARGONNE DR
BIEMERET ST
BIRCHWOOD DR
FOREST GLEN DR
CAREFUL DR
KENNEDY DR
OAKWOOD DR
BELMONT DR
WOODRIDGE LN
SHADY OAK DR
DUNBAR LN
IRONWOOD DR
ZAK LN
WOOD LN
TREELAND DR
MULBERRY LN
STRAWBERRY LN
CANDLE WY
SOUTH POINT RD
HAZELWOOD LN
HAZELWOOD LN
PARK PL
LOMBARDI AV
ANN LN
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 700 1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the MacArthur Elementary School map.

#	Location	Observations	Recommendations
1	9th Street and Springdale Lane  *Photo Credit: Google Streetview*	• Stop signs are present for Springdale Lane but 9th Street is uncontrolled. • A large number of students live southeast of the school and lack a direct crossing to access the school as well as Beaver Dam Park. There are existing Metro Transit bus stops at this intersection. • With the exception of the southwest corner, existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing 9th Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
2	Streets surrounding MacArthur Elementary 	• Many of the streets surrounding the school lack sidewalks and present a barrier to walking and bicycling to school. • A short walking path connects West Point Road/ 9th Street from near Hobart Drive to the residential neighborhood west of Wood Lane. However, the neighborhood east of Wood Lane lacks a similar linkage. • Where sidewalks do exist—such as along West Point Road/9th Street—they measure less than the recommended width of 5 to 6 feet and need repairs for heaving and settling to provide a safe pedestrian facility for all users.	• Construct new sidewalks as shown in the MacArthur Elementary School map. (Short, Medium, and Long Term) • Perform sidewalk maintenance and consider widening the existing sidewalks. (Short and Long Term)

#	Location	Observations	Recommendations
3	West Point Road/9th Street and Hobart Drive 	• A stop sign is present for Hobart Drive, but West Point Road/9th Street is uncontrolled. • A moderate number of students cross the street at this intersection and, according to the crossing guard, drivers don't always yield to pedestrians. • The existing crossing has a school crossing signage and a crossing guard, but is not highly visible to drivers because it lacks high visibility crosswalk markings. • Vehicles appear to exceed the posted speed limit during arrival and dismissal times. • West Point Road/9th Street allows parking but the parking is not highly utilized. This may sometimes result in drivers treating the road like a four-lane street instead of two-lane street. • Existing curb ramps at all three corners of the intersection do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the leg crossing West Point Road/9th Street. (Short Term) • Consider traffic calming or speed enforcement. (Short Term) • Bike lanes are proposed.(Medium term) • Rebuild the curb ramps to meet current USDOT standards. (Medium term)

#	Location	Observations	Recommendations
4	Hobart Drive in front of MacArthur Elementary 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • Adults picking up and dropping off students were observed parking in the "No Parking" zone south of the school entrance. Some vehicles were also observed parking in the "No Parking: Bus Loading Zone." • Cones placed across the entry to the parking lot minimize possible conflicts between students on foot and drivers. • Some parents dropped off students on the non-schol side of the street even though there was adequate space on the school side. No signage disallows this, but it increases the chance of conflict. • Several drivers were observed making "U-turns" mid-block after dropping off students.	• On the school side of Hobart Drive, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Install "NO STOPPING, OR STANDING" signs on the non-school side of the street. (Short Term)

#	Location	Observations	Recommendations
5	Hobart Drive from Mason Street to West Point Road /9th Street 	• Hobart Drive is quite wide (about 46 feet) and while parking is allowed on the non-school side of the street, it is not heavily utilized. This means the street appears even wider. • Vehicles appear to exceed the posted speed limit during school arrival and dismissal times. • Missing sidewalks on the west side of Hobart Drive between Mason Street and West Point Road / 9th Street, and on the east side of Hobart Drive between Mason Street and the northern edge of Beaver Dam Park, present a barrier to walking and bicycling. • Staff mentioned that a moderate number of students walk from the mobile home park south of Trojan Drive. As mentioned previously, there are no sidewalks for these students to walk on and there is no marked crossing in the nearly half mile distance between West Point Road and Mason Street. As a result, students cross the street at multiple locations along the street.	• Construct new sidewalks on the west side of Hobart Drive between Mason Street and West Point Road / 9th Street, and on the east side of Hobart Drive between Mason Street and the northern edge of Beaver Dam Park. (Short Term) • Consider adding a marked crossing across Hobart Drive at the southern driveway to the mobile home park or at Bellwood Lane. Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the new crossing. Extend the school reduced speed limit to include this crossing. (Short Term)
6	Wood Lane between West Point Road and Hazelwood Lane 	• Parents complain that it is difficult for students to cross Wood Lane, particularly at Shady Oak Lane, Ironwood Drive, and Hazelwood Lane. • Parents indicate that there is heavy traffic during school arrival and dismissal times and that vehicles exeed the speed limit.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for uncontrolled crossings of Wood Lane at Shady Oak and Ironwood. (Short Term) • Add/refresh parallel crosswalk markings at Wood Lane and Hazelwood Lane. (Short Term)

#	Location	Observations	Recommendations
7	Bicycle Racks 	• Six bicycles were observed on bicycle racks. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Martin Elementary School

About the School	
Address	626 Pinehurst Drive
Grade Levels	K4-5
Number of Students	273*
Students Eligible for School Bus	47.1%
Economically Disadvantaged	48.0%*
Students with Disabilities	8.4%
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Mason Street	16,500
Alpine Drive	4,700
Newberry Avenue	1,400

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Wednesday, September 19.
Entrances	• Students gathered on the playground/blacktop and entered the school from the adjacent entrance.
School Bus Loading	• School buses unloaded students along Pinehurst Avenue near the playground.
Parent Drop-off/Pick-up	• Parents and caregivers in vehicles dropped off students along Pinehurst Avenue, Crest Lane, and Sunrise Court. • The school distributes a map each school year showing acceptable areas for drop-off and pick-up. Existing signs do not match the instructions that parents are given.
Student Roles	• No students were observed participating in arrival.
School Staff Roles	• School staff were present during arrival and wore safety vests. • A school staff member served as a crossing monitor at the intersection of Pinehurst Avenue and Crest Lane.
School Crossing Guards	• School crossing guards were stationed at the intersection of Bader Street and Hillside Lane.
Law Enforcement	• No law enforcement officers were observed.


Martin Elementary School
Location within GBAPS District
DEERPATH DR
JAMESFORD AV
WAYFARER WY
BIRCH LN
HILLSIDE LN
BRETCOE DR
ECHO HILL DR
WESLEY AV
SANDY LN
WILDWOOD DR
EDGEWOOD LN
HARVEST RD
POLARIS RD
STELLA VISTA DR
NEW
FERN LN
ST BERNARD DR
BADER ST
SKYLINE BL
EASTVIEW DR
SUNNYCREST ST
ROSWOOD DR
PINEHURST AV
SUNRISE CT
CREST LN
EDGEWOOD DR
DELWOOD DR
AURORA DR
DELWICHE RD
MENLO PARK RD
SHERRY LN
MALCORE DR
EDELWEISS DR
TYROLIAN DR
Martin Elementary School
FINGER RD
MASON ST
MAIN ST
MAIN STREET FRONTAGE RD
AUTO PLAZA WY
MERCHANT LN
MANITOWOC RD
SUN TE
PHASIANUS ST
VENUS DR
ATHENS DR
APHRODITE RD
HOLSCHUH LN
HEATHER RD
ENGLEWOOD RD
ALPINE DR
HILLY HAVEN RD
DANIEL CT
AMBERLY TR
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 500 1000 Feet

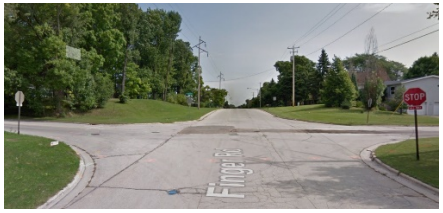
Recommendations

The numbered observations in the table below correspond to the points in the Martin Elementary School map.

#	Location	Observations	Recommendations
1	Pinehurst Avenue and Finger Road 	• A stop sign is present for Pinehurst Avenue, but Finger Road is uncontrolled. • "SCHOOL" pavement markings are present on both approaches of Finger Road. A school speed limit is present for westbound traffic but not for eastbound traffic. • Missing sidewalks on both sides of Pinehurst Avenue (north of Sunrise Court), on the east side of Pinehurst Avenue (between Sunrise Court and Finger Road), and on both sides of Finger Road between Bader Street and Interstate 43 present barriers to walking and bicycling to school. • There is no marked crosswalk or school crossing signs across Finger Road in this location. • The existing curb ramp does not meet current USDOT standards.	• Add a reduced school speed limit sign for eastbound traffic. • Construct new sidewalk on the east side of Pinehurst Avenue between Finger Road and Hillside Lane, and on the north side of Finger Road between Eastview Drive and Alpine Drive. (Medium Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the west leg of Finger Road. (Short Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
2	Pinehurst Avenue and Crest Lane 	• A stop sign is present for Crest Lane but Pinehurst Avenue is uncontrolled. • The existing crossing where a school staff member served as a crossing monitor is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The crossing guard uses a non-MUTCD compliant orange paddle with “15 MPH” text. • Missing sidewalks on both sides of Crest Lane between Pinehurst Avenue and Edgewood Drive presents a barrier to walking and bicycling to school. Additionally, missing sidewalks on the east side of Pinehurst Avenue between Hillside Lane and Finger Road, and on the west side between Hillside Lane and Sunrise Court, present a barrier to walking and bicycling to school. • Parents indicate that the streets around this intersection get congested and chaotic during school arrival and dismissal and speeds are high. • Parents are given instructions on where they can park or stop to drop off and pick up students, however some of the existing signs do not match the instructions. • Existing single curb ramps on the east side of the street do not direct pedestrians directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the existing marked crosswalk. (Short Term) • Construct new sidewalks on the north side of Crest Lane between Pinehurst Avenue and Edgewood Drive (Long Term), and on the east side of Pinehurst Avenue between Hillside Lane and Finger Road (Medium Term). • Along Pinehurst Avenue and Crest Lane, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. Ensure consistency between signage and the school's arrival and dismissal rules. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
3	Existing bicycle racks 	• A couple of bicycles were observed at the existing bike racks. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)
4	Pinehurst Avenue and Sunrise Court 	• Stop signs with flashing beacons are present for Sunrise Court but Pinehurst Avenue is uncontrolled. • School Crossing Assemblies with flashing beacons are present for Pinehurst Avenue. • Vegetation blocks the existing reduced school speed limit sign from view of southbound traffic on Pinehurst Avenue. • The existing crossing where a school staff member served as a crossing monitor is not highly visible to drivers (no high visibility crosswalk markings are present). • Missing sidewalks on both sides of Sunrise Court between Pinehurst Avenue and Crest Lane present a barrier to walking and bicycling to school. • Missing sidewalks on both sides of Pinehurst Avenue between Hillside Lane and Sunrise Court, and on the east side of Pinehurst Avenue between Sunrise Court and Finger Road, present a barrier to walking and bicycling to school.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the legs crossing Pinehurst Avenue. (Short Term) • Construct new sidewalks on the north side of Sunrise Court between Pinehurst Avenue and Crest Lane. (Long Term) • Construct new sidewalks on the east side of Pinehurst Avenue between Hillside Lane and Finger Road. (Medium Term)

#	Location	Observations	Recommendations
5	Residential streets surrounding the school  *Photo Credit: Google Streetview*	• Most of the streets surrounding the school lack sidewalks, creating barriers to walking and bicycling to school.	• Construct new sidewalks as shown in the Martin Elementary School map. (Short, Medium, and Long Term)
6	Edgewood Drive and Finger Road  *Photo Credit: Google Streetview*	• The intersection is an all-way stop. • No marked crosswalks exist at this four-way stop intersection. • Missing sidewalks on both sides of Finger Road between Skyline Drive and Interstate 43, and on both sides of Edgewood Drive north of Mason Street, present a barrier to walking and bicycling to school. • Parents are concerned about the safety of students crossing the street in this location.	• Mark parallel line crosswalks at this intersection. (Short Term) • Construct sidewalks on the north side of Finger Road between Alpine Drive and Eastview Drive (Medium Term), and on Edgewood Drive between Mason Street and Crest Lane (Long Term).
7	Alpine Drive 	• Alpine Drive was observed to have a heavy volume of vehicular traffic. • Vehicles appeared to exceed the posted speed. • No bicycle facilities are present. • Missing sidewalks on the both sides of Alpine Drive north of Newberry Avenue, and on the east side of Alpine Drive between Newberry Avenue and Mason Street, present barriers to walking and bicycling to school.	• Bike lanes are proposed.(Medium term) • Construct sidewalks on both sides of Alpine Drive north of Newberry Avenue, and on the east side of Alpine Drive between Newberry Avenue and Mason Street. (Short Term)

McAuliffe Elementary School

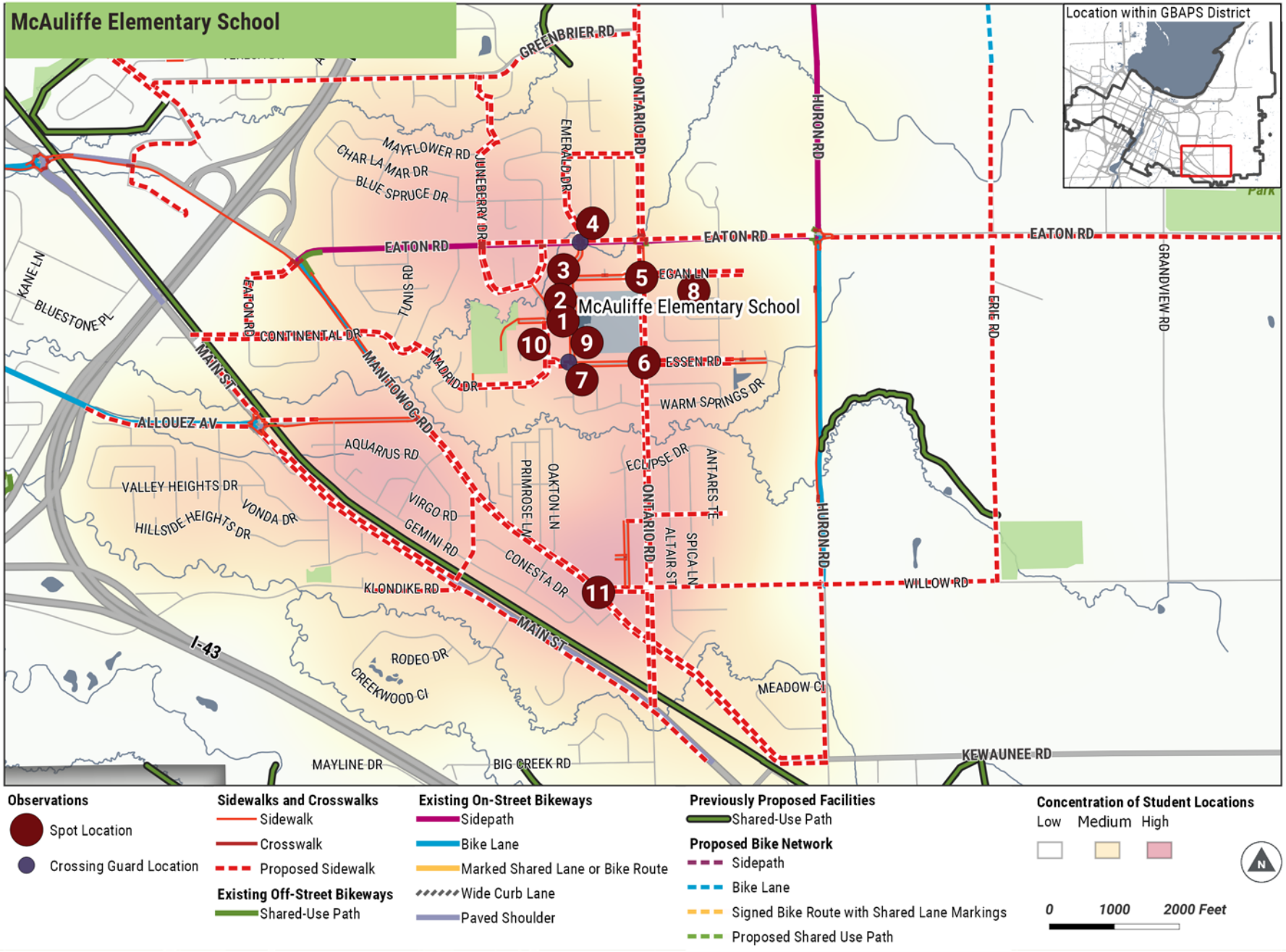
About the School	
Address	2071 Emerald Drive
Grade Levels	K4-5
Number of Students	498*
Students Eligible for School Bus	48.3%
Economically Disadvantaged	25.9%*
Students with Disabilities	9.0%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Eaton Road	4,500
Ontario Road	3,000
Huron Road	1,100
Manitowoc Road	9,100
Main Street	8,000
Greenbrier Road	3,400

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Tuesday, September 18.
Entrances	• Students exited the building from the entrances on Emerald Drive.
School Bus Loading	• School buses loaded students from the bus loop in front of the school along Emerald Drive.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students primarily on Emerald Drive. • Parents report that some parents use the school parking lot for drop-off and pick-up, against school rules.
Student Roles	• Student safety patrols assisted students with crossing Emerald Drive near the crosswalks next to the bus loop driveways and assisted students crossing Brighton Place. • Other student safety patrols were present on the school site and were observed reminding students to walk bicycles on the sidewalk. • Student safety patrols at street crossings had stop paddles, which is not typical for student safety patrols.
School Staff Roles	• School staff were present during dismissal.
School Crossing Guards	• School crossing guards were stationed at the intersection of Essen Road and Emerald Drive, and the intersection of Eaton Road and Emerald Drive.
Law Enforcement	• No law enforcement officers were observed.


McAuliffe Elementary School
Location within GBAPS District
McAuliffe Elementary School
GREENBRIER RD
MAYFLOWER RD
CHAR LA MAR DR
BLUE SPRUCE DR
JUNEBERRY DR
EMERALD DR
ONTARIO RD
HURON RD
EATON RD
EGAN LN
ESSEN RD
WARM SPRINGS DR
ERIE RD
GRANDVIEW RD
KANE LN
BLUESTONE PL
TUNIS RD
CONTINENTAL DR
MADRID DR
MANITOWOC RD
MAIN ST
ALLOUEZ AV
AQUARIUS RD
VIRGO RD
GEMINI RD
CONESTA DR
KLONDIKE RD
VALLEY HEIGHTS DR
VONDA DR
HILLSIDE HEIGHTS DR
PRIMROSE LN
OAKTON LN
ECLIPSE DR
ANTARES TE
ALTAIR ST
SPICA LN
WILLOW RD
I-43
RODEO DR
CREEKWOOD CI
MEADOW CI
MAYLINE DR
BIG CREEK RD
KEWAUNEE RD
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
0 1000 2000 Feet

Recommendations

The numbered observations in the table below correspond to the points in the McAuliffe Elementary School map.

#	Location	Observations	Recommendations
1	Emerald Drive and Brighton Place 	• A stop sign is present for Brighton Place, but Emerald Drive is uncontrolled. • The existing crossing where student safety patrols are posted is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The school places cones along the curb to discourage drivers from parking in the approaches and in the middle of the crosswalk to make it more visible. • Except for the curb ramp on the school side of the street, the existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting, and school crossing signs for the existing marked crosswalk on Emerald Drive. (Short Term) • Encourage school staff to continue placing cones. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
2	Emerald Drive and north bus loop driveway  *Photo Credit: Google Streetview*	• The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Pedestrians crossing here are in conflict with buses exiting the bus loop. • The school places cones along the curb to discourage drivers from parking in the approaches and in the middle of the crosswalk to make it more visible. • The existing curb ramps do not meet current USDOT standards. • The existing curb ramp on the school side of the street does not orient pedestrians directly into the crosswalk.	• Consider moving the crossing to the other side of the driveway to reduce conflicts with buses that exit the driveway and turn right. (Medium Term) • Add high visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting, and school crossing signs. (Short Term) • Encourage school staff to continue placing cones. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
3	Emerald Drive and Joy Lane  *Photo Credit: Google Streetview*	• A stop sign is present for Joy Lane, but Emerald Drive is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The existing school reduced speed zone ends before the pedestrian crossing. • The existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting, and school crossing signs for the existing marked crosswalk on Emerald Place. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Emerald Drive and Joy Lane. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
4	Emerald Drive and Eaton Road  *Photo Credit: Google Streetview*	• Stop signs are present for Emerald Drive but Eaton Road is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings are present). • A narrow pedestrian refuge is present, but it does not meet current USDOT standards. • While there is an existing path on the south side of the Easton Road, missing sidewalks on the north side of the street between Continental Drive and Huron Road present a barrier to walking and bicycling to school.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, and adequate nighttime lighting for the existing marked crosswalk on Eaton Road. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for the east approach to the existing marked crosswalk on Eaton Road. (Short Term) • Construct new sidewalk on the north side of Eaton Road between Juneberry Drive and Huron Road. (Medium Term)

#	Location	Observations	Recommendations
5	Ontario Road and Egan Lane 	• A stop sign is present for Egan Lane, but Ontario Road is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • A pedestrian walkway connecting to Joy Lane provides access between this intersection and the school. • The crosswalk is not located within a school reduced speed limit zone. • No sidewalk exists on Ontario Road to the south of this intersection. To the north of this intersection, sidewalk exists only on small sections of the east side of Ontario Road. • Parents are concerned about the speed of vehicles on Ontario Road.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, and adequate nighttime lighting for the existing marked crosswalk on Ontario Road. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Ontario Road and Egan Lane. (Short Term) • Construct new sidewalk on both sides of Ontario Road between Greenbrier Road and Main Street (excepting the small sections with existing sidewalk). (Short Term)

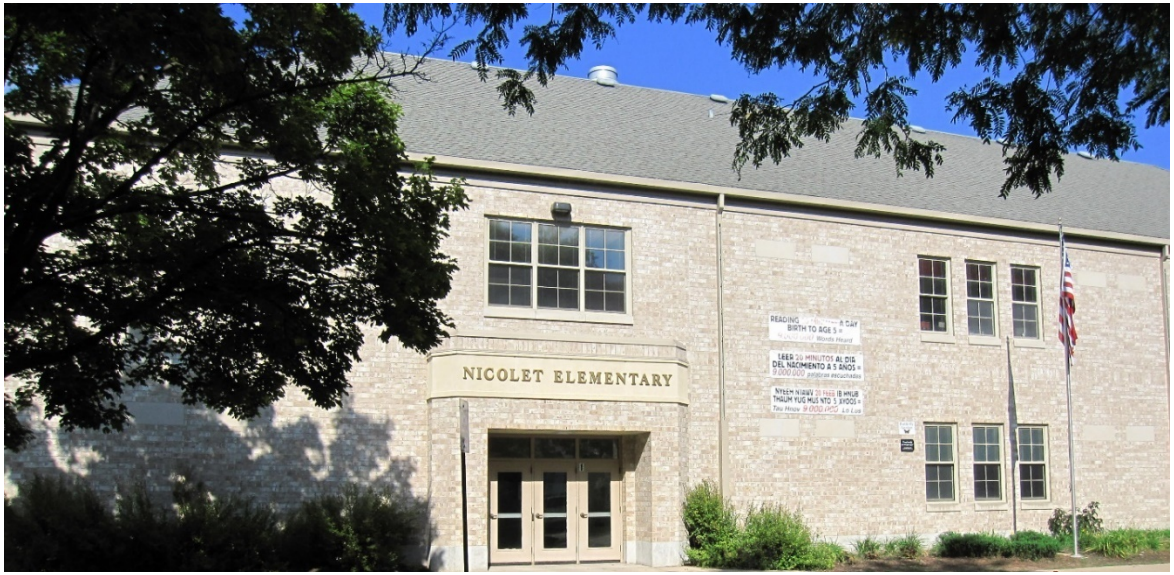
#	Location	Observations	Recommendations
6	Essen Road and Ontario Road  *Photo Credit: Google Streetview*	• There are no marked crosswalks or stop lines at this all-way stop intersection. • Missing sidewalks on Essen Road between Emerald Drive and Madrid Drive, and between Ontario Road and the existing sidewalks east of Wheat Way, present barriers to walking and bicycling to school. • Parents say that cars sometimes fail to stop at the stop signs. • Parents are concerned about the speed of vehicles at this intersection. • The crosswalk is not located within a school reduced speed limit zone and a parent mentioned they would feel more comfortable allowing their child to walk if it were part of a school zone. • The existing curb ramps on the west side of Ontario Road do not meet current USDOT standards.	• Add parallel line crosswalks on all four legs of the intersection. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Essen Road and Ontario Road. (Short Term) • Construct new sidewalks on both sides of Essen Road between Emerald Drive and Madrid Drive, and between Ontario Road and the existing sidewalks east of Wheat Way. (Medium Term) • Rebuild the curb ramps on the west side of Ontario Road to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
7	Emerald Drive and Essen Road 	• Stop signs are present for Emerald Drive but Essen Road is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings are present). • The existing school reduced speed zone ends before the busy pedestrian crossing. • Existing curb ramps on the northwest and southeast corners do not meet current USDOT standards. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, and adequate nighttime lighting for the existing marked crosswalk on Essen Road. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Emerald Drive and Essen Road. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
8	Residential streets surrounding the school  *Photo Credit: Google Streetview*	• Many of the streets surrounding the school lack sidewalks, presenting barriers to walking and bicycling to school. • A number of parents specifically requested new sidewalks on Ontario Road and on Dorset Drive between Brighton Place and Essen Road. • Parents report that sidewalks are not always adequetely cleared of snow and ice in winter.	• Construct new sidewalks as shown in the McAuliffe Elementary School map. (Short, Medium, and Long Term) • Construct new sidewalk on both sides of Ontario Road between Greenbrier Road and Main Street (excepting the small sections with existing sidewalk). Additionally, construct new sidewalk on east / south side of Dorset Drive / Madrid Drive between Brighton Place and London Road. (Short, Medium, and Long Term) • Create a plan to address snow removal issues, such as a neighborhood information campaign, or development of a system to coordinate volunteers to help with snow clearing. (Short Term)

#	Location	Observations	Recommendations
9	Bike Racks 	• About 6 bikes and 1 scooter were observed at the existing bike racks. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)
10	Brighton Place and Dorset Drive  *Photo Credit: Google Streetview*	• Stop signs are present for Dorset Drive but Brighton Place is uncontrolled. • There are no marked crosswalks or stop lines. • Missing sidewalks on both sides of Dorset Drive / Madrid Drive between Brighton Place and London Road, and on the west side between Brighton Place and Spring Creek Court present barriers to walking and bicycling to school. • Parents indicated concern for the safety of students crossing at this intersection. • Parents noted that vehicles sometimes park too close to the stop signs on Dorset Drive, impeding visibility of pedestrians crossing the street. • The existing curb ramp does not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting, and school crossing signs for both legs crossing Brighton Place. (Short Term) • Construct new sidewalk on east / south side of Dorset Drive / Madrid Drive between Brighton Place and London Road. (Long Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
11	Willow Road and Manitowoc Road  *Photo Credit: Google Streetview*	• A stop sign is present for Willow Road, but Manitowoc Road is uncontrolled. • Parents indicated concern about the speed of traffic at this intersection. • There are no sidewalks or marked crosswalks at this intersection. • Due to its skewed nature, the intersection is very wide.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting, and school crossing signs the south leg of Manitowoc Road. (Short Term) • Construct sidewalks along both sides of Manitowoc Road between Allouez Avenue and Cottage Road, and along both sides of Willow Road between Manitowoc Road and Ontario Road. East of Ontario Road construct new sidewalk on the north side of the road. (Medium Term)

Nicolet Elementary School



About the School	
Address	1309 Elm Street
Grade Levels	K4-5
Number of Students	464*
Students Eligible for School Bus	13.8%
Economically Disadvantaged	85.8%*
Students with Disabilities	16.4%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
N Irwin Avenue	3,800
University Avenue	10,400*
Webster Avenue	13,200

** Preliminary AADT 7/23/2018*

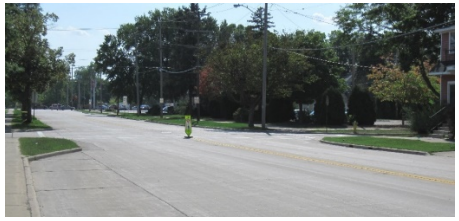
Dismissal Observations

Observation Details	
Observation Date	• The project advisory committee observed dismissal on Monday, September 17.
Entrances	• The youngest students exited the school from the door on Elm Street. • Older students exited the school from the rear door facing the parking lot.
School Bus Loading	• Two school buses loaded students in front of the school along N Irwin Street.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students primarily on Elm Street. • Vehicular pick-up also occurred on other nearby streets and in parking lots surrounding the school. • The road widens near the school's Elm Street entrance; however, cones are placed to block access to that space during dismissal.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal. • School staff members worked as crossing monitors at the intersection of Elm Street and N Irwin Avenue.
School Crossing Guards	• Two crossing guards were stationed at the intersection of N Irwin Avenue and University Avenue.
Law Enforcement	• No law enforcement officers were observed.


Nicolet Elementary School
Location within GBAPS District
UNIVERSITY AVE FRONTAGE RD RD
ST GEORG
DAY ST
HARVEY ST
BAIRD ST
IRWIN AV
UNIVERSITY AV
GROVE ST
CEDAR ST
ROOSEVELT ST
ST GEORGE ST
ELM ST
BAIRD ST
CEDAR ST
GROVE ST
FOREST ST
PINE ST
MAIN ST
NEWHALL ST
Nicolet Elementary School
1
2
3
4
5
6
7
8
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

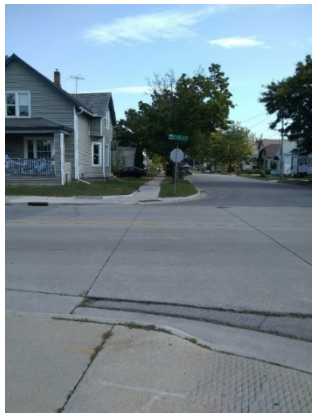
Recommendations

The numbered observations in the table below correspond to the points in the Nicolet Elementary School map.

#	Location	Observations	Recommendations
1	Irwin Avenue and Elm Street 	• Stop signs are present for Elm Street but Irwin Avenue is uncontrolled. • The intersection was very heavily used by students. Two school staff members served as crossing monitors. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • N Irwin Avenue is technically a two-lane street but due to a lack of parked vehicles and lane markings, it sometimes functions as a four-lane street. As a result, there could be risk of multiple-threat crashes. • Due to a lack of gaps, drivers had trouble turning from Elm Street onto N Irwin Avenue. • Existing curb ramps do not meet current USDOT standards • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Irwin Avenue. (Short Term) • Stripe parking T's on the approach to the intersection to make clear that the street is two-lanes and not four. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
2	Irwin Avenue and University Avenue 	• The intersection is signalized. • "SCHOOL" pavement markings and reduced school speed limits are present in both directions on both Irwin Avenue and University Avenue. • The intersection was very heavily used by students. Two crossing guards were present. • The intersection was observed to have a heavy volume of vehicular traffic. • Vehicles appeared to exceed the posted speed limit during school dismissal. • Some vehicles on University Avenue were observed running red lights and other vehicles were observed turning right on red in violation of the existing "No Turn on Red When Children Are Present" signs. • The pedestrian signal on Irwin is malfunctioning and not displaying the countdown (the Department of Public Works is aware of this issue) • One existing curb ramp does not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Correct the malfunctioning pedestrian signal. (Short Term) • Bike lanes are proposed for both Irwin Avenue (Medium Term) and University Avenue (Long Term). These could potentially help reduce speeding. • Conduct occasional enforcement of traffic laws at this intersection. (Short Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
3	University Avenue between Irwin Avenue and Baird Street (at fence pass-through)  *Photo Credit: Google Streetview*	• A few students were observed crossing the street midblock in this location.	• Make sure that students are educated about the need to cross the street at designated crossings. (Short Term)
4	University Avenue and Baird Street 	• The intersection issignalized. • The intersection was observed to have a heavy volume of vehicular traffic. • Vehicles appeared to exceed the posted speed limit during school dismissal. • While some Nicolet students crossed the street here, a greater number of students from other schools were observed crossing the intersection. • The intersection is not within a reduced school speed limit zone. • Vegetation blocks the street sign and pedestrian signal from view [the Department of Public Works is aware of this issue]. • Existing curb ramps at two corners do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add reduced school speed limit signs to encompass this intersection. (Short Term) • Trim the vegetation blocking the street sign and pedestrian signal from view. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
5	Baird Street and Elm Street 	• Stop signs are present for Baird Street but Elm Street is uncontrolled. • About 8 students crossed Baird Street in this location and about 35-40 crossed Elm Street. (Baird Street is the border of the Nicolet walk zone, so students at Nicolet are not expected to cross Baird Street). • The existing crossing is not highly visible to drivers (no crosswalk markings or school crossing signs are present). • The interection is not within a reduced school speed limit zone. • There was a heavy volume of vehicles accessing the school for pick-up. • A school bus from another school was observed stopping in the middle of the intersection, blocking traffic while dropping off students. • Existing curb ramps at two corners do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the unmarked crosswalks.	• Add crosswalk markings for the legs crossing Elm Street. (Short Term) • Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for legs crossing Baird Street. (Short Term) • Add reduced school speed limit signs to encompass this intersection. (Short Term) • Educate school bus drivers about the need to find a safe place to stop that doesn't block the intersection. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
6	Elm Street between Irwin Avenue and Baird Street (at school driveway)  *Photo Credit: Google Streetview*	• Vehicular access to the parking lot was restricted with cones during dismissal. • Vehicles were observed in violation of the existing "No Stopping or Standing" signs on the both sides of the street. • Vehicles were observed stopping and standing in the travel lane to pick up students.	• On both sides of Elm Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)

#	Location	Observations	Recommendations
7	Elm Street between Irwin Avenue and Baird Street (near Elm Street school entrance) 	• School staff set out cones to restrict access to an extra lane near the Elm Street school entrance. • Due to the difficulty turning onto N Irwin Avenue, vehicles backed up on Elm Street.	• Encourage school staff to keep putting cones out. (Short Term)
8	Blacktop behind the school 	• Due to a lack of secure bicycle parking, about a half-a dozen bicycles were observed leaning against the playground fence. • A previous bike rack was removed because it was frequently tipped over.	• Add bike racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Preble High School

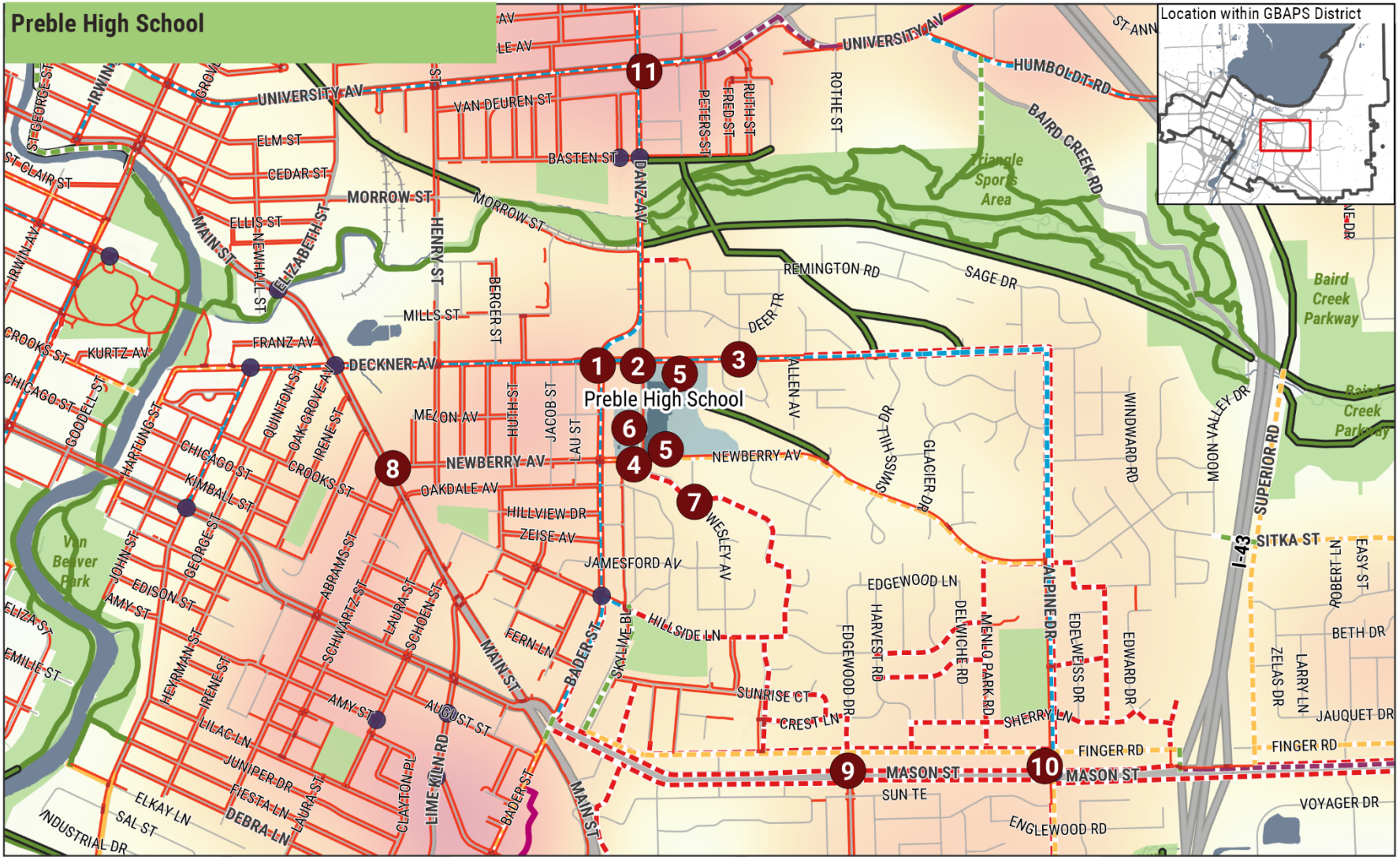
About the School	
Address	2222 Deckner Avenue
Grade Levels	9-12
Number of Students	2,182*
Students Eligible for School Bus	51.6%
Economically Disadvantaged	42.0%*
Students with Disabilities	14.2%*
Arrival / Dismissal Times	7:30 AM / 3:00 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Deckner Street	4,200
Bader Street (south of Deckner Avenue)	7,700
North Danz Avenue (north of Deckner Avenue)	10,400

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Tuesday, September 18.
Entrances	• Students used one of two main entrances (one on the school's north side and one on the school's southwest side).
School Bus Loading	• Buses dropped off students along South Danz Avenue between Newberry Avenue and Deckner Avenue and on Newbery Avenue.
Parent Drop-off/Pick-up	• Parents in vehicles generally dropped off students in the U-shaped driveway off Deckner Avenue. However, as this is a high school, many students either drove themselves or walked. Most students parked in the large parking lot to the east of the high school, although some parked in lots on the west side of South Danz Avenue or along the non-school side of South Danz Avenue. • Some parents avoided drop-off zones and dropped off students on Newberry Avenue or other streets surrounding the school instead.
School Staff Roles	• No school staff were observed playing a role in arrival.
School Crossing Guards	• At arrival, no crossing guards were observed, although a crossing guard is assigned to the intersection of Deckner Avenue and Danz Avenue.
Law Enforcement	• No law enforcement officers were observed.


Preble High School
Location within GBAPS District
Preble High School
UNIVERSITY AV
HUMBOLDT RD
BAIRD CREEK RD
Triangle Sports Area
Baird Creek Parkway
VAN DEUREN ST
BASTEN ST
DANZ AV
PETERS ST
FRED ST
RUTH ST
ROTHE ST
ST ANN
NE DR
ELM ST
CEDAR ST
MORROW ST
ELLIS ST
NEWHALL ST
ELIZABETH ST
MAIN ST
HENRY ST
BERGER ST
MILLS ST
REMINGTON RD
SAGE DR
DEER TR
ALLEN AV
FRANZ AV
DECKNER AV
KURTZ AV
CROOKS ST
CHICAGO ST
GOODELL ST
IRWIN AV
ST CLAIR ST
ST GEORGE ST
GROVE
QUINTON ST
OAK GROVE AV
IRENE ST
HARTUNG ST
KIMBALL ST
MELON AV
HUTH ST
JACOB ST
LAU ST
NEWBERRY AV
OAKDALE AV
HILLVIEW DR
ZEISE AV
JAMESFORD AV
SWISS HILL DR
GLACIER DR
WINDWARD RD
MOON VALLEY DR
SUPERIOR RD
I-43
SITKA ST
ROBERT LN
EASY ST
BETH DR
ZELAS DR
LARRY LN
JAUQUET DR
FINGER RD
MASON ST
SUN TE
VOYAGER DR
ENGLEWOOD RD
EDGEWOOD LN
EDGEWOOD DR
HARVEST RD
DELWICHE RD
MENLO PARK RD
ALPINE DR
EDELWEISS DR
EDWARD DR
SHERRY LN
SUNRISE CT
CREST LN
HILLSIDE LN
SKYLINE DR
WESLEY AV
BADER ST
FERN LN
AUGUST ST
LIME KILN RD
CLAYTON PL
AMY ST
EDISON ST
JOHN ST
GEORGE ST
ABRAMS ST
SCHWARTZ ST
LAURA ST
SCHOEN ST
HEYRMAN ST
LILAC LN
JUNIPER DR
FIESTA LN
DEBRA LN
ELKAY LN
SAL ST
INDUSTRIAL DR
ELIZA ST
EMILIE ST
Van Beaver Park
1
2
3
4
5
6
7
8
9
10
11
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 1000 2000 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Preble High School map.

#	Location	Observations	Recommendations
1	Deckner Avenue and Bader Street  *Photo Credit: Google Streetview*	• The intersection is an all-way stop with red flashing beacons. • The intersection was moderately busy with students. • Vehicles appeared to exceed the posted speed limit of 25 mph. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings are present). • With the exception of the ramp at the northeast corner of the intersection, existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Add high-visibility crosswalk markings. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
2	Deckner Avenue and South Danz Avenue 	• A stop sign is present for South Danz Avenue but Deckner Avenue is uncontrolled. • "SCHOOL" pavement markings are present on the westbound approach of Deckner Avenue and the southbound appraoch of Danz Avenue. Reduced school speed limits are present in both directions on Deckner Avenue. • A moderate number of students crossed at this intersection to access the school and drivers didn't always yield to pedestrians in the crosswalk. • Vehicles appeared to exceed the posted speed limit of 15 MPH when children are present (25 MPH at other times). • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The western leg of Deckner Avenue has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps do not meet current USDOT standards. • The curb ramp is misaligned with the base of the crosswalk on the southwestern corner of the intersection, which lengthens the crossing distance across Deckner Avenue. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Deckner Avenue. (Short Term) • Explore whether the 4-lane portion of Deckner Avenue can be reduced to 2-lanes to reduce the likelihood of multiple-threat collisions. (Long Term) If not, add Advance Yield Here to Pedestrians sign and yield line for the approaches on Deckner Avenue. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the reconstruction of the intersection, explore ways to realign the crosswalk and the curb ramp to shorten the pedestrian crossing distance and to ensure that the ramps line up with the crosswalks. (Long Term)

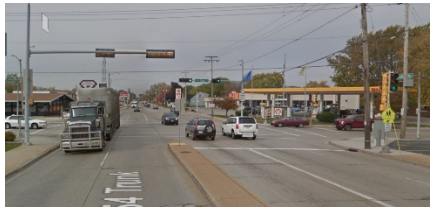
#	Location	Observations	Recommendations
3	Deckner Avenue east of Preble High School  *Photo Credit: Google Streetview*	• There are no marked crossings of Deckner Avenue east of the school. • A trail connection north to the existing Baird Creek Trail is planned. • Parents noted that missing sidewalks on both sides of Deckner Avenue between Alpine Drive and Swiss Hill Drive, and on the north side between Swiss Hill Drive and Apple Tree Court, present barriers to walking and bicycling to school.	• When the trail goes in, add a trail crossing. Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Deckner Avenue. (Medium Term) • Explore whether the 4-lane portion of Deckner Avenue can be reduced to 2-lanes to reduce the likelihood of multiple-threat collisions. (Long Term) If not, add Advance Yield Here to Pedestrians sign and yield line for the approaches on Deckner Avenue. (Short Term) • Construct new sidewalks on both sides of Deckner Avenue between Alpine Drive and Swiss Hill Drive, and on the north side between Swiss Hill Drive and Apple Tree Court. (Short Term)

#	Location	Observations	Recommendations
4	Newberry Avenue and South Danz Avenue  	• Stop signs are present for South Danz Avenue but Newberry Avenue is uncontrolled. • "SCHOOL" pavement markings are present on both approaches of Newberry Avenue. • The intersection was heavily used by pedestrians and motorists. In particular, conflicts were observed between pedestrians crossing South Danz Avenue and motorists turning left onto this street from Newberry Avenue. • The intersection is not within a reduced school speed limit zone for east-bound traffic (there is a reduced school speed limit sign for west-bound traffic). • East-west traffic along Newberry Avenue lacks school crossing signs. • Many students were observed crossing just slightly north of the intersection of Newberry Avenue and South Danz Avenue from a parking lot across the street. • Parents report that vehicles exceed the speed limit on Newberry Avenue and that it can be difficult for buses and parents to get back into travel lanes after dropping off or picking up due to congestion at this intersection. • Existing curb ramps at all corners do not meet current USDOT standards. • Existing single curb ramps at all corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Newberry Avenue. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Newberry Avenue and South Danz Avenue. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
5	Bicycle Racks 	• Existing bicycle parking is concentrated at the bike racks near this intersection, and near the front (east) side of the school. During arrival, there was adequate bike parking, but the submerged and remote nature of the rack may discourage bicyclists from leaving bikes here. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles. • Parents noted that there is no place for students to park a skateboard.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)
6	South Danz Avenue 	• Many students cross South Danz Avenue mid-block. • The street is closed between approximately 10 AM and 2:00 PM. A barrier is placed across the street entrances. • While open to traffic, vehicles on South Danz Avenue appeared to exceed the speed limit.	• Consider adding a mid-block crossing with high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs. (Short Term)
7	School Area  *Photo Credit: Google Streetview*	• Many of the streets surrounding the school, especially to the south, lack sidewalks, presenting barriers to walking and bicycling to school. • On curvy streets, such as Hillside Lane and Wildwood Drive, drivers may not be able to see pedestrians walking in the street in time to stop.	• Construct new sidewalks as shown in the Preble High School map. (Short, Medium, and Long Term)

#	Location	Observations	Recommendations
8	Newberry Avenue/Abrams Street and Main Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents indicate that they have concerns about the safety of students crossing Main Street. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
9	Mason Street and Edgewood Drive  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents note that vehicles exceed the speed limit on Mason Street and sometimes run red lights. • Mason Street is a high speed and high-volume street. • Missing sidewalks on both sides of Mason Street between Bader Street and Interstate 43, and on both sides of Edgewood Drive north of Mason Street, present barriers to walking and bicycling to school. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Construct new sidewalks on both sides of Mason Street between Bader Street and Alpine Drive, and on the north side between Alpine Drive and Interstate 43. Construct new sidewalks on the west side of Edgewood Drive between Mason Street and Crest Lane. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
10	Mason Street and Alpine Drive  *Photo Credit: Google Streetview*	• The intersection is signalized. • A crossing guard is stationed at this intersection. • Mason Street is a high speed and high volume street. Many parents indicated concern about the safety of students crossing at this intersection and Mason Street in general. • Pedestrian signal heads are missing for pedestrians crossing Alpine Drive. • Only the western leg of the intersection has a marked crosswalk, which is marked with parallel line crosswalk markings. • The southeast corner has excessive grades. • Missing sidewalks on the east side of Alpine Drive between Deckner Avenue and Finger Road, and on both sides of East Mason Street between Alpine Drive and Bader Street, present barriers to walking and bicycling to school. • Parents report observing drivers run red lights at this intersection. • Curb ramps are missing except for the western leg of the intersection to cross E. Mason Street.	• Install pedestrian signal heads for pedestrians crossing Alpine Drive. (Medium Term) • Add marked crosswalks across Alpine Drive. (Short Term) • Construct missing sidewalks on the east side of Alpine Drive between Deckner Avenue and East Mason Street. (Short Term) • Construct missing sidewalks on both sides of East Mason Street between Alpine Drive and Bader Street, and on the north side between Alpine Drive and Interstate 43. (Short Term) • Conduct enforcement of traffic laws. (Short Term) • Construct missing curb ramps. (Medium Term)

#	Location	Observations	Recommendations
11	Danz Avenue and University Avenue  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents indicate that they have concerns about the safety of students crossing University Avenue, although a crossing guard is present. • University Avenue is a high speed and high-volume street. • Existing single curb ramps at corners do not orient users directly into the crosswalks. • Existing school crossing signs do not meet current MUTCD standards.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Replace the school crossing signs with those that meet current MUTCD standards. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with the crosswalks. (Long Term)

Red Smith Elementary/Middle School

About the School	
Address	2765 Sussex Street
Grade Levels	K4-8
Number of Students	894*
Students Eligible for School Bus	58.6%
Economically Disadvantaged	27.0%*
Students with Disabilities	11.0%*
Arrival / Dismissal Times	7:50 AM / 2:40 PM for grades K4-5 7:45 AM / 2:51 PM for grades 6-8

**Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Bay Settlement Road	1,100
Nicolet Drive	1,700
Scottwood Drive	2,100
State Highway 57	18,600

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Tuesday, September 18.
Entrances/Exits	• Elementary school students exited the school on the school's south side, onto Fagerville Way (extending west all the way to Durham Road). Middle school students exited the school on the north side, onto Baywatch Drive. • Students being bussed exited the school on the east side, on Sussex Road.
School Bus Loading	• 12 buses loaded students on a one-way driveway adjacent to Sussex Road This driveway is limited to bus use from 2:35 PM to 3:05 PM. Two more special education buses use the parking lot along Baywatch Drive.
Parent Drop-off/Pick-up	• Most parents in vehicles picked up (elementary school-age) students on the school side of Fagerville Way. A smaller number of parents picked up (middle school-age) students in the parking lot on Baywatch Drive. A smaller number of elementary and middle school-age students were picked up along the school side of Sussex Road.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal and released elementary school students to parents along Fagerville Way. Staff members also guided students onto the buses.
School Crossing Guards	• No crossing guards were observed.
Law Enforcement	• A Green Bay Department of Public Works officer was observed checking parking compliance on Fagerville Way and Yorkshire Road. Several parents and staff noted that this is a near-everyday occurrence.


Red Smith Elementary and Middle School
Location within GBAPS District
CHURCH RD
GLEN OAKS PS
BAY HARBOR DR
BALLYBUNION LN
SUSSEX RD
DURHAM RD
PEBBLE BEACH CT
NICOLET DR
SPYGLASS HILL DR
BLACKWOLF RN
COTTAGE HILL DR
CARRERA CT
DAVIES AV
FAGERVILLE WY
Red Smith Elementary and Middle School
BAYSETTLEMENT RD
SHOREWOOD TE
NAUTICAL AV
YORKSHIRE RD
PETERSON RD
EDINBURGH RD
PAULA ST
WIGGINS WY
KATHY DR
SANDRA ROSE LN
Shorewood Golf
SCOTTWOOD DR
ALGOMA RD
1
2
3
3
4
5
6
7
8
9
10
11
12
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low
Medium
High
N
0
700
1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Red Smith School map.

#	Location	Observations	Recommendations
1	Baywatch Drive and Durham Road 	• A stop sign is present for Baywatch Drive but Durham Road is uncontrolled. • While the intersection is not heavily used by students, the east-west crossing here does link Red Smith School and Red Smith Park to an existing path that students can use to travel north-south as an alternative to Durham Road (which lacks a sidewalk). • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Missing sidewalks on both sides of Baywatch Drive between Sussex Road and Durham Road present barriers to walking and bicycling to school. • Parents report that vehicles exceed the speed limit on Baywatch Drive. • Parents report concerns about the safety of students crossing the street in this location. • Existing curb ramps on the southern corners of the intersection do not meet current USDOT standards. • The curb ramp on the southeastern corner does not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs that cross Durham Road. (Short Term) • Add a reduced school speed limit zone on Durham Road to encompass both Baywatch Drive and Fagerville Way. (Short Term) • Construct a new sidewalk on the north side of Baywatch Drive between Sussex Road and Durham Road. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
2	Baywatch Drive and Troon Drive 	• A yield sign is present for Troon Drive but Baywatch Drive is uncontrolled. • "SCHOOL" pavement markings and a reduced school speed limit are present on the eastbound approach of Baywatch Drive. • The existing curb ramp at the northeast corner does not orient users directly into the crosswalk. • Although the crossing has school crossing signs, the crosswalk is not highly visible to drivers (there are no high visibility crosswalk markings and the crosswalk width is narrow, at about 6 feet wide). • Parents report that vehicles exceed the speed limit on Baywatch Drive.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels, for the leg that crosses Baywatch Drive. (Short Term) • Consider traffic calming treatments for Baywatch Drive. (Medium Term)
3	Troon Drive and Spyglass Hill Drive/Glen Abbey Drive  *Photo Credit: Google Streetview*	• These intersections—caused by the intersections of a mid-block walking path and parallel streets—lack crosswalk markings that would establish legal crosswalks for pedestrians traveling along the walking path.	• Add crosswalk markings where the walking path crosses Spyglass Hill Drive and Glen Abbey Drive. (Short Term)

#	Location	Observations	Recommendations
4	Sussex Road and Baywatch Drive 	• A stop sign is present for Baywatch Drive but Sussex Road is uncontrolled. • A moderate number of students cross the street at this intersection. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present and the width of the crosswalk across Sussex Road is narrow). • Parents report that vehicles exceed the speed limit on Baywatch Drive. • One existing curb ramp on the southwestern corner of the intersection does not meet current USDOT standards. • Existing curb ramps at all corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the legs that cross Sussex Road. (Short Term) • Construct missing curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
5	Sussex Road 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • Although parking and stopping are allowed on the school side of the street, these actions are not allowed on the non-school side of the street. • Drivers appeared to exceed the speed limit. • Parents are concerned about the safety of students crossing Sussex Road.	• On the school side of Sussex Road, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Consider traffic calming on Sussex Road. (Medium Term)

#	Location	Observations	Recommendations
6	Sussex Road and Fagerville Way 	• A stop sign is present for Fagerville Way but Sussex Road is uncontrolled. • Many students cross the street at this intersection. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Parents indicate that drivers do not always yield to pedestrians in the crosswalk at this location. • Parents say that other parents sometimes park in the crosswalk here while dropping off or picking up students. • The existing single curb ramp at the northwest corner of the intersection does not orient users directly into the crosswalk. • The existing curb ramps on the west side of the street do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels, for the legs that cross Sussex Road. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of a new curb ramp that lines up with crosswalks. (Long Term)
7	Yorkshire Road and Fagerville Way 	• A yield sign is present for Yorkshire Road, but Fagerville Way is uncontrolled. • No parking, stopping, or standing is allowed on Yorkshire Road. • Many walkers were observed heading south on Yorkshire Road (a travel pattern confirmed by the principal and school staff). • Missing sidewalks on both sides of Yorkshire Road between Fagerville Way and Durham Road present a barrier to walking and bicycling to school. • No marked crosswalks or school crossing signs are present.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Fagerville Way. (Short Term) • Construct new sidewalk on the north side of Yorkshire Road between Fagerville Way and Durham Road. (Medium Term)

#	Location	Observations	Recommendations
8	Durham Road and Fagerville Way  *Photo Credit: Google Streetview*	• A stop sign is present for Fagerville Way, but Durham Road is uncontrolled. • Parents complained about the speed and volume of traffic on Durham Road and Fagerville Way. • No reduced school speed zone is present on Durham Road. • Parents report concerns about the safety of students crossing the street in this location. • Missing sidewalks on both sides of Durham Road between Church Road and Wiggins Way—except for along Red Smith Park—present difficulties for walking and bicycling to school. • Missing sidewalks on the south side of Fagerville Way between Sussex Road and Durham Road present difficulties for walking and bicycling to school.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Durham Road. (Short Term) • Add reduced school speed limit signs for Durham Road. (Short Term) • Construct sidewalks on one side of Durham Road between Church Road and Wiggins Way. (Medium Term) • Construct new sidewalks on the south side of Fagerville Way between Sussex Road and Durham Road. (Medium Term)

#	Location	Observations	Recommendations
9	Davies Avenue and Durham Road  *Photo Credit: Google Streetview*	• A stop sign is present for Davies Avenue, but Durham Road is uncontrolled. • Parents complained about the speed and volume of traffic on Durham Road and Davies Avenue. • No reduced school speed zone is present on Durham Road. • Missing sidewalks on both sides of Davies Avenue between Durham Road and Nicolet Drive present a barrier to walking and bicycling to school. • Parents report concerns about the safety of students crossing the street in this location. • No curb ramps are present, and parents note that it is difficult for students on bikes to access the sidewalk along Durham Road.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Durham Road. (Short Term) • Add reduced school speed limit signs for Durham Road. (Short Term) • Construct new sidewalk on the south side of Davies Avenue between Durham Road and Nicolet Drive. (Long Term) • Construct new curb ramps to meet USDOT standards. (Medium Term)
10	Cottage Hill Drive and Durham Road  *Photo Credit: Google Streetview*	• A stop sign is present for Cottage Hill Drive, but Durham Road is uncontrolled. • Parents complained about the speed and volume of traffic on Durham Road. • No reduced school speed zone is present on Durham Road. • Missing sidewalks on both sides of Cottage Hill Drive / Classic Drive present a barrier to walking and bicycling to school. • Parents report concerns about the safety of students crossing the street in this location. • No curb ramps are present, and parents note that it is difficult for students on bikes to access the sidewalk along Durham Road.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs crossing Durham Road. (Short Term) • Add reduced school speed limit signs for Durham Road. (Short Term) • Construct new sidewalk on north / west side of Cottage Hill Drive / Classic Drive. (Long Term) • Construct new curb ramps to meet USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
11	Streets surrounding the school  *Photo Credit: Google Streetview*	• Most of the streets surrounding Red Smith School lack sidewalks, creating barriers to walking and bicycling to school. Parents noted a desire for sidewalks on Nicolet Drive, Durham Road, Davies Avenue, Algoma Road, and Church Road.	• Construct new sidewalks as shown in the Red Smith School map. (Short, Medium, and Long Term)
12	Blacktop on the south side of the school 	• Existing bike parking is well-used. Existing marking helps delineate the bike parking zone. • Parents indicate that more bike racks would be desirable. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Southwest High School

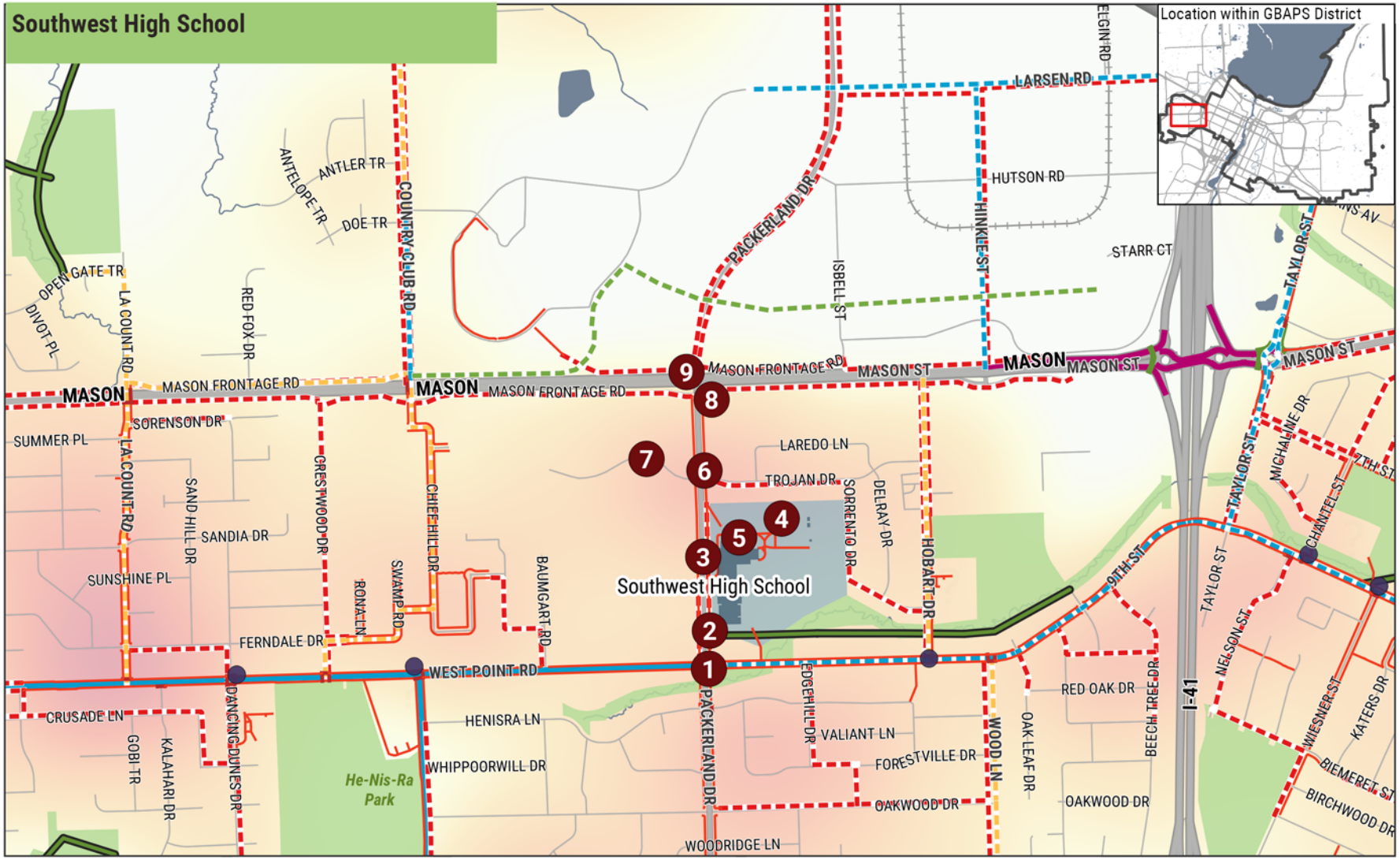
About the School	
Address	1331 Packerland Drive
Grade Levels	9-12
Number of Students	1,191*
Students Eligible for School Bus	42.3%
Economically Disadvantaged	39.0%*
Students with Disabilities	13.9%*
Arrival / Dismissal Times	7:30 AM / 3:00 PM

**Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Packerland Drive	14,200
West Mason Street	19,600
West Point Road	4,100

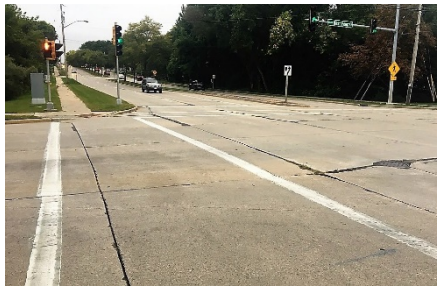
Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Wednesday, September 19.
Entrances/Exits	• About half of students used the front entrance along Packerland Drive—no matter whether they had been dropped off by parents, arrived via school bus, or walked or bicycled. • The other half of students used the entrance on the north side of the school. Most students using this north entrance were coming from the adjacent parking lot.
School Bus Loading	• School buses loaded students using the driveway connected to Packerland Drive.
Parent Drop-off/Pick-up	• Most parents in vehicles dropped off students on Packerland Drive, although a minority of parents used the driveway in front of the main entrance on Packerland Drive (which is allowed before 7:30 AM). • A small number of parents in vehicles were observed dropping off students on the north side of the school.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• No school staff were observed.
School Crossing Guards	• There is a crossing guard assigned to the intersection of West Point Road and Hobart Drive.
Law Enforcement	• No law enforcement officers were observed.


Southwest High School
Location within GBAPS District
Southwest High School
MASON
MASON FRONTAGE RD
WEST POINT RD
FERNDALE DR
SUMMER PL
SORENSON DR
SUNSHINE PL
SANDIA DR
SAND HILL DR
LA COUNT RD
RED FOX DR
OPEN GATE TR
DIVOT PL
ANTLER TR
ANTELOPE TR
DOE TR
COUNTRY CLUB RD
CRESTWOOD DR
RONA LN
SWAMP RD
CHIEF HILL DR
BAUMGART RD
CRUSADE LN
GOBI TR
KALAHARI DR
DANCING DUNES DR
He-Nis-Ra Park
HENISRA LN
WHIPPOORWILL DR
WOODRIDGE LN
PACKERLAND DR
ISBELL ST
HINKLE ST
ELGIN RD
LARSEN RD
HUTSON RD
STARR CT
LAREDO LN
TROJAN DR
SORRENTO DR
DELRAY DR
HOBART DR
EDGEHILL DR
VALIANT LN
FORESTVILLE DR
OAKWOOD DR
WOOD LN
OAK LEAF DR
RED OAK DR
BEECH TREE DR
OAKWOOD DR
I-41
9TH ST
TAYLOR ST
NELSON ST
MICHALENE DR
7TH ST
CHANTEL ST
WIESNER ST
KATERS DR
BIEMERET ST
BIRCHWOOD DR
1
2
3
4
5
6
7
8
9
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 900 1800 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Southwest High School map.

#	Location	Observations	Recommendations
1	Packerland Drive and West Point Road 	• The intersection is signalized. • A moderate number of students crossed the street at this intersection. • The crossing distance across Packerland Drive is long (~85 feet). • During school arrival, traffic can back up because cars turning left from eastbound West Point Road onto Packerland Drive are unable to clear the intersection. • The existing curb ramp at the northwest corner does not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Consider changing the traffic signal timing to lengthen the left turn phase from eastbound West Point Road onto Packerland Drive. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
2	Packerland Drive south of Southwest High School 	• The sidewalk along the east side Packerland Drive south of the school is narrow (5 feet wide), and in poor condition. The sidewalk on the west side of the street is in better condition but is also narrow.	• Perform sidewalk maintenance to correct damage. (Short Term) • During the next roadway reconstruction, explore widening the sidewalk. (Long Term)

3	Packerland Drive in front of Southwest High School  	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • In front of the school, sidewalks are wider, but minimal buffers next to a busy, 4-lane arterial creates an uncomfortable walking and bicycling environment for students. • Near the school, vehicles appeared to dramatically exceed the posted speed limit during school arrival times (the speed limit when children are not present or right outside the school speed zone is 35 mph, while the speed limit when children are present is only 15 mph). • There are no marked crossings between West Point Road and Trojan Drive, a distance of a third of a mile. There are many multi-family dwellings on the west side of the street which creates high pedestrian and bicycling demand. • Parents say that students also frequently cross the street midblock here to access the school from the on-street parking on the surrounding streets and that there are times when students crossing are nearly hit by cars (they note that the school parking lot does not have room for all the students who wish to drive). • Many students make mid-block crossings here. Although the wide median improves safety, the roadway's multiple lanes in each direction creates the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a	• During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street. (Long Term) • Create a new marked crossing at either the school driveway, or the entrance to the apartment complex across the street. Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the crossing of Packerland Drive. Design the crossing so that pedestrians can use the existing median as a pedestrian refuge island. Add advance yield here to pedestrians sign and yield line at each approach. (Short Term)

#	Location	Observations	Recommendations
		pedestrian in the crosswalk but the motorist in the other lane does not. • Many southbound vehicles—including buses—were observed making left turns into the school driveway even as northbound through traffic is high.	
4	School Parking Lot 	• Parents report that drivers do not always yield to pedestrians within the school parking lot.	• Add high visibility crosswalk markings to mark crossings. (Short Term)
5	North entrance of school 	• Due to a lack of secure bicycle parking, about a half-a dozen bicycles were observed locked against school poles. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

#	Location	Observations	Recommendations
6	Packerland Drive and Trojan Drive  *Photo Credit: Google Streetview*	• Stop signs are present for Trojan Drive but Packerland Drive is uncontrolled. • The crossing distance across Packerland Drive is long (~90 feet) and while there is a median, there is no pedestrian refuge island. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. • The ladder-style crosswalk is more visible than a parallel line crosswalk, although it measures less than 9 feet in width and still isn't as highly visible as it could be. • Drivers were observed not yielding to pedestrians in the crosswalk. • The intersection is not within a reduced school speed limit zone. • Existing pedestrian crossing sign (W11-2) does not adhere to current MUTCD guidance even though the sign was just installed with an installation date of August 2018. Further, although this crossing is frequently used by students, pedestrian crossing signs are present rather than school crossing signs. • Existing curb ramps at all corners do not meet current USDOT standards. • Existing single curb ramps at all corners do not orient users directly into the crosswalk.	• Add higher visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels, for leg crossing Packerland Drive. (Short Term) • Replace the existing pedestrian crossing signs with school crossing signs. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for approaches on Packerland Drive. (Short Term) • Explore whether the existing raised median can be extended to provide refuge to crossing pedestrians. If not, another treatment is recommended to improve the likelihood that drivers yield to pedestrians in the crosswalk. (Long Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
7	Trojan Drive  *Photo Credit: Google Streetview*	• Trojan Drive provides access to numerous multi-family dwellings west and east of Packerland Drive, where many students live. • Missing sidewalks on both sides of the Trojan Drive west of Packerland Drive present barriers to walking and bicycling to school.	• Construct a sidewalk on the south side of Trojan Drive west of Packerland Drive. (Medium Term)
8	Packerland Drive and West Mason Frontage Road 	• Stop signs are present for West Mason Frontage Road but Packerland Drive is uncontrolled. • The intersection of Packerland and West Mason Street's frontage road is characterized by fast-moving, heavy traffic and an inhospitable pedestrian environment. • There is a Metro bus stop on Frontage Road that is not easily reached on foot. • At this intersection, no crosswalk is marked on any leg. • Existing curb ramps on the two southern corners do not meet current USDOT standards. • All ramps do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels, for the legs crossing West Mason Frontage Road and connecting to bus stop. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
9	Packerland Drive and West Mason Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • There are no crosswalks, pedestrian signal heads, sidewalks, or other pedestrian facilities througout most of this intersection. • Missing sidewalks along the Mason Street Frontage Road between Hillcrest Drive and Interstate 41 present barriers to walking and bicycling to school. Nor are there crosswalks, pedestrian signal heads, or any other pedestrian facilities.	• Add high visibility marked crosswalks. (Short Term) • Add pedestrian signal heads and ensure there is enough time for pedestrians to cross the street. (Medium Term) • Construct new sidewalks on the south side of the Mason Street Frontage Road between Hillcrest Drive and just west of Interstate 41, and on small sections of the north side of the frontage road. (Short Term)

Sullivan Elementary School

About the School	
Address	1567 Deckner Avenue
Grade Levels	K4-5
Number of Students	622*
Students Eligible for School Bus	26.6%
Economically Disadvantaged	82.3%*
Students with Disabilities	16.7%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

**Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Deckner Avenue	6,500
Main Street	19,500
Bellevue Street	7,100

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Tuesday, September 18.
Entrances	• Most of the students entered the school from the front door on Decker Avenue. • Some students entered the school from the side door facing the playground. • Students stage on the playground prior to entering the school. • Teachers enter the rear parking lot via Franz Avenue, and enter the school through the rear doors.
School Bus Loading	• 8-10 school buses drop off students in front of the school in the circular drive along Deckner Avenue.
Parent Drop-off/Pick-up	• Parents in vehicles drop off students primarily on Deckner Avenue. • Vehicular drop-off also occurred on in the parking lot along Hartung Street. • Cones are placed across the street to discourage drop-offs on the south side of Deckner Avenue. • Some parents dropped off students across the street from the school.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• School staff were present during arrival.
School Crossing Guards	• One crossing guard was stationed at the intersection of Elizabeth Street and Main Street. • One crossing guard was stationed at the intersection of Deckner Avenue and Main Street. • One crossing guard was stationed at the intersection of Deckner Avenue and Bellevue Street.
Law Enforcement	• No law enforcement officers were observed.
Construction	• An addition to increase school capacity scheduled to be complete in August 2019.


Sullivan Elementary School
Location within GBAPS District
Sullivan Elementary School
MAIN ST
MORROW ST
CEDAR ST
ELLIS ST
PROPER ST
MILLS ST
DECKNER AV
MASON ST
WALNUT ST
STUART ST
CROOKS ST
CHICAGO ST
KURTZ AV
BAIRD ST
GOODELL ST
HARTUNG ST
DESCHANE PL
QUINTON ST
OAK GROVE AV
IRENE ST
SCHOBER ST
MELON AV
NEWBERRY AV
OAKDALE AV
HILLVIEW DR
ZEISE AV
HILLSIDE LN
WAYFARER WY
ST BERNARD DR
FERN LN
KIMBALL ST
CHARLES ST
CASS ST
LOUISE ST
EDISON ST
AMY ST
GEORGE ST
HEYRMAN ST
MASON WY
VICTORIA ST
ABRAMS ST
SCHWARTZ ST
LAURA ST
SCHOEN ST
Van Beaver Park
WEBSTER AV
CLAY ST
DOTY ST
VAN BUREN ST
JACKSON ST
ROOSEVELT ST
IRWIN AV
LAWE ST
PORLIER ST
ELIZA ST
EMILIE ST
GRIGNON ST
JOHN ST
BERGER ST
VILLAGE ST
HENRY ST
DE LEERS ST
HUTH ST
JACOB ST
LAU ST
BADER ST
1
2
3
4
5
6
7
8
9
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 700 1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Sullivan Elementary School map.

#	Location	Observations	Recommendations
1	Elizabeth Street and Main Street 	• The intersection is signalized. • The intersection connects to the Baird Creek Trail, which leads to the school. • A crossing guard is stationed at this intersection. • Traffic travels at a high speed on Main Street and turning traffic does not always yield to pedestrians in the crosswalk. The crossing guard reports that driver sometimes run red lights. • No reduced school speed zone exists. • Two existing curb ramps do not meet current USDOT standards.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Add a reduced school speed limit zone. (Short Term) • Add high visibility crosswalk markings. (Short Term) • Conduct regular enforcement. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
2	Deckner Avenue and Bellevue Street 	• The intersection is an all-way stop. • There are poor sight lines for right turning vehicles from Bellevue Street onto Deckner Avenue. • All existing curb ramps do not meet current USDOT standards. • The southwest corner has a single curb ramp that does not orient users directly into the crosswalk.	• Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
3	Deckner Avenue between Bellevue Street and Hartung Street 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Deckner Avenue / Hartung Street. • Vehicles appear to exceed the posted speed limit during school arrival and dismissal times. • No bike facilities are present. • Existing pavement is in poor condition. • The school places cones to discourage parents from using neighbor's driveway to turn around. • Parents complain that it is difficult to find a safe place to park for pick-up and drop-off and that there is traffic congestion during arrival and dismissal.	• Add a signed bike route with shared lane markings. Consider traffic calming. (Short Term) • Resurface or reconstruct Deckner Avenue to address pavement quality issues. (Medium Term) • On the school side of Deckner Avenue, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)
4	Bellevue Street between Deckner Avenue and Crooks Street  *Photo Credit: Google Streetview*	• "SCHOOL" pavement markings and a reduced school speed limit are present on the northbound approach of Bellevue Street. • No parking is allowed on both sides of the street. 30 minute loading zone exists on west side of the street. • Excessive speeds. Vehicles appear to exceed the posted speed limit during school arrival and dismissal times.	• Add bike lanes to Bellevue Street. (Short Term)

#	Location	Observations	Recommendations
5	Mason Street and East River Trail/Hartung Street 	• Stop signs are present for Hartung Street but Mason Street is uncontrolled. • Parents indicated that it is difficult to cross Mason Street at the East River Trail. • Mason Street has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not.	• Add higher visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for one leg that cross Mason Street. (Short Term) • Enhance the East River Trail Crossing (Long Term): o Option 1: Construct a grade separated crossing of both the East River and Mason Street. o Option 2: Install a traffic signal at Hartung Street. o Option 3: Install a Pedestrian Hybrid Beacon and high visibility crosswalk near the trail access on the west of the river.
6	Bellevue Street and Mason Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents report that they are concerned about the safety of students crossing the street in this location. • Mason Street is a high speed and high-volume street. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalks.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
7	Pedestrian Bridge over the East River 	• Parents report that they are concerned about high school students engaging in illegal activities near the bridge and therefore do not feel comfortable allowing their children to walk there. • Parents are concerned about reports of children crossing the icy river under the bridge in the winter instead of using the bridge.	• Conduct education, encouragement, and enforcement campaigns. Education and enforcement campaigns can work to reduce the unsafe or illegal behaviors and the encouragement campaigns can look for ways to ensure that students walking across the bridge have adult supervision. (Short Term)
8	Bike Racks 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)
9	Deckner Avenue and Main Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • The crossing guard reports that only one or two students cross in this location.	• Consider moving this crossing guard to a location with greater crossing demand. (Short Term)

Tank Elementary School

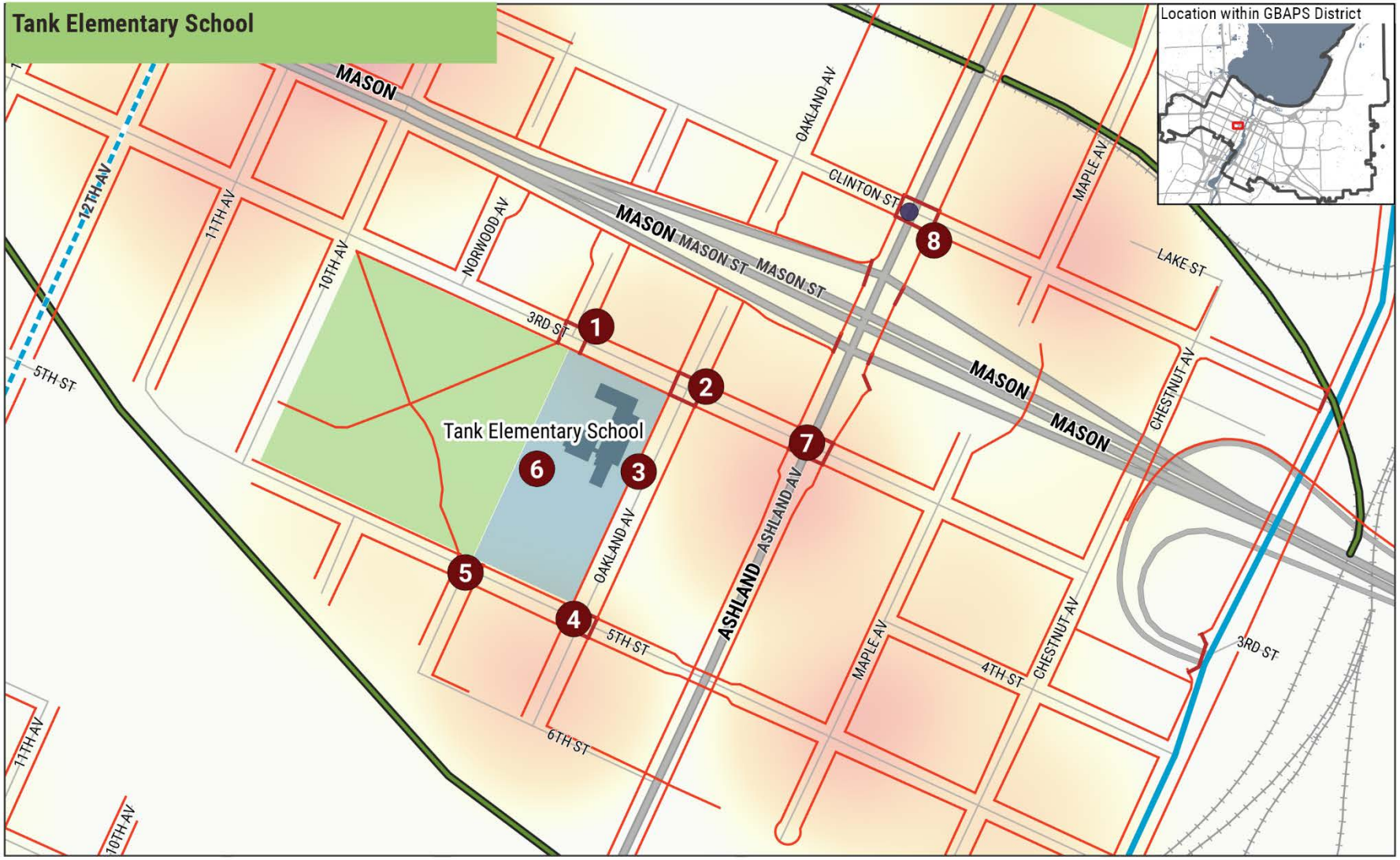
About the School	
Address	814 S Oakland Avenue
Grade Levels	K4-5
Number of Students	258*
Students Eligible for School Bus	50.2%
Economically Disadvantaged	91.1%*
Students with Disabilities	12.4%
Arrival / Dismissal Times	8:57 AM / 3:30 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Mason Street	23,600
12th Avenue	3,900
Ashland Avenue	18,600
S Broadway Street	8,200

Arrival Observations

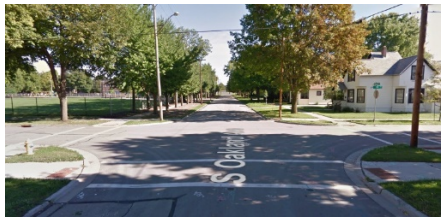
Observation Details	
Observation Date	• The consultant team observed arrival on Tuesday, September 18.
Entrances	• Students gathered on the playground and entered the school from the rear entrance. • For dismissal, students exit onto Oakland Avenue.
School Bus Loading	• For morning arrival, school buses unloaded students on 3rd Street. • For afternoon dismissal, school buses load on Oakland Avenue in front of the school.
Parent Drop-off/Pick-up	• For morning arrival, parents and caregivers in vehicles dropped off students along 3rd Street. • In the afternoon, parents and caregivers in vehicles pick up students from Oakland Avenue and other streets surrounding the school.
Student Roles	• No students were observed participating in arrival.
School Staff Roles	• School staff were present during arrival and wore safety vests.
School Crossing Guards	• School crossing guards were stationed at the intersection of Ashland Avenue and Clinton Street, and at Mason Street and 12th Avenue.
Law Enforcement	• No law enforcement officers were observed.


Tank Elementary School
Location within GBAPS District
MASON
MASON ST
12TH AV
11TH AV
10TH AV
NORWOOD AV
OAKLAND AV
CLINTON ST
MAPLE AV
LAKE ST
3RD ST
5TH ST
CHESTNUT AV
ASHLAND AV
4TH ST
6TH ST
1
2
3
4
5
6
7
8
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 200 400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Tank Elementary School map.

#	Location	Observations	Recommendations
1	3rd Street and Greenwood Avenue 	• The intersection is uncontrolled. • Drivers park and drop off near the crosswalks, blocking the view of pedestrians in the crosswalks. A few drivers even stopped on the crosswalks while dropping off students. • Vegetation blocks the existing street name sign from view and the sign is turned in the wrong direction. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • Parents were observed making U-turns after dropping off students.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach adequate nighttime lighting levels, and school crossing signs on the legs that cross 3rd Street. (Short Term) • Consider painting the curbs to reinforce the parking restrictions on the crosswalk approaches. (Short Term) • Clear vegetation blocking the existing street name sign from view and correct its orientation, for the sign on the north-eastern corner of the intersection. (Short Term)
2	3rd Street and Oakland Avenue  *Photo Credit: Google Streetview*	• Yield signs are present for Oakland Avenue but 3rd Street is uncontrolled. • "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of 3rd Street. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The existing school crossing signs do not meet current MUTCD standards. • There is no existing reduced school speed limit zone on Oakland Avenue. • Existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach adequate nighttime lighting levels, and school crossing signs on the legs that cross 3rd Street. (Short Term) • Replace the existing school crossing sign for the 3rd Street approaches with sign that complies with existing MUTCD standards. (Short Term) • Add reduced school speed limit zone on Oakland Aveue to include both the 3rd and 5th Street intersections. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
3	Oakland Avenue in front of the school 	• School staff report that during dismisal, students sometimes dart between the school buses parked in front of the school to get to their parent's vehicles across the street. • School staff say that Oakland Avenue gets congested during dismissal and that parents sometimes block access to the school buses.	• Consider restricting Oakland Avenue for school buses only during afernoon pick-up. Designate signed areas to allow student pick-up and drop-off on 3rd and/or 5th Streets. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)
4	Oakland Avenue and 5th Street  *Photo Credit: Google Streetview*	• Stop signs are present for 5th Street but Oakland Avenue is uncontrolled. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The crossings are not within a reduced school speed limit zone.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach adequate nighttime lighting levels, and school crossing signs on the legs that cross Oakland Avenue. (Short Term) • Add reduced school speed limit zone on Oakland Aveue to include both the 3rd and 5th Street intersections. (Short Term)
5	5th Street and Greenwood Avenue  *Photo Credit: Google Streetview*	• The intersection is uncontrolled. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The crossings are not within a reduced school speed limit zone. • Four of the existing curb ramps do not meet current USDOT standards.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and school crossing signs on the legs that cross 5th Street. (Short Term) • Add reduced school speed limit zone on 5th Street to include both the Greenwood and Oakland intersections. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)

#	Location	Observations	Recommendations
6	Existing bike racks 	• One bike was observed parked at the existing bike rack. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)
7	3rd Street and Ashland Avenue 	• Stop signs are present for 3rd Street but Ashland Avenue is uncontrolled. • Ashland Avenue is a high speed and high-volume street. • No traffic controls are present for Ashland Avenue. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps do not orient pedestrians directly into the crosswalks. • The existing median on the south leg of the intersection is too narrow to provide adquate pedestrian refuge, however it blocks an USDOT-accessible path through the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach adequate nighttime lighting, and school crossing signs on the legs that cross Ashland Avenue. (Short Term) • If warranted, add a traffic signal. If not warranted, consider other ways to improve the safety of the crossing. (Long Term) • Rebuild the curb ramps to meet current USDOT standards and ensure that there is an USDOT-accessible path through the crosswalk. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
8	Clinton Street and Ashland Avenue 	• Stop signs are present for Clinton Street but Ashland Avenue is uncontrolled. • A crossing guard is assigned to this a high speed and high-volume intersection, but no other traffic controls are present for Ashland Avenue. • The existing crossings are not highly visible to drivers (no high visibility crosswalk markings are present). • No reduced school speed limit zone is present for northbound traffic. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on crosswalk approach and adequate nighttime lighting levels on the legs that cross Ashland Avenue. (Short Term) • If warranted, add a traffic signal. If not warranted, consider other ways to improve the safety of the crossing. (Long Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

Washington Middle School

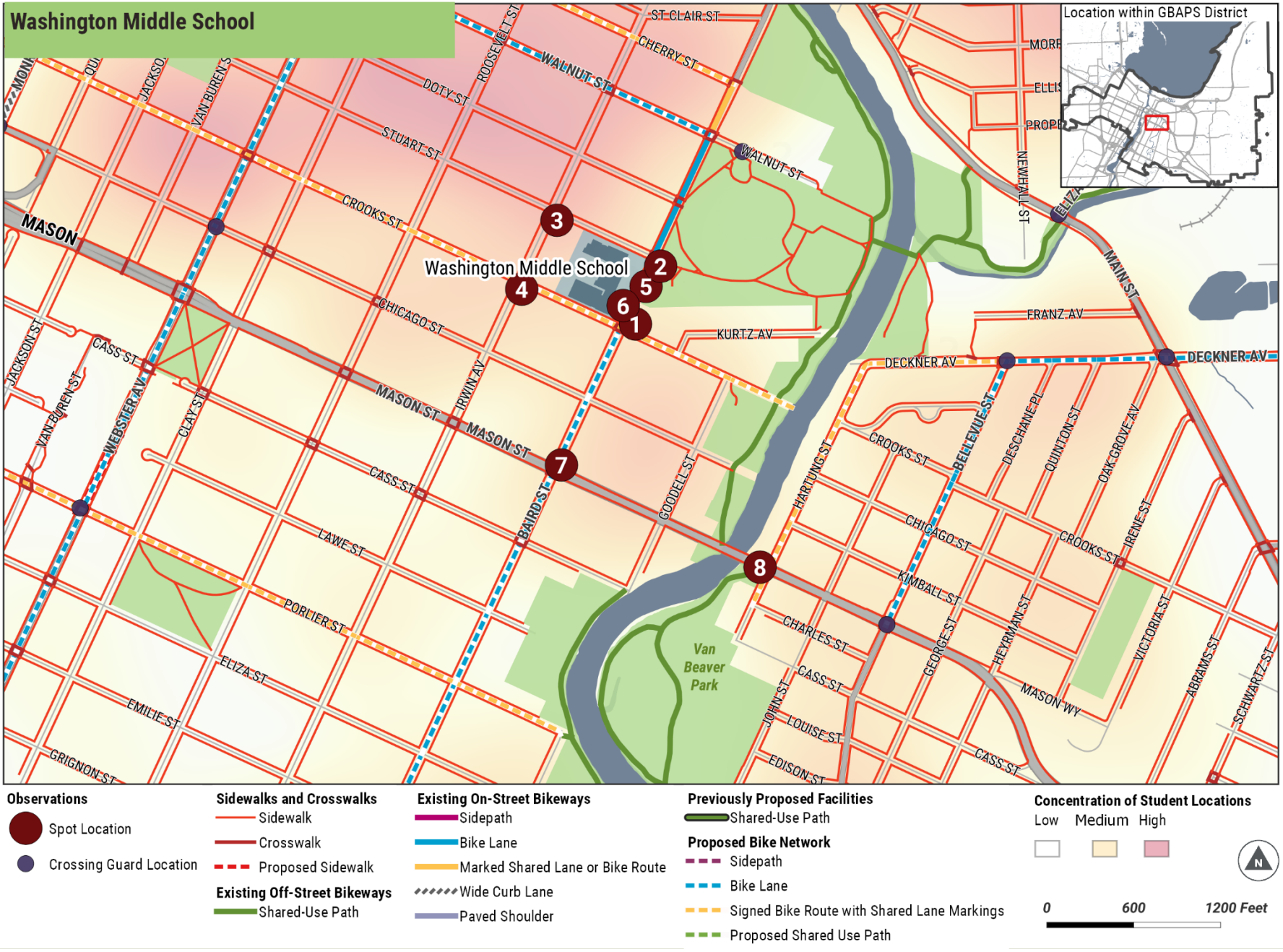
About the School	
Address	314 S. Baird Street
Grade Levels	6-8
Number of Students	784*
Students Eligible for School Bus	26.3%
Economically Disadvantaged	77.6%*
Students with Disabilities	16.7%*
Arrival / Dismissal Times	7:35 AM / 2:44 PM

**Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
S. Baird Street	7,400
E. Walnut Street	4,100
E. Mason Street	21,100
Webster Avenue	12,500

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Tuesday, September 18.
Entrances	• Most students enter through front doors on Baird Street. • Some students enter through the rear door facing the parking lot (parent drop-off area).
School Bus Drop-Off	• 6-7 buses drop off students in front on Baird Street.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students in front on Baird Street, as well as on the two side streets, Stuart Street and Crooks Street. • Some parents dropped off students in rear of school from parking lot.
Student Roles	• No students were involved in arrival activities.
School Staff Roles	• School staff were present during arrival. • School staff members worked as crossing monitors at the intersection of Baird and Crooks. These crossing guards used flags because it is not an “official” guard location. • School staff monitored vehicles entering and exiting parking lot.
School Crossing Guards	• Two crossing guards were stationed at the intersection of Baird and Stuart.
Law Enforcement	• A law enforcement officer was parked near the intersection of Baird and Stuart.


Washington Middle School
Location within GBAPS District
Washington Middle School
MASON
MASON ST
CHICAGO ST
CROOKS ST
STUART ST
DOTY ST
WALNUT ST
ST CLAIR ST
CHERRY ST
ROOSEVELT ST
JACKSON ST
VAN BUREN ST
CASS ST
WEBSTER AV
CLAY ST
IRWIN AV
BAIRD ST
GODDELL ST
LAWE ST
PORLIER ST
ELIZA ST
EMILIE ST
GRIGNON ST
KURTZ AV
FRANZ AV
DECKNER AV
MAIN ST
NEWHALL ST
HARTUNG ST
BELLEVUE ST
DESCHANE PL
QUINTON ST
OAK GROVE AV
IRENE ST
KIMBALL ST
CHARLES ST
GEORGE ST
HEYRMAN ST
VICTORIA ST
ABRAMS ST
SCHWARTZ ST
MASON WY
JOHN ST
LOUISE ST
EDISON ST
Van Beaver Park
1
2
3
4
5
6
7
8
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 600 1200 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Washington Middle School map.

#	Location	Observations	Recommendations
1	Baird Street and Crooks Street  *Photo Credit: Google Streetview*	• Stop signs are present for Crooks Street but Baird Street is uncontrolled. • The intersection was very heavily used by students. A staff member served as crossing monitor. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Vehicles were observed entering the bike lane to pass other vehicles stopped for the crossing guard. • Existing curb ramps do not meet current USDOT standards • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the legs that cross Baird Street. (Short Term) • Due to the busy nature of this crossing, consider adding another crossing guard. (Short Term) • Conduct regular enforcement. (Short Term) • Reconstruct the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
2	Baird Street and Stuart Street 	• A stop sign is present for Stuart Street, but Baird Street is uncontrolled. • Pedestrian-activated LED School Crossing Assemblies are present on both approaches of Baird Street. • The intersection was very heavily used by students. Two crossing guards were present. • Existing flashing school crossing signs are present. • Vehicles were observed entering the bike lane to pass other vehicles stopped for the crossing guard. • Only one existing curb ramp meets current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add higher visibility crosswalk markings for the approaches on Baird Street and ensure that nightime lighting and parking restrictions on the crosswalk approaches are adequate. (Short Term) • Conduct regular enforcement. (Short Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • Consider adding a pedestrian refuge island. (Long Term)
3	Irwin Avenue and Stuart Street  *Photo Credit: Google Streetview*	• Stop signs for are present for Stuart Street but Irwin Avenue is uncontrolled. • No marked crosswalks are present. • No school crossing sign assemblies are present. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs that cross Irwin Street. (Short Term) • Reconstruct the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
4	Irwin Avenue and Crooks Street  *Photo Credit: Google Streetview*	• Stop signs are present for Irwin Avenue but Crooks Street is uncontrolled. • Existing flashing beacon in intersection. • No marked crosswalk is present. • No school crossing sign assemblies are present for Crooks Street. • Shared lane pavement marking (sharrows) exists on Crooks Street. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the legs that cross Irwin Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
5	Baird Street between Crooks Street and Stuart Street 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • The existing sidewalk has settled behind the curb, creating drainage issues and trip hazards. • Bike lanes exist on Baird Street.	• Perform sidewalk maintenance to correct damage. (Short Term)
6	Bike Racks 	• Approximately 30 bicycles were observed in the existing bike racks in front of the building. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles. • Parents are concerned that bikes may be stolen from the bike racks at Washington Middle School.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term

#	Location	Observations	Recommendations
7	Baird Street and Mason Street  *Photo Credit: Google Streetview*	• The intersection is signalized. • Parents indicate concern about the safety of students crossing the street in this location. • Mason Street is a high speed and high-volume street. • Existing single curb ramps do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • During the next reconstruction of the intersection, explore reducing curb radii and the installation of new curb ramps that line up with crosswalks. (Long Term)
8	Mason Street and East River Trail/Hartung Street 	• Stop signs are present for Hartung Street but Mason Street is uncontrolled. • Parents indicated that it is difficult to cross Mason Street at the East River Trail. • Mason Street has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not.	• Add higher visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for one leg that crosses Mason Street. (Short Term) • Enhance the crossing: o Option 1: Construct a grade separated crossing of both the East River and Mason Street. o Option 2: Install a traffic signal at Hartung Street. o Option 3: Install a Pedestrian Hybrid Beacon and high visibility crosswalk near the trail access on the west of the river.

Webster Elementary School

About the School	
Address	2101 South Webster Avenue
Grade Levels	K4-5
Number of Students	328*
Students Eligible for School Bus	20.3%
Economically Disadvantaged	48.2%*
Students with Disabilities	22.6%*
Arrival / Dismissal Times	8:27 AM / 3:00 PM

** Data from 2018/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Webster Avenue	18,300
East Saint Joseph Street	4,100
West Allouez Avenue	3,200 west of Webster Avenue and 8,200 east of Webster Avenue
Libal Street	8,400

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Thursday, September 20.
Entrances/Exits	• At arrival, most students entered the school from the back entrance. • Very few students entered the school through the front entrance on Webster Avenue.
School Bus Loading	• Three buses were lined up in the driveway near the school's entrance.
Parent Drop-off/Pick-up	• Parents in vehicles dropped off students on several surrounding streets around the school. Parents dropped off students on Woodrow Way north of the school, the intersection of Jourdain Lane and Webster Park Access Road east of the school, and the intersection of Woodrow Way and Brookridge Street south of the school.
School Staff Roles	• School staff were present during arrival. Several staff members met students from the buses in front, while several others met students near the back of the school, on the playground.
School Crossing Guards	• A crossing guard was stationed at Allouez Avenue and Libal Street.
Law Enforcement	• No law enforcement officers were observed.


Webster Elementary School
Location within GBAPS District
Webster Elementary School
WEBSTER HEIGHTS DR
PATTON ST
GRAASS ST
HALSEY ST
IRWIN AV
KALB AV
KALB
BEAUPRE ST
ST JOSEPH ST
LIBAL ST
WESTMINSTER DR
WINDSOR DR
LITTLE RD
MIRAMAR DR
ALLOUEZ AV
FLORAL DR
East River Parkway
KARL ST
MEMORY AV
BROOKRIDGE ST
DAUPHIN ST
EAST RIVER DR
RIVERSIDE DR
DU CHARME LN
WOODROW WY
JOURDAIN LN
OAKWOOD AV
MARTHA AV
WHITNEY ST
IROQUOIS AV
WARREN CT
LAZARRE AV
MISSION RD
BETTY CT
WEBSTER AV
BEAUMONT ST
BITTERSWEET AV
CLOVER LN
HEYDEN LN
GREENWALD ST
VandenHeuvel Park
Heritage Hill State Park
STH 172
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 700 1400 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Webster Elementary School map.

#	Location	Observations	Recommendations
1	Webster Avenue in front of Webster Elementary 	• Narrow sidewalks with minimal buffer next to a busy, 4-lane arterial creates an uncomfortable walking and bicycling environment north and south of the school. • Vehicles appeared to dramatically exceed the posted speed limit durinig school arrival times (the reduced school speed zone has a speed limit of 15 mph).	• During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street. (Long Term)
2	Saint Joseph Street and Webster Avenue 	• The intersection is signalized. • All curb ramps except the northeast corner do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk. • The existing school reduced speed zone ends before the busy pedestrian crossing.	• Extend the reduced school speed zone so that it includes the intersection of Saint Joseph Street and Webster Avenue (Short Term). • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
3	Woodrow Way at Webster Elementary  *Photo Credit: Google Streetview*	• There is a new sidewalk on the east side of Woodrow Way between Webster Elementary and Saint Joseph Street (there is a planned sidewalk on the south side of Saint Joseph Street between Webster Avenue and East River Road). • The new sidewalk connects to a small parking lot, which parents use to drop off and pick up students. There is no designated walkway through the parking lot, creating potential conflicts between pedestrians and vehicles. The vehicular drop-off process is orderly and cars circle in one direction.	• Construct new sidewalks on the west side of Woodrow Way between Webster Elementary School and Saint Joseph Street and on the south side of Woodrow Way between Webster Avenue and East River Road (if not yet completed). (Short Term) • Designate a pedestrian walkway through the parking lot using paint or barriers, or construct a sidewalk. (Short Term)
4	Woodrow Way and Saint Joseph Street 	• A stop signs is present for Woodrow Way but Saint Joseph Street is uncontrolled. • There is a “No Left Turn” sign for northbound traffic at the intersection of Woodrow Way and Saint Joseph Avenue. However, the existing crosswalk is to the right, the only direction that vehicles are allowed to go when exiting Woodrow Way. This could result in conflicts between turning vehicles and pedestrians in the crosswalk. • The existing crossing across Saint Joseph Street is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present).	• Explore moving the crossing from the east leg of Saint Joseph to the west leg to reduce conflicts with turning vehicles. (Medium Term) • Add high visibility crosswalk markings and school crossing signs. (Short Term)

#	Location	Observations	Recommendations
5	Saint Joseph Street and Libal Street  *Photo Credit: Google Streetview*	• Stop signs are present for Saint Joseph Street but Libal Street is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings or school crossing signs are present). • While students were not observed crossing at this intersection, demand will likely rise since a new sidewalk was recently added on the southern side of Saint Joseph Street. • Parents indicate concern about the safety of students crossing the street in this location. • The Allouez Safe Routes to School Plan proposes that a crossing guard be added in this location and that the intersection be studied to identify the best traffic control option.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approaches, adequate nighttime lighting levels, and school crossing signs for the legs that cross Libal Street. (Short Term) • Consider adding in-street pedestrian crossing signs. (Short Term) • Consider adding a crossing guard per the Allouez Safe Routes to School Plan. (Short Term)

#	Location	Observations	Recommendations
6	The residential streets surrounding the school.  *Photo Credit: Google Streetview*	• There are few sidewalks on the residential streets surrounding the school. This presents a barrier to walking and bicycling to school. • The Allouez Safe Routes to School Plan proposes new sidewalks, some of which have already been installed: o East side of Woodrow Way south of Saint Joseph Street o West side of Schroder Lane south of Saint Joseph Street o South side of Saint Joseph Street between Webster Avenue and East River Drive o East side of Libal Street from just north of Saint Joseph Street to the north village boundary o West side of Woodrow Way between Allouez Avenue and Brookridge Street o North side of Brookridge Street between Woodrow Way and Libal Street	• Construct new sidewalks as shown in the Webster Elementary School map. (Short, Medium, and Long Term) • Construct new sidewalks at the locations identified in the Allouez Safe Routes to School Plan. (Short, Medium, and Long Term)

#	Location	Observations	Recommendations
7	Libal Street and Brookridge Street 	• Stop signs are present for Brookridge Street but Libal Street is uncontrolled. • The new sidewalk on Brookridge Street makes this a high-demand crossing point for students crossing Libal Street. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present). • Existing curb ramps at all corners do not meet USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk. • The Allouez Safe Routes to School Plan proposes that curb extensions be added to this intersection as well as a crossing guard.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approaches, and adequate nighttime lighting levels for the legs that cross Libal Street. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • Consider adding curb extensions and a crossing guard per the Allouez Safe Routes to School Plan. (Medium Term)
8	Libal Street and Allouez Avenue 	• Yield signs are present for all approaches. • The existing roundabout at this intersection works well in slowing traffic. • There are existing bike lanes on Allouez Avenue and Libal Street is currently a bicycle route. However, no signage indicates to bicyclists to make this connection.	• Add additional bike route signage. (Short Term)
9	Brookridge Street and Woodrow Way 	• Parents use this street to pick up and drop off students. However, signage indicates that stopping and standing are disallowed here between 2:30 PM and 3:30 PM. This is the period of greatest use.	• Along Brookridge Street, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term)

#	Location	Observations	Recommendations
10	Allouez Avenue and Woodrow Way 	• Stop signs are present for Woodrow Way but Allouez Avenue is uncontrolled. • The existing crossing is not highly visible to drivers (no high visibility crosswalk markings are present).	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approaches, and adequate nighttime lighting levels for the legs that cross Allouez Avenue. (Short Term)
11	Webster Avenue and Dauphin Street  *Photo Credit: Google Streetview*	• A stop sign is present for Dauphin Street but Webster Avenue is uncontrolled. • The existing marked crosswalks are not highly visible to drivers (no high-visibility markings are present.) • Webster Avenue is a high speed and high volume street. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes at this unsignalized crossing. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps do not meet current USDOT standards and no level landings are present at the top of the western ramps. • Existing single curb ramps at the eastern corners do not orient users directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the uncontrolled legs on Webster Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line to each approach to the crosswalks across Webster Avenue. (Short Term) • Explore adding a traffic signal or pedestrian refuge island to improve the safety of the crossing. (Long Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
12	Allouez Avenue and Webster Avenue  *Photo Credit: Google Streetview*	• The intersection is signalized. • Existing single curb ramps at corners do not orient users directly into the crosswalk. • The intersection is within a reduced school speed limit zone, although vehicles appeared to dramatically exceed the posted speed limit during school arrival times of 15 mph. • Sidewalks at driveway crossings are not ADA accessible.	• Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • Reconstruct the driveway crossings to meet current ADA standards. (Long Term)
13	Webster Avenue and Mission Road  *Photo Credit: Google Streetview*	• Stop signs are present for Mission Road but Webster Avenue is uncontrolled. • The existing marked crosswalks are not highly visible to drivers (no high-visibility markings are present.) • Webster Avenue is a high speed and high volume street. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes at this unsignalized crossing. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps at corners do not orient users directly into the crosswalk.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels for the uncontrolled legs on Webster Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line to each approach to the crosswalks across Webster Avenue. (Short Term) • Explore adding a traffic signal or pedestrian refuge island to improve the safety of the crossing. (Long Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
14	School playground 	• Four different bike racks are located behind the school, on the playground. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Wequiock Elementary School

About the School	
Address	3994 Wequiock Road
Grade Levels	K4-5
Number of Students	170*
Students Eligible for School Bus	81.4%
Economically Disadvantaged	19.4%*
Students with Disabilities	12.4%*
Arrival / Dismissal Times	8:57 AM / 3:30 PM

**Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Fischer Road	450
Champion Road	1,500
Nicolet Drive	1,400

Dismissal Observations

Observation Details	
Observation Date	• The consultant team observed dismissal on Tuesday, September 18.
Entrances/Exits	• All students exited the school on the south, onto a driveway connecting to Wequiock Road.
School Bus Loading	• Three to four buses loaded students on the one-way driveway connecting to Wequiock Road.
Parent Drop-off/Pick-up	• Parents in vehicles picked up students using the one-way driveway in front of the school. East of the school, parents use a parking lot, while some parents park in a row on the west side of the street.
Student Roles	• No students were involved in dismissal activities.
School Staff Roles	• School staff were present during dismissal and released elementary school students to parents, most of whom parked their cars and walked to the front of the school.
School Crossing Guards	• No crossing guards were observed.
Law Enforcement	• No law enforcement officers were observed.


Wequiock Elementary School
Location within GBAPS District
VAN LIESHOUT RD
WEQUIOCK RD
Wequiock Elementary School
STURGEON BAY RD
1
2
3
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 90 180 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Wequiock Elementary School map.

#	Location	Observations	Recommendations
1	In front of Wequiock Elementary 	• Existing paint delineates the location for parents and students waiting in front of the school doors to cross the travel lane. However, this paint is faded and lacks high visibility treatments. • No pedestrian crossing signage is present.	• Refresh the crosswalk with high visibility markings. (Short Term)
2	Driveway south of Wequiock Elementary 	• Parents and students walk southeast to access vehicles on the west side of the road. Missing sidewalks along the driveway force parents and students to walk in the roadway.	• Construct a sidewalk on the east side of the roadway to improve safety for parents and students. (Medium Term)
3	Parking lot east of Wequiock Elementary 	• Parking spaces are not clearly marked in the parking lot. • There is no marked pedestrian walkway through the parking lot.	• Refresh parking space markings. (Short Term) • Designate a pedestrian walkway through the parking lot using paint or barriers or construct a sidewalk. (Short Term)

West High School

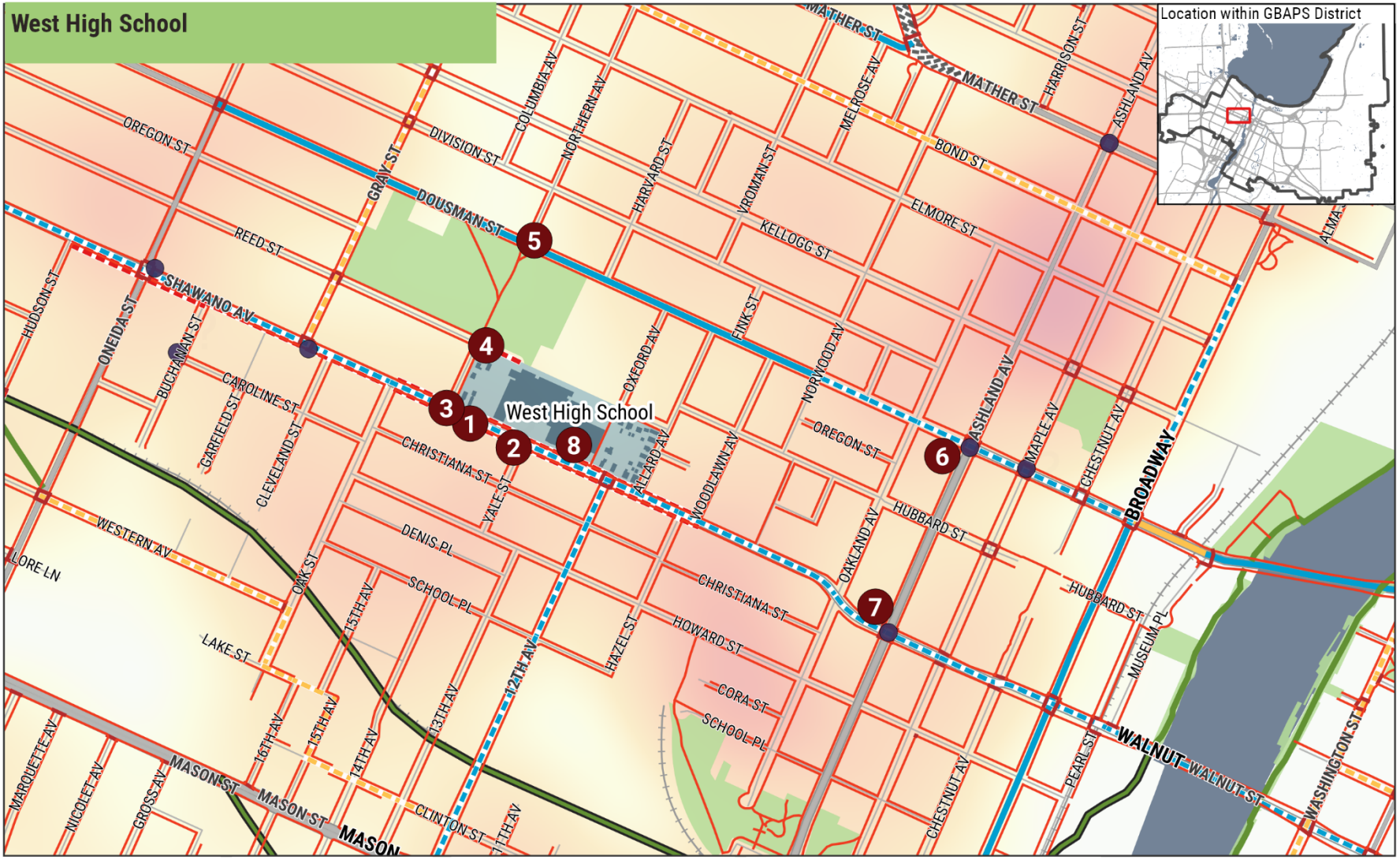
About the School	
Address	966 Shawano Avenue
Grade Levels	9-12
Number of Students	858*
Students Eligible for School Bus	11.8%
Economically Disadvantaged	61.9%*
Students with Disabilities	22.4%
Arrival / Dismissal Times	7:30 AM / 3:00 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Gray Street	4,300
Shawano Avenue/Hwy 29	11,500
Dousman Street	6,700
Ashland Avenue	12,900
Oneida Street	N Oneida 3,600; S Oneida 8,700
Mason Street	21,700

Arrival Observations

Observation Details	
Observation Date	• The consultant team observed arrival on Tuesday, September 18.
Entrances	• Students entered primarily from the Shawano Avenue entrance near the east side of the school building and from the entrance facing the parking lot on the west side of the building.
School Bus Loading	• School buses unloaded students on Reed Street behind the eastern parking lot
Parent Drop-off/Pick-up	• Parents and caregivers in vehicles dropped off students along Shawano Avenue, in the western parking lot, and in the eastern parking lot. The western parking lot appeared to be the busiest drop-off area.
Student Roles	• No students were observed participating in arrival.
School Staff Roles	• School staff were present during arrival. • School staff were present near the entrance facing the western parking lot and helped to ensure that traffic did not back up onto Shawano Avenue.
School Crossing Guards	• School crossing guards were stationed at the intersection of Walnut Street and Ashland Avenue, at Dousman Street and Ashland Avenue, at Shawano Avenue and Gray Street, at Buchanan Street and Caroline Street, and at Shawano Avenue and Oneida Street.
Law Enforcement	• No law enforcement officers were observed.


West High School
Location within GBAPS District
West High School
OREGON ST
DIVISION ST
COLUMBIA AV
NORTHERN AV
HARVARD ST
VROMAN ST
MELROSE AV
MATHER ST
HARRISON ST
ASHLAND AV
BOND ST
ELMORE ST
KELLOGG ST
ALMA
GRAY ST
DOUSMAN ST
REED ST
SHAWANO AV
HUDSON ST
ONEIDA ST
BUCHANAN ST
CAROLINE ST
GARFIELD ST
CLEVELAND ST
OXFORD AV
FINK ST
NORWOOD AV
ASHLAND AV
MAPLE AV
CHESTNUT AV
BROADWAY
OREGON ST
CHRISTIANA ST
YALE ST
ALLARD AV
WOODLAWN AV
OAKLAND AV
HUBBARD ST
WESTERN AV
LORE LN
DENIS PL
OAK ST
15TH AV
SCHOOL PL
CHRISTIANA ST
HOWARD ST
HAZEL ST
12TH AV
13TH AV
14TH AV
16TH AV
15TH AV
LAKE ST
CORA ST
SCHOOL PL
MUSEUM PL
WALNUT ST
PEARL ST
WASHINGTON ST
MARQUETTE AV
NICOLET AV
GROSS AV
MASON ST
CLINTON ST
11TH AV
1
2
3
4
5
6
7
8
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low
Medium
High
N
0
500
1000 Feet

Recommendations

The numbered observations in the table below correspond to the points in the West High School map.

#	Location	Observations	Recommendations
1	Shawano Avenue in front of the school 	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches. • Narrow sidewalks with minimal buffer next to a busy, 4-lane arterial creates an uncomfortable walking/cycling environment. • Sidewalk width is further compromised on trash day when garbage and recycling bins further narrow the sidewalks. • On much of Shawano Avenue, driveway crossings do not meet current ADA standards. • Parents are concerned with the speed of traffic on Shawano Avenue. • Students were observed crossing against the traffic signal at this intersection.	• During the next roadway reconstruction, explore widening the sidewalk or adding a buffer zone between the sidewalk and the street. (Long Term) • Reconstruct the driveway crossings to meet current ADA standards. (Long Term) • Make sure students are educated about the need to follow traffic signals and signs. (Short Term)

#	Location	Observations	Recommendations
2	Shawano Avenue and Yale Street 	• A stop sign is present for Yale Street, but Shawano Avenue is uncontrolled. • The busy crossing is not located within a reduced school speed limit zone. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • Existing single curb ramps on the south corners do not orient pedestrians directly into the crosswalks. • Parents note that there are few safe crossing opportunities across Shawano Avenue.	• Refresh the high visibility crosswalk markings, add parking restrictions and school crossing signs, and ensure there is adequate nighttime lighting levels for the uncontrolled leg on Shawano Avenue. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for both approaches of Shawano Avenue at Yale Street. (Short Term) • Extend the reduced school speed zone so that it includes (at a minimum) Shawano Avenue from Allard Avenue to O'Brien Street. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term) • The recommendation of a road diet for Shawano Avenue to provide bike lanes would also reduce the likelihood of multiple-threat crashes at this intersection. (Long Term)

#	Location	Observations	Recommendations
3	Shawano Avenue and O'Brien Street  *Photo Credit: Google Streetview*	• A stop sign is present for O'Brien Street, but Shawano Avenue is uncontrolled. • Parents note that there are few safe crossing opportunities across Shawano Avenue. • The roadway has multiple lanes in each direction and as a result, there is the possibility of multiple threat crashes. A multiple threat crash occurs when the motorist in one lane stops for a pedestrian in the crosswalk but the motorist in the other lane does not. • No curb ramps are present to cross Shawano Avenue.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for Shawano Avenue at O'Brien Street. (Short Term) • Add Advance Yield Here to Pedestrians sign and yield line for both approaches of Shawano Avenue at O'Brien Street. (Short Term) • Extend the reduced school speed zone so that it includes (at a minimum) Shawano Avenue from Allard Avenue to O'Brien Street. (Short Term) • The long-term recommendation of a road diet for Shawano Avenue to provide bike lanes would also reduce the likelihood of multiple-threat crashes at this intersection. • Construct curb ramps to meet current USDOT standards. (Medium Term)
4	Back of School connecting to Reed Street 	• Students walk through the parking lot from the nearby neighborhoods, yet there is no designated walkway.	• Construct a new sidewalk or walkway along the edge of the parking lot and add a crosswalk connecting to the sidewalk leading to the school entrance. (Short Term)

#	Location	Observations	Recommendations
5	Dousman Street and Northern Avenue 	• A stop sign is present for Northern Avenue, but Dousman Street is uncontrolled. • Parents report that drivers consistently fail to yield to pedestrians in the crosswalk. • Existing flashing beacons are present. • The existing curb ramp on the northeast corner does not meet current USDOT standards. • Existing single curb ramps on the north side of the street do not orient pedestrians directly into the crosswalk.	• Ensure there are parking restrictions on the crosswalk approach and adequate nighttime lighting levels for the crossing of Dousman Street. (Short Term) • Explore replacing the existing flashing beacon (that flashes constantly) with a pedestrian-activated beacon or a Rectangular Rapid Flashing Beacon so that it is more noticeable when a pedestrian wants to cross the street. (Medium Term) • Rebuild the curb ramp to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)
6	Dousman Street and Ashland Avenue  *Photo Credit: Google Streetview*	• The intersection is signalized. • There is a crossing guard assigned to this intersection. • A parent noted that her daughter nearly got hit by a car while trying to cross the street in this location. • This intersection is not within the reduced school speed zone. • Existing curb ramps do not meet current USDOT standards. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• Add high-visibility crosswalk markings for all four approaches of the intersection of Dousman Street and Ashland Avenue. (Short Term) • Extend the reduced school speed zone so that it includes the intersection of Dousman Street and Ashland Avenue. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
7	Walnut Street and Ashland Avenue 	• The intersection is signalized. • There is a crossing guard assigned to this intersection. • Existing curb ramps do not meet current USDOT standards.	• Add high-visibility crosswalk markings for all four approaches of the intersection of Walnut Street and Ashland Avenue. (Short Term) • Explore the addition of a Leading Pedestrian Interval to reduce conflicts between pedestrians and turning vehicles. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
8	Bike Parking in front of the school 	• Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

Wilder Elementary School

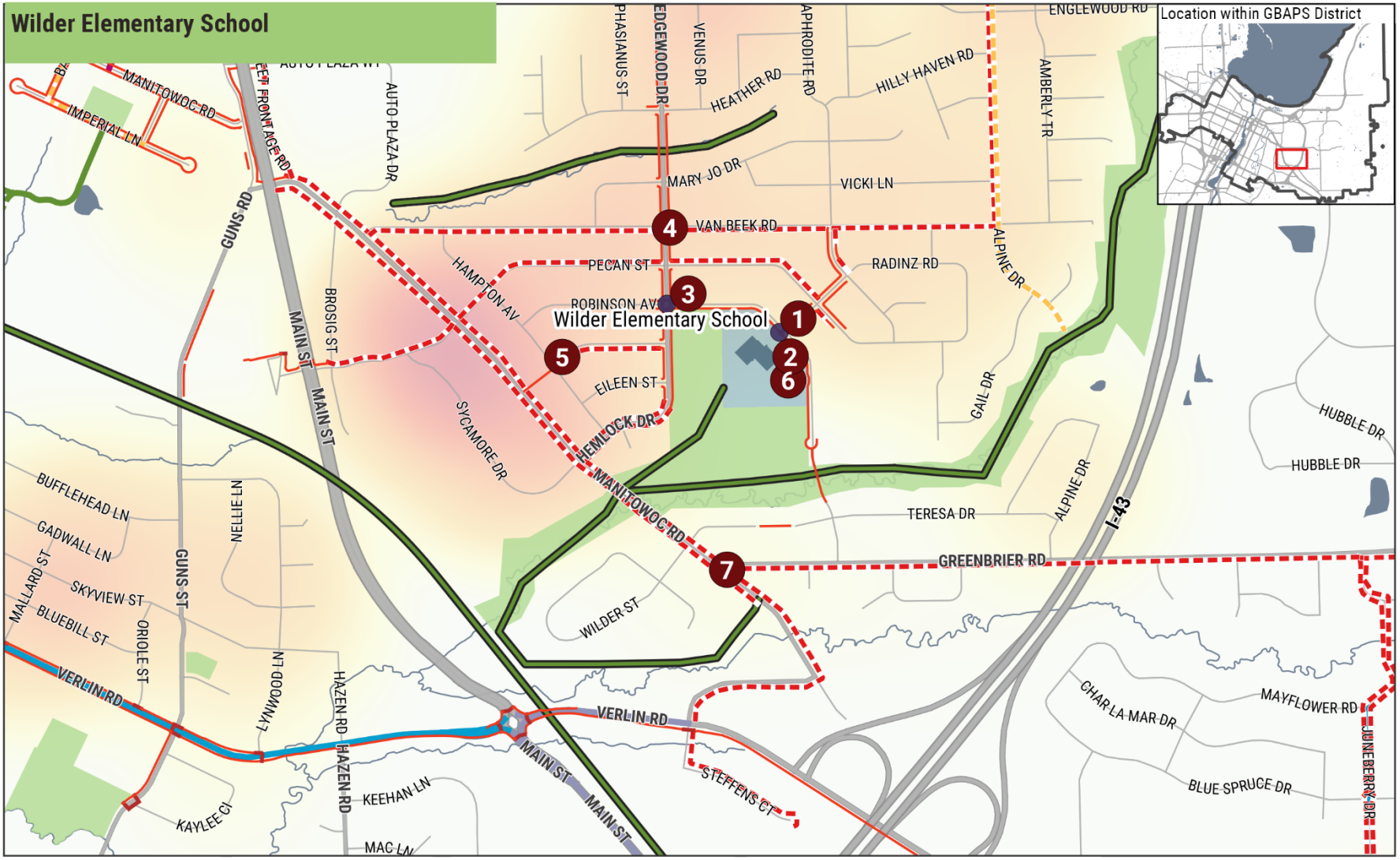
About the School	
Address	2590 Robinson Avenue
Grade Levels	K4-5
Number of Students	448*
Students Eligible for School Bus	21.6%
Economically Disadvantaged	48.7%*
Students with Disabilities	13.2%*
Arrival / Dismissal Times	8:12 AM / 2:45 PM

** Data from 2017/2018 school year*

Corridor	Annual Average Daily Traffic (AADT)
Manitowoc Rd	4,800
Greenbrier Rd	3,400
Main St	14,100
Verlin Rd	12,200

Dismissal Observations

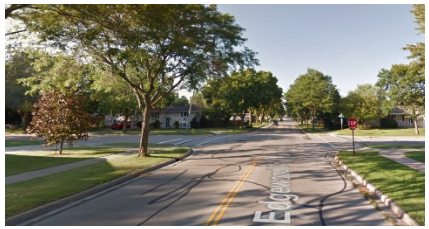
Observation Details	
Observation Date	• The consultant team observed dismissal on Tuesday, September 18.
Entrances	• Students exited from the main entrance on Robinson Avenue.
School Bus Loading	• School buses loaded students on the bus loop in front of the school on Robison Avenue.
Parent Drop-off/Pick-up	• Parents and caregivers in vehicles picked up students on Robinson Avenue and other streets surrounding the school. • Most parents exited their vehicles and met up with their students in the large paved area directly in front of the school's main entrance.
Student Roles	• Student safety patrols were stationed at the crosswalk across the bus loop, at the intersection of Robinson Avenue and Radinz Road, and at the bus loop entrance and exit. • The student safety patrols at the bus loop crosswalk had stop paddles, which is not typical for student safety patrols.
School Staff Roles	• School staff were present during dismissal. • The principal spoke with parents who violated dismissal rules.
School Crossing Guards	• School crossing guards were stationed at the intersection of Robinson Avenue and Edgewood Drive, as well as at the intersection of Robinson Avenue and Radinz Road.
Law Enforcement	• No law enforcement officers were observed.


Wilder Elementary School
Location within GBAPS District
Wilder Elementary School
MANITOWOC RD
IMPERIAL LN
FEE FRONT AGE RD
AUTO PLAZA DR
GUNS RD
PHASIANUS ST
EDGEWOOD DR
VENUS DR
APHRODITE RD
HEATHER RD
HILLY HAVEN RD
ENGLEWOOD RD
AMBERLY TR
MARY JO DR
VICKI LN
VAN BEEK RD
PECAN ST
RADINZ RD
ALPINE DR
HAMPTON AV
ROBINSON AV
BROSIG ST
MAIN ST
EILEEN ST
SYCAMORE DR
HEMLOCK DR
GAIL DR
HUBBLE DR
BUFFLEHEAD LN
GADWALL LN
SKYVIEW ST
BLUEBILL ST
MALLARD ST
ORIOLE ST
NELLIE LN
GUNS ST
LYNWOOD LN
HAZEN RD
KEEHAN LN
KAYLEE CI
MAC LN
TERESA DR
GREENBRIER RD
I-43
WILDER ST
STEFFENS CT
CHAR LA MAR DR
MAYFLOWER RD
BLUE SPRUCE DR
JUNEBERRY DR
1
2
3
4
5
6
7
Observations
Spot Location
Crossing Guard Location
Sidewalks and Crosswalks
Sidewalk
Crosswalk
Proposed Sidewalk
Existing Off-Street Bikeways
Shared-Use Path
Existing On-Street Bikeways
Sidepath
Bike Lane
Marked Shared Lane or Bike Route
Wide Curb Lane
Paved Shoulder
Previously Proposed Facilities
Shared-Use Path
Proposed Bike Network
Sidepath
Bike Lane
Signed Bike Route with Shared Lane Markings
Proposed Shared Use Path
Concentration of Student Locations
Low Medium High
N
0 800 1600 Feet

Recommendations

The numbered observations in the table below correspond to the points in the Wilder Elementary School map.

#	Location	Observations	Recommendations
1	Robinson Avenue and Radinz Road 	• A stop sign is present for Radinz Road, but Robinson Avenue is uncontrolled. • The existing crossing where a crossing guard is posted is not highly visible to drivers (no high visibility crosswalk markings are present). • Motorists heading northwest on Robinson Avenue seemed confused about where to yield to the crossing guard and pedestrians in the intersection. This could be due to the lack of a marked crosswalk on the southeast leg. • The school places cones to prevent parents from blocking the driveway closest to this intersection (on Radinz Road). • Parents have expressed concerns about the speed of vehicles around the school. • Existing curb ramps do not meet current USDOT standards. • The existing single curb ramp at the northeast corner does not orient pedestrians directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, and adequate nighttime lighting levels, for the legs crossing Robinson Avenue. (Short Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term) • During the next reconstruction of the intersection, explore the installation of a new curb ramp that lines up with crosswalks on the north and east legs. (Long Term)

#	Location	Observations	Recommendations
2	Robinson Avenue in front of the school 	• "SCHOOL" pavement markings are present on the eastbound approach and reduced school speed limits are present in both directions. • Parents complain that drivers frequently violate the parking restrictions around the school. • A neighbor has posted a sign in their driveway saying, "Private Drive No Turn-Arounds." • The principal would like to see "No Parking" signs in the entire space between the bus driveways. Currently, parking is allowed in portions of this area. • Parents note that Robinson Avenue is not adequately plowed in the winter. • Parents also noted a desire for better bicycle facilities near Wilder Elementary School. • About 20 students traveled along the path between Robinson Avenue and Teresa Drive.	• On the school side of Robinson Avenue, designate signed areas to allow student pick-up and drop-off. The school may also wish to designate some short-term parking for parents who need to enter the school. Ideally, all pick-up and drop-off occurs on the school side of the street or, at a minimum, in locations with convenient crossings. (Medium Term) • Post "No Parking" signs for the entire space between the two school driveways. (Short Term)
3	Edgewood Drive and Robinson Avenue  *Photo Credit: Google Streetview*	• "SCHOOL" pavement markings and reduced school speed limits are present on both approaches of Edgewood Drive. • The intersection is an all-way stop. • No existing reduced school speed limit zone is present on Robinson Avenue. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• Extend the reduced school speed zone so that it includes the intersection of Edgewood Drive and Robinson Avenue. (Short Term) • During the next reconstruction of the intersection, explore the installation of new curb ramps that line up with crosswalks. (Long Term)

#	Location	Observations	Recommendations
4	Edgewood Drive and Van Beek Road  *Photo Credit: Google Streetview*	• Stops signs are present for Van Beek Road but Edgewood Drive is uncontrolled. • No marked crosswalks are present. • Parents noted concerns about vehicles speeding in this location. • Missing sidewalks on both sides of Van Beek Road between Manitowoc Road and Alpine Drive present a barrier to walking and bicycling to school. • Existing single curb ramps do not orient pedestrians directly into the crosswalks.	• Add high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate nighttime lighting levels, and school crossing signs for the uncontrolled legs on Edgewood Drive. (Short Term) • Add parallel line crosswalk markings for the stop-controlled legs on Van Beek Road. (Short Term) • Construct new sidewalks on the south side of Van Beek Road between Manitowoc Road and Alpine Drive. (Medium Term) • Rebuild the curb ramps to meet current USDOT standards. (Medium Term)
5	Streets surrounding the school 	• Most of the streets surrounding the school lack sidewalks, creating barriers to walking and bicycling to school. • Parents noted that missing sidewalks on both sides of Van Beek Road between Manitowoc Road and Alpine Drive, and on both sides of Manitowoc Road between Main Street and Greenbrier Road present a barrier to walking and bicycling to school.	• Construct new sidewalks as shown in the Wilder Elementary School map. (Short, Medium, and Long Term) • Construct new sidewalks on the south side of Van Beek Road between Manitowoc Road and Alpine Drive, (Medium Term) and on both sides of Manitowoc Road between Main Street and Greenbrier Road (Short Term).
6	Bike Racks 	• One bike was observed at the existing bike rack. • Existing bicycle racks can result in damaged bikes and can make it difficult to securely lock a variety of different types of bicycles.	• Replace the existing bike racks with new racks that support the bike frame in at least two places and enable secure locking. (Short Term)

#	Location	Observations	Recommendations
7	Greenbrier Road and Manitowoc Road  *Photo Credit: Google Streetview*	• Stop signs are present for Greenbrier Road but Manitowoc Road is uncontrolled. • Missing sidewalks on both sides of Greenbrier Road between Manitowoc Road and Ontario Road, and on both sides of Manitowoc Road between Main Street and Greenbrier Road, present a barrier to walking and bicycling to school. • Parents indicated concern about the safety of students crossing Manitowoc Road.	• Construct new sidewalks on the south side of Greenbrier Road between Manitowoc Road and Ontario Road and construct new sidewalks on both sides of Manitowoc Road between Greenbrier Road and Main Street. (Short Term) • Add high visibility crosswalk markings, adequate nighttime lighting levels, and school crossing signs for one leg crossing Manitowoc Road. (Short Term) • Add parallel line crosswalk markings for the stop-controlled leg on Greenbrier Road. (Short Term)

7. Non-Infrastructure Action Plans

The most effective SRTS programs use a comprehensive approach, addressing the five Es: Engineering, Encouragement, Education, Enforcement, and Evaluation. Chapters 2-6 of the Plan address Engineering, and this chapter addresses the other Es that are important for improving safety and increasing walking and bicycling. When implemented in conjunction with the Engineering recommendations included in this Plan, the recommendations in this chapter will help support the users of the transportation system in understanding their expected behaviors and following relevant laws. These recommendations will also identify strategies that encourage community members to walk and bicycle for some of their trips and for measuring progress in implementing the plan.

For each E, this chapter presents a few recommended strategies specific to SRTS, followed by a few recommend general strategies for the broader public. Each strategy includes a description of the recommendation and different roles key stakeholders can play in implementing the recommendation. These are organized by timeframe. Additional guidance is also included to help identify next steps for implementing the recommendation and implementation resources.

Encouragement

Encouragement programs inspire people to try walking or bicycling, or to do so more often. SRTS encouragement programs inspire children and families to walk and bicycle to school using special events, competitions, or other means.

SRTS Encouragement Recommendations

SRTS Encouragement Strategy 1: Promote Walk and/or Bike to School Days

International Walk to School Day is held in October and celebrates walking to school; National Bike to School Day is held in May and celebrates biking to school. Children typically walk and bike on both days. This strategy involves promoting walk and bike to school days so that schools are aware of them and feel empowered to organize events.

Walk and bike to school days:

- Make excellent kick-off events for SRTS programs.
- Generate enthusiasm for walking and bicycling.
- Can raise community awareness about safety issues.
- Can be as simple as a few kids and parents meeting to walk or bike to school or can be very elaborate celebrations.

Wello (formerly Live54218) coordinated Green Bay area Walk/Bike to school efforts from 2012-2017. The Center for Childhood Safety coordinated efforts from 2017-2018. Wello and the Center for Childhood Safety provided incentive items and educational and promotional materials for participating schools, invited local VIPs to events, and conducted media outreach to advertise the events. No organization has ownership for planning these events going forward.

SRTS Encouragement Strategy 1 Roles

Short Term

- **GBAPS** can notify schools and/or parents in advance of International Walk to School Day and National Bike to School Day and encourage schools to register any events they are planning (see Implementation Resources). Local partners could be identified to fund or supply incentives for school participants (such as stickers). GBAPS can also look for opportunities to apply for grant funding for larger incentives or events.
- **Interested schools** can plan and register events. Parents, principals, physical education teachers, and nurses are all examples of school-level stakeholders who could plan events.
- **Local partners**, such as Center for Childhood Safety, Green Bay Bicycle Collective, and Bay Shore Bicycle Club can choose to "adopt" schools to help them plan events, publicize the events to their stakeholders, and put out press releases about any noteworthy events they are planning.
- **City staff and elected officials** can add to the legitimacy and excitement of events by attending whenever possible. The City may wish to consider developing "Walk or Bike to School Day proclamations" to further build excitement about events.

Long Term

- **GBAPS** or **local partners** can sponsor contests to generate more excitement about the events, such as the Golden Bicycle Award in which the schools with the highest percentage of student participants could be awarded the Golden Bicycle to display for the year.
- **Interested schools** that have completed many successful events may decide to hold events more frequently, such as monthly or weekly.

SRTS Encouragement Strategy 1 Implementation Strategy

- Identify local coordinating partner(s) to organize these events and to build off past Wello and Center for Childhood Safety efforts. This partner can coordinate with Wello and the Center for Childhood Safety to receive materials from past events, such as spreadsheets and contacts.
- GBAPS should decide on how to notify schools about the events, including who to notify and when. It may be helpful to notify school principals, parents, physical education teachers, nurses, or student council, as they are common event organizers. Just after the start of a new school year is a good time to notify schools about International Walk to School Day and late March or early April is a good time to notify schools about National Bike to School Day.
- The notification should encourage those who decide to plan events to visit the www.walkbiketoschool.org website for helpful resources.

- Those organizing events should be encouraged to register them on the www.walkbiketoschool.org website as registration can help make the case for SRTS funding. If GBAPS can successfully procure grant funding, the list of registered events on the website would be a good way to determine which schools get the incentive items.

SRTS Encouragement Strategy 1 Implementation Resources

- The www.walkbiketoschool.org website.

SRTS Encouragement Strategy 2: Review Policies, Including the GBAPS Wellness Policy

This strategy involves a review of existing policies. Amend the GBAPS wellness policy to incorporate SRTS and/or walking and bicycling to school. Encourage schools to include language about SRTS or walking and bicycling to school in their individual wellness policies. Consider passing and implementing Complete Streets policies.

Policies can increase awareness of SRTS and of walking and bicycling at all levels. As part of this recommendation, also explore whether schools have existing policies that might hinder walking and bicycling to school, and whether these policies can be changed to encourage walking and bicycling. For example, in the parent surveys completed as part of this project, one parent reported that his or her student's school does not allow students to walk to school until 2nd or 3rd grade, even if accompanied with a parent or sibling. Another parent reported that his or her student's school doesn't allow students below a certain grade level to bicycle to school, even with a parent.

SRTS Encouragement Strategy 2 Roles

- **GBAPS** can include language about SRTS and/or walking and bicycling in their wellness policy.
- **The City** can explore passing and implementing Complete Streets policies.
- **Individual schools** can also amend their wellness policies to include similar language and revise any other policies that may discourage students for walking or bicycling to school.

SRTS Encouragement Strategy 2 Implementation Strategy

- GBAPS should convene the wellness committee and look at model School Wellness Policies that address physical activity and SRTS. Links to model policies are included in the Implementation Resources.
- The Traffic, Bicycle, and Pedestrian Commission could explore whether Complete Streets policies could be beneficial to the City.
- Individual schools may model the language in their wellness policy after the GBAPS policy.

SRTS Encouragement Strategy 2 Implementation Resources

- Safe Routes to School National Partnership web page on the topic of School Wellness Policies: https://www.saferoutespartnership.org/state/bestpractices/wellnesspolicies
- Model Wellness Policy developed by the Alliance for a Healthier Generation: https://www.healthiergeneration.org/take-action/schools/wellness-topics/policy-environment/local-school-wellness-policy/refresh-your
- Smart Grown America website on US Complete Streets policies:

https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/policy-development/policy-atlas/

• SRTS Encouragement Strategy 3: Develop and Distribute Arrival and Dismissal Rules Best Practice Materials

Develop and distribute arrival and dismissal best practice materials that address all modes of travel. Include strategies, such as staggering dismissal times by mode, to encourage walking and biking and to make walking and biking more comfortable, convenient and safe. These strategies should address best practices for when schools should require parents to come into the school for pick-up and drop-off, as sometimes these policies can result in parents parking in illegal or unsafe locations to do so.

Arrival and dismissal rules:

- Set expectations for behavior
- Help parents understand the procedures and rules. Parents who do so are more likely to behave safely.

SRTS Encouragement Strategy 3 Roles

Short Term

- **GBAPS** could develop a best-practices summary or an arrival and dismissal rules template to distribute to schools.
- **Individual schools** could then adapt the arrival and dismissal rules to their school and distribute them to parents.

Long Term

- **GBAPS** and **the City** could work with schools to ensure that the parking restriction signs surrounding each school support safe behaviors during school arrival and dismissal. Each school should be able to provide adequate space for the different types of vehicular drop-off and pick-up activities that typically occur at their school, whether those spaces are within the school parking lot or on the streets adjacent to the school. For example, elementary schools typically need 1) space for parents who are dropping off or picking students without exiting their vehicle, 2) space for parents who are parking and walking their children to or from the school, and 3) space to accommodate school bus loading and unloading. It is helpful to have separate spaces designated for each activity that occurs at a given school. Once any parking restriction signs are adjusted, make sure that the school's arrival and dismissal rules are updated to clearly communicate to parents where the different activities occur.

SRTS Encouragement Strategy 3 Implementation Strategy

- GBAPS could establish and share information on best practice procedures and rules before school starts each year. The materials should include an example circulation map as well as example rules and expectations. The best practice materials should encourage schools to broadcast their arrival and dismissal procedures each school year using at least five different methods such as by adding the materials to the school handbook, sending handouts home, website updates, school newsletters, phone calls to families, presentations at parent events, social media posts, or listserv emails.

- Individual schools could create paper materials to review and distribute at parent meetings at the beginning of each school year and to review at back to school events.

SRTS Encouragement Strategy 3 Implementation Resources

- Resource about improving arrival and dismissal procedures developed in Seattle, *Improve Your School Arrival and Departure Procedures—A toolkit for School Safety Committees:* https://www.seattle.gov/Documents/Departments/SDOT/SRTS/ImproveYourSchoolArrivalandDepartureProcedures.pdf
- Safe Routes to School National Partnership web page on school arrival and dismissal policies: https://www.saferoutespartnership.org/resources/fact-sheet/keep-calm-and-carry
- National Center for Safe Routes to School web page on student drop-off and pick-up: http://guide.saferoutesinfo.org/dropoff_pickup/index.cfm

SRTS Encouragement Strategy 4: Encourage the Development of Walking School Buses/Bicycle Trains

Walking school buses and bicycle trains are adult supervised groups of students walking or bicycling to school. In the parent surveys conducted as part of this project, many parents expressed concerns about crime, fear of strangers, and traffic safety. Given these common concerns, ensuring that students have adult supervision when walking and bicycling to school may be key to advancing SRTS in Green Bay.

Walking school buses and bicycle trains:

- Provide adult supervision on the walk or ride to school.
- Can be loosely structured or very organized.
- Can include a meeting point with available parking so children and parents who live beyond walking and biking distance can join.

SRTS Encouragement Strategy 4 Roles

Short Term

- **GBAPS** could distribute information about walking school buses to school principals and parents.
- **Individual schools** could seek adults willing to walk or bike with children.

Long Term

- **GBAPS** or **Local Partners** could recruit senior citizens with a desire to serve the community or high school students in need of volunteer credits to volunteer as walking school bus chaperones for at least one walking school bus.

SRTS Encouragement Strategy 4 Implementation Strategy

- GBAPS should provide information to individual schools on walking school buses and bicycle trains. This information could be sent at the same time as information about International Walk to School Day and National Bike to School Day.

- Individual schools could organize tables at back to school nights to help parents work together to organize formal or informal walking school buses or bicycle trains.
- Local partners could reach out to GBAPS or to individual schools and express an interest in helping organize walking school buses or bicycle trains.

SRTS Encouragement Strategy 4 Implementation Resources

- National Center for Safe Routes to School web page on walking school buses: http://guide.saferoutesinfo.org/walking_school_bus/
- A website with a variety of resources to help plan walking school buses: http://www.walkingschoolbus.org/resources.html

General Encouragement Recommendations

General Encouragement Strategy 1: Seek a New Bike Share Provider

Bike share is a bicycle rental program ideal for short distance point to point trips. It provides users the ability to pick up and drop off a bicycle at their convenience. The bicycles can be used for recreation and/or transportation purposes.

Until recently the City of Green Bay had a dockless bike share program provided by LimeBike. The system proved to be popular in its first year, with many rides taken. LimeBike is no longer providing a bicycle rental program and the City is currently seeking a new provider.

General Encouragement Strategy 1 Roles

Short Term

- **City Planning Department staff** could work to find a new bike share provider.

Long Term

- **City Planning Department staff** could work to expand the program based on lessons learned with LimeBike.
- **City staff** and **elected officials** can work with adjacent municipalities to expand the program.

General Encouragement Strategy 1 Implementation Strategy

- City Planning Department staff should form a committee to help with the selection of a new bike share provider.
- City Planning Department staff should look at adding more bicycles and opening the program up to other communities.

- City Planning Department staff could use existing LimeBike GPS data to identify adjacent community destinations popular with bike share users for possible expansion of the program. Elected officials could work with adjacent community officials to create cooperative agreements to expand bike share.

General Encouragement Strategy 1 Implementation Resources

- NATCO and the Better Bike Share Partnership, Strategies for Engaging Community; Developing Better Relationships Through Bike Share: https://nacto.org/wp-content/uploads/2018/09/NACTO_BBSP_2018_Strategies-for-Engaging-Community.pdf
- Matthew Buchanan, City of Green Bay Development Specialist, (920) 448-3396

General Encouragement Strategy 2: Continue and Expand Better Block Project Events

The Dousman Street Better Block Project was a demonstration project focusing on what downtown Green Bay could look like if it was more bicycle and pedestrian friendly. On Broadway, Inc. brought together resources from the community and converted a one block area into a walkable, bikeable neighborhood destination for people of all ages. The outside lane on each side of the street was temporarily transformed into a space where the public could gather. Nine colorful parklets were added along with seating, plants, bike share bikes, art, games, and a bike lane. The project was developed to show the City how the block could be revived to improve area safety, health, and economics. Demonstration projects like this should continue to be held occasionally to build public support for the implementation of the projects identified in this plan and other projects that would advance walking and bicycling in Green Bay.

General Encouragement Strategy 2 Roles

Short Term

- **Interested Business Improvement Districts (BIDs)** could coordinate additional Better Block Demonstration Projects.
- **City staff** may approve permits and provide support services for Better Block events.
- **Local partners** could support the BID in planning the event, volunteer at the event, and help promote the event.

Long Term

- **BIDs** could work with the City for the temporary improvements to become permanent.
- **City staff** could study the Better Block improvements for possible permanent installation.
- **Elected officials** could support changes to city streets which would create walkable/bikeable neighborhoods.

General Encouragement Strategy 2 Implementation Strategy

- Interested BIDs could identify projects identified in this plan to install temporarily as Better Block Demonstration Projects.
- City staff could work with interested BIDs to help identify potential projects to install temporarily and to approve permits and otherwise make the Better Block Demonstration Projects possible.
- Local partners could continue to support these projects.
- Elected officials could support changes to city streets which would create more walkable and bikeable neighborhoods.

General Encouragement Strategy 2 Implementation Resources

- Better Block Foundation, How to Build a Better Block: http://betterblock.org/how-to-build-a-better-block/
- Tactical Urbanist's Guide: http://tacticalurbanismguide.com/about/

General Encouragement Strategy 3: Encourage Wellness Programs

Encourage community, government, employer, and health insurance company programs to support individual wellness through the development of wellness programs. Many wellness programs support health through encouraging walking and bicycling.

Wellness programs have been shown to:

- Improve health behaviors.
- Reduce elevated health risks.
- Reduce health care costs.
- Improve employee productivity.
- Decrease employee absenteeism.

General Encouragement Strategy 3 Roles

Short Term

- **The City, Brown County Health and Human Services - Public Health Division, the Green Bay Metropolitan Planning Organization,** and **local partners** could encourage employers and individuals to participate in the National Bike Challenge each year. The National Bike Challenge provides opportunities for individuals, work places, local governments, and local groups to easily track miles traveled by bicycle and to compete for prizes. **The City** and **Brown County Health and Human Services - Public Health Division, the Green Bay Metropolitan Planning Organization,** and **local partners** could encourage participation in walking challenges instead of or in addition to the National Bike Challenge.
- **Local businesses** could provide wellness programs and activities to create a healthier work force. For example, BayCare Clinics, Bellin Health, and Schreiber purchased annual Fox River Trail passes for their employees.
- **Health insurance companies** could provide their members with resources to help them improve their health. Several health insurance companies allow members to earn rewards such as gift cards or money towards an individual health savings account for wellness activities such as walking and bicycling.

Long Term

- **Brown County Health and Human Services - Public Health Division** could develop resources to distribute to local employers about the benefits of wellness programs and their ability to reduce costs.

General Encouragement Strategy 3 Implementation Strategy

- The City, Brown County Health and Human Services - Public Health Division, the Green Bay Metropolitan Planning Organization, and local partners could start distributing information about the National Bike Challenge each April in advance of the Challenge's May launch. Notifications could go out via each organization's website, social media accounts, or e-mail distribution lists.

General Encouragement Strategy 3 Implementation Resources

- National Bike Challenge web site: https://www.lovetoride.net/usa?locale=en-US
- A free website that allows individuals or groups to participate in walking challenges: https://worldwalking.org/

General Encouragement Strategy 4: Outreach to Underserved Populations

Not all populations have equal access to walking and bicycling facilities and programs for a variety of reasons (economic, cultural, health, age, infrastructure, disability, etc.). These populations need to be identified and the barriers they encounter removed.

General Encouragement Strategy 4 Roles

Short Term

- **GBAPS, The City** and **Brown County Health and Human Services - Public Health Division** could use their resources to identify underserved populations and develop strategies to assist them. They could also share this information with other community organizations that may be able to assist these populations.
- **Community organizations** (Wello, ADRC, Green Bay Bicycle Collective, religious organizations, cultural organizations) could work with identified underserved populations to provide education and encouragement programs adapted to the underserved populations and to reduce barriers to walking and bicycling.

Long Term

- **The City** could examine how decisions about infrastructure investments are made. Complaint-driven decision processes may unintentionally result in resources being directed toward areas of the City with the most resources rather than areas with the greatest need.

General Encouragement Strategy 4 Implementation Strategy

- GBAPS, The City, Brown County, and the Green Bay Metropolitan Planning Organization could ensure that all materials on the topic of pedestrian and bicyclist safety are available in all the languages most commonly spoken in Green Bay.
- Brown County Health and Human Services - Public Health Division should inventory the resources they have to identify underserved populations and develop a plan for how to best serve these populations.
- Community organizations should take stock of their existing programs and determine if any adjustments need to be made to ensure their programs meet the needs of underserved populations.

General Encouragement Strategy 4 Implementation Resources

- Pedestrian and Bicycle Information Center, Pursuing Equity in Pedestrian and Bicycle Planning:http://www.pedbikeinfo.org/cms/downloads/PBIC_WhitePaper_Equity.pdf

- Safe Routes to School National Partnership, At the Intersection of Active Transportation and Equity: https://www.saferoutespartnership.org/sites/default/files/pdf/At-the-Intersection-of-Active-Transportation-and-Equity.pdf

Education

SRTS education teaches pedestrians, bicyclists, and motorists how to travel safely. Each transportation user needs to be taught to use facilities properly or walking and bicycling will be unsafe no matter how well facilities are designed. It is important to educate users of all ages and abilities.

SRTS Education Recommendations

SRTS Education Strategy 1: Provide Pedestrian and Bicycle Safety Education to Students

Pedestrian and bicycle safety education is important for students and can easily fall within many of the learning standards. Pedestrian and bicycle safety education helps children learn skills that they will apply throughout their lives as users of the transportation system. This strategy supports increasing the number of students who receive pedestrian and bicycle safety education.

SRTS Education Strategy 1 Roles

Short Term

- **GBAPS** could study their pedestrian and bicycle safety education programs and determine whether improvements could be made, or new resources developed to strengthen the program.
- **Principals** could look for opportunities to incorporate pedestrian and bicycle safety education into their schools.
- **Teachers** could look for opportunities to incorporate bicycle and pedestrian safety education into their teaching.
- **Local partners** could reach out to the school district and/or individual schools and offer to provide the expertise and volunteers needed to teach pedestrian and bicycle safety.

Long Term

- **GBAPS** could explore adopting more comprehensive pedestrian and bicycle safety education programs into the school curriculum. They could also identify funding sources, including grants, to cover program costs.
- **Principals** could guide the implementation of a pedestrian and bicycle safety education program in their schools, including the allocation of appropriate staff time.
- **Teachers** could be trained to support pedestrian and bicycle safety education programs.
- **Local partners** could work to create the capacity to fill the needs of a large-scale pedestrian and bicycle safety program.

SRTS Education 1 Implementation Strategy

- GBAPS could form a committee to explore whether their pedestrian and bicycle safety curriculum could be expanded and identify possible funding sources.
- Principals could use the recommendations from the GBAPS Bicycle and Pedestrian Safety Committee to incorporate bicycle and pedestrian safety programs in their schools.
- Teachers could incorporate pedestrian and bicycle safety education into the classroom per the directives of the school district and their principals.
- Local partners could work with appropriate school staff to provide pedestrian and bicycle safety education following the school district's guidelines.

SRTS Education Strategy 1 Implementation Resources

- *Child Pedestrian Safety Curriculum*, National Highway Traffic Safety Administration: https://www.nhtsa.gov/pedestrian-safety/child-pedestrian-safety-curriculum
- *Pedestrian Safer Journey*, resources for teaching skills for safe walking for ages 5 to 18: http://www.pedbikeinfo.org/pedsaferjourney/index.html
- *Bicycle Safer Journey*, resources for teaching skills for safe bicycling for ages 5 to 18: http://www.pedbikeinfo.org/bicyclesaferjourney/
- League of American Bicyclists: https://www.bikeleague.org/ridesmart
- *Bikeology Curriculum and Parent Guide,* American Alliance for Health, Physical Education, Recreation and Dance, National Highway Traffic Safety Association: http://www.actionforhealthykids.org/game-on/find-challenges/safe-route-challenges/1460-bikeology-curriculum
- District of Columbia Public School's Universal Bicycle Safety Education Program: https://dcps.instructure.com/courses/2018/pages/elementary-2nd-grade-cornerstone-2-hpe-biking-in-the-park
- *Bicycle and Pedestrian Curricula Guide*, Safe Routes to School National Partnership: http://www.saferoutespartnership.org/sites/default/files/pdf/Curr_Guide_2011_lo.pdf

SRTS Education Strategy 2: Develop and Distribute Parent Education/Communication/Resources

Children learn a lot from their parents and it is important that parents understand bicycle and pedestrian safety and can reinforce safe behaviors. Develop resources to distribute to parents educating them about pedestrian and bicycle safety.

SRTS Education Strategy 2 Roles

Short Term

- **GBAPS** could make existing resources available to schools, (such as the Tip Sheets included in the Implementation Resources).
- **Individual schools** could distribute existing resources about pedestrian and bicycle safety to parents (such as the Tip Sheets included in the Implementation Resources).
- **Parents** could review materials and work with their children to reinforce the knowledge and skills learned in school.

- **Local partners** could create opportunities; such as bike rodeos, where students and parents could learn safety skills together.

Long Term

- **GBAPS** could develop or adopt a pedestrian and bicycle safety curriculum that includes a parent communication and education campaign. A SRTS webpage on the district website could be developed to facilitate program communication. They could also identify funding sources including grants to cover the parent education campaign.
- **Individual schools** could participate in the parent communication and education campaign.
- **Parents** could consider being part of the program as volunteers.
- **Local partners** could work to strengthen and expand their programs.

SRTS Education Strategy 2 Implementation Strategy

- GBAPS could develop a parent communication and education campaign based on Strategy 1. Communication methods should include take home materials, electronic communications, and a district SRTS website.
- Individual schools could work within the existing parent communication system to provide parents with bicycle and pedestrian safety education information.
- Teachers could facilitate the distribution of education materials to parents.
- Parents could support the program by working with their children, volunteering, and supporting the teachers.
- Local partners could offer opportunities where students, parents, and advocates could work together on developing their bicycle and pedestrian safety skills and knowledge.

SRTS Education Strategy 2 Implementation Resources

- *A Guide for Parents and Caregivers on Teaching Children to Walk Safely as they Grow and Develop* (National Center for Safe Routes to School): http://guide.saferoutesinfo.org/pdf/TeachingChildrenToWalkSafely.pdf
- National Center for Safe Routes to School, SRTS Guide, website about educating parents: http://guide.saferoutesinfo.org/education/parents.cfm
- Tip Sheet: *Tips for Parents and Other Adults for Teaching Pedestrian Safety to Children*: http://www.walkbiketoschool.org/wp-content/uploads/2018/04/tips_for_parents.pdf
- Tip Sheet: *Helping Your Child Be a Safe Bicyclist:* http://www.walkbiketoschool.org/wp-content/uploads/2017/01/Parents_Bike_Safety_Tips.pdf

SRTS Education Strategy 3: Incorporate SRTS Concepts into Other Classroom Education

SRTS concepts can be incorporated into lessons for any number of classroom subjects, including Math, English, Science, Social Studies, and more. For example, students learning about physics can learn about how the forces of velocity and speed can impact pedestrian safety. Students learning about maps could create maps of their trips between home and school. This strategy relates to looking for opportunities to incorporate lessons about walking and bicycling safely into classroom education while recognizing that teachers are already very busy.

SRTS Education Strategy 3 Roles

Short Term

- **GBAPS** could make existing curricula that incorporate bicycle and pedestrian education into other subjects available to schools.
- **Interested Teachers** could work to incorporate bicycle and pedestrian education into their classroom lessons. Given how busy teachers are, this strategy would be most successful if individual teachers decide to do this, rather than having administrators assign this task.

Long Term

- **GBAPS** could review the education curriculum looking for opportunities to incorporate bicycle and pedestrian education into other subject matter areas while meeting existing learning standards.
- **Local partners** could develop curriculum resources to share with GBAPS and individual schools or offer to serve as guest teachers to cover the lesson(s).

SRTS Education Strategy 3 Implementation Strategy

- GBAPS could make existing curricula resources available on the District website.

SRTS Education Strategy 3 Implementation Resources

- While many existing pedestrian and bicycle curricula include lessons for other subject areas, such as math, science, and social studies, not many of them are available for download online. Some that are:
    - *Bicycle & Pedestrian Safety, 9 Lessons for the Classroom*, Active Transportation Alliance, includes content for language arts, social science, math, and science: http://www.activetrans.org/sites/files/Bike%20Ped%20Safety%20Classroom%20Eng-Span%20Hi-Res%20PDF.pdf
    - *Safe Routes Philly Curriculum,* includes content for social studies, math, science, and English: http://saferoutesphilly.org/schools/curriculum/
- *The Bicycle and Pedestrian Curricula Guide* from the Safe Routes to School National Partnership includes descriptions of a number of different curricula, including whether they include “other instructional content,” and in which subject areas: http://www.saferoutespartnership.org/sites/default/files/pdf/Curr_Guide_2011_lo.pdf

General Education Recommendations

General Education Strategy 1: Work with Local Media

The media (television, radio, print, online) can help educate the general public about walking and bicycling. This is one of the most effective ways to get information about walking and bicycling to the general public.

General Education Strategy 1 Roles

Short Term

- **City staff** and **elected officials** could put out press releases whenever they work on projects or hold events or meetings related to walking and bicycling.
- **Local partners** could work with their media contacts to promote their bicycle and pedestrian-related activities citywide.

Long Term

- **City staff** and **elected officials** could work to establish or develop a long-term relationship with the media.
- **Local partners** could build a long-term relationship with the media, whereby the media reaches out to them on a regular basis for information about biking and walking.

General Education Strategy 1 Implementation Strategy

- City staff and elected officials could maintain a list of media contacts to which they distribute press releases and meeting notices.
- Local partners could write letters to the editor about important walking or bicycling issues or create blog posts on these topics.

General Education Strategy 1 Implementation Resources

- National Center for Safe Routes to School, SRTS Guide: http://guide.saferoutesinfo.org/media/index.cfm

General Education Strategy 2: Provide Adults with Bicycle Education

By providing adults with bicycle education they will be safer and more comfortable riding under a wider variety of circumstances. This will make it more likely they will ride more often. A better educated adult bicyclist sets a good example for everyone.

General Education Strategy 2 Roles

Short Term

- **City staff** could work with qualified instructors (such as League of American Bicyclists Instructors or LCIs) to offer adult bicycle education courses through their agencies: parks and recreation department, health department, police department, etc.

- **Local partners** could work with qualified instructors to offer adult bicycle education courses through their organizations: Green Bay Bicycle Collective, Bay Shore Bicycle Club, BayCare Clinic, etc. They could also sponsor informal social bike rides which allow new riders to learn by doing.

Long Term

- **City staff** could hold classes more frequently and develop new programs, such as a Bicycle Ambassador program in which a paid staff member and/or volunteers go to community events to educate the public about bicycle safety.
- **Local partners** could work with other private or public agencies to enlarge their potential participant audience.

General Education Strategy 2 Implementation Strategy

- City staff could identify funding to provide adult bicycle education courses.
- Local partners could identify when, where, and how often to hold courses.

General Education Strategy 2 Implementation Resources

- League of American Bicyclists: https://www.bikeleague.org/ridesmart

General Education Strategy 3: Continue and Expand Earn a Bike Programs

Earn a Bike Programs allows community members to earn their own bike for transportation, health, and fun by volunteering to work at the Green Bay Bicycle Collective Garage and/or Old Skool Bicycle Shop. Participants also learn bicycle safety and maintenance. Continue and expand Earn a Bike Programs.

Earn a Bike programs:

- Teach bicycle repair skills that can keep them bicycling and save them money.
- Provide bicycle education.
- Sometimes also help participants learn job skills.

General Education Strategy 3 Roles

Short Term

- **Community bicycle shops** could further promote their Earn a Bike Programs.
- **Agencies and organizations representing people who cannot afford a bicycle** (ADRC, Health Department, Health and Human Services, Wello, St Vincent De Paul, Salvation Army, homeless shelters, etc.) could connect their clients or patrons to Earn a Bike Programs.

Long Term

- **Community bicycle shops** could expand their Earn a Bike Programs.
- **Agencies and organizations representing people who cannot afford a bicycle** could support those providing Earn a Bike Programs through advertising, fundraising, and volunteerism.

General Education Strategy 3 Implementation Strategy

- Community bicycle shops could promote and expand their Earn a Bike Programs to support more people.
- Agencies and organizations representing people who cannot afford a bicycle could promote the program to their clients and support the program through advertising, fundraising, and volunteerism.

General Education Strategy 3 Implementation Resources

- Bikes Not Bombs: https://bikesnotbombs.org/resources/earn-a-bike-training-manual

General Education Strategy 4: Distribute Maps and Information about Local Bicycle and Pedestrian Facilities

The distribution of bicycle, pedestrian, and local trail maps would make it easier for people determine where and how to bicycle and walk safely. While the distribution of paper maps has long been common, the rising popularity of online maps has resulted in rapidly declining demand for paper maps. Despite this, there still can be value in developing paper maps for people who prefer them, for the ability to also include safety information on them, and to have items to hand out at public events.

General Education Strategy 4 Roles

Short Term

- **City and county staff** (Brown County Parks Department, Green Bay Parks Department, Brown County Planning Department, Green Bay Community and Economic Development Department) could share data on existing pedestrian and bicycle facilities with the Google Maps Base Map Partner Program to facilitate updates to Google maps. When Google Map users search for directions for walking or bicycling trips, this would ensure that those directions account for existing local facilities. Google Maps is an incredibly popular map platform and this strategy would likely have a very great return in exchange for a very low cost.
- **Friends groups** and **local businesses** (for example, Friends of the Fox River Trail) could raise funds to improve mapping and distribution. They could help fund improvements to existing trail kiosks to allow maps and brochures to be more readily available.

Long Term

- **City and county staff** (Brown County Parks Department, Green Bay Parks Department, Brown County Planning Department, Green Bay Community and Economic Development Department) could produce or update bicycle, pedestrian, and local trail maps. They could distribute the maps through both public and private entities.
- **Friends group and businesses** could work to increase membership and distribution sites. They could fund the installation of additional trail kiosks.

General Education Strategy 4 Implementation Strategy

- City and county staff could work to develop vector data compatible with the Google Map Base Map Partner Program for the purpose of improving the data available on Google maps relevant to walking and bicycling. Google is currently accepting information on bicycle and pedestrian paths and road facilities and they support common data formats such as ESRI Shapefile and KML/KMZ, however they do have specifications for how the data should be encoded.
- Friends groups and businesses could work with the City and County to improve the quality and distribution of bicycle and pedestrian maps.

General Education Strategy 4 Implementation Resources

- The Google Maps Base Map Partner Program allows communities to provide vector data to improve local maps: https://maps.google.com/help/maps/mapcontent/basemap/
- Brown County Parks Fox River Trail Interactive Trail Map: https://browncounty.maps.arcgis.com/apps/MapTour/index.html?appid=27e7bd541a5947878655fdde3da6f68b&webmap=e68c567d3f8f414494c243f6fbc5f324
- *Bike Network Mapping Idea Book*, Federal Highway Administration: https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/bikemap_book/

Enforcement

Enforcement is often viewed as an adjunct to education, and most enforcement efforts strive to obtain voluntary compliance with the law. Knowledgeable law enforcement officers can educate people who are unaware of the law and proper bicycle/pedestrian/ motorist interactions. Law enforcement officers also have the power to stop those who choose to violate laws and endanger others.

SRTS Enforcement Recommendations

SRTS Enforcement Strategy 1: Encourage Arrival and Dismissal Supervision

Encourage schools to provide school personnel or parent volunteers to stand at key locations during school arrival and dismissal to provide oversight and instructions to parents and students. A safe arrival and dismissal process benefits children who walk and bike as well as those who commute to school by car or bus.

Arrival and dismissal supervision:

- Requires personnel.
- Should be combined with parent education on arrival and dismissal procedures and rules.
- Many schools find it helpful for the school principal to supervise from time to time, and to talk directly with parents who are not following the arrival and dismissal procedures and rules.
- Schools may find it beneficial to have police present during arrival and dismissal from time to time to reinforce school policies, procedures and laws.

SRTS Enforcement Strategy 1 Roles

Short Term

- **GBAPS** could include recommendations about providing arrival and dismissal supervision when they distribute the arrival and dismissal rules template proposed under SRTS Encouragement Strategy 3.
- **Principals** could train school staff and volunteers on how to supervise arrival and dismissal.
- **School staff** could ensure that arrival and dismissal policies and procedures are followed.
- **Parent volunteers** could assist school staff with ensuring arrival and dismissal policies and procedures are followed.
- **Police** could enforce relevant laws near schools and reinforce school arrival and dismissal policies and procedures.

Long Term

- **GBAPS** and **Principals** could update and modify policies and procedures to improve their efficiency and effectiveness.
- **School staff** and **Parent volunteers** could make recommendations on how arrival and dismissal policies and procedures can be improved.
- **Police** could work to achieve better compliance with laws relevant to arrival and dismissal procedures.

SRTS Enforcement 1 Implementation Strategy

- GBAPS could establish a general arrival and dismissal supervision policy and help school staff implement the policy at their schools.

- Principals could adapt the arrival and dismissal supervision policy to meet the specific needs of their school and update on an on-going basis. They could train school staff and volunteers to implement the procedures.
- School staff could implement the policy and provide feedback to improve the arrival and dismissal supervision procedures.
- Parent volunteers could help with arrival and dismissal procedures and provide feedback to school staff.
- Police could work with the GBAPS to determine their role in arrival and dismissal policies.

SRTS Enforcement Strategy 1 Implementation Resources

- Safe Routes - National Center for Safe Routes to School, SRTS Guide: http://guide.saferoutesinfo.org/dropoff_pickup/index.cfm

SRTS Enforcement Strategy 2: Continue to Provide Adult Crossing Guards and Improve the Crossing Guard Program

Adult crossing guards provide students with assistance crossing busy streets when going to and from school.

Crossing guards:

- Provide increased supervision and safety for students who walk and bicycle to school.
- Can reinforce safe walking and bicycling habits.
- Are often a limited resource.
- Require oversight and training.
- Need to have the appropriate equipment.

During field work conducted as part of this project, it was observed that not all crossing guards had equipment that complies with the Manual on Uniform Traffic Control Devices (MUTCD) requirements and that some crossing guards were not performing their duties according to best practice procedures. For example, it appeared that some crossing guards were using stop paddles smaller than the required 18 inches and without retroreflectorization.

The City of Green Bay places city-provided crossing guards. The Green Bay Traffic Commission and Common Council established criteria for placing crossing guards in November of 1964. The criteria rate the safety of a given crossing by considering the traffic volume, traffic speed, pavement width, and the number of pedestrians. Requests for crossing guards are scored according to the criteria, and locations meeting a minimum score are forwarded to the Traffic, Bicycle, and Pedestrian Commission (TBPC). The TBPC makes a motion regarding the location which is then forwarded to Common Council for final approval. The City's scoring method is objective and transparent, and the existing process could be considered a model for other communities.

The City of Green Bay has an agreement with GBAPS to allow schools to designate staff to oversee intersections where city-provided crossing guards cannot be provided. Care should be taken that these school staff members are not violating the MUTCD in the equipment they use and in the actions they take while overseeing their posts. During field work for this project, it was discovered that some schools have school staff acting as crossing guards without approval from the City. These guards are not authorized and have not received official training from the City. Schools

that would like to place staff as guards should be reminded of the City's official process.

SRTS Enforcement Strategy 2 Roles

Short Term

- **City staff** could review and update current crossing guard training content and procedures. They could also work to ensure crossing guard equipment is compliant with the MUTCD.
- **City staff** and **elected officials** could consider modifying the existing crossing guard study criteria to add additional evaluation factors.
- **GBAPS** could work with the City to ensure crossing guards are placed at appropriate locations, and to remind schools of the official process for placing staff as crossing guards.

SRTS Enforcement Strategy 2 Implementation Strategy

- City staff could conduct an inventory of current crossing guard equipment and ensure compliance with the MUTCD. Stop paddles are required and must be retroreflective and at least 18-inches in size with the word STOP on both sides. Safety vests are required and must be labeled as ANSI 107-2004 standard performance for Class 2.
- City staff could review current training procedures to see if there are opportunities for improvement. New crossing guards should receive at least 20 hours of field training before performing their duties. Returning crossing guards should receive at least two hours of training at least once each year, typically before the start of the new school year. Field training is preferable and may take place at the guard's primary post or a similar post, or a guard may be rotated through posts to acquire familiarity with different situations.
- City staff and elected officials could consider updating the crossing guard study criteria to add additional evaluation factors, such as the age of students who are crossing. The *Adult School Crossing Guard Guidelines* in the Implementation Resources provides a discussion of best practices for identifying locations where school crossing guards are needed.
- GBAPS could work with the City to insure proper crossing guard placement, training, and appropriate equipment.

SRTS Enforcement Strategy 2 Implementation Resources:

- *MUTCD* Chapter 7D. Crossing Supervision: https://mutcd.fhwa.dot.gov/htm/2009r1r2/part7/part7d.htm
- *Adult School Crossing Guard Guidelines,* National Center for Safe Routes to School and the Pedestrian and Bicycle Information Center: http://guide.saferoutesinfo.org/pdf/crossing_guard_guidelines_web.pdf

SRTS Enforcement Strategy 3: Encourage Schools to Start or Maintain Student Safety Patrol Programs

Student safety patrols helps students to cross the street and allow for increased supervision and safety for students who walk and bicycle to school. AAA Wisconsin supports Green Bay student safety patrols by helping to coordinate training and providing supplies. A number of GBAPS schools have active safety patrol programs but many do not. At least two GBAPS schools were observed to have student safety patrols who stepped into the street carrying stop paddles. This is contrary to best practices for safety patrols, is against the City of Green Bay Crossing Guard and Monitor Guidelines, and is likely illegal under Wisconsin law.

Student safety patrols:

- Gain leadership skills.
- Require a staff member to manage the program.
- Should be in view of adults for their entire shift.
- Ideally stay on the sidewalk.

Some schools have had success with having safety patrols perform additional enforcement duties such as handing out so-called tickets to those observed breaking safety rules (please note, these ideas may not be supported by AAA). The tickets work best if they have suggested (not mandatory) fines, payable to the school or PTA to purchase safety-related supplies. However, this strategy is not recommended for schools that are known to have aggressive parents. An alternative is to allow students to give out so-called tickets when they observe safe behaviors—these tickets could have some sort of small reward. Other schools give students signs with a happy face on one side and a sad face on the other. They can hold up the appropriate sign when they observe safe or unsafe behaviors.

SRTS Enforcement Strategy 3 Roles

Short Term

- **GBAPS** could distribute information about student safety patrol programs so that schools are aware of the program and its benefits.
- **Interested schools** could implement student safety patrol programs.

Long Term

- **GBAPS** and **Interested schools** could reevaluate their policies and procedures on a regular basis and make improvements to the program.
- **School staff** could observe how the program is working and make suggestions for improvements.

SRTS Enforcement Strategy 3 Implementation Strategy

- GBAPS could reach out to AAA Wisconsin to obtain resources to distribute to schools about safety patrol programs.
- Interested schools could work with AAA Wisconsin to implement student safety patrol programs and evaluate them on a regular basis.
- School staff could implement the student safety patrol policy and provide feedback for improvements.

SRTS Enforcement Strategy 3 Implementation Resources

- AAA Safety Patrol Website: aaa.com/safetypatrol
- AAA Wisconsin Safety Patrol Contact: Joann Solberg, JMSolberg@aaawisconsin.com, 608-828-2486
- Pedestrian and Bicycle Information Center and Safe Routes to School National Partnership: http://guide.saferoutesinfo.org/enforcement/safety_patrol.cfm
- National Center for Safe Routes to School: http://guide.saferoutesinfo.org/pdf/SRTS-Guide_Enforcement.pdf P. 4-5

SRTS Enforcement Strategy 4: Use Speed Trailers and Radar Speed Signs

Speed trailers and signs show drivers how fast they are going with the goal of slowing drivers down.

Speed trailers and signs:

- Can deter speeding.
- Can sometimes collect speed data and conduct traffic counts, which can help identify which times of the day more enforcement is needed.
- Typically, speed trailers are moved around regularly; this helps them remain highly noticeable to drivers.
- Are more effective when supported by regular police speed enforcement.

SRTS Enforcement Strategy 4 Roles

Short Term

- **Police officers** could place speed trailers near schools in areas of suspected speeding. Trailers serve as a warning to motorists about their speed and may allow for the collection of speed data, which can be used for future enforcement purposes.
- **City staff** could place radar speed signs near schools in areas where they wish to decrease speeding.

Long Term

- **Police officers** can increase speed enforcement in areas near schools based on speed trailer data.
- **Public works staff** could relocate or place new radar speed signs near schools as needed.

SRTS Enforcement Strategy 4 Implementation Strategy

- Police officers could place speed trailers in suspected speeding areas near schools and enforce to decrease speeding if warranted.
- Public works staff could place speed radar signs near schools to help decrease speed. They could monitor effectiveness and relocate or place new signs as needed.

SRTS Enforcement Strategy 4 Implementation Resources

- National Center for Safe Routes to School: http://guide.saferoutesinfo.org/pdf/SRTS-Guide_Enforcement.pdf P. 4-10, 4-11.

General Enforcement Recommendations

General Enforcement Strategy 1: Police Training

The police department could create an Enforcement for Bicycle and Pedestrian Safety training program to teach officers which laws to enforce to prevent the most common types of bicycle and pedestrian crashes with motor vehicles. This program could consist of the following continuum of training:

- Enforcement for Pedestrian & Bicycle Safety brochure
- Pedestrian and bicycle safety education resources
- Enforcement pocket guide
- Pedestrian and bicycle safety roll call videos
- Self-paced, computer-based pedestrian and bicycle safety training
- Two-day enforcement for pedestrian and bicycle safety seminar

The Wisconsin Department of Transportation (WisDOT) currently offers a two-day "Pedestrian and Bicycle Law Enforcement Training" course which is available free of charge, to officers throughout the state.

General Enforcement Strategy 1 Roles

Short Term

- **Police Department** could begin implementation of an enforcement for bicycle and pedestrian safety training program. Initial activities could include providing all officers with a copy of the "Enforcement for Pedestrian & Bicycle Safety; Are you Prepared?" brochure and providing key officers with the two-day "Pedestrian and Bicycle Law Enforcement Training" course. Both items are available free of charge from WisDOT.

Long Term

- **Police Department** could implement the entire continuum of training.

General Enforcement Strategy 1 Implementation Strategy

- Police Department could implement an Enforcement for Bicycle and Pedestrian Safety training program. The program could follow WisDot's continuum of training.

General Enforcement Strategy 1 Implementation Resources

- Governors Highway Safety Association: A Right to the Road: Understanding and Addressing Bicycle Safety
- WE BIKE, etc., LLC: Continuum of Pedestrian & Bicycle Safety Training for Law Enforcement
- Bike Cleveland: Bike Cleveland - Enforcement

General Enforcement Strategy 2: Pedestrian and Bicyclist Safety Enforcement

The police department could increase pedestrian and bicyclists safety through the enforcement of laws which are known to prevent the most commons types of bicycle and pedestrian crashes. This may be done through targeted enforcement of key violations (crosswalks, 3' safe passing of bicyclist, red lights, speeding, distracted driving, OWI), and "routine patrol".

- Police officers cannot enforce laws they do not know, and they will not enforce laws they cannot defend.

General Enforcement Strategy 2 Roles

Short Term

- **Police Department** could continue to hold "Frogger" crosswalk enforcement operations and participate in the regional crosswalk enforcement operations with neighboring communities.

Long Term

- **Police Department** could expand targeted enforcement to other key areas. (e.g. 3' safe passing of bicyclist, distracted driving)

General Enforcement Strategy 2 Implementation Strategy

- Police Department could work to increase the number of "Frogger" enforcement operations being conducted and expand their targeted enforcement to other key enforcement areas (e.g. 3' safe passing of bicyclist, distracted driving).

General Enforcement Strategy 2 Implementation Resources

- Governors Highway Safety Association: A Right to the Road: Understanding and Addressing Bicycle Safety
- Wausau Area Metropolitan Planning Organization: Bicycle and Pedestrian Plan: Wausau Area Metropolitan Planning Organization

General Enforcement Strategy 3: Conduct Bicycle Patrols

Police officers using bicycles as patrol vehicles. Bicycle patrols result in more contacts with the public and they are often more positive. Officers also gain a better understanding of what it is like to bicycle in a community. Standardized police bicycle patrol training is provided by the International Police Mountain Biking Association (IPMBA) and Law Enforcement Bicycle Association (LEBA).

General Enforcement Strategy 3 Roles

Short Term

- **Police Department** could work to make the bicycle patrol more visible.

Long Term

- **Police Department** could work to expand the program, to further increase visibility, and increase their effectiveness as a policing tool.

General Enforcement Strategy 3 Implementation Strategy

- Police Department could increase the visibility of the current bicycle patrol program and work to expand it.

General Enforcement Strategy 3 Implementation Resources

- International Police Mountain Biking Association (IPMBA): http://ipmba.org/
- Law Enforcement Bicycle Association (LEBA): http://leba.org/

General Enforcement Strategy 4: Conduct "Routine" Patrol Enforcement

Officers on "routine" patrol can enforce laws related to pedestrian and bicycle safety and educate the general public. Educated officers can identify the leading causes of pedestrian and bicycle crashes and work to prevent them.

- Police officers cannot enforce laws they do not know, and they will not enforce laws they cannot defend.

General Enforcement Strategy 4 Roles

Short Term

- **Police Department** could communicate to their officers that enforcement for bicycle and pedestrian safety is a priority, including providing them with the "Enforcement for Pedestrian & Bicycle Safety; Are you Prepared?" brochure.

Long Term

- **Police Department** could provide officers with the training they need to more easily identify the leading causes of bicycle and pedestrian crashes and enforce the laws that will prevent them.

General Enforcement Strategy 4 Implementation Strategy

- Police Department could communicate to officers that enforcement for bicycle and pedestrian safety is a priority, provide them with safety resources, and provide them with the training needed to identify what laws to enforce to help prevent bicycle and pedestrian crashes.

General Enforcement Strategy 4 Implementation Resources

- Governors Highway Safety Association: A Right to the Road: Understanding and Addressing Bicycle Safety
- Wausau Area Metropolitan Planning Organization: Bicycle and Pedestrian Plan: Wausau Area Metropolitan Planning Organization

Evaluation

It is important to assess a problem both before and after the implementation of a proposed solution. This provides the information needed to determine if the solution is improving the identified problem.

SRTS Evaluation Recommendations

SRTS Evaluation Strategy 1: Conduct Parent Surveys

Parent surveys can be used to establish baseline information on student travel behavior and perceived barriers to walking and biking. They also help determine existing needs and the success of SRTS efforts and identify needed adjustments.

- Best to conduct initial surveys before SRTS measures have been implemented.
- Requires teacher buy-in and administrative organization.
- Getting parents to complete surveys can be a challenge. Consider developing an incentive for taking the survey.

SRTS Evaluation Strategy 1 Roles

Short Term

- **GBAPS** could allow parent surveys to be administered.
- **Individual schools** and **Teachers** could administer the surveys.
- **Parents** could complete the surveys.

Long Term

- **GBAPS** could administer parent surveys on a regular basis.
- **Individual schools** and **Teachers** could modify the parent survey process to get the highest return rate possible.
- **Parents** could encourage others to take a more active role in safe routes to school including completing the parent survey.

SRTS Evaluation 1 Implementation Strategy

- GBAPS could approve the use of parent surveys and determine a schedule for routine distribution.
- Individual schools and teachers could administer the surveys geared towards getting the highest rate of return.
- Parents could complete the parent surveys and encourage others to participate in the process as well as other SRTS activities.

SRTS Evaluation Strategy 1 Implementation Resources

- National Center for Safe Routes to School, Data Collection Center: http://saferoutesdata.org/
- National Center for Safe Routes to School: http://guide.saferoutesinfo.org/evaluation/appendix_b_safe_routes_to_school_parent_survey.cfm
- Safe Routes to School National Partnership, Evaluation Handbook: https://www.saferoutespartnership.org/sites/default/files/pdf/SRTS.Eval.Handbook-Final_9_08.pdf

SRTS Evaluation Strategy 2: Conduct Walk and Bike Audits

Walk and bike audits can be tailored directly to measure a problem, such as the number of cars speeding, number of pedestrians crossing, time to cross crosswalk, or drivers not yielding to pedestrians in crosswalk. The audits can provide evidence to the City that the concerns identified are truly a problem and can help determine where to mark crosswalks or provide traffic calming infrastructure.

- May need to use parents to do a preliminary study before the City staff conduct a study.
- The concerns of parents or staff (for example, concern about speeding on a nearby street) may not be upheld by the data.

SRTS Evaluation Strategy 2 Roles

Short Term

- **Individual schools** could organize walk and bike audits.
- **Parents** could participate in school audits or organize audits of their own.

Long Term

- **Individual schools** could work with the City to make changes as suggested by the audits. Audits should continue to be conducted on a regular basis.
- **Parents** could assist the school with audits and bring their concerns to the school to be shared with the City.

SRTS Evaluation Strategy 2 Implementation Strategy

- Individual schools could continue to do walk and bike audits to identify potential problems and communicate them to the City. Audits could be continued on a regular basis.
- Parents could participate in audits and share their concerns with the schools.

SRTS Evaluation Strategy 2 Implementation Resources

- National Center for Safe Routes to School: http://guide.saferoutesinfo.org/engineering/walking_and_bicycling_audits.cfm
- *Walkability Checklist,* Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/cms/downloads/walkability_checklist.pdf
- *Bikeability Checklist,* Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/cms/downloads/bikeability_checklist.pdf
- *Walking and Bicycling Audits* briefing sheet, Institute of Transportation Engineers: https://www.ite.org/pub/?id=e265f845-2354-d714-511f-81ff4a1dbc7b

SRTS Evaluation Strategy 3: Conduct Student Surveys

Survey of students to gather their opinions on conditions for walking and bicycling**.** Less common than parent surveys and tallies, student surveys can give direct feedback from students about their trips to and from school. No national survey tool exists for surveying students.

SRTS Evaluation Strategy 3 Roles

Short Term

- **GBAPS** could develop a student survey to gather information on walking and bicycling.
- **Principals** could work with teachers to administer student surveys.

Long Term

- **GBAPS** could administer student surveys on a regular basis.
- **Principals** could work with teachers to administer student surveys on a regular basis.

SRTS Evaluation Strategy 3 Implementation Strategy

- GBAPS could develop a student survey and administer on a regular basis.
- Principals and teachers could work together to administer student surveys on a regular basis.

SRTS Evaluation Strategy 3 Implementation Resources

- Safe Routes to School Michigan has a student survey: https://saferoutesmichigan.org/surveys/

SRTS Evaluation Strategy 4: Conduct Student Travel Tally

- Helps determine success of SRTS efforts and identify needed adjustments.
- Best to conduct initial surveys before SRTS measures have been implemented.
- Requires teacher buy-in and administrative organization.

SRTS Evaluation Strategy 4 Roles

Short Term

- **Principals** and **Teachers** could work together to conduct the student travel tallies.

Long Term

- **Principals** and **Teachers** could work together to conduct student travel tallies on a regular basis to track any changes that occur.

SRTS Evaluation Strategy 4 Implementation Strategy

- Principals and teachers could work together to conduct the student travel tallies on a regular basis.

SRTS Evaluation Strategy 4 Implementation Resources

- National Center for Safe Routes to School, Tally Sheet: http://saferoutesdata.org/downloads/SRTS_Two_Day_Tally.pdf
- Wisconsin Department of Transportation: https://wisconsindot.gov/Documents/doing-bus/local-gov/astnce-pgms/aid/safe-routes/sur-instruct.pdf

General Evaluation Recommendations

General Evaluation Strategy 1: Collect Data on Traffic Infractions, Speeds, Crime, and Crashes

Can be tailored directly to measure a problem, such as number of cars speeding, number of pedestrians crossing the street, time to cross in crosswalk, or drivers not yielding to pedestrians in crosswalk. Provides objective criteria to determine whether countermeasures are changing conditions.

- Will need cooperation from agencies that maintain the data.
- Crash data (from police Form MV4000) is available from Wisconsin Department of Transportation (WisDOT). WisDOT provides statewide analysis.
- Brown County Planning Department has done an analysis for bicycle and pedestrian crashes, 2010-2014 (Brown County Bicycle and Pedestrian Plan Update, 2016).

General Evaluation Strategy 1 Roles

Short Term

- **Public Works** could identify and use their available resources to collect data in their areas of responsibility. (e.g., average daily traffic counts, traffic speed, signal timing)
- **Police Department** could identify and use their available resources to collect data in their areas of responsibility. (e.g., traffic speed, pedestrian and bicycle crashes, type and number of traffic violations)
- **Local partners** could assist with collecting relevant data (e.g., number of pedestrians and bicyclists, crosswalk use, speed of vehicles)

Long Term

- **Public Works** could refine data collection and target to areas of specific need and train volunteers to help with data collection.
- **Police Department** could refine data collection and target to areas of specific need and train volunteers to help with data collection.
- **Local partners** could participate in training opportunities to further assist with data collection.

General Evaluation Strategy 1 Implementation Strategy

- Public Works and Police Department could identify and use their available resources to collect data in their areas of responsibility and train volunteers to help with data collection.
- Local partners could assist with data collection and participate in training to do additional types of data collection.

General Evaluation Strategy 1 Implementation Resources

- The WisTransPortal System includes crash data resources: https://transportal.cee.wisc.edu/services/crash-data/
- The Wisconsin Traffic Count Map includes data on traffic volumes: https://wisconsindot.gov/Pages/projects/data-plan/traf-counts/default.aspx

General Evaluation Strategy 2: Conduct Public Surveys

Surveying members of the public about their opinions related to walking, bicycling, or transit. Data helps to establish baseline information on travel behavior and perceived barriers to walking and biking and existing needs.

- Helps determine success of efforts to improve conditions for walking, bicycling, and transit and identify needed adjustments.
- Recent pertinent survey instruments include: Brown County Bicycle and Pedestrian Plan Update, 2016, Brown County Parks and Outdoor Recreation Plan 2017-2022, MPO's 2014 Green Bay Metro Comprehensive Bus Stop Study

General Evaluation Strategy 2 Roles

Short Term

- **City staff** could review existing survey documents for pertinent data and determine if the surveys could be used on an on-going basis to track public opinion on walking, bicycling and transit. This can also be done in conjunction with Brown County Planning Department.
- **Brown County Planning Department** could review existing survey documents for pertinent data and determine if the surveys could be used on an on-going basis to track public opinion on walking, bicycling and transit. This can also be done in conjunction with City staff.

Long Term

- **City staff** and **Brown County Planning Department** could establish a process to administer surveys on a regular basis.

General Evaluation Strategy 2 Implementation Strategy

- City staff and Brown County Planning Department could review existing survey documents and establish procedures for conducting surveys on a regular basis to track public opinion on walking, bicycling and transit.

General Evaluation Strategy 2 Implementation Resources

- *Simple, Inexpensive Approach to Sampling for Pedestrian and Bicycle Surveys,* https://journals.sagepub.com/doi/10.3141/2299-03

General Evaluation Strategy 3: Conduct Pedestrian and Bicycle Counts

Automated or manual count programs can help make the case for walking and bicycling facilities and can help prioritize improvements.

- Trail counters with displays visible to the general public could encourage more trail use.
- Permanent counters cannot be installed everywhere, so many communities use a combination of permanent automated counters and manual counts to understand how bicycling and walking vary throughout the network.
- Low counts should not be used as a justification for not providing facilities or safety improvements at certain locations or along a corridor. People on foot or bike may need to access a destination, but roadway conditions could be so intimidating that few people attempt the trip.
- The Brown County Parks Department has automated counters on the Fox River Trail.
- Local partners participate annually in the National Bicycle and Pedestrian Documentation Project.

General Evaluation Strategy 3 Roles

Short Term

- **City staff** could identify various counting options; mechanical using existing or new equipment, manual using staff or volunteers.

- **County staff** could continue counts on the Fox River Trail and look for opportunities to expand their counts to other county trails and public roadways in conjunction with the City.
- **Local partners** could help with manual counts.

Long Term

- **City staff** could develop a program for regular bicycle and pedestrian counts.
- **County staff** could expand their bicycle and pedestrian counts program and implement the use of trail counters with visible displays.
- **Local partners** could continue to help with manual counts and encourage participation in the National Bicycle and Pedestrian Documentation Project.

General Evaluation Strategy 3 Implementation Strategy

- City staff could identify counting options and sites, review existing counting equipment, purchase new equipment, and work with volunteers and the county to coordinate bicycle and pedestrian counts.
- County staff could continue and expand trail counts, install visible display counters and coordinate counts with volunteers and City staff.
- Local partners could continue to help with manual bicycle and pedestrian counts and encourage participation in the National Bicycle and Pedestrian Documentation Project.

General Evaluation Strategy 3 Implementation Resources

- Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/topics/countingestimating.cfm
- National Bicycle and Pedestrian Documentation Project: http://www.bikepeddocumentation.org/
- National Highway Research Program Report 797, *Guidebook on Pedestrian and Bicycle Data Collection*: http://www.trb.org/Publications/Blurbs/171973.aspx

General Evaluation Strategy 4: Monitor Miles of Bicycle Facilities

The change in number of miles of facilities is an indicator of the progress being made toward a complete network.

General Evaluation Strategy 4 Roles

Short Term

- **City staff** could make information about miles of on- and off-street bicycle facilities readily available to the general public.
- **County staff** could provide additional information about miles of bicycle trails and make information about county on-street bicycle facilities readily available to the general public.

Long Term

- **City staff** could develop a webpage dedicated to bicycle information, including miles of on- and off-street facilities.
- **County staff** could coordinate a webpage dedicated to bicycle information, including miles of on- and off-street facilities.

General Evaluation Strategy 4 Implementation Strategy

- City staff could make information about miles of on- and off-street bicycle facilities readily available to the general public including a webpage dedicated to bicycle information.
- County staff could provide additional information about miles of bicycle trails and make information about on-street bicycle facilities readily available to the general public and coordinate a webpage dedicated to bicycle information.

General Evaluation Strategy 4 Implementation Resources

- *Bicycle Account Guidelines,* The League of American Bicyclists, https://bikeleague.org/sites/default/files/Bicycle_Account_Guidelines.pdf

Appendix 1: Evaluation of Unusually Hazardous Transportation (UHT) Areas

This Appendix lists the schools with Unusually Hazardous Transportation (UHT) areas per Wisconsin Statute 121.54(9)(a) and provides recommendations that would allow GBAPS to remove the determination of unusual hazard for the area. Implementing the recommendations would improve safety for those walking and bicycling within the community, encourage more walking and bicycling within the community, and removal of UHTs would reduce ongoing costs for school busing. In some cases, the areas were once unusually hazardous, but new sidewalks, trails, or street crossings have been built, and the school district has not yet performed an evaluation to remove the UHT designation. In other cases, filling in sidewalk gaps or improving intersection crossings can result in a removal of the UHT designation. This plan only recommends small, feasible infrastructure investments, using the criteria scoring system to determine whether the investments would result in scores low enough to remove the UHT designation.

Removing a UHT designation can generate significant backlash from parents. It can also result in more family vehicles around the school during arrival and dismissal, which reduces safety for students who walk and bike to school. The process of removing the UHT designation should include transparent evaluation measures (such as the criteria in Tables 1 and 2 in Chapter 4), as well as extensive outreach to the school principal and school parent organizations. GBAPS should consider how to encourage or provide Walking School Buses to accompany students to school in areas where UHT bussing will no longer be provided, especially in the first year after implementation. For example, the school district could use the money saved from bussing to compensate Walking School Bus chaperones.

Baird Elementary School UHT Areas

UHT Areas	Reasons for UHT	Number of Students	Recommendation
Humboldt Road east of Arnie Wolff Sports Complex	• Humboldt Road has 3,000 Annual Average Daily Traffic (AADT) • Road previously lacked sidewalks, but road was reconstructed recently • There is still a gap in sidewalk on the south side between Laverne Drive and Arnie Wolff Sports Complex	5-7	Install sidewalk on south side between Laverne Drive and Arnie Wolff Sports Complex
Lake Largo Drive neighborhood	• Lake Largo Drive does not have sidewalks	3	No change
Area west of Huron Road/Bay Settlement Road	• Huron Road/Bay Settlement Road has over 6,000 AADT • Four-lane arterial • No sidewalks on east side of street	1	No change

Edison Middle School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
South of Mason Street and west of Main Street	• Mason Street is a four-lane arterial with 14,600 AADT • Main Street is a four-lane arterial with 16,800 AADT • Mason Street lacks sidewalks and the street network does not provide alternative connections	5-10	No change
East of I-43 and north of Mason Street	• Mason Street is a four-lane arterial with 14,600 AADT • Students would need to cross I-43 ramps	15-20	No change; in the future, re-evaluate the UHT designation if a pedestrian bridge is built at Sitka Street
East of I-43 and south of Mason Street	• Mason Street is a four-lane arterial with 14,600 AADT • Area is a business park with no current students	0	No change

Eisenhower Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
East of Lime Kiln Road	• Lime Kiln Road is a two-lane arterial with 12,200 AADT • Sidewalk is lacking on the east side of Lime Kiln Road between the Kroc Center (just south of Debra Lane) and Manitowoc Road	5-10	Install a sidewalk on the east side of Lime Kiln Road between Manitowoc Road and Debra Lane Students can cross Lime Kiln Road at Manitowoc Road (there is a crossing guard at the intersection)
Area in triangle formed by Main Street, Mason Street, and Lime Kiln Road	• Lime Kiln Road is a two-lane arterial with 12,200 AADT • Mason Street is a four-lane arterial with 17,100 AADT • Area is mostly commercial, but there are some houses on Lime Kiln Road	0	No change

Elmore Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
North of Velp Avenue and east of Atkinson Drive	• Velp Avenue is a four-lane minor arterial with 13,400 AADT and speed limit of 35 MPH • Most students living in this area would cross Velp Avenue at Gallagher Street or Mather Street • Velp Avenue at Gallagher Street is unsignalized, marked with parallel line crosswalk markings, has a median refuge island, and has pedestrian crossing signs • Velp Avenue at Mather Street is unsignalized, marked with parallel line crosswalk markings, has a median refuge island, and has pedestrian crossing signs	15-20	No change
North of Velp Avenue and west of Atkinson Drive	• Velp Avenue is a minor arterial with 13,400 AADT and speed limit of 35 MPH • Area is mostly industrial and has no current students	0	No change

Keller Elementary School UHT Area

UHT Area	Reasons	Number of Students	Recommendation
South of Dousman Street, north of the railroad, west of Military Avenue, and east of Taylor Street	• Dousman Street is a collector street with 4,500 AADT • Students in this area would cross Dousman Street at Fellows Drive • All students currently in this area live south of Shawano Avenue • Shawano Avenue is a four-lane principal arterial with 15,200 AADT • Some students would cross Shawano Avenue at Fellows Drive, which is uncontrolled; others would cross at Siegler Street, which has a traffic signal • Most of the students currently living south of Shawano Avenue would encounter poor sidewalk coverage	Over 20	Re-evaluate Dousman Street to see if it meets GBAPS UHT crossing criteria For the area south of Shawano Avenue: no change

Kennedy Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
South of Mason Street, between Beaver Dam Creek, Military Avenue, and 6th Street	• There is a path and bridge over Beaver Dam Creek that students in this area can use • Parents report that the path and bridge are in disrepair • Mason Street lacks sidewalks on the south side of the street to Beaver Dam Drive	10-15	Repair the path and bridge over Beaver Dam Creek Install sidewalk on the south side of Mason Street between Mitchell Street and Beaver Dam Drive
North of Mason Street, between I-41 and Military Avenue	• Mason Street is a four-lane, median-divided arterial with 22,500 AADT • Mason Street lacks sidewalks on the north side of the street between Burns Avenue and Taylor Street • Taylor Street south of Mason Street with undetermined AADT that was reconstructed with four lanes when the roundabout was installed; there is not room for a sidewalk on the east side of the street where students would walk	Over 20	No change

King Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
West of Hillcrest Drive	• Hillcrest Drive is a rural cross section street with 35 MPH speed limit, unknown AADT and no sidewalks • All students in this area currently live south of Mason Street	1-5	No change; in the future, re-evaluate the UHT designation if walkways are built on West Point Road and Hillcrest Drive
South of Hazelwood Lane and He-Nis-Ra Park	• South Point Road is a two-lane street with bike lanes and 3,400 AADT that lacks sidewalks south of Hazelwood Lane • Hazelwood Lane is a two-lane street with a striped parking lane with 2,700 AADT that lacks sidewalks • The Hen-Nis-Ra Park greenway separates Parkwood Drive from Telemark Circle	15-20	No change; in the future, re-evaluate the UHT designation if walkways are built on Hazelwood Lane or South Point Road When the planned path in He-Nis-Ra Park greenway is built, use the existing easement off of South Telemark Circle to construct a path that will connect Parkwood Drive and Telemark Circle

Langlade Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
West of Webster Avenue	• Webster Avenue is a four-lane street with 30 MPH speed limit and 13,700 AADT.	Over 20	Add safety treatments to the crossings of Webster Avenue. Consider measures to encourage motorists to yield (advance yield lines and yield here to pedestrians signs, Rectangular Rapid Flashing Beacons) and reduce crossing times such as curb extensions or pedestrian refuge islands

Lombardi Middle School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
West of Hillcrest Drive	• Hillcrest Drive is a rural cross section street with 25-35 MPH speed limit, unknown AADT and no sidewalks • All students in this area currently live south of Mason Street	1-5	Re-evaluate Hillcrest Drive to determine whether it meets GBAPS UHT criteria for students who do not have to cross a roadway
North of Mason Street (WI-54) (**Not currently a UHT Area**)	Strong consideration should be given to whether the area north of Mason Street (WI-54) should be designated a UHT area • Mason Street (WI-54) is a four-lane divided highway with AADT of 15,100 and a posted speed limit of 35 MPH • There are no sidewalks on either side of Mason Street (WI-54) • Students living in this area would cross Mason Street at LaCount Road, Country Club Road, or Packerland Drive • Mason Street at LaCount Road is an uncontrolled crossing; the crosswalk is about 100 feet long and it may be difficult for students to find safe gaps in traffic • Mason Street at Country Club Road has 6 lanes of traffic and a frontage road on the north and south of the intersection; it is traffic controlled and the crosswalk is 100 feet long • Mason Street at Packerland Drive lacks pedestrian signal heads and crosswalk markings	Over 20	Re-evaluate the crossings of Mason Street at LaCount Road, Country Club Road, and Packerland Drive to determine whether they meet GBAPS UHT criteria for middle and high school students

MacArthur Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
North of Mason Street (WI-54)	• Mason Street (WI-54) is a four-lane divided highway with AADT of 15,100 and a posted speed limit of 35 MPH • Most students in this area live west of Country Club Road • There are no sidewalks on either side of Mason Street (WI-54) • There are no sidewalks on either side Country Club Road	5-10	No change
South of Hazelwood Lane between Packerland Drive and Wood Lane/Shady Lane	• Hazelwood Lane is a two-lane arterial with 8,900 AADT and a 30 mph posted speed limit • There are no sidewalks on either side of Hazelwood Lane • Students in this area would most likely cross Hazelwood Lane at Packerland Drive or Wood Lane/Shady Lane • Hazelwood Lane at Packerland Drive is controlled by a traffic signal; Hazelwood Lane at Wood Lane is controlled by a stop sign	10-15	Install sidewalks on both sides of Hazelwood Lane from Packerland Drive to Wood Lane

Martin Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
East of Alpine Drive, north of Mason Street, and south of Deckner Avenue	• Alpine Drive is a two-lane street with 5,200 ADT and school zone speed limit of 15 MPH; much of the traffic occurs during school arrival and dismissal times for Edison Middle School and Preble High School • There are no sidewalks on the east side of Alpine Drive • Students in this area would most likely cross Alpine Drive at Newberry Avenue or Finger Road • Alpine Drive at Newberry Avenue is controlled by a stop sign; parents report that a high number of vehicles run the stop sign • Alpine Drive at Finger Road is not controlled	Over 30	Install new sidewalk on the east side of Alpine Drive between Finger Road and Deckner Avenue At Alpine Drive and Newberry Avenue, mark crosswalks across Alpine Drive; study the intersection to determine if a four-way stop is the correct treatment; consider measures to encourage motorists to yield (high-visibility crosswalk markings, in-street pedestrian crossing signs) and reduce crossing times such as curb extensions or pedestrian refuge islands At Alpine Drive and Finger Road, mark crosswalks across Alpine Drive; consider measures to encourage motorists to yield (high-visibility crosswalk markings, in-street pedestrian crossing signs) and reduce crossing times such as curb extensions or pedestrian refuge islands
East of I-43 and north of Mason Street	• Mason Street is a four-lane arterial with 14,600 AADT • Students would need to cross I-43 ramps	Over 30	No change; re-evaluate the UHT designation if a pedestrian bridge is built at Sitka Street

McAuliffe Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
East of Huron Road	• Huron Road is a two-lane street with 1,100 AADT and a speed limit of 35 MPH • The few students currently living in this area would need to walk on Eaton Road, a rural road with over 4,000 AADT and a speed limit of 55 mph	1-2	No change; re-draw the UHT designated-area if walkways are installed as part of future developments on the east side of Huron Road
North of Manitowoc Road between Willow Road and Continental Drive	• Manitowoc Road is a two-lane street with an AADT of 9,100 and a speed limit of 35 MPH • Sidewalks exist north of Allouez Avenue but are lacking just south of that intersection • Due to a discontinuous street network, there is limited connectivity between the school and this area	1-5	No change; re-draw the UHT designated area if sidewalk is built on the north side of Manitowoc Road between Continental Drive and Willow Drive
Southwest of Manitowoc Road	• Manitowoc Road is a two-lane street with 9,100 AADT and a speed limit of 35 MPH • Manitowoc Road has sidewalks north of Allouez Avenue but they stop just south of that intersection • Due to a discontinuous street network, there is limited connectivity between the school and this area • Students living north of Klondike Road would most likely cross Manitowoc Road at Continental Drive, which is an uncontrolled intersection • Students living south of Klondike Road would most likely cross Manitowoc Road at Willow Road	Over 40	Reduce the size of the UHT area southwest of Manitowoc Road by implementing the following measures: On Manitowoc Road at Continental Drive, consider measures to encourage motorists to yield (high-visibility crosswalks, in-street pedestrian crossing signs, and RRFB's) and reduce crossing times (pedestrian refuge island) Install crosswalk on the southwest side of Manitowoc Road between Allouez Avenue and Klondike Road
South of Greenbrier Road between I-43 and Ontario Road	• Greenbrier Road is a two-lane street with 3,400 AADT and a speed limit of 30 MPH • Greenbrier Road does not have sidewalks	1-5	No change; eliminate the UHT if sidewalk is built on the south side of Greenbrier Road

Nicolet Elementary School UHT Area

UHT Areas	Reasons	Number of Students	Recommendation
West of Webster Avenue	• Webster Avenue is a four-lane arterial with 13,200 AADT • Students in this area would most likely cross Webster Avenue at University Avenue • Webster Avenue at University Avenue is controlled by a traffic signal and has many turning vehicles	15-20	No change

Red Smith Elementary/Middle School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
Nicolet Drive Avenue north of Scottwood Drive	• Nicolet Drive is a two-lane arterial with 1,700 ADT and speed limit of 35 MPH; it has no sidewalks, but it does have 8-foot shoulders • Parents report that vehicles appear to exceed the posted speed limit • Students in this area would most likely cross Nicolet Drive at Peterson Road or Davies Avenue	5-10	Re-evaluate Nicolet Drive to determine whether the road and intersections meet GBAPS UHT criteria
Along and south of Scottwood Drive, and west of Bay Settlement Road	• Scottwood Drive is a two-lane collector with 1,200 AADT and speed limit of 35 MPH; it has no sidewalks, but it does have 6-foot shoulders • The rural nature of the road likely results in vehicles exceeding the posted speed • Most students currently living in this area would likely cross Scottwood Drive at Sussex Road • Scottwood Drive at Sussex Road is an uncontrolled intersection; Sussex Drive has a gap in sidewalk between	5-10	Install a sidewalk on Sussex Road between Wiggins Way and Scottwood Drive Re-evaluate Scottwood Drive at Sussex Road to determine whether the road and intersections meet GBAPS UHT criteria
Along and west of Bay Settlement Road	• Bay Settlement Road is a two-lane minor arterial with a speed limit of 35 MPH • There are no sidewalks along this street beyond the curb and gutter • South of Algoma Road, Bay Settlement Road has 3,200 AADT; north of Algoma Road, it has 1,100 AADT • The rural nature of the road likely results in vehicles exceeding the posted speed		No change; in the future, re-evaluate the UHT designation if walkways are built on Bay Settlement Road and Algoma Road

Southwest High School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
West of Hillcrest Drive	• Hillcrest Drive is a rural cross section street with 25-35 MPH speed limit, unknown AADT and no sidewalks • There are no students currently living in this area within 2 miles of the school	1-5	Re-evaluate Hillcrest Drive to determine whether it meets GBAPS UHT criteria for high school students and re-draw the UHT area
Indian Hill Drive neighborhood west of Packerland Drive	• Packerland Drive is a four-lane minor arterial street with AADT of 14,200 • Packerland Drive has almost no sidewalks north of Mason Street • Students living in this area would cross Mason Street at Packerland Drive • Mason Street at Packerland Drive is an 8-lane street with a frontage road	10-20	No change; in the future, re-evaluate the UHT designation if sidewalk or a sidepath is built along Packerland Drive
North of Mason Street, east of Taylor Street	• Mason Street is a four-lane arterial street with 19,600 AADT • Mason Street does not have sidewalks along this segment • Students living in this area would likely cross Mason Street at Taylor Street, which is a roundabout intersection • Taylor Street does not have sidewalks for portions between Western Avenue and 7th Street	15-20	No change; in the future, re-evaluate the UHT designation if sidewalks on Taylor Street are installed
North of Mason Street (WI-54) between I-41 and Hillcrest Drive (**Not currently a UHT Area**)	Strong consideration should be given to whether the area north of Mason Street (WI-54) should be designated a UHT area • Mason Street (WI-54) is a four-lane divided highway with 15,100 AADT and a posted speed limit of 35 MPH • There are no sidewalks on either side of Mason Street (WI-54) • Students living in this area would cross Mason Street at LaCount Road, Country Club Road, or Packerland Drive • Mason Street at LaCount Road is an uncontrolled crossing; the crosswalk is about 100 feet long and it may be difficult for students to find safe gaps in traffic	Over 20	Reevaluate the crossings of Mason Street at LaCount Road, Country Club Road, and Packerland Drive to determine whether they meet GBAPS UHT criteria for middle and high school students

	• Mason Street at Country Club Road is a signal-controlled crossing with six lanes of traffic and a frontage road on the north and south of the intersection • Mason Street at Packerland Drive lacks pedestrian signal heads and crosswalk markings		

Tank Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
East of Ashland Avenue (WI-32) and south of the railroad crossing	• Ashland Avenue (WI-32) is a four-lane divided highway with 18,900 AADT and posted speed limit of 35 MPH • There is an active railroad line that crosses South Broadway at 5th Street • Due to the railroad tracks and the elevated bridge on Ashland Avenue, many of the streets in this area are discontinuous • Most students in this area would walk on South Broadway • South Broadway has 5,100 AADT and a posted speed limit of 25 MPH, and sidewalks	20-25	No change; re-evaluate the UHT criteria if the planned shared-use path along the abandoned former railroad is built

Webster Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
West of Webster Avenue	• Webster Avenue is a four-lane arterial with 14,800 AADT and posted speed limit of 30 MPH (with school zone speed limit of 15 MPH) • Most students currently living in this area would cross Webster Avenue at Allouez Avenue or Derby Lane • Webster Avenue at Allouez Avenue is controlled by a traffic signal; pedestrian signal heads are in place • Webster Avenue at Derby Lane is an uncontrolled intersection • There is a crossing guard on Webster Avenue at St. Matthews Street for students at Father Allouez Catholic school; if arrival and dismissal times coincide with times for Webster, students living south of Iroquois Avenue could cross with the crossing guard	10-15	Determine the schedule for the crossing guard posted at Webster Avenue at St. Matthews Street; if it coincides, re-draw the UHT area so it does not include the area south of Whitney Street Alternative: study whether to move the crossing guard position to Webster Avenue at Allouez Avenue
East of Libal Street/Baird Street, west of the East River, between Beaupre and Grignon Streets	• Libal Street/Baird Street is a minor arterial with an AADT of 6,600 • Baird Street lacks sidewalks on the east side of the street between where the existing sidewalks ends just to the south of Beaupre Street and slightly to the south of Grignon Street	15-20	No change; re-evaluate the UHT criteria if sidewalks are installed on the east side of Baird Street

Wequiock Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
Entire attendance area	• The area surrounding the school is rural and all streets lack sidewalks • Sturgeon Bay Road is a divided four-lane highway with 10,900 AADT	All students	No change

Wilder Elementary School UHT Areas

UHT Areas	Reasons	Number of Students	Recommendation
Along and south of Greenbrier Road, and southwest of Manitowoc Road	• Greenbrier Road is a two-lane street with 3,400 AADT and 30 MPH posted speed limit • Greenbrier Road lacks sidewalks on both sides of the street • Manitowoc Road is a two-lane street with unknown AADT and 25 MPH posted speed limit • Students living in the Wilder Street area can walk to school through the Wilder Court and Teresa Court cul-de-sac	5-10	Re-draw the UHT area so that it does not include the Wilder Street area southwest of Manitowoc Road Re-evaluate the UHT area on Greenbrier Road if sidewalks are installed in that area
West of Main Street	• Main Street (US 141) is a four-lane divided highway with 12,600 AADT • There are only two crossings that students could use to cross Main Street: at Verlin Road, and Guns Road • Sidewalks are missing along both possible routes, which are circuitous	Over 30	No change

Appendix 2. Review of Existing Plans and Policies

This appendix summarizes existing plans, corridor studies, and policies with relevance to the Safe Walk & Bike Green Bay Plan.

Plans

Brown County Bicycle and Pedestrian Plan Update – 2016 (Adopted 2017)

Prepared by Green Bay Metropolitan Planning Organization (MPO) staff

Description: This fourth update to the bicycle and pedestrian plan for Brown County inventoried existing bicycle and pedestrian efforts and outcomes, reviewed and evaluated past goals and objectives, and then recommended facilities and programs, all while ensuring responsiveness to demographic, transportation, environmental, and economic constraints and opportunities. Specifically, this plan aimed to improve access and safety for active transportation users through the five "E's": Evaluation, Engineering, Enforcement, Education, and Encouragement. Though this plan was compiled by the regional Metropolitan Planning Organization, or MPO, it reflects—and is consistent with—the existing goals and plans of the cities within the MPO boundary.

Bicycle and Pedestrian Background Information

- Existing Bicycle Facilities and Programs
    - This plan created an up-to-date inventory of existing bicycle and pedestrian facilities.
    - The City of Green Bay has four main off-street shared bicycle and pedestrian trails totaling 13 miles (p. 46). These trails are popular—the most preferred facility type according to the survey completed as part of the plan—and they form the backbone of the bicycle transportation network. However, these multi-use trails do not connect adequately to one another (p. 19).
    - The City maintains 12.5 miles of on-street bicycle lanes (p. 46). However, many of these facilities are in more suburban sections of the city and not downtown, where demand is highest.
    - Remaining facilities are comprised either of shared-lane marking ("sharrows") or wide curb lanes.
    - There are no on-street, protected bicycle lanes in the City of Green Bay, relatively few bicycle lanes, and many streets—county highways particularly—without paved shoulders. In the urban area, only, 17.8% of the functional classification system (comprised of collector and arterial streets) have bicycle facilities (p. 56). This is up since 2013, when the figure was 15.6%.
    - This plan notes that "on street segments without bicycle lanes, a right lane wider than 12 feet can accommodate both bicycles and motor vehicles," although the preferred width is 15 feet (p. 86).
    - The plan includes recommendations for bicycle facilities informed by the following documents:
        - FHWA's document, *Selecting Roadway Design Treatments to Accommodate Bicyclists*. This document suggests bicycle facility types based upon volume, width, and speed of traffic. (pp. 74-75).
        - The MPO recommends use of the *Sidepath Suitability Index* (pp. 163-164), a tool that helps planners and policymakers rate the safety of existing or planned parallel paths based on land-use and traffic characteristics (pp. 94-95).

        - The MPO also recommends using the *WisDOT Facility Design Manual (FDM)* and the *Wisconsin Bicycle Facility Design Handbook*; both documents provide guidance for active transportation infrastructure.
    - Since 2015, the MPO has encouraged bicycle improvements by increasing the number of rating points in the region's Transportation Improvement Program (TIP) that projects can receive when they include bicycle facilities.
    - Bicycle parking in Green Bay is clustered around the downtown area and University of Wisconsin-Green Bay (UWGB) (p. 114). Lack of parking was identified as a deterrent for would be bicyclists in the survey (p. 173).

- Bicycle Safety Issues
    - In the City of Green Bay, most crashes occurred in the area bounded by Mason Street on the south, I-43 on the north, Elizabeth Street on the east, and South Oneida Street on the west (p. 64).
    - A large proportion of crashes involving bicyclists involved those between 10 and 19 years of age and occurred in the hours soon after school dismissal. (p.65-66).
    - In the project survey, the majority of bicyclists rated the "Concerns about safety" as either an "Important factor" or a "Somewhat important" factor" in deciding whether to ride a bicycle (p. 173).
    - In order, most survey respondents preferred riding on off-street trails, followed by striped on-street bicycle lanes, and then neighborhood streets. (p. 169) .
    - Almost all survey respondents favored the addition of bicycle facilities when streets are constructed or reconstructed, even if it costs slightly more (p. 176).
    - MPO Goals in this document relating to bicycle safety are:
        - Reduce the annual number of fatal bicycle crashes to zero before 2020.
        - Reduce the annual number of bicycle-related crashes causing incapacitating injuries by 20 percent before 2020 (p. 52).
- Existing Pedestrian Facilities and Programs
    - Most central neighborhoods of Green Bay have sidewalks, but most neighborhoods on the far-west and far-east side do not (pp. 205-208).
    - From 2015, the MPO has encouraged pedestrian improvements by increasing the number of rating points in the region's Transportation Improvement Program (TIP) that projects can receive when they include pedestrian facilities.
    - Regarding enforcement, the City of Green Bay conducts bicycle and walking patrols and focuses on enforcing safe behaviors (p. 103).
- Pedestrian Safety Issues
    - In the City of Green Bay, most pedestrian crashes occurred in the central portion of the city; however, more outlying corridors like Military Avenue and Main Street also have high pedestrian crash incidence (p. 70).
    - Teenagers and young adults (those 11 to 25) are by far the most likely to be involved in pedestrian -related crashes, and the highest concentration of crashes occur between 2:00pm and 7:00 pm (p.71-72).

  - Feedback on the MPO's survey showed a demand for sidewalks and pedestrian improvements: sidewalks ranked as the favored facility for walking—even higher than off-street trails (pp. 190, 195-200).
  - MPO Goals in this document relating to pedestrian safety are:
    - Reduce the annual number of fatal pedestrian crashes to zero before 2020.
    - Reduce the annual number of pedestrian-related crashes causing incapacitating injuries by 20 percent before 2020 (p. 52).
    -

Bicycle- and Pedestrian-Related General Recommendations

- Evaluation
  - Consider using new performance measures better suited to bicycle and pedestrian travel (such as access to community destinations, destination density, and intersection density) (pp. 52-58).
  - Update the bicycle facility inventory list on a yearly basis to ensure that planners, policymakers, and the public can identify gaps in the system and monitor progress (p. 45).
    - The bicycle inventory is also crucial for the following documents: the *WisDOT Facility Design Manual (FDM)* and the *Sidepath Suitability Index* (p. 158).
- Engineering: Bicycling
  - On all highways and roadways where bicycle facilities exist (bike lanes, paths, routes, wide curb lanes, etc.), improvements should be planned and implemented to improve the level of existing service and safety for bicyclist (p. 84). Coordinate upgrades with existing road projects.
  - For engineering considerations for the different bicycle facility types, see pp. 83-95.
  - Connect multi-use trails to each other and to new bike lanes to ensure a more complete system. Transform abandoned rail lines into trails ("rails to trails" projects).
  - Focus on implementing complete streets principles to ensure that the overall network serves all users (pp. 80-83).
  - This plan cites existing MPO guidelines and policy for restriping existing roads that are wide and under-capacity, adding 5' bicycle lanes in the process (pp. 119, 252-255). The plan notes that restriping is an effective way to improve bicycle routes, although it sometimes requires the removal of parking.
  - Specific bicycle lane recommendations for Green Bay are the following (pp. 121-123):
    - Radisson Street from N Webster Avenue to N Irwin Avenue
    - Hazelwood Lane/CTH VK from Wood Lane to Packerland Drive
    - Irwin Avenue from East Shore Drive to Cedar Street
    - Cedar Street from Irwin Avenue to Baird Street
  - For maps of all the proposed bicycle facility, see pages 133 and 154.
    - The expansion of bicycle facilities will mostly occur through the installation of bike lanes east of Interstate 41 and west of the East River Trail (in the city's core).

        - The map shows strategic trail connections (e.g. between the Fox River Trail and the East River Trail, and between the Sergeant Benjamin Edinger Corridor and the Fox River Trail).
- Engineering: Pedestrians
    - In areas further out from the central city, sidewalk coverage should be concentrated along connector and arterial roads, or near schools, parks, etc.
    - The plan included a sidewalk network gap analysis, see pp. 201-210.Key Green Bay sidewalk gaps include:
        - Humboldt Road (Laverne Drive to Bascom Way and University Avenue to Three Bridges North Condos)
        - University Avenue (Humboldt Road to S. Circle Drive)
        - Eastman Avenue (Baird Street to Irwin Avenue and Elizabeth Street to Danz Avenue)
        - Mason Street East of I-43 (I-43 to CTH EA/S. Huron Road)
        - Mason Street West of I-43 (Main Street to Edgewood Drive and Edgewood Drive to I-43)
        - Guns Road (W Main Street Frontage Road south to existing sidewalk)
        - Henry Street (Deckner Avenue to Basten Street)
        - Ontario Road (Existing sidewalk on west side of road to Sitka Street)
        - Manitowoc Road (Main Street to Hemlock Drive)
        - Alpine Drive (Newberry Avenue to Deckner Avenue)
        - Deckner Avenue (Swiss Hill Drive to Alpine Drive)
    - For engineering considerations for the different pedestrian facility types, see pp. 96-101.
- Enforcement
    - Law enforcement officers should attend the Wisconsin Pedestrian and Bicycle Law Enforcement Training or other similar class (p. 102).
    - Implement walking and bicycle patrols (the City of Green Bay PD already does this) (p. 103).
    - Implement a program to issue citations to those that commit traffic infractions related to driving, walking, and bicycling. Offer those cited the opportunity to take a bicycle and pedestrian safety class to reduce the points deducted from their driver's license due to the infraction.
- Education
    - Crash reporting: all crashes involving bicyclists should be reported and placed on file (p. 104).
    - Bicycle training should be offered in grades K - 12 as a unit in gym classes (p. 104).
    - Basic bicycle and pedestrian training should be offered to all law enforcement officers and included in drivers' education courses (p. 105).
    - Community service programs such as presentations by law enforcement officers at schools could help educate children and adults about pedestrian and bicycle safety.
    - Law enforcement agencies, bicycle shops, bicycle clubs, communities, media groups, or others could sponsor bicycle education programs.

  - Public and private organizations could produce and sponsor PSA's.
  - Conduct education on the benefits of bicycle helmets.
  - Develop a pedestrian crosswalk sign placement policy (for Yield to Pedestrians in Crosswalk signs).
  - Install "Share the Road with Bicycles" signs.
  - Install signs at controlled intersections that remind drivers to look for crossing pedestrians.
- Encouragement
  - The City of Green Bay should develop a bicycle parking ordinance which would encourage the provision of bicycle parking in high-demand areas (pp. 108-113).
  - Conduct a bicycle parking inventory (p. 112).
  - Maintain bicycle facilities (p. 115).
  - Mix compatible land uses to enable and encourage walking and biking (p. 116).
  - Require bicycle and pedestrian-friendly site designs (p. 116).
  - Require direct walkway connections between buildings and sidewalks (p. 116).
  - Organize Walk and Bike to School days (p. 117).
  - Other encouragement methods (p. 117).

Green Bay Metropolitan Planning Organization (MPO) 2045 Long-Range Transportation Plan (Adopted 2015)

Prepared by Green Bay Metropolitan Planning Organization (MPO) staff

Description: This long-range transportation plan (LRTP) was developed throughout 2014 and 2015 in an effort to guide the growth of the Green Bay Metropolitan Area out to 2045. The plan defines goals and objectives, describes the existing transportation system, calculates performance measures, maps the future transportation system, calculates overall plan costs, and then summarizes recommendations. The elements of this plan relevant to walking and bicycling are broadly similar to the *2016 Brown County Bicycle and Pedestrian Plan Update*.

Goals, objectives, and implementation strategies pertinent to bicycles and pedestrians:

- Ensure that all transportation structures (bridges, interchanges, and overpasses) within the Green Bay Metropolitan Planning Area are safe and accessible to all transportation modes (p. 12).
  - Objective: Ensure that all transportation structures within the Metropolitan Planning Area have appropriate bicycle and pedestrian facilities when they are constructed or reconstructed.
  - Implementation Strategy: Continue to examine each project during the planning & design phases to ensure that appropriate bicycle & pedestrian facilities are included (p. 34).
- Improve safety on the Green Bay Metropolitan Planning Area's multimodal transportation system (p. 13).
  - Objectives:
    - Reduce the average annual number of fatal bicycle crashes to zero before 2020.

        - Reduce the average annual number of bicycle crashes that involve incapacitating injuries by 20 percent before 2020.
        - Reduce the average annual number of fatal pedestrian crashes to zero before 2020.
        - Reduce the average annual number of pedestrian crashes that involve incapacitating injuries by 20 percent before 2020.
    - Implementation Strategy: Utilize the TOPS Laboratory database to analyze fatal and injury crashes involving pedestrians and bicyclists to determine what could have prevented them from occurring (p. 35).
- Design arterial, collector, and local streets to maximize efficient traffic circulation while enabling people of all ages and physical abilities to conveniently and safely cross and travel along them (p. 13).
    - Objectives:
        - Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to construct or reconstruct arterial streets as two-lane boulevards or three lane streets instead of four-lane streets unless transportation studies demonstrate that more lanes are necessary.
        - Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to construct curb extensions (bump-outs) at collector and local street intersections and other pedestrian crossing points when parking lanes are present.
        - Encourage and offer planning assistance to the state, county, and Metropolitan Planning Area communities to continue to place roundabouts at arterial and collector street intersections when the intersections are constructed or reconstructed unless adequate space is not available because of physical or environmental barriers.
    - Implementation Strategies (p.37):
        - For arterial streets, continue to construct two lane boulevards or three lane streets unless more lanes are proven to be necessary. Also continue to construct roundabouts at intersections.
        - For collector & local streets, continue to minimize street widths. Add curb extensions at intersections when parking lanes are present & when vehicular & pedestrian traffic warrants installation.
        - For all streets, only allow construction of cul-de-sacs when physical or environmental barriers are present. Also include public rights-of-way at end of cul-de-sacs for nonmotorized connections to adjacent developments.
        - Develop criteria to determine where bumpouts & crosswalks are warranted.
        - Develop criteria to determine where neighborhood traffic circles should be installed.
- Develop a bicycling and walking culture in the Green Bay Metropolitan Planning Area that enables people of all ages and physical abilities to safely and conveniently travel throughout the area. Increase the number of rating points that are awarded to projects that include appropriate bicycle and pedestrian facilities in the MPO's Transportation Improvement Program (TIP) project prioritization process (p. 14).
    - Objectives:
        - Ensure that the bicycle and pedestrian facility components of construction and reconstruction projects are consistent with the guidance for bicycle and pedestrian facilities in Chapter 11-46 of the Wisconsin Department of Transportation's Facilities Development Manual (FDM) when prioritizing projects in the TIP.

        - Encourage and offer assistance to every community in the Green Bay Metropolitan Planning Area to develop a comprehensive bicycle and pedestrian plan and a sidewalk installation policy by 2020.
        - Provide assistance to the state, Brown County, and the Metropolitan Planning Area communities to increase the number of pedestrian countdown signals in the Green Bay Metropolitan Planning Area by 50 percent by 2020.
        - Complete an inventory of bicycle parking accommodations at parks, government buildings, schools, shopping centers, major employers, and other bicycling trip generators in the Metropolitan Planning Area to determine if the accommodations should be improved and/or increased. This inventory should be completed by the end of 2016.
        - Encourage and offer assistance to every Metropolitan Planning Area community to develop bicycle and pedestrian education and enforcement programs by 2020.
    - Implementation Strategies (pp. 38-39):
        - A revised project prioritization process was developed in 2014/2015. The revised process was recommended for approval by the BCPC Transportation Subcommittee (MPO TAC), & approved by the BCPC Board of Directors in May of 2015.
        - Use the "Sidepath Suitability Index" to determine the appropriateness of sidepaths (trails) next to streets & highways.
        - Contact the Metropolitan Planning Area Communities that do not have plans/policies & determine if they would like assistance. If assistance is desired, include the projects in the MPO's Annual Work Program.
        - After completing an inventory of signals with & without countdown indicators, identify locations for the indicators.
        - Contact the Metropolitan Planning Area Communities that do not have programs & determine if they would like assistance. If assistance is desired, help the communities find the resources needed to develop & implement these programs.
        - Encourage and continue to develop bicycle & pedestrian safety & enforcement programs.
        - Encourage communities to apply for financial assistance through the Transportation Alternatives Program (TAP).
- Meet the growing transportation needs of seniors and individuals with disabilities within the Green Bay Metropolitan Planning Area (p. 15).
- Increase the annual number of passengers on Green Bay Metro's buses to at least 1.7 million by 2020.
    - Implementation Strategy: Work with communities, county & state public works/engineering departments to design & install sidewalks and/or concrete pads at the heavily-used bus stops that were identified in the 2014 bus stop study (p.40).

Existing Transportation System

- Maps of existing bicycle and pedestrian facilities are included on pages 23 and 24.

Performance Measures Relevant to Pedestrians and Bicyclists:

- Reduce average number of incapacitating injury bike crashes by 20% by 2020.
- Reduce average number of incapacitating injury pedestrian crashes by 20% by 2020.
- Increase the number of pedestrian countdown signals by three each year (p. 33).

- Inventory bike parking and determine if improvements are needed and/or supply should be increased.
- Develop bike & pedestrian education and enforcement programs by 2020.

Future Transportation System Recommendations Relevant to Pedestrians and Bicyclists:

- Increase street connectivity and intersection frequency (p. 56).
- Minimize barriers to pedestrian and bicycle travel and encourage people to drive at appropriate speeds (p.56)
- Improve accessibility and safety at intersections and other potential conflict points (p. 56).
- Develop a Complete Streets Policy for street construction and reconstruction projects (p. 56).
- Develop well-connected street patterns (p. 56).
- Allow the construction of narrow streets (p. 57).
- Define the parking areas of streets that have curbs (curb extensions, p. 58).
- Attempt to avoid expanding streets to four or more lanes (p. 58).
- Continue to design intersections to maximize safety and accessibility (p. 60).
- Develop land use patterns that enable and encourage walking and bicycling (p. 63).
- Continue to create safe and continuous pedestrian and bicycle systems (p. 63).
- Enable people to easily reach developments on foot or by bicycle (p. 63).
- Mixing land uses (p. 63).
- Developing comprehensive sidewalk systems in metropolitan area communities (p. 64) (Require sidewalks in all new subdivisions, install sidewalks along major streets and walk routes; and construct sidewalks along the rest of the streets by identifying demand and consulting residents prior to street reconstruction projects).
    - Walkways along streets with reverse frontage lots (p. 65).
    - Developing pedestrian and bicycle trail systems in urban and rural communities (p. 67).
    - Designing developments that provide direct access to sidewalks and streets (p. 67).
    - Ensuring that all transportation structures have pedestrian and bicycle facilities (p. 68).
    - Enabling people to travel easily between subdivisions and other developments when cul-de-sacs are necessary (p. 69).
- Bicyclist, pedestrian, and driver enforcement activities
    - Treat enforcement actions as education and outreach opportunities (p.69).
    - Encourage residents to correct unsafe driving, walking, and, bicycling behavior (p. 69).
- Bicyclist, pedestrian, and driver education activities:
    - Develop a Complete Streets policy for street construction and reconstruction projects (p.69).
    - Offer bicycle safety training in physical education classes (p. 70).
    - Continue to offer pedestrian and bicycle safety programs at schools (p. 70).
    - Ensure that driver education courses address how to interact with bicyclists and pedestrians (p.70).

  - Install share the road with bicycles signs along bicycle routes and other streets where bicycling is common (p. 70).
  - Transit: Urban design (p. 71); design communities to be more transit-friendly (p. 74).
- Bicycle Access to Essential Services (Map, p. 97).
- Sidewalk Access to Essential Services (Map, p. 98).

Green Bay Smart Growth 2022: Transportation Objectives and Policies (Adopted 2003)
Prepared by the City of Green Bay Planning Department Staff
Description: This chapter of a comprehensive plan was developed in 2002-2003 and is intended to guide transportation decisions in the City of Green Bay out to the 2022 horizon (roughly 20 years). While it was created over 15 years ago, this remains the guiding document for the city.

Observations and recommendations are listed below (only those not covered by the MPO plans are listed):
Objectives Relevant to Pedestrians and Bicyclists:

- Balanced and Efficient Transportation System: Provide a balanced and efficient transportation network that offers viable alternatives to driving and maximizes use of existing investments.
- Smart Growth and Land Use: Coordinate the provision and improvement of transportation infrastructure with revitalization projects and compact, directed growth as defined in the Land Use Plan.
- Transit Oriented Development: Promote development in certain corridors and districts that encourages transit ridership.
- Neighborhood Streets: Design neighborhood streets with facilities for automobile, bicycle, and pedestrian travel, while limiting the impacts of traffic.
- Pedestrian Environment: Improve pedestrian connections to create a continuous and seamless pedestrian system and enhance the pedestrian environment to create a more walkable community.
- Bicycle Network: Continue to build a connected bicycle and trail network that is viable, convenient, and safe, and which will encourage utilitarian and recreational bicycling.
- Parking Management: Provide for parking as part of an overall approach to land development that also considers the desired intensity of use, access by alternative modes, availability of on-street parking, and the pedestrian environment.

A Smart Growth Approach to Transportation Planning

- This section discusses a variety of topics related to the transportation system, such as the street grid versus conventional street development patterns, traffic congestion, Transportation Demand Management, and other related topics, for example,:
  - Most of Green Bay streets are in a grid pattern, however portions of the city were built to accommodate automobile access and walking between destinations is more difficult there due to the scale of development and the lack of sidewalks. (p. 19-7).
  - “At the present time, Green Bay typically does not seem to have significant capacity problems (p. 19-8).”

  - Rather than adding roadway capacity to address congestion, another option is to accept congestion which may result in modified behavior to avoid long commutes. (p. 19-10).

Objectives and Policies Most Related to Pedestrians and Bicyclists:

- Evaluate Projects for Multi-Modal Needs: Transportation projects managed by the City will include an evaluation of the infrastructure needed for vehicles, buses, bicycles, and pedestrians. (p.19-21).
- Mode Connectivity: The City will work to bridge gaps, particularly for the transit, pedestrian, and bicycle-route networks (p. 19-21).
- Alternative Mode Choices: The City will work to develop infrastructure that supports alternative mode choices to the drive alone automobile trip (p. 19-22).
- Transportation Demand Management (TDM): The City will work with WisDOT, Brown County Planning Commission, and neighboring communities to develop and implement a TDM Plan (p. 19-22).
- Compact and Contiguous Growth: The City will plan and construct new roadways only in areas contiguous with existing development. The City will maximize the efficiency of its roadway system by seeking compact development patterns (p. 19-22).
- New Neighborhoods: The City will work with developers to create new neighborhoods organized on a grid pattern of interconnected local streets where topography allows. A mix of land uses should be planned, including commercial nodes, to allow short walking trips (p. 19-23).
- Older Neighborhoods: The City will invest in older neighborhoods near the downtown employment core and other employment sites, which will encourage employees to live in close proximity to their place of employment and thereby reduce the vehicle miles traveled for commute trips (p. 19-23).
- Activity Centers: The City will require facilities providing access for pedestrians, bicyclists, and transit to major activity centers (p. 19-23).
- Transit Oriented Development (TOD): The City will promote TOD and encourage TOD areas to be designed in ways to encourage walking and bicycling to transit (pp. 19-23-19-25).
- Access Management: Develop and implement access management plans for principal and minor arterial corridors (p. 19-32).
- Excess Capacity: In some cases, the City should consider removing capacity (p. 19-34).
- Four-Lane to Three-Lane Roads: Four-to-three lane road diets are appropriate for roadways with less than 15,000 AADT (e.g. peak hour volumes less than 1,500 vehicles per hour) and can potentially be used on roads as high as 17,500 AADT (i.e. peak hour volumes between 1,500 and 1,750 vehicles per hour) (p. 19-34). The plan lists the following streets as potential candidates for conversion.
    - Shawano* Avenue between Ashland Avenue and Military Avenue
    - Baird* Street between Mason Street and University Avenue
    - Walnut* Street Between Monroe Street and Baird Street
    - Ashland Avenue between Mather Street and Mason Street

*Shawano Avenue, Baird Street, and Walnut Street, had, in 2002, forecasted traffic volumes that would allow conversion without a dramatic decrease in LOS. For economic development reasons, the plan also suggests a possible conversion of Main Street from four to three lanes.

- Parkway Design: Create parkway designs for major arterial streets (see Figure 20-1, p. 19-36). Lane widths are kept to a minimum to keep speeds to an appropriate level for a residential neighborhood. Street trees provide a barrier between moving traffic and pedestrians, narrow sight lines to calm traffic and create an appealing streetscape. Specific corridors which are recommended for parkway conversion are found on p. 21-5 in the *Urban Design Section* of the Plan.
- Neighborhood Impacts: Capacity improvements, when and where determined necessary, should be designed to minimize negative impacts to neighborhoods including: planting buffers with street trees; designs for appropriate speeds; and possibly roundabouts in place of traffic signals where appropriate (p. 19-37).
- Local Street Design: The design of new local streets should provide for traffic movement while ensuring a safe, attractive, and pedestrian and bicycle friendly neighborhood environment. Figures 19-24a and 19-24b provide recommended local street cross sections and Table 19-3 includes characteristics (including street, sidewalk, and planting strip widths) for new residential streets (pp.19-37-19-38).
- ADA Compliant Streets: All streets should meet the Americans with Disabilities Act (ADA) (p. 19-39).
- Traffic Calming: Use appropriate traffic calming strategies (example Traffic Calming Strategies are included on p. 19-20) (p.19-39).
- Traffic Calming Program: Institute a public/neighborhood-initiated process for addressing traffic calming needs (p. 19-39).
- Pedestrian corridors: Require sidewalks or other pedestrian corridors on all new streets and in all new subdivisions (p. 19-40). New and reconstructed streets should include the provision of sidewalks at City expense, if need be (p. 19-41).
- Pedestrian crossings: Crossings should meet ADA requirements and the design of crossings should be a priority. Several principal arterials are difficult for pedestrians to cross: Mason Street, North Military Avenue, University Avenue, and Main Street east of Monroe Street. Pedestrian crossing improvements should be a high priority on major roadways near schools, parks, and other high pedestrian activity areas. (p. 19-41).
- Sidewalk System Plan: The City should develop a plan that identifies and ranks in priority sidewalk and pedestrian needs (p. 19-41).
- Downtown Pedestrian Connections: The City should improve the walking environment through downtown, with particular attention on the bridges over the Fox River (p. 19-43).
- Walkway Maintenance and Snow Removal: The City should enforce sidewalk snow removal and maintenance ordinances (p. 19-43).
- Proposed bicycle facilities in the City of Green Bay are shown on p. 19-48.
- Bike Plan Implementation: Implement the Brown County Bicycle and Pedestrian Plan (p. 19-50).
- New Multi-Use Trails: Identify opportunities to create multi-use trails (p. 19-50).
- On-Street Bicycle Lanes: Add bicycle lanes through roadway reconstruction (p. 19-50).
- Parkways: Provide bicycle facilities on identified parkways (p. 19-50)

Legends District Draft Master Plan (Adopted 2017)

Prepared by Vierbicher for the City of Green Bay

Description: The Legends District Master Plan focuses on guiding present and future mixed-use development in a (largely) industrial area adjacent to Lambeau Field, home of the Green Bay Packers. The general goal is to draw on the lure of the storied stadium area to create a vibrant, year-round destination. The study site is in the far-southwest corner of Green Bay, just north of the Village of Ashwaubenon. (p. 1.3). Outreach with community members revealed a preference for denser development that would have more options for pedestrians and bicyclist (pp. II-III). The plan extensively references the general plan of Green Bay (*Green Bay Smart Growth 2022*).

While the site is envisioned as a bicycle and pedestrian-friendly location in the future, it is not currently. Issues degrading use of active transportation modes are noted below:

- Large parking lots
- Wide, empty streets
- Lack of designated bicycle facilities
- Lack of sidewalks
- Study site is surrounded by large streets which isolate the development from surrounding residential areas.
    - Lombardi Avenue, the main street fronting the north side of the development, is wide, with fast-moving traffic. Pedestrian infrastructure here is inadequate (e.g. no pedestrian refuge islands).
    - No pedestrian crossing infrastructure is found on the southern side of the district.
- No bicycle parking, except at one location (pp. 1.16-1.17).

A map (p. 1.20) summarizes these limitations.

Bicycle and Pedestrian Recommendations

- Improve non-vehicular and vehicular mobility in and around the District through wayfinding and mobile-friendly technology (p. 3.4).
- Improve non-vehicular and vehicular connections to the District through larger connections and wayfinding plans in and around the community (p. 3.4).
- Implement and promote the use of alternative modes of transportation, including transit, walking, and bicycling (p. 3.4).

Bicycle Recommendations

- 12th and 14th Avenue are currently heavily used by bicyclists. Consider developing these neighborhood streets as bicycle boulevards.

- Long term, consider bicycle facility upgrades on Ashland Avenue. This street is being considered as a candidate for conversion into a parkway. Efforts to slow traffic on this street could involve bicycle lane installation or if traffic speeds are too high, sidepath installation (p. 4.7).

Pedestrian Recommendations

- Create crossing enhancements (including some mid-block crossings) on all sides of the development. Emphasize improvements along the north side of the development, as this direction bordered residential areas, and Green Bay's downtown further north.
    - Intersections and mid-block crossings in the district should consider bulb-outs.
    - Use different paints or materials to increase visibility of intersections.
- Create internal pedestrian networks (likely in the form of paths) to break up the large development and encourage permeability (pp. 4.6-4.11).

Green Bay University Avenue Corridor Brownfield Redevelopment Plan (Adopted 2017)

Prepared by the City of Green Bay with assistance from Scantec Consulting, Inc.

Description: The University Avenue Corridor Brownfield Redevelopment Plan focuses on remediating and redeveloping a low-rise industrial and commercial corridor (with some low- and moderate-income housing) that connects central Green Bay and UWGB. The plan sketches strategies to encourage large-scale redevelopment in this corridor.

Stakeholders indicated that the main impediments for bicycling on this corridor were that it was "dangerous / unsafe," possessed "destinations too far away," and had a "lack of bike lanes" (p. 14 of Appendix). The main challenges for walking on this corridor were that "destinations [were] too far away," it was "unsafe," and had "poor connectivity," and "poor sidewalk conditions" (p. 14 of Appendix).

More specific infrastructural issues that limit bicycle and pedestrian usage are listed below:

- Streets are quite wide
    - The University Avenue Corridor is "operating well under planned capacity for the existing four-lane [undivided] roadway" (pp. 2-29).
- There are limited sidewalks on the eastern portion of the corridor (especially east of Sturgeon Bay Drive). Existing sidewalks are disjointed and often in poor condition.
- There are few pedestrian crossings (only about 20 over the four-mile corridor) (pp. 2-34).

Bicycle Recommendations

- Fill in the gap in the bicycle network between the Fox River Trail and the East River Trail on the western side of the University Avenue Corridor (p. 3-18).
- Develop an off-street trail connection parallel to University Avenue between Clement Street and East Shore Drive to connect the Corridor with UWGB (pp. 3-18, 5-4).
- Connect the existing pedestrian path on University Avenue south to Baird Creek Trail via Humboldt Road (p. 5-4).
- Develop a new regional trail on a rail right-of-way from the intersection of University Avenue / Elizabeth Street northwest and then west to Quincy Street (3-8).
- Create bicycle lanes (or at least some bicycle facilities) on the following streets (p. 3.8).
    - North Danz Avenue
    - Irwin Avenue
    - Eastman Avenue
    - North Henry Street

A map (p. 3-18 and below) shows the network after implementation.

- Build public awareness of—and enthusiasm for—bicycling (p. 5.4).

Pedestrian Recommendations

- Enhance streetscape elements (trees, understory plantings, pedestrian-level lighting, transit shelter improvements). Encourage private investment in these same elements (p. 3-5). Cluster these upgrades at strategic corridor gateways at the following locations:
    - Webster Street
    - Clement Street
    - East Shore Drive (p. 5-3).
- Boost crossing safety by examining the lengthening of signals and infrastructure to lessen crossing distances or by breaking up the crossing (especially for vulnerable groups) (pp. 3-6, 3-28).

- Boost awareness of walking through innovative outreach efforts (p. 3-6).

AuthentiCity Plan (Adopted 2014)

Prepared by T.Y. Lin International, Goodman Williams Group, and Lakota

Description: The AuthentiCity Plan is a downtown plan for the City of Green Bay. The document is intended to "guide development and public improvement" over the next decade in Downtown Green Bay (p. 9). The plan was compiled with a large amount of public and stakeholder outreach which included multiple in-person meetings as well as the creation of an interactive website through which comments could be collected.

Specific recommendations relating to walking and bicycling are shown below:

The plan expresses a general intention to improve the ease and safety of bicycle and walking and to rebalance the transportation system in favor of these modes. To this end, the document supports facilities such on-street bicycle lanes—including more protected facilities like buffered and protected bicycle lanes—bicycle parking, crosswalks, curb ramps, curb extensions, and "pedestrian modal hierarchy"—the idea that at least along certain streets in the downtown area, pedestrians should receive priority in comparison to other modes (p. 69). Specific, location-based improvements are listed below:

Bicycle Recommendations

- Connect the East River Trails to the Fox River Trail and to the Baird Creek Greenway through an alignment paralleling the East River (p. 56).
- Improve connections to the Fox River Trail and CityDeck from the surrounding streets, sidewalks, and bridges (p. 56).
- Enhance the Walnut Street and Dousman Street bridges to make them more inviting, safe, and comfortable for pedestrians and bicyclists (p. 57).
- Create bicycle facilities on South Washington Street (pp. 60-61).
- Improve the bicycle connections on the Walnut Street and East Mason Street Bridges to knit together two separated and redeveloping neighborhoods (beautification efforts here will also benefit pedestrians) (pp. 57-58).
- There are limited routes that serve the interior of downtown; Madison and Jefferson Streets are wide and can accommodate other modes. The plan recommends protected (likely buffered) one-way bicycle lane pairs on these two streets (pp. 62-63).
    - The long-term plan envisions a conversion of these streets into two-way streets. This plan notes that this conversion could likely maintain the bicycle facilities.
    - The new bicycle lanes would narrow vehicular lanes, slowing traffic.
- Implement a road diet on Walnut Street—a four lane street lacking bicycle facilities or a central turn lane (pp. 64-65).
    - East of Monroe Avenue, vehicular volumes are lower; therefore, two through lanes with a central turn lane could be installed, along with bicycle lanes.
    - Bicycle lanes east of Monroe Avenue would connect the East River and Baird Creek Trails to the heart of downtown.

  A map summarizing this document's suggestions is found on p. 21.

Pedestrian Recommendations

- "Strengthen the connection across the Fox River with an attractive and distinguished pedestrian route that ties together Washington, Broadway, Walnut, and Main Streets in an inviting way" (p. 18).
- Improve the pedestrian experience along Hubbard Street by linking North Broadway Street—the major entertainment and business corridor on the west side of the river—to the Fox River (p. 43). This project—termed the Hubbard Street Promenade will include:
    - Streetscape enhancements (special paving, lighting, and wayfinding).
    - Improved pedestrian crossing across existing railroad tracks.
- Enhance the pedestrian experience along the west side of the river through the expansion of a recreational trail similar to that found on the east side of the river (pp. 44-45).
    - Expand trail north of Dousman Street and south of Walnut Street
- Strengthen pedestrian connections to the Fox River Trail and CityDeck over the next decade.
    - Install sidewalks on west side of North Washington Street south of Main Street .
    - Improve pedestrian connectivity to the trail north of Main and Walnut Streets is recommended.
    - Create a pedestrian connection between Whitney Park and Main Street (and eventually to the East River Trail) (p. 21).
- Improve the pedestrian experience along Washington Street.
    - Install or update lighting fixtures, brick paving, trash receptacles, bike racks, etc.
    - Place pedestrians at the top of the hierarchy for Washington Street and use curb .extension, smaller curb radii, high visibility crosswalks, pedestrian countdown timers, and other improvements on this street.

Military Avenue Market Analysis and Corridor Design Plan (Adopted 2011)

Prepared by Vierbicher for the City of Green Bay

Description: The *Military Avenue Market Analysis and Corridor Design Plan* is a strategic plan that focuses on improving the economic condition and urban design of a major commercial corridor along the west side of Green Bay. In 2010, this street was reconstructed, and the City changed the corridor from six lanes to four lanes (and added a median and bicycle lanes). The plan sketches out present economic and land-use conditions and offers suggestions on how to create a more economically prosperous and human-scale streetscape. Overall, the plan doesn't generally offer many specific recommendations for pedestrian or bicycle projects or programs, but those in the plan are listed below:

Bicycle and Pedestrian Recommendations

- "Increase pedestrian and bicycle safety and connectivity at intersections, in parking areas, and at business access points, especially in sub-districts focused on neighborhood retail and service businesses" (p. 109).
    - The document identifies three intersections where curb extensions, bulb-outs, high-visibility crosswalks, and other pedestrian treatments are recommended: Military Ave. / Ninth Street; Military Avenue / West Mason Street; and Military Avenue / Shawano Avenue (p. 105).

    - This plan encourages pedestrian and bicycle improvements on and between private parcels. Such improvements can include: raised crosswalks over driveways; pathways through *and between* parking lots, mixing of pavement colors to improve pedestrian visibility; and bicycle racks (p. 145).
        - Such improvements will allow individuals to walk between stores and restaurants, instead of driving short distances.
- Add sidewalks and bicycle lanes along Military Avenue north of Dousman Street and south of Langlade (p. 145).
- Create a new pedestrian and bicycle overpass beginning at Lombardi Avenue / Marlee Lane and connecting to Military Avenue (p. 146).

Velp Avenue Areawide Plan (Approved 2017)

Prepared by Stantec and Tangible Consulting Services for the City of Green Bay

Description: Like the *Military Avenue Corridor Plan* and the *Green Bay University Avenue Corridor Brownfield Redevelopment Plan*, this document focuses on redevelopment opportunities located along an auto-oriented commercial corridor; it also examines active transportation improvements that could support such redevelopments—or, conversely, be supported by such developments.

The plan describes how Velp Avenue's current infrastructure and land use are not friendly to active transportation modes. Sidewalks are located on the southern side of the street but are missing on portions of the northern side (west of Gray Street) (p. 22). Four intersections along the corridor have marked crosswalks (p. 22). There are no bicycle facilities on Velp Avenue or streets in the immediate vicinity (p. 23). In the City's general plan, the corridor was described as a future parkway, but no treatments have since been added (except for traffic circles at certain intersections).

Generally, this plan emphasizes the importance of retrofitting pedestrian and bicyclist facilities to encourage safety, comfort, and enjoyment.

Bicyclist and Pedestrian Recommendations

- Bike racks (p. 92).
- Improved pedestrian crossings (p. 93).
- High visibility crosswalk markings (p.93).
- Pedestrian activated signals (p. 93).
- Parallel bicycle routes/bicycle opportunities (p. 94-96), create a parallel bicycle boulevard on one of three routes slightly south of Velp Avenue (as shown below and on p. 96).

Implementation Opportunities

The City of Green Bay Department of Public Works has identified possible routes for formal bike lanes: along Holzer Street and Desnoyers Street (as described above). In these cases, two five-foot bicycle lanes could accompany two twelve-foot driving lanes. However, this design would come at the sacrifice of on-street parking. Given this, a bicycle boulevard or shared-use lane might be more feasible. The City of Green Bay currently does not have any bicycle boulevards in the city. However, the City is currently working on a bicycle and pedestrian plan. Introducing bicycle boulevards as a facility type could be beneficial in the neighborhoods around Velp Avenue and elsewhere in the City.

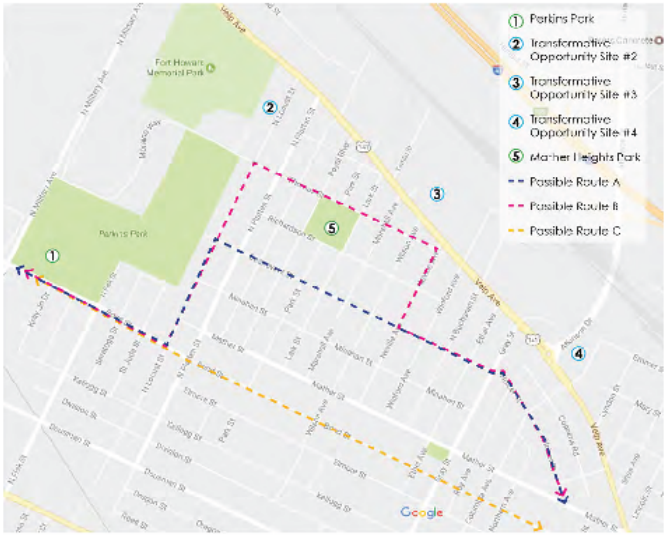


Figure 5-11: Possible Bicycle Boulevard Routes near the Velp Avenue Corridor

Laws and Policies:

Municipal Code Chapter 13: Zoning Code

Chapter 13-1400: Traditional Neighborhood Development (pp. 160-171). This section of the zoning code is an alternative set of standards for development or redevelopment on sites of 5 acres or more that are within the Urban Service or Urban Expansion Districts and contiguous to existing development; and 15 acres or more if within the Urban Service or Urban Expansion District and noncontiguous to existing development.

- The image below shows an image from this section of the code, with street design standards for TNDs.

Table 14-2: Street Design Guidelines for Traditional Neighborhood Development

	Collector	Sub-Collector	Local Street	Alley
Typical Average Daily Trips	750 or more	250 – 750	Less than 250	N/A
Right-of-way	76-88 feet	48 -72 feet	50 - 60 feet	12-16 feet
Auto travel lanes	2 or 3 @ 12 feet	2 @ 10 feet	2 @ 10'	2 @ 8 feet or 1 @ 12 feet (1-way)
Bicycle lanes (may be required where needed)	6 feet next to parking lane	4 feet without parking or 6 feet next to parking lane	None	None
Parking	Both sides, 9 feet	One or both sides, 9 feet	One or both sides, 9 feet	None (access to drives and garages)
Curb and gutter	Required	Required	Required	Not required
Planting strips	Both sides, min. 6 feet	Both sides, min. 6 feet	Both sides, min. 6 feet	None
Sidewalks	Both sides @ 5 feet min.	Both sides @ 5 feet	Both sides @ 5 feet	None

- Chapter 13-1800: Site Plan Review
  - 13-1817: Pedestrians

    (a) In general. Site plans should create a safe, continuous pedestrian network, as required by federal and state code, which offers clear circulation paths from the street(s) and parking areas to building entries.

    (b) Walkway connections. Continuous pedestrian walkways shall be provided from building entries to the public sidewalk or right-of-way, parking areas, transit stops, and adjacent properties, as appropriate.

(c) Walkway width. Onsite pedestrian walkways and sidewalks shall be a minimum of five (5) feet wide, except that walkways adjacent to a parking area where cars may overhang the walkway shall be a minimum of seven (7) feet wide.
(d) Clearly marked walkways. At each point that the onsite pedestrian walkway system crosses a parking lot or internal street or driveway, the walkway or crosswalk shall be clearly marked through the use of a change in color, texture, or height.

Municipal Code Chapter 14: Subdivision and Platting

- Chapter 14-700: Design Requirements
- 14-704: Street Right-of-Way and Width
    - "The right-of-way of all streets shall be of the width specified on the Official Map or Smart Growth 2022 Comprehensive Plan, or if no width is specified there, they shall be not less than the width specified in Table 7-1" (pp. 36-37).

Table 7-1: Street and Right-of-Way Width

Type	Right-of-Way (feet)	Street/Alley Clear Width (feet)
Arterial Street	80-100	48-52
Collector Street	70-80	40-44
Residential Collector	60-70	36-40
Local Street	60	30
Cul- de-sac	50	30
Alley		12-30

- 14-715: Intersections
    - "Streets shall intersect as nearly as possible at right angles. Not more than two (2) streets shall intersect at one (1) point unless approved by the Plan Commission" (p. 38).

- 14-717: Parkways
    - "Where parkways or special types of streets are involved, the Plan Commission may apply special standards to be followed in their design, following recommendations from the Smart Growth 2022 Comprehensive Plan" (p. 39).

- 14-721: Pedestrian ways between blocks
    - *Where deemed essential to provide circulation or access to schools, shopping centers, transportation, and other community facilities, the developer shall dedicate pedestrian ways not less than fifteen (15) feet wide through the center of blocks more than 900 feet long and/or at the end of cul-de-sacs.*

(a) The developer shall construct the pedestrian way at the time streets are constructed in new developments. The pedestrian way shall be made of concrete and be six (6) feet wide and designed according to City sidewalk standards.
(b) Maintenance within the pedestrian way shall be the responsibility of adjacent property owners.

- 14-722: Pedestrian ways adjacent to greenways, parks, and playgrounds
  - *Where deemed essential to provide circulation or access to greenways, parks, and playgrounds, the developer shall dedicate pedestrian ways not less than thirty (30) feet wide between lots adjacent to parks.*
    (a) The developer shall construct the pedestrian way at the time streets are constructed in new developments. The pedestrian way shall be made of asphalt and be ten (10) feet wide, unless otherwise instructed by the Green Bay Parks, Recreation & Forestry Department.
    (b) Maintenance within the pedestrian way shall be the responsibility of the Green Bay Parks, Recreation & Forestry Department.

- 14-723: Sidewalk Pedestrian Corridors

  "Sidewalks or other pedestrian corridors shall be provided on new streets and in new subdivisions in accordance with this section and Table 7-2. To the extent that a new subdivision will impact pedestrian needs on nearby existing streets, the

requirements of Table 7-2 for existing streets may be applied if required by the Common Council."

Table 7-2. Sidewalk/Pedestrian Corridor Requirements

Planned Land Use (and Density)	Type of Street	Sidewalk Requirements for New Streets	Sidewalk Requirements for Existing Streets
Commercial and Industrial	All Streets	Both sides.	Both sides.
Residential (All Densities)	Arterial Streets	Both sides.	Both sides.
Single-Family Residential (All Densities)	Collector Streets	Both sides.	Both sides preferred, at least one side required.
Multi-Family Residential (All Densities)	Collector Streets	Both sides.	Both sides.
Residential (More than Four Units per Acre)	Local Streets	Both sides.	Both sides preferred, at least one side required.
Residential (One to Four Units per Acre)	Local Streets	Both sides preferred, at least one side required.	One side preferred, at least a four foot shoulder on both sides required.
Residential (Less than One Unit per Acre)	Local Streets	One side preferred, at least a four foot shoulder on both sides required.	One side preferred, at least a four foot shoulder on both sides required.
Areas within Two Blocks of a School	Local Streets	Both sides.	Both sides preferred, at least one side required.

(Adapted from: *Wisconsin Pedestrian Planning Guidance*, Wisconsin Department of Transportation)

- *(a) Possible Exceptions*

  (1) Sidewalks may be omitted on one side of new streets where that side clearly cannot be developed and where there are not existing or anticipated uses that would generate pedestrian trips on that side.

  (2) Where there are frontage or service roads, the sidewalk adjacent to the main road may be eliminated and replaced by a sidewalk adjacent to the frontage or service road on the side away from the main road.

  (3) For rural roads not likely to serve development, a shoulder at least four feet in width, preferably eight feet on primary highways, should be provided. Surface material should provide a stable, mud-free walking surface.

  (4) A multi-use path or trail system within a subdivision, such as a conservation-by-design subdivision, may be substituted for required sidewalks if such a path is open to the public and connects at two ends to a public sidewalk or multi-use path when available.

(b) Effort should be made to add sidewalks where they do not exist and to complete missing links. Sidewalk connections and crosswalks at major intersections should be completed in coordination with new development.

(c) Sidewalks should be a minimum of five feet wide in residential areas and wider in commercial areas, where an eight to ten-foot walking corridor from street curb to building face may be required. Sidewalks internal to parking areas shall comply with the requirements of the Zoning Ordinance.

(d) Sidewalk Installation. This ordinance shall supersede the "New Land Division" provisions of the "City of Green Bay Sidewalk Installation Policy."

(1) The cost to construct sidewalks shall be paid by the adjacent property owners and/or the subdivider. For sidewalks or pedestrian ways to be installed at the time of street construction, this cost shall be included in the required development fees (cash sum or cash equivalent) or may be addressed through the development agreement as applicable.

(2) Sidewalks abutting residential lots or development sites shall be installed concurrently with the construction of the abutting housing units up to the time of at least 50% build-out of the subdivision or land division. A housing unit shall not be occupied until the abutting sidewalk is installed and an occupancy permit is granted. When more than 50% of the anticipated housing units have been constructed, the City Council may order the installation of the rest of the required sidewalks.

(3) The Planning and Public Works Departments may require as a condition of Final Plat approval that certain sidewalks or other pedestrian ways be installed at the time of street construction, including, but not necessarily limited to:

a. Sidewalk radii at block corners including curb cuts and detectable warning surfaces in compliance with Department of Public Works requirements.

b. Multi-use paths or trails being approved as an alternative to the minimum sidewalk requirements.

c. Sidewalks along collector or arterials streets within the subdivision, portions of sidewalks not abutting residential lots or building sites, or other similar key pedestrian linkages.

d. Mid-block or park access pedestrian ways shall be installed at the time of street construction in accordance with Sections 14-721 and 14-722.

(4) Street frontages where sidewalks are required shall be shown on the face of the CSM or plat, and the following restrictive covenant shall also be placed on the CSM or plat.

a. Where the locations of sidewalks have been graphically designated on the CSM or plat, the following restrictive covenant shall be used: Concrete sidewalks shall be installed as shown on this CSM/subdivision plat. Sidewalks shall be installed in front of lots abutting the locations shown at the time the lots are developed and prior to receiving an occupancy permit or as directed by the Common Council of the City of Green Bay.

b. Where the locations of sidewalks have not been graphically designated on the CSM or plat, the following restrictive covenant shall be used: Concrete sidewalks shall be installed on (side of street/both) side(s) of (street) from (limit) to (limit). Sidewalks shall be installed in front of lots abutting (street) at the time the lots are developed and prior to receiving an occupancy permit or as directed by the Common Council of the City of Green Bay.

Appendix 3. Level of Traffic Stress Analysis

This appendix outlines the methodology used to conduct the bicycle level of traffic stress analysis for the Green Bay Safe Walk & Bike Plan being produced for the Green Bay Area Public School District and the City of Green Bay.

Background

Toole Design conducted a bicycle level of traffic stress (LTS) analysis to classify streets based on how stressful they are for riding a bicycle. The classification uses roadway characteristics such as speed limits, the amount of motor vehicle traffic, the number of travel lanes, and bikeway characteristics. Trails are typically classified as low stress and major arterials are often high stress. This classification is important because people have different levels of comfort interacting with motor vehicle traffic when they are bicycling or considering bicycling. The LTS analysis, when compared with the demand analysis, can highlight roadway segments in areas where demand for bicycling trips is high, but traffic stress is also high.

Research indicates that while avid bicyclists are accustomed to interacting with motor vehicle traffic, most people have little tolerance for interacting with traffic while bicycling and are very worried about being struck by a motor vehicle. In fact, these concerns discourage many people from trying bicycling in the first place. The share of people who are interested in bicycling but concerned about traffic comprise 51 to 56 percent of the population (avid or confident bicyclists comprise 12 to 13 percent, and the remainder have no interest in bicycling). The “interested but concerned” bicyclists prefer quiet streets, trails, and other "low stress" places to bike that have limited motor vehicle traffic or are separated from traffic.

Methodology

The Mineta Transportation Institute (a California-based research institution) developed the Level of Traffic Stress model to classify streets from high-stress to low-stress using four classifications: LTS 1-4. LTS 1 streets are comfortable for people of all ages and abilities, including children. LTS 2 streets are comfortable for most adults, including people who are interested but concerned about bicycling. LTS 3 streets are comfortable for those who are confident bicyclists. LTS 4 streets are the most stressful and are uncomfortable for most people except for very confident bicyclists.

As opposed to other methods to determine the suitability of streets for bicycling, the LTS method provides a greater weight to motor vehicle traffic speeds and volumes. While most people are comfortable bicycling on quiet streets, the LTS method requires physical separation between bicycles and cars when traffic levels and speeds exceed certain thresholds. This is important because separation from motor vehicle traffic may be the most important factor to encourage more people to bicycle.

The method uses several criteria for determining traffic stress (street width, posted speed limit, and presence of on-street parking) as well as additional criteria depending on the type of facility (bike lane width, traffic volume when streets do not have bike lanes, and number of driveway/street crossings for paths).

For this project, traffic stress was calculated using a simplified version of the LTS methodology, as described in tables 1-3 below. The results of the LTS analysis are displayed on maps 1-5.

Table 1: Mixed Traffic Criteria

		Prevailing Speed						
Number of lanes	Effective ADT*	≤ 20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50+mph
Unlaned 2-way street (no centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
	1501-3000	LTS 2	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
	1501+	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4
2 thru lanes per direction	0-8000	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	8001+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ thru lanes per direction	any ADT	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4

* Effective ADT = Average Daily Traffic (ADT) for two-way roads; Effective ADT = 1.67*ADT for one-way roads

Table 2: Bike Lanes and Shoulders Not Adjacent to a Parking Lane

Number of lanes	Width of Bike Lane/Shoulder	Prevailing Speed ≤ 25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
1 thru lane per direction, or unlaned	6+ ft	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
2 thru lanes per direction	6+ ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4
3+ lanes per direction	any width	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4

Notes 1. If bike lane / shoulder is frequently blocked, use mixed traffic criteria.

2. Qualifying bike lane / shoulder should extend at least 4 ft from a curb and at least 3.5 ft from a pavement edge or discontinuous gutter pan seam

3.Bike lane width includes any marked buffer next to the bike lane.

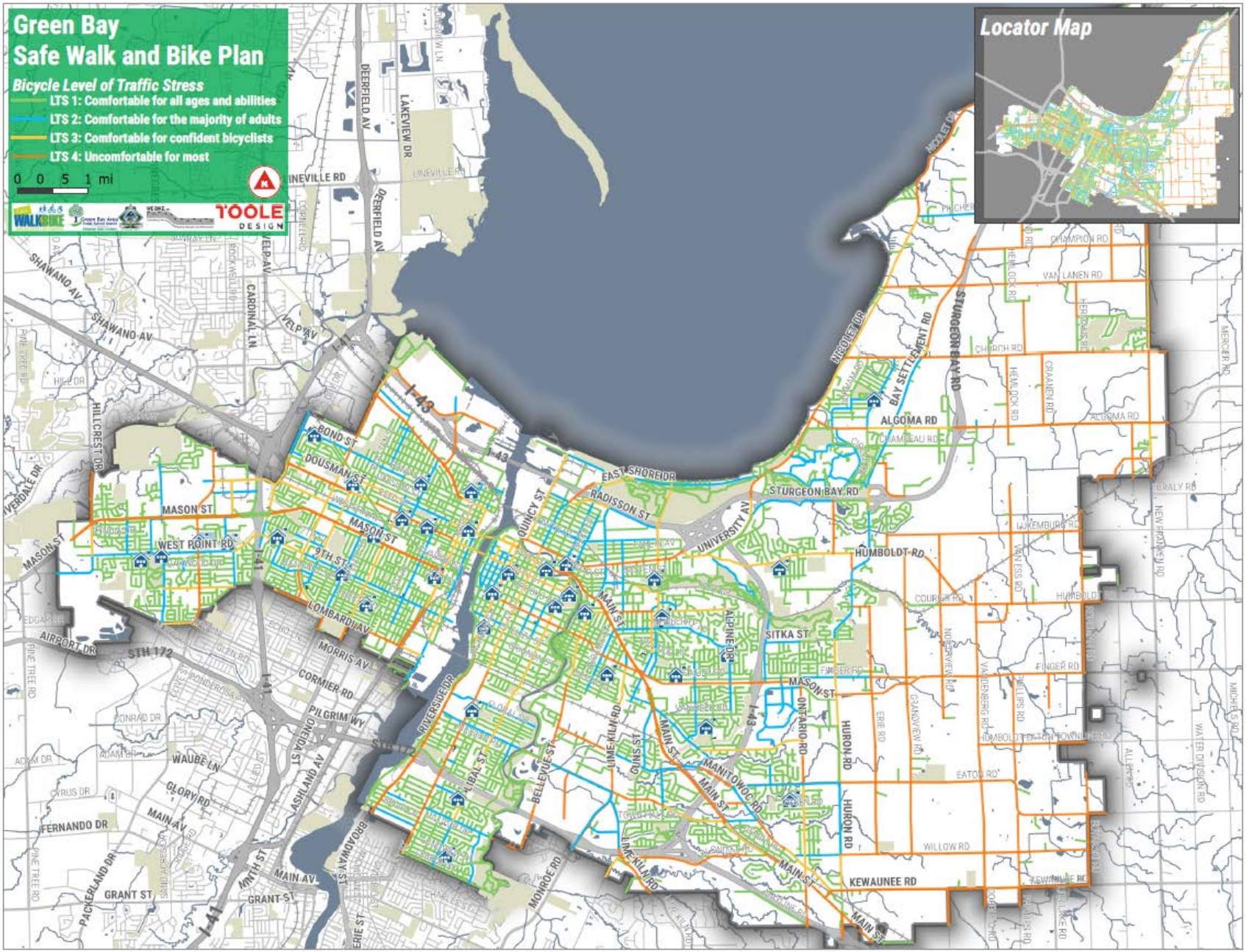
Table 3: Bike Lanes Alongside a Parking Lane

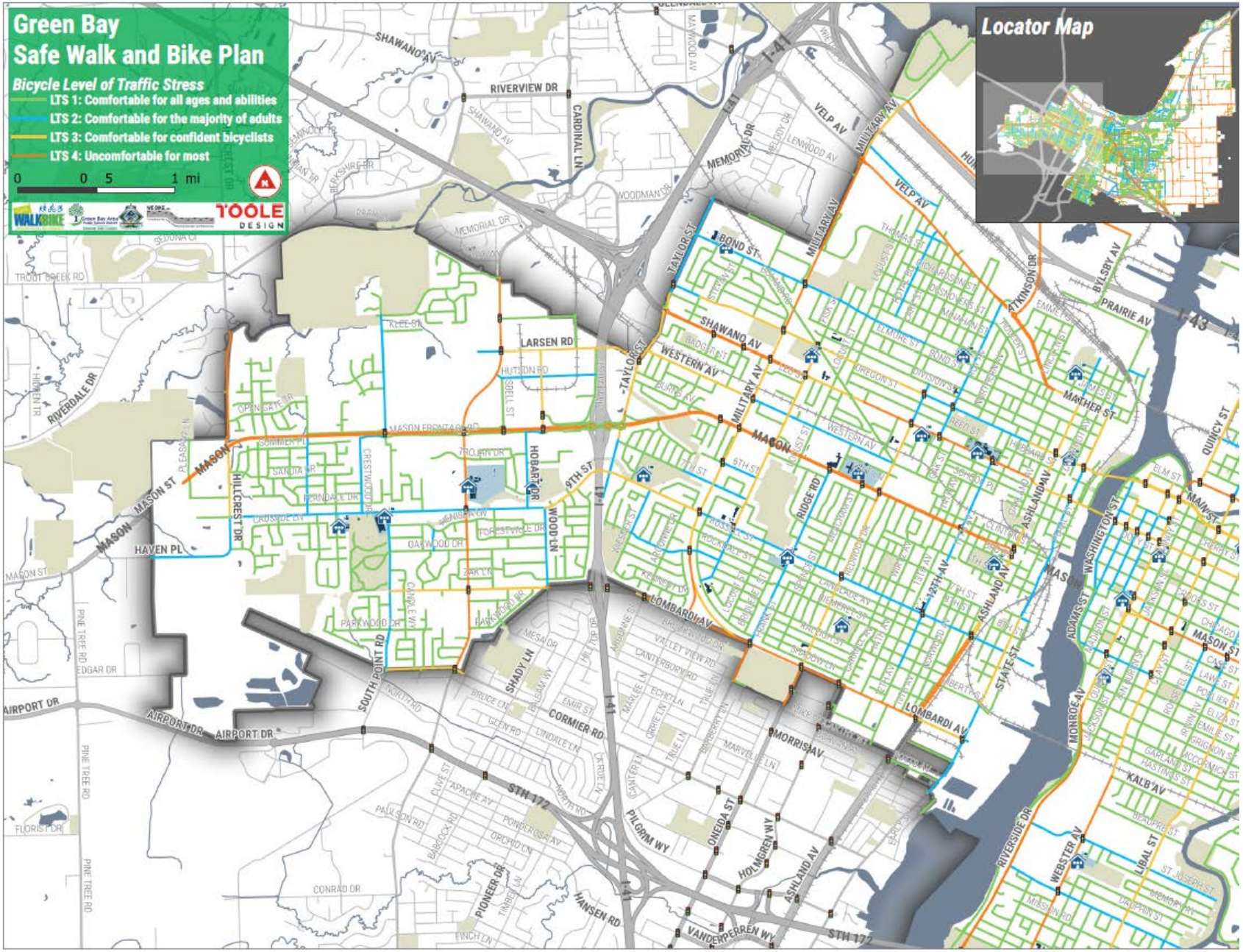
Number of lanes	Bike lane reach = Bike + Parking lane width	Prevailing Speed ≤ 25 mph	30 mph	35 mph
1 lane per direction	15+ ft	LTS 1	LTS 2	LTS 3
	12-14 ft	LTS 2	LTS 2	LTS 3
2 lanes per direction (2-way)	15+ ft	LTS 2	LTS 3	LTS 3
2-3 lanes per direction (1-way)		LTS 2	LTS 3	LTS 3
other multilane		LTS 3	LTS 3	LTS 3

Notes 1. If bike lane is frequently blocked, use mixed traffic criteria.

2. Qualifying bike lane must have reach (bike lane width + parking lane width) ≥ 12 ft

3.Bike lane width includes any marked buffer next to the bike lane.


Green Bay
Safe Walk and Bike Plan
Bicycle Level of Traffic Stress
LTS 1: Comfortable for all ages and abilities
LTS 2: Comfortable for the majority of adults
LTS 3: Comfortable for confident bicyclists
LTS 4: Uncomfortable for most
0 0 5 1 mi
TOOLE DESIGN
Locator Map
I-43
I-41
STH 172
MASON ST
WEST POINT RD
9TH ST
LOMBARDI AV
AIRPORT DR
MORRIS AV
CORMIER RD
PILGRIM WY
WAUBE LN
GLORY RD
MAIN AV
FERNANDO DR
GRANT ST
PACKERLAND DR
BROADWAY ST
MONROE RD
ASHLAND AV
OMEGA ST
RIVERSIDE DR
BELLEVUE ST
LIME KILN RD
MANITOWOC RD
ONTARIO RD
HURON RD
KEWAUNEE RD
WILLOW RD
EATON RD
FINGER RD
ALPINE DR
SITKA ST
HUMBOLDT RD
UNIVERSITY AV
STURGEON BAY RD
BAY SETTLEMENT RD
ALGOMA RD
CHURCH RD
VAN LANEN RD
CHAMPION RD
EAST SHORE DR
RADISSON ST
QUINCY ST
DOUSMAN ST
BOND ST
DEERFIELD AV
LAKEVIEW DR
LINEVILLE RD
SHAWANO AV
VELP AV
CARDINAL LN
HILLCREST DR
VERDALE DR
NIBOUET DR
MERCIER RD
LAKEMBURG RD
COURIER RD
VAN ESS RD
GRANDVIEW RD
PHILLIPS RD
ERIE RD
WATER DIVISION RD
MICHELS RD
NEW FRONTIER RD
GERALY RD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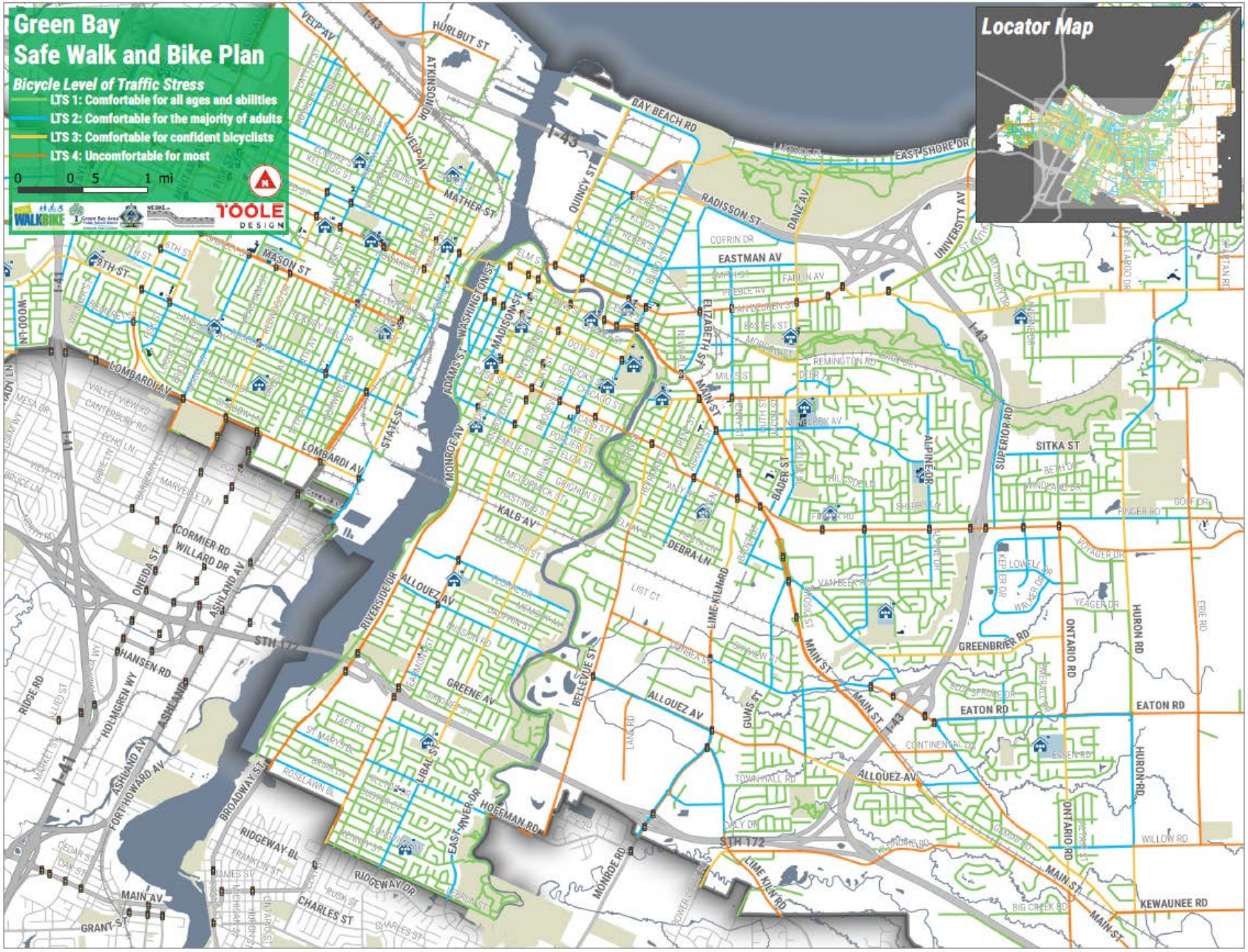
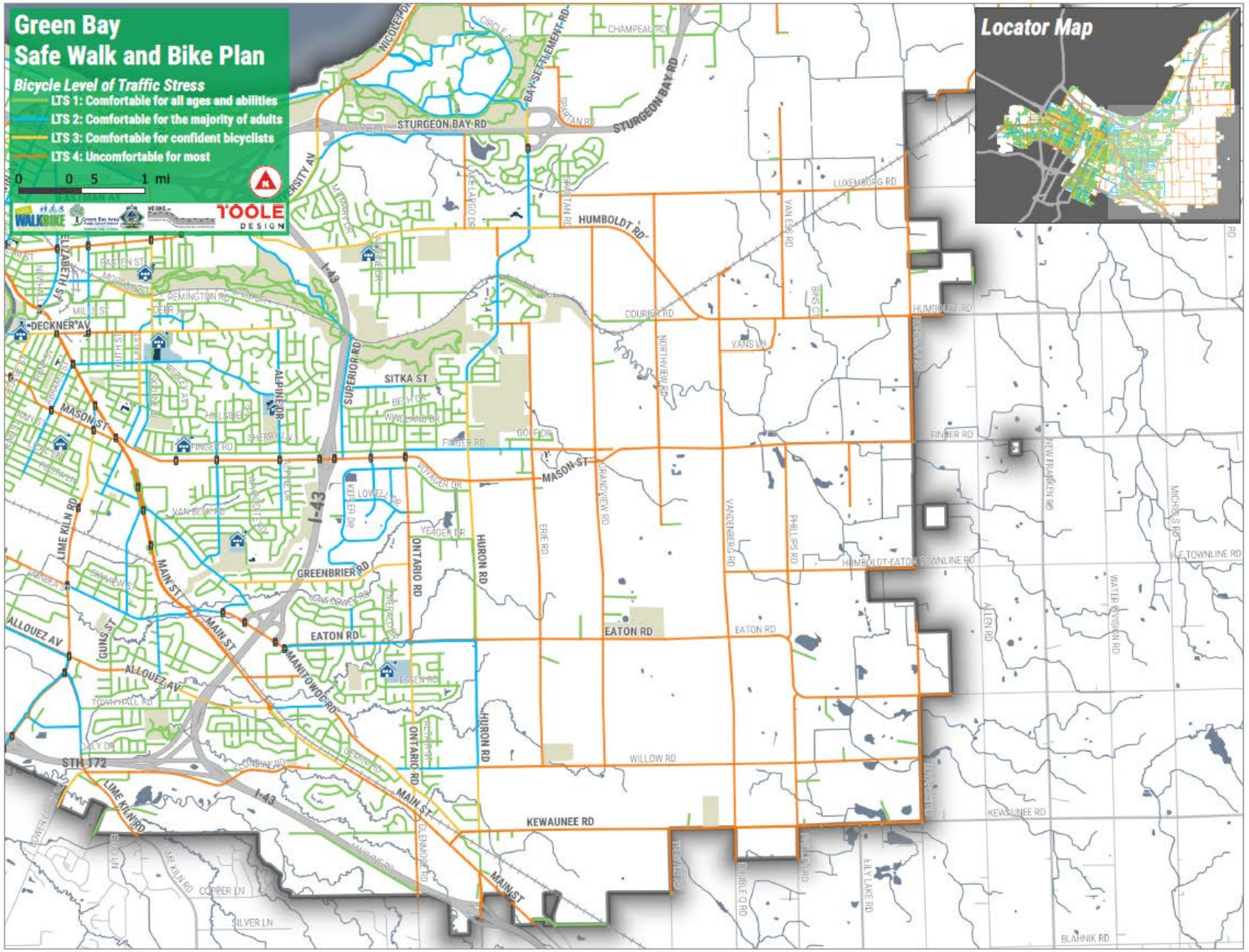
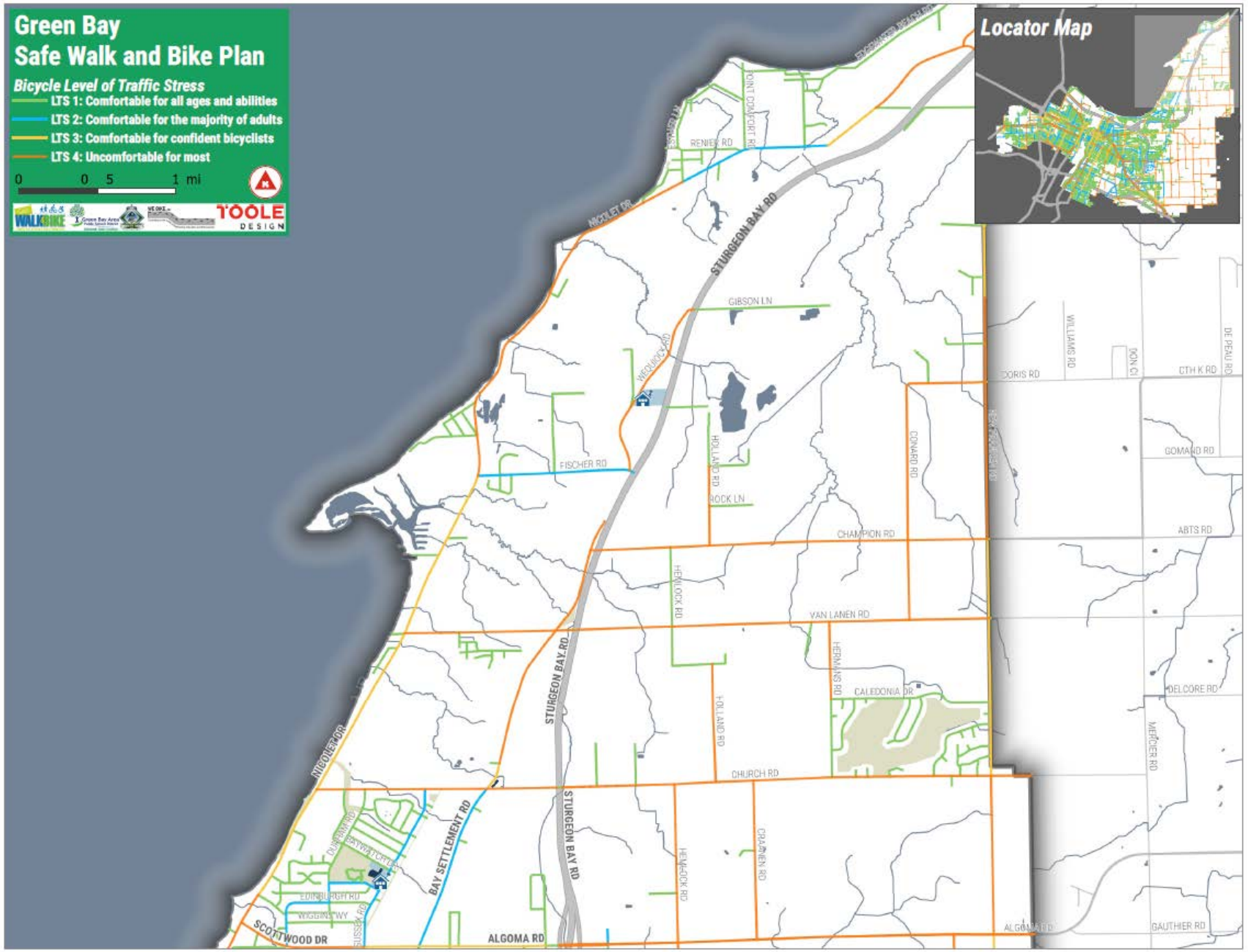
0 0 5 1 mi
TOOLE DESIGN
Locator Map
SHAWANO AV
RIVERVIEW DR
CARDINAL LN
I-41
MEMORIAL DR
VELP AV
MILITARY AV
TAYLOR ST
BOND ST
ATKINSON DR
BYLSBY AV
PRAIRIE AV
LARSEN RD
WESTERN AV
MASON
MASON ST
MATHER ST
QUINCY ST
MAIN ST
RIDGE RD
ASHLAND AV
WASHINGTON ST
ADAMS ST
MONROE AV
STATE ST
LOMBARDI AV
MORRIS AV
KALB AV
RIVERSIDE DR
WEBSTER AV
LIBAL ST
RIVERDALE DR
HILLCREST DR
HOBART DR
WOOD LN
9TH ST
HAVEN PL
SOUTH POINT RD
SHADY LN
CORMIER RD
AIRPORT DR
PINE TREE RD
EDGAR DR
FLORIST DR
CONRAD DR
PIONEER DR
HANSEN RD
PILGRIM WY
ONEIDA ST
HOLMGREN WY
VANDERPERREN WY
STH 172
TROUT CREEK RD
HUTSON RD
MASON FRONTAGE RD
TROJAN DR
OAKWOOD DR
PARKWOOD DR
WOODMAN DR
MEMORIAL DR
LENNOX AV
MAYWOOD AV
BERKSHIRE DR
SEDONA CT
KLEE ST
OPEN GATE TR
HIDDEN TR
SUMMER PL
SANDIA TR
MERIDALE DR
CROSWIDE LN
CRESTWOOD DR
FOREST VIEW DR
OAK LN
CANTERBURY RD
VALLEY VIEW RD
MESA DR
BRUCE LN
GLEN RD
LINDALE LN
EMIR ST
TRUE LN
MARYDALE LN
CANTERA LN
APACHE AV
PONDEROSA AV
ORCHID LN
PARKSON RD
BABCOCK RD
FINCH LN
ELM ST
6TH ST
12TH AV
CLINTON ST
ROOSEVELT ST
ROCKFORD ST
CHICAGO ST
LAWE ST
POLLER ST
ELIZA ST
EMILE ST
BRIGHTON ST
GARLAND ST
HASTINGS ST
MCCORMICK ST
BERGPRIEST ST
ST JOSEPH ST
MISSION RD
DAUPHIN ST
MEMORIAL DR
MAYWOOD AV
LENNOX AV
WOODMAN DR
I-43


Green Bay
Safe Walk and Bike Plan
Bicycle Level of Traffic Stress
LTS 1: Comfortable for all ages and abilities
LTS 2: Comfortable for the majority of adults
LTS 3: Comfortable for confident bicyclists
LTS 4: Uncomfortable for most
0 0 5 1 mi
TOOLE DESIGN
Locator Map
BAY BEACH RD
EAST SHORE DR
RADISSON ST
EASTMAN AV
UNIVERSITY AV
I-43
I-41
HURLBUT ST
ATKINSON DR
VELP AV
MATHER ST
QUINCY ST
DANZ AV
COFRIN DR
9TH ST
MASON ST
WOOD LN
LOMBARDI AV
CANTERBURY RD
ECHO LN
VIEW CT
BRUCE LN
MARVEL LN
CORMIER RD
WILLARD DR
OWEIDA ST
ASHLAND AV
HANSEN RD
HOLMGREN WY
RIDGE RD
FORT HOWARD AV
STATE ST
ADAMS ST
WASHINGTON ST
MADISON ST
MONROE AV
KALB AV
GREENE AV
RIVERSIDE DR
ALLOUEZ AV
BELLEVUE ST
LIME KILN RD
DEBRA LN
ELIZABETH ST
MAIN ST
BADER ST
ALPINE DR
SUPERIOR RD
SITKA ST
REMINGTON RD
FINGER RD
GOLF DR
VOYAGER DR
GREENBRIER RD
ONTARIO RD
HURON RD
ERIE RD
EATON RD
WILLOW RD
KEWAUNEE RD
BIG CREEK RD
STH 172
BROADWAY ST
RIDGEWAY BL
RIDGEWAY DR
EAST RIVER DR
HOEFMAN RD
MONROE RD
CHARLES ST
MAIN AV
GRANT ST
TOWN HALL RD
GUNS ST
LIST CT


Green Bay
Safe Walk and Bike Plan
Bicycle Level of Traffic Stress
LTS 1: Comfortable for all ages and abilities
LTS 2: Comfortable for the majority of adults
LTS 3: Comfortable for confident bicyclists
LTS 4: Uncomfortable for most
0 0 5 1 mi
TOOLE DESIGN
Locator Map
STURGEON BAY RD
HUMBOLDT RD
SITKA ST
MASON ST
EATON RD
GREENBRIER RD
WILLOW RD
KEWAUNEE RD
I-43
STH 172
SUPERIOR RD
ONTARIO RD
HURON RD
MAIN ST
LIME KILN RD
ALLOUEZ AV
DECKNER AV
MANITOWOC RD
BAY SETTLEMENT RD
CHAMPEAU RD
LUXEMBURG RD
COURIER RD
FINGER RD
HUMBOLDT-EATON TOWNLINE RD
E TOWNLINE RD
BLAHNIK RD


Green Bay
Safe Walk and Bike Plan
Bicycle Level of Traffic Stress
LTS 1: Comfortable for all ages and abilities
LTS 2: Comfortable for the majority of adults
LTS 3: Comfortable for confident bicyclists
LTS 4: Uncomfortable for most
0 0 5 1 mi
TOOLE DESIGN
Locator Map
STURGEON BAY RD
MOLLET DR
RENIER RD
POINT COMFORT RD
GIBSON LN
WEDGEWOOD RD
FISCHER RD
HOLLAND RD
ROCK LN
CONARD RD
CHAMPION RD
HEMLOCK RD
VAN LANEN RD
HOLLAND RD
CALEDONIA DR
CHURCH RD
STURGEON BAY RD
BAY SETTLEMENT RD
HEMLOCK RD
CRAANEN RD
ALGOMA RD
SCOTTWOOD DR
EDINBURGH RD
WIGGINS WY
RUSSELL RD
NICOLET DR
CORIS RD
WILLIAMS RD
DON CI
CTH K RD
DE PEAU RD
GOMARD RD
ABTS RD
DELCORE RD
MERCIER RD
GAUTHIER RD

Appendix 4. Demand Analysis

This appendix outlines the methodology used to conduct the bicycle and pedestrian demand analysis for the Green Bay Safe Walk & Bike Plan being produced for the Green Bay Area Public School District and the City of Green Bay.

Demand Analysis Methodology

Many factors influence the likelihood that people walk and bicycle for transportation. Locations with higher population and employment densities are likely to have destinations within shorter distances than areas where people and jobs are more spread out. People who use transit are likely to walk to bus stops. People often walk and bicycle in places with existing trails and parks. Schools are often indicators of potential demand for safe walking and bicycling conditions because elementary and middle school children do not drive, and most Green Bay Area Public School students who live within two miles of school are not eligible for free school busing. Research on travel mode choice has shown that locations with high intersection density are strongly correlated with high pedestrian demand. Finally, areas with higher concentrations of households without access to motor vehicles, high bicycle and walk commute to work mode share, and low-income households are likely to have higher demand for walking and bicycling.

Table 1 shows the weighted factors used for the Green Bay demand analysis map

Table 4: Bicycle and Pedestrian Demand Factors

Factor	Maximum Points Allocated*
Population Density	25
Employment	25
Intersection Density	25
School Proximity	20
Park Proximity	20
Transit Proximity	10
Trail Proximity	10
Low Income Population	10
Zero Car Households	10
Bike Commute Mode Share	10

Walk Commute Mode Share	10
Total	175

***For most factors, points are allocated based on a relative scale, with the Census blocks that have the highest densities of intersections, population, households below the poverty line, and employment receiving the maximum points. For transit routes, Census blocks whose center is within ¼ mile of a bus route receive the maximum points, and blocks whose center is more than ¼ mile but within ½ mile of a bus route receive 8 points.**

*For most factors, points are allocated based on a relative scale, with the Census blocks that have the highest densities of intersections, population, households below the poverty line, and employment receiving the maximum points. For transit routes, Census blocks whose center is within ¼ mile of a bus route receive the maximum points, and blocks whose center is more than ¼ mile but within ½ mile of a bus route receive 8 points.

There are three maps showing bicycle and pedestrian demand at the end of this memo. Map 1 shows demand across the study area. This shows the general pattern that areas closer to the central core, with its higher densities of jobs and residents, have higher demand for walking and bicycling. Map 2 shows the same demand levels but is focused on the central core. Map 3 shows only the areas of highest demand, but in greater detail. This map shows "hot spots" in several areas, many of which are located in downtown Green Bay. Another hot spot is visible near the intersection of W Mason Street and S Military Avenue, as well as east of downtown near Deckner Avenue and Main Street.

Detailed Explanation of Demand Factors

Employment Density

Employment density is a major demand determinant for both recreational and utilitarian trips. People walk or bike to or within areas that have high employment. They do so primarily to access jobs but potentially also for a variety of errands. Moreover, some areas with high employment see a lot of midday walking activity as people go to lunch or nearby errands. Employer data and the number of jobs they provide were mapped using a half-mile buffer surrounding employment locations to estimate concentrations of employers and jobs. Locations (hexagon cells displayed on map) at or above the 90th percentile were given 25 points; anything below that was pro-rated up to the 80th percentile value.

Proximity to Schools

Schools generate a lot of trips, many of which use active transportation modes. Schools also see a lot of walking activity outside of school hours as community members access the buildings, grounds, and playgrounds. School locations were mapped using a half-mile buffer. Locations (hexagon cells displayed on map) at or above the 95th percentile were given 20 points; locations below that were pro-rated up to the 95th percentile value.

Proximity to Parks

Parks generate many trips, many of which are made by non-motorized modes. Each hexagon summed the number of parks within a half mile. Locations at or above the 95th percentile were given 20 points; locations below that were pro-rated up to the 95th percentile value.

Demographic Data

Demographic data were collected from the U.S. Census Bureau's 2012-2016 American Community Survey (ACS) at the block group level and was used in this analysis to estimate demand using key socioeconomic factors. The following ACS data were used to measure demand:

Population density

Population density is a strong determinant for both recreational and utilitarian trips. In short, the more people living in an area, the more people will be walking or biking. Population density is also highly related to transit ridership and a strong measure of transit demand. Locations (hexagon cells displayed on map) at or above the 95th percentile were given 10 points; locations below that were pro-rated up to the 95th percentile value.

Zero-car households

Zero-car households have a high probability of using active transportation modes of transportation, including the use of transit. Census block groups with a high proportion of households without access to a personal vehicle represent areas where there is a potential high demand for active transportation facilities. Locations (hexagon cells displayed on map) at or above the 98th percentile in the study are were given 10 points; locations at or above the 50th percentile were pro-rated up to the 98th percentile value; all other areas received zero points.

Low-Income Households

Census block groups with a high proportion of low-income households were used to estimate levels of active transportation demand. Research indicates that people living in households below the poverty line are more likely to depend on transit, walking, or biking to get around their community and to commute to work. Locations (hexagon cells displayed on map) at or above the 98th percentile were given 10 points; locations at or above the 50th percentile were pro-rated up to the 98th percentile value; all other areas received zero points.

Bike and Walk Mode Share

Bike and walk mode share rates for commuting to work trips represent current active transportation and transit usage in the study area for work-related trips. These ACS mode share estimates do not record commutes to school, recreational trips, or trips to run errands. However, the ACS commute to work data do provide a limited snapshot into bicycling, walking, and transit usage in the region as commute trips represent approximately 15% of overall travel. Locations (hexagon cells displayed on map) at or above the 98th percentile were given 10 points; locations at or above the 50th percentile were pro-rated up to the 98th percentile value; all other areas received zero points.

Transit Stops

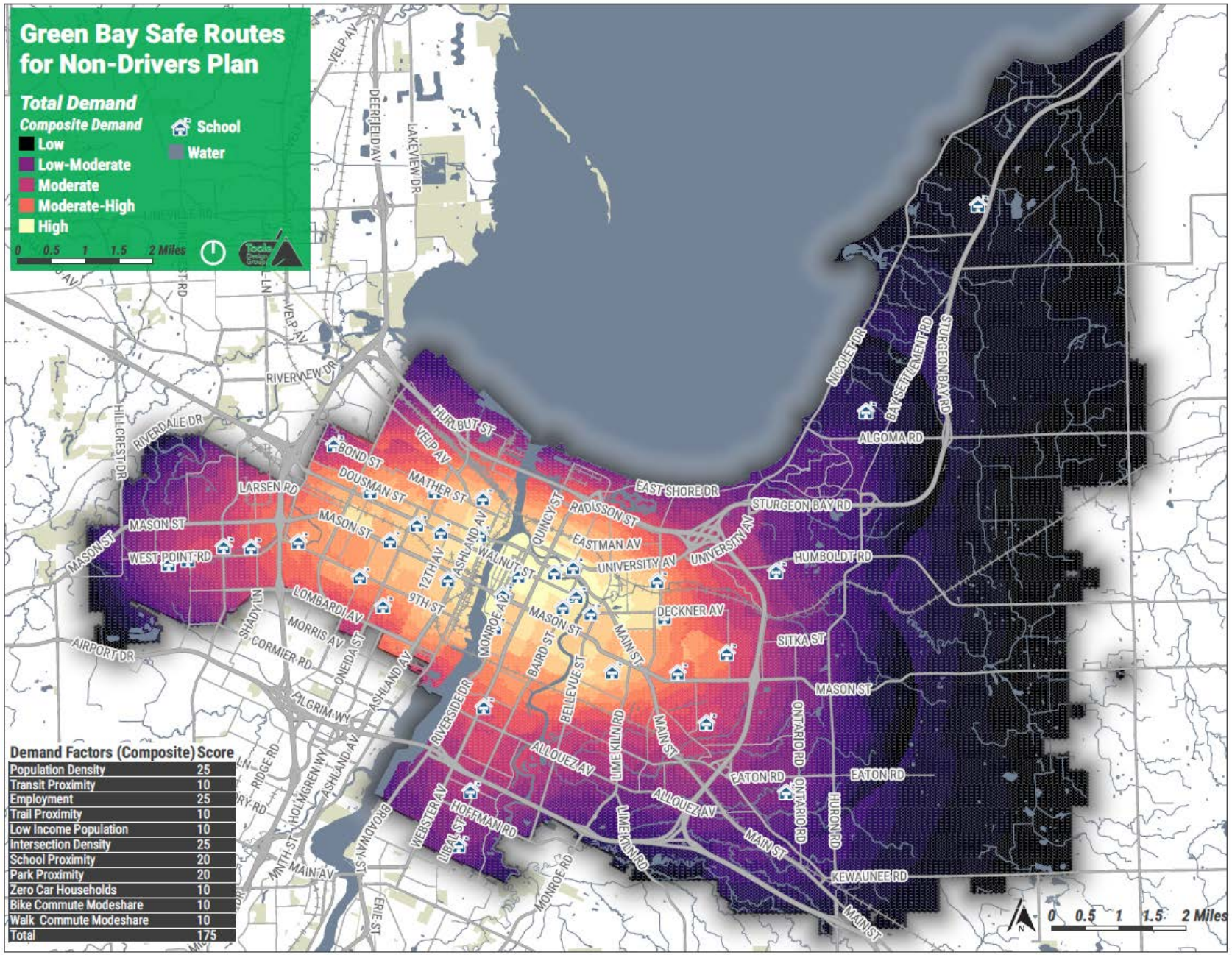
People walking to and from the bus are another important population to consider. People within ½-mile of a bus stop are more likely to use transit, so locations within ½-mile of bus stops were mapped. Locations (hexagon cells displayed on map) at or above the 95th percentile were given 20 points; locations below that were pro-rated up to the 95th percentile value.

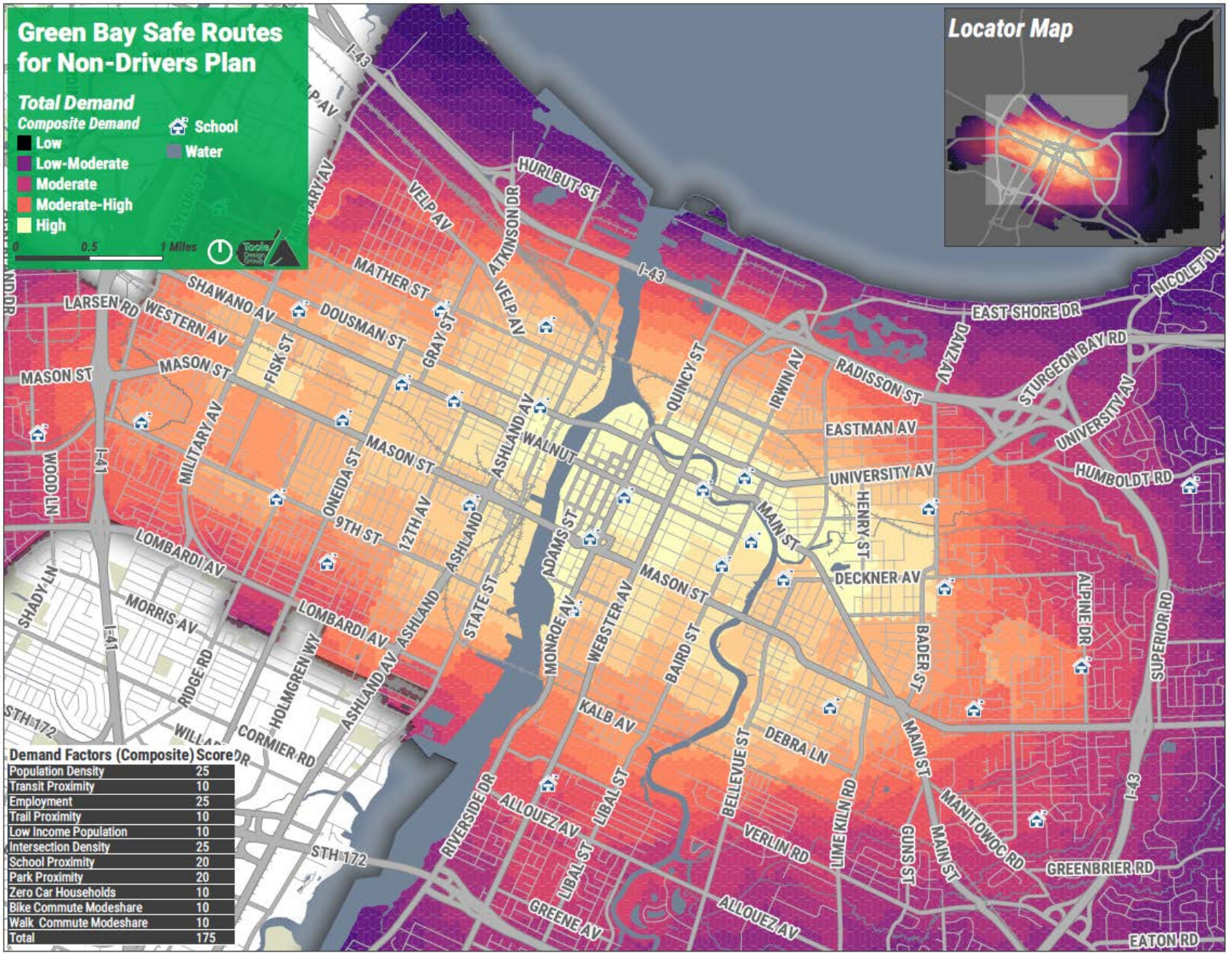
Intersection Density

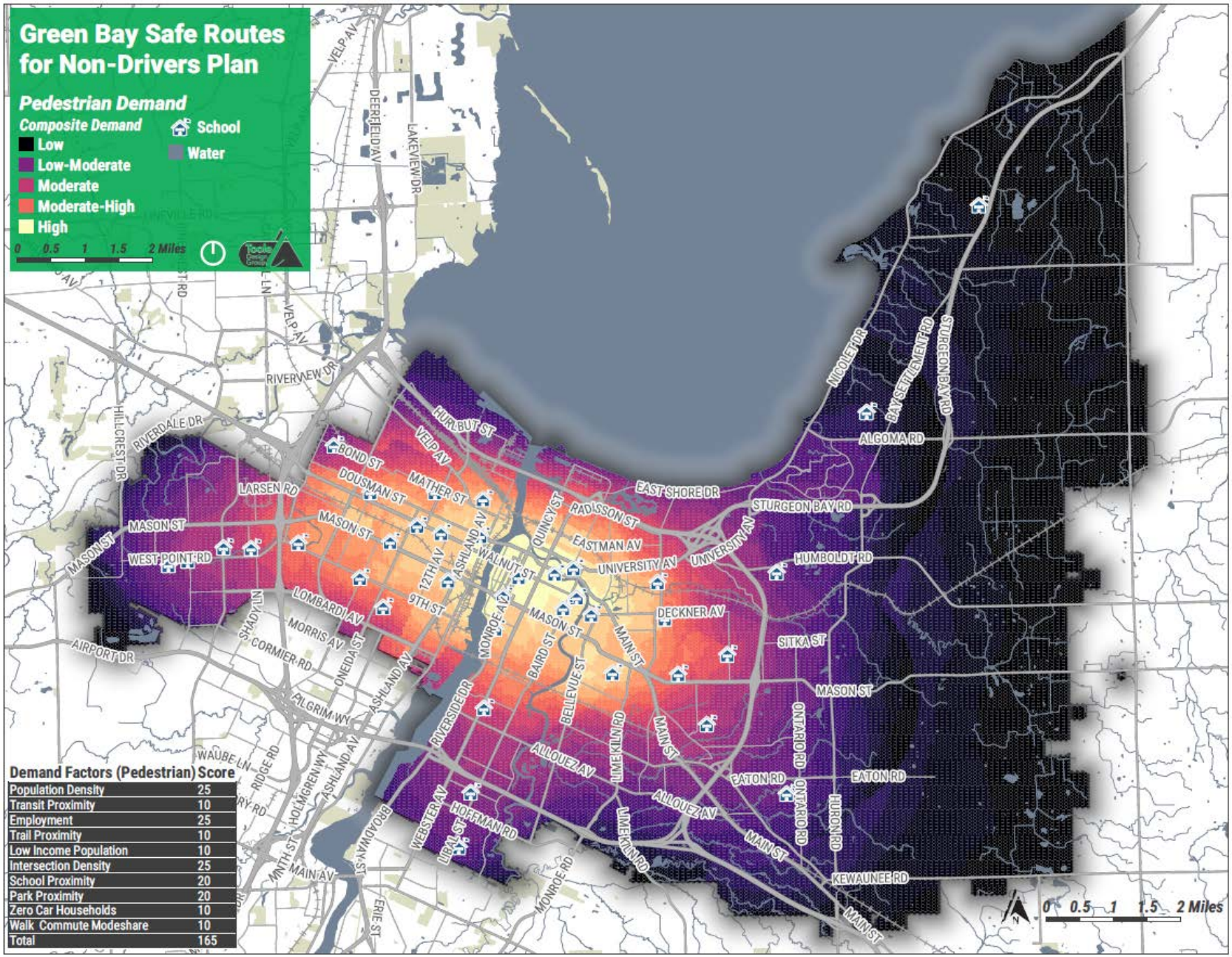
Research into travel mode choice has shown that intersection density is highly correlated with pedestrian trips and transit ridership, significantly more so than any other factor. Areas with high intersection density tend to have high densities and diversities of utilitarian destinations and are therefore locations in which utilitarian trips are more likely to occur. The number of intersections within a ¼-mile buffer around each location (hexagon) was measured to calculate the intersection density. Locations (hexagon cells displayed on map) at or above the 95th percentile were given 20 points; locations below that were pro-rated up to the 95th percentile value.

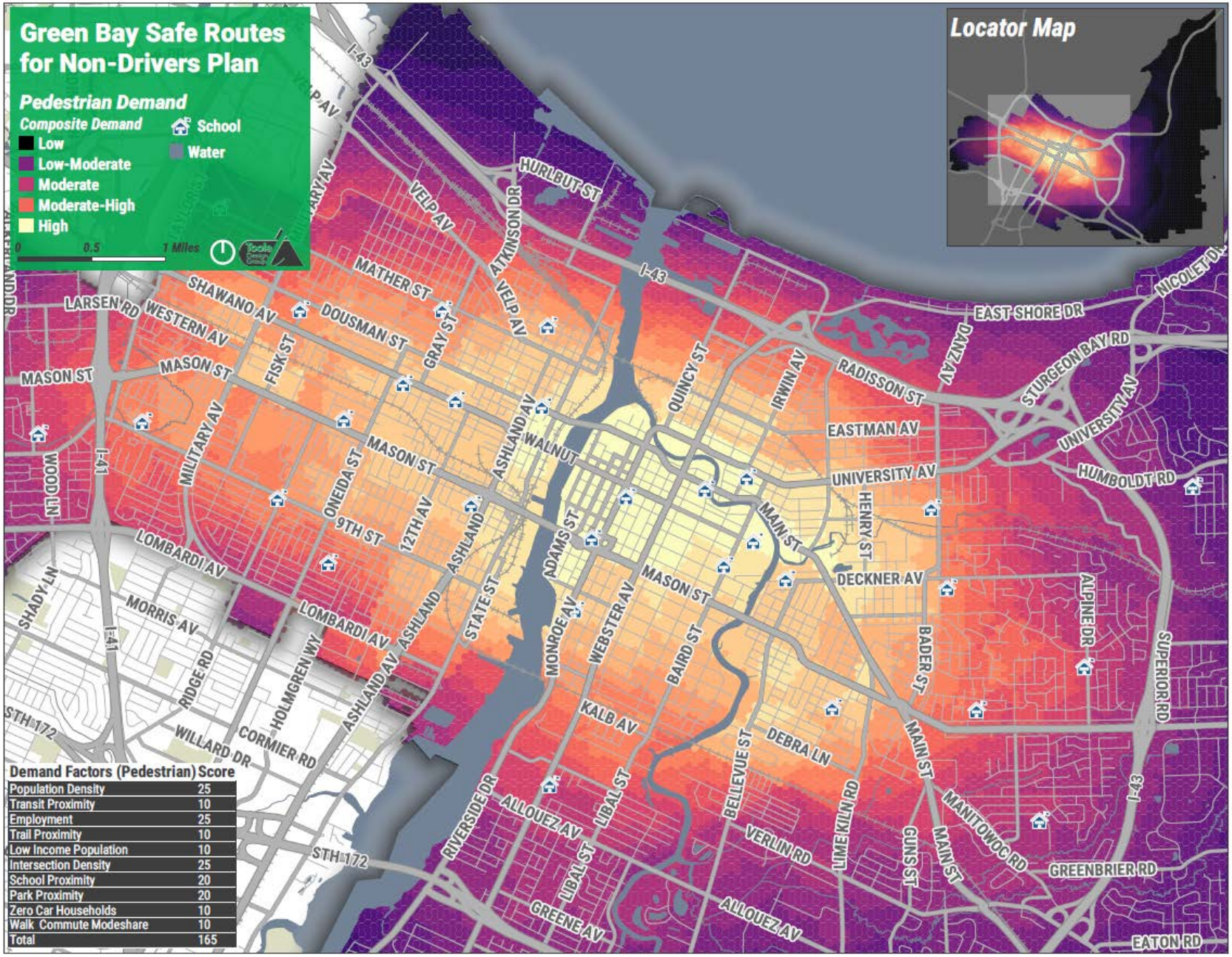
Proximity to Shared-Use Paths

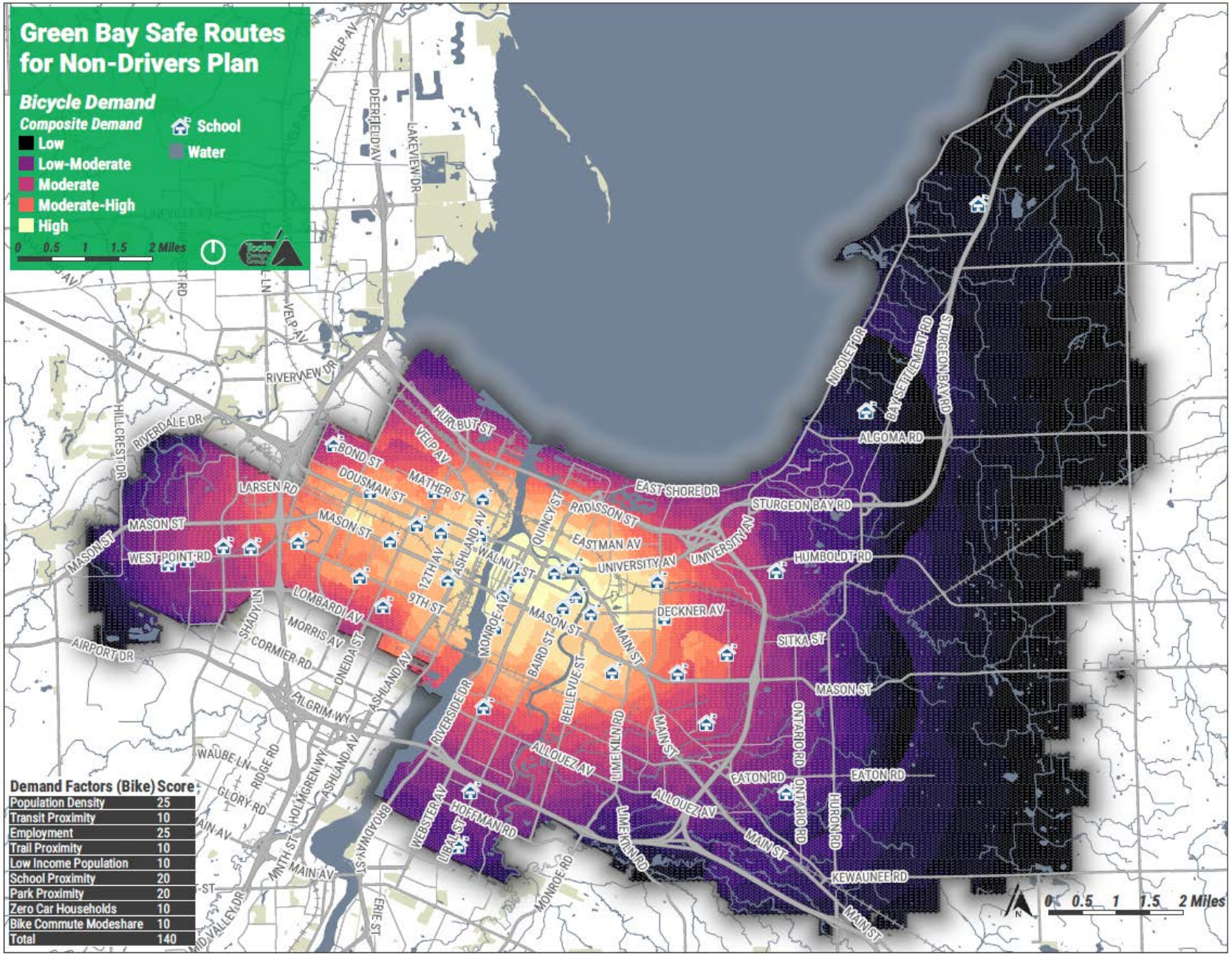
Shared-use paths attract people to walk, run, or ride a bicycle either for utilitarian or recreational purposes. Each hexagon location searched for the nearest existing shared-use path within 3 miles. Locations closest to a shared-use path received 10 points, locations furthest away from a shared-use path (within 3 miles) received 1 point, and locations outside of 3 miles received zero points.

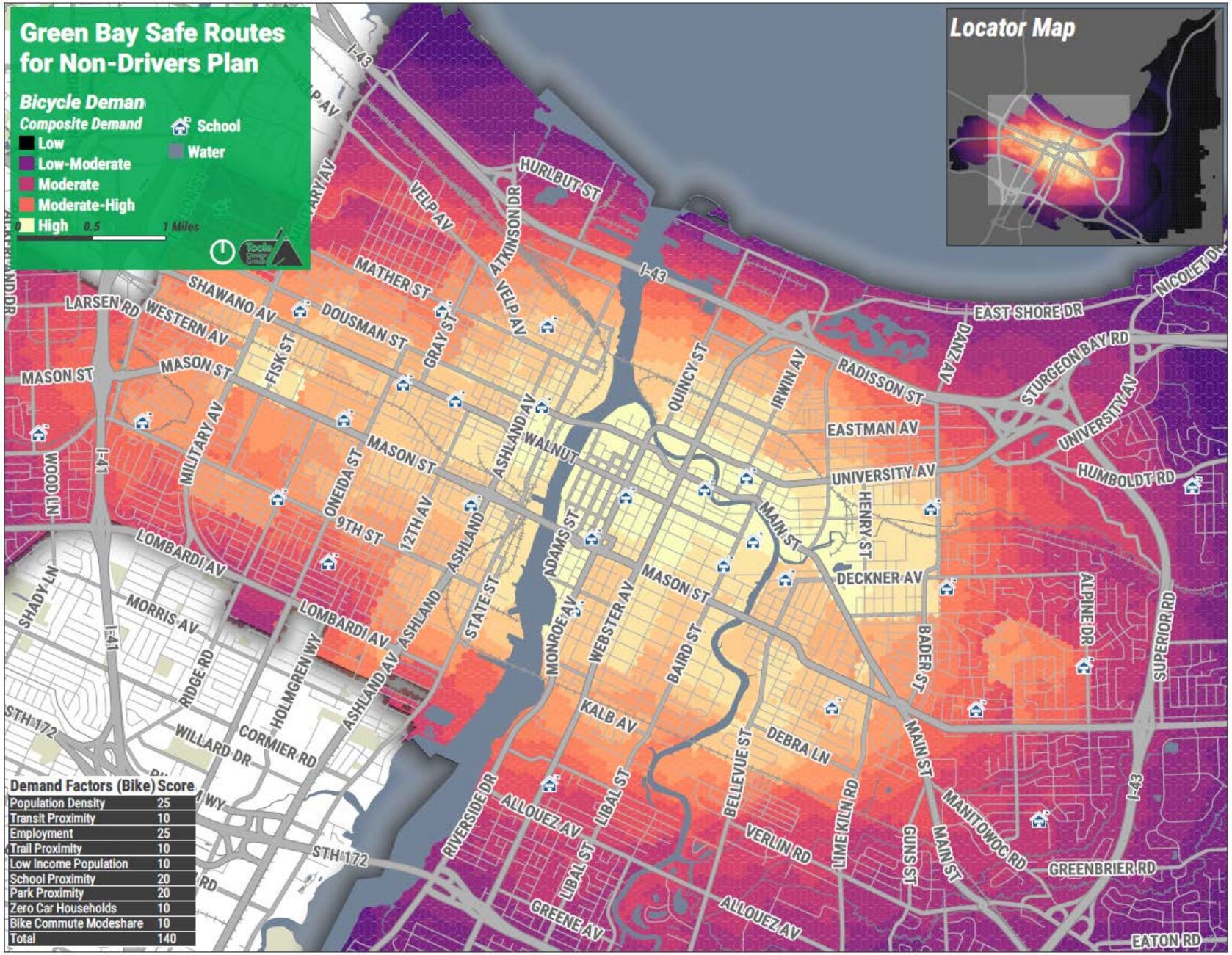

Green Bay Safe Routes for Non-Drivers Plan
Total Demand
Composite Demand
Low
Low-Moderate
Moderate
Moderate-High
High
School
Water
0 0.5 1 1.5 2 Miles
Demand Factors (Composite) Score
Population Density 25
Transit Proximity 10
Employment 25
Trail Proximity 10
Low Income Population 10
Intersection Density 25
School Proximity 20
Park Proximity 20
Zero Car Households 10
Bike Commute Modeshare 10
Walk Commute Modeshare 10
Total 175
0 0.5 1 1.5 2 Miles


Green Bay Safe Routes for Non-Drivers Plan
Total Demand
Composite Demand
Low
Low-Moderate
Moderate
Moderate-High
High
School
Water
0
0.5
1 Miles
Locator Map
Demand Factors (Composite) Score
Population Density 25
Transit Proximity 10
Employment 25
Trail Proximity 10
Low Income Population 10
Intersection Density 25
School Proximity 20
Park Proximity 20
Zero Car Households 10
Bike Commute Modeshare 10
Walk Commute Modeshare 10
Total 175
I-43
I-41
HURLBUT ST
VELP AV
ATKINSON DR
MATHER ST
SHAWANO AV
LARSEN RD
WESTERN AV
DOUSMAN ST
GRAY ST
FISK ST
MASON ST
MILITARY AV
WOOD LN
ONEIDA ST
9TH ST
12TH AV
ASHLAND
ASHLAND AV
WALNUT
QUINCY ST
IRWIN AV
EAST SHORE DR
NICOLET DR
DANZ AV
RADISSON ST
STURGEON BAY RD
UNIVERSITY AV
EASTMAN AV
UNIVERSITY AV
HUMBOLDT RD
HENRY ST
MAIN ST
DECKNER AV
ALPINE DR
SUPERIOR RD
BADER ST
ADAMS ST
MONROE AV
WEBSTER AV
BAIRD ST
STATE ST
MASON ST
LOMBARDI AV
SHADY LN
MORRIS AV
RIDGE RD
HOLMGREN WY
CORMIER RD
STH 172
KALB AV
DEBRA LN
BELLEVUE ST
LIME KILN RD
GUNS ST
MANITOWOC RD
GREENBRIER RD
EATON RD
VERLIN RD
ALLOUEZ AV
GREENE AV
LIBAL ST
RIVERSIDE DR


Green Bay Safe Routes for Non-Drivers Plan
Pedestrian Demand
Composite Demand
Low
Low-Moderate
Moderate
Moderate-High
High
School
Water
0 0.5 1 1.5 2 Miles
Demand Factors (Pedestrian) Score
Population Density 25
Transit Proximity 10
Employment 25
Trail Proximity 10
Low Income Population 10
Intersection Density 25
School Proximity 20
Park Proximity 20
Zero Car Households 10
Walk Commute Modeshare 10
Total 165
VELP AV
DEERFIELD AV
LAKEVIEW DR
RIVERVIEW DR
RIVERDALE DR
HILLCREST DR
HURLBUT ST
BOND ST
DOUSMAN ST
MATHER ST
LARSEN RD
MASON ST
WEST POINT RD
LOMBARDI AV
MORRIS AV
CORMIER RD
AIRPORT DR
ALGRIM WY
WAUBE LN
RIDGE RD
HOLMGREN WY
ASHLAND AV
ONEIDA ST
SHADY LN
9TH ST
12TH AV
WALNUT ST
QUINCY ST
RADISSON ST
EAST SHORE DR
EASTMAN AV
UNIVERSITY AV
MONROE AV
BAIRD ST
BELLEVUE ST
MAIN ST
DECKNER AV
SITKA ST
RIVERSIDE DR
ALLOUEZ AV
LIMEKILN RD
WEBSTER AV
HOFFMAN RD
URAL ST
MONROE RD
ERIE ST
BROADWAY ST
MAIN AV
NINTH ST
NICOLET DR
BAY SETTLEMENT RD
STURGEON BAY RD
ALGOMA RD
HUMBOLDT RD
ONTARIO RD
EATON RD
HURON RD
KEWAUNEE RD
0 0.5 1 1.5 2 Miles


Green Bay Safe Routes for Non-Drivers Plan
Pedestrian Demand
Composite Demand
Low
Low-Moderate
Moderate
Moderate-High
High
School
Water
0
0.5
1 Miles
Locator Map
Demand Factors (Pedestrian) Score
Population Density 25
Transit Proximity 10
Employment 25
Trail Proximity 10
Low Income Population 10
Intersection Density 25
School Proximity 20
Park Proximity 20
Zero Car Households 10
Walk Commute Modeshare 10
Total 165
I-43
I-41
HURLBUT ST
VELP AV
ATKINSON DR
MATHER ST
SHAWANO AV
DOUSMAN ST
GRAY ST
LARSEN RD
WESTERN AV
MASON ST
FISK ST
MILITARY AV
WOOD LN
ONEIDA ST
9TH ST
12TH AV
ASHLAND
ASHLAND AV
WALNUT
QUINCY ST
IRWIN AV
DANZ AV
EAST SHORE DR
RADISSON ST
STURGEON BAY RD
NICOLET DR
UNIVERSITY AV
EASTMAN AV
HUMBOLDT RD
HENRY ST
MAIN ST
DECKNER AV
ADAMS ST
MONROE AV
WEBSTER AV
BAIRD ST
BADER ST
ALPINE DR
SUPERIOR RD
LOMBARDI AV
SHADY LN
MORRIS AV
STATE ST
RIDGE RD
HOLMGREN WY
CORMIER RD
WILLARD DR
STH 172
KALB AV
DEBRA LN
RIVERSIDE DR
ALLOUEZ AV
LIBAL ST
BELLEVUE ST
VERLIN RD
LIME KILN RD
GUNS ST
MANITOWOC RD
GREENBRIER RD
GREENE AV
EATON RD


Green Bay Safe Routes for Non-Drivers Plan
Bicycle Demand
Composite Demand
Low
Low-Moderate
Moderate
Moderate-High
High
School
Water
0 0.5 1 1.5 2 Miles
Demand Factors (Bike) Score
Population Density 25
Transit Proximity 10
Employment 25
Trail Proximity 10
Low Income Population 10
School Proximity 20
Park Proximity 20
Zero Car Households 10
Bike Commute Modeshare 10
Total 140
0 0.5 1 1.5 2 Miles


Green Bay Safe Routes for Non-Drivers Plan
Bicycle Deman
Composite Demand
Low
Low-Moderate
Moderate
Moderate-High
High
School
Water
0
0.5
1 Miles
Locator Map
Demand Factors (Bike) Score
Population Density 25
Transit Proximity 10
Employment 25
Trail Proximity 10
Low Income Population 10
School Proximity 20
Park Proximity 20
Zero Car Households 10
Bike Commute Modeshare 10
Total 140
I-43
I-41
HURLBUT ST
VELP AV
ATKINSON DR
MATHER ST
SHAWANO AV
DOUSMAN ST
GRAY ST
LARSEN RD
WESTERN AV
MASON ST
FISK ST
MILITARY AV
WOOD LN
ONEIDA ST
9TH ST
12TH AV
ASHLAND
ASHLAND AV
WALNUT
QUINCY ST
IRWIN AV
RADISSON ST
DYNAZ AV
EAST SHORE DR
NICOLET DR
STURGEON BAY RD
UNIVERSITY AV
EASTMAN AV
HUMBOLDT RD
HENRY ST
MAIN ST
DECKNER AV
ADAMS ST
MONROE AV
WEBSTER AV
STATE ST
BAIRD ST
BADER ST
ALPINE DR
SUPERIOR RD
LOMBARDI AV
SHADY LN
MORRIS AV
RIDGE RD
HOLMGREN WY
CORMIER RD
WILLARD DR
STH 172
KALB AV
DEBRA LN
BELLEVUE ST
LIME KILN RD
GUNS ST
MANITOWOC RD
GREENBRIER RD
EATON RD
VERLIN RD
ALLOUEZ AV
GREENE AV
LIBAL ST
RIVERSIDE DR

Appendix 5: Implementation & Funding

This chapter provides a summary of funding strategies for bicycling and walking infrastructure efforts within the City of Green Bay and GBAPS.

Implementation and Funding Strategies

Collaboration between the City of Green Bay, other local municipalities, Brown County, the Metropolitan Planning Organization (MPO) for the Green Bay Urbanized Area, the Green Bay Area Public School District, and partner organizations is crucial to the implementation of the Green Bay Safe Walk & Bike Plan.

Funding and financing of bicycle and pedestrian infrastructure projects depend on the individual roadway project and whether it coincides with a reconstruction or resurfacing project. Typically, it is more efficient at the local level to build the cost of bicycle and pedestrian accommodations into a reconstruction project. It is recommended that the City of Green Bay, other local governments, the MPO, and Brown County fund bicycle and pedestrian infrastructure through their local capital improvement programs and build the cost of the facility into the cost of the roadway project. It is also recommended that the MPO and Brown County should work with local municipalities to develop a uniform policy for the implementation of bicycle and pedestrian infrastructure. This policy will increase the consistency of bicycle and pedestrian facilities throughout the region.

While state and federal funding may be leveraged locally for larger bicycle and pedestrian projects, it is important to consider federal and state funding requirements into the cost of the overall project. It is recommended that as the City consider federal or state funding for bicycle and pedestrian infrastructure, they coordinate with the Wisconsin Department of Transportation – Northeast Region (WisDOT-NE Region) and the Green Bay Metropolitan Planning Organization to ensure that the state and federal funding is appropriate for the project.

The following sections describe the various funding sources available to the City, which are summarized in Table 1 at the end of this appendix.

Capital Improvement Programs (CIPs)

As local streets are scheduled for reconstruction or resurfacing, bicycle and pedestrian infrastructure accommodations should be considered by the City. It is much more cost efficient to include bicycle and pedestrian accommodations as part of a project versus trying to retrofit the bicycle and pedestrian infrastructure once a project is completed. The City of Green Bay has an annual CIP which uses general obligation bonds to fund larger infrastructure improvements and equipment. Infrastructure projects include pavement, sidewalks, bridges, traffic control signals, street lighting, sewers, facility improvements, and parking ramp repairs. Department directors should coordinate with planners and policymakers to ensure that projects surrounding schools are included in the CIP. The costs of the bicycle and pedestrian infrastructure accommodations can then be included in the cost of the project.

Surface Transportation Block Grant Set-Aside Program (previously known as the Transportation Alternatives Program - TAP)

The Fixing America's Surface Transportation (FAST) Act replaced the Transportation Alternatives Program (TAP) with a set-aside of funds under the Surface Transportation Block Grant Program (also known by the Federal Highway Administration as the TA Set-Aside). With certain exceptions, projects that meet eligibility for criteria for the Safe Routes to School Program, the transportation enhancements, and/or the bicycle and pedestrian facilities program are eligible TAP projects. The funding ratio is usually 80% federal funds and 20% local matching funds.

- FHWA Website: http://www.fhwa.dot.gov/environment/transportation_alternatives/
- WisDOT Website: http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/tap.aspx

Surface Transportation Block Grant Program – Rural (STBG-Rural)

The Surface Transportation Program – Rural (STP-Rural) allocates federal funds to complete a variety of improvements to rural highways (primarily county highways) that are located outside of the urban areas. These projects must be used for streets classified as major collectors or higher.

- Website: http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/highway/stp-rural.aspx

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) develops and implements, on a continuing basis, stand-alone safety projects designed to reduce the number and severity of crashes on all streets and highways (both state and local). The federal funding ratio for the HSIP funds is usually 90% federal funds and a 10% match of state and/or local funds. The HSIP Program currently prioritizes sites that have experienced a high crash history with an emphasis on low cost options that can be implemented quickly.

- Website: http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/highway/hsip.aspx

National Highway Performance Program (NHPP)

The National Highway Performance Program (NHPP) provides federal funding to support projects that improve infrastructure condition, safety, congestion reduction, system reliability, or freight movement on the National Highway System. Projects must be identified in the Statewide Transportation Improvement Program (STIP/Transportation Improvement Program (TIP) and be consistent with the Long-Range Statewide Transportation Plan.

- Website: https://www.fhwa.dot.gov/specialfunding/nhpp/160309.cfm

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program funds may be used to construct bicycle facilities, pedestrian walkways, and non-construction projects related to bicycle and pedestrian activities in designated non-attainment areas. Currently, Brown County is not designated as a non-attainment area; however, if that designation should change, it could become eligible for funding.

- Website: http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/cmaq.aspx

U.S. Department of Housing and Urban Development (HUD) Community Development Block Grants (CDBG)

The CDBG program provides eligible metropolitan cities and urban counties (called “entitlement communities”) with annual direction grants that they can use to revitalize neighborhoods, expands affordable housing and economic opportunities, and/or improve communities’ facilities and services, typically to benefit underserved communities. The City of Green Bay is designated an entitlement community; as such it receives funds directly from HUD; however, other communities in the county and Brown County itself can receive CDBG funding through the state-administered non-entitlement program.

- Website: https://doa.wi.gov/Pages/LocalGovtsGrants/Community-Development-Block-Grant-Small-Cities-Housing-Program.aspx

Recreational Trails Aid Program (RTA)

The Recreation Trails Program provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. This is the only federal transportation source that can be used for maintenance activities.

- FHWA Website: http://www.fhwa.dot.gov/environment/recreational_trails/
- WDNR Website: http://dnr.wi.gov/aid/rta.html

Wisconsin Department of Natural Resources Knowles-Nelson Stewardship Funds

The Knowles-Nelson Stewardship Funds are available each year to help fund land acquisition and recreational development throughout the state of Wisconsin.

- Website: http://dnr.wi.gov/topic/stewardship/grants/

USDA Rural Development

The USDA Rural Development Program is committed to helping improve the economy and quality of life in rural America. They offer loans, grants and loan guarantees to create a healthy, safe, and prosperous place to live and work in rural America.

- Website: https://www.rd.usda.gov/wi

The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation seeks to improve the health and health care of all Americans. One of the primary goals of the Foundation is to “promote healthy communities and lifestyles. Specifically, the Foundation has ongoing “Active Living by Design” grant programs that promote the principals of active living including non-motorized transportation. Other related calls for grant proposals are issued as developed, and multiple communities nationwide have received grants related to the promotion of trails and other non-motorized facilities.

- Website: http://www.rwjf.org/en/how-we-work/grants.html#q/maptype/grants/ll/37.91,-96.38/z/4

Centers for Disease Control and Prevention (CDC)

Across the nation, there has been increased collaboration between transportation and health professionals. Through this collaboration, there are increased opportunities to apply for funding for initiatives where health and transportation are already collaborating. As this momentum continues to build, local government staff should continue to work with partner organizations to pursue funding through the CDC as a way to implement recommendations from Green Bay Safe Route for Non-Drivers

- Website: http://www.cdc.gov/

Local Hospitals and Healthcare Organizations

Most hospitals within the United States currently operate as nonprofit organizations and, as such, are exempt from most federal, state, and local taxes. For hospitals and health care organizations to maintain this status they need to complete a number of requirements, including developing a Community Health Needs Assessment (CHNA) and support community initiatives that are consistent with their CHNA. Currently, many local hospitals are considering ways that they can improve the health of the communities they serve, and an increasing number of these institutions are mentioning the health benefits of bicycle and pedestrian infrastructure.

Public Private Partnerships

As federal and state funds become more competitive for local communities, it is recommended that the City of Green Bay, other local governments, the MPO, and Brown County work with the private sector to help secure funds for various types of bicycle and pedestrian projects. The private sector could help to provide the 20% local match for state and federal grant programs, making the local grant application more competitive for funding.

Additionally, local businesses have a vested interest in bicycle and pedestrian accommodations, as healthy active employees help reduce the business's health insurance costs and the employees are also more productive. Local health insurance companies are interested in having healthy employees, as it reduces their health insurance claims related to chronic diseases. In addition, many hospitals and health care organizations are recognized by the Internal Revenue Service to be non-profit organizations because of the "community benefit" they provide. These organizations may be interested in providing funding for community improvements (i.e. sidewalks, trails, wayfinding signage, etc.). Private and public partnerships should be explored by the City as a direct correlation with the health of the local community members.

Additional Funding Resources

In addition to the resources mentioned above, other funding opportunities may exist through local, state, and national organizations may be found in the follow organizations:

- National Recreation and Park Association
  http://www.nrpa.org/Grants-and-Partners/Recreation-and-Health/Park-Prescriptions/
- International Mountain Biking Association
  https://www.imba.com/resources/grants
- Rails-to-Trails Conservancy
  http://www.railstotrails.org/build-trails/trail-building-toolbox/acquisition/financing-and-funding/
- National Trails Training Partnership
  http://www.americantrails.org/resources/fedfund/

Table 1: Federal funding sources for bicycle and pedestrian projects/activities

Activity	CMAQ**	HSIP	NHPP	STBP-Rural	TA	RTP	SRTS	402	405	FLTTP	TIGER
Access enhancements to public transportation	•		•	•	•					•	•
ADA/504 self-evaluation/transition plan				•	•	•				•	
Bicycle plans				•	•		•			•	
Bicycle helmets (project or training related)				•	•SRTS		•	•*			
Bicycle helmets (safety promotion)				•	•SRTS		•				
Bicycle lanes on road	•	•	•	•	•		•			•	•
Bicycle parking	•		•	•	•	•	•			•	~•
Bicycle share	•		•	•	•					•	•
Bicycle storage or service centers	•			•	•					•	~•
Bridges/overcrossings	•*	•	•	•	•	•	•			•	•
Coordinator positions (state or local)	•*			•	•SRTS		•				
Crosswalks (new or retrofit)	•*	•	•	•	•	•	•			•	•
Curb cuts and ramps	•*	•	•	•	•	•	•			•	•
Counting equipment		•	•	•	•	•	•			•	
Data collection & monitoring for pedestrians and/or bicyclists		•	•	•	•	•	•			•	
Historic preservation (bike, ped, transit facilities)				•	•					•	•
Land/streetscaping (bike/ped route; transit access); related amenities (benches, water			•	•	•					•	~•

foundations); generally as part of a larger project											
Lighting (bike/ped scale associated w/ bike/ped project)		•	•	•	•	•	•			•	•
Maps (for bicyclists and/or pedestrians)	•			•	•		•				
Paved shoulders	•*	•	•	•	•		•			•	•
Pedestrian plans				•	•		•			•	
Recreational trails				•	•	•				•	~•
Road diets (for bicycle and pedestrian portions)		•	•	•	•					•	•
Road safety assessments for pedestrians and bicyclists		•		•	•					•	
Safety education and awareness activities/programs to inform pedestrians, bicyclists, and motorists on bike/ped safety				•SRTS	•SRTS		•	•*	•*		
Safety education positions				•SRTS	•SRTS		•	•*			
Safety enforcement (including police patrols)				•SRTS	•SRTS		•	•*	•*		
Safety program technical assistance (for peds/bicyclists)				•SRTS	•SRTS		•	•			
Separated bicycle lanes	•	•	•	•	•		•			•	•
Shared use paths / transportation trails	•*	•	•	•	•	•	•			•	•
Sidewalks (new or retrofit)	•	•	•	•	•	•	•			•	•
Signs / signals / signal improvements	•	•	•	•	•		•			•	•
Signed bicycle or pedestrian routes	•		•	•	•		•			•	•
Spot improvement programs		•	•	•	•	•	•			•	•
Stormwater impacts related to pedestrian and bicycle projects		•	•	•	•	•	•			•	•

Traffic calming		•	•	•	•		•			•	•
Trail bridges	•*	•	•	•	•	•	•			•	•
Trail construction and maintenance equipment				•RTP	•RTP	•					
Trail/highway intersections	•*	•	•	•	•	•	•			•	•
Trailside and trailhead facilities (includes restrooms and water, but not general park amenities)				•*	•*	•*				•	~•*
Training	•	•		•	•	•	•	•*			
Training for law enforcement on ped/bicyclist safety laws				•SRTS	•		•		•*		
Tunnels/undercrossings	•*	•	•	•	•	•	•			•	•

Notes:

- *Funds may be used for this activity, but restrictions may apply*

~ *Eligible, but not competitive unless part of a larger project*

* *See program-specific notes for restrictions*

** *This region is currently not a non-attainment area*

Table 10 Key

CMAQ: Congestion Mitigation and Air Quality Improvement Program
HSIP: Highway Safety Improvement Program
NHPP: National Highway Performance Program
STBG: Surface Transportation Block Grant Program
TA: Transportation Alternatives Set-Aside
RTP: Recreational Trails Program
SRTS: Safe Routes to School Program
NHSTA 402: State and Community Highway Safety Grant Program
NHSTA 405: National Priority Safety Programs
FLTTP: Federal Lands and Tribal Transportation Programs
TIGER: Transportation Investment Generating Economic Recovery