La Crosse Bicycle and Pedestrian Master Plan Update

June 2024

LA CROSSE
WISCONSIN

Acknowledgments

City of La Crosse

Tim Acklin, Planning Manager

Jenna Dinkel, Associate Planner

Larry Sleznikow, La Crosse City Council Member

Alta Planning + Design

Matthew Dyrdahl, Senior Planning Associate

Lisa Bender, Senior Planning Associate

Zoey Mauck, Designer

Emily Houser, Planner

Short Elliot Hendrickson

Darren Fortney, Senior Transportation Planner

Jeremy Tomesh, Senior Professional Engineer

River Travel Media

Brent Hanifl, Media Director and Founder

Amy Gabay, Media Director and Founder

Project Steering Committee: La Crosse Bicycle-Pedestrian Advisory Committee (BPAC)

Robert Young

Jeff Fennie

Larry Sleznikow

Grace Janssen

Stephanie Sward

Randi Pueschner

Chelsey Boldon

Brooke Pataska

Cover Image and Chapter Title Page Images: Dylan Overhouse Productions

Land Acknowledgment

We acknowledge the city of La Crosse occupies the ancestral lands of the Ho-Chunk, who have stewarded this land since time immemorial. This land acknowledgment gives gratitude for the original caretakers and affirms the continuing relationship between Indigenous People and this land. The City of La Crosse is committed to building reciprocity with the local native communities. Through the La Crosse Bicycle and Pedestrian Master Plan Update, we seek to work toward an equitable and resilient future as well as inspire La Crosse community members to honor and protect the land and resources.

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Location: Lake Shore Drive (French Island)

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BICYCLE AND PEDESTRIAN MASTER PLAN

Executive Summary

Executive Summary

Purpose of Plan

This update to the City of La Crosse 2012 Bicycle and Pedestrian Master Plan builds on the successes of the 2012 plan by taking a holistic approach that considers All Ages and Abilities (AAA) network improvements (facilities that are safe and comfortable for everyone from school-aged children to older adults) along with programmatic strategies, internal operations, stakeholder engagement, and equity. Recommendations include community-supported AAA projects aimed at implementation and achievement of gold-level Bicycle and Walk Friendly Community awards to address issues identified during community engagement.

Location: Ward and 32nd Street

2012 Bicycle and Pedestrian Master Plan

The 2012 Bicycle and Pedestrian Master Plan recognized the City of La Crosse's active transportation achievements, including being recognized as a silver level Bicycle Friendly Community as well as advances in bike lanes, shared lane markings, trails, and hosting events and programs to encourage active transportation. The plan was put forth as an important step toward advancing the transportation network of La Crosse to support and encourage transportation for all users, regardless of age or ability, underlined by a Complete Streets approach. The city's transportation network, programs, policies, and practices were reviewed to inform a set of benchmarks and recommendations to guide La Crosse in diversifying, strengthening, and improving the city's walking and bicycling networks.

What Has Happened Since?

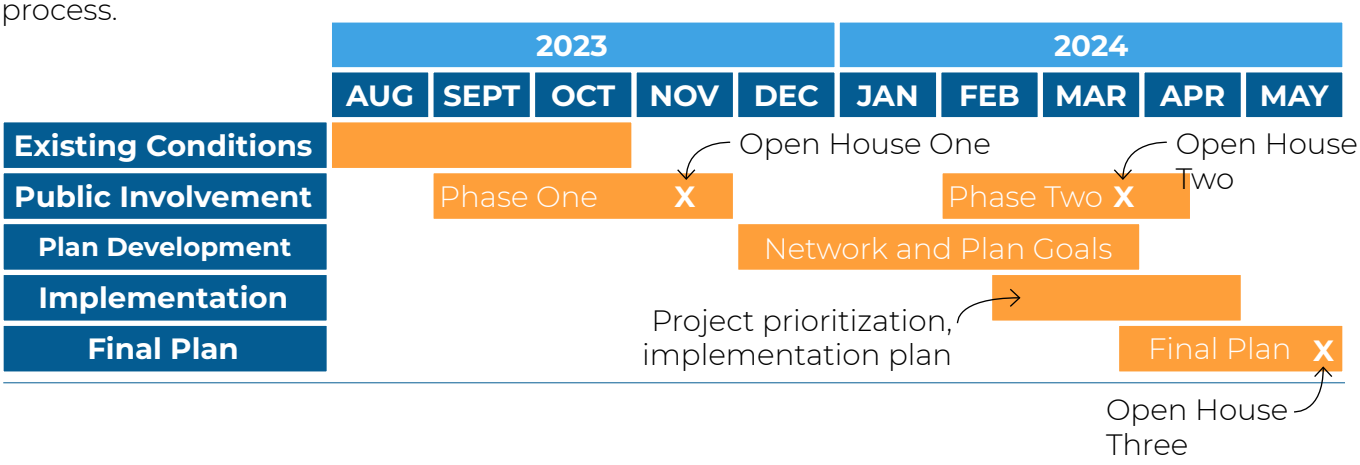
Since 2012, communities around the country have taken innovative steps toward improving safety, comfort, and connectivity for people walking and biking for transportation. Advances in bicycle and pedestrian planning include increased focus on developing connected AAA bicycle networks, separated bicycle facility types, and protected intersection/corner design. Safety has also been prioritized through initiatives like Vision Zero and the US Department of Transportation's Safe Streets and Roads for All (SS4A) grant program.

The City of La Crosse has continued to make progress on the goals set in the 2012 plan in the intervening years, including adopting a Transportation Vision Statement in 2015 that "prioritizes changes that result in outcomes like safety, walkability, bike friendliness, access, slower driving speeds, fewer vehicle-miles-traveled, complete streets, and beauty[.]" The city also adopted a citywide Safe Routes to School Plan in 2021 and a Climate Action Plan in 2022 that includes recommendations to encourage increased walking and biking, as well as plans for the Wagon Wheel Trail project connecting Downtown La Crosse to La Crescent, MN and beyond. La Crosse has also installed several bicycle and pedestrian projects, including the King Street Greenway, a two-way bollard-protected bike lane on 2nd St in downtown, raised intersections as part of Safe Routes to School plans, traffic circles, bumpouts, and more.

What Is in This Plan?

TIMELINE

The planning process kicked off in August 2023 and was completed in May 2024. The timeline below shows the approximate timing of each phase of the planning process.



EXISTING CONDITIONS ANALYSIS AND ENGAGEMENT OUTCOMES

The planning process began with a review of existing plans and policies in La Crosse related to walking and bicycling, mapping geospatial data, national best practices, and engagement results about where residents would like to see improvements for walking and bicycling.

RECOMMENDATIONS

Recommendations were developed based on outcomes from engagement and existing conditions analysis, as well as input from the La Crosse Bicycle-Pedestrian Advisory Committee (BPAC) and city staff. Recommendations are organized into strategy areas including Walking and Rolling, Bicycling, Safety, Policies, Programs, and Prioritized Capital Improvement Projects.

Location: Black River Beach Neighborhood Center

Location: Gillette Street between Kane and George

BICYCLE NETWORK

A recommended bicycle facility network was developed based on existing and planned facilities, public input, missing links, and connections to destinations. Recommended projects were prioritized based on factors including:

- connections to existing bicycle facilities and priority destinations
- public input
- equity considerations
- crash data
- active trip potential

to determine which should be considered most important for the city to fund and implement.

Spot improvements were also identified for intersection safety upgrades and locations where new or enhanced access is needed to connect facilities.

PRIORITIZATION

Once a network of recommended improvements was identified, the projects were prioritized as a way to determine which projects would have the highest impact in the community. Project prioritization was done in two stages; the first stage involved a quantitative analysis that scored each project on a series of factors related to the goals of the plan. The second stage of the prioritization was qualitative in nature, looking at the highest-scoring projects from the quantitative prioritization and determining which of these projects best fit the desired outcomes of the Bicycle and Pedestrian Master Plan Update.

IMPLEMENTATION

Recommendations are provided for the near-term so that momentum generated by the planning process can be maintained, and for the long-term for projects that are more complex or expensive but are critical for improving safety and connectivity for people walking and bicycling. Implementation strategies and funding sources are recommended to carry recommendations forward through the next ten years.

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FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Introduction

Introduction

About This Plan

This update to the City of La Crosse 2012 Bicycle and Pedestrian Master Plan builds on the successes of the 2012 plan by taking a holistic approach that considers network improvements along with programmatic strategies, internal operations, stakeholder engagement, and equity. Recommendations include community-supported designs aimed at implementation and achievement of gold-level Bicycle and Walk Friendly Community awards.

The plan begins with the project vision and a set of goals that will guide the improvement of walking and bicycling in La Crosse. This is followed by a summary of the city's existing conditions and public input findings that shaped the plan. The plan also includes infrastructure recommendations as well as action and strategy recommendations to make the plan most effective. Finally, the plan closes with a summary of implementation guidance, including potential funding sources, maintenance and programming recommendations, and guidance for monitoring the implementation of this plan.

Location: Sill and Avon Street

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FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Vision and Goals

Vision and Goals

Introduction

The Plan's vision and goals, which were developed in collaboration with City staff, the Bicycle-Pedestrian Advisory Committee, and reviewed by community members, aim to provide a framework that can shape future policy-making and transportation system investments.

Vision

People of all ages and abilities can walk, roll, and bicycle in La Crosse on a network of safe and inviting streets that connect to where they want to go, supporting equity, community health, the local economy, and the natural environment.

Goals

Access: Expand and improve the pedestrian and bicycle network to link people of all ages and abilities to desired destinations

Safety: Work toward eliminating all serious injuries and deaths for people walking and biking

Climate: Reduce greenhouse gas emissions from transportation by shifting trips to walking and biking

Equity: Prioritize programs and projects in areas of higher equity need

Action: Update city policies, procedures and budgets to reflect best practices and support walking and biking in La Crosse

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FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Existing Conditions

Existing Conditions

Introduction

Existing conditions informed the development of recommendations for the City of La Crosse Bicycle and Pedestrian Master Plan Update, including:

- Past planning efforts and policies in La Crosse related to walking and bicycling
- Active trip potential (areas with high potential for walking and biking)
- Equity analysis
- High Injury Network
- Bicycle and Pedestrian crash locations

Building on the Past

The La Crosse Bicycle and Pedestrian Plan update builds upon work from previously adopted plans, including Forward La Crosse: Updated Comprehensive Plan (October 2023), City of La Crosse Safe Routes to School Plan (2021), Climate Action Plan (2022-2023), and Imagine 2040 La Crosse Downtown Master Plan (2021). These plans are summarized in *Appendix A*, along with a detailed summary of recommendations from all the reviewed plans organized by theme.

KEY GOALS FROM EXISTING ADOPTED PLANS:

- Comfort and safety of the pedestrian network for people of all ages and abilities, including improved pedestrian crossings, curb ramps, and complete sidewalk network
- Comfort, safety, and connectivity of the bike network for people of all ages and abilities and increased on- and off-street bicycle facilities
- Roadway design and traffic signal timing that reduces motorized vehicle speeds and increases safety for people walking and bicycling
- Culture of walking and bicycling: policy, education, encouragement, and evaluation
- Recognition of excellence in bicycling and walking among peer cities
- Sustainable mobility options and green infrastructure
- Funding opportunities to implement bike and pedestrian projects

These themes served as the foundation for developing recommendations for this plan update.

What the Data Shows

In addition to information from existing plans and policies, data was used to identify important information about safety, equity and areas with high potential for walking and biking. This data is summarized throughout this chapter and further explained in *Appendices B, C, and D*.

HIGH INJURY NETWORK

A mapping-based analysis identified the High Injury Network (HIN), including all types of crashes, shown in *Map 3.1*. HINs illustrate that often a small number of roadways can address most of the killed or serious injury (KSI) crashes. This approach moves beyond typical crash history and allows for a better understanding of the types of roadways in La Crosse where users are most at risk.

The final HIN accounts for 59.8% of injury crashes and 70.4% of KSI crashes in La Crosse and immediate surrounding areas during the study period. The HIN includes 10.2% of roadway centerline miles in the study area.

Top HIN Segments by Crash Severity

3rd Street South (Highway WI-14/US 61) between Cass Street and Division Street

West Avenue South (WI-35) between State Street and Cass Street

Losey Boulevard between State Road and Green Bay Street

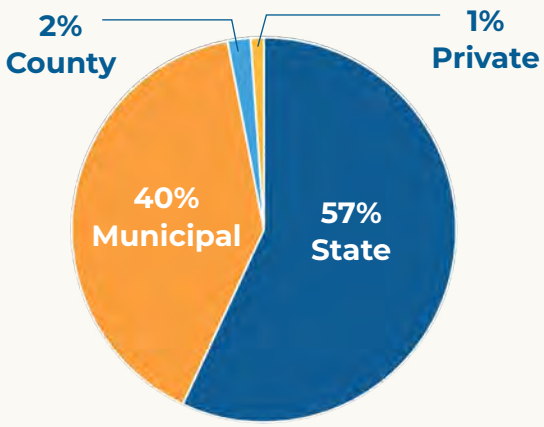
State Road 16 (WI-16) between Quarry Road and Bluff Pass Road

Great River Road (WI-35/US 53) between I-90 and West George Street

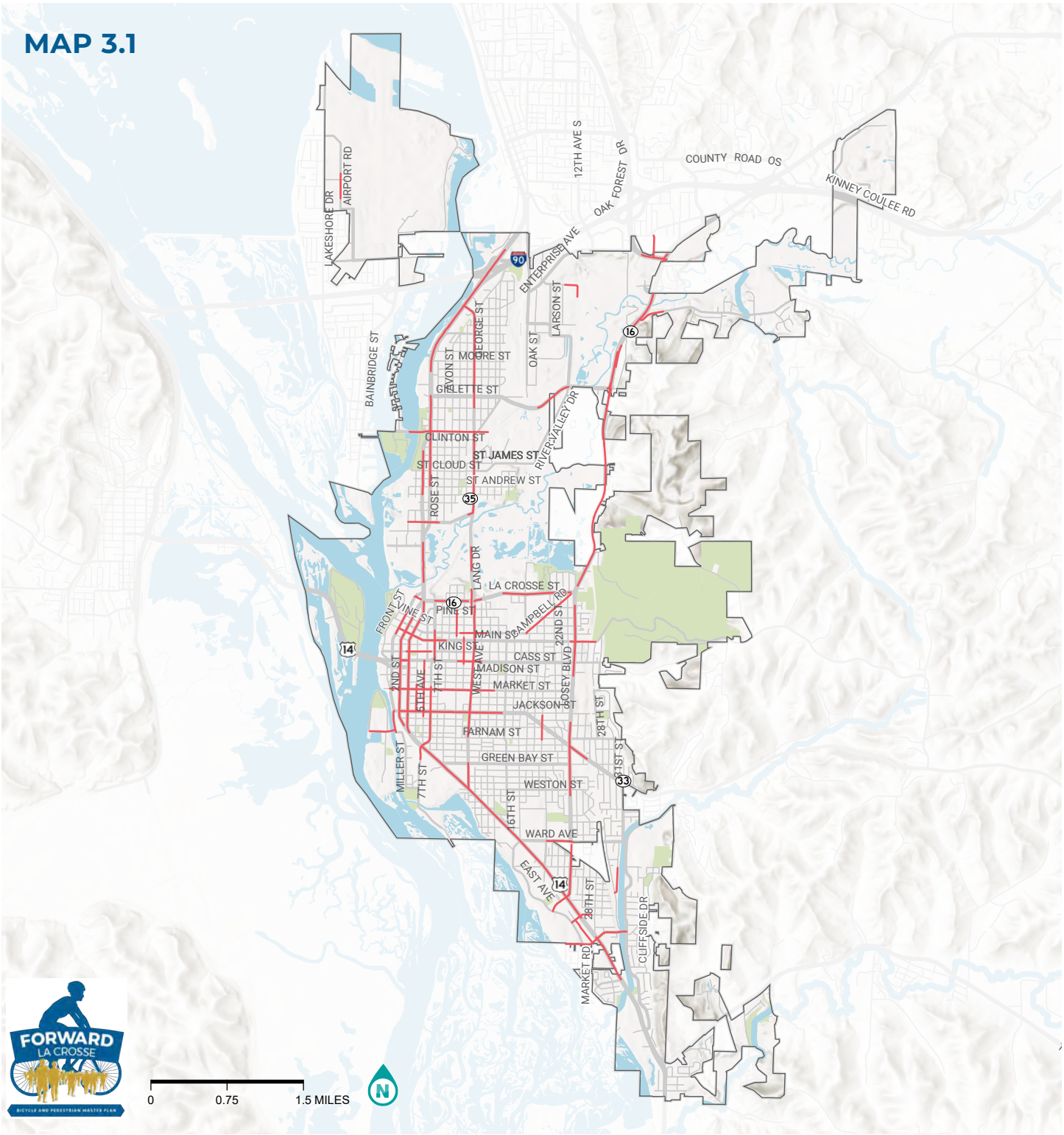
The top five HIN segments consist of four state/US highways and Losey Boulevard, a minor arterial segment in a suburban commercial context with several driveways.

The High Injury Network memo (*Appendix B*) gives more detail about the analysis, including methodology.

HIN Road Ownership by Total Segment Length



MAP 3.1



HIGH INJURY NETWORK

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

This map shows road segments on the High Injury Network (HIN), based on the number and severity of crashes occurring there.

ROAD SEGMENTS

- Segment on High Injury Network (HIN)

Segments not on HIN

- Local
- Collector
- Minor Arterial
- Principal Arterial

BASE MAP

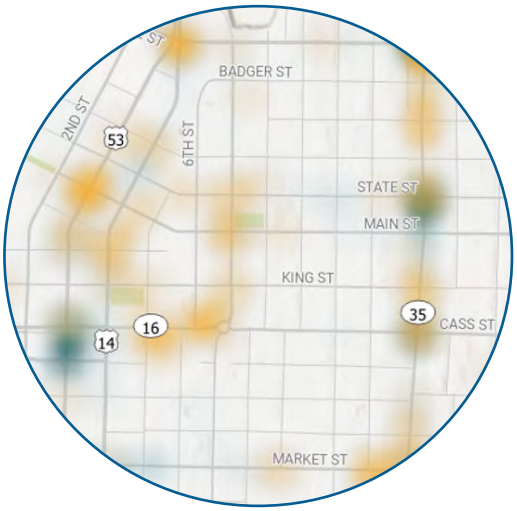
- Parks
- Waterbody
- City Limits

BIKE AND PEDESTRIAN CRASH LOCATION DATA

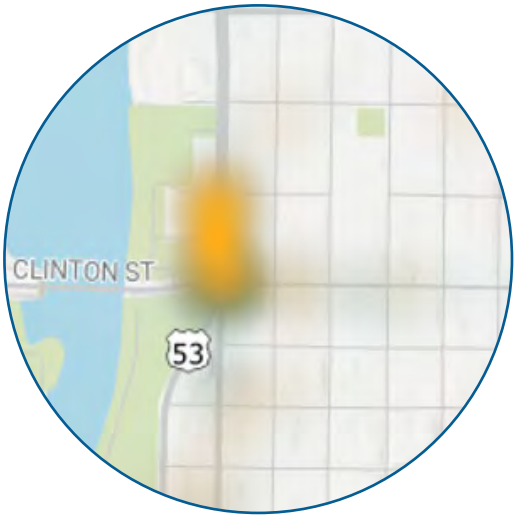
Map 3.2 shows locations with concentrations of injury-causing or fatal crashes. There are concentrations of crashes involving people walking and biking, shown at right, near downtown and the intersection of Clinton and Highway 53, with a smaller concentration at the intersection of Losey Blvd and Green Bay St.

Location: Mormon Coulee Road (outside of Walmart)

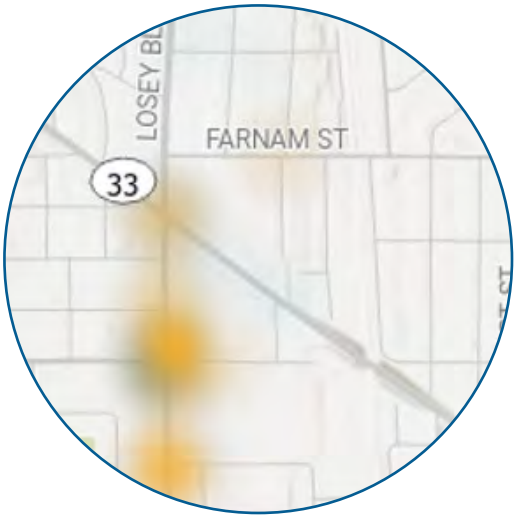
Central La Crosse Area

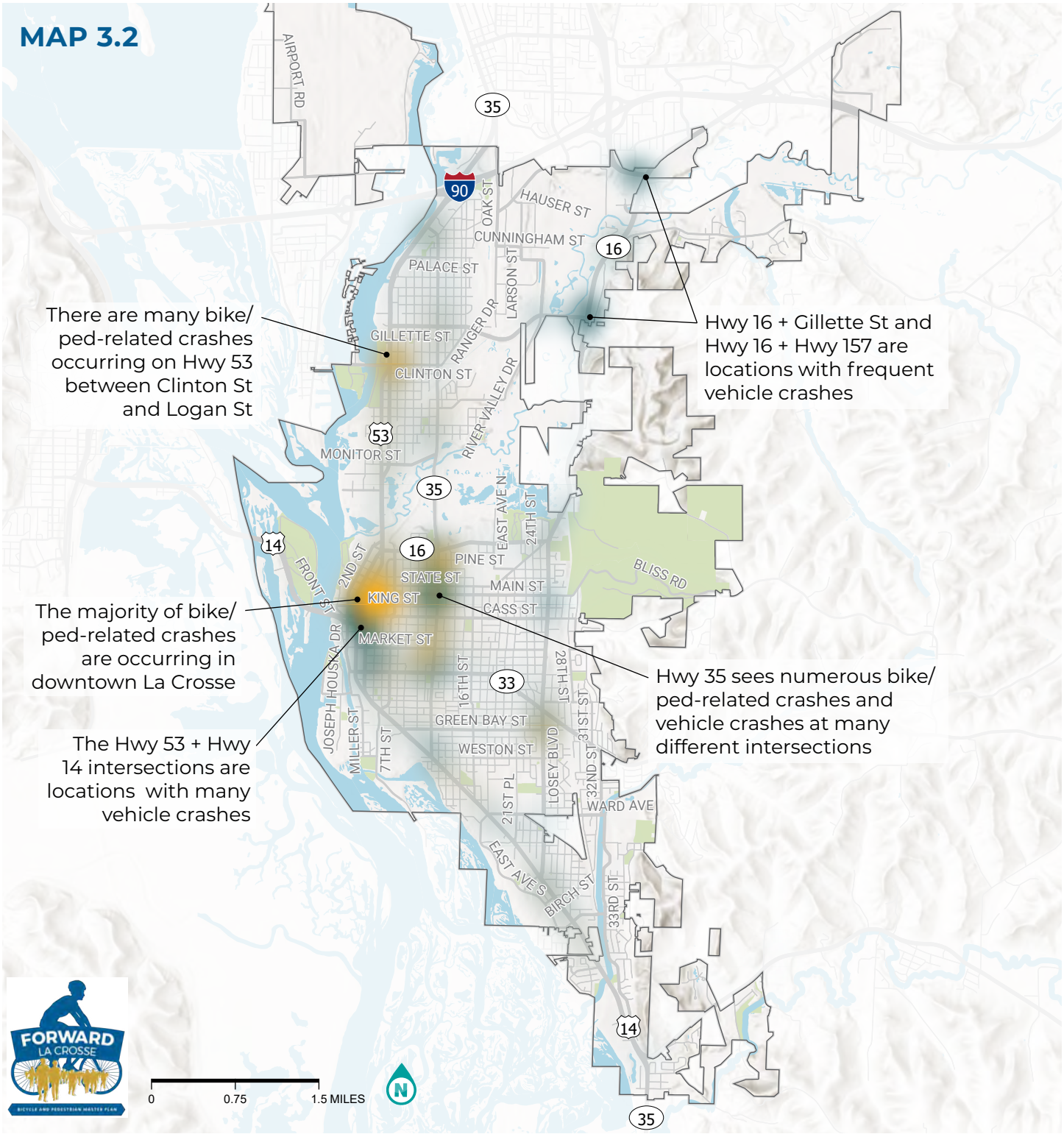


Clinton St + Hwy 53



Losey Blvd + Green Bay St





BIKE AND PEDESTRIAN CRASHES

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

CRASHES

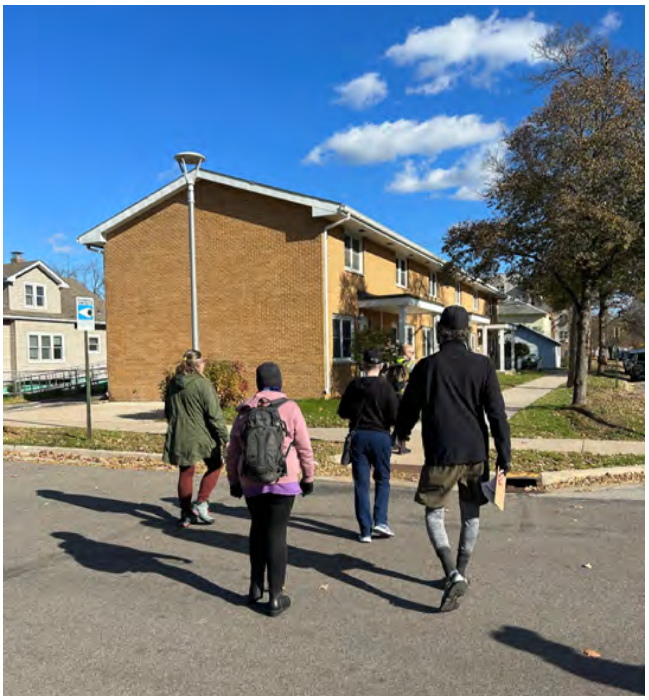
- Fewer Bike/Ped Crashes
- More Bike/Ped Crashes
- Fewer Vehicle Crashes
- More Vehicle Crashes

BASE MAP

- Parks
- Waterbody
- City Limits

EQUITY

Studies from across the country routinely find that some demographic groups typically face greater barriers than others in getting to the places they need to go, especially in communities designed primarily for motor vehicles. The equity analysis utilizes census data related to economic opportunity, access to a vehicle, air quality, tree canopy coverage, coronary heart disease, income, race and ethnicity, educational attainment, and concentration of youth and seniors. The equity analysis, shown in *Map 3.3*, seeks to discover where people with the highest need for transportation options live within La Crosse.



Location: Hood and Sixth Street

Key Themes from Equity Analysis

The highest-priority equity areas within La Crosse are generally located toward the west side of the community, including parts of the Pettibone, Lower Northside and Depot, Downtown, Powell-Poage-Hamilton, and Hintgen neighborhoods, and the UW La Crosse, Black River, Gundersen, and Isle La Plume districts.

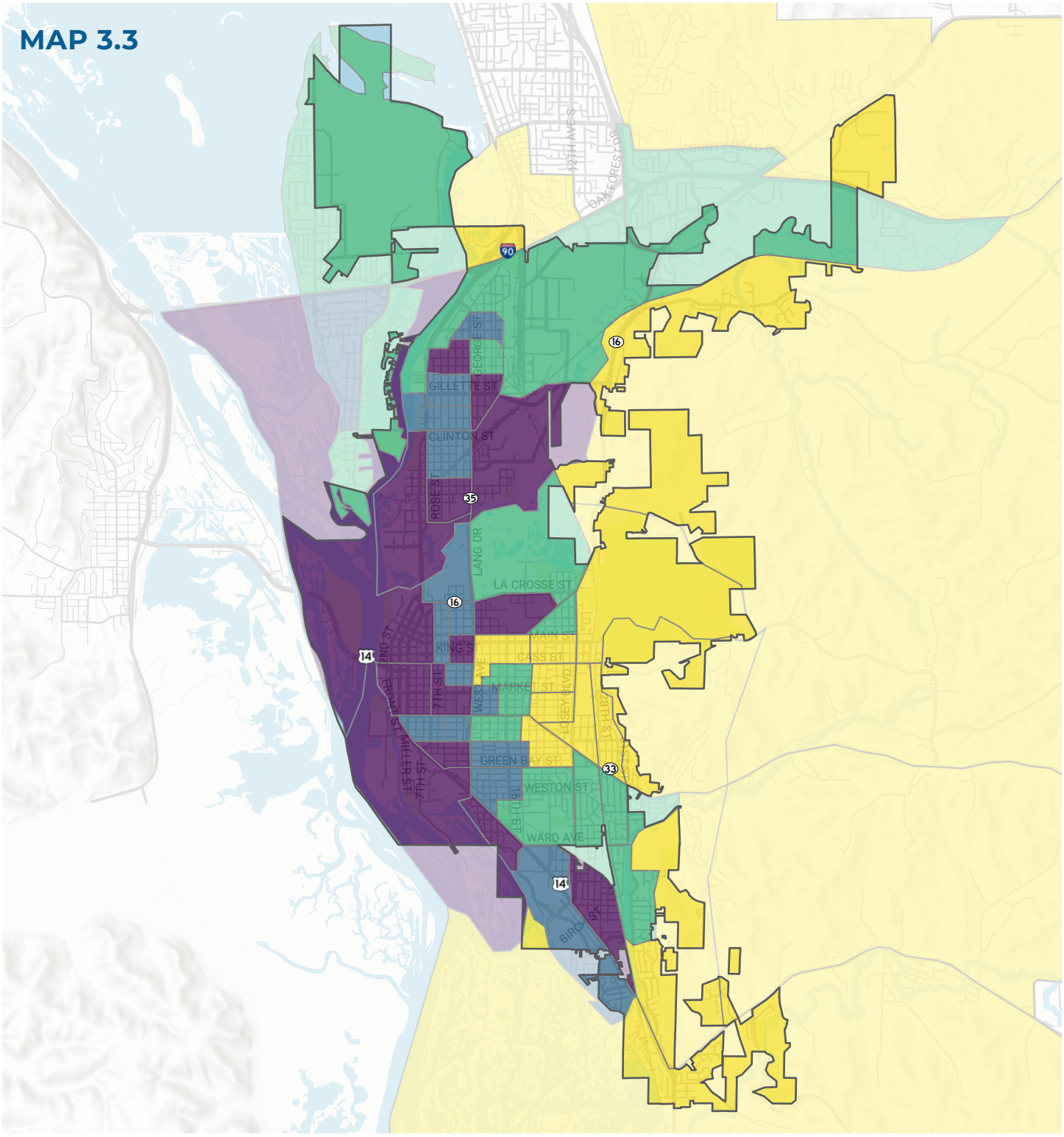
These areas of highest equity concern are concentrated around highways and busy roads, including US Highway 14, US Highway 53, and WI Highway 35, which may contribute to lower property values and poor air quality, both of which could be correlated with higher poverty rates.

These areas also contain land uses such as surface parking, hospitals, industrial land uses, park land, floodplain and marsh. There is thus less residential land use than in other parts of the city, but existing residential uses in the area include senior housing, student housing, and lower-income neighborhoods.

Given the high concentration of higher-priority equity areas around highways and busy roads, it is important for the Bicycle and Pedestrian Master Plan Update to consider how these roads impact people walking and biking in La Crosse.

The equity memo (*Appendix C*) gives more detail about the equity analysis, including methodology.

MAP 3.3



EQUITY ANALYSIS

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

EQUITY SCORES

- 1st Quartile (Area of Highest Equity Concern)
- 2nd Quartile
- 3rd Quartile
- 4th Quartile (Area of Lowest Equity Concern)

BASE MAP

- Railroads
- Park
- Waterbody
- City Limits

0 1 2 MILES

ACTIVE TRIP POTENTIAL

To understand active travel demand, active trip potential was analyzed using origin-destination data for La Crosse from Replica[1] to visualize the share of private auto and taxi trips that could reasonably be accomplished by bicycling (i.e., less than three miles) or by walking (i.e., less than one mile). A visual representation of this analysis is shown in *Map 3.4*.

Location: University of Wisconsin La Crosse Campus
Image: Sue Lee, UW La Crosse

Key Themes from Active Trip Potential Analysis

The area in central La Crosse (from just south of the University of Wisconsin-La Crosse campus to Weston Street and bounded by West Ave and Losey Blvd) has the highest active trip potential for bicycling trips—that is, trips of three miles or less. Active trip potential for trips that could be accomplished on foot (one mile or less) is more concentrated immediately surrounding campus in the Goosetown-Campus neighborhood.

Although it is easy to get around the UW-La Crosse campus and surrounding area on foot or by bicycle, many students have cars on campus. Some students may choose to drive to and from campus or their jobs due to needing to travel late at night, winter weather, and convenience.

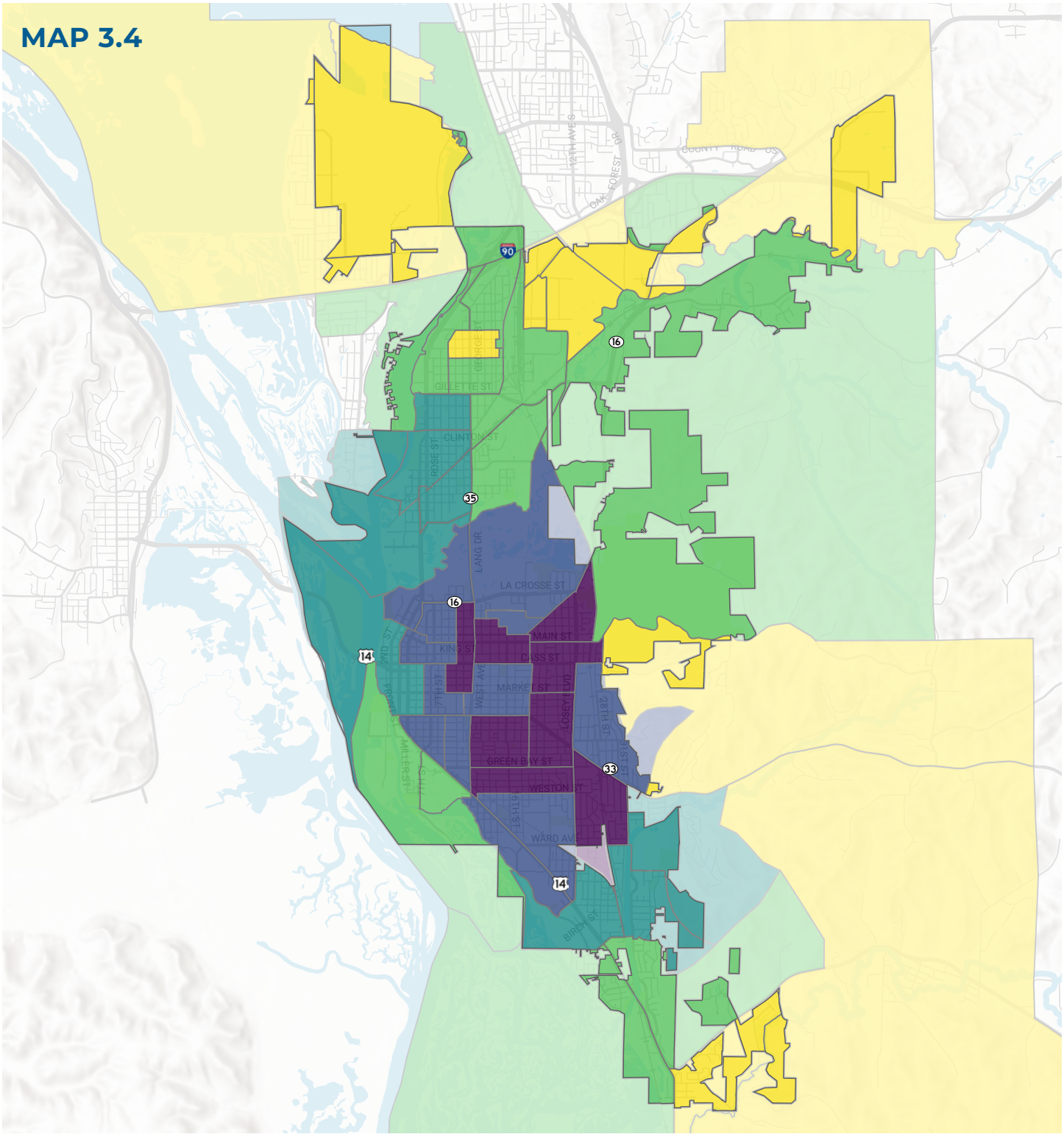
The area also has several senior high-rises, where residents may receive rides to destinations via taxis or carpools.

South of Cass St, there is more owner-occupied housing. The major arterials surrounding these neighborhoods may contribute to the number of shorter car trips. People may need to either cross or use major arterials to get to their destination, which they may not be comfortable with walking or biking.

Residents of the area with the highest active trip potential may lack safe walking and biking access to a nearby grocery store, which may lead them to need to drive or get a ride to pick up groceries.

The active trip potential memo (*Appendix D*) includes more detail on the methodology of the analysis.

[1] Replica is an activity-based travel demand model that generates a synthetic population and models their trip making behavior. The latest data available is for a typical spring weekday in 2023.



DEMAND ANALYSIS

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

0 1 2 MILES

PERCENT OF AUTO AND TAXI TRIPS UNDER 1 MILE

- 15-30%
- 30-40%
- 40-50%
- 50-60%
- 60-70%

BASE MAP

- Railroad
- Park
- Waterbody
- City Limits

STATE OF THE PRACTICE: NATIONAL BEST PRACTICES AND PEER COMMUNITIES REVIEW

National best practices and recent bicycle and pedestrian planning and policy advances in peer cities informed recommendations for the Bicycle and Pedestrian Master Plan update. This includes Bicycle Friendly Community guidelines and Walk Friendly Community guidelines—specifically, recommendations from League of American Bicyclists feedback on previous La Crosse applications. The team also reviewed design guidance documents from organizations such as the National Association of City Transportation Officials (NACTO), Federal Highway Administration (FHWA), and American Association of State Highway and Transportation Officials (AASHTO), and approaches to supporting walking and bicycling including 8-80 Cities, Complete Streets, Vision Zero, Safe Systems, and Universal Design. Efforts to further environmental justice, address climate change, and reduce auto dependency are also included.

The following chapter provides high-level summaries of each item reviewed for the plan. More details on each can be found in *Appendix E*.

Location: University of Wisconsin La Crosse Campus outside Murphy Library

Primary Recommendations from the Bicycle Friendly Communities Application

La Crosse has been recognized by the League of American Bicyclists as a silver-level bicycle-friendly community, and since the development of the 2012 Bicycle and Pedestrian Master Plan has had a goal to reach gold-level status. Below are the key steps to gold from the League's Fall 2020 report card for La Crosse.

Primary Recommendations from the Bike Friendly Communities Application

Bicycle Master Plan: Develop and adopt a new Bicycle Master Plan with specific and measurable goals, supported by dedicated funding. Regularly update the plan to align with best practices, national standards, and ensure continual evaluation and improvement.

Bike Network Expansion: Expand and enhance the bike network, following a facility selection criterion that prioritizes separation and protection of bicyclists based on motor vehicle speed and volume.

Bicycle Safety Education: Integrate bicycle safety education into the routine curriculum for students of all ages. Focus on creating safe and convenient environments for biking and walking around schools. Collaborate with local bicycle groups and parents to establish Safe Routes to School programs for all K-12 schools.

Adult Bicycle Education: Develop opportunities for bicycle education aimed at adults. Tailor classes or events to address the concerns of demographics who currently feel unsafe riding, creating an inclusive and welcoming environment.

Trip Reduction Initiatives: Implement a community-wide trip reduction ordinance/program, commuter incentive program, and a Guaranteed Ride Home program to encourage and support bike commuters in La Crosse.

Bicycle Count Program: Continue developing a bicycle count program using various data collection methods, including automated and mobile counters. This will provide long-term data on bicycle use at fixed points and assess changes in the community's road or bicycle network.

Primary Recommendations from the Walk Friendly Communities Application:

Walk Friendly Communities are recognized by the Pedestrian and Bicycle Information Center (PBIC) for their commitment to creating safer, more accessible environments for walking and pedestrian activities. Similar to the Bicycle Friendly Community program, the Walk Friendly Communities program assesses communities based on the 5 Es (Engineering, Education, Encouragement, Enforcement, & Evaluation).

Location: Kane and George Street

Primary Recommendations for Improvement

Organize car-free days to encourage alternative modes of transportation and community interaction.

Expand safety education and outreach to specific audiences, including children, motorists, and older pedestrians.

Implement an ongoing pedestrian count program to assess walking levels regularly.

Conduct pre- and post-evaluations for pedestrian projects to understand their impact on safety and walkability.

Feedback by Section

Community Profile: La Crosse is on the right track, with positive aspects such as the mayor signing the International Charter for Walking. However, there is room for improvement in dedicating more staff time to pedestrian issues.

Status of Walking: The city is on the right track with a relatively high mode share for walking. Suggestions include reviewing pedestrian crash data and considering additional safety measures.

Planning: La Crosse is on the right track with a pedestrian plan, but improvements could include setting specific goals, creating design guidelines, and enhancing outreach to minority and low-income groups.

Education & Encouragement: The city is on the right track, particularly with Safe Routes to School programs. Recommendations include ongoing education for various stakeholders and tailoring campaigns to specific populations.

Engineering: La Crosse received a Walk Friendly designation for outstanding sidewalk design standards. Suggestions include prioritizing countdown signals and considering turn restrictions in the downtown area.

Enforcement: The city is on the right track, especially with bike patrol-certified officers. Recommendations include consistent speed enforcement, decoy crosswalk operations, and interagency coordination to improve pedestrian safety.

Design Guidance Documents

La Crosse is committed to using best practices in pedestrian and bicycle facility design. The NACTO, FHWA and AASHTO guides have resources for best practices in facility selection and design.

Typical best practice design solutions to support bicycling and walking are included below.

Primary Bicycling and Walking Facilities

Greenways / Bicycle Boulevards designed as shared space with traffic calming features that help slow down car traffic on neighborhood streets.

On Street Bike Lanes, including painted bicycle lanes, buffered bicycle lanes, and protected bicycle lanes with painted or physical separation added to provide more separation from vehicle traffic and comfort for people bicycling.

Trails, which provide bicyclists and pedestrians the opportunity to travel outside of a road right-of-way.

Sidewalks, which provide a space for pedestrians to use that is physically separated from traffic. Additional space adjacent to the sidewalk such the boulevard or terrace zone along the curb edge can be used for vegetation or street furniture and utilities, which provides greater pedestrian separation from the roadway.

Pedestrian crossing facilities, which provide opportunities for pedestrians to cross a roadway either at an intersection or midblock. All pedestrian crossings should be designed and built to the standards set in the Americans with Disabilities Act (ADA), including curb ramps. **Crossings with High-Visibility Paint** improve visibility for pedestrians and drivers, enhancing safety. **Rectangular Rapid Flashing Beacons** (RRFBs) and other treatments installed at crosswalks alert drivers and improve pedestrian visibility.

The state of the practice memo (*Appendix E*) has more detail about the best practice design guidelines and their application to bicycle and pedestrian facility design.

Policy Approaches to Support Walking and Bicycling

Cities have used a variety of policy strategies to support walking and bicycling. These strategies are most effective if they have clear support from policy makers and staff along with a commitment to evaluating progress on specific measures. The strategies link walking and bicycling to specific community goals, including public health, supporting youth or seniors, expanding access for people of all abilities and supporting safety. These policy strategies are complementary to a Bicycle and Pedestrian Master Plan and can support implementation of the plan over time.

See examples of policy approaches La Crosse can use to support walking and bicycling below:

Policy Approaches

8 to 80 Cities is an approach guided by the idea that if a city is "great for an 8 year old and an 80 year old, then it will be better for all people." The 8 to 80 Cities organization provides resources and services for communities including training and toolkits.

Complete Streets policies help communities develop a commitment to planning, designing, implementing, and maintaining streets that are safe for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Complete Streets policies should be regularly reviewed and updated to ensure they keep up with best practices. The National Complete Streets Coalition has resources for communities developing policies, including model language and trainings.

Safe System approach is a program of the Federal Highway Association (FHWA) which follows six principles: 1) death / serious injury is unacceptable, 2) humans make mistakes, 3) humans are vulnerable, 4) responsibility is shared, 5) safety is proactive, 6) redundancy is crucial.

Vision Zero is a strategy that acknowledges that traffic deaths are preventable and takes a system approach to prevention. A model resolution is available as a starting point. Then, data is analyzed to develop a High Injury Network, like the one being created for the La Crosse Bicycle and Pedestrian Master Plan update. Using this information, a Vision Zero Action Plan outlines specific steps to reach the goal, focused on prioritizing areas where safety improvements will have the biggest impact.

Universal Design is the design and composition of an environment so that it can be accessed, understood, and used to the greatest extent possible by all people regardless of their age, size, ability or disability. There are resources about universal design available from the Center for Universal Design.

Environmental Justice, Climate Change and Behavior Change

Cities around the United States are finding ways to reflect their own unique context and priorities while tackling big issues like environmental justice and climate change, which are challenges shared across many communities.

Addressing Big Challenges

Environmental Justice: Local plans and policies can support environmental justice by including the voices of people from impacted communities in future decisions and prioritizing improvements, such as infrastructure, in impacted neighborhoods.

Climate Change: The Bicycle and Pedestrian Master Plan Update is one tool to achieve the city's Climate Action Plan goals. Currently, 34% of the City's greenhouse gas emissions comes from transportation. Shifting trips away from single-occupancy trips to walking and bicycling will help reduce these emissions.

Behavior Change: Transportation Demand Management (TDM) focuses on how people make transportation decisions and works to influence behavior to use existing infrastructure in more efficient ways. TDM strategies can be a complement to infrastructure improvements and an opportunity for partnership with institutions and employers.

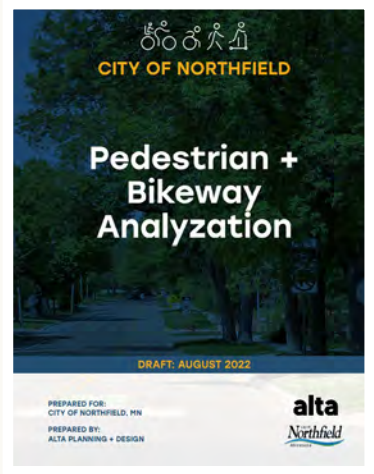
Peer Communities Review

The City of La Crosse can use examples from peer communities' recent bicycle and pedestrian planning and implementation efforts to inform the Bicycle and Pedestrian Master Plan update, including:

Peer Communities

Appleton, Wisconsin recently developed a Complete Streets policy and design guide for all streets in Appleton, as well as a safe pedestrian crossing policy and prioritization process. Developing a design guide and/or a quick-build program could be a key strategy to support whole-network, systemic bicycle and pedestrian safety improvements in the city of La Crosse.

Rochester, Minnesota updated its Active Transportation Plan in 2023. Like La Crosse, the previous plan was adopted in 2012. In the update, Rochester focused on developing an all-ages and abilities bicycle network. The network was designed to come within 1/8 mile of key destinations as much as possible, and considered where excess roadway capacity could be reallocated to bicycle facilities. La Crosse's approach to developing pedestrian and bicycle networks and prioritization of improvements could be informed by Rochester's approach.



Northfield, Minnesota developed a Pedestrian and Bike Analyzation with interim and permanent designs for protected bikeways and recommendations on how to select a preferred bikeway type based on project types identified in the city's capital improvement program (CIP). La Crosse could develop a similar approach for selecting a preferred bikeway design based on project types identified in Northfield's CIP.

04

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Community Engagement Outcomes

Community Engagement Outcomes

Introduction

Community engagement for the City of La Crosse Bicycle and Pedestrian Master Plan Update took place in three phases. The first aimed to understand the goals of the community related to biking and walking, including specific locations that needed improvement as well as related city programs and policies to add or be improved. The second phase was held once a draft network was created, and asked the community if the network lined up with their vision. The third allowed the community to weigh in on the draft plan.

These three rounds of engagement were critical in developing a successful community-influenced draft network and a series of accompanying actions that can be taken to make La Crosse an even better place for walking and biking.

Location: Sill and Liberty Street

Phase 1

Engagement for the City of La Crosse Bicycle and Pedestrian Master Plan Update took place in two phases. The first phase consisted of a combination of strategies, including:

Results of engagement from recent and previous planning efforts in La Crosse were reviewed for relevant themes.

Four pop-ups, reaching about 100 people, were held at existing community events including:

- At a farmers' market
- Fall celebration
- Holiday celebration
- Near the UW-La Crosse student union.

An **online web map** and survey at forwardlacrosse.org allowed people to identify specific locations and general feedback for walking and biking improvements in La Crosse.

Fifty-nine people attended an **in-person community open house** in November to share their experiences with walking and biking in La Crosse and provide input on existing conditions and specific locations.

Two walk audits (in North and South La Crosse) were hosted on the same days as the two open houses to provide an alternative forum for participants to describe their experiences walking and biking on different types of streets.

PHASE ONE ENGAGEMENT OUTCOMES

Major Themes

Residents are **happy that the city is investing in walking and bicycling** improvements

There is a desire for **improved crosswalks** (better paint, more crossing signals, etc.)

196 specific locations in La Crosse were **identified as barriers** to walking or bicycling

People tend to **walk and bicycle less in the winter**

Between May-October, 44% of participants **walk to recreation, health, or exercise-based locations** four or more days a week, but they are very unlikely to walk to access bus, transit, or other transportation options, or school/work (<13% for each category)

The top factors reported that would make **walking** more convenient:

- Keeping sidewalks and trails clear of ice and snow during winter
- Intersections that feel safer to cross
- Building sidewalks and trails to connect to destinations

The top factors reported that would make **biking** more convenient:

- Providing more separation between bicycles and cars
- Growing the network of bicycle facilities by adding bicycle lanes and trails
- Safer / easier crossings at intersections

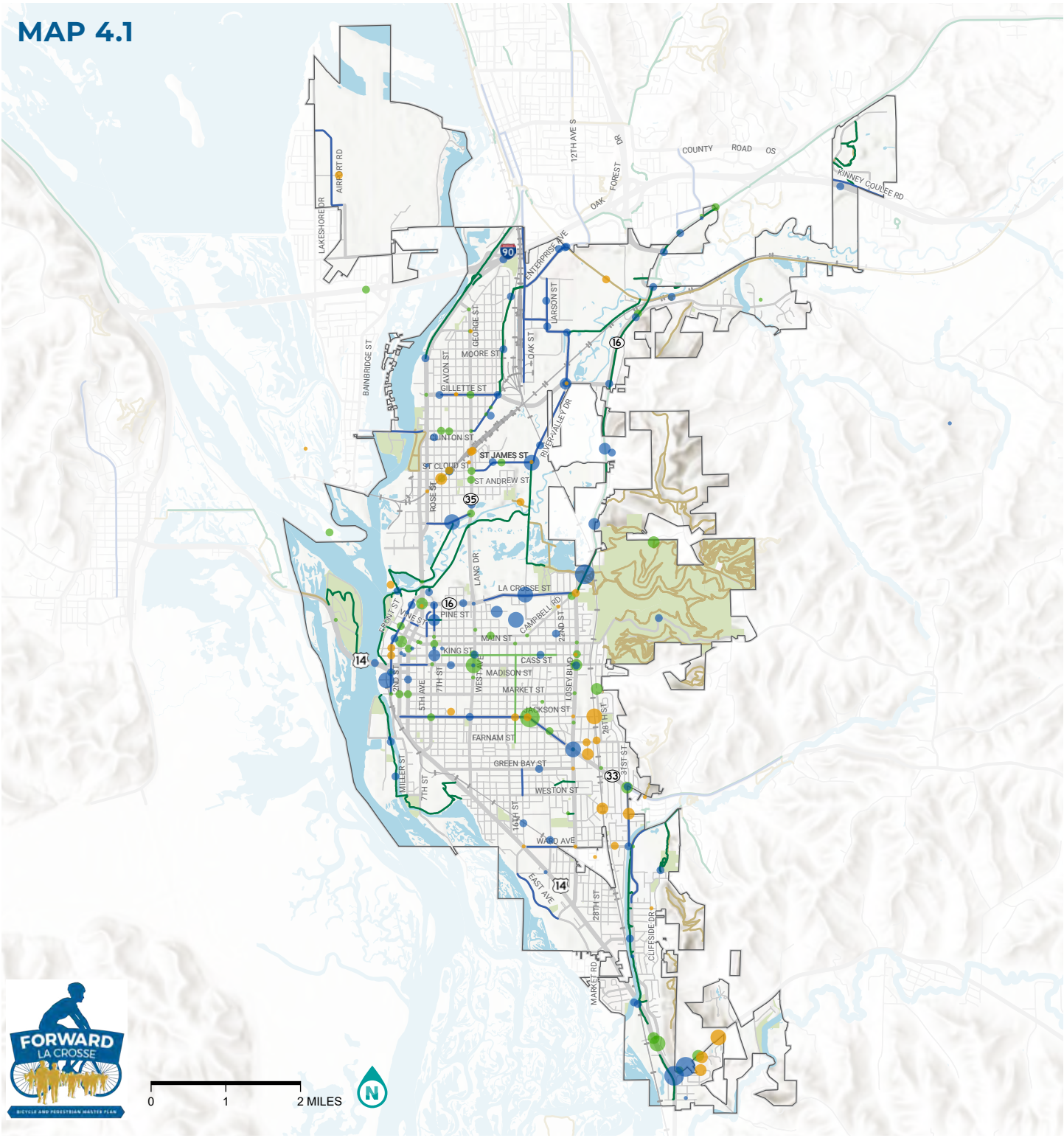
Biking and Walking Barriers

One of the questions asked on the web map and during the community open houses was "where do you experience barriers to walking and biking in La Crosse?". *Map 4.1* on the opposite page highlights these barriers, divided by walking-specific, biking-specific, or both, and displayed based on how many likes/mentions each barrier received.

More Information

Additional feedback provided during Phase One of the community engagement process can be found in *Appendix F*. This includes additional maps summarizing the web map results, information gathered from the print and online surveys, and other key findings from the process.

MAP 4.1



PUBLIC INPUT: BIKING AND WALKING BARRIERS (BY LIKES)

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

WALKING BARRIERS
- 0 likes
- 1-5 likes
- 6-10 likes
- 11-15 likes
- 16+ likes

BIKING BARRIERS
- 0 likes
- 1-5 likes
- 6-10 likes
- 11-15 likes
- 16+ likes

WALKING + BIKING BARRIERS
- 0 likes
- 1-5 likes
- 5-10 likes
- 11-15 likes

BASE MAP
- Railroad
- Parks
- Waterbody
- City Limits

Phase 2

The second phase of public engagement aimed to gather feedback on proposed active transportation projects, and to understand which projects community members would like to see prioritized. The plan's vision and goals as well as recommended actions and strategies were also reviewed.

The second phase of community engagement consisted of a combination of strategies, including:

Draft network map, vision/goals, and actions/strategies were made available on the project website with a brief accompanying **survey** for participants to fill out with their feedback on the draft materials

76 people attended an **in-person community open house** in late March to review the draft materials

A **stakeholder bike tour** was hosted in La Crosse to explore potential projects and review existing conditions at different locations throughout the area, particularly connections from North La Crosse to South La Crosse

PHASE TWO ENGAGEMENT OUTCOMES

Major Themes

Highway 53, Highway 35, and Losey Boulevard are good opportunities in the **long term**

Highway 35 (from La Crosse St to Clinton Street) is envisioned as a **key year-round bikeway connection across the marsh**

The **trail system is positive**, but it's **not reliable year-round** due to water, snow, and other issues

Residents tend to prefer a **balance of greenways and protected bike lanes**

Some residents expressed a **concern about a bike lane on Main Street**

General **desire for more**:

- Signage and wayfinding
- Traffic calming
- Prioritization of pedestrians at key locations
- Winter maintenance

Phase 3

The final phase of engagement allowed the community to review the draft plan and learn from the project team about how the final recommendations came together. Next steps for the plan were also discussed.

This final phase included a community open house and presentation in May hosted at the La Crosse Public Library where 46 community members were in attendance. For those that could not attend in person, the draft plan was posted online along with a survey to collect feedback on the plan. 83 individuals responded to the survey online and 15 responded on a print survey. These responses were factored into edits made to the final plan.

PHASE THREE ENGAGEMENT OUTCOMES

Major Themes

- Excitement about a more connected bike network
- Concern about removal of parking
- Appreciation for the addition of more protected bicycle facilities
- Worry about facilities being included on busier roadways
- Desire for the City to address general road maintenance before adding new bike infrastructure

05

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Strategies and Actions

Strategies and Actions

Introduction

Achieving this plan's vision will require a holistic approach to implementing infrastructure projects, policies, and programs that support people of all ages and abilities to walk, roll, and bicycle in La Crosse. Each of the strategy areas includes specific actions to implement over the next 10 years.

STRATEGIES

Walking: Implement a safe and connected network for walking, including walking with an assistance device and traveling by wheelchair

Bicycling: Creating a safe and connected network for bicycling for people of all ages and abilities

Safety: Implement projects, programs, and policies to address safety issues for people walking, rolling, and bicycling

Policies and Practices: Cultivate a supportive environment for walking, rolling, and bicycling through existing and new plans and policies

Programs: Raise awareness of and excitement for walking, rolling, and bicycling in the community

Walking

Strategy: **Implement a safe and connected network for walking, including walking with an assistance device and traveling by wheelchair**

Description: Walking and rolling are a climate-friendly, physically active way for people to get around. Factors like separation from motor vehicles, intersection safety, connectivity to destinations, lighting and winter maintenance can help make walking and rolling a viable transportation option.

Location: Jackson St and 7th Street

Actions

Identify priority corridors, working from existing sidewalk gaps, to improve pedestrian safety and mobility with traffic calming designs

Improve pedestrian safety and mobility at priority intersections during quick build, spot improvement, and reconstruction projects

Use demonstration projects, which are quick-build, low-cost pilot projects, to evaluate pedestrian safety improvements on corridors and at intersections

Develop criteria for adding marked crosswalks at priority intersections, expanding the use of continental crosswalk markings, and pursue additional funding to install and maintain crosswalk markings

Expand street lighting to improve visibility for pedestrians by evaluating opportunities to improve lighting along with other pedestrian improvements

Prioritize pedestrian improvements that connect residents to transit service, including filling sidewalk gaps, improving crossings at high volume intersections and maintaining pedestrian access through construction zones

Coordinate pedestrian improvements with ADA transition planning to support accessibility; **create standard for APS** so all crossings are clear and consistent

Implement improvements adjacent to or connecting to schools as outlined in the Safe Routes to School Plan

Improve accessibility by replacing damaged/missing/heaved sidewalks; **fill sidewalk gaps and replace curb ramps** as opportunities arise

Upgrade existing sidewalks and multi-use paths to provide a low-stress walking environment for all ages and abilities

Make physical improvements to the downtown sidewalks/crossings to make walking more comfortable and enjoyable

Bicycling

Strategy: **Complete a safe and connected network for bicycling for people of all ages and abilities.**

Description: Bicycling is a climate-friendly, physically active way for people to get around. Factors like separation from motor vehicles, intersection safety, connectivity to destinations and transit, space to accommodate cargo and/or adaptive bikes, lighting and winter maintenance can help make bicycling a viable transportation option.

Location: Vietnam Veterans Marsh Trail
Image: havefunbiking.com

Actions

Implement the All Ages and Abilities bicycle network by providing separated bike lanes, trails, or neighborhood greenways based on the context of the location; consider installing quick build projects to implement the AAA network rapidly and at a lower initial cost

Improve safety and ease of bicycle crossings at intersections

Integrate emerging best practices around bikeway design at transit stops, including treatments like floating bus stops.

Fill bicycle network gaps across physical barriers, including complex intersections, freeways, highways, railroads and natural features such as creeks and marshes

Develop and implement a targeted wayfinding campaign, including themed directional signage, destination signage, and bike parking as the bicycle network is implemented

Evaluate pavement surface of existing bicycle facilities and develop a maintenance plan to improve rideability

Support bike share via promotion and identifying opportunities to encourage more people to ride

Walking and Biking for Daily Transportation:

The actions included as part of the walking and biking strategies support a connected network where people of all ages and abilities can choose to walk or bike for some of their daily needs, such as to local parks, nearby shops, school or work. Many of the ideas support walking and biking for recreation, too.

Winter Maintenance

Strategy: **Improve walking and biking in the winter.**

Description: Walking and biking in La Crosse should be an option every month of the year. Clearing sidewalk, corners, and paths helps people feel confident leaving the house in the winter knowing they will be able to get where they are going.

Image: WXOW News 19.

Actions

Develop a pedestrian winter sidewalk maintenance education campaign that reminds property owners their responsibilities for clearing the sidewalk in front of their property and notify of resources available to assist

Encourage opportunities for neighborhoods to organize snow clearing support for certain populations that may require assistance, such as older adults and people with mobility limitations

Explore options for winter maintenance of bicycle facilities for year-round use, prioritizing the All Ages and Abilities (AAA) Network

Safety

Strategy: **Implement projects, programs, and policies to address safety issues for people walking, rolling, and bicycling.**

Description: People walking, including with assistance devices and wheelchairs, and bicycling account for a disproportionate number of traffic injuries and fatalities nationally. Addressing safety issues through slowing motor vehicle traffic speeds, making improvements to intersections and linear facilities, and pursuing policy initiatives will allow more people to feel comfortable choosing walking and bicycling as transportation options.

Actions

Include a multi-modal component in the Safe Streets for All Planning Grant and coordinate with key priority projects identified in this plan update

Adopt a Vision Zero policy commitment to complement the Safe Streets for All Planning Grant

Convene a safety action committee with local and regional partners

Policies and Practices

Strategy: **Cultivate a supportive environment for walking, rolling, and bicycling through existing and new plans and policies.**

Description: A supportive policy environment, fiscal resources, and buy-in from decision makers can go a long way to position a community to advance bicycling, walking and rolling.

Location: 2nd and Pine Street
Image: City of La Crosse Police Dept.

Actions

Update the Complete Streets policy as state and nationwide best practices are updated

Develop or adopt pedestrian and bicycle facility design guidelines

Continue to review the capital budget process for opportunities to integrate plan implementation into road maintenance and construction projects

Review the capital budget process for opportunities to support demonstration projects and stand-alone bicycle and pedestrian projects

Programs

Strategy: **Raise awareness of and excitement for walking, rolling, and bicycling in the community.**

Description: While infrastructure improvements are essential for creating safe places for people to bicycle, walk, and roll, programs including education and encouragement initiatives can help build momentum and community support.

Image: City of La Crosse Safe Routes to School Plan

Actions

Encouragement

Organize promotions and celebrations of walking and biking on special dates like National Bike to Work Day, International Walk to School Day, National Bike to School Day, Wisconsin Winter Walk to School Month, World Car Free Day, and others

Image: East Central Wisconsin Safe Routes to School Winter Walk to School Day

Education

Bicycle Safety Education: Integrate bicycle safety education into the routine curriculum for students of all ages. Focus on creating safe and convenient environments for biking and walking around schools. Collaborate with local bicycle groups and parents to establish Safe Routes to School programs for all K-12 schools

Adult Bicycle Education: Develop opportunities for bicycle education aimed at adults. Tailor classes or events to address the concerns of demographics who currently feel unsafe riding, creating an inclusive and welcoming environment. Develop educational opportunities for confident bicyclists as well

New Project Education: Develop an education campaign paired with newly installed bicycle and pedestrian projects, which can include posters with QR codes that explain the purpose and benefits of the project

Active Transportation and Transit Integration Education: Develop education programs in partnership with Municipal Transit (MTU) to educate community members on how to make connections using bicycling and transit together. This could include discussion on bike routes that intersect with transit routes, how to place a bike on the bus rack, or other related topics

Evaluation

Implement an ongoing pedestrian count program to assess walking levels regularly

Bicycle Count Program: Continue developing a bicycle count program using various data collection methods, including automated and mobile counters. This will provide long-term data on bicycle use at fixed points and assess changes in the community's road or bicycle network.

Conduct pre- and post-evaluations for pedestrian projects to understand their impact on safety and walkability

Continue to fill sidewalk gaps and replace curb ramps as opportunities arise, prioritizing infill of existing gaps through the CIP

Expand street lighting to improve visibility for pedestrians by evaluating opportunities to improve lighting along with other pedestrian improvements

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06

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Network Recommendations

Network Recommendations

Introduction

Based on lessons learned in the existing conditions analysis and input heard from the community throughout the duration of the project, a draft **All Ages and Abilities (AAA) network** (a network that is safe and comfortable for everyone from school-aged children to older adults) was developed for La Crosse. From this draft network, 16 projects were selected as priority projects. The processes used to develop the draft network and list of priority projects is detailed in this chapter, and additional information is included in *Appendix G*.

Drafting the Network

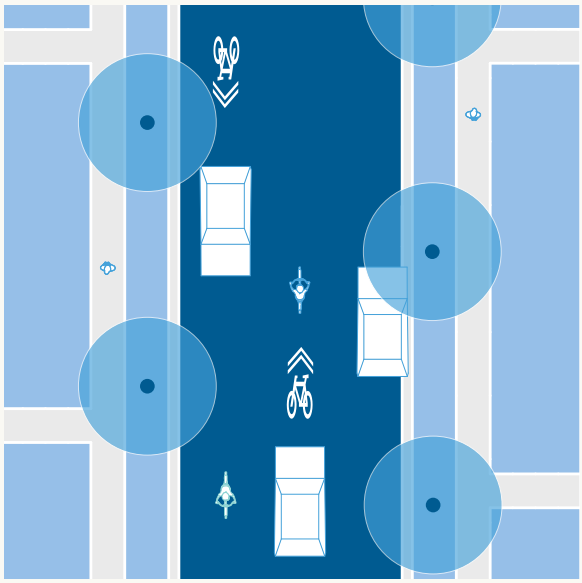
Building on the over 40 miles of existing shared roadways (roadways with shared lane markings), greenways, bike lanes, and trails in La Crosse, **this plan proposes an additional 87 miles of all ages and abilities facilities** be added to the upgraded network, shown in *Map 6.1*.

FACILITY RECOMMENDATIONS

New or improved facility types, detailed below, include **greenways, separated facilities and trails**. **Pedestrian facilities** can be improved along with bicycle facilities if a roadway reconstruction takes place. Long term separated facilities are noted separately as they may be more challenging to implement but are still critical pieces of the network.

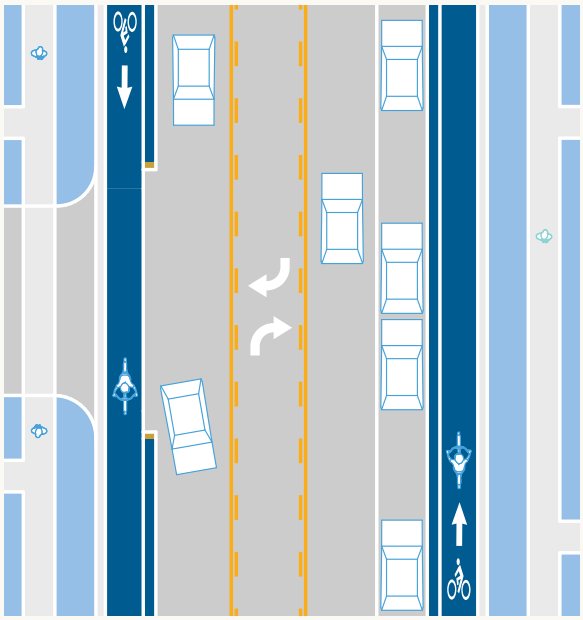
Greenways

Greenways are quiet neighborhood streets with low volumes & speeds. Bicyclists and pedestrians are prioritized by managing speeds and volumes of cars via traffic calming elements. Signage, pavement markings, and greenery are also incorporated.



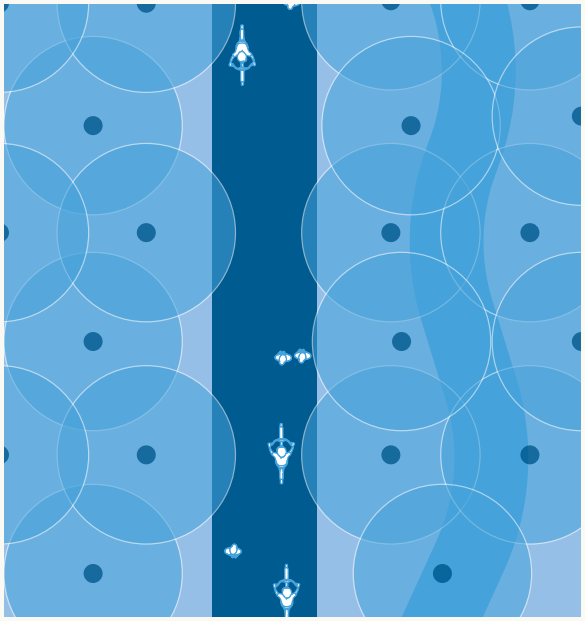
Separated facilities

A separated facility is an exclusive facility for bicyclists that is located within or directly adjacent to the roadway and that is physically separated from motor vehicle traffic with a vertical element like a curb, or grade-separated (at grade with the sidewalk).

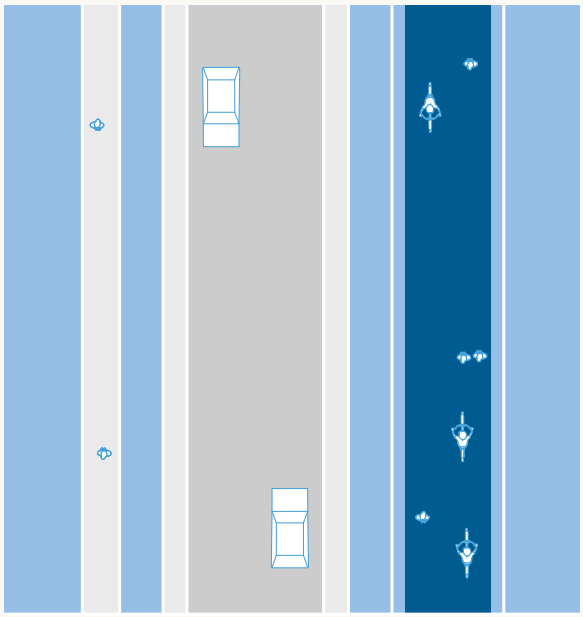


Trails

Trails, also known as pathways or **shared use paths**, are multi-use, two-way facilities that are completely separated from motor vehicle traffic. They can run through parks, along streams and rivers, railroad corridors, or other off-street corridors.

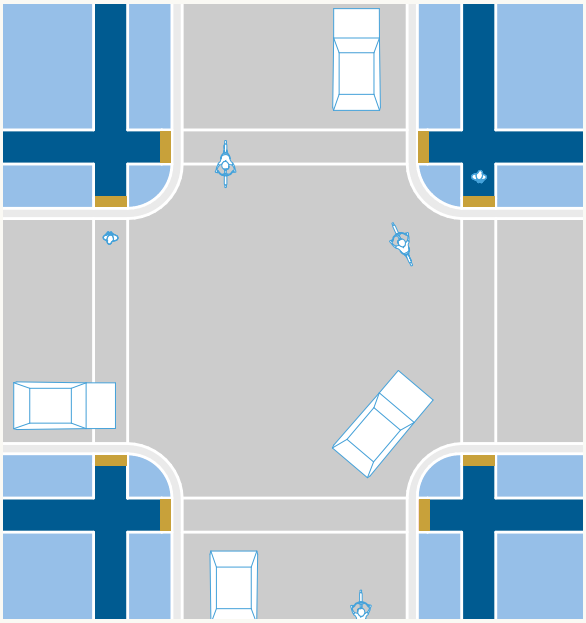


Sidepaths, another form of trail, run adjacent to a roadway, typically with a buffer space between the roadway and the path. This buffer could include trees, plantings, stormwater management, and if wide enough, features like benches, bike racks, lighting, and signs.

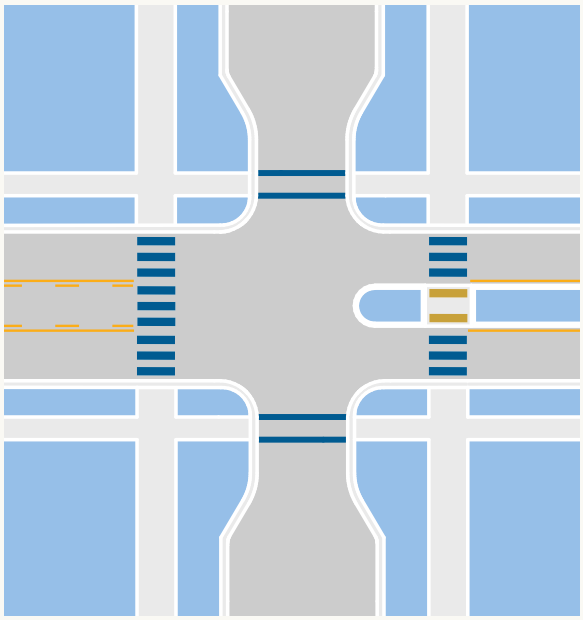


Pedestrian Facilities

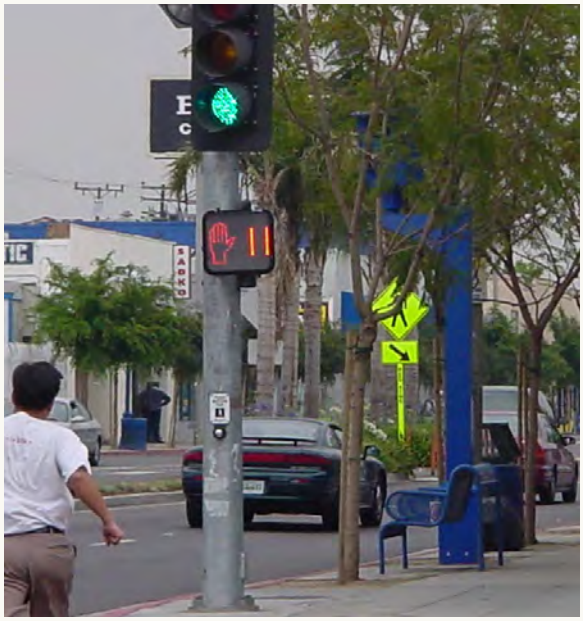
A **sidewalk** is a paved pathway, generally adjacent to a roadway, designated for those walking or using wheelchairs or other small micromobility modes. They should provide ramps to access crosswalks safely.



A **signed and striped crosswalk** is a place designated for pedestrians to cross a roadway on streets with low traffic volumes that are indicated with pedestrian crossing signage and striped markings highlighting the area where pedestrians will be walking.



Signalized crossings include striped markings as well as traffic signals with pedestrian crossing countdowns that indicate how many seconds a pedestrian has to cross the road before the light turns red in the direction they are traveling.



SPOT IMPROVEMENT RECOMMENDATIONS

While new or upgraded facilities help move people safely along a corridor, a challenging intersection or other barriers encountered along the way can make or break the success of a corridor. Adding spot improvements, such as changing or adding signals, adding formal trail access, or creating a protected intersection, can make for smooth navigation of the corridor. 57 spot improvements are recommended in this plan, including the following types:

Added Access

Added access treatments include newly-created or improved trail access, railroad crossings (shown at right), or the addition of curb cuts.

Intersection Improvements

Intersection improvements include the addition of a protected intersection (a type of intersection that physically separates bicycles from motor vehicles at the intersection, shown at right), the adjustment or removal of slip lanes, or the addition of traffic diversion elements.

Signal Improvements

Signal Improvements include adding a Rectangular Rapid Flashing Beacon (RRFB, Leading Pedestrian Interval (LPI), added Accessible Pedestrian Signal (APS) or adjustment of an existing standard traffic signal. RRFBs (shown at right) are push-button actuated crossing signals, LPIs allow pedestrians to begin crossing the street prior to the light turning green, and APS provide auditory, visual, and vibrotacticle information to pedestrians with low vision or hearing.

AAA FACILITY RECOMMENDATIONS

The following steps were taken to develop the draft AAA network:

1. Review existing facilities

Existing facilities were reviewed to see if they fit current design standards in order to be considered a AAA facility. Many shared roadways and standard striped bike lanes were recommended to be upgraded to a more comfortable facility.

2. Review previously planned facilities

Many of the plans reviewed during the existing conditions had not only policy and programming recommendations, but also infrastructure recommendations. These plans were reviewed and any previously recommended facilities that provided a AAA connection and made sense with the current direction of the La Crosse AAA network were added to the list of recommendations.

Some facilities that were recommended in these plans were included in the updated draft network, but were upgraded to a more comfortable facility. For example, many of the recommendations in the 2012 Bicycle and Pedestrian Master Plan were included as shared roadways or standard striped bike lanes, both treatments that are no longer recommended as safe, comfortable facilities.

3. Review public input

The public input maps and notes from various public input opportunities were reviewed for existing facilities that needed improvement and corridors without an existing facility that could benefit from a AAA facility.

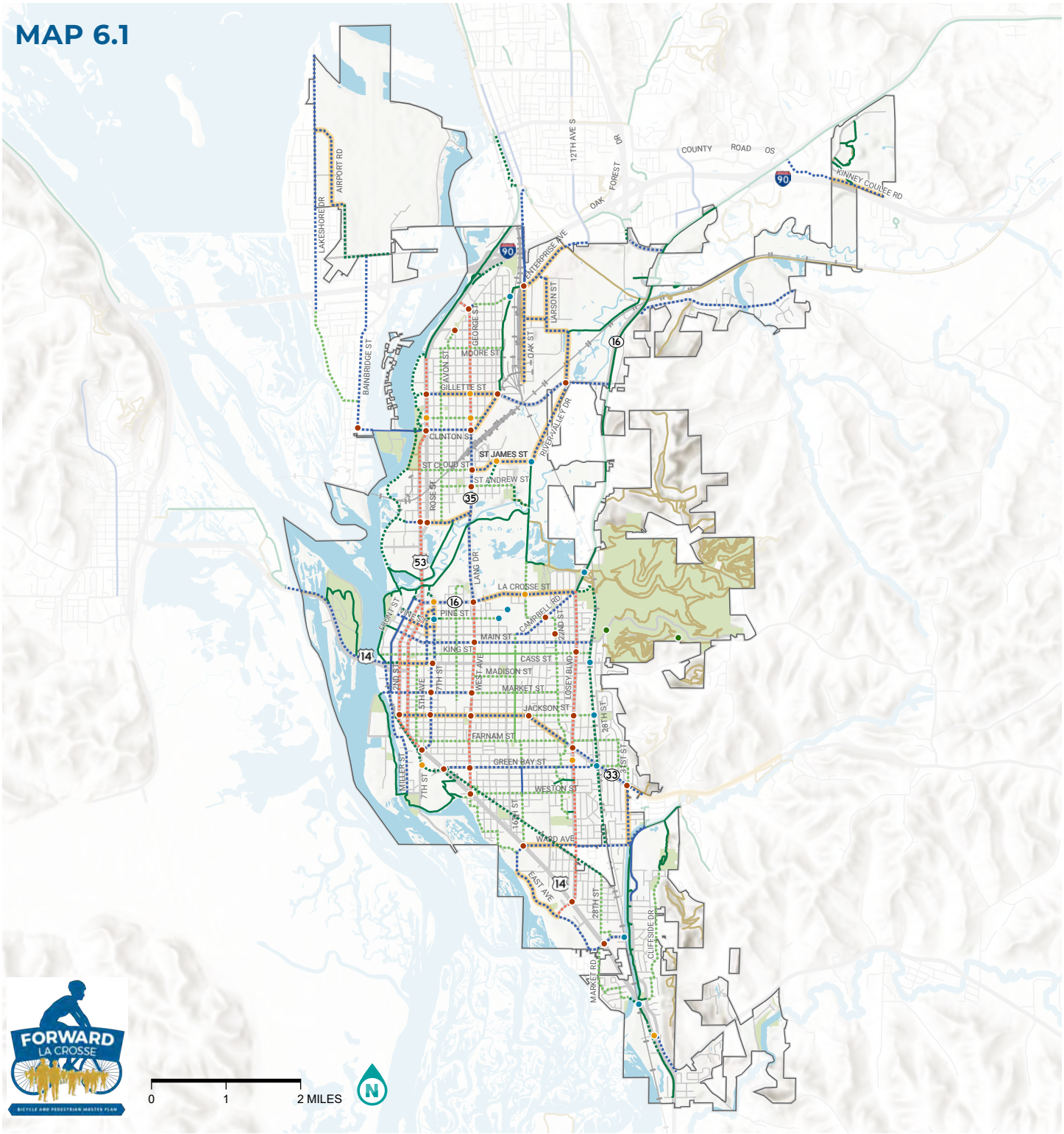
4. Look for missing links

With the draft network map beginning to fill in, the next step was looking at missing links between existing facilities or between proposed facilities. As filling gaps in the network was a major theme from the public input process, this step was especially critical in creating a functional AAA network.

5. Connect facilities to priority destinations

Successful active transportation networks connect people to the places they need to go, so connecting the network to high-priority destinations such as schools, parks, employment centers, hospitals, grocery stores, and commercial hubs was an important step.

MAP 6.1



ALL AGES AND ABILITIES FACILITY AND SPOT IMPROVEMENT RECOMMENDATIONS

LA CROSSE
BICYCLE + PEDESTRIAN
MASTER PLAN UPDATE

RECOMMENDED FACILITIES

- Greenway
- Separated Facility
- Trail
- Long Term Separated Facility
- Upgraded Existing Facility

SPOT TREATMENTS

- Added Access: trail access, railroad crossing, curb cuts
- Intersection Improvement: protected intersection, adjust slip lanes, traffic diverter; Improved Crossing
- Signal Improvement: RRFB, LPI, signal adjustment
- New/Updated Signs

BASE MAP

- Bike Lane
- Greenway
- Paved Trail
- Natural Surface Trail
- Railroad
- Parks
- Waterbody
- City Limits

Prioritization Process

Once the recommended network was drafted, a quantitative and qualitative prioritization process was used to determine which projects would be most important for the city to fund and implement.

QUANTITATIVE ANALYSIS

The first step in the quantitative prioritization process was to identify a set of prioritization factors (10 total were identified). With these factors selected, the project team went through the recommended network project by project and assigned 0, 1, or 2 points to each project based on how each factor applied to each project. The prioritization factors are highlighted in *Table 6.1*.

QUALITATIVE ANALYSIS

A qualitative analysis was completed to help the project team identify the Top Priority Projects. The analysis focused on the following questions:

Does the corridor rank highly in the quantitative analysis?

Is the route providing key connections that help provide seamless connections?

Is the decision taking into account implementation feasibility and responding to engagement desires? (example: preference for a mix of calm greenways and separated bikeways on busy streets)?

Future considerations:

- Right project at right time? (connected to resurfacing or other capital project need, etc.)
- Funding opportunities
- Project type (quick build up to full reconstruction)

TOP PRIORITY PROJECTS

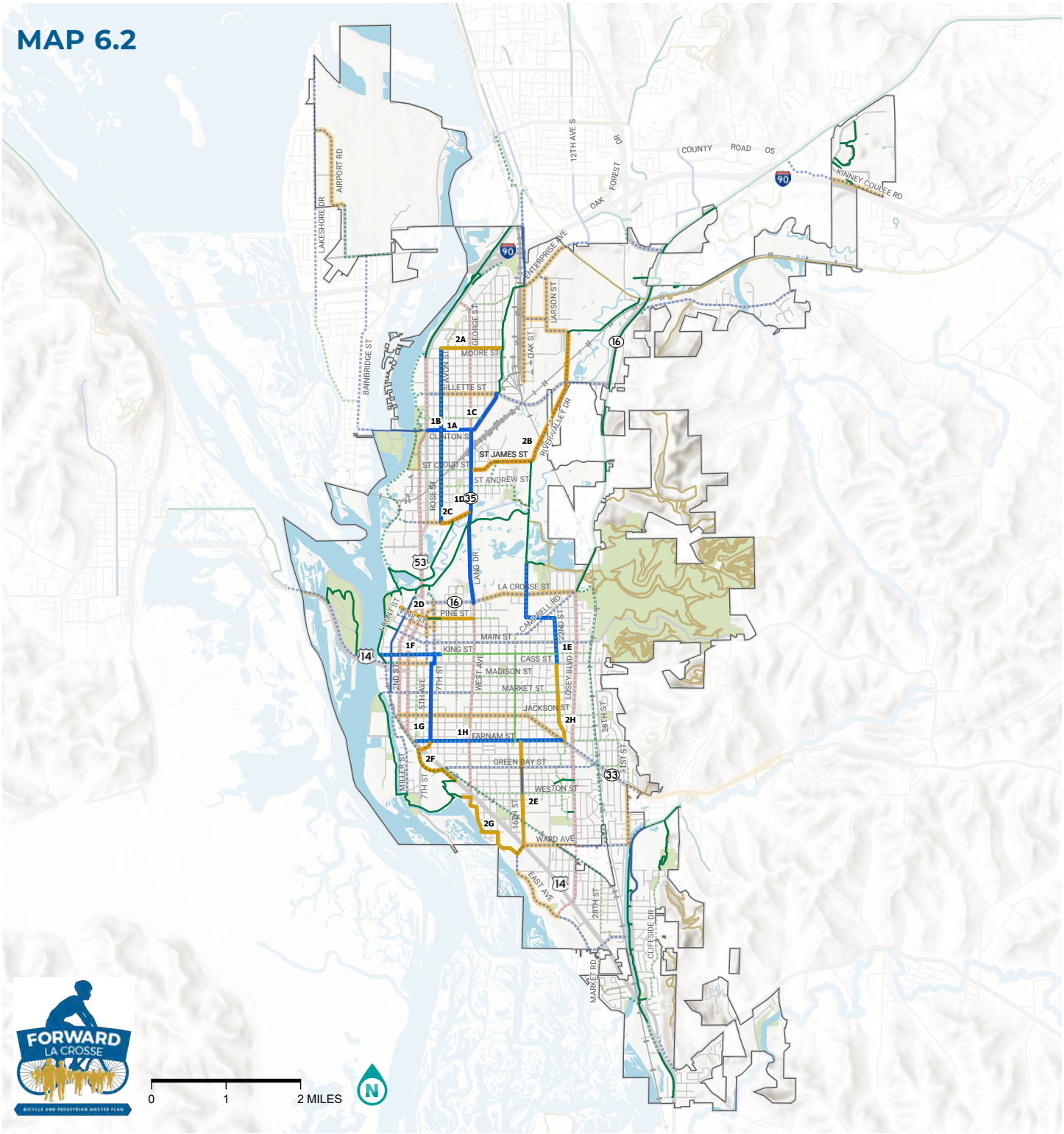
With the quantitative and qualitative analyses complete, a set of eight top tier (Tier 1) projects and a set of eight second tier (Tier 2) projects were selected. The Tier 1 projects are considered the most critical and beneficial projects for the community. These projects are highlighted in *Map 6.2* as well as in *Table 6.2* on the following pages.

High-level construction cost estimates (ballpark construction costs, not including design and engineering) are provided for each of these eight projects in *Chapter 7 - Implementation*.

TABLE 6.1

QUANTITATIVE PRIORITIZATION SCORES		
PRIORITIZATION FACTOR	**SCORE**	**SCORE BREAKDOWN**
1. Connects to an existing bike facility	0	No connections
	1	Connects to one existing bike facility
	2	Connects to multiple existing bike facilities
2. Connects to schools	0	No connections
	1	Connects to one K-12 school
	2	Connects to multiple K-12 schools or connects to one higher education campus
3. Connects to parks	0	No connections
	1	Connects to one park
	2	Connects to multiple parks
4. Connects to a frequent destination (employment center, hospital, grocery store, commercial hub)	0	No connections
	1	Connects to one employment center, hospital, grocery store, or commercial hub
	2	Connects to multiple employment centers, hospitals, grocery stores, or commercial hubs
5. Receives public support on routes needing improvement and/or barriers map	0	Received minimal support/widespread opposition in online input map (0 likes)
	1	Received some public support, limited opposition in online input map (1-5 likes)
	2	Received widespread public support, limited opposition in online input map (6+ likes)
6. Touches a high equity need area	0	Within a 3rd or 4th Quartile area
	1	Within a 2nd Quartile area
	2	Within a 1st Quartile area
7. Is on a high-crash corridor	0	Not on or near/adjacent to a high-crash corridor
	1	Runs adjacent one to three blocks over from a high-crash corridor (within three blocks)
	2	Is on a high-crash corridor
8. Falls within an active trip potential area under a certain mileage	0	Within an area where 15-30% of car/taxi trips are under 3 miles
	1	Within an area where 30-40 or 50-60% of car/taxi trips are under 3 miles
	2	Within an area where 50-60 or 60-70% of car/taxi trips are under 3 miles
9. Connects across a key barrier (highway, railroad corridor, water)	0	Doesn't connect across a barrier
	1	Connects across one barrier
	2	Connects over multiple barriers
10. Connects North La Crosse to South La Crosse	0	Doesn't connect North and South La Crosse
	2	Connects North and South La Crosse

MAP 6.2



ALL AGES AND ABILITIES FACILITY NETWORK TIER 1 AND 2 PRIORITY PROJECTS

LA CROSSE
BICYCLE + PEDESTRIAN
MASTER PLAN UPDATE

TOP PRIORITY PROJECTS

- Tier 1
- Tier 2

RECOMMENDED FACILITIES

- Greenway
- Separated Facility
- Trail
- Further Evaluation Needed
- Upgraded Existing Facility

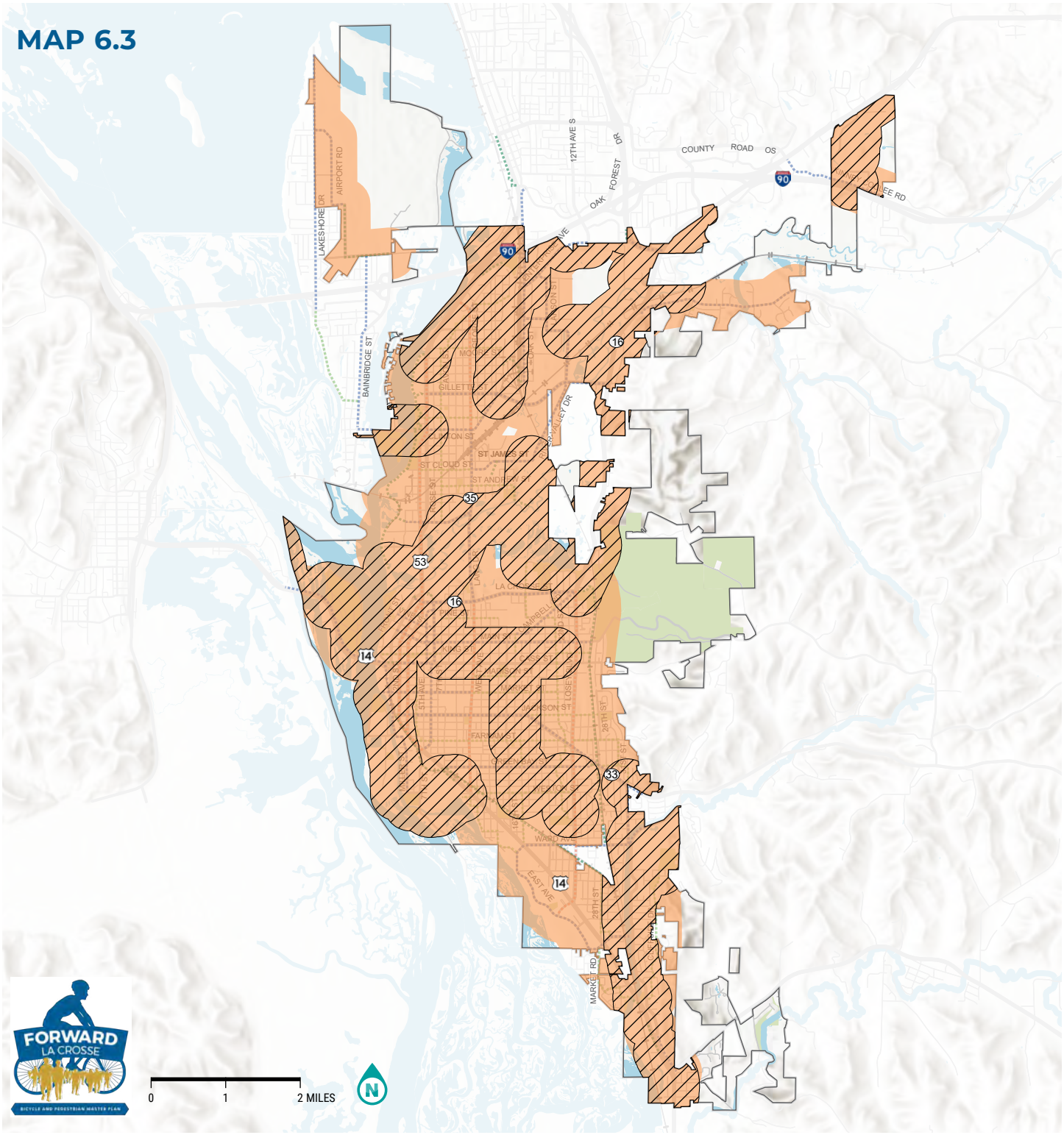
BASE MAP

- Existing Greenway
- Existing Bike Lane
- Existing Paved Trail
- Existing Natural Surface Trail
- Railroad
- Parks
- Waterbody
- City Limits

TABLE 6.2

	TIER 1 AND 2 PRIORITY PROJECTS						
	#	PROJECT NUMBERS	PROJECT CORRIDOR	FACILITY TYPE	FROM (N/W)	TO (S/E)	MILEAGE
TIER ONE PRIORITY PROJECTS	1A	9	Avon St	Greenway	Moore St	Monitor St	1.67
	1B	33	Clinton St	Protected Bike Lanes	Hwy 53	HWY 35	0.43
	1C	107	Ranger Dr	Protected Bike Lanes	Hwy 35	Gillette St	0.44
		Spot Imp. 28		Protected Intersection			
	1D	93	Lang Dr/Hwy 35	Protected Bike Lanes	Clinton St	La Crosse St	1.67
		Spot Imp. 30		Protected Intersection			
		Spot Imp. 44		Protected Intersection			
	1E	7	22nd St/East Ave	Greenway	Park Dr	Cass St	1.23
		Spot Imp. 8		Signal Adjustment			
		Spot Imp. 17		Traffic Diverter			
		Spot Imp. 53		Improved Crossing			
	1F	1	King St	Greenway	Front St	8th St	0.57
	1G	42	7th St	Protected Bike Lanes	King St	Farnam St	1.2
		Spot Imp. 35		Protected Corners			
		Spot Imp. 36		Protected Corners			
		Spot Imp. 43		Protected Intersection			
	1H	12	Farnam St	Greenway	Hwy 14	Hwy 33	1.41
TIER TWO PRIORITY PROJECTS	2A	10	Moore St	Greenway	Avon St	Bud Hendrickson	0.61
	2B	87	River Valley Dr	Two-Way Cycle Track	Great River State Park Trail	Gillette St	0.46
		62	River Valley Dr/ St James St	Sidepath	George St	Gillette St	1.4
		Spot Imp. 14		Protected Intersection			
		Spot Imp. 15		Formalized trail access			
	2C	51	Monitor St	Protected Bike Lanes	Avon St	Lang Dr/Hwy 35	0.33
	2D	31	Pine St	Greenway	Clinton St	La Crosse St	0.45
		108	Pine St	Greenway	Front St	6th St	0.25
		Spot Imp. 16		Add Bike Ramps			
	2E	4	17th St	Greenway	Farnam St	Green Bay St	0.35
		11	17th St	Greenway	Weston St	Ward Ave	0.47
	2F	42	7th St	Protected Bike Lanes	Farnam St	Hwy 14	0.15
		72	Rail with Trail	Trail	Hwy 14	Sims Pl	0.5
		82	Hwy 14	Trail	Sims Pl	Gundersen Trail	0.16
		Spot Imp. 21		Protected Intersection			
		Spot Imp. 22		RRFB			
		Spot Imp. 23		Protected Intersection			
	2G	23	SW Greenway	Greenway	VIP Trail	East Ave	0.96
		Spot Imp. 40		Eliminate slip lanes			
	2H	20	22nd St	Greenway	Cass St	Farnam St	0.77

MAP 6.3



ACCESS IMPROVEMENT

AAA NETWORK ACCESS WITHIN CITY LIMITS

- Area within 1/4 Mile of Existing AAA Network
- Area within 1/4 Mile of Recommended AAA Network

BASE MAP

- Railroad
- Parks
- Waterbody
- City Limits

LA CROSSE
BICYCLE + PEDESTRIAN
MASTER PLAN UPDATE

Transportation Impacts

Nearly half of trips that start and/or end in La Crosse on a typical weekday are three miles or less. Building out the All Ages and Abilities Bicycle Network will allow people the option of bicycling for these short trips, increasing access to schools, grocery stores, parks and more while reducing carbon pollution.

ACCESS IMPROVEMENT

Every day, 131,000 short trips (less than three miles) start and/or end in the City of La Crosse. While a three-mile trip takes only takes about 15 minutes by bicycle, people drive cars for nearly two out of three of these short trips. Building out an AAA bicycle network across La Crosse would make it easier for everyone—older adults, families, college students, workers, and more—to get where they need to go by bicycling. Currently, 60% of parcels in La Crosse are within a quarter mile (five minute walk) of an AAA bicycle facility. With the addition of the recommended facilities, 97% of parcels in La Crosse will be within a quarter mile.

CARBON POLLUTION REDUCTION

85,000 vehicle trips under three miles start and/or end in La Crosse on a typical weekday. The average vehicle trip under three miles is 1.3 miles long. If just 10% of the 85,000 short trips currently taken by car are taken by bicycle instead, carbon pollution in La Crosse will drop by about 5.5 million CO2-equivalent pounds annually. This is equivalent to emissions from 33 tanker trucks filled with gasoline! If La Crosse can achieve a 20% shift in short vehicle trips to bicycle trips, carbon pollution will drop by about 11 million pounds annually, or the equivalent of 66 tanker trunks full of gasoline.

70% Improvement in Access to Healthy Food

17 SNAP Retailers within a Quarter Mile of the Existing Network → 29 when the AAA Network is implemented

73% Improvement in Access to Schools

15 Schools within a Quarter Mile of the Existing Network → 26 when the AAA Network is implemented

28% Improvement in Access to Parks

39 Parks within a Quarter Mile of the Existing Network → 50 when the AAA Network is implemented

07

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Implementation

Implementation

Introduction

With approximately 87 miles of newly-proposed active transportation facilities, and 57 proposed spot improvements (see *Chapter 6* for more details), what are the next steps, and how should La Crosse prioritize future investment? This chapter details an approach for prioritizing projects, outlines potential funding strategies for implementing them, and explains how to maintain, monitor, and review the All Ages and Abilities Network and related policies/programs.

Establish Network Priorities

The implementation of this plan begins with a comprehensive assessment of current infrastructure and community needs, involving stakeholder input from local residents, advocacy groups, and City officials. Prioritization is key, focusing on areas with high pedestrian and cyclist traffic, safety concerns, and connectivity gaps. The plan advocates for dedicated lanes, connected sidewalks, signage, and lighting improvements, alongside educational initiatives to promote safe sharing of roadways. Collaboration with city planners, engineers, local businesses and property owners are integral to support feasibility and sustainability. Regular progress assessments and adjustments based on feedback ensure the plan remains adaptive and responsive to evolving community needs, fostering a culture of active transportation and enhancing overall urban livability.

COST ESTIMATES

Cost estimates for the Priority Projects are included on the following page. Each project is a high-level construction cost estimate, and is meant to provide a ballpark cost and not an exact cost. Each project assumes no additional inlets, storm sewer, or other underground utility work would be required. More details about the estimate for each project is included in *Appendix H*.

PROJECT 1A: AVON ST GREENWAY

Project Number: 9

Facility Type: Greenway

Extents: Moore St to Monitor St

Mileage: 1.67 miles

Key Project Notes:

19 intersections within project limits
15 intersections that need improvements
Assume 5 traffic circles, 5 raised intersections, 5 sidewalk bump outs

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Traffic Circles	$164,820.00
Raised Intersections	$302,250.00
Sidewalk Bump Outs	$319,140.00
Contingency (25%)	$196,550.00
Total Cost	**$982,760.00**

Intersection Notes:

A Monitor St has curb bump outs
B Gould St has a traffic circle
C Hagar St has a railroad crossing
D Sill St has curb bump outs
E Gillette St has curb bump outs

PROJECT 1B: CLINTON STREET PROTECTED BIKE LANE

Project Number: 33

Facility Type: Protected Bike Lane

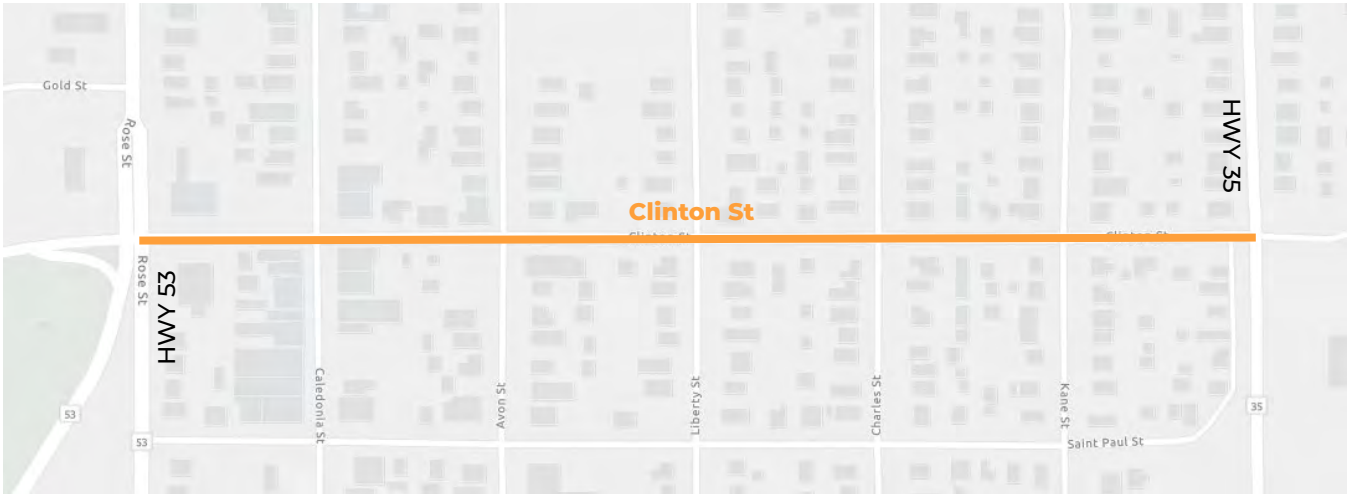
Extents: Hwy 53 to Hwy 35

Mileage: 0.43 miles

Key Project Notes:

Mainly residential but 2 westernmost blocks are commercial
5 Intersections within limits

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Protected Bike Lane	$351,672.50
Contingency (25%)	$87,920.00
Total Cost	**$439,592.50**



PROJECT 1C: RANGER DR PROTECTED BIKE LANE

Project Number: 107

Facility Type: Protected Bike Lane

Extents: Hwy 35 to Gillette St

Mileage: 0.44 miles

Associated Spot Improvement: 28

Key Project Notes:

Residential on west and high school on east
3 Intersections within project limits
Assume no replacement of the sidewalk and tying into existing sidewalk

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Protected Bike Lane	$610,241.50
Protected Intersection	$82,405.00
Contingency (25%)	$173,160.00
Total Cost	**$865,806.50**

PROJECT 1D: GEORGE ST/HWY 35 PROTECTED BIKE LANE

Project Number: 93

Facility Type: Protected Bike Lane

Extents: Clinton St to La Crosse St

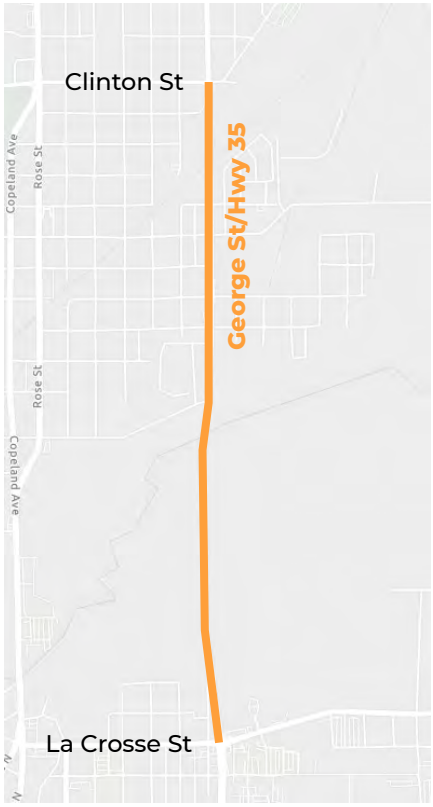
Mileage: 1.67 miles

Associated Spot Improvements: 30, 44

Key Project Notes:

Bridge at La Crosse River and over Railroad tracks
6 Intersections within limits
Turn Lanes and medians near intersections

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Protected Bike Lane	$1,735,720.00
Protected Intersection	$178,500.00
Protected Intersection	$178,500.00
Contingency (25%)	$523,180.00
Total Cost	**$2,615,900.00**



PROJECT 1E: 22ND ST/HILLVIEW AVE GREENWAY

Project Number: 107

Facility Type: Greenway

Extents: Park Dr to Cass St

Mileage: 1.23 miles

Associated Spot Improvements: 8, 17, 53

Key Project Notes:

13 intersections within project limits
12 intersections that need greenway improvements
Assume 3 traffic circles, 3 raised intersections, and 3 sidewalk bump out intersections

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Traffic Circles	$183,930.00
Raised Intersection	$333,997.50
Sidewalk Bump Outs	$370,719.00
Signal Adjustment	$7,500.00
Traffic Diverter	$39,870.00
Improved Crossing	$3,171.00
Contingency (25%)	$234,800.00
Total Cost	**$1,173,987.50**

Intersection Notes:

A La Crosse St & E Ave N is a signal controlled intersection
B King Street already has curb bump outs

PROJECT 1F: KING ST GREENWAY

Project Number: 1

Facility Type: Greenway

Extents: Front St to 8th St

Mileage: 0.57 miles

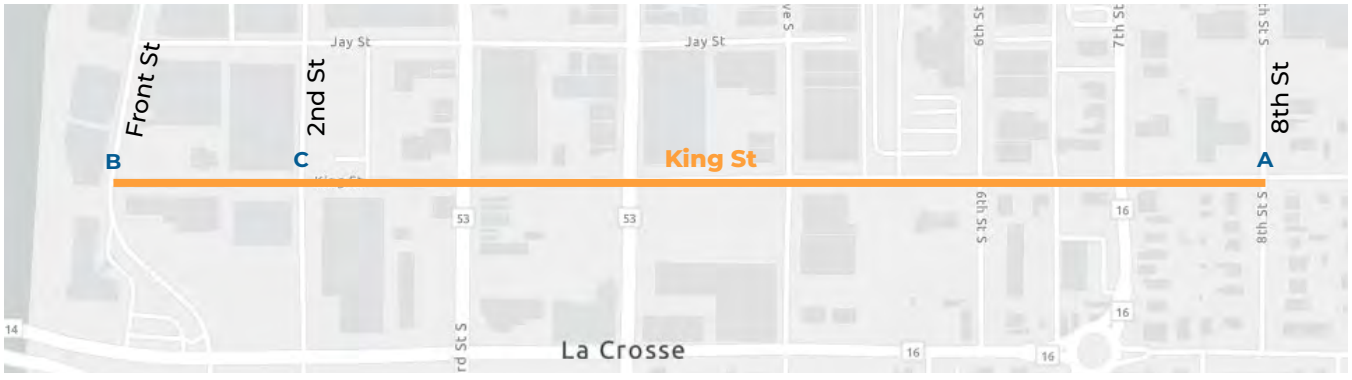
Intersection Notes:

A 8th St has curb bump outs
B Front St has curb bump outs
C Second St reconstructed in 2023

Key Project Notes:

8 intersections within project limits
5 intersections that need improvements
Assume 5 sidewalk bump outs based on previous study work

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Traffic Circles	$0.00
Raised Alley	$407,317.50
Sidewalk Bump Outs	$649,825.00
Contingency (25%)	$264,290.00
Total Cost	**$1,321,432.50**



PROJECT 1G: 7TH ST PROTECTED BIKE LANE

Project Number: 42

Facility Type: Protected Bike Lane

Extents: King to Farnam St

Mileage: 1.2 miles

Associated Spot Improvement: 35, 36

Key Project Notes:

Mainly Residential context
10 Intersections within project limits

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Protected Bike Lane	$734,070.00
Protected Corner	$27,750.00
Protected Corner	$27,750.00
Contingency (25%)	$197,390.00
Total Cost	**$986,960.00**

Intersection Notes:

A Curb bump outs at Johnson St
B Roundabout at Cass St

PROJECT 1H: FARNAM ST GREENWAY

Project Number: 93

Facility Type: Greenway

Extents: Hwy 14 to Hwy 33

Mileage: 1.41 miles

Intersection Notes:

A 20th Street has a traffic circle
B 17th Street has curb bump outs
C 10th Street has a traffic circle
D 6th Street has curb bump outs

Key Project Notes:

19 intersections within project limits
15 intersections that need improvements
Assume 5 traffic circles, 5 raised intersections, 5 sidewalk bump outs

APPROXIMATE COST	
PROJECT TYPE	**DOLLAR AMOUNT**
Traffic Circles	$164,290.00
Raised Intersection	$289,825.00
Sidewalk Bump Outs	$319,140.00
Contingency (25%)	$193,310.00
Total Cost	**$966,565.00**

Funding Sources

There are many potential funding sources available at the federal, state, regional, and local levels that La Crosse can consider for the implementation of projects recommended in this plan. *Table 7.1* provides a list of many of those available funding sources.

Most of these funding sources are competitive in nature, and will require applications and long-term planning. For multi-agency projects, applications will likely be more successful if prepared as joint efforts with other local and regional agencies.

TABLE 7.1

POTENTIAL FUNDING SOURCES	
NAME	**DESCRIPTION**
Surface Transportation Program - Urban (STP-U)	Funds in small urban areas (5,000-200,000) may be used by localities for bicycle transportation facility and pedestrian walkway projects on any Federal-aid highway. Though, it cannot be undertaken on a road functionally classified as a local road or rural minor collector. Funds may be used for maps, brochures, and public service announcements related to safe bicycle use and walking. Funding can cover up to 80% of project costs. This program is administered by WisDOT and selects projects via a competitive process.
STBG Transportation Alternatives Set-Aside (STBG-TA)	Projects exceeding $300,000 are the best fit for this program since significant amount of administration work is involved. Eligible activities include planning, design, and construction of bicycle and pedestrian facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation, and environmental mitigation related to stormwater and habitat connectivity. WisDOT administers this program. Meanwhile, the Recreational Trails Program portion is administered by the DNR. Cost share for STBG-TA projects is 80% federal with 20% local share. However, if a project exceeds $600,000 in total costs, the share split will become 60% federal and 40% local. Projects are scored based on criteria such as “importance to regional transportation system and supports regional development framework” (35 pt), “access and service area” (20 pt), “congestion mitigation” (5 pt), “safety enhancement” (15 pt), “environment” (5 pt), “equity” (15 pt), and “cost efficiencies” (5 pt).
Recreational Trails Program (RTP)	Eligible activities (in order of priority) are maintenance or restoration of existing trails, development or rehabilitation of trailside/trailhead facilities and trail linkages, construction of new trails, and property acquisition for trails. This is the only federal transportation funding source that can be used for maintenance activities. Funds are administered by the DNR and have a cap of $45,000 per grant per fiscal year.
Highway Safety Improvement Program (HSIP)	HSIP is used to achieve a significant reduction in roadway related fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The federal funding ratio for HSIP funds is usually 90%, requiring a 10% match of state and/or local funds.
Transportation Alternatives Program (TAP)	The TAP provides funding for a variety of alternative transportation projects including construction, planning, and design of on-road and off-road facilities for pedestrians, bicyclists, and other non-motorized forms of transportation and safe routes to school programs and facilities. All TAP projects require sponsors to pay 20% of approved project costs.

NAME	DESCRIPTION
Highway Safety Grant Program (Section 402)	Referred to as Section 402 funds – this program is administered by WisDOT. Federal 402 funds are used for pedestrian and bicycle public information and education programs. Funds are distributed to states annually from the National Highway Traffic Safety Administration (NHTSA) according to a formula based on population and road mileage. Government agencies or government-sponsored entities are eligible to apply for 402 funds. Typical funding ratio for HSIP funds is 90%, requiring a 10% match of state and/or local funds.
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	Originally created under the American Recovery and Reinvestment Act (ARRA) in 2009 as TIGER grants, the RAISE program helps communities large and small fix and modernize their infrastructure. Projects are rigorously reviewed and selected base on merit. Projects are evaluated on statutory criteria of safety, environmental sustainability, quality of life, economic competitiveness and opportunity, state of good repair, partnership and innovation. RAISE applications will also be evaluated on the criteria of mobility and community connectivity. The Department will assess projects for universal design and accessibility for travelers, as well as consider how proposals increase mobility for freight and supply chain efficiency. Recently funded projects under this program include the development of bus rapid transit lines, highway and bridge repair, "rails-to-trails" projects, and dock repairs. Federal funding covers no more than 80% share, meaning local share must cover at least 20% of funded projects.
Associated Transit Improvements (ATI)	Federal Transit Administration (FTA) supports bike access improvements through this program. This program includes, but is not limited to, Enhanced Mobility of Seniors and Individuals with Disabilities (S. 5310) which could fund bike improvements that provide access to an eligible public transit facility, funded at 80% federal share; and Formula Grants for Rural Areas (S. 5311) which includes within its eligible projects capital and planning for bike routes to transit, bike racks, shelters, and equipment for public transportation vehicles. Investments in bike access to public transportation (such as electric scooter or bike share stations) can help promote the use of transit and provide better access to the public. These funds are managed by WisDOT.
Federal Lands Transportation Program (FLTP) and Federal Land Access Program (FLAP)	Office of Federal Lands Highway (FLH) manages several programs that can be used for a wide range of transportation projects for planning and construction, including the development of bike ped facilities adjacent to or on federal lands. Partners include the National Park Service, Fish and Wildlife Service, USDA Forest Service, Bureau of Land Management, and US Army Corps of Engineers. The FLAP emphasizes access to and through Federal Lands for visitors, recreationalists, and resource users, with an emphasis on high-use recreation sites and economic generators. The Federal Lands Planning Program is funded through a maximum set-aside of 5% from FLTP and FLAP to carry out the long-range system-wide transportation planning and coordination, asset management, data collection activities for Federal Lands, including tribal transportation facilities and other federally owned roads open to public travel.
Carbon Reduction Program (CRP)	The Bipartisan Infrastructure Law of 2021 (BIL) established the Carbon Reduction Program, a new federal program which provides funding for projects that reduce transportation emissions and requires states to develop comprehensive carbon reduction strategies. Most relevant to this master plan, funding can be put towards the construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation. Federal share is maximum 80% with 20% non-federal match. Deadline to apply is annually in June.
Safe Streets and Roads for All (SS4A)	In addition to the previous CRP grant, the Bipartisan Infrastructure Law of 2021 established the new Safe Streets and Roads for All (SS4A) discretionary program. This program funds regional, local and Tribal initiatives through grants to prevent roadway deaths and serious injuries. Eligible activities to receive funding include: the development or updating of comprehensive safety Action Plans; conduction of planning, designing, and development activities in support of an Action Plan; and carrying out projects and strategies identified in an Action Plan.

NON-GRANT FUNDING SOURCES

Aside from grant funding, there is also the option to obtain funding through Tax Increment Financing (TIF) or charitable donations.

TIF

TIF is a value capture revenue tool that uses taxes on future gains in real estate values to pay for infrastructure improvements, such as new or upgraded roadways (including bikeways and/or sidewalks). TIF involves the creation of a special TIF district, typically in an area that is in need of economic revitalization.

Charitable Donations

Charitable donations could come from two sources: local funding, and non-governmental funding.

For ***local funding*** options, standalone projects are most often funded through a municipality's General Fund (if grants do not cover the bill). Otherwise for projects with a longer life than street markings, General Obligation Debt can be used in the same manner that many street or other infrastructure projects are financed. Integrating bicycle and pedestrian improvements into the City's capital plans is an important way to **be proactive in leveraging** existing resources to support mobility and safety for all modes of transportation

Non-governmental funding options include philanthropic foundations, or direct contributions. Private foundations and non-profit charitable foundations are potential sources of funding for bikeway and trail projects. In addition to seeking grants from a foundation's existing assets, businesses and organizations could be encouraged to "adopt" or sponsor segments of a trail or on-road bikeway to help fund ongoing maintenance. Direct Contributions would include developing a giving program that allows individuals to make direct contributions on utility bills or property tax bills. Additionally, partnerships could be forged with one or more non-profit foundations to develop campaign materials and create a dedicated fundraising website.

Location: 32nd and Ward Street

Maintenance

Maintenance of bicycle and pedestrian network facilities will encourage continual use of facilities by residents and visitors. Maintenance activities include crack filling, fog sealing, patching, repaving, updating pedestrian ramps to meet ADA standards, and clearing facilities of trash and debris. These actions are all critical to maintaining the comfort and attractiveness of these facilities.

Various strategies can be used to improve the maintenance of facilities:

Proactively seek funding and employment sources to dedicate for maintenance of bicycle and pedestrian facilities.

Systematically identify maintenance needs and execute bicycle and pedestrian network facility maintenance.

Seek opportunities to level sloped sidewalks at driveways in residential neighborhoods.

Synchronize improvements recommended in this Plan with implementation strategies in other Citywide engineering, planning, maintenance and development efforts.

Increase efforts on winter maintenance of both on- and off-road facilities.

The League of American Bicyclists has found that agencies with successful maintenance strategies are those that consider bicycle and pedestrian infrastructure in the same light as other infrastructure systems—a necessary part of providing a high quality of life to the community. It's recommended that a strategy is in place for annual maintenance identification and execution. At a minimum, this should include defining departmental responsibilities within the City, as well as establishing minimum maintenance intervals, and dedicating funds from the CIP to routine maintenance costs.

Image: Minnesota Dept. of Health

Advocacy and Outreach

Community programs and City policies are key ingredients to creating a place where walking and bicycling are connected, safe, and convenient. Programs are led by external organizations such as advocacy organizations, while policies are set by City government; it is important to internally determine which groups and departments make the most sense to spearhead each program and policy. This section provides a list of programs and policies that could be implemented to promote and improve the City's bicycle and pedestrian network.

EDUCATION

Educate Property Owners about Snow Clearing

Existing City ordinances require property owners to clear snow from abutting sidewalks within 48 hours of any snowfall so as to maintain an accessible and safe pedestrian network. Actively educating property owners about this requirement and benefits of cleared pathways should be focused on.

Support Walk and Bike Safety Education for Children

Walking and bicycling school buses are adult supervised groups of students walking and bicycling to school, helping to alleviate parental concerns about personal security and traffic safety. Considerations should be made to coordinate with the school district to establish walking and biking school buses to elementary schools and support programs to educate children on how to walk and bike safely.

Provide Street Safety Education Materials

Provide educational materials for all street users about the rules of the road focused on walking and bicycling. Materials should be available online and as print materials. Other advocacy groups typically have content and are able to share information.

Internal Education

Provide opportunities for appropriate staff to attend webinars or conferences related to bicycle and pedestrian planning and implementation.

Educate Law Enforcement about Walking and Bicycling

Provide opportunities for local law enforcement officers to attend WisDOT's "Pedestrian & Bicycle Safety for Law Enforcement" course.

Image: Northside La Crosse Bike Rodeo

Educate Elected Officials about Walking and Bicycling

Educate and help elected officials gain perspective into challenges for walking and biking by coordinating events for them to walk and bicycle in their community with residents or to highlight new facilities.

Provide Education Materials in City Communications

Include at least one piece of bicycle and pedestrian education annually in City communications to residents (City newsletter, utility bills, tax bills, etc.).

EVENTS

Host a Winter Walking or Bicycling Event

It can be difficult for people to stay motivated to walk or bike during long cold winters. Considerations should be made to promote a Winter Bike to Work Day, fat bike race or winter duathlon, or other event to encourage people to walk, bike, ski, or use other active transportation during the winter months.

Host a Bike to Work Day Event

As part of Wisconsin's Bike Week in June of each year, the City should promote walking and biking, and broaden the diversity of community involvement and participation by hosting a Bike to Work Day breakfast or refreshment station.

IMPROVED ROUTES

Provide Safe Routes to Parks

Safe Routes to Parks is a movement akin to Safe Routes to Schools that focuses on providing active transportation corridors to parks and recreation areas. Looking for ways to ensure that all parks can be accessed on foot and bike should be prioritized along with encouraging people to use active transportation to get to parks.

Create a Bicycle Wayfinding Program

Wayfinding serves all types of bicyclists in finding comfortable, low-stress routes. Creating a program to install wayfinding to guide people to trails and on-street bike routes within the city and on regionally significant routes should be implemented. Signage pointing out key community destinations like transit connections and parks should be prioritized.

Image: La Crosse County Bike to Work Day

Update the City Bicycle Map

Priorities should be made to actively update the Bike Map (both in PDF and app based) on an annual cycle. Work with local bike shops and outdoor businesses to distribute printed maps and promote the use of electronic maps.

Enhance End-of-Trip Facilities

Improving bicycle parking can encourage more people to ride to errands, events, work, and school by bike. Additional bicycle parking should be targeted downtown, in parks, at key community destinations. Requiring all new development to include bicycle parking and travel accommodations should be implemented.

FUNDING

Pursue Grants and Sponsorships to Fund Encouragement Activities

The pursuit of grants or sponsorship opportunities to fund encouragement activities should be a continuing effort. Relatively small sponsorships can make a substantial difference in funding maintenance and improvements.

Continue to Collaborate on Safe Routes to School Projects with the La Crosse County Health Department

Continue to work with the La Crosse County Health Department to pursue funding and support infrastructure and non-infrastructure improvements to increase the number of students walking and bicycling to school. Seek opportunities to bolster in-school education through physical education classes, in-school bike rodeos, and other events.

Location: Gundersen Drift Cycle location on Clinic Ct and Tyler St
Image: WXOW News (Gundersen Health System partnership with Drift Cycle)

ADVOCACY

Partner with Hospitals and Health Coalitions

Work with local hospitals and healthcare advocacy groups to highlight the health benefits of walking and biking. Support the creation of community-created advocacy groups to help promote the health benefits of walking and biking.

Bicycle-Pedestrian Advisory Committee (BPAC)

This group can continue to maintain advocacy for this Plan and push for implementation. This group is to continue efforts advising the City on walking and bicycling issues and policies and seek ways to encourage more walking and biking in the city.

Image: La Crosse group bike tour

Monitoring and Review

Monitoring progress and routinely reviewing implementation strategies are essential components of implementing the plan. These activities help identify what's working, what's not, and where additional effort is needed.

GATHER DATA

Conduct Pre- and Post-Implementation Studies of Pedestrian and Bicycle Projects

As new pedestrian and bicycle facilities are implemented, conduct pre- and post-implementation studies of new projects to gauge ridership, safety benefits, and other measures of effectiveness.

Track Crash Data

Use the State crash database to annually review crashes flagged as "bicycle" or "pedestrian" in the City and take a multi-disciplinary approach to addressing intersection concerns or problem areas as appropriate.

Count People Walking and Bicycling

Create and maintain a regional pedestrian and bicycle count program. Consider conducting both on-street and off-street counts and consider conducting counts before and after infrastructure is added.

Provide a Tool to Allow People to Report Issues with the Walking and Biking Network

People walking and bicycling are best positioned to notice maintenance issues on sidewalks, trails, and bikeways. Consider providing a tool, such as a simple online form, to allow people to report issues; City should promptly address reported issues.

Collect Public Input

Conduct a survey of active transportation network users every two to three years to gain insight into preferences, concerns, and use.

PROMOTE

Seek Recognition and Feedback

Promote the Bicycle Friendly Community and Walk Friendly Community status the City maintains through social media, promotions, Explore La Crosse, and the City website.

REVIEW

Update the Bicycle and Pedestrian Plan

In order to assess progress, account for changing conditions, and include current best practices, the Bicycle and Pedestrian Plan should be given a cursory review every five years and fully updated every 10 years.

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A

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Appendix

Plan Review Summary

To: City of La Crosse

From: Alta Planning + Design

Date: December 8, 2023

Re: Summary of existing plans

Summary of Existing Plans

Background

The following plans were reviewed for content relevant to the Bicycle and Pedestrian Plan Update:

- La Crosse Area Planning Committee (LAPC): 2023-2026 Transportation Improvement Program
- LAPC: Beyond Coulee Vision 2040 Metropolitan Transportation Plan (2020)
- LAPC: 2011-2015 Bicycle and Pedestrian Safety Study
- 5-Year City of La Crosse Park and Recreation Strategic Plan (2021-2025)
- City of La Crosse Parking Studies
- City of La Crosse Public Market Feasibility Study (2019)
- South Ave Multimodal Assessment (2018)
- La Crosse Highway 53 Corridor Master Plan (2018)
- Wisconsin DOT Highway Corridor Plans
- Great River Road Initiatives
- Current Bluffland Protection Plan/Hixon Forest Plan
- Downtown La Crosse Retail Market Analysis (2017)
- City of La Crosse Streets and Highways Transportation Vision (2015)
- City of La Crosse Traffic Calming Policy
- TCMC Intercity Passenger Rail Project (2021)
- Future/concurrent development plans, as available

Plans in progress:

- La Crosse Major Highway Project Environmental Study (2022, In Progress)
- City of La Crosse's ADA Transition plan (2022, In Progress)

Plans summarized in detail in the appendix of this memo:

- Bicycle and Pedestrian Master Plan (2012)
- Confluence: the 2002 adopted Comprehensive Plan
- Forward La Crosse: Updated Comprehensive Plan (October 2023)
- City of La Crosse Safe Routes to School Plan (2021)
- Climate Action Plan (2022-2023)
- Imagine 2040 La Crosse Downtown Master Plan (2021)

Plan review focused on identifying recommendations that impact conditions for bicycling and walking and established community vision/goals to carry forward into this plan. Plans listed above that do not include recommendations or established community vision and goals related to bicycling and walking are not included in this summary.

Major Themes from Adopted Plans

The following themes emerged in multiple plans:

- Comfort and safety for people walking of all ages and abilities, including improved pedestrian crossings, curb ramps, and complete sidewalk network
- Comfort, safety, and connectivity of the bike network for people of all ages and abilities and increase on- and off-street bicycle facilities
- Roadway design and traffic signal timing that reduces motorized vehicle speeds and increases safety for people walking and bicycling
- Culture of walking and bicycling: policy, education, encouragement, enforcement, and evaluation
- Recognition of excellence in bicycling and walking among peer cities
- Sustainable mobility options and green infrastructure
- Funding opportunities to implement bike and pedestrian projects

The relevant recommendations from each plan for each theme are listed below.

Comfort and safety for people walking of all ages and abilities, including improved pedestrian crossings, curb ramps, and complete sidewalk network

Forward La Crosse 2040 Comprehensive Plan (2023)

- **Opportunity T-2:** Expand the city's pedestrian and bicycle networks to ensure every street and all new development meets the safety and mobility needs of all users. Promote these networks as support for economic development, tourism, and recreation.
- **Action T 2-5:** Collaborate with surrounding communities and LAPC to coordinate interconnecting pedestrian infrastructure such as Bluffland Traverse, a 50+ mile trail connecting Goose Island on the south side of La Crosse to Camp Decorah in Holmen.

La Crosse Climate Action Plan (2022-2023)

- **Strategy TM5.** Improve the comfort and safety of walking and biking within La Crosse.

Imagine 2040 La Crosse Downtown Master Plan (2021)

- **Opportunity: Identify intersections for safety and comfort upgrades, [including]** frequently traveled pedestrian paths and areas presenting obstacles for people with mobility impairments, notably on 2nd Street.

LAPC: Beyond Coulee Vision 2040 (2020)

- **Objective:** Provide equitable access to and development of transportation facilities and networks.
    - **Action Strategy:** Update the travel model to consider all users (2021-2023).
    - **Action Strategy:** Prioritize projects that fill gaps and improve connections for bicyclists and pedestrians.

Downtown La Crosse Market Analysis (2017)

- Expanding … connections into downtown, by extending bike and walking routes into the core, and improving the visibility, access to and awareness of the river can help to connect visitors to these outdoor assets that are identified as a top asset of the region, potentially encouraging future employee recruitment or business relocation.

Bicycle and Pedestrian Safety Study, 2011-2015 (2017)

- **Safety Countermeasure:** Enhance crossings

La Crosse Transportation Vision memo (2015)

- **Modal Reprioritizing:**
  - Comfortably and safely accommodate the walkers, cyclists, and transit users within the city
  - Remove "barrier effects" where they exist for pedestrians and cyclists

City of La Crosse Traffic Calming Policy

- **Primary Objective 1.** To improve safety for vehicles, bicycles, and pedestrians

La Crosse Bicycle and Pedestrian Master Plan (2012)

Top Ten Recommendations

- Identify critical pedestrian crossings and improve with pavement markings, signs, and traffic control devices
- Implement a plan to correct all curb ramps at intersections, eliminate tripping hazards and sidewalk gaps

Engineering

- Increase the number of streets with sidewalks or walkable, paved shoulders.

Confluence: The La Crosse Comprehensive Plan (2002)

- **Objective 9: Pedestrian Environment.** Improve pedestrian connections to create a continuous and seamless pedestrian system, and enhance pedestrian amenities to create a more attractive and convenient pedestrian environment.

Comfort, safety, and connectivity of the bike network for people of all ages and abilities and increase on- and off-street bicycle facilities

Forward La Crosse 2040 Comprehensive Plan (2023)

- (See **Opportunity T-2** above)
- **Action 2-1:** Grow the City's "All Ages and Abilities" pedestrian and bicycle network through strategic investment in additional routes and infrastructure, especially facilities such as protected bike lanes that provide increased separation between users of non- motorized transportation and cars.

La Crosse Climate Action Plan (2022-2023)

- (See **Strategy TM5** above)

LAPC Beyond Coulee Vision 2040 (2020)

- **Objective:** Establish a signed system of intercity bicycle routes that have a high level of comfort.
  - **Action Strategy:** Continue to work with local communities to address connectivity, access, and comfort issues.
  - **Action Strategy:** Utilize off-road facilities to the greatest extent possible.

- **Action Strategy:** Use identified routes to target locations for bicycle facility improvements.

La Crosse Market Analysis (2017)

- (See pedestrian and bicycle recommendation above)

Bicycle and Pedestrian Safety Study, 2011-2015 (2017)

- **Safety Countermeasure:** Install bicycle facilities

La Crosse Transportation Vision memo (2015)

- (See **Modal Reprioritizing** above)

City of La Crosse Traffic Calming Policy

- (See **Primary Objective 1** above)

La Crosse Bicycle and Pedestrian Master Plan (2012)

Top Ten Recommendations

- Make connections between on-street bike facilities and the Gundersen Lutheran trail network
- Begin transforming King Street into a Bike Boulevard
- Begin work to create two additional Bike Boulevards on 17th Street and Farnam Street
- Continue planning for a continuous, riverfront trail in La Crosse
- Complete a connected network of on-street bicycle facilities and directional signs in the heart of La Crosse

Engineering

- Increase the number of on-street and off-street bicycle facilities. More than 90 miles of on-street and off-street bicycle facilities are recommended. This includes extending some of the city's existing bike lanes and shared lane markings.
- Develop a network of bike boulevards.

Confluence: The La Crosse Comprehensive Plan (2002)

- **Objective 10: Bicycle Network.** Create a comprehensive bicycle network that provides for safe recreational and utilitarian bicycling.

Roadway design and traffic signal timing that reduces motorized vehicle speeds and increases safety for people walking and biking

Forward La Crosse 2040 Comprehensive Plan (2023)

- **Action T 2-4:** Continue to support residents and neighborhoods with the formalized traffic-calming program.

La Crosse Climate Action Plan (2022-2023)

- **Action TM 5-8.** Improve safety for pedestrians and alternative modes of transportation by restoring two-way traffic to one-way streets.
- **Action TM 5-10.** Identify streets where a "road diet" (a reduction in the number of travel lanes and/or effective street width) would achieve systemic improvements; then, implement road diets.

Imagine 2040 La Crosse Downtown Plan (2021)

- **Opportunity: Initiate Street Design Projects.** Streetscape projects provide functional and aesthetic improvement that can increase visibility for pedestrians.

City of La Crosse Safe Routes to School Plan (2021)

- **Action 4.2.** Update traffic signal phases and lights
- **Action 4.4.** Enforce the traffic calming review process

LAPC: Beyond Coulee Vision 2040 (2020)

- **Action Strategy:** Develop a design guide to assist urban communities incorporate all users, especially children, the elderly, and persons with disabilities, in roadway projects (short-range, 2021-2025)
- **Objective:** Become the first Vision Zero metropolitan planning organization.
    - Action Strategy: Develop a Vision Zero plan for the planning area (2026).
    - **Action Strategy:** Coordinate with Safe Routes to School planning (ongoing).

Bicycle and Pedestrian Safety Study, 2011-2015 (2017)

- **Safety Countermeasure:** Reduce [motor vehicle] operating speeds
- **Safety Countermeasure:** Adjust signal timing

La Crosse Transportation Vision memo (2015)

- Slow design speeds to alter driver expectations and reduce the number of crashes, deaths, injuries, and property damage
- Design streets to self-enforce the desired speeds
- Design streets for the breath of population groups including those who do not or cannot drive motor vehicles, people with various disabilities, young people, many elderly people, low income people

City of La Crosse Traffic Calming Policy

- **Purposes and Objectives:** The immediate purpose of traffic calming is to reduce the speed and volume of traffic to acceptable levels ("acceptable" for the functional class of a street and the nature of bordering activity). Reductions in traffic speed and volumes, however, are just means to other ends such as traffic safety and active street life.
- **Safety:** Safety shall be the primary basis for all traffic calming. Measures shall be selected and applied with the direct intent to improve safety for vehicular, bicycle, and pedestrian traffic.
- **Speed Reduction:** Traffic calming measures can reduce traffic speeds to varied degrees intersections and midblock. This is accomplished with physical elements that cause horizontal deflections or vertical displacements that utilize the laws of physics to impede high speed movements. These measures are self-enforcing and do not require additional monitoring.

La Crosse Bicycle and Pedestrian Master Plan (2012)

Engineering

- Switch signals to pretimed cycles to better accommodate pedestrians and bicyclists, and also better control traffic speeds.
- Reduce travel speeds on major roadways to the speed limit thorough the design of the roadway and timing of the traffic signals.

- City of La Crosse Traffic Calming Policy

Culture of walking and bicycling: policy, education, encouragement, enforcement, and evaluation

Forward La Crosse 2040 Comprehensive Plan (2023)

- **Action 2-2:** Conduct education, encouragement, and promotion initiatives that invite residents (including those who don't currently walk or bike as a form of transportation) to explore the City's walking and biking infrastructure.

La Crosse Climate Action Plan (2022-2023)

- **Action TM 1-10.** Create and promote incentives supporting adoption of alternative mobility such as bike and e-bike ownership and/or sharing. Incentive implementation should be prioritized for improved equity.
- **Action TM 5-3.** Create bicycle and bike safety and bicyclist rights education opportunities for all ages through public workshops and web content.
- **Action TM 5-4.** Establish a public safety policy of increased enforcement of traffic laws and ordinances supporting bicyclist rights and safety.
- **Action TM 5-6.** Update the 2012 Bicycle and Pedestrian Master Plan.
- **Action TM 5-9.** Explore approaches to measuring walking and biking (such as through bike counters) at key locations in the city. Example: City of Madison.

City of La Crosse Safe Routes to School Plan (2021)

- **Action 1.3.** Identify and implement bike safety education in non-school settings
- **Action 1.4.** Research and develop an educational strategy for in-school settings
- **Strategy 4.** Strengthen city and district policies
- **Action 4.3.** Establish a crosswalk marking policy

La Crosse Bicycle and Pedestrian Master Plan (2012)

Education

- Continue to provide bicycle and pedestrian safety training for school, city staff, and law enforcement officials.
- Conduct educational campaigns on bicycle and pedestrian safety.
- Continue to close streets to traffic for festivals and public events.
- Achieve 100% school district participation in Safe Routes to School.
- Achieve Bicycle Friendly University status for all colleges and universities in La Crosse.

Recognition of excellence in bicycling and walking among peer cities

La Crosse Climate Action Plan (2022-2023)

- **Action TM 5-13.** Improve City's "Bicycle Friendly Community" rating by implementing "Key Steps to Gold" recommendations on report card.

La Crosse Bicycle and Pedestrian Master Plan (2012)

Vision

- Be recognized as a Gold Level Bicycle Friendly Community
- Be recognized as a Gold Level Walk Friendly Community

Sustainable mobility options and green infrastructure

Forward La Crosse 2040 Comprehensive Plan (2023)

- **Action T 2-3:** Review development requirements to avoid excess off-street parking and ensure the provision of bike parking and safe pedestrian routes in site designs.
- **Action NR 2-6:** Develop a nature- and people-friendly framework to guide landscaping, street furnishings, street lighting, trees, heritage streets, environmentally-focused art, and other improvements to the public realm.
- **Action NR 3-1:** Promote landscaped areas that include plant and tree types that serve a variety of ecological functions such as interception and filtration of stormwater, reduction of the urban heat island effect, and preservation and restoration of natural systems.
- **Action NR 3-7:** Require low-maintenance landscaping in development plan to minimize irrigation system needs, resist drought and winter salting, handle stormwater and snow storage, allow for solar access, and minimize utility interference.

La Crosse Climate Action Plan (2022-2023)

- **Action TM 1-2.** Work with providers like Drift Cycle to actively promote and expand access and use of bike sharing throughout the city.
- **Action TM 1-7.** Establish/increase ordinance requirements and design review requirements for street level, secure bike parking for every residential unit in residential zones and appropriate high-density bike parking facility requirements for commercial and public use zones.
- **Action TM 1-9.** Create and promote incentives for employers to provide incentives such as transit passes, covered and secure bicycle parking, bicycle sharing stations, carpool parking, shuttle services, fleet vehicle carsharing for personal use, and pedestrian facilities. Implementation should be prioritized for improved equity.
- **Action TM 5-7.** Adopt a bike parking equipment list and design parameters to ensure quality and effectiveness. Install additional bike parking, focusing on shopping and business districts and high-density residential areas.

Downtown Parking Study Update & Analysis of Expanded Areas (2020)

- **Recommendation 12.1** Develop and adopt bicycle parking standards
- **Recommendation 12.2** Expand bicycle parking options
    - **12.2.1** Work with private building owners to offer secure bicycle parking
    - **12.2.2** Add bicycle parking corrals in on-street spaces during warmer months
    - **12.2.3** Bicycle parking in City owned ramps

Imagine 2040 La Crosse Downtown Master Plan (2021)

- **Opportunity: Prepare a streetscape handbook.** The handbook should include typical streetscape features to apply throughout the community, including furniture (benches, bicycle racks, bus shelters, kiosks, waste/ recycle collection, newspaper dispensers, railings), lighting, street trees and other plantings, street signage, paving, and public art placement.
- **Opportunity: Prepare a street tree plan.**
- **Opportunity: Leverage primary thoroughfares as green corridors,** including green infrastructure and enhanced bicycle and pedestrian infrastructure**.**

La Crosse Transportation Vision (2015)

- **Natural and Open Space Preservation:** Add street trees

La Crosse Traffic Calming Policy

- **Environmental Improvements:** Drainage conditions can be improved by two means: decreasing the area of impervious surface in a street or intersection and utilizing natural surfaces for absorption and filtration of runoff prior to overflow into the storm sewer systems.

Funding opportunities to implement bike and pedestrian projects

La Crosse Climate Action Plan (2022-2023)

- **Action TM 5-1.** Provide additional earmarked funding and/or prioritization to projects with clear safety and VMT reduction goals and benefits.

La Crosse Area Planning Committee (LAPC): 2023-2026 Transportation Improvement Program

- La Crosse Area Planning Committee (LAPC): 2023-2026 Transportation Improvement Program
    - The LAPC is the designated MPO for the LA Crosse, WI – La Crescent, MN Urbanized area
    - The TIP is a four-year program of transportation improvements within the LAPC area
    - The 2024-2027 TIP draft was released November 15, 2023

Appendix: Detailed Plan Summaries

Forward La Crosse: 2040 Comprehensive Plan (Draft August 2023)

A draft of Forward La Crosse, the city's 2040 Comprehensive Plan, was published in August of 2023 and is expected to be approved by the Common Council in October, 2023. Below is a summary of the elements most relevant the Bicycle and Pedestrian Master Plan Update:

Transportation Vision

La Crosse will provide a range of safe, sustainable, and convenient mobility options for all residents

Transportation Opportunities and Strategies

- Strategy 2. Expand the city's pedestrian and bicycle networks to ensure every street and all new development meets the safety and mobility needs of all users. Promote these networks as a driver for economic development, tourism, and recreation.
    - **Action 2.1:** Expand walking and biking in the City by:
        - Growing the City's "All Ages and Abilities" pedestrian and bicycle network through strategic investment in additional routes and infrastructure, especially facilities such as protected bike lanes that provide increased separation between users of non-motorized transportation and cars. This can also include off-street routes (e.g., paved and un-paved trails) that connect users with nature, away from car infrastructure.
        - Conducting education, encouragement, and promotion initiatives that invite residents (including those who don't currently walk or bike with regularity) to explore the City's walking and biking infrastructure.
        - Updating the 2012 Bicycle and Pedestrian Master Plan to guide future investments in pedestrian-oriented infrastructure.
        - Complying with the City's Green Complete Streets ordinance (Sec. 40-14) and strive towards a "Vision Zero" approach to pedestrian safety that accommodates all forms of mobility.
    - **Action 2.2:** Revise development requirements to reduce excess off-street parking requirements and ensure the provision of bicycle parking, including specialized parking for e-bikes and cargo bikes, and safe pedestrian routes in site designs
    - **Action 2.3:** Continue to support residents and neighborhoods with the formalized traffic calming program
    - **Action 2.4:** Collaborate with surrounding communities and LAPC to coordinate interconnecting pedestrian infrastructure such as Bluffland Traverse, a 50+ mile trail connecting Goose Island on the south side of La Crosse to Camp Decorah in Holmen
    - **Action 2.5:** Comply with the City's Safe Routes to School Plan when considering, planning, and updating any infrastructure changes within two miles of a La Crosse School

Natural Resources & Resilience Opportunities & Strategies

- Strategy 5. Maintain and enhance the accessibility, resilience, and diversity of the city's park and trail system.
    - Action 5.3: Increase connectivity between parks through an expanded network of greenways and trails as identified by community engagement.

La Crosse Climate Action Plan (2022)

The La Crosse Climate Action Plan was adopted in 2022.

Vision and Goals

The City of La Crosse's GHG emission reduction goals are to reduce community-wide GHG emissions by 40% to 50% below 2019 levels by 2030 and achieve carbon neutrality by 2050.
Opportunities and Strategies

Transportation and Mobility

Strategy TM 1. Decrease commuter and community-wide VMT by 5% by 2030.

- TM 1- 2 Work with providers like Drift Cycle to actively promote and expand access and use of bike sharing throughout the city.
- TM 1- 3 Solicit existing car share service provider or establish a car share program for the La Crosse area. Prioritize car sharing providers or programs that focus on EV utilization. Seek models or examples and trial local, neighborhood or apartment/housing development car and/or bike sharing. Existing car share service providers include Zipcar or Hourcar. Person to person carsharing programs include Turo and Get around.
- TM 1- 6 Establish a Guaranteed Ride Home Program, ensuring that employees who commute via transit or bicycle are able to get a ride share or taxi home and not be left at work if a situation arises.
- TM 1- 7 Establish/increase ordinance requirements and design review requirements for street level, secure bike parking for every residential unit in residential zones and appropriate high-density bike parking facility requirements for commercial and public use zones.
- TM 1- 9 Create and promote incentives for employers to provide incentives such as transit passes, covered and secure bicycle parking, bicycle sharing stations, carpool parking, shuttle services, fleet vehicle carsharing for personal use, and pedestrian facilities. implementation should be prioritized for improved equity.
- TM 1- 10 Create and promote incentives supporting adoption of alternative mobility such as bike and eBike ownership and/or sharing. Incentive implementation should be prioritized for improved equity.

Strategy TM 5. Improve the comfort and safety of walking and biking within La Crosse.

- TM 5- 1 Provide additional earmarked funding and/or prioritization to projects with clear safety and VMT reduction goals and benefits.
- TM 5- 2 Update City's existing Complete Streets ordinance to reflect current best practices and Federal Highway Administration guidance; see Local Policy Workbook and Best Complete Streets documents.
- TM 5- 3 Create bicycle and bike safety and bicyclist rights education opportunities for all ages through public workshops and web content.
- TM 5- 4 Establish a public safety policy of increased enforcement of traffic laws and ordinances supporting bicyclist rights and safety.
- TM 5- 5 Partner with School District, Park & Recreation, and neighborhoods organizations to expand bike safety education for students through public workshops and web content.
- TM 5- 6 Update the 2012 Bicycle and Pedestrian Master Plan.

- TM 5- 7 Adopt a bike parking equipment list and design parameters to ensure quality and effectiveness. Install additional bike parking, focusing on shopping and business districts and high-density residential areas.
- TM 5- 8 Improve safety for pedestrians and alternative modes of transportation by restoring two-way traffic to one-way streets.
- TM 5- 9 Explore approaches to measuring walking and biking (such as through bike counters) at key locations in the City. Example: City of Madison.
- TM 5- 10 Identify streets where a "road diet" (a reduction in the number of travel lanes and/or effective street width) would achieve systemic improvements; then, implement road diets.
- TM 5- 11 Convert Pearl Street into a "shared street"—a street shared by all modes of transportation with very low vehicle speed limits and without formal distinctions between spaces dedicated to pedestrians, cyclists, and motorized vehicles. Consider days or hours when closing the street to motor vehicles would be beneficial.
- TM 5- 12 Implement recommendations of the 2020 Safe Routes to School Plan.
- TM 5- 13 Improve City's 'Bicycle Friendly Community' rating by implementing 'Key Steps to Gold' recommendations on report card.

Land Use and Housing

LH 1: Increase the number of housing units within the current city limits by 5% by 2030.

- LH 1- 3 Include land use strategies to advance mobility alternatives in City's redevelopment initiatives - wider sidewalks, bike lanes, reduced off-street parking, and transit-oriented development.
- LH 1- 4 Conduct a Development Study to identify and prioritize available sites for redevelopment and infill development (particularly affordable housing) to advance City's walkability, bike ability, and transit utilization. Study should include a review of under utilized surface parking infrastructure capable of being redeveloped.
- LH 1- 5 Revise community development plans to integrate mixed use development and infill development close to neighborhoods to provide walkable destinations for daily needs, i.e. "15-minute neighborhoods."
- LH 1- 10 Incentivize infill and mixed-use development which result in increased density and improved mobility through alternative code compliance, fee waivers, density bonuses, investment prioritization, development impact fees, TIF financing, etc.

LH 2: Increase community resilience to increased flooding and flash flooding caused by Climate Change.

- LH 2- 2 Require and/or incentivize the use of green infrastructure such as bioswales, permeable pavement, rain gardens, rain water catchment areas, and other pervious surface strategies to reduce flood risk and minimize sediment entry into creeks from trails and roads.

LH 4: Update community plans, zoning, and design standards to mitigate heat island impacts, particularly for populations most vulnerable.

- LH 4- 1 Based on the City's Ground Cover, Tree Canopy, Heat Island, and Carbon Sequestration Study, identify vulnerable urban tree canopy and street tree sections and develop policies to incentivize, encourage, or require strategic tree planting for heat island mitigation (e.g., around heat islands and in areas that need air conditioning such as schools or city facilities).

- LH 4- 2 Add or modify park and boulevard plantings with a priority focus on areas with high heat island potential and those currently underserved by park and green space.

Greenspace, Trees, and Ecosystems

Strategy GS 1: Increase community-wide tree cover from 30% to 32.5% by 2030 and 35% by 2040

- GS 1- 1 Review city ordinances and zoning, including boulevard tree requirements, to identify impediments to tree planting and for opportunities to increase tree requirements or encourage tree planting.
- GS 1- 5 Increase street tree planting along bicycle routes to provide comfortable, shaded travel, especially in low-income and minority neighborhoods. See the City's 2020 Ground Cover, Heat Island and Carbon Sequestration Study for priority areas. Set a percentage maximum of each City-planted tree species to improve diversity, with an emphasis on species that are well-suited to future climate conditions (may include oak, hickory, hackberry, serviceberry, American hornbeam, American sycamore, linden, black gum, and disease-resistant chestnut hybrid).
- GS 1- 10 Create and/or update a comprehensive street tree/urban forest management plan focused on increasing canopy cover, tree species diversity, and equitable distribution of urban forest benefits as well as promoting carbon sequestration and resilience to future climate impacts.
- GS 3: Reduce community-wide “dark” impervious surface coverage from 26.4% to 8% by 2030 and 5% by 2040
- GS 3- 5 Expand and connect green spaces so they are welcoming and within walking distance of all residents, especially in underserved communities where there is a high proportion of impervious surfaces.

Health and Safety

HS 1: Assist the community's vulnerable population in preparing for and mitigating local climate change impacts.

- HS 1- 18 Nurture community-lead initiatives for equitable climate action that reduce resident's carbon footprint and increase climate resilience, such as transportation without cars (biking, walking, transit), tree planting, and climate friendly yards.

Imagine 2040 La Crosse Downtown Master Plan (2021)

Opportunities

Improve connections to adjacent areas through complete streets with improved bike and sidewalk connections to increase the attraction of downtown for residential uses as well as visitors and employers

A Connected City

- Survey sidewalks in downtown, giving upgrade priority to those with mobility barriers such as brick or cobblestone pavement
- Develop a winter maintenance program that ensures sidewalks, ramps, and bus shelters remain free of snow and provide a clear path to destinations
- Synchronize signal timing to encourage slower speed through downtown
- Install decorative paving, lighting, and plantings in targeted alleys
- Install directional wayfinding graphics to inform travelers of destinations

- Prepare a streetscape handbook
- Prepare a detailed walkability and accessibility plan
- Develop a maintenance program
- Prepare a street tree plan
- Initiate street design projects to provide functional and aesthetic improvements for pedestrians, including:
- 3rd and 4th Street Redesign
- 2nd Street Cycletrack
- Main and State Streets
- Identify intersections for safety and comfort upgrades
- Implement festival streets

The plan presents a number of mobility concepts for streets, trails, bike lanes and protected bike lanes, and neighborhood greenways. High priority projects include:

- 3rd/4th Street Circulation Design
- 2nd Street Cycletrack
- La Crosse Street to Front Street Connection
- Front Street Pathway from Riverside Park to Houska Park

The plan recommends standardizing future streetscape improvements across the city to manage costs, while identifying special districts for exception from the standard. In general, a standard should be created for the core of downtown and a separate standard created for the neighborhoods.

A Confluence of Nature

- Leverage primary thoroughfares as green corridors
    - Green infrastructure should be added to the Green Corridors identified within this section. Additionally, enhanced bicycle and pedestrian infrastructure should be installed to make these thoroughfares welcoming and safe corridors. These thoroughfares should improve connectivity between and among parks and also establish better connections from the Riverwalk to downtown and the neighborhoods. For street reconstruction projects, the roadway can be narrowed to allow for more green space and wider sidewalks.

City of La Crosse Safe Routes to School Plan (2021)

Vision and Goals

La Crosse is a city where students and families walk and bike to school because it is safe, convenient, and healthy. The City's investments in infrastructure, projects, and programming are distributed to promote equity.

- Engineering: Build streets that are designed to lower vehicle speeds and communicate caution to drivers. Prioritize safety for people walking and biking over convenience for people in motor vehicles. Build projects that will benefit many people and students.
- Education: Implement effective education in a variety of settings so that children know how to walk and bike safely, and parents and neighbors know how to drive safely.

- Enforcement: SRTS engineering projects passively reduce speeds and improve safety near schools, lowering the need for enforcement. Employ law enforcement sparingly, primarily for education.
- Encouragement: Every school will have a culture that promotes walking and biking as the safe, easy, and healthy choice.
- Evaluation: Performance will be measured and tracked against the established vision and goals.

Opportunities and Strategies

Strategy 2. Prioritize Schools with High Potential to Increase the Number of Students Walking and Biking to School

- Action 2.1: Encourage Priority Schools to Enact Policies and Programs that Encourage Active Transportation and Safe Driving

Strategy 4. Strengthen City and District Policies

- Action 4.1 Update Unusual Hazardous Area (UHA) Plans
- Action 4.2 Update Traffic Signal Phases and Lights
- Action 4.3 Establish a Crosswalk Marking Policy
- Action 4.4 Enforce the Traffic Calming Review Process

Infrastructure Recommendations - School Neighborhood Infrastructure Plans

Detailed recommendations to improve infrastructure for walking and biking are included as 11 school neighborhood plans in Appendix D of the SRTS plan. The 11 school neighborhoods are:

1. North Side » Includes Northside Elementary & Coulee Montessori, Logan Middle School, Logan High School, Immanuel Lutheran, and Providence Academy
2. Emerson Elementary and Blessed Sacrament
3. Lincoln & Aquinas Neighborhood » Includes Lincoln Middle School, Aquinas Middle and High School, First Evangelical Lutheran, and Cathedral Elementary
4. Longfellow Middle School & La Crosse Design Institute, and Mount Calvary Grace
5. Hintgen Elementary and Faith Baptist
6. Central High School and Spence Elementary
7. Hamilton Early Learning Center & SOTA 1
8. State Road Elementary
9. Southern Bluffs Elementary
10. North Woods International School
11. Summit Elementary School

Each school neighborhood plan provides a profile of each school in the zone, a description of existing conditions at the school, maps, a summary of the priority issues observed, and recommendations for infrastructure projects to improve safety for people walking and biking.

The recommendations are presented as short, medium, and long-term recommendations:

- Short term: 1-3 years (relatively simple to implement, possibly within existing budgets)
- Medium-term: 2-5 years (projects of moderate complexity)
- Long Term: 5-20 years (the most complex projects)

Low-Stress Bicycle Network

The plan also presents a map of low-stress bicycle routes throughout La Crosse, which consists of linking the bicycle facilities recommended in each school neighborhood infrastructure plan.

La Crosse Bicycle and Pedestrian Master Plan (2012)

The Plan outlines Top 10 Recommendations as well as action steps. The plan includes a section on tools and best design practices, describing best practices for bike and pedestrian infrastructure design. The bicycle and pedestrian master plan sections of the plan list benchmarks in engineering, education, encouragement, enforcement, and evaluation/planning, with the current status and recommendations for making progress on each. The bicycle and pedestrian sections also include maps showing recommended facilities and problem intersections. The plan concludes with an implementation plan and tables of recommendations categorized by term: immediate, near term, and long term.

Top 10 Recommendations

1. Appoint a Bicycle and Pedestrian Coordinator and establish a standing Bicycle and Pedestrian Committee.
2. Identify critical pedestrian crossings and improve with pavement markings, signs, and traffic control devices
3. Implement a plan to correct all curb ramps at intersections, eliminate tripping hazards, and sidewalk gaps
4. Reduce travel speeds on Losey Boulevard and West Avenue to the speed limit
5. Make connections between on-street bike facilities and the Gundersen Lutheran trail network
6. Begin transforming King Street into a Bike Boulevard
7. Begin work to create two additional Bike Boulevards on 17th Street and Farnam Street
8. Continue planning for a continuous, riverfront trail in La Crosse
9. Complete a connected network of on-street bicycle facilities and directional signs in the heart of La Crosse
10. Begin work on redesign of the US 14/61 – Wisconsin 35 intersection

Engineering

- Increase the number of on-street and off-street bicycle facilities. More than 90 miles of on-street and off-street bicycle facilities are recommended. This includes extending some of the city's existing bike lanes and shared lane markings.
- Complete a continuous, riverfront trail in La Crosse. The La Crosse riverwalk and riverfront trail is almost continuous from the City's northern limit to the south. The City should construct shared use paths or by providing on-street connections to fill in the remaining gaps in the trail.
- Develop a network of bike boulevards. Residents and agency representatives alike stated that adding a bike lane to a road doesn't necessarily make it bicycle friendly, and some people still won't feel safe, despite data pointing to improved safety conditions. For some, additional treatments are needed. The plan includes recommendations to transform some residential streets to bike boulevards. These streets still allow automobile traffic, but include innovative treatments to reduce speeding, cut-through traffic, and encourage travel speeds that are comfortable for everyone.

- Increase the number of streets with sidewalks or walkable, paved shoulders. There is a portion of the population that does not support the inclusion of sidewalks as part of complete streets in La Crosse, despite data showing an 88% reduction in crashes when sidewalks are added to roads. While sidewalks don't always solve the problem, this plan identifies where they are most needed. In some areas, revisions to the design of the road to include wide shoulders can address the need to accommodate pedestrians while also ameliorating winter snow maintenance and drainage concerns.
- Increase the number of intersections that are accessible in accordance with the Americans with Disabilities Act (ADA). This recommendation addresses the need to update the City's ADA Transition Plan, which seeks to complete the requirement improvements within public rights-of-way. Maps have been prepared showing how the City should prioritize its efforts at improving curb ramps, crosswalks, and sidewalk gaps or tripping hazards.
- Switch signals to pretimed cycles to better accommodate pedestrians and bicyclists, and also better control traffic speeds. Some signals in La Crosse include detector loops buried in the pavement to make traffic signals change in response to automobile traffic needs. While intended to maximize efficiency, detector loops do not accommodate pedestrians attempting to cross with the signal, and some loops cannot detect the presence of a bicyclist. Several recommendations are included in the plan to help the city switch some signals to pretimed cycles to correct this problem, or provide workarounds in the form of more sensitive loop detectors, "default to WALK" settings, and pedestrian push buttons.
- Continue to provide bicycle and pedestrian safety training for school, city staff, and law enforcement officials. The City has several programs within various agencies that address pedestrian and bicyclist safety. This plan recognizes each program and recommends not only a continuation of these programs, but encourages interagency coordination to take advantage of not-for-profit and public agency educational resources.
- Conduct educational campaigns on bicycle and pedestrian safety. In addition to training professionals on safety, public education is an important part of keeping everyone up to date on the latest safety improvements as well as general information about new and changing rules of the road, best practices and behaviors that are shown to keep all roadway users safe. EducationSummary | iv La Crosse Bicycle and Pedestrian Master Plan

Encouragement

- Continue to close streets to traffic for festivals and public events. Hosting special events helps to get residents and visitors out walking and helps increase the exposure of businesses in the areas where festivals and public events are held.
- Achieve 100% school district participation in Safe Routes to School. Safe Routes to School participation opens up funding opportunities and grants to address safety needs with respect to walking and bicycling to school, improving conditions for students, parents, and educators.
- Achieve Bicycle Friendly University status for all colleges and universities in La Crosse. La Crosse can continue to attract quality students who are increasingly looking for a campus that accommodates students who choose not to drive. Additionally, making college campuses more accommodating for bicycling and walking improves safety for students as well as faculty, staff, and visitors.

Enforcement

- Reduce travel speeds on major roadways to the speed limit. Speed limits may be enforced, but enforcement alone will not always reduce speeding by the most ardent offenders. Instead, the City should reclaim its streets through the design of the roadway and timing of the traffic signals. In fact, it is

possible to maintain adequate roadway capacity while controlling for speed. When this is achieved, all roadway users benefit from improved safety.

- Increase the number of pedestrian patrols. Pedestrian police patrols in areas where pedestrian activity is observed or desired can help to make pedestrians feel more comfortable, and help the police department identify areas where additional enforcement may yield the best results.
- Set up mobile speed feedback signs along La Crosse streets to reduce speeding and determine where enforcement measures would be most beneficial. Police resources are limited, so installing speed feedback signs helps to collect data on where speeding may be a problem.

Evaluation (and Planning)

- Hire or designate the City's Bicycle and Pedestrian Coordinator. While the plan identifies various agencies and groups that have a stake in implementing the plan, a sole designee or office should be responsible for managing the implementation of the Bicycle and Pedestrian Master Plan.
- Conduct routine pedestrian and bicycle traffic counts in La Crosse to get an estimate of where people are walking and bicycling. If it can be measured, it can be improved. The City occasionally collects data on walking and bicycling, but a central, focused effort that collects data on an annual basis can provide useful data that helps the City get access to grants and other funding opportunities to improve bicycling and walking.

Community vision/goals

- Be recognized as a Gold Level Bicycle Friendly Community
- Be recognized as a Gold Level Walk Friendly Community

Confluence: The La Crosse Comprehensive Plan (2002)

The Confluence Plan was adopted in December 2002 and focused on directing growth to existing neighborhoods and activity centers as well as enhancing, restoring and protecting natural resources. The transportation-related policies from the plan follow:

Transportation Policies

- Create a balanced and efficient transportation network that provides viable alternatives to driving and maximizes the use of existing road infrastructure.
- Improve roadway design through streetscape enhancements and design standards that encourage:
    - Interconnections
    - Narrower widths and traffic calming where feasible and appropriate to road function
    - Boulevard trees
    - Sidewalks
    - Bicycle lanes where feasible
- Continue to build a connected bicycling network consisting of on-street lanes and off street paths.

Parks and Open Space Policy

- Expand the trail system and trail connections, particularly along the riverfront, the La Crosse River marsh, and the bluffs.

Transportation System Development and Management Objectives and Actions

- Objective 1: Balanced and Efficient Transportation System. Create a balanced and efficient transportation network that provides viable alternatives to driving and maximizes the use of existing infrastructure.
- Objective 2: Safe Transportation System. Improve transportation system safety.
- Objective 5: Parking Management. Provide parking that is efficient, cost effective, and convenient while contributing to a pleasant, safe and comfortable pedestrian environment.
- Objective 7: Major Roadway Design. Design the major roadway system to be safe and attractive to minimize negative impacts to adjacent uses and to foster multimodal connectivity.
- Objective 8: Neighborhood Streets. Design neighborhood streets that will serve local transportation needs, enhance safety and livability, and improve neighborhood quality.
- Objective 9: Pedestrian Environment. Improve pedestrian connections to create a continuous and seamless pedestrian system and enhance pedestrian amenities to create a more attractive and convenient pedestrian environment.
- Objective 10: Bicycle Network. Create a comprehensive bicycle network that provides for safe recreational and utilitarian bicycling.

Urban Design Objectives and Actions

- Objective 5: Self-sufficient New Neighborhoods. Build new neighborhoods that foster a sense of community and interaction among neighbors, provide a sense of identity and belonging, and create a sense of comfort and security.
- Policy/Action 6: Connected Local Streets. Through its subdivision review process, the City shall encourage creation of interconnected residential street patterns. All new residential subdivisions should provide public street access in each cardinal direction, unless impractical because of natural, environmental or other constraints. Where roads will be extended in the future, developers should be required to install stub streets to the edge of their plats.
- Objective 7: Pedestrian-Friendly Street Network. Design streets to form or extend an interconnected network that establishes a clear hierarchy of streets, emphasizes pedestrian and bicycle access and creates pleasant and comfortable outdoor spaces.

B

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Appendix

High Injury Network

MEMORANDUM

To: City of La Crosse, WI

From: Kelly Dunn, Alta Planning + Design

Date: December 8, 2023

Re: Task 2.1 High Injury Network Methodology and Results

High Injury Network Results

Introduction

High injury networks (HIN) illustrate that often a small number of improvable roadways can address the majority of injury-causing or killed and serious injury (KSI) crashes. This approach moves beyond typical crash history and allows for a better understanding of the types of roadways in La Crosse where users are most at risk.

Alta developed an HIN for the City of La Crosse. This memo explains Alta's proposed approach to analyzing crash data and developing the HIN. To provide clarity to the process, **Figure 1** provides a high-level explainer graphic that visually illustrates the HIN development process.

The high injury network will lead to the identification of safety countermeasures for the highest priority roads, then the development of engineering and policy recommendations that the city can swiftly act on.

Summary of Findings

The final HIN accounts for 59.8% of injury crashes and 70.4% of KSI crashes in La Crosse and immediate surroundings during the study period. The HIN includes 10.2% of roadway centerline miles in the study area.

The top segments with the highest crash severity index are shown in Table 1.

Table 1: Top segments by crash severity

Road name	Between[1]	Crash severity index[2]	KSI crashes	All Injury crashes[3]
3rd Street South	Cass St & Division St	134.0	3	29
West Ave South	State St & Cass St	124.1	1	37
Losey Blvd	State Rd & Green Bay St	112.9	0	30
State Road 16	Quarry Rd & Bluff Pass Rd	98.0	4	15
The Great River Road	I-90 and West George St	95.2	2	11

[1] Cross streets are approximate, because streets were segmented by distance and not at intersections.

[2] As described in step 3.c. below, the crash severity index is the average sum of severity-weighted crashes per mile on that segment.

[3] Inclusive of KSI crashes.

Although segments within a quarter mile of the city boundary were included in the analysis, no segments outside of the city boundaries ended up on the final HIN.

High Injury Network

La Crosse, WI Bicycle and Pedestrian Master Plan Update

Road Segments

- Segment on High Injury Network (HIN)

Segments not on HIN

- Local
- Collector
- Minor Arterial
- Principal Arterial

Base Map

- City Limits
- Streams
- Parks
- Water body

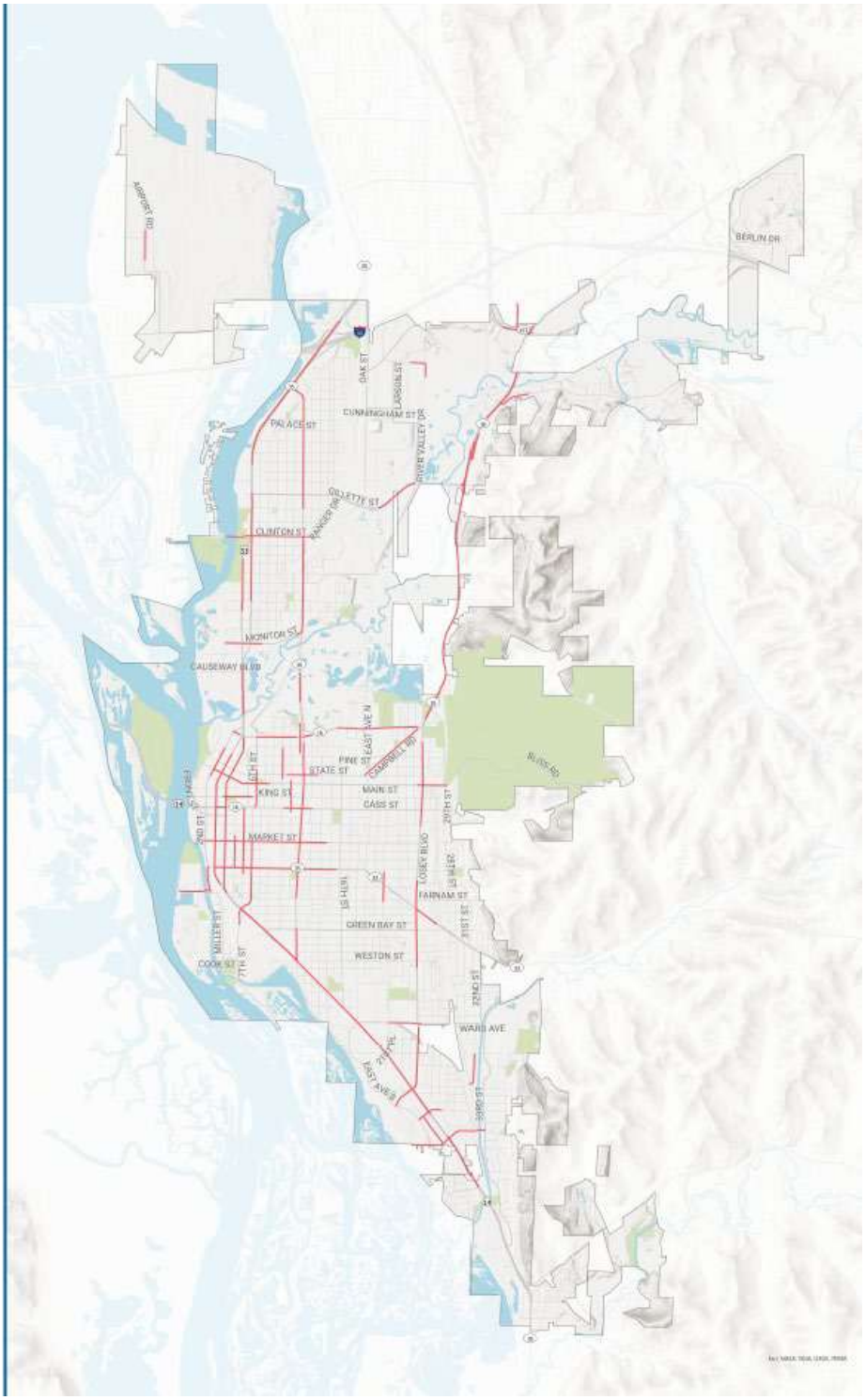
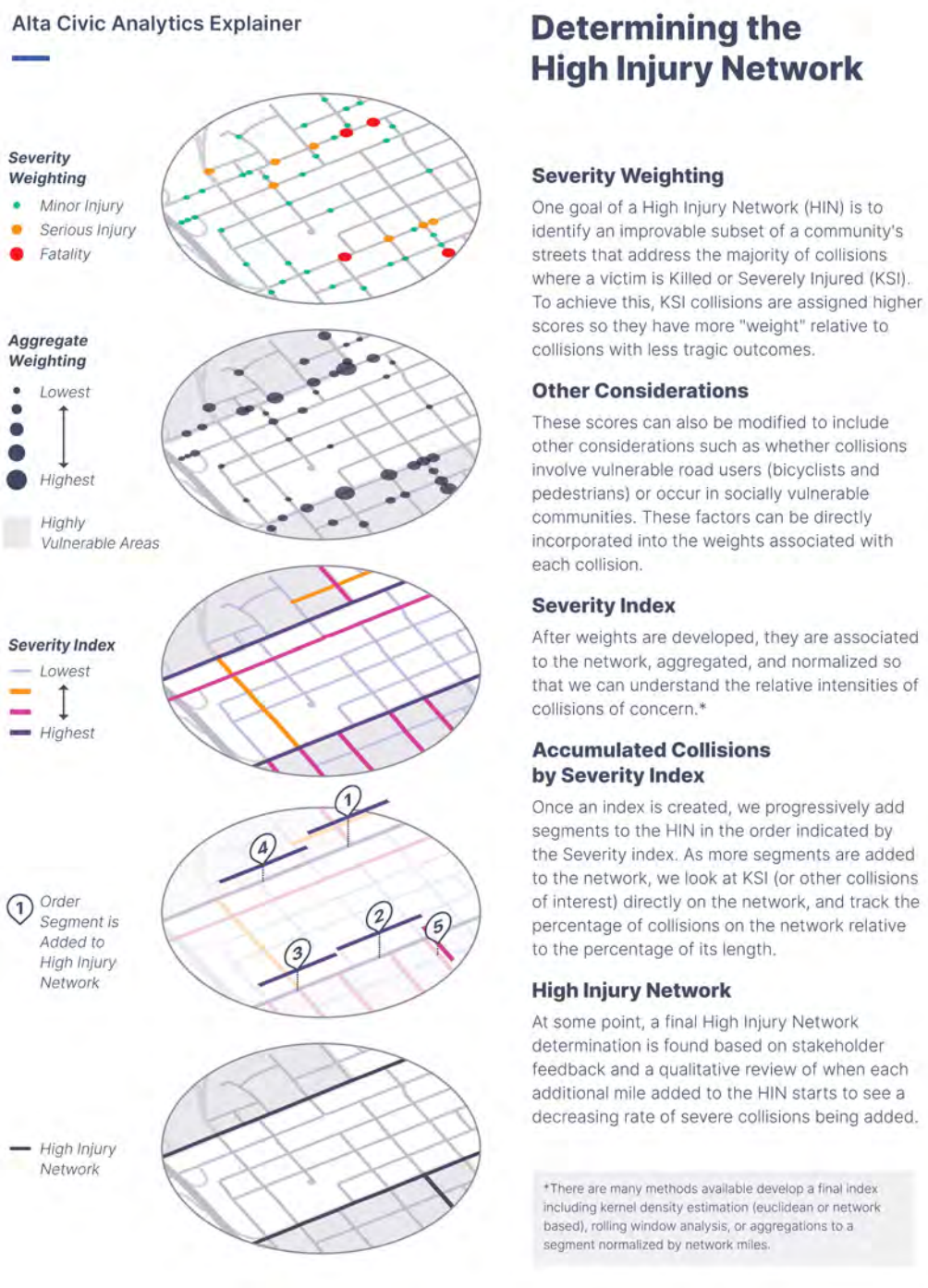


Figure 1: HIN Development Explainer Graphic



1. **Prepare Street Network:**
    a. Consolidate dual-carriage roadways so that split roads are represented as one line.
    b. Use the "unsplit lines" tool to dissolve road segments based on road name and functional class. This eliminates arbitrary splits in the spatial data so that roads can be split into even-length segments.
    c. Divide centerlines into segments of one-quarter mile each so that crashes can be summarized for segments of equal length. Crashes were not normalized by traffic volumes.
    d. Create unique ID for each roadway segment.
    e. Create a Rolling Window / Sliding Window feature class where the lines are extended over each road segment approximately 330 feet (1/16 mile) in each direction, for a total rolling segment length of 3/8 mile. Alta used custom splitting tools that have an overlap percentage (Wasserman, 2023). Lines overlap with their neighbors by some set percentage. This process allows rolling window statistics to be calculated on each road segment. The benefits of rolling window analysis are that they reduce the impact that dead-end streets, network segmentation artifacts, or anomalous crashes have on the final HIN. Fundamentally, it better captures the linear corridor crash patterns where they exist (Fitzpatrick, 2018)[3]. This methodology is illustrated in **Figure 2**.
    f. Spatially join the crash layer to the prepared street network and count the number of all injury crashes and the number of KSI crashes on each segment.

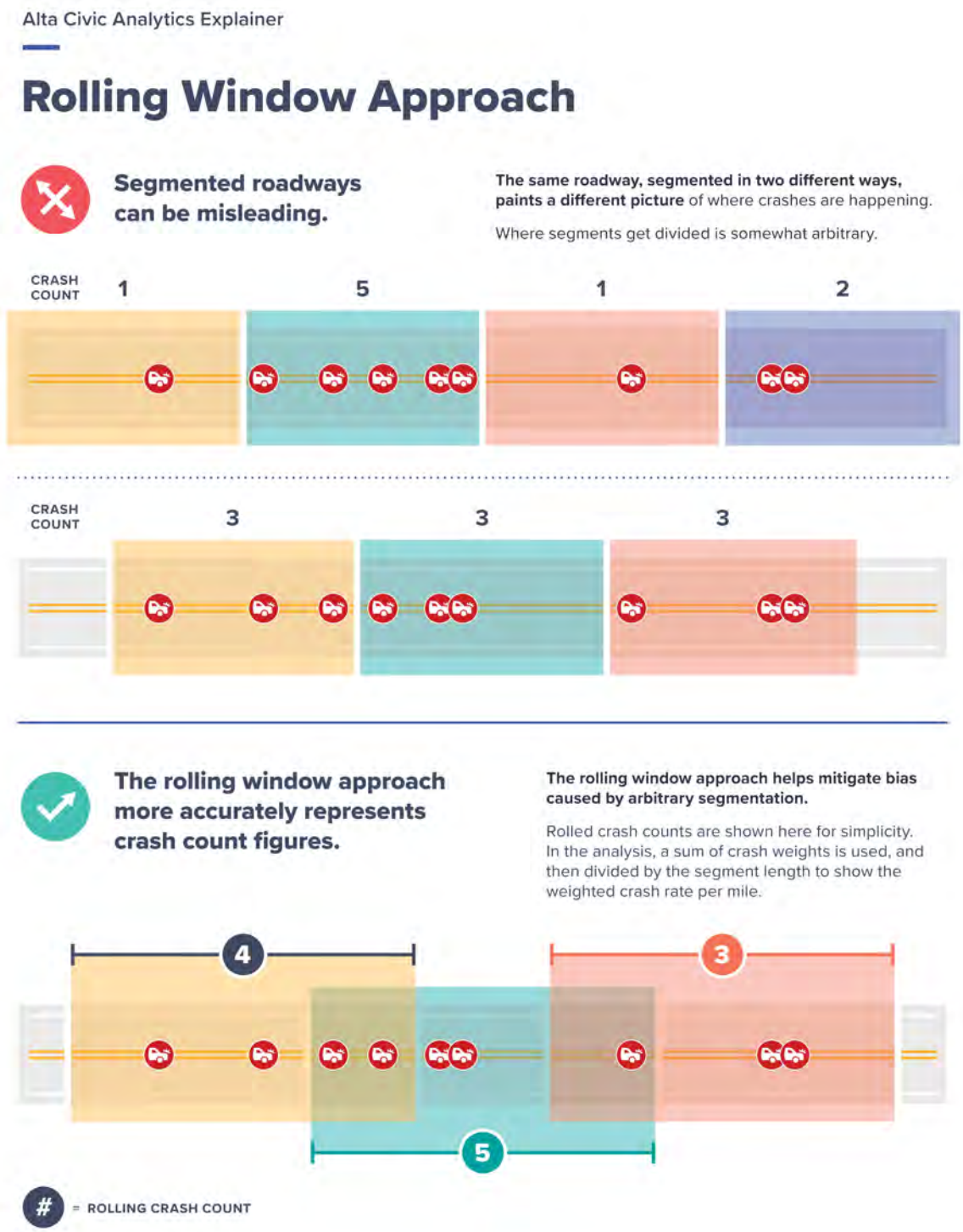
2. **Apply Rolling Window Analysis:**
    a. Spatially join the crash layer to the rolling window road network.
    b. Calculate the summed rolling crash weight for each rolling road segment. This sums the weight of crashes on each rolling segment to reflect total crash severity on each segment.
    a. Join the rolling crash weight from the rolling window layer back to the original centerline network to show rolling crash weight per road mile on each segment, using the unique ID. This normalizes the crash weight for the road length. However, for the purpose of calculating crash weight per road mile, count any rolled segments of less than 0.1 mile as 0.1 mile, to avoid overrepresenting crashes on small road segments, as dividing by very small numbers yields very large numbers. The result is the crash severity index, representing crash weight per mile.

3. **Accumulate Crashes:**

    a. Use Alta's custom-build HIN Generation tool to progressively add segments to the HIN in order of crash severity index, starting with the highest. This tool calculates the length in miles for each segment as it is added and keeps track of the cumulative miles in the HIN and the number of KSI crashes occurring on those segments. It stops when the designated threshold of KSI crashes has been accumulated. The tool also generates a table that shows the number of KSI crashes, injury crashes, and the number of roadway miles accounted for with each HIN segment.

[3] These patterns would consider crashes sometimes not directly on a particular segment in other to smooth out analysis results. Examples of this type of analysis are provided by FHWA in their Guidebook on High Pedestrian Crash Locations.

Figure 2: The rolling window approach



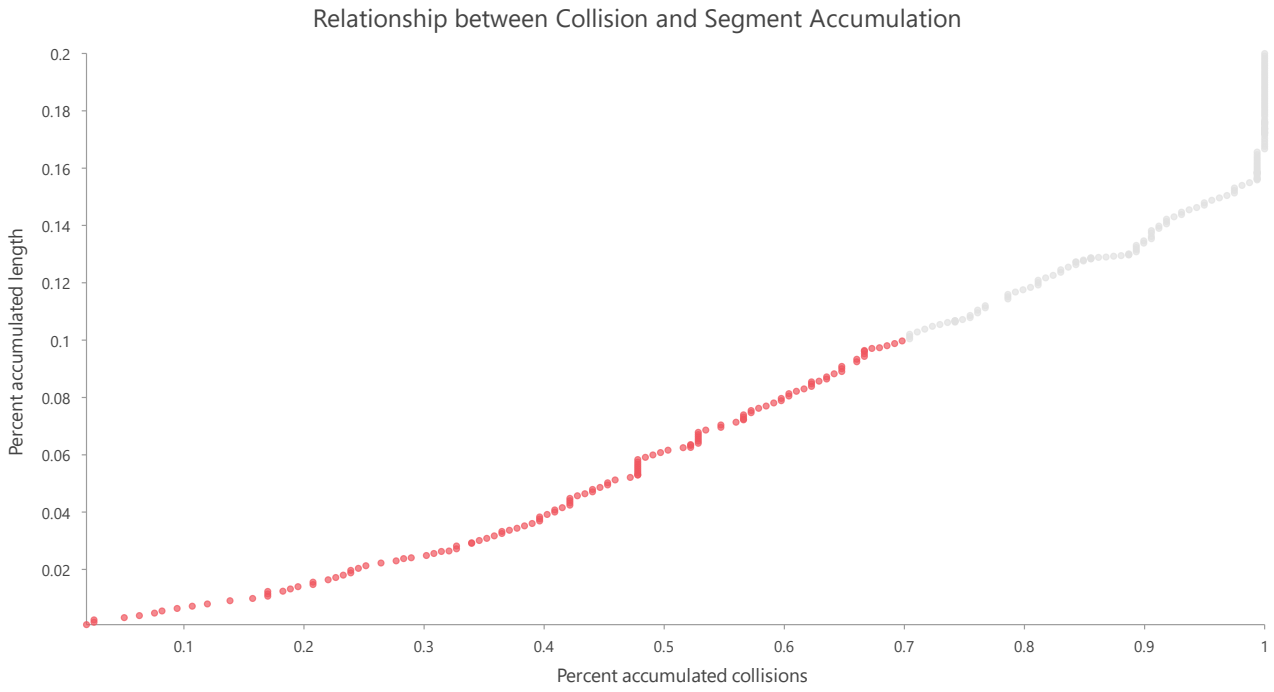
b. Decide the threshold for the percentage of crashes included in the HIN based on the natural inflection point in the data. This represents the point at which adding more roadways to the HIN has diminishing returns in terms of identifying more crashes. The initial threshold for this analysis was set at 60%, then adjusted to 70% after a review of the preliminary results.

4. Final Refinement:

a. Examine the map of qualifying HIN segments and perform manual cleaning output from the tool. This step eliminates segments that the tool may have selected where no crashes have occurred or where one fatal crash, which may not be indicative of roadway conditions, caused the segment to be selected. It also fills small gaps in otherwise contiguous networks on major roadways.

b. Calculate the percent of roadway miles and the percent of crashes accounted for in the final HIN, which will differ from the initial threshold due to manual cleaning. Chart the two percentages as a line chart, with results shown in **Figure 3.**

Figure 3: Graph of accumulated collisions and accumulated length. Collisions selected for the HIN are represented in red.



High Injury Network Methodology

Inputs

HIN development required two data sets:

Crash layer:

Six-year crash data (2017 – 2022, inclusive) of all crashes listed as within the Cities of La Crosse, Campbell, Shelby, and Medary, provided by the Wisconsin Department of Transportation. Alta began with a list of 12,154 crashes. Of these, 496 lacked latitude/longitude coordinates for the crash location. Alta was able to geocode 250 of these using provided cross streets. The remainder either did not have sufficient location information or were removed because they occurred in a parking lot or on private property, which cannot be geocoded without coordinates.

- Inclusive of motor vehicle, bicyclist, pedestrian, and motorcycle crashes
- Filter to crashes within a quarter-mile buffer of La Crosse City limits using ArcGIS Pro
- Remove crashes on Interstate 90 and its ramps from this analysis.
- Filter crashes to remove "No Apparent Injury" severity crashes.

After filtering, the analysis dataset contained 2,166 crashes, of which 159 were KSI crashes.

Prepared Roadway Network:

Street Centerline network for La Crosse County.

- Filter to roadways within a quarter-mile buffer of the City boundary.
- Remove Interstate 90 and its ramps from this analysis because it has a disproportionate number of crashes and is not within the City's control.

Analysis Steps

5. **Prepare Crash Data:**
    b. Weight each crash based on the most serious injury sustained by any individual involved in the crash. This effectively prioritizes areas where more serious crashes are occurring in order to identify areas where the most serious injuries can be reduced. These proportions are based on a balance between the ratio of the average cost to society from fatal and serious crashes, and the desire not to overweight fatalities that represent sparse events. The goal is to weight severe collisions more highly proportional to their impacts, while not misrepresenting the geography of risk more broadly.[4]

        - Fatal injury: 15

[4] There are many calculations of average cost of severe and fatal crashes. The ratio shown here is based off the FHWA's *Crash Costs for Safety Analysis* (2018), tables 14 and 19. In Table 14, the ratio of fatal costs to the average of severe, critical, and serious costs was 3.1. A ratio of 3 was used for simplicity. Source: https://safety.fhwa.dot.gov/hsip/docs/fhwasa17071.pdf.

- Serious injury: 5
- Minor injury: 1

b. After network preparation, snap all crashes within 250 feet of the street centerline network to a prepared network segment. This distance generally accounts for crashes on dual carriage roadways that occur far from the now-consolidated centerline (such as wide highways) but is not long enough to capture crashes that occurred in parking lots adjacent to roadways.

References

Fitzpatrick, K. A. (2018). *Guidebook on Identification of High Pedestrian Crash Locations. FHWA-HRT-17-106. Supplemental Material.* McLean, VA: Federal Highway Administration Office of Safety Research and Development.

Wasserman, D. (2023, March 30). Study-Line-Editor. Portland, OR, USA. Retrieved from https://github.com/d-wasserman/study-line-editor

C

Appendix

Equity

MEMORANDUM

To: City of La Crosse

From: Alta Planning + Design

Date: January 3, 2024

Re: Equity Analysis

Introduction – Why consider Equity?

Studies from across the country routinely find that some demographic groups typically face greater barriers than others in getting to the places they need to go, especially in communities designed primarily for motor vehicles. These demographic groups include (but are not limited to): people who identify as black, indigenous and people of color; youth; older adults; people with low incomes; people without a high school diploma; people without access to a motor vehicle; and people overburdened by housing costs.[1][2][3] For example, many youth and seniors are not be able to drive and therefore may experience reduced mobility in a transportation system designed solely for motor vehicles; someone without a high school diploma who works multiple part-time jobs to make ends meet may not have access to a direct, reliable bus route after a late shift; and someone living below the poverty line may be further burdened by the high cost of owning and maintaining a car, or may be unable to afford to live in a place with multiple transportation options.

In addition to potential socioeconomic barriers, some barriers in communities are a result of historic patterns of injustice that have shaped the physical environment. Infrastructural barriers can negatively affect people's ability to access jobs, services, and education, among other destinations. For example, highways and high-stress roadways have often been built through communities of color and through low-income communities, displacing residents and cutting people off from jobs, services, and economic opportunity. The practice of redlining and other racially discriminatory real-estate practices has also had a lasting impact on the demographic spatial distribution in many American cities. Racially explicit and damaging housing policies of the past have implications for transportation today, as communities of color may be more vulnerable to gentrifying housing pressures which can lead to displacement to areas with fewer economic opportunities, less publicly funded infrastructure, and limited transportation options. In many places, the physical barriers in a city are further compounded by second-order effects such as worsened air quality, increased urban heat, limited opportunities for physical exercise, and higher crash rates – amounting to environmental, health, and safety burdens that are not distributed equally across the population. Critically examining equity is important because many of the barriers within our transportation system, their resulting burdens, and the communities who experience them are often spatially related. Too often, the communities in the places most impacted by transportation investments are excluded from the planning processes that can influence them. Contemporary transportation

[1] Dannenberg A, Frumkin H, Jackson R. Making Healthy Places. 1st ed. Washington D.C.: Island Press; 2011.
[2] International City/ County Management Association. Active Living for Older Adults: Management Strategies for Healthy & Livable Communities.; 2003. http://www.ca-ilg.org/sites/main/files/file-attachments/resources__Active_Living.pdf. Accessed February 22, 2020.
[3] Mckenzie B. Modes Less Traveled—Bicycling and Walking to Work in the United States: 2008 –2012. Am Community Surv Reports. 2014

planning practice seeks to address inequity by naming specific demographic groups because many transportation inequities today can be traced to historical government policies that have resulted in barriers for those demographic groups. In the absence of accounting for equity, transportation planners risk further cementing inequality in our transportation systems.

Improving transportation options that don't rely on single-occupancy vehicles – e.g., by improving connections through public transit, walking, or biking—is an effective way for La Crosse to begin overcoming inequities where they exist.

This analysis seeks to discover where people with the highest need for transportation options live within La Crosse. Understanding where these communities are most densely located will help to prioritize improvements and ensure that the benefits of future investments reach everyone. Working towards equity may mean prioritizing active and public transportation funding in areas with a greater concentration of disadvantaged populations instead of distributing funding equally based on geography.

How to Measure Equity Using Data

Evaluating equity as it relates to transportation is not a 'one-size-fits-all' approach. Defining equity is a highly context-dependent exercise and disadvantaged populations will vary from community to community. As a starting place, Alta has identified six dimensions of equity to operationalize the term in the context of transportation data analysis. The datasets that we use in the equity analysis stem from these overarching dimensions, and are all large-scale, publicly available, and spatially attributable data.

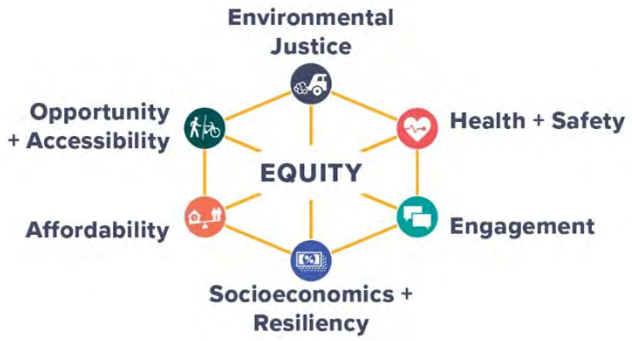


Figure 1. Dimensions of Equity: What facet of equity is important to a particular community is highly contextual.

The six dimensions of equity are defined below. They provide the basis for the inclusion of the data that was utilized in the equity analysis.

1. **Engagement:** The inclusion of those who have been historically excluded and marginalized from power and decision-making processes. *(Engagement is essential to equitable planning processes, and while this analysis doesn't operationalize any datasets related to engagement specifically, one of the primary uses for the analysis of the other five dimensions is to inform engagement priorities.)* [4]

2. **Opportunity + Accessibility**: Opportunities for people to improve their quality of life, and the role of transportation in enabling the connections to those opportunities.

3. **Environmental Justice**: The disproportionate exposure to pollution and other environmental burdens that people face as a result of proximity to industry, the transportation system, or other pollution sources.

4. **Health + Safety:** The disparate outcomes from the built environment that impact people's health and the role of the transportation system in enabling safe systems.

5. **Affordability**: The variable costs that housing and transportation impose on people's lives and its connection to their quality of life and risk of involuntary displacement.

6. **Socioeconomics and Resiliency**: Resiliency to a major unforeseen disruption or natural disaster. Socially vulnerable populations are especially at risk during public health emergencies or economic crises because of factors like socioeconomic status, household composition, minority status, or housing type and transportation options.

[4] Engagement is difficult to capture well in a large, publicly available spatial database due to its localized, historical and contextual nature. There are no actionable databases that we know of that indicate the degree of political enfranchisement of different communities at the national scale. We acknowledge that this is a major component of any project and recommend that it be described separately, but in addition to, the other five dimensions of equity. While our proposed index does not account for this dimension of equity directly, it is correlated with the other factors considered. In addition, we encourage projects to integrate equitable engagement into their analysis to the greatest extent possible.

Methods

The project team gathered the datasets below into a database at the census block group level to complete the equity analysis. The project team compiled these variables, percentile ranked[5] them relative to the study region (La Crosse), and then combined them through a weighted sum using the weights in Table 2 (see appendix).[6] Once the index was calculated, a map of the results was generated by categorizing all the census block groups into four bins that indicate how high they score on the index.[7] Higher scores indicate areas of higher priority.

Table 1. Data Used in the La Crosse Equity Analysis

Dimension of Equity	Data Measure	Definition
Opportunity + Accessibility	**Economic Opportunity**	The percentage of people who grew up in a given census tract who, 30 years later, don't live in a wealthy census tract
	Access to a Vehicle	The percentage of households without access to a vehicle
Environmental Justice	**Air Quality**	The quantity of particulate matter (PM2.5) in the air
	Canopy Coverage Gap	The amount of canopy in a place compared to its natural land cover according to the USDA Forest Service (with canopy targets adjusted for population density for more realistic goal setting)
Health + Safety	**Coronary Heart Disease**	The percent prevalence of coronary heart disease
Affordability	**Income**	The percentage of households making less than 200% of the Federal Poverty Level, which is a threshold set by the U.S. Census Bureau and updated annually.
Vulnerability	**Race and Ethnicity**	The percentage of the population that identifies as non-white and/or Hispanic/Latino
	Educational Attainment	The percentage of the population over 25 years of age with educational attainment at or less than a high school diploma or equivalent.
	Youth & Seniors	The percentage of the population under the age of 18 and over the age of 65

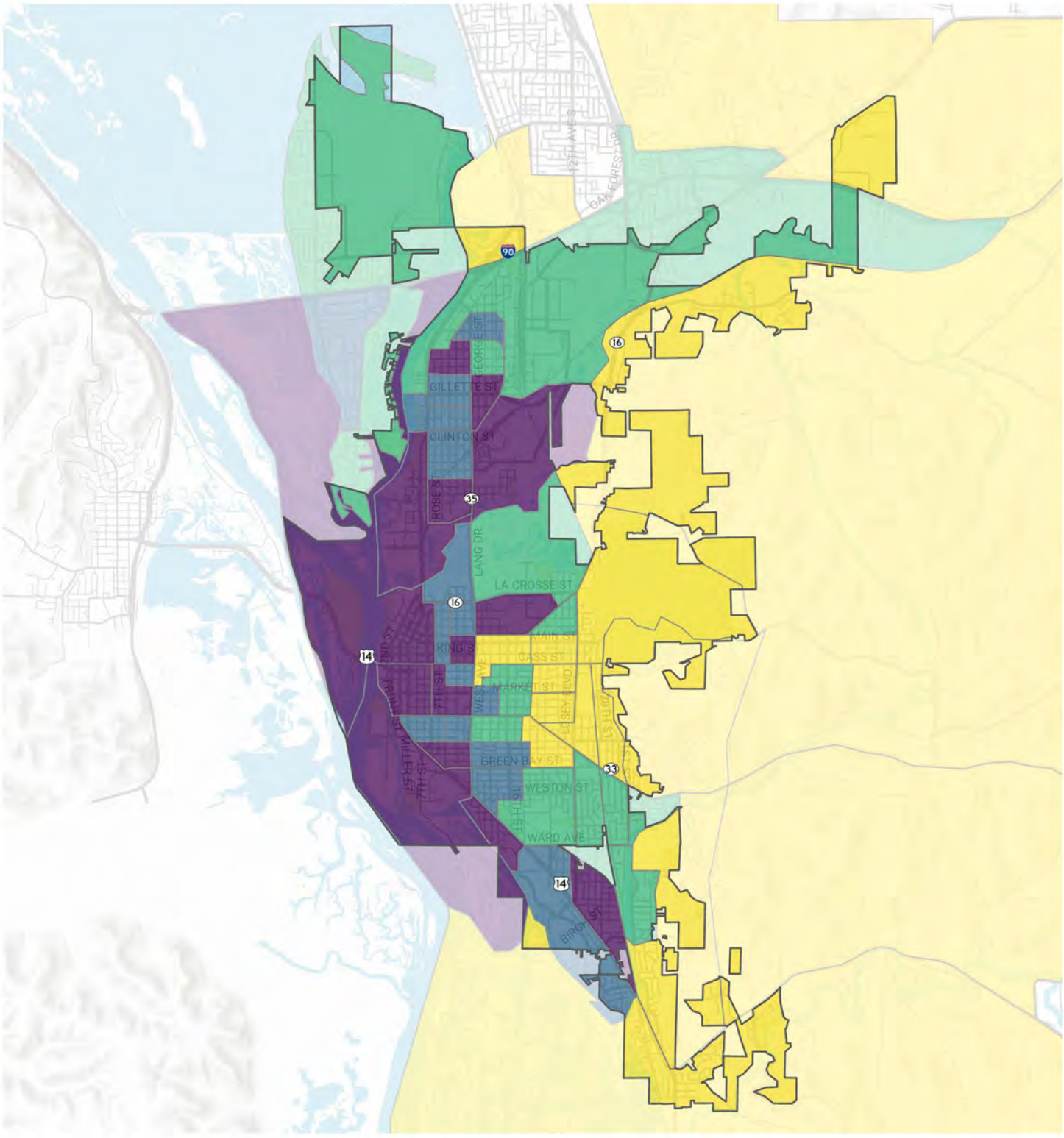
[5] Percentile ranking is a way to evaluate the relative standing of a value within a data set and to standardize variables with different ranges of values. A percentile rank is the percent of scores in the distribution that are less than it. For example, if Block Group A receives a 0.65 percentile rank for total population, that means that out of all the census block groups in the study area, 65% of them have a smaller total population than Census Block A.

[6] Variable weights are established based on an extensive review of best practices in equity analysis. Housing cost burden, which is typically included as part of Alta's equity analysis, was missing data for parts of the area, so the 5% weight on that variable was reallocated to Low Income Households as a proxy.

[7] The census block groups are categorized using quartiles, which means that the distribution of their index scores is broken out into four bins comprised of an equal number of census block groups in each bin.

Results

Identification of equity priority areas are determined based on the composite equity score. For the purposes of this plan, block groups with a composite score in the top quartile (top 25%) are considered areas of highest need. The composite scores are shown on the following page.



EQUITY ANALYSIS

LA CROSSE ACTIVE TRANSPORTATION PLAN UPDATE

EQUITY SCORES

- 1st Quartile (Area of Highest Equity Concern)
- 2nd Quartile
- 3rd Quartile
- 4th Quartile (Area of Lowest Equity Concern)

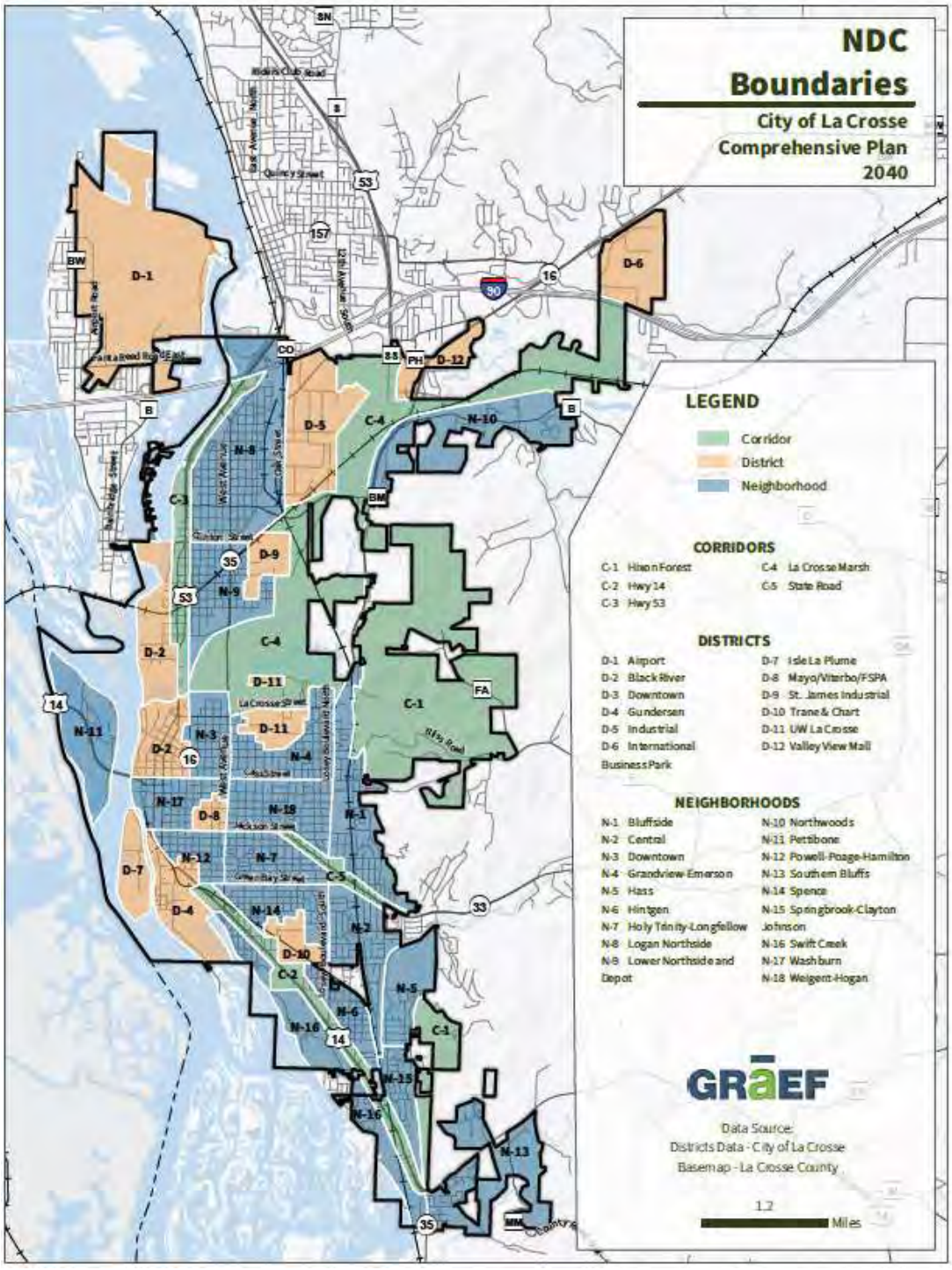
BASE MAP

- Railroads
- Park
- Waterbody
- City Limits

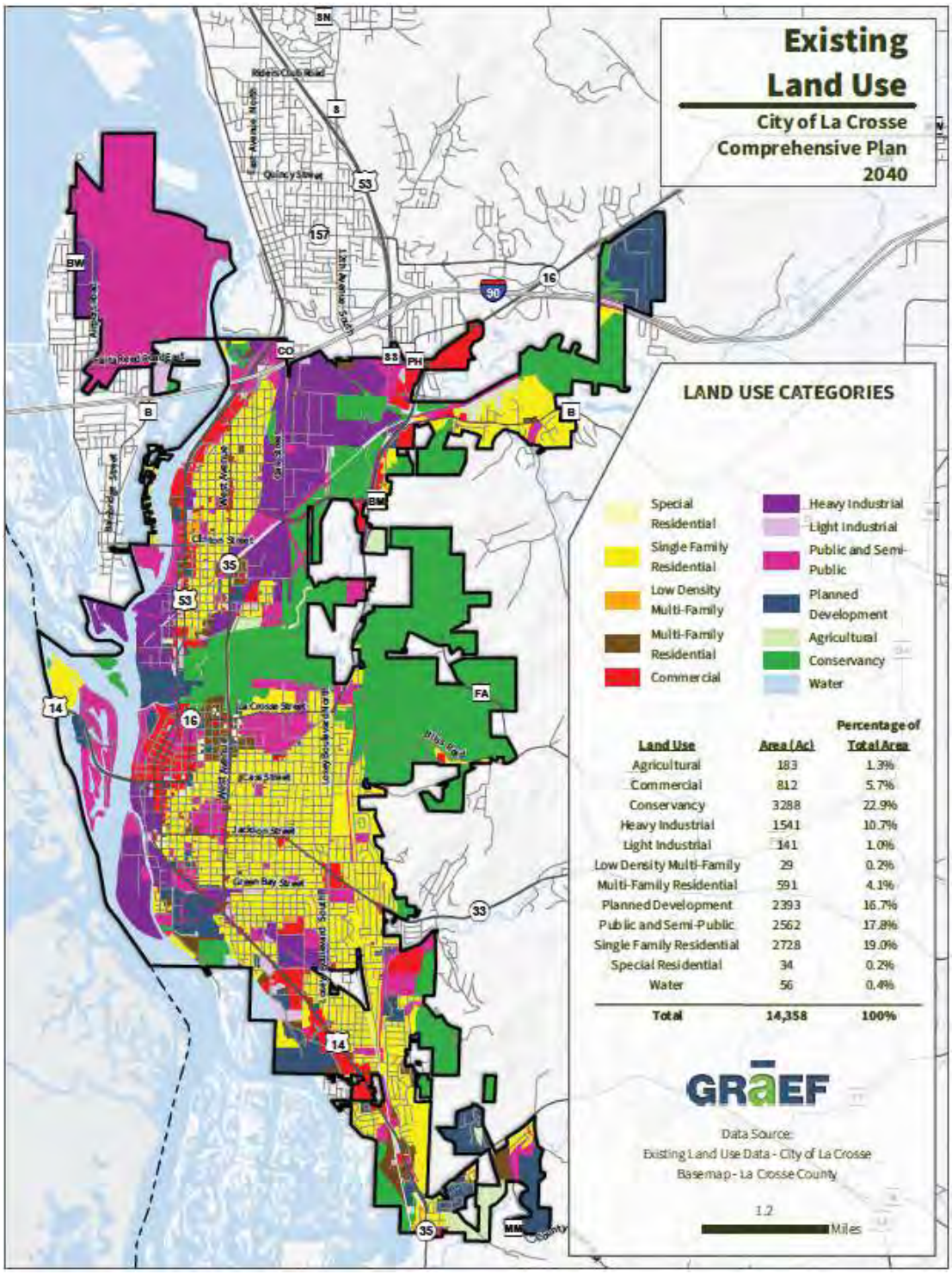
0 1 2 MILES

N

The highest-priority equity areas within La Crosse are generally located toward the west side of the community, including parts of the Pettibone, Lower Northside and Depot, Downtown, Powell-Poage-Hamilton, and Hintgen neighborhoods, and the UW La Crosse, Black River, Gundersen, and Isle La Plume districts. Some of these areas, including Pettibone and Isle La Plume, do not include significant areas of residential land use, but are part of larger



census block groups. See maps from the La Crosse Comprehensive Plan for neighborhood, district, and corridor boundaries and existing land use in these areas.



The census block groups are concentrated around highways and busy roads, including US Highway 14, US Highway 53, and WI Highway 35, which may contribute to lower property values and poor air quality, both of which could be correlated with higher poverty rates. These areas also contain land uses such as surface parking, the hospital, industrial land uses, park land, and the floodplain and marsh. There is thus less residential land use than in other parts of the city, but existing residential uses in the area include senior housing, student housing, and lower-income neighborhoods.

Maps including the Equitable Transportation Communities map,[8] Climate & Economic Justice Screening Tool,[9] and the Areas of Persistent Poverty and Historically Disadvantaged Communities map[10] provide additional context as to why these areas are disadvantaged, such as environmental burden, social vulnerability, traffic proximity, etc.

Key Takeaways

Given the concentration of higher-priority equity areas around highways and busy roads, it is especially important for the Bicycle and Pedestrian Master Plan Update to consider how these roads impact people walking and biking in La Crosse, and to develop recommendations that address walking and biking along and across these roads. Recommendations will also be informed by the overlap of areas with higher priority equity populations with the existing and planned bicycle and pedestrian facilities, the high-injury network, and the active trip potential maps.

[8] https://experience.arcgis.com/experience/0920984aa80a4362b8778d779b090723/page/ETC-Explorer---National-Results/
[9] https://screeningtool.geoplatform.gov/en/#12.32/43.81814/-91.24379
[10] https://maps.dot.gov/BTS/GrantProjectLocationVerification/

Appendix

Table 2. Percent Weights used in the Index[11]

Category	Source Variable (Index Variable Name)	Shorthand	Data Source	Weight (%)	Rationale
Opportunity + Accessibility	**lpov_nbh_pooled_pooled_mean**	Economic Opportunity	Opportunity Atlas	10%	The opportunity atlas offers a measure of how wealthy children become later in life due to the opportunities that were available to them in the environment (in this case, census tract) they grew up in. The 10% weight acknowledges that out of the 10 variables used in this index, it is at least as important as every other variable.
	B25044 (Pct_NoVeh)	Zero Vehicle Households	ACS 5 Year	10%	The ACS offers a count of the number of households in a given tract who do not have access to a motor vehicle. Families who have no motor vehicle access either travel less or rely on transit, walking or biking for transportation. The 10% weight acknowledges that out of the 10 variables used in this index, it is at least as important as average.
Environmental Justice	**PM25**	Air Quality	EJ Screen	5%	The EJ Screen data provided by the EPA offers a measure of air pollution in the form of particulate matter called PM25. PM25 is often associated with motor vehicle transportation and has negative health effects for communities, particularly communities of color.

[11] Two common reasons why a variable might not be included in the index are 1) the data lacks generalizability, i.e., the variable is applicable in some places but not others, and 2) large margins of error, meaning that the data is too sparse and unreliable to be helpful (an example is disability). Note that when combining tract-level datasets with block group-level data sets, the total tract-level values are applied to each of the block groups that fall within that tract and are not apportioned.

Category	Source Variable (Index Variable Name)	Shorthand	Data Source	Weight (%)	Rationale
					However, given the population size of the City of La Crosse and the precision of the data, the 5% weight acknowledges that out of the 10 variables used in this index, it is slightly less important than other variables.
	tc_gap	Canopy Coverage	Tree Equity Index	5%	The Tree Equity Index provides data on how well covered a city is by tree canopy compared to its natural land cover. Active transportation projects have the potential to increase canopy cover, which has health and air quality benefits. The 5% weight acknowledges that out of the 10 variables used in this index, it is slightly less important than other variables.
Health + Safety	**CHD_CrudePrev**	Coronary Heart Disease	CDC	5%	The CDC PLACES data provides a model estimate for coronary heart disease (CHD) among adults over the age of 18 in a given census tract. Active transportation projects can increase the opportunities for people to be physically active, thereby lowering their risk for CHD. However, given that there are many other variables that correlate with CHD, the 5% weight acknowledges that out of the 10 variables used in this index, it is slightly less important than the other variables.
Affordability	**C17002 (Pct_200)**	200% Level Poverty	ACS 5 Year	30%	The ACS provides data on the percent of the population whose household income is less than 200% of the federal poverty level. Households with lower incomes may have fewer transportation

Category	Source Variable (Index Variable Name)	Shorthand	Data Source	Weight (%)	Rationale
					options and access to destinations than households with higher incomes. Investments in active transportation infrastructure can improve the transportation options available to lower income households, which is why it is included in this index. The 30% weight acknowledges that out of the 10 variables used in this index, it is the most important variable.
Vulnerability	**B03002 (Pct_POC)**	Percent People of Color (Non-white)	ACS 5 Year	20%	The ACS provides racial and ethnic population data for every census block group. Transportation planning has a legacy of excluding and marginalizing people of color from power and decision-making processes, often resulting in harmful outcomes that compound existing transportation inequities. The 20% weight acknowledges that out of the 10 variables used in this index, it is more important than most variables.
	B15001 (Pct_Ed_LT_HS)	Educational Attainment	ACS 5 Year	10%	The ACS offers a count of the number of people in a given tract who have completed various levels of education. Educational attainment is closely related to income levels, which impact housing location, travel behavior and decision making which is why it is included in this index. The 10% weight acknowledges that out of the 10 variables used in this index, it is at least as important as every other variable.

Category	Source Variable (Index Variable Name)	Shorthand	Data Source	Weight (%)	Rationale
	B01001(Pct_Youth_Senior)	Aged less than 17, more than 65	ACS 5 Year	5%	The ACS provides population data for various age group levels in every census block group. Youth (those aged less than 17) and seniors (more than 65) are the most vulnerable users of the transportation system and therefore stand to benefit the most from active transportation investments that make the network safer and more accessible. However, the 5% weight acknowledges that out of the 10 variables used in this index, it is slightly less important than the other variables.

Table 3. Supplemental Index Data

The following data are included in the Alta Equity Index export files but are not included in the index. They are made available for additional context.

Category	Variable	Shorthand	Data Source
Environmental Justice	**PTRAF**	Traffic Proximity	EJ Screen
	avg_temp	Heat	Tree Equity Index
Health + Safety	**LPA_CrudePrev**	Lack of Physical Activity	CDC
Affordability	**Ht** *(average percentile rank of: Hh2_ht, Hh3_ht, Hh5_ht, Hh6_ht, Hh7_ht)*	Housing + Transportation Costs	HUD
Vulnerability	**EAL_VALT**	Disaster Risk – Estimated Annual Loss ($), State Percentile	FEMA
	B03002 (Pct_Hisp, Pct_Black, Pct_Native, Pct_Asian, Pct_Pacific, Pct_White, Pct_Other, Pct_Two_Or_More)	Race and Ethnicity	ACS 5 Year
	B25003 (Pct_Owner, Pct_Renter)	Owner/Renter	ACS 5 Year
	B19013 (MHIE)	Median Household Income	ACS 5 Year
	B25115 (Pct_FemHH)	Female Head of Household	ACS 5 Year
	B08006 (Pct_DroveAlone, Pct_Carpool, Pct_Transit, Pct_Walked, Pct_Bicycle)	Commute Transportation Modes	ACS 5 Year

D

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Appendix

Active Trip Potential

To: City of La Crosse

From: Alta Planning + Design

Date: January 3, 2024

Re: Active Trip Potential Analysis

Active Trip Potential

Introduction

Not all locations can support active transportation modes easily because of unsupportive infrastructure or long trip distances making walking and biking infeasible. While emerging modes such as e-bikes and e-scooters provide new options, ranges, and convenience, their ability to affect change is often contextually defined by an area's land use and infrastructure support. For example, a Brookings report examined trip distances in major metropolitan areas of the United States, and found that neighborhoods closer to the urban core and with more human-scale neighborhood designs had more trips that were under three miles.[1] In their review, they found that about 50% of all trips in the regions studied had trips under four miles, with between 22-30% of trips not exceeding one mile.[1] These short trips represent the potential market for walking, biking, and electrified micromobility (scooters and e-bikes), and it is largest in cities. For example, a review of 20 bicycle-friendly cities found they were "characterized by high-density urban development, diversified land-use planning and a safe and comfortable transport network."[2] These cities shared traits such as compact neighborhoods and small geographic areas that facilitated shorter trip distances, in combination with the supportive infrastructure to unlock that potential.[2]

Understanding potential demand for active transport will help La Crosse identify where facilities may be needed or improved to best support walking, bicycling, bike share/scooter share, and other first/last mile trips.

Methodology

To understand active travel demand, Alta conducted an active trip potential analysis using origin-destination data for La Crosse from Replica to visualize the share of private auto and taxi trips that could reasonably be accomplished by bicycling (i.e., less than three miles) or by walking (i.e., less than one mile).[3]

[1] Brookings Institute. Tomer A., Kane J. Vey J. Connecting people and places: Exploring new measures of travel behavior. 2020. https://www.brookings.edu/interactives/connecting-people-and-places-exploring-new-measures-of-travel-behavior/

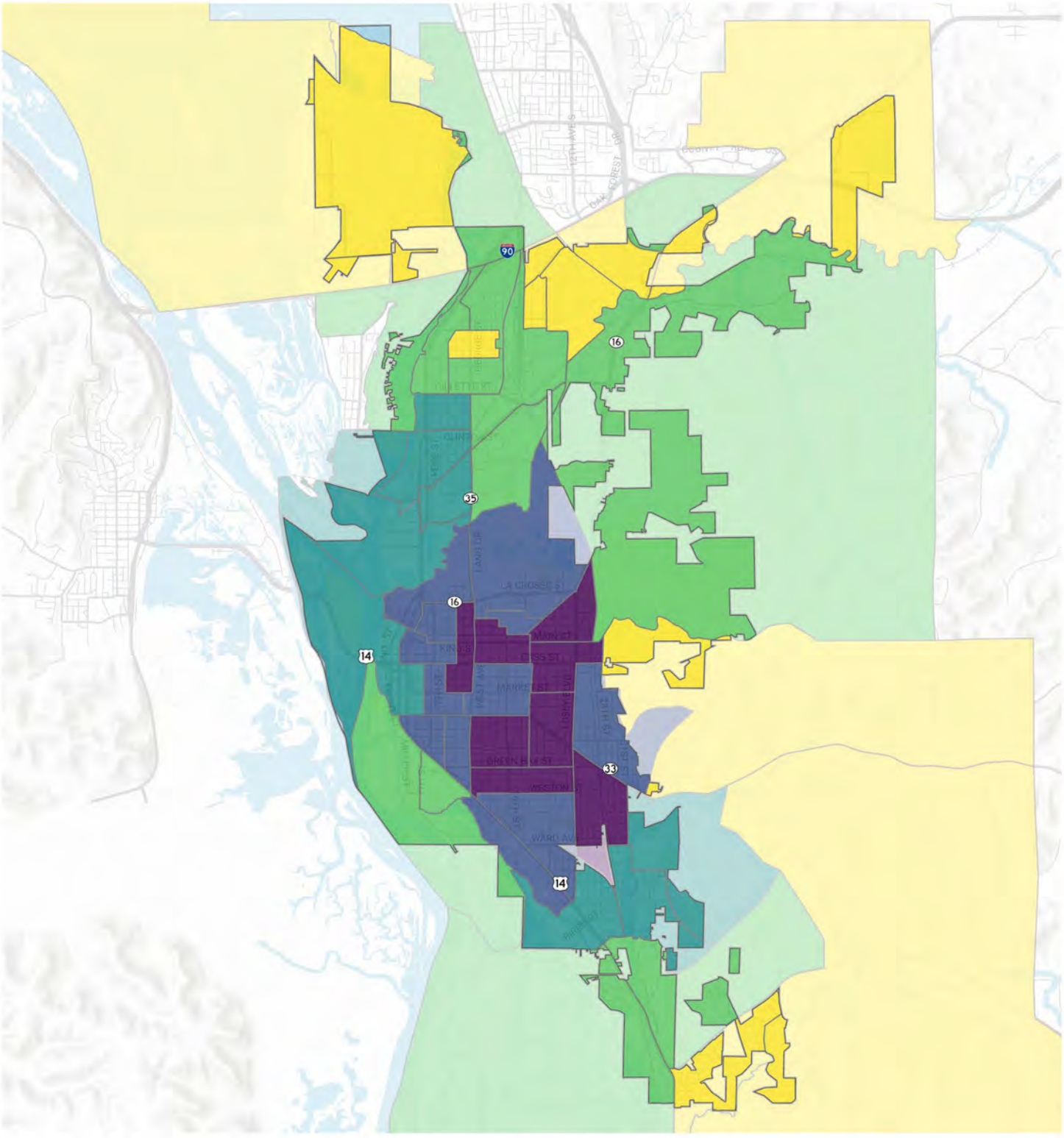
[2] Mohamed Zayed. Towards an index of city readiness for cycling. International Journal of Transportation Science and Technology 5. 210-225. 2017. https://www.sciencedirect.com/science/article/pii/S2046043016300399?via%3Dihub

[3] Replica is an activity-based travel demand model that generates a synthetic population and models their trip making behavior. The latest data available is for a typical spring weekday in 2023.

While short trips tend to be indicators of potential trips that could be met using active modes (i.e., walking, biking, rolling), the analysis assumes that it may be unrealistic to expect that all short trips be converted to active transportation modes. Further, even if supportive and more comfortable infrastructure is provided, there are several reasons why trips may still be made by non-active modes, including:

- Heavy Loads. In many cases, cargo bikes can support many types of grocery or shopping trips, but some heavy loads are often bulky or heavy enough to warrant the use of the vehicle.
- Travel Trip Type. Some trips are chained in a way that make it difficult to envision using active transportation for the entire tour/trip. For example, if one leg of a trip that is part of a chain of trips is too long to consider using an active mode, the entire tour/trip may be better made using a vehicle. Specifically, if a pedestrian typically walks half a mile to work on most days but on occasion needs to travel to a doctor's appointment that is two miles away, they might drive rather than walk on these days.
- Personal Preference. Some members of the community may elect to never bike or walk even if an all ages and abilities network is provided in a community.
- Physical Impairment. Some members of the community may have an impairment that prevents them from comfortably using active transportation.
- Seasonal Weather. Active trips become more difficult to accomplish in some weather conditions. While walking and biking trips may still be viable in many instances, it may be uncomfortable and there may be times where it is inadvisable, such as a heatwave or unhealthy air conditions.

Figures 1 and 2 show the percent of modeled private auto and taxi trip starts under one mile and under three miles by Transportation Analysis Zones (TAZs) to allow a comparison of travel activity.



DEMAND ANALYSIS

LA CROSSE ACTIVE
TRANSPORTATION PLAN UPDATE

FORWARD LA CROSSE
BICYCLE AND PEDESTRIAN MASTER PLAN

0 1 2 MILES

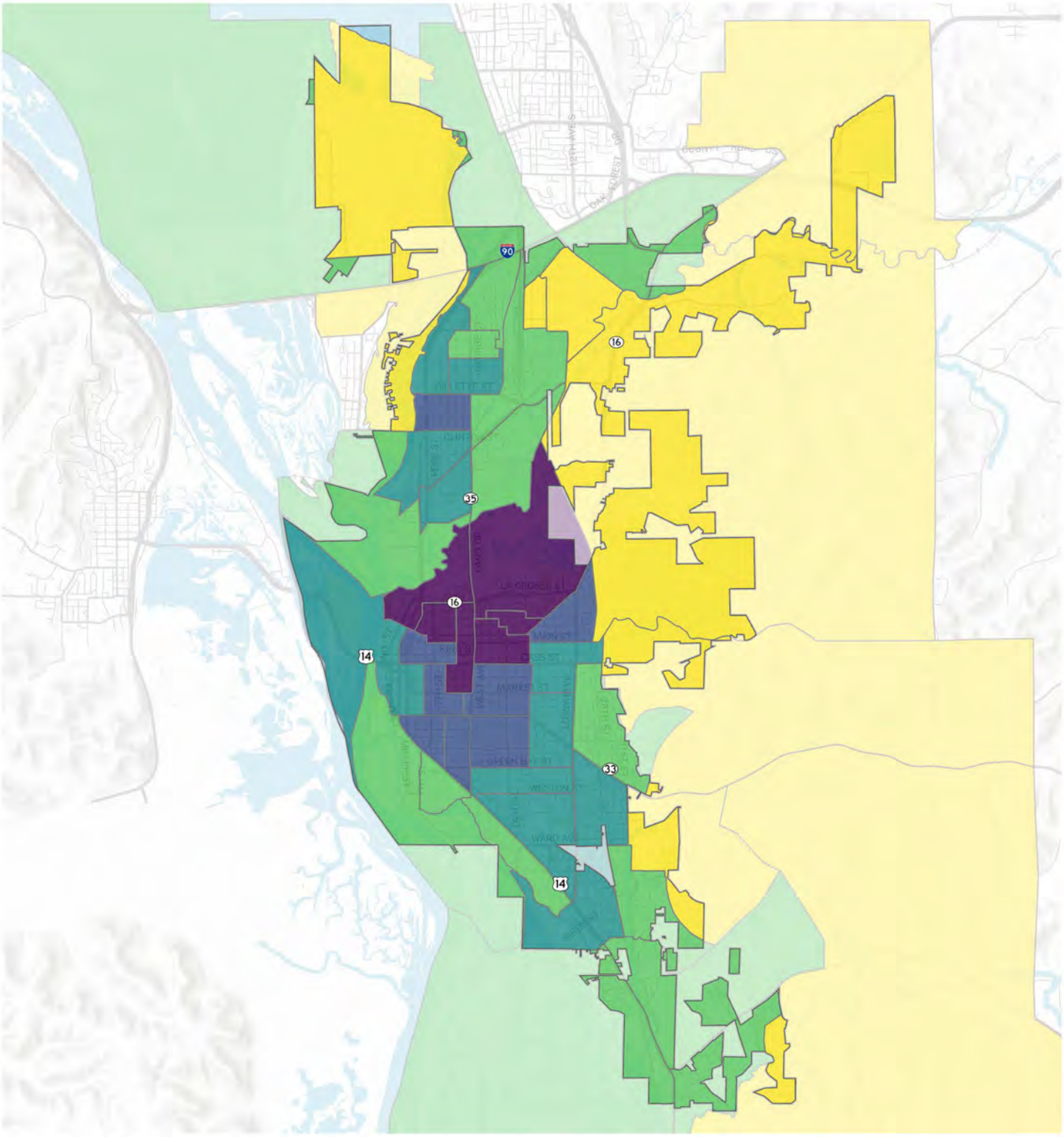
N

PERCENT OF AUTO AND
TAXI TRIPS UNDER 3 MILES

- 15-30%
- 30-40%
- 40-50%
- 50-60%
- 60-70%

BASE MAP

- Railroad
- Park
- Waterbody
- City Limits



DEMAND ANALYSIS

LA CROSSE ACTIVE
TRANSPORTATION PLAN UPDATE

FORWARD LA CROSSE
BICYCLE AND PEDESTRIAN MASTER PLAN

0 1 2 MILES

N

PERCENT OF AUTO AND
TAXI TRIPS UNDER 1 MILE

- 2-5%
- 5-15%
- 15-20%
- 20-25%
- 25-37%

BASE MAP

- Railroad
- Park
- Waterbody
- City Limits

Findings

The area in central La Crosse (from just south of the University of Wisconsin-La Crosse campus to Weston Street and bounded by West Ave and Losey Blvd) has the highest active trip potential for bicycling trips—that is, trips of three miles or less. Active trip potential for trips that could be accomplished on foot (one mile or less) is more concentrated immediately surrounding campus in the Goosetown-Campus neighborhood.

Although it is easy to get around the UW-La Crosse campus and surrounding area on foot or by bicycle, many students have cars on campus. Some students may choose to drive to and from campus and their jobs due to needing to travel late at night, winter weather, and convenience.

The area also has several senior high-rises, the residents of which may receive rides to destinations.

South of Cass St, there is more owner-occupied housing. The major arterials surrounding these neighborhoods may contribute to the number of shorter car trips. People may need to either cross or use major arterials to get to their destination, which they may not be comfortable with walking or biking.

Residents of the area with the highest active trip potential may lack safe walking and biking access to a nearby grocery store, which may mean they need to drive or get a ride to pick up groceries.

Ensuring that there are safe and convenient walking, biking, micromobility, and transit options may help students and other residents choose to make more trips on foot or by bicycle.

E

FORWARD LA CROSSE

BICYCLE AND PEDESTRIAN MASTER PLAN

Appendix

State of the Practice

To: City of La Crosse

From: Alta Planning + Design

Date: December 8, 2023

Re: State of the practice summary: national best practices and peer communities review

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National Best Practices Review

Background

- Bike Friendly Community guidelines (RFP Task 2.1.5)
- Walk Friendly Community guidelines (RFP Task 2.1.6)
- Design guidance documents from organizations such as FHWA, AASHTO, and NACTO (RFP Task 2.1.8)
- Approaches such as 8-80 Cities, Complete Streets, Vision Zero, Safe Systems, and Universal Design (RFP Task 2.1.11)
- Efforts to further environmental justice, address climate change, and reduce auto dependency (RFP Task 2.1.13)

Bike Friendly Community Guidelines

The Bike Friendly Communities are evaluated across 5 categories – the 5Es. Each community is assessed holistically in their approach to making biking better based on the needs of people who live, work, shop, or attend school there. The 5Es are:

- **Equity & Accessibility:** The League defines equity as the just and fair inclusion into a society in which everyone can participate and prosper. Accessibility refers to improving and increasing access and mobility options for everyone, including, and, for people with disabilities.
- **Engineering:** The most advanced Bicycle Friendly Communities and Bicycle Friendly Universities have a well-connected bicycling network, consisting of quiet neighborhood streets, conventional and protected bike lanes, shared use trails, and policies to ensure connectivity and maintenance of these facilities. Secure, convenient, and readily available bike parking is also a key component.
- **Education:** Communities have bicycle-safety education as a routine part of public education. Educating motorists and cyclists about their rights and responsibilities on the road.
- **Encouragement:** Encouraging people to ride by giving them a variety of opportunities and incentives to get on their bikes. Participating in events such as National Bike Month℠ and Bike to Work day, producing community bike maps, route finding signage, bicycle-themed celebrations and rides, commuter challenges, and investing in public bike sharing systems and internal fleets.
- **Evaluation:** A comprehensive bicycle master plan, in combination with dedicated funding and active citizen/organizational support is the foundation of a great bicycling community.

The Bicycle Friendly Community program uses a tiered award system to recognize communities at different levels of bike-friendliness. These levels include:

- **Bronze:** Cities at this level have made some progress in promoting cycling. They might have bike lanes or shared roadways, but there is still work to be done to improve safety and accessibility for cyclists.
- **Silver:** Silver-level communities have taken significant steps to improve conditions for cyclists. They often have well-connected bike networks, education programs, and a commitment to making cycling a viable transportation option for residents.

- **Gold:** Gold-level communities have made substantial investments in cycling infrastructure, education, and promotion. They typically have extensive bike lanes, bike share programs, and various initiatives to encourage cycling among residents and visitors.
- **Platinum:** Platinum-level communities are leading the way in creating a bike-friendly environment. They have comprehensive cycling networks, excellent infrastructure, active advocacy groups, and a strong cycling culture. Platinum communities serve as models for other cities striving to become more bike friendly.

La Crosse, Wisconsin, has been designated as a Silver Bicycle Friendly Community by the League of American Bicyclists. The designation recognizes the city's commitment to improving bicycling and cycling safety. The application was thoroughly evaluated, highlighting areas of strength such as engineering practices, Safe Routes to School initiatives, high-quality network of on an off-road cycle networks and paths, and human-friendly bridges.

Primary Recommendations from the Bike Friendly Communities Application:

- **Bicycle Master Plan:** Develop and adopt a new Bicycle Master Plan with specific and measurable goals, supported by dedicated funding. Regularly update the plan to align with best practices, national standards, and ensure continual evaluation and improvement.
- **Bike Network Expansion:** Expand and enhance the bike network, following a facility selection criterion that prioritizes separation and protection of bicyclists based on motor vehicle speed and volume.
- **Bicycle Safety Education:** Integrate bicycle safety education into the routine curriculum for students of all ages. Focus on creating safe and convenient environments for biking and walking around schools. Collaborate with local bicycle groups and parents to establish Safe Routes to School programs for all K-12 schools.
- **Adult Bicycle Education:** Develop opportunities for bicycle education aimed at adults. Tailor classes or events to address the concerns of demographics who currently feel unsafe riding, creating an inclusive and welcoming environment.
- **Trip Reduction Initiatives:** Implement a community-wide trip reduction ordinance/program, commuter incentive program, and a Guaranteed Ride Home program to encourage and support bike commuters in La Crosse.
- **Bicycle Count Program:** Continue developing a bicycle count program using various data collection methods, including automated and mobile counters. This will provide long-term data on bicycle use at fixed points and assess changes in the community's road or bicycle network.

LA CROSSE, WI

BICYCLE FRIENDLY COMMUNITY
Fall 2020
SILVER
THE LEAGUE OF AMERICAN BICYCLISTS since 1880

TOTAL POPULATION	51,227
TOTAL AREA (sq. miles)	20.52
POPULATION DENSITY	2502
# OF LOCAL BICYCLE FRIENDLY BUSINESSES	7
# OF LOCAL BICYCLE FRIENDLY UNIVERSITIES	1

10 BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

	Average Gold	La Crosse
High Speed Roads with Bike Facilities	35%	0%
Total on- and off-road Bicycle Network Mileage to Total Road Network Mileage	76%	27%
Bicycle Education in Schools	GOOD	AVERAGE
Share of Transportation Budget Spent on Bicycling	14%	< 1%
Bike Month and Bike to Work Events	VERY GOOD	VERY GOOD
Active Bicycle Advocacy Group	YES	YES
Active Bicycle Advisory Committee	MEETS AT LEAST MONTHLY	MEETS AT LEAST MONTHLY
Bicycle–Friendly Laws & Ordinances	GOOD	NEEDS IMPROVEMENT
Bike Plan is Current and is Being Implemented	YES	NO
Bike Program Staff to Population	1 PER 33K	1 PER 85.4K

CATEGORY SCORES

ENGINEERING *Bicycle network and connectivity*	2.60 /10
EDUCATION *Motorist awareness and bicycling skills*	2.92/10
ENCOURAGEMENT *Mainstreaming bicycling culture*	4.64/10
EVALUATION & PLANNING *Setting targets and having a plan*	3.66/10

KEY OUTCOMES

	Average Gold	La Crosse
RIDERSHIP *Percentage of Commuters who bike*	5.1%	2.40%
SAFETY MEASURES **CRASHES** *Crashes per 10k bicycle commuters*	287	463
SAFETY MEASURES **FATALITIES** *Fatalities per 10k bicycle commuters*	2.2	0

KEY STEPS TO GOLD

» Develop and adopt a new Bicycle Master Plan that includes specific and measurable goals and is supported by dedicated funding. Regularly updating your bicycle plan is key to improving conditions for bicycling, adhering to evolving best practices and national standards, and institutionalizing processes for continual evaluation and improvement.

» Continue to expand and improve the bike network and ensure that your community follows a bicycle facility selection criteria that increases separation and protection of bicyclists based on levels of motor vehicle speed and volume.

» Expand bicycle safety education to be a routine part of education for students of all ages, and ensure that schools and the surrounding neighborhoods are particularly safe and convenient for biking and walking. Work with local bicycle groups and interested parents to create Safe Routes to School programming for all K-12 schools.

» Develop bicycle education opportunities for adults. Consider ways to target demographics who currently do not feel safe riding with classes or events that address their concerns and create an inclusive, welcoming environment.

» Develop a community-wide trip reduction ordinance/ program, commuter incentive program, and a Guaranteed Ride Home program to encourage and support bike commuters in La Crosse.

» Continue to develop a bicycle count program that utilizes several methods of data collection including automated bicycle counters to provide long-term data on bicycle use at fixed points and mobile counters to provide periodic or before/after data related to a changes in your community's road or bicycle network.

LEARN MORE » WWW.BIKELEAGUE.ORG/COMMUNITIES

SUPPORTED BY AND LEAGUE MEMBERS

Walk Friendly Communities

Walk Friendly Communities are recognized by the Pedestrian and Bicycle Information Center (PBIC) for their commitment to creating safer, more accessible environments for walking and pedestrian activities. Similar to the Bicycle Friendly Community program, the Walk Friendly Communities program assesses communities based on the 5Es.

The PBIC provides guidance to communities aspiring to get started on the path towards walkability:

- **Community Data & Evaluation:** A community's ability to track and measure travel behavior, safety, the condition of its infrastructure and the impact of its projects is critical for developing performance-based programs.
- **Planning and Policy:** Plans and policies serve as the framework for developing safe, comfortable and connected pedestrian networks. With comprehensive plans and policies, a community can be proactive (rather than reactive) in addressing issues of pedestrian accessibility, safety, and comfort.
- **Engineering & Design:** Designing, engineering, operating, and maintaining quality roadways and pedestrian facilities are all critical elements of becoming a Walk Friendly Community. Designers and engineers have a wide range of design solutions and technologies at their disposal that provide a safer, inviting, and more accessible street for people walking.
- **Education & Encouragement:** Education and encouragement are essential components of a well-rounded pedestrian program. These initiatives inform, inspire, motivate, or reward people for using active transportation.
- **Law Enforcement:** Communities that have created comfortable walking environments through engineering improvements or urban design features may still have safety concerns if traffic laws are not properly understood or adequately enforced. Enforcement works best when implemented in conjunction with education and awareness activities, with an approach that acknowledges and prioritizes equity.

Similar to the Bicycle Friendly Community program, the Walk Friendly Communities program provides recognition at different levels, ranging from bronze to platinum, based on the community's achievements in promoting pedestrian-friendly environments. La Crosse, Wisconsin was designated as a Bronze Walk Friendly Community in 2013. The evaluation process noted La Crosse's engineering practices, Safe Routes to School planning, and sidewalk improvement programs and standards are areas of excellence.

La Crosse, Wisconsin, has been designated as a Bronze Walk Friendly Community by the Walk Friendly Communities program. The designation recognizes the city's commitment to improving walkability and pedestrian safety. The application was thoroughly evaluated, highlighting areas of strength such as engineering practices, Safe Routes to School initiatives, high-quality sidewalk standards, and pedestrian-friendly bridges.

Primary Recommendations for Improvement:

- Organize car-free days to encourage alternative modes of transportation and community interaction.
- Expand safety education and outreach to specific audiences, including children, motorists, and older pedestrians.
- Implement an ongoing pedestrian count program to assess walking levels regularly.
- Conduct pre- and post-evaluations for pedestrian projects to understand their impact on safety and walkability.

Feedback by Section:

- **Community Profile:** La Crosse is on the right track, with positive aspects such as the mayor signing the International Charter for Walking. However, there is room for improvement in dedicating more staff time to pedestrian issues.
- **Status of Walking:** The city is on the right track with a relatively high mode share for walking. Suggestions include reviewing pedestrian crash data and considering additional safety measures.

- **Planning:** La Crosse is on the right track with a pedestrian plan, but improvements could include setting specific goals, creating design guidelines, and enhancing outreach to minority and low-income groups.
- **Education & Encouragement:** The city is on the right track, particularly with Safe Routes to School programs. Recommendations include ongoing education for various stakeholders and tailoring campaigns to specific populations.
- **Engineering:** La Crosse received a Walk Friendly designation for outstanding sidewalk design standards. Suggestions include prioritizing countdown signals and considering turn restrictions in the downtown area.
- **Enforcement:** The city is on the right track, especially with bike patrol-certified officers. Recommendations include consistent speed enforcement, decoy crosswalk operations, and interagency coordination to improve pedestrian safety.

Overall, the report provides detailed feedback and specific recommendations for La Crosse to enhance its walkability, pedestrian safety, and active transportation initiatives.

Design Guidance Documents

Design guidance specific to pedestrian and bicycling facilities has evolved significantly in the past two decades towards a greater focus on designing facilities that are high-quality and appropriate for All Ages and Abilities (AAA). Design guidance documents are important for practitioners as they provide examples to address common design challenges and set a standard for the development of predictable infrastructure based on national best practices. Design guidance has evolved and continues to evolve as there are new innovations, changing practices, and lessons learned to inform the practice. While design guidance documents feature similar considerations, it is important to use applicable design guidance where necessary on projects such as the Federal Highway Administration (FHWA), DOT, or the American Association of State and Highway Transportation Officials (AASHTO) where it is required.

This section will highlight key elements from design guidance documents to emphasize the importance of design guidance, relevant documents, and trends in guidance. The following is a list of relevant design guidance documents:

- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide (update expected to be released soon)
    - Don't Give Up at the Intersection
    - Designing for Small Things with Wheels (working paper)
- NACTO Urban Street Design Guide
- FHWA Separated Bike Lane Planning and Design Guide
- AASHTO Guide for the Development of Bicycle Facilities (update expected to be released soon)
- AASHTO Guide for Planning, Design and Operation of Pedestrian Facilities
- Wisconsin DOT Bicycle Facility Design Handbook
- Wisconsin DOT Guide to Pedestrian Best Practices

Facility Types

Design guidance documents point to three basic types of bicycling facilities. It should be noted that design guidance documents sometimes have varying names for facility types. The three types of facilities are:

- **Neighborhood Greenways / Bicycle Boulevards** are designed as shared space with traffic calming features that help slow down car traffic on neighborhood streets. These facilities often include cues to remind drivers that people bicycling may be present such as pavement markings and signage and can include design treatments to manage traffic speeds and volumes, like traffic circles, curb extensions or speed humps.
- **On Street Bike Lanes** are designed for bicyclists to have a dedicated space on the roadway that is demarcated by a painted line or a physical separation. Facilities with painted lines are often referred to as a **conventional** or **painted bicycle lane**. Depending on the space available on the roadway, traffic speeds and volumes, two painted lines can be implemented to provide a visual buffer space separating motorists and bicyclists. This is often called a **buffered**

bicycle lane. Physical separation can be added to the buffered space to provide more comfort for people bicycling. There are a variety of separation treatments available that depend on the available space and context of the roadway and other design considerations. These facilities are often called **protected bicycle lanes**. When implemented outside of the roadway they can be dedicated facilities, commonly called **bike paths** that are adjacent to the sidewalk, or as a combined space for bicyclists and pedestrians called a **shared-use path**.

- **Trails** are facilities that provide bicyclists and pedestrians the opportunity to travel outside of a road right-of-way. The route and design treatments enable different types of trail use. For example, a looped natural surface trail will provide a recreational use compared to a paved or packed gravel linear trail which can provide opportunities for both recreation and utilitarian transportation. Linear trail corridors often utilize existing features such as watercourses and railways which provide continuous corridors.

There are many trade-offs and design considerations associated with each facility type including the project opportunity, which design guidance provides insights on. Generally, each facility types are appropriate under certain circumstances. How to select the appropriate facility type is covered in the following section.

The same level of care and consideration should be given to pedestrian facilities. Along roadways **sidewalks** are standard facility for pedestrians to use which provides a physically separated space from traffic. Sidewalks can range in their design treatments depending on the land use context. Sidewalks should have a pedestrian through zone or walking area which is free of obstructions of at least 5 feet. Additional space adjacent to the sidewalk such the boulevard or terrace zone along the curb edge can be used for vegetation or street furniture and utilities which provides greater pedestrian separation from the roadway.

Pedestrian crossing facilities provide opportunities for pedestrians to cross a roadway either at an intersection or midblock. All pedestrian crossing should be design and built to the standards set in the Americans with Disabilities Act (ADA), including curb ramps. Pedestrian crossing facilities should be selected appropriately for the roadway context as these locations are where there is the greatest potential for conflict and impact to the safety of pedestrians. Examples of design treatments for pedestrian crossing facilities include:

- **Crossings with High-Visibility Paint**: Application of brightly colored, reflective paint on road surfaces at crosswalks. Improves visibility for pedestrians and drivers, enhancing safety.
- **Rapid Flashing Beacons** (RFBs) and Other Treatments: Pedestrian-activated signals with rapidly flashing LED lights. Installed at crosswalks to alert drivers and improve pedestrian visibility.

Pedestrians can also use trail facilities outside of the roadway right-of-way, though the trail design treatments should consider the type of pedestrian users to provide an appropriate and safe experience.

Facility Selection

Each design guidance document provides a section on facility selection which provides a decision-making framework to identify which facility types would be most appropriate based on the roadway context. The roadway context factors are most often motor vehicle speeds (either target or speed limits), motor vehicle volumes, vehicle lanes, and operational considerations such as whether it is a transit or truck route, or other activities that require consideration such as high curbside use.

Generally, as traffic speeds are faster, with higher volumes, more lanes, and more curbside uses, there is a greater need to provide separation for bicyclists and pedestrians. With recent updates to design guidance, and the focus towards designing AAA facilities, there is more sensitivity towards lower thresholds roadway context factors when selecting shared or visually separated facilities. This reflects the philosophy of designing for a broader spectrum of potential users. An example this facility selection guidance can be found in NACTO's All Ages and Abilities Bicycle Facility guidance.

Figure 1. Contextual Guidance for Selecting All Ages and Abilities Bikeways (NACTO)

Roadway Context				All Ages & Abilities Bicycle Facility
Target Motor Vehicle Speed*	Target Motor Vehicle Volume (ADT)	Motor Vehicle Lanes	Key Operational Considerations	
Any		*Any*	*Any of the following:* high curbside activity, frequent buses, motor vehicle congestion, or turning conflicts‡	**Protected Bicycle Lane**
< 10 mph	Less relevant	No centerline, or single lane one-way	Pedestrians share the roadway	**Shared Street**
≤ 20 mph	≤ 1,000 – 2,000		< 50 motor vehicles per hour in the peak direction at peak hour	**Bicycle Boulevard**
≤ 25 mph	≤ 500 – 1,500			
	≤ 1,500 – 3,000	Single lane each direction, or single lane one-way	Low curbside activity, or low congestion pressure	**Conventional or Buffered Bicycle Lane, or Protected Bicycle Lane**
	≤ 3,000 – 6,000			**Buffered or Protected Bicycle Lane**
	Greater than 6,000			**Protected Bicycle Lane**
	Any	Multiple lanes per direction		
Greater than 26 mph†	≤ 6,000	Single lane each direction	Low curbside activity, or low congestion pressure	**Protected Bicycle Lane, or Reduce Speed**
		Multiple lanes per direction		**Protected Bicycle Lane, or Reduce to Single Lane & Reduce Speed**
	Greater than 6,000	*Any*	*Any*	**Protected Bicycle Lane**
High-speed limited access roadways, natural corridors, or geographic edge conditions with limited conflicts		*Any*	High pedestrian volume	**Bike Path with Separate Walkway or Protected Bicycle Lane**
			Low pedestrian volume	**Shared-Use Path or Protected Bicycle Lane**

Design Treatments

Design guidance documents provide design treatments for each facility type and can provide guidance on the design of other street elements such as curb radii and safety countermeasures. Treatment considerations for facility types can include regulated elements such as the colors used and elements from the Manual on Uniform Traffic Control Devices (MUTCD), to the width of the facility and details of separators. Guidance has also developed around intersection treatments, with guidance like the NACTO Don't Give Up at the Intersection guide that provides design treatments that emphasize safety and better clarity. Another design treatment consideration is whether the bicycle facility is one-way or two-way which have different trade-offs depending on the roadway and land use context. Design guidance documents provide information to support decision-making around these elements.

Policy Approaches to Support Walking and Bicycling

Cities have used a variety of policy strategies to support walking and bicycling. These strategies are most effective if they have clear support from policy makers and staff along with a commitment to evaluating progress on specific measures. The strategies link walking and bicycling to specific community goals, including public health, supporting youth or seniors, expanding access for people of all abilities and supporting safety. These policy strategies are complementary to a Bicycle and Pedestrian Master Plan and can support implementation of the plan over time.

8 to 80 Cities

The 8 to 80 cities approach is guided by the idea that if a city is "great for an 8 year old and an 80 year old, then it will be better for all people." The 8 80 Cities organization provides resources and services for communities including training and toolkits.

Complete Streets

Complete Streets policies help communities develop a commitment to planning, designing, implementing and maintaining streets that are safe for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. The Complete Streets approach is a process that emphasizes designing roads for the most vulnerable users like people walking or bicycling, people of lower incomes, or people from neighborhoods that have experienced past disinvestment. The Complete Streets approach is distinct from road engineering measures that focused on moving cars quickly through neighborhoods.

Complete Streets policies should be regularly reviewed and updated to ensure they keep up with best practices. Today's Complete Streets policies have moved away from vague language like "consider the needs of all users" to emphasize a clear commitment to prioritizing vulnerable road users. The best policies include clear process steps to design and implement complete streets and a commitment to measuring progress over time. Many recent Complete Streets policies incorporate equity considerations that are important to the community. The National Complete Streets Coalition has resources for communities developing policies, including model language and trainings.

Safe System

The Safe System approach is a program of the Federal Highway Association (FHWA) which follows six principles: 1) death / serious injury is unacceptable, 2) humans make mistakes, 3) humans are vulnerable, 4) responsibility is shared, 5) safety is proactive, 6) redundancy is crucial. The FHWA provides resources to local communities to support road safety, including a vision zero community of practice.

Vision Zero

Vision Zero is a strategy that acknowledges that traffic deaths are preventable and takes a system approach to prevention. Local communities first make a commitment to eliminate all traffic fatalities and serious injuries by a specific year, usually as an action by the Common Council. A model resolution is available as a starting point. Then, data is analyzed to develop a High Injury Network, like the one being created for the La Crosse Bicycle and Pedestrian Master Plan update. In addition to the quantitative data, community engagement is used to understand people's experiences getting around the community. Using this information, a Vision Zero Action Plan outlines specific steps to reach the goal, focused on prioritizing areas where safety improvements will have the biggest impact. Vision Zero efforts can support other community priorities, such as equity and universal design, by incorporating these priorities into the Action Plan.

Universal Design

Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. Universal design follows seven principles which were developed in 1997 by a group of design and engineering professionals at North Carolina State University's Center for Universal Design: 1) **Equitable Use**: The design is useful and marketable to people with diverse abilities, 2) **Flexibility in Use**: The design accommodates a wide range of individual preferences and abilities, 3) **Simple and Intuitive Use**: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level, 4) **Perceptible Information:** The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities, 5) **Tolerance for Error:** The design minimizes hazards and the adverse consequences of accidental or unintended actions, 6) **Low Physical Effort:** The design can be used efficiently and comfortably and with a minimum of fatigue, 7) **Size and Space for Approach and Use:** Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility. These principals can be incorporated into other policy approaches, such as a Complete Streets Policy or Vision Zero Action Plan.

Environmental Justice, Climate Change and Behavior Change

Cities around the United States are finding ways to reflect their own unique context and priorities while tackling big issues like environmental justice and climate change, which are challenges shared across many communities.

Environmental Justice

The United States Environmental Protection Agency defines environmental justice as, "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys: 1) The same degree of protection from environmental and health hazards, and 2) Equal access to the decision-making process to have a healthy environment in which to live, learn, and work."

At the local level, environmental justice starts with understanding local patterns around environmental hazards. Are there certain neighborhoods or racial or ethnic communities that have a higher impact from transportation-related decisions, such as air or noise pollution or wide and dangerous roadways? Once the past is understood and acknowledged, communities can work to incorporate environmental justice into planning efforts by proactively including the voices of people from impacted communities in future decisions. Plans and policies can support environmental justice by reflecting this input and prioritizing improvements, such as infrastructure, in impacted neighborhoods. For example, including environmental justice goals when programming the City's Capital Improvement Program can utilize existing resources strategically to advance multiple goals.

Climate Change

La Crosse has committed to reduce greenhouse gas emissions and prepare for the impacts of climate change through the City of La Crosse Climate Action Plan. Specifically, the City has committed to reduce community-wide GHG emissions by 40% to 50% below 2019 levels by 2030 and achieve carbon neutrality by 2050.

The Bicycle and Pedestrian Master Plan Update is one tool to achieve the city's climate goals. Currently, 34% of the City's greenhouse gas emissions comes from transportation. Shifting trips away from single-occupancy trips to walking and bicycling will help reduce these emissions. For this to be most effective, integrating land use decisions with transportation and climate goals is important. In the future, if more people live closer to destinations like work, school, and shopping, it is possible to convert more trips to those that do not emit greenhouse gases.

Behavior Change

Transportation Demand Management (TDM) focuses on how people make transportation decisions and works to influence behavior to use existing infrastructure in more efficient ways. TDM strategies can be a complement to infrastructure improvements and an opportunity for partnership with institutions and employers.

Transportation behavior is also influenced by the built environment, including the comfort, safety and convenience of transportation options. Utilizing the best practice engineering solutions summarized above will help influence transportation behavior in La Crosse.

Peer Communities Review

Appleton, WI

Appleton, WI is an urbanized area (population 74,139) that is home to Lawrence University, a small liberal arts college and music conservatory. It has a silver-level Bicycle Friendly Community rating and is working to develop policies and programs that support multimodal systems. Previously completed efforts include a downtown design guide that was applied to a main street reconstruction project, a winter maintenance of protected bikeways memo, an On-Street Bike Lane Plan, and a Trails Master Plan.

The city is currently developing a Complete Streets policy and design guide for all streets in Appleton, as well as a crossing prioritization and policy update. This project was initiated in part due to a desire for a whole-network, systemic safety approach to pedestrian improvements, especially at intersections. The city had been using a "small-city approach" of addressing one-off requests for improvements from residents, but the Council and staff realized that a broader framework and systemic approach would be a better fit for a city of Appleton's size. The design guide will include 16 typologies connected to different land uses, considering the surrounding context and amount of right of way available. The typologies recommend traffic calming elements, other design guide considerations, and maintenance of the recommended facilities. The design guide also recommends a quick-build, traffic calming retrofit program across the community, which will be a new approach.

Unlike La Crosse, Appleton did not start with the base of having a comprehensive active transportation plan. Having a plan in place that includes prioritized multimodal improvements could help direct quick build efforts, applications for federal funding, and other initiatives.

Takeaways

Developing a design guide and/or a quick-build program could be a key strategy to support whole-network, systemic safety bicycle and pedestrian improvements in the city of La Crosse.

Rochester, MN

Rochester, MN is a city with an urban core surrounded by low-density suburban areas (population 114,000) that is home to the University of Minnesota Rochester. It has a bronze-level Bicycle Friendly Community rating and updated its Active Transportation Plan in October 2022 (original plan published in 2012) to include equity analysis, crash data analysis, and prioritization recommendations for walking and biking improvements.

The 2012 Rochester Area Bicycle Master Plan (the plan that the Active Transportation Plan updated) was about 300 pages long, so a goal of the update was to make the plan update shorter, more succinct, and digestible, with appendices containing an engagement summary, technical analysis, implementation resources, and a design resource guide. The plan update process included community engagement, popups, and advisement from a steering committee made up of representatives from the city's Pedestrian and Bicycle Advisory Committee.

The future bikeway network map included in the plan is an all-ages and abilities (AAA) network that was based on the principles developed for Minneapolis' AAA network and refined for Rochester. Facilities on the network are spaced 1/4-1/2 mile apart in the city center, and farther apart farther away from the city center. The network was designed to come within 1/8 mile of key destinations as much as possible, and considered where excess roadway capacity could be reallocated to bicycle facilities. The network does not recommend specific facilities in specific locations, but the included design guide defines how to meet a AAA design standard in different contexts, leaving the decision about facility types to be made at the project level. The future bikeway network documentation includes more detailed designs and cost estimates for ten prioritized example locations.

Takeaways

La Crosse's approach to developing pedestrian and bicycle networks and prioritization of improvements could be informed by Rochester's approach.

Northfield, MN

Northfield, MN is a small city (population 20,729) that is home to two small, liberal arts colleges, Carleton College and Saint Olaf College. The city has an over twenty-year history of public and local government support for better walking and biking. In 2022, the city developed a Pedestrian and Bike Analyzation with interim and permanent designs for protected bikeways and recommendations on how to select a preferred bikeway type based on project types identified in the city's capital improvement program (CIP). Seven recommended cross sections were developed for proposed bikeway corridors, based on existing curb-to-curb, potential new curb-to-curb, and right-of-way dimensions.

Recommendations for how to enhance bikeways for AAA, reduce barriers, and increase bicycle usage were developed based on policy guidance, including City of Northfield policies and plans, Minnesota State Aid Rules, the MnDOT Bicycle Facility Design Manual, and national guidance such as NACTO Urban Street Design Guide, NACTO Don't Give Up at the Intersection guide, and FHWA Separated Bike Lane Planning and Design Guide, and especially "Contextual Guidance for Selecting All Ages & Abilities Bikeways" in the NACTO Urban Bikeway Design Guide.

For reconstruction and reclamation projects, the preferred bikeway in most contexts is a raised (sidewalk height, behind the curb), two-way separated bikeway that separates pedestrians and bicyclists where feasible. For mill and overlay projects and standalone bikeway projects without an underlying street maintenance project, the preferred bikeway in most contexts is an in-street, two-way separated bikeway, with a two-foot concrete bike buffer as a form of physical separation between the travel lanes and the bike lanes.

Takeaways

La Crosse could develop a similar approach for selecting a preferred bikeway based on project types identified in Northfield's CIP.

F

Appendix

Phase One Engagement Summary

To: City of La Crosse

From: Alta Planning + Design

Date: December 8, 2023

Re: Public Engagement – Phase One Summary

Task 2.2. Phase One Public Involvement Summary

Phase One: Context, Vision and Opportunities

The first phase of engagement focused on introducing the Bicycle and Pedestrian Plan update in the context of previous and recent planning efforts and existing conditions. The project team explored past engagement and adopted plans, including walk audits completed as part of the 2012 bicycle and pedestrian master plan process, recent engagement for and recommendations in the Forward La Crosse Comprehensive Plan, and a series of other adopted plans related to transportation in La Crosse. During this phase, the team employed a series of strategies (highlighted below) to reach a mix of audiences in La Crosse. Each engagement strategy provided background information about the plan and the opportunity to provide feedback on La Crosse's existing bicycle and pedestrian networks using a map as well as written or oral feedback. The findings from this first round of engagement are detailed below.

Pop-Up Engagement Events

Before the project team met in La Crosse to conduct the majority of the Phase One public input meetings and walk audits, local project team members hosted a series of "pop-up" events around the community to gather preliminary input while simultaneously advertising the upcoming open houses and walk audits. These pop-ups reached approximately 100 people at events/locations including:

- Cameron Park Farmer's Market
- Burns Park Fall Celebration
- Student Union Clock Tower at UW- La Crosse
- Downtown La Crosse holiday event

Pop-Up Key Findings

General themes that arose from these pop-up events were that people were excited that the city was conducting this study, and in general felt good about their ability to comfortably walk and bike in La Crosse. There were some location-specific comments about concerns or challenges, but overall, participants indicated that they feel good about living in a community that is taking big steps to improve walking and bicycling options in La Crosse. Location-specific comments were incorporated into **Maps 1.1-1.6** in the following section.

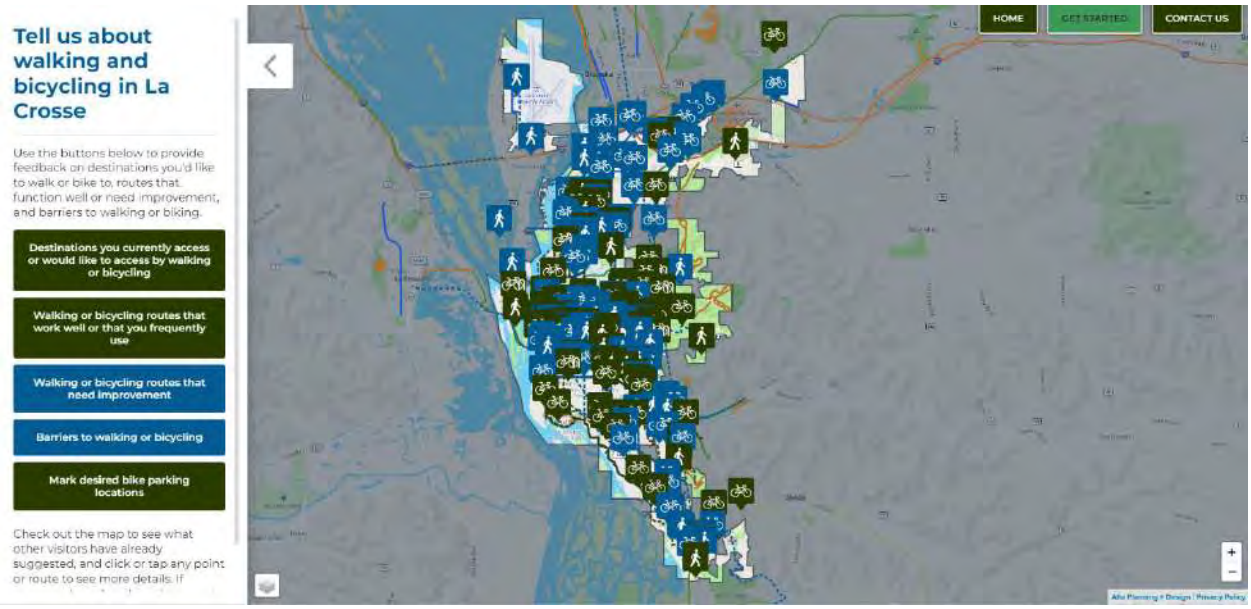
Most Common Comment Themes

- Happy that the city is investing in walking and bicycling improvements
- Desire for improved crosswalks (better paint, more crossing signals, etc.)

Online Web Map

The project team put together an online interactive web map to allow La Crosse residents to pinpoint:

- Destinations that individuals would like to access by walking or bicycling
- Walking or bicycling routes that work well
- Walking or bicycling routes that need improvement
- Barriers to walking or bicycling
- Desired bike parking locations



Web Map Key Findings

During Phase One, 245 community members participated in the project web map, with 121 people providing their own comments, 69 adding on comments to previously made comments, and 190 people interacting with others' comments by liking or disliking them. The following list of key findings from the web map indicate key points and routes that the project team will focus on as the draft network recommendations are being made. In total, the 245 community members that participated during this phase made 499 total suggestions, leaving 155 additional comments on those suggestions, and voting by either liking or disliking suggestions 1380 times. The map was left available for liking recommended projects throughout the duration of the project, with a final count of 364 unique participants liking or disliking suggestions 2769 times total.

There are also a series of maps at the end of this section that summarize what we heard about specific locations in La Crosse through this round of engagement, including:

- **Map 1.1** indicates destinations that participants would like to access by walking or biking
- **Map 1.2** shows routes that are working well
- **Map 1.3** shows routes that need improvement
- **Map 1.4** shows where there are specific barriers to walking or bicycling
- **Map 1.5** highlights the types of barriers participants noted
- **Map 1.6** includes locations that were marked as needing bike parking

Destinations (Map 1.1)

59 destinations were marked on the map as locations that participants currently access or would like to access by walking or biking. The top four destinations (tie between first/second/ third) include:

1. (Lueth Park) Lueth park is an amazing community asset that is almost cutoff for cyclists, unless they ride on the sidewalk of the Lang Drive highway or try to cross either La Crosse Street or West Ave. A natural surface trail that connected to the marsh trails. (13 likes)
2. (Festival/Central High School Area) It's difficult to safely access Festival and Central High School by bike. Crossing 4 lanes of traffic on Losey or Highway 33 pushes cyclists onto the sidewalk, but turning traffic means it's rarely safe to cross. (13 likes)
3. (Jackson Plaza) Jackson Plaza customers need safer ways to cross from the north side of 33. Biking destination too. (13 likes)

These destinations are shown in **Map 1.1. Map 1.1A** in the appendix includes number labels that correlate with **Table 1.1A**, a table that includes all of the original marked comments.

Walking or Bicycling Routes – Routes that Work (Map 1.2)

20 routes that work well were marked on the map. The top three most liked routes include:

1. (Old ROW between Boot Factory and Performance Food Service) This would be a desirable path to get away from Lang Dr and connect to the St James. I think it's an old ROW between boot factory and performance food service. (4 likes)
2. (King St) Not a very busy street, great for cutting across town. (3 likes)
3. (Avon St) Nice north/south path but not designed for transit - mainly designed for recreation. (3 likes)

These routes are shown in **Map 1.2. Map 1.2A** in the appendix includes number labels that correlate with **Table 1.2A**, a table that includes all of the original marked routes.

Walking or Bicycling Routes – Routes that Need Improvement (Map 1.3)

169 routes that need improvement were marked on the map. The top three most liked routes include:

1. (River Valley Dr) Traffic travels faster than the posted limit. Bike lanes accumulate glass and debris. Bike lanes are scary, since the slabs of concrete contain giant gaps. Some physical barrier between traffic & bikes would make this much more enjoyable. Most bikers use. (11 likes)
2. (Hwy 33) An unprotected bike lane on a busy street is a bike lane nobody is going to use. (10 likes)
3. (Pammel Creek Trail) I love to see the Pammel Creek trail get extended further south onto 14 and up the rustic road (County Rd MM). Seeing Oehler Mill, the Shrine, and then the views of the Mississippi from on top of MM and on Skyline Road is quite the trip. (10 likes)

These routes are shown in **Map 1.3. Map 1.3A** in the appendix includes number labels that correlate with **Table 1.3A**, a table that includes all of the original marked routes.

Barriers to Walking, Bicycling, or Both (Maps 1.4 and 1.5)

Some transportation barriers impact both bicyclists and pedestrians, while some are more specific to one group. **Maps 1.4 and 1.5** break out the 196 transportation barriers noted in La Crosse by both type of barrier (walking, biking, or both) and number of likes received on each barrier.

The **walking barriers** that received the most likes include:

1. (19th, Jackson, & State Hwy 33) Where 19th, Jackson, and State Hwy 33 meet it is a dangerous crossing. Vehicles heading East on Hwy 33 are coming around a corner and can be moving fast. It's also impossible for a pedestrian to tell if a turning car is going onto Jackson or 19th Street. (18 likes)
2. (Cass St & West Ave) This intersection should have a ban on right-on-red turns. There should also be a leading pedestrian interval and automatic walk signs given that Aquinas is right here. The leading pedestrian interval could perhaps be triggered with the existing beg button. (15 likes)
3. (Mormon Coulee Rd) There is absent sidewalk to connect the northern extent of a sidewalk running from the roundabout on the east side of Mormon Coulee Rd. The sidewalk ends abruptly before arriving at 33rd street where there is a bus stop. (11 likes)

The **biking barriers** that received the most likes include:

1. (Losey Blvd/Hwy 16 near Quarry Rd) This route needs to be formally marked as an access point and needs to include lights in the tunnel. (20 likes)
2. (Mormon Coulee Rd & Hwy 14 Roundabout) Whoever engineered this circle slapped on some bike lanes on the south end and then didn't take into consideration where those northbound bikers would go. Extend the bike lane on the east side of Mormon Coulee Rd! (18 likes)
3. (Hwy 14 & Fireclay Ct) If there were to be a bike path on the south side of HWY14 then Clay Ct would be connected to roundabout for bicycles and cyclists from further east on HWY14 would have a safer route to manage the arrival up to the roundabout. (18 likes)

The **barriers to both walking and biking** that receive the most likes include:

1. (Hwy 14/61 generally) 14/61 causes all neighborhoods along the corridor to be isolated due to biking/walking safety concerns. These neighborhoods (Brickworks, Waterford and other neighborhoods further east) could be linked via an off-road trail giving access to safe school (15 likes)
2. (28th St/RR Tracks/Jackson St) It would be nice to be able to cross here walking or riding. (11 likes)
3. (Brickyard Ln area) The Brickyard neighborhood is isolated from the Southern Bluffs Elementary School. There is no recognized path to connect to Mariah Drive and then on to the elementary school. (10 likes)

The following table (**Table 1.1**) breaks down the categories of barriers faced and includes the approximate number of comments related to each category as well as key comments provided related to each barrier.

Table 1.1: Barriers by Category

Barrier Category	Number of Comments Related to Category	Top Comments
Intersection Challenges	56	102. (19th, Jackson, and State Hwy 33 intersection) Where 19th, Jackson, and State Hwy 33 meet it is a dangerous crossing. Vehicles heading East on Hwy 33 are coming around a corner and can be moving fast. It's also impossible for a pedestrian to tell if a turning car is going onto Jackson or 19th Street. (18 likes)
Unsafe Facility Type	19	15. (Mormon Coulee and HWY 61) Whoever engineered this circle slapped on some bike lanes on the south end and then didn't take into consideration where those northbound bikers would go. Extend the bike lane on the east side of Mormon Coulee Rd! (18 likes)
Physical Barrier (something in the way/Maintenance Issue)	33	19. (Front St) The abandoned rail tracks in this area are dangerous. This entire stretch of roadway is often more like a parking lot and less like a street. (15 likes)
Vehicular Speed Issues	10	52. (Enterprise Ave/CTY SS) The speed limit on Enterprise Ave/CTY SS changes from 35 to 25 MPH at the State Trail crossing, Traffic does not obey these limits, Traffic Often crosses into the bike lane due to excess speed and disregard of the bike lane. (4 likes)
Infrastructure Needed	76	20. (HWY 16) This route needs to be formally marked as an access point and needs to include lights in the tunnel. (20 likes)
General Recommendations	2	Infrastructure recommendations: -add protected bike lanes on all major streets -reduce speed limits to 25 on all major streets, and 20 on residential streets -plant more street trees -build more traffic calming Policy recommendations: -Require that construction projects that close a sidewalk/bike lane must provide a safe alternative route without forcing people to cross the street - Remove costly parking mandates for all development - End single family zoning

Maps 1.4A, 1.4B, and 1.4C are included in the appendix and split out the barriers by walking, biking, and both walking & biking, and also include number labels that correlate with **Table 1.4A**.

Map 1.5 breaks down the barriers by type of barrier, including intersection challenge, unsafe facility type, etc. Map 1.5A in the appendix includes number labels that correlate with **Table 1.4A.**

Desired Bike Parking Locations (Map 1.6)

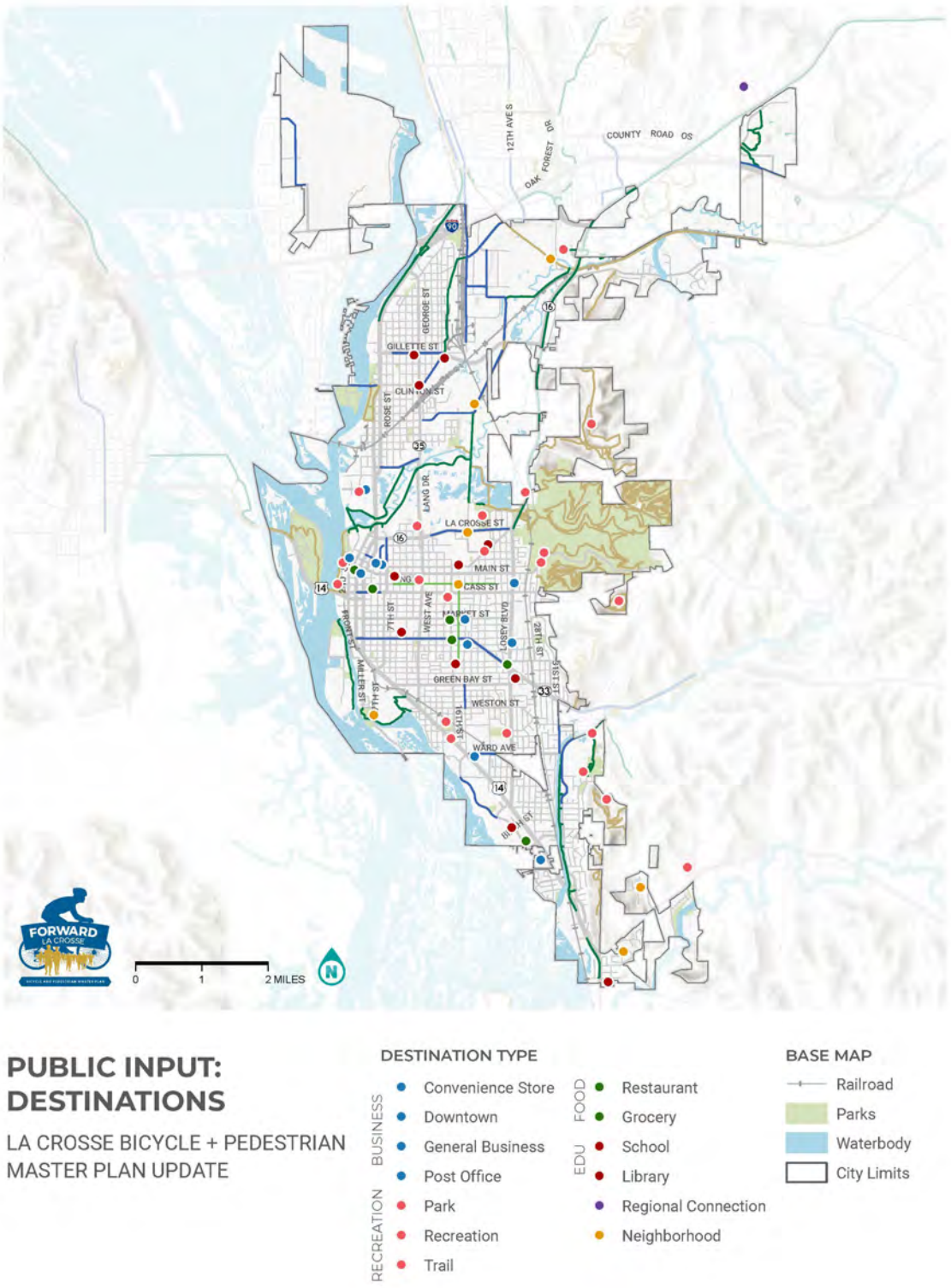
The desired parking locations that received the most comments and likes included adding more consistent bike racks around Downtown, at all trailheads, and in all city parks. In addition to recommendations for new rack placement, many comments recommended upgrading old racks that are either deteriorating or that do not provide safe locking points/shelter. Out of the 21 marked desired bike rack locations, the bike parking suggestions that received the most likes include:

1. (Downtown) On every block downtown where there is car parking, the "front" space needs to be covered secure bike hangar or high-density bike parking. This would also improve vision at intersections. Or use vacant stores to provide indoor, heated, and supervised parking. (21 likes)

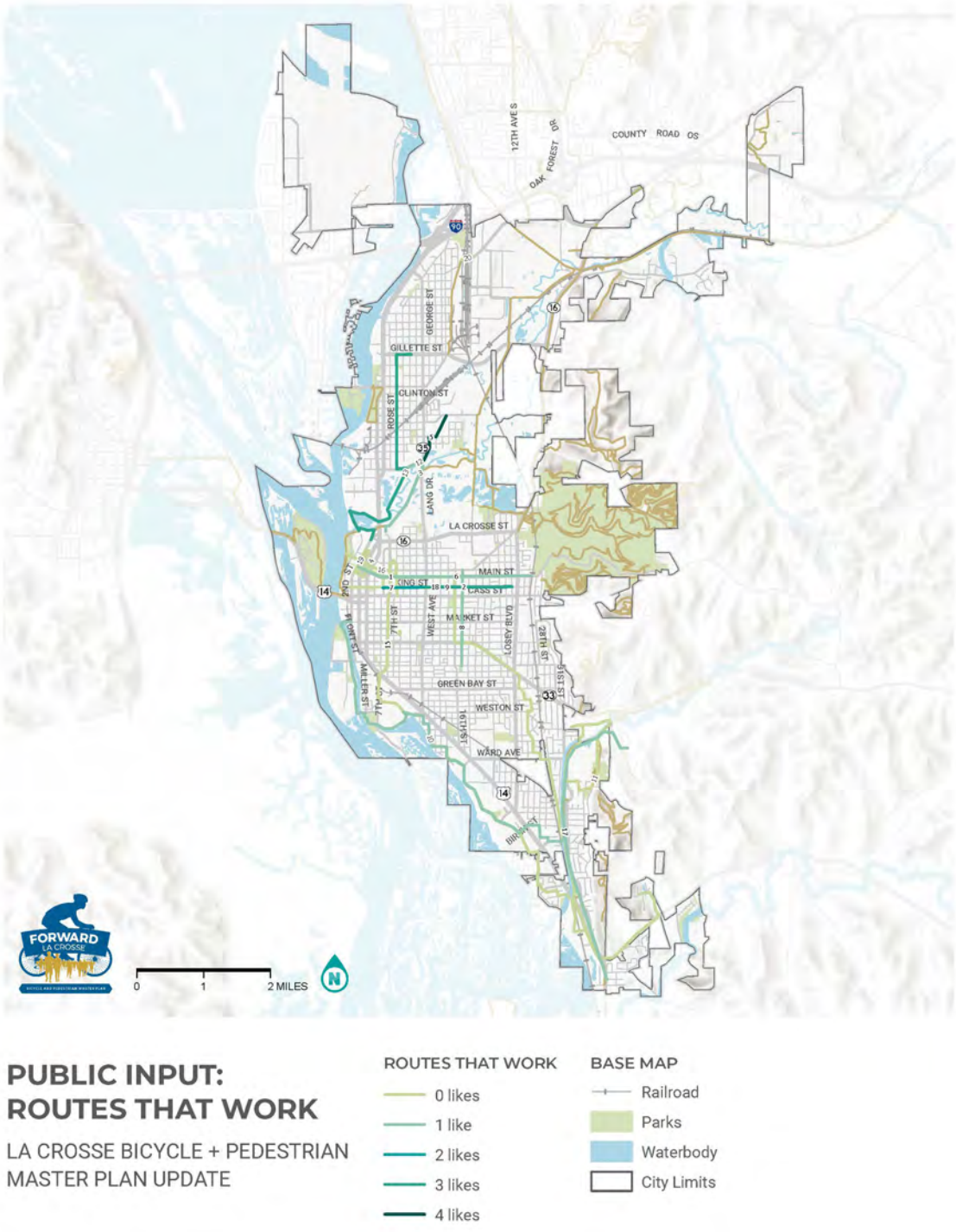
2. (Trailheads) Secure bike parking would assist with busy times when traffic overfills the small parking lot. Many hikers would likely bike if they could safely get here and securely park. (14 likes)
3. (Riverside Park) More bike parking by Riverside Park/band shell. (12 likes)

These desired bike rack locations are shown in **Map 1.6. Map 1.6A** in the appendix includes number labels that correlate with **Table 1.5A**, a table that includes all of the original marked desired bike rack locations.

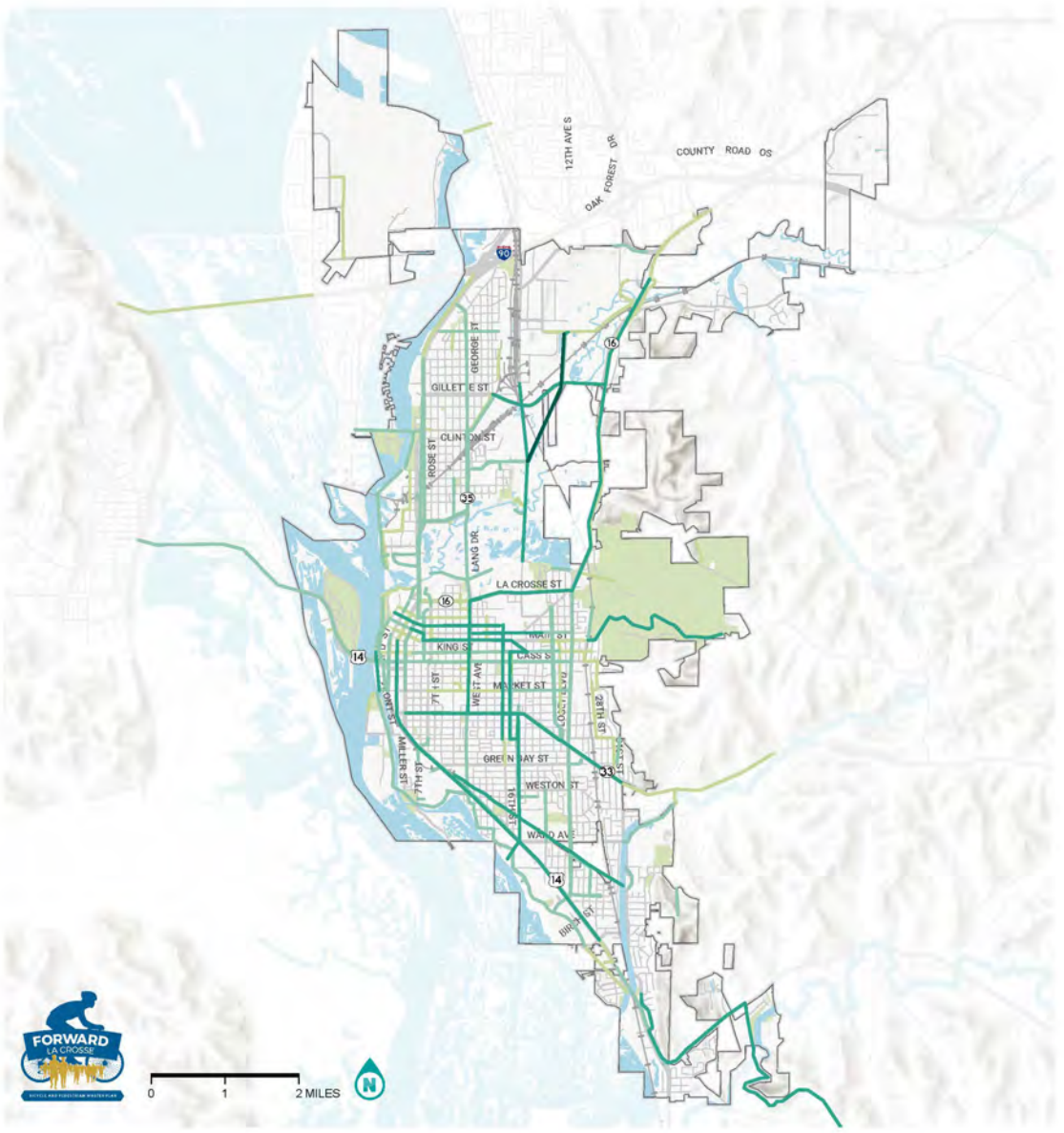
Map 1.1: Desired Destinations for Connection Via Walking and Bicycling



Map 1.2: Routes that Work



Map 1.3: Routes that Need Improvement



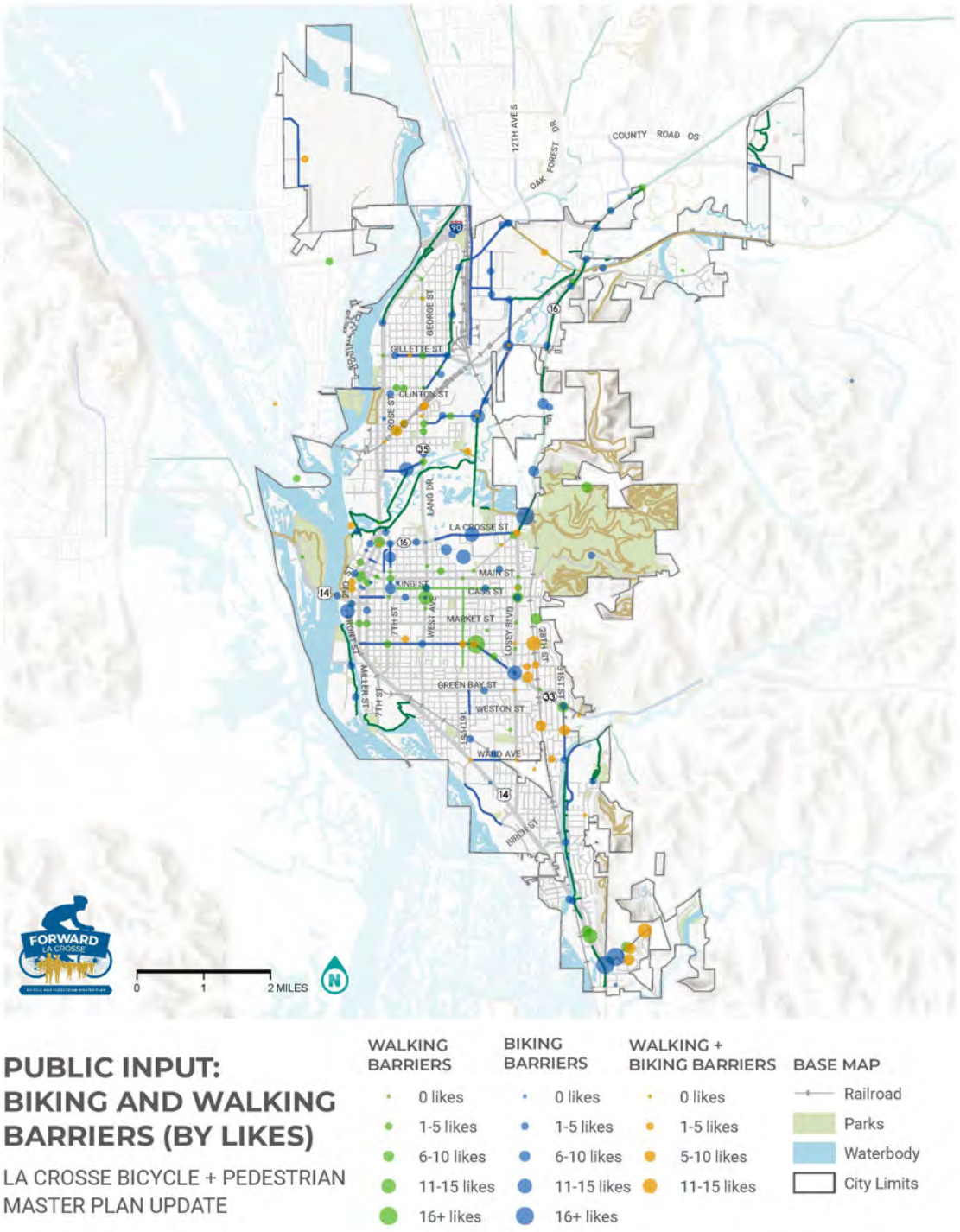
PUBLIC INPUT: ROUTES THAT NEED IMPROVEMENT

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

ROUTES THAT NEED IMPROVEMENT
- 0 likes
- 1-5 likes
- 6-10 likes
- 11+ likes

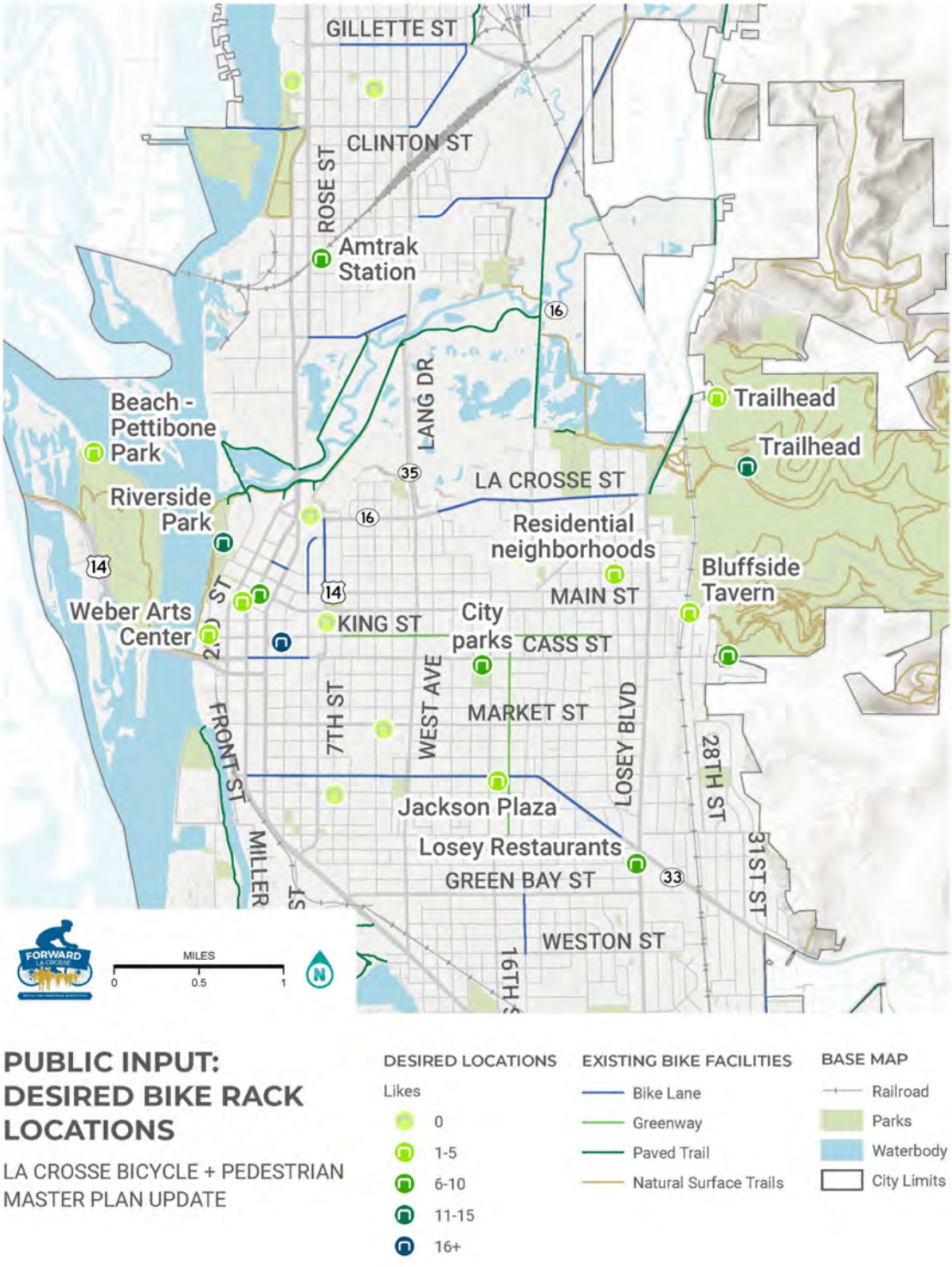
BASE MAP
- Railroad
- Parks
- Waterbody
- City Limits

Map 1.4: Barriers to Walking and Biking by Likes



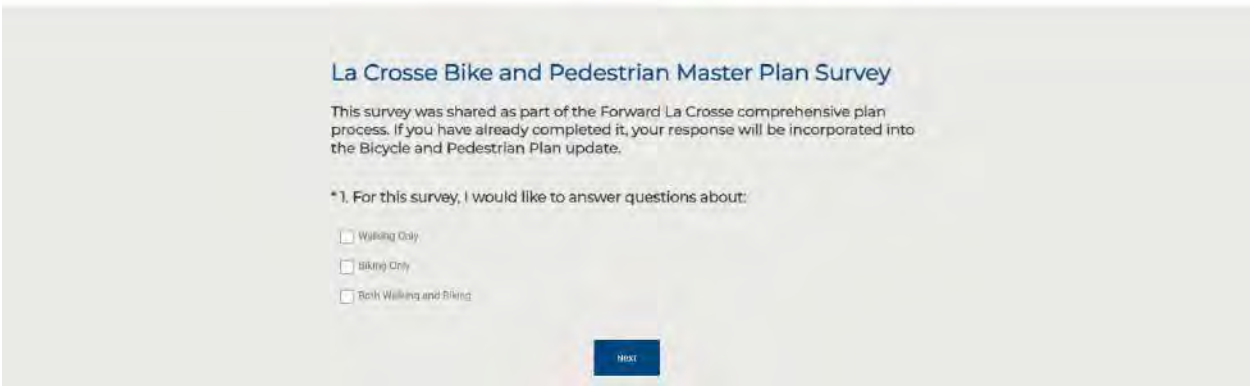
Map 1.5: Barriers to Walking and Biking by Type of Barrier

Map 1.6: Desired Bike Parking Locations



Online and Print Survey

To gather general feedback on walking and bicycling in La Crosse that was not location-specific, a survey was developed that users could take online. For in-person engagement events, a brief version of this survey was made available in print format, allowing individuals to write out their input on paper.



Survey Key Findings

A public online survey was made available between October 25th and November 24th, 2023. 329 total individuals participated in the online survey. The survey format allowed participants to answer questions about walking, biking, or both. In total, there were 313 surveys taken on biking, and 77 taken on walking. The following statistics summarize what we heard (full exported summary including illustrated tables and charts attached to this document as an appendix):

<u>Walking</u>

- 98% of respondents do not use a mobility aid/device to get around
- Between May and October, participants commonly walk to recreation, health, or exercise-based locations and are very unlikely to walk to access bus, transit, or other transportation options or school/work
- In the winter, participants tend to walk the same amount, a little less, or a lot less than in warmer seasons
- The top destinations participants would like to walk to if walking conditions were improved include:
    - Schools
    - Residential neighborhoods
    - Downtown
- The top factors preventing participants from walking more often include:
    - Destinations are too far apart
    - Trails/sidewalks are covered in snow in the winter
    - Trails/sidewalks are not well-lit in the evening

- Feeling unsafe around motorized traffic
- The top factors that would make walking more convenient:
  - Keeping sidewalks and trails clear of ice and snow during the winter
  - Intersections that feel safer to cross
  - Building sidewalks and trails to connect to my destinations
- Themes from general comments:
  - Improve stressful street crossings
  - Slow cars down
  - More safe, dedicated space for bikes
  - Ice and snow removal is a big challenge
  - More space between sidewalks and busy roadways would be nice
- Facility ratings:
  - Facility W-1: How comfortable would you feel walking here? Sidewalk adjacent to the road: 4.8/6
  - Facility W-2: How comfortable would you feel walking here? 6' sidewalk, separated from car traffic by buffer: 5.5/6
  - Facility W-3: How comfortable would you feel walking here? 10' shared use path, separated from car traffic by buffer, shared with bicyclists: 5.2/6
  - Facility W-4: How comfortable would you feel walking here?10' sidewalk along road in commercial area, buffered from traffic by a parking lane: 4.9/6
  - Facility W-5: How comfortable would you feel walking here?10' sidewalk along road in commercial area, buffered from traffic by a planted boulevard and parking lane: 5.7/6

<u>Biking</u>

- Between May and October, participants most commonly bike to recreation, health, or exercise-based locations, and are very unlikely to bike to access bus, transit, or other transportation options or school/work
- In the winter, participants tend to bike a little less, a lot less, or not at all compared to warmer seasons
- The top destinations participants would like to bike to if biking conditions were improved include:
  - Downtown
  - Schools
  - Residential Neighborhoods
  - Parks
- The top factors preventing participants from biking more often include:
  - Feeling unsafe around motorized traffic
  - Pavement surface for streets or trails is in bad condition (ruts, potholes, etc.)
  - Trails and bike lanes are covered in ice and snow during the winter
  - There are no trails or bike lanes where I want to go
- The top factors that would make biking more convenient:
  - Providing more separation between bicycles and cars
  - Growing the network of bicycle facilities by adding bicycle lanes and trails
  - Safer / easier crossings at intersections
- Themes from general comments:

- Need more education for both bicyclists and motorists on how to navigate around each other
- Desire for more protected bicycle facilities
- Debris on the road/pothole/cracks are an issue
- More bike parking needed
- Concern that there aren't enough people bicycling to justify new infrastructure

- Facility ratings:
  - Facility B-1: How comfortable would you feel biking here? 6' wide bike lane, one way, adjacent to curb, no on-street parking: 3.9/6
  - Facility B-2: How comfortable would you feel biking here? 6' wide lane, 2' painted buffer, one way, adjacent to the curb, no on-street parking: 4.2/6
  - Facility B-3: How comfortable would you feel biking here? 6' wide separated bike lane, one way, buffered by curb and buffer: 5.2/6
  - Facility W-4: Facility B-4: How comfortable would you feel biking here? 10' wide bikeway, two-way, bollard buffer, on-street facility: 5.3/6
  - Facility W-5: Facility B-5: How comfortable would you feel biking here? Residential street, low traffic volume, low speed, shared lane for bikes and vehicle traffic: 4.2/6
  - Facility B-6: How comfortable would you feel biking here?10' shared use path, separated from road by buffer, shared with pedestrians: 5.4/6
  - Facility B-7: How comfortable would you feel biking here?6' shoulder along rural two-way road: 3.7/6

<u>Demographics</u>

- Majority of survey respondents are:
  - Male
  - Age 45-64
  - White
  - Total household income $100,000-$149,999

<u>Other Comment Themes:</u>

- Intersection crossings need more attention
- More trails/protected facilities desired than on-street bike lanes

Walk Audits

Instead of the walk assessment detailed in the original scope, the project team identified an opportunity to complete that data task through a GIS-based mapping approach. Therefore, instead of hosting a walk assessment training, the project team hosted two walk audits – one in south La Crosse and one in north La Crosse.

South La Crosse Walk Audit

The first walk audit was held on Monday, November 6th from 12:30 to 1:30pm starting from the South Side Neighborhood Center. Seven attendees (not including project team members) participated in this one-mile southside walk, providing feedback on varied feelings experienced while walking along different kinds of streets (7th St, a quieter street with slower traffic and traffic-calming features (raised intersections, curb extensions), and 4th St (a wide, loud, one-way highway).

North La Crosse Walk Audit

The second walk audit was held on Tuesday, November 7th from 12:30 to 1:30pm starting from the Black River Beach Neighborhood Center. Five attendees (not including project team members) participated in this one-mile walk, providing feedback on varied feelings experienced while walking along different

kinds of streets (Sill St, a quieter, neighborhood street with slower traffic and traffic-calming features like curb extensions, and Rose St (a wide, high-speed highway).

Community Open House

As with the walk audits, the project team hosted open houses at two different locations: the Southside Neighborhood Center in south La Crosse on Monday, November 6th and Black River Beach Neighborhood Center in north La Crosse on Tuesday, November 7th (two hosted at this location). At these open houses, approximately 59 participants were invited to review the existing conditions work completed and share their experiences with walking and biking in La Crosse through interactive stations. The goal of these open houses was to 1) review the draft vision and goals, 2) identify key issues and opportunities to address in the draft plan, 3) identify specific infrastructure best practices that interest the public in La Crosse.

All feedback received during the three community open houses was incorporated into the summary maps (**Maps 1.1-1.6**)

South La Crosse Open House

North La Crosse Open House

Appendix

Map 1.1A: Desired Destinations for Connection Via Walking and Bicycling (Numbered Destinations)

PUBLIC INPUT: DESTINATIONS

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

DESTINATION TYPE

BUSINESS
- Convenience Store
- Downtown
- General Business
- Post Office

RECREATION
- Park
- Recreation
- Trail

FOOD
- Restaurant
- Grocery

EDU
- School
- Library

- Regional Connection
- Neighborhood

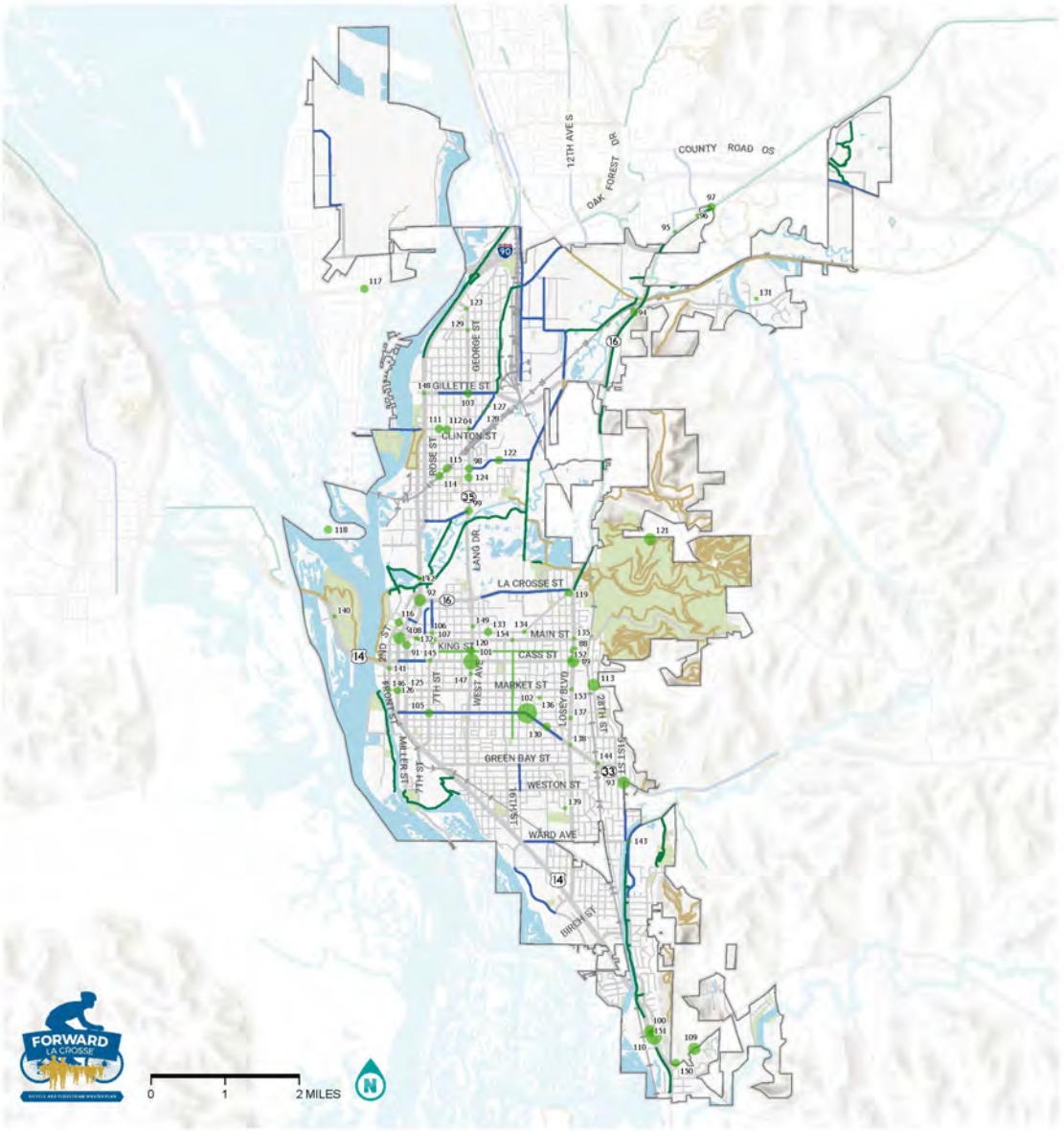
BASE MAP
- Railroad
- Parks
- Waterbody
- City Limits

Table 1.1A: Destinations

#	Likes	Dislikes	Destination	Comment
1	13	0	Lueth Park	Lueth park is an amazing community asset that is almost cutoff for cyclists, unless they ride on the sidewalk of the Lang Drive highway or try to cross either La Crosse Street or West Ave. A natural surface trail that connected to the marsh trails would
2	13	0	Jackson Plaza	Jackson Plaza customers need safer ways to cross from the north side of 33. Biking destination too.
3	13	2	Festival, Central High School, Local Shops	It's difficult to safely access Festival and Central High School by bike. Crossing 4 lanes of traffic on Losey or Highway 33 pushes cyclists onto the sidewalk, but turning traffic means it's rarely safe to cross.
4	11	0	Emerson Elementary	Emerson and all schools should be marked as Biking and Walking Destinations. High potential for very frequent use and this can reduce car traffic to/from schools each day. visibility at this intersection is terrible for drivers
5	10	1	Gateway	Establish a visible "gateway" to the bike path along the river new Weber Arts Center in accordance with the King St Greenways Plan
6	10	0	Waterford Valley	Please add safe access to Waterford Valley for kids to get to school at Southern Bluufs. An off road bike trail could link Waterford Valley, Brickworks and the mobile home court to provide safe access to school and connect to the bike trail near Fiesta
7	10	0	Trail	Let bikes on this trail! It will allow another alternative to Bliss Road & decrease bike traffic on this (often dangerous) road
8	8	0	Trail	I would love to see well developed trails on this piece of public land that currently feels like it is limited access. The end of Ebner feels very much like trespassing, despite it being public land.
9	7	0	Southern Bluffs Elementary	For both walking and biking - create some access for kids to be able to bike or walk to school, especially from the nearby neighborhoods who can only access via car on the highway.
10	7	0	Riverside Park	It would be nice to have a safe way to ride to Riverside park through the city.
11	5	0	Lower Northside connection	Desperately needed pedestrian friendly route from Lower Northside and subsidized housing to Northside schools. It's abysmal that kids who live in this neighborhood have only one option to cross RR tracks to school - the busy George Street viaduct, whic
12	5	0	Many destinations	It would be great if there were a safe way to bike to this area, which include a gym, a brewery, and several restaurants. Bicycle access will be even more necessary when the new mixed use commercial / residential development is open just south of here.
13	5	2	Bliss Rd	Bliss Road would safer to bikes and easier to maintain long term if it was one way going up the Bluff. The left side of the lane could be a bike lane which would reduce the strain on the road caused by excessive car traffic. Shelby would not need to hold
14	4	0	Brickworks Neighborhood	There is a great need for a bicycle and walking path connecting Brickworks neighborhood to the El Camino neighborhood, so kids have a safe route to school through the neighborhoods, where riding along the highway isn't necessary. This connection could
15	4	0	King St	My family and I utilize King St. as a biking route to and from the downtown area. I would like to see this more clearly marked (green paint on roads and signage) as a biking route.
16	3	0	Library	Downtown to library is a common route
17	3	0	Trail connection	connect to bike trail to the west
18	3	0	Street connection	connect to city street to the north east
19	3	0	SW La Crosse	Biking and Or walking should be improved to this part of town.
20	3	0	Bike Connection	these two roads could be developed into dedicated bike lanes and make the traffic one lane and one way. King Street would be my choice for an east-west bike lane. North-South could utilize 17th or 6th or 5th. Jackson Street is not well designed for bikin
21	3	0	Myrick Park/The Nature Place	Biking to Myrick Park from the Weigent-Hogan neighborhood is pretty doable, but has some difficult street crossings and conditions;
22	3	0	La Crosse St	This light triggers by bike when in the street lanes courage
23	3	0	Marsh Trail	A traversing trail, above the marsh edge would be a great opportunity here.
24	3	0	YMCA	Over 1,500 people pass through the doors at the YMCA each day. With limited parking, we would love to encourage more people to walk or bike to the Y. Making it more accessible to get here, and more bike parking, would be great;
25	3	0	Bluffland Traverse trail Option	Create a dirt Bluffland Traverse across LaCrosse that allows bikes!
26	3	0	Mathy Quarry	More biking trails within the mathy quarry would be nice.

#	Likes	Dislikes	Destination	Comment
27	2	0	Logan Middle and High Schools	Logan Middle and High Schools: Desiring safer and more clearly marked biking infrastructure for students to bike to school from Weigent Neighborhood
28	2	0	Walmart	I go here frequently
29	2	0	People's Food Coop	Grocery destination
30	2	0	Pamel Creek	Pamel creek connection to downtown safely with lites and visually seen but awa from traffic so you feel safe
31	2	0	Logan Middle School	Kids walk this route to and from school and after school activities. This intersection is a death trap for kids. Needs updated crosswalk paint, better ped signal crossing and longer recall.
32	1	0	Weigent Park	Weigent Park
33	1	0	Library	Library
34	1	0	Ranison's	Ranison's
35	1	0	Daycare	Daycare drop off by bikes
36	1	0	Bike Connection	Like the dedicated bike lanes on 2nd Street downtown, it would be nice to have more bike lanes, separated by reflective sticks or markers, running down South Avenue and Mormon Coulee. It could replace sidewalk on one side such as the southwest side of th
37	1	0	Kwik Trip	I like riding my bicycle to this Kwik Trip to pick up any groceries I might be missing. It would be nice if there were more bicycle paths going North/South to this location.
38	1	0	Post Office	Cycling to the Post Office from Weigent-Hogan neighborhood is pretty nice, especially along 17th & King.
39	1	0	Trail	trail access
40	1	0	Pearl Street	Pearl Street would make a perfect pedestrian mall area. Whether it be from 4th to 2nd or just 3rd to 2nd. Have it shut down to cars. Instead have it pedestrian only with landscaping, seating, nice areas for the restaurants to have their outdoor seating,
41	0	0	Downtown	Frequent destination. Commute by walking from downtown every day.
42	0	0	Veterans Memorial Pool	Veterans Memorial Pool
43	0	0	Wing Technology Center at UWL	Wing Technology Center at UWL
44	0	0	Fork and Fable	Fork and Fable
45	0	0	Javavino	Javavino
46	0	0	Downtown	Downtown would be cool to access. I know people in La Crosse who bike other places, but refuse to bike downtown. I somewhat feel the same.
47	0	0	Onalaska	I have been wanting a bike trail to Onalaska. I work at Havenwood Assisted Living, and very sick of the traffic trying to get there.
48	0	1	Northside Library	Northside Library - Walking and biking
49	0	0	Viterbo University Campus	Viterbo University Campus
50	0	0	Pearl Ice Cream Parlor	Pearl Ice Cream Parlor - Walking and Biking destination.
51	0	0	Wee Repeat Consignment Shop	Wee Repeat Consignment Shop
52	0	0	Kwik Trip	Kwik Trip
53	0	0	South Branch Library	South Branch Library
54	0	0	Mobility Park Option	Use the remaining space in this lot for a mobility practice park. Space to learn how to navigate the mobility corridors and road rules. See The Children's Traffic Playground in Copenhagen or Jardin du Petit monde à bicyclette in Montreal.
55	0	0	Mobility Park Option	Use the space in this park for a mobility practice park. Space to learn how to navigate the mobility corridors and road rules. See The Children's Traffic Playground in Copenhagen or Jardin du Petit monde à bicyclette in Montreal.
56	0	0	Erickson Pool	Erickson Pool
57	0	0	Aldi	New grocery - Aldi - coming in
58	0	0	New Development Area	New development area with great potential for accessible, safe biking and walking facilities

Map 1.4A: Walking Barriers



PUBLIC INPUT: WALKING BARRIERS (BY LIKES)

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

WALKING BARRIERS

- 0 likes
- 1-5 likes
- 6-10 likes
- 11-15 likes
- 16+ likes

BASE MAP

- Railroad
- Parks
- Waterbody
- City Limits

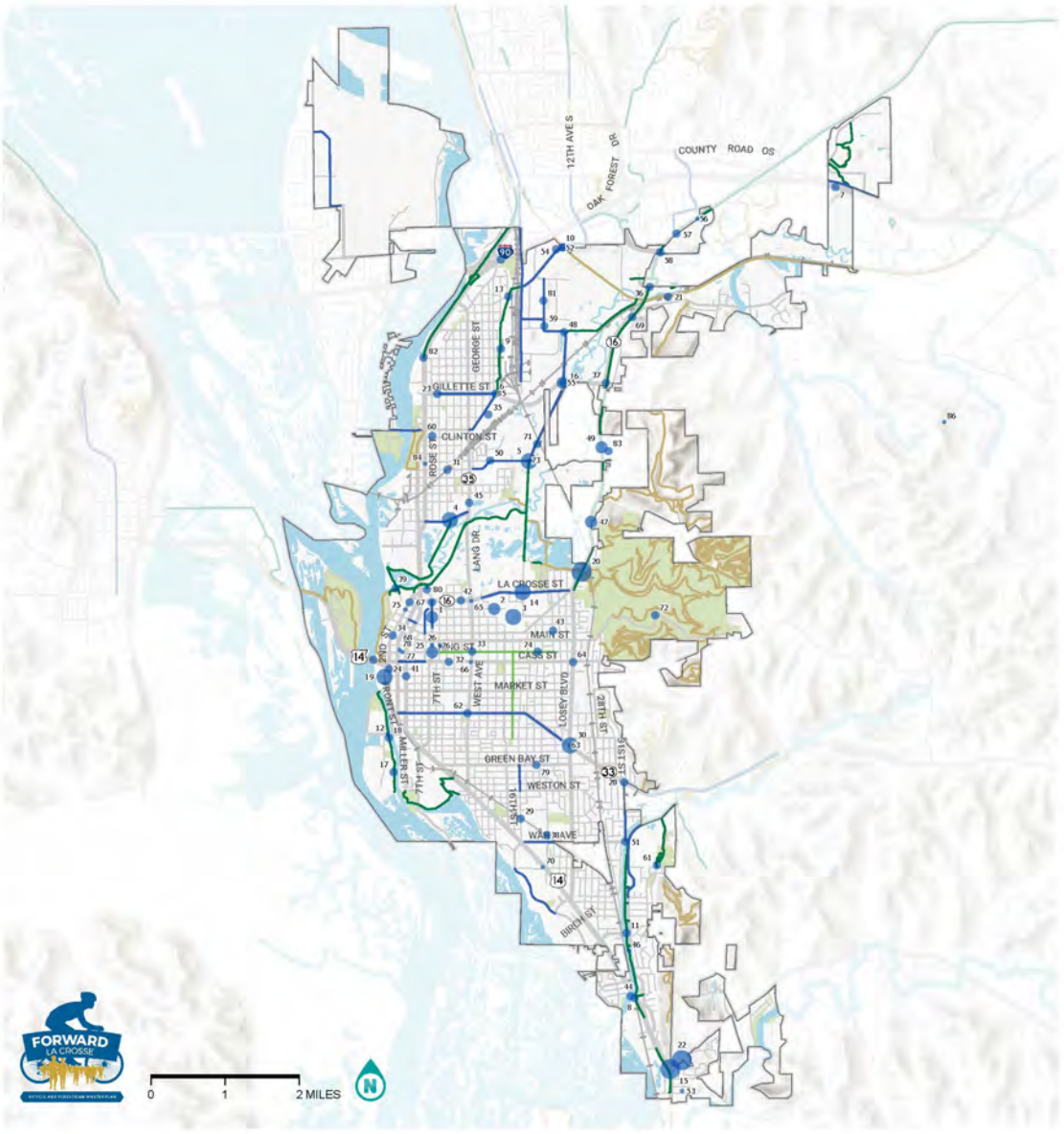
Table 1.4A: Walking Barriers

#	Likes	Dislikes	Barrier Type	Comment
88	5	0	Intersection	Dangerous uncontrolled intersection for kids walking to school
89	6	1	Intersection	Dangerous uncontrolled intersection for kids walking to school
90	8	1	Intersection	Dangerous uncontrolled intersection at 3rd and Pearl. I've personally seen someone hit by a car here (luckily uninjured). Not sure if it would have been reported. Everyday cars fail to yield to pedestrians here.
91	4	1	Intersection	I've personally almost been hit at this controlled intersection ~4 times at Jay and 4th.
92	9	1	Intersection	All signalized intersections should have crosswalks on every leg. Pedestrians here have to cross three separate times instead of just once to cross the north leg of the intersection.
93	8	0	Intersection	All signalized intersections should have crosswalks on every leg. Pedestrians here have to cross three separate times instead of just once to cross the west leg of the intersection.
94	5	0	Intersection	All signalized intersections should have crosswalks on every leg. There is currently no way to cross 16 to access the trail via Conoco Rd.
95	0	0	Intersection	All signalized intersections should have crosswalks on every leg. The north and east legs are currently missing crosswalks.
96	0	0	Intersection	All signalized intersections should have crosswalks on every leg. The north and east legs are currently missing crosswalks.
97	1	0	Infrastructure Need	A crosswalk with RRFB would work well here.
98	3	0	Intersection	All signalized intersections should have crosswalks on every leg. Pedestrians here have to cross two separate times instead of just once to cross the south leg of the intersection.
99	3	0	Intersection	All signalized intersections should have crosswalks on every leg. Pedestrians here have to cross two separate times instead of just once to cross the south leg of the intersection.
100	9	0	Infrastructure Need	A crosswalk with RRFB would be nice here
101	15	1	Intersection	This intersection should have a ban on right-on-red turns. There should also be a leading pedestrian interval and automatic walk signs given that Aquinas is right here. The leading pedestrian interval could perhaps be triggered with the existing beg butt
102	18	2	Intersection	Where 19th, Jackson, and State Hwy 33 meet it is a dangerous crossing. Vehicles heading East on Hwy 33 are coming around a corner and can be moving fast. It's also impossible for a pedestrian to tell if a turning car is going onto Jackson or 19th Stree
103	3	0	Intersection	This intersection should have a ban on right-on-red turns. There should also be a leading pedestrian interval and automatic walk signs given the proximity of Northside Elementary and Logan HS. The leading pedestrian interval could perhaps be triggered wi
104	0	0	Intersection	This intersection should have a ban on right-on-red turns. There should also be a leading pedestrian interval and automatic walk signs given the proximity of both Logans. The leading pedestrian interval could perhaps be triggered with the existing beg bu
105	5	3	Intersection	Replace the stoplight with a four way stop. It would save a good amount of money while improving safety.
106	0	0	Intersection	Replace the stoplight with a four way stop. It would save a good amount of money while improving safety.
107	2	0	Intersection	Replace the stoplight with a four way stop. It would save a good amount of money while improving safety.
108	0	0	Intersection	Replace the stoplight with a four way stop. It would save a good amount of money while improving safety.
109	10	0	Infrastructure Need	The Safe to School project identified the need for a connecting sidewalk from the Brickworks neighborhood to Southern Bluffs. Although it was confirmed that a sidewalk would be added, the construction of the roundabout was paused during winter and resume
110	11	0	Infrastructure Need	There is absent sidewalk to connect the northern extent of a sidewalk running from the roundabout on the east side of Mormon Coulee Rd. The sidewalk ends abruptly before arriving at 33rd street where there is a bus stop
111	4	0	Intersection	Need school crosswalks, dangerous intersection for pedestrians, especially during middle school start/end times. Recommend flashing lights like by UWL if an option
112	2	0	Intersection	Need school crosswalks, dangerous intersection for pedestrians, especially during middle school start/end times. Recommend flashing lights like by UWL if an option
113	6	0	Infrastructure Need	Is there a way to make this a pedestrian friendly crossing? Now, it's a steep rise and drop over a bed, most of which is dirt. Is this private property?
114	2	0	Infrastructure Need	Pedestrians, including children going to and from school, who need to cross these train tracks may have to wait upwards of 30 mins when trains are parked over all crossings. During these times, pedestrians can choose to wait or go 4-6 blocks out of their

#	Likes	Dislikes	Barrier Type	Comment
115	3	0	Infrastructure Need	Pedestrians, including children going to and from school, who need to cross these train tracks may have to wait upwards of 30 mins when trains are parked over all crossings. During these times, pedestrians can choose to wait or go 4-6 blocks out of their
116	4	0	Physical Barrier	The alignment of the curb cut and the sheerness (all right angles, no curve) of the concrete around the stormwater drain negates the benefit of the curb cut. As observed during the Maple Leaf Parade, it creates a tripping hazard for the old, young, or an
117	1	0	Infrastructure Need	Save the Bainbridge St bridge, and/or at least add accommodations on the other bridges.
118	3	1	General Recommendations	"Some policy changes:
119	3	3	Physical Barrier	1. Require that construction projects that close a sidewalk/bike lane must provide a safe alternative route without forcing people to cross the street
120	2	0	Speed	2. Remove costly parking mandates for all development
121	8	0	Infrastructure Need	3. End single family zoning"
122	2	0	Infrastructure Need	Visibility coming out of this alley is bad, so cars can't see pedestrians. The recent vacation of half of Campbell Road is likely to increase traffic and thus make this area even more dangerous for pedestrians.
123	0	0	Intersection	This crossing at King and West Avenue is very helpful. However, West-Lang-George has neighborhoods and businesses all along it and should not resemble a highway. People need to be able to go about their lives by means other than driving without being in
124	2	0	Intersection	A small parking lot in this area off the private road would be a big plus for those of us that would like to enjoy all the new trails in the area but are limited in how far we can actually walk, or allow for parking and shuttling so longer and different
125	2	0	Intersection	No sidewalk.
126	1	0	Intersection	Slip lanes, and absolutely massive crossing distances. It freaks me out to cross here. Close the slip lanes.
127	0	0	Infrastructure Need	Need to cross the street to get to the bus stop. But it is SCARY to get across the street. Need flashing beacon.
128	0	0	Infrastructure Need	Uncontrolled intersection and the nearest crosswalk & lights are 3 blocks in either direction.
129	0	0	Speed	Same as Market & 4th: Uncontrolled intersection and the nearest crosswalk & lights are 3 blocks in either direction.
130	1	1	Intersection	Have this be an "exit" only leaving the High school to decrease two way traffic coming in and out of this area.
131	0	0	Unsafe Facility	Have this be an "entrance" only coming into the HS. This will decrease two way traffic. Bonus would be to add a traffic table here to slow traffic down.
132	0	0	Speed	Children/families that are crossing George street wait FOREVER for safe passage traveling to and from Hickey Park. George street is way too fast and cars do not stop if they see someone on the corner.
133	2	0	Physical Barrier	There are several crosswalks between 16th and Losey that are utilized by children after school, but cars often don't stop for them. Crossing lights like the ones by the Y would be safer for pedestrians and help cars see that someone is waiting to cross.
134	0	0	Intersection	There needs to be signs throughout the marsh trails reminding bikers to announce themselves. These are multi use trails; but, so many bikers use them as race courses.
135	0	0	Intersection	Can we explore using surface (on street) murals to encourage car traffic to slow down around destinations where foot traffic is expected and necessary regardless of how you arrive?
136	0	0	Physical Barrier	The amount of street parking surrounding UWL's campus congests the street and makes walking an anxiety-inducing process.
137	0	0	Speed	This intersection is very dangerous for pedestrians as drivers are moving fast around the corner and often don't come to a complete stop when turning onto State. They are often not looking for pedestrians, either.
138	0	0	Intersection	As a pedestrian, I've seen and been involved in several near misses at this intersection. Cars turning left from Main onto Losey often fail to yield to pedestrians. This is particularly problematic with Congo preschool located at the corner.
139	0	0	Speed	Sidewalks in this area frequently have cars parked on them. Most of the times it is less than 50% blocked, but that isn't great.
140	0	0	Unsafe Facility	I don't know if I have ever seen a car going less than 40 mph at this pedestrian crossing. I also don't think I have ever seen a car stop for a pedestrian at the crosswalk. Someone is gonna die here.
141	0	0	Unsafe Facility	Crossing this intersection (33 and Losey) is dangerous in any direction, especially with turning vehicles. I feel safer crossing the road away from the intersection when there is an opportunity to do so.

#	Likes	Dislikes	Barrier Type	Comment
142	0	0	Unsafe Facility	Actually running, but a comment generally about small schools and parent behavior. Parents often speed and do not pay attention when dropping off their kids, and once dropped off almost never stop to allow a pedestrian to cross at the cut-through here o
143	0	0	Infrastructure Need	Entrance to Pettibone Park on S. Pettibone Dr begins with a concrete walkway that dead ends very quickly. It should continue at lease to the rental building for watercraft. And bikes should be prohibited from using that walkway.
144	0	0	Unsafe Facility	Redesign the slip lane to slow traffic and increase automobile visibility and safety. https://safety.fhwa.dot.gov/saferjourney1/Library/countermeasures/15.htm
145	0	1	Unsafe Facility	Crossing the road here with the RRFB doesn't seem to stop traffic as well as on West Ave. How can we make it safer to cross, especially once the river point district becomes populated?
146	0	0	Intersection	Difficult to access bus stop here at 33rd & Ward, sidewalks gaps, no safe way to walk
147	0	0	Infrastructure Need	Poor curb cuts
148	0	0	Intersection	7th & Cass is challenging to cross (roundabout)
149	0	0	Intersection	Safety concerns at Market & 2nd intersection
150	1	0	Infrastructure Need	Minimal crossing options on West Ave south of Cass
151	0	0	Infrastructure Need	Difficult to cross at Rose & Gillette even with walk sign - road is so wide
152	0	0	Infrastructure Need	This intersection is so dangerous. I see people almost get hit everyday. It is a busy place where lots of students cross west ave. I think there should be lights just like those by the ymca and by senior villa. This will help to slow cars down and visibl
153	0	0	Infrastructure Need	I live in the Vista Del Rio neighborhood. There is no connection to the Brickworks from the Vista Del Rio area. In the winter walking areas are more limited because of the speed of cars heading to Mt. La Crosse. If there was a safe way to walk along th
154	0	0	Intersection	There is no safe way to access the busses on 33rd street. Taking the sidewalks on the west side results in having to cross the highway twice. It is not safe crossing 4 lanes of traffic during certain parts of the day. There is no sidewalk to 33rd

Map 1.4B: Biking Barriers



PUBLIC INPUT: BIKING BARRIERS (BY LIKES)

LA CROSSE BICYCLE + PEDESTRIAN MASTER PLAN UPDATE

BIKING BARRIERS
- 0 likes
- 1-5 likes
- 6-10 likes
- 11-15 likes
- 16+ likes

BASE MAP
- Railroad
- Parks
- Waterbody
- City Limits

Table 1.4B: Biking Barriers

ID #	Likes	Dislikes	Barrier Type	Comment
1	10	0	Physical Barrier	The curb extensions cut off the bike lane and push bikes into the traffic lane.
2	8	0	Physical Barrier	There are sharrows east of this, but once it turns into a sidewalk, there is a curb and no cut for bikes to easily continue the transition from street to sidewalk.
3	13	3	Infrastructure Need	There are no bike lanes on UWL campus. BIke have to share sidewalks with pedestrians.
4	11	0	Infrastructure Need	There is not an easy curb cut to connect the trail to the bike lane.
5	12	0	Infrastructure Need	There is not an easy curb cut to connect the trail to the bike lane.
6	4	0	Infrastructure Need	There is not an easy curb cut to connect the trail to the bike lane.
7	4	0	Infrastructure Need	need bike crossing here
8	4	1	Infrastructure Need	A way across the tracks to get to the South of pammel creek.railroad and into Sherwood park is need (access from Johnson Park
9	2	0	Intersection	Replace the stop sign with a yield sign
10	1	1	Intersection	Replace the stop sign with a yield sign
11	1	3	Intersection	Replace the stop sign with a yield sign
12	0	1	Intersection	Replace the stop sign with a yield sign
13	4	0	Infrastructure Need	A connection is needed between Salem Rd and the trail
14	12	0	Infrastructure Need	Add an easy-to-reach button to call the light to change for bikers heading north/south through this intersection.
15	18	0	Unsafe Facility	Whoever engineered this circle slapped on some bike lanes on the south end and then didn't take into consideration where those northbound bikers would go. Extend the bike lane on the east side of Mormon Coulee Rd!
16	7	0	Unsafe Facility	Bike lanes disappear. Remove the slip turn lanes so vehicles don't feel so damned entitled to cut bikers off.
17	5	0	Physical Barrier	The bike trail behind the yellow city maintenance buildings becomes very icy in the winter, due to melt water drainage from the roof into the down spout gutters of the building, which drain directly onto the asphalt bike trail, and create very thick ice
18	5	0	Physical Barrier	I use this trail to commute to Gundersen from downtown every day. In the winter it is often impassable due to ice from snow Melt. It is particularly bad at the place where there is the large snow pile in the parking lot and along the back of the city bui
19	15	0	Physical Barrier	The abandoned rail tracks in this area are dangerous. This entire stretch of roadway is often more like a parking lot and less like a street.
20	20	0	Infrastructure Need	This route needs to be formally marked as an access point and needs to include lights in the tunnel.
21	1	0	Physical Barrier	This is on the State, but there's a literal barrier blocking the trail here. Maybe they'll listen if the City asks them to fix it.
22	18	0	Infrastructure Need	If there were to be a bike path on the south side of HWY14 then Clay Ct would be connected to roundabout for bicycles and cyclists from further east on HWY14 would have a safer route to manage the arrival up to the roundabout
23	3	0	Unsafe Facility	Need to have no parking in bike lane signs here like on the rest of the street
24	3	0	Physical Barrier	Construction signage coming off Cameron Ave bridge into downtown blocks too much of the sidewalk and makes it hard for cyclists and motorists to see each other.
25	10	0	Infrastructure Need	King street greenway just ends here with no obvious indication of where bikers are meant to go. Would be nice to have protection crossing 7th and continuing at least to Cameron if not the riverfront.
26	0	0	Physical Barrier	This road is nice near Western Tech, but as you keep going the bike lane made and the cracks in the road and small lane begin. It is incredibly unsafe biking on this road between western and the roundabout, especially with cars parked on the street near
27	3	0	Infrastructure Need	There used to be a northbound right turn lane and now it is painted over. The driving lane alignment should continue straight rather than being bumped out and cutting off the bike lane. The bike lane could continue to the intersection.
28	3	0	Infrastructure Need	If you're trying to cross Hwy 33 here from north to south on a bike, the light won't change to green unless there are also cars at the intersection, which is rare. There is a button for pedestrians to press to cross, but it's on the east side of the inte
29	5	1	Physical Barrier	Crossing the train tracks sucks everywhere. I have gotten flats and need to swerve to find the flattest part to cross. Of all the train crossings in the city, this one is the worst. I know that those flat, hard plastic crossings do exist and can point to

ID #	Likes	Dislikes	Barrier Type	Comment
30	12	0	Infrastructure Need	We have these bitchin bike lanes on Jackson St. However when I go to Festival to get my groceries the bike lane just ends in that intersection and it is quite dangerous. Continuing to have a safe network through the intersection would be cool. Especially
31	2	0	Physical Barrier	I use this route frequently so that I am off George Street. This train crossing sucks and I always think I'm going to break a spoke from it. When I do bike on George St. It is to avoid this train crossing.
32	5	1	Physical Barrier	The bump-outs make it dangerous for both bicycles and cars to navigate. I would love to see a solution that allows safer travel for all throughout this corridor.
33	2	0	Infrastructure Need	Love the King Street crossing, however when I'm going north or south on West Ave I'm biking 20 mph to keep pace with traffic and then I have to hit a very tight left turn to go down King Street. It would be cool to have future crossings plan for people t
34	2	0	Physical Barrier	Every time I have biked in this new 2 way bike lane there has been a parked car. A cop almost hit me in the lane as well when he was driving in the bike lane.
35	3	0	Infrastructure Need	I live on the south side and biking to the north side in general sucks. It would be cool to have a way to get to the northside that doesn't involve biking through an area that will give me a flat (industrial park) or the horrendous bridges full of pothol
36	3	0	Infrastructure Need	Idk what this is. Its a bike path that just stops and I have to go down a hill, slam on my brakes then start from 0 up a hill. When this is reconstructed it should just be a bike path over the bridge. Or offer a smooth ramp to go on hwy 16. Until then I'
37	3	0	Infrastructure Need	As a 70 year old female riding a trike (20” wheel) the bike trails/paths in the La Crosse Trail System are not user-friendly. What would help - pave 5 miles of the La Crosse River Trail from B to West Salem; a barrier on the sidewalk and road on 16 f
38	3	1	Infrastructure Need	This crossing is dangerous and painful on wheels
39	2	1	Physical Barrier	The homeless campground and drug use in this area is a major problem/deterrent to taking the Western trail. Very sad/scarry people all over this area. I see drug deals everyday riding near it.
40	1	0	Infrastructure Need	There should be a connection from the end of George Street under I-90 to Rose St and Onalaska. There could be a transitway to allow buses to Onalaska to serve the neighborhood too.
41	1	0	Infrastructure Need	This street is hazardous not just trying to get across 3rd and 4th streets to access the bike lanes at Market Street entrance to Houska
42	4	0	Unsafe Facility	this road is poorly designed and hazardous to bikers. It should have been upgraded for biking when the state repaved La Crosse Street. A good solution to that problem would be to make Pine or Badger one way to car traffic and one way for bike traffic, wi
43	2	0	Infrastructure Need	22nd street as a north-south corridor for biking would be ideal, but you would need to slow the car traffic down with circles and possibly make the lane one way with stop signs on side streets. Traffic on side streets goes too fast for biking safety
44	2	0	Infrastructure Need	Very difficult to cross the highway from Pammel Creek trail. Needs better access, better safety features. Cars go 45-60mph on this road, because it's a highway, but access is limited for bikers
45	2	0	Infrastructure Need	Almost impossible to bike this route north on George without a dedicated bike lane. It's just too dangerous. Needs significant improvements to bike lanes and trails.
46	0	0	Physical Barrier	I love this bike/walking path, not having to share the road with all the other traffic, but this bike path is rough and there are roads nearby that are actually smoother and less busy. Maybe looking at some of the roads that already exist in our city and
47	10	0	Infrastructure Need	Add a barrier between the cars and the sidewalk/bike path along hwy 16
48	2	0	Unsafe Facility	east bound bike lane on Palace terminates at the curve. Two-way bike lane (N-S) is on the east side of River Valley Drive, meaning riders have to cross the roadway in the middle of this turn. More than once cars have come around me while I'm riding throu
49	10	0	Physical Barrier	The sidepath here is never clean. It's covered in dirt, weeds, road debris, parts of vehicles, large rocks. It's not a pleasant N/S connection, but it's one that gets used a lot.
50	1	0	Physical Barrier	18 Wheelers are illegally parked in the bike lanes constantly. There should just be a bike path on one side and let them park on the other side.
51	2	0	Unsafe Facility	Bike route turns left going south on 32nd onto Ward, necessitating leaving the bike lane to make the turn.
52	4	0	Speed	"The speed limit on Enterprise Ave / CTY SS changes from 35 to 25 MPH at the State Trail crossing, Traffic does not obey these limits, Traffic Often crosses into the bike lane due to excess speed and disregard of the bike lane.
53	0	0	Infrastructure Need	Given the nature of the tr"

ID #	Likes	Dislikes	Barrier Type	Comment
54	2	0	Physical Barrier	I can't locate it on the map but I feel the path over/around the marsh should be more accessible by bicycle.
55	2	0	Unsafe Facility	There is a fire hydrant in front of ABC Supply. There is a water shutoff for the hydrant in the bike lane. The cover of this shutoff is proud of the road surface by several inches creating a biking hazard.
56	0	0	Infrastructure Need	"This is a poorly designed dangerous crossing. This is a primary bike route and one of the oldest around. The crossings are designed for pedestrians not bikes. The curb cuts are a maze to navigate.
57	1	0	Intersection	This has been further compounded because someone crashed"
58	1	0	Intersection	"There used to be a countdown timer at this crossing. It was removed several years ago when HWY 16 was resurfaced.
59	2	0	Physical Barrier	There hopefully will be a significant increase to the bike traffic once the bike path connection between S. Kinney Coulee Rd. and the Landfi"
60	1	0	Infrastructure Need	Add a countdown timer at this crossing.
61	2	0	Infrastructure Need	Add a countdown timer at this crossing.
62	1	4	Intersection	There are semi trucks parked in the bike lanes all day
63	0	1	Intersection	There is not a great place (other than to street signs and trees) to lock your bikes to.
64	1	3	Intersection	I would love to be able to use the Drift Cycle Bike Shares but I always have a young kid along. Can a cargo bike share be a thing? Or maybe a trailer or two?
65	0	3	Intersection	Have seen many bicyclists go through red lights here, some having stopped, others just go if traffic is clear. If they want to be on the roads, they should follow the rules of the road.
66	0	0	Intersection	Have seen many bicyclists go through red lights here, some having stopped, others just go if traffic is clear. If they want to be on the roads, they should follow the rules of the road.
67	3	0	Infrastructure Need	Have seen many bicyclists go through red lights here, some having stopped, others just go if traffic is clear. If they want to be on the roads, they should follow the rules of the road.
68	0	0	Unsafe Facility	Have seen many bicyclists go through red lights here, some having stopped, others just go if traffic is clear. If they want to be on the roads, they should follow the rules of the road.
69	2	0	Physical Barrier	Have seen many bicyclists go through red lights here, some having stopped, others just go if traffic is clear. If they want to be on the roads, they should follow the rules of the road.
70	0	0	Infrastructure Need	Can we get a Bike Counter to collect and display some data around usage with the new bike road installation? Especially with the fall and summer festivals - it would be great to quantify the usage!
71	2	0	Infrastructure Need	Midblock crosswalks like Doerflinger are horrible. Some people cross without paying attention, so they won't see bikes coming. The blocks downtown are so short that this doesn't seem necessary. Jaywalking is not illegal so a marked crosswalk is not nec
72	3	0	Infrastructure Need	This is a state thing I think, however in the winter plows push snow onto the trail at many locations. This is a huge barrier to biking. When I go grocery shopping I cant stop and lift my bike over a snow pile all the time. If this is not fixed I'm just
73	0	0	Unsafe Facility	When crossing Mormon Coulee, neither lane is marked as a turn lane, so vehicles try to go straight from both lanes. This makes the intersection extra dangerous when on a bike as vehicles are often trying to avoid collisions with each other and nearly hit
74	1	0	Physical Barrier	Biking along this highway feels unsafe.
75	0	0	Physical Barrier	It would be great to widen the shoulder going up the hill to include a dedicated bike lane.
76	0	0	Infrastructure Need	The ramp from the bike path to the road is in a bad location. In my opinion, the ramp should be moved east towards the corner in the road for better visibility.
77	0	0	Physical Barrier	Biking on King with roundabouts has substantially improved the quality of riding through this section. However, the city neglects plowing the road during winter which forces us bike commuters into riding on Cass or Main. This happens both during storms w
78	0	0	Infrastructure Need	I often see delivery trucks parked in the new bike lanes on 2nd street. This is not safe for bike riders.
79	1	0	Physical Barrier	is there any way to design bike parking where the owner does not need to lean the frame of their bike against the metal of the rack - thus inviting scratching of their frame?
80	1	0	Infrastructure Need	In the winter, the "ice melt" the city uses makes the road a mess of wet, salty, slush, which is terrible for biking. It causes damage to chains and metal parts. Riding on plain snow is much better.

ID #	Likes	Dislikes	Barrier Type	Comment
81	2	0	Physical Barrier	The Transit Center is not served by any bike lanes or any kind of infrastructure. The bike parking is extremely subpar
82	1	0	Infrastructure Need	Green Bay is a comfortable street but has bad pavement condition
83	1	0	Physical Barrier	Poorly-signed trail entrance
84	0	0	Infrastructure Need	Semis park in the bike lane despite the no parking zone
85	0	0	Unsafe Facility	Difficult to cross Rose to get on the existing trail
86	0	0	Unsafe Facility	Loud, dirty, rough, scary along this area
87	1	0	Infrastructure Need	Eliminate one-way pairs here

Map 1.4C: Walking and Biking Barriers

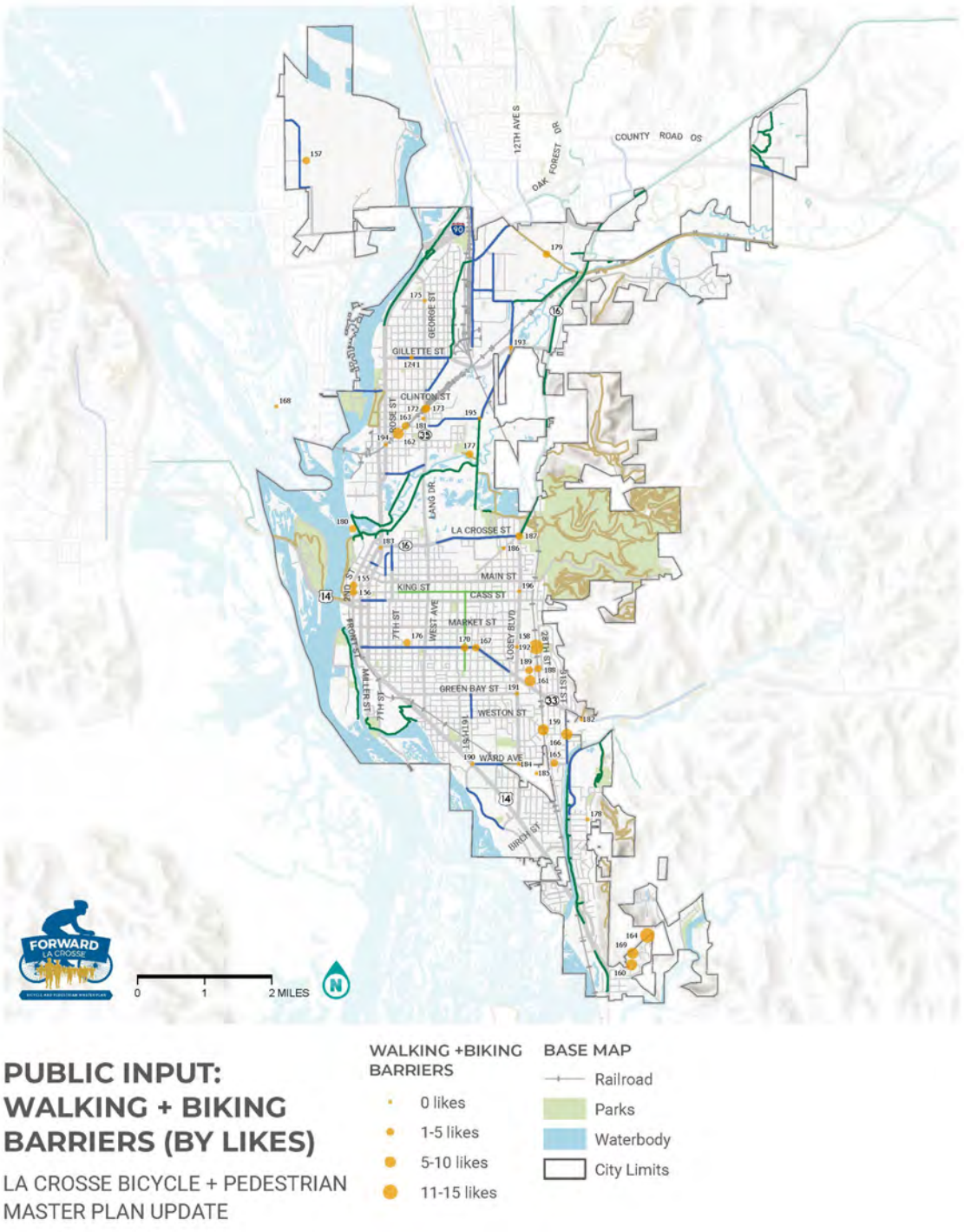


Table 1.4C: Walking + Biking Barriers

#	Likes	Dislikes	Barrier Type	Comment
155	3	0	Speed	Speeding automobiles at intersection of 2nd and Jay.
156	3	0	Speed	Speeding automobiles at intersection of 2nd and King
157	2	0	Infrastructure Need	There should be a path connecting Breezy Pt Rd to the airport to allow employees/travelers who live nearby to walk/bike to the airport.
158	11	0	Infrastructure Need	It would be nice to be able to cross here walking or riding.
159	8	2	Infrastructure Need	Build a bridge/underpass across the RR tracks to make it easier for students to get to Central from the east side of the tracks.
160	10	0	Infrastructure Need	The Brickyard neighborhood is isolated from the Southern Bluffs Elementary School. There is no recognized path to connect to Mariah Drive and then on to the elementary school.
161	6	0	Physical Barrier	The guard rail in this cul-de-sac prevents walkers and bikers from efficiently accessing the crosswalk to festival. The gate behind the old k-mart is too narrow for a bike+trailer to pass through causing riders to route down Losey or state road bridge.
162	8	0	Infrastructure Need	Pedestrians, including children going to and from school, who need to cross these train tracks may have to wait upwards of 30 mins when trains are parked over all crossings. During these times, pedestrians can choose to wait or go 4-6 blocks out of their
163	1	0	Infrastructure Need	Pedestrians, including children going to and from school, who need to cross these train tracks may have to wait upwards of 30 mins when trains are parked over all crossings. During these times, pedestrians can choose to wait or go 4-6 blocks out of their
164	15	0	Infrastructure Need	14/61 causes all neighborhoods along the corridor to be isolated due to biking/walking safety concerns. These neighborhoods (Brickworks, Waterford and other neighborhoods further east) could be linked via an off road trail giving access to safe school
165	1	0	Physical Barrier	The driveway of 2915 Ward Ave is really bad and the sidewalk portion should be replaced. It's very bad to bike and walk over.
166	7	0	Infrastructure Need	Difficult to cross at this crosswalk due to cars not stopping. A fair number of children walk or bike to school at this location and it is scary that cars are not stopping. Some parents have even resorted to helping their children cross here. It is ea
167	2	1	Intersection	This "intersection" is unsafe for pedestrians, bikes, and cars.
168	0	0	General Recommendations	"A list of general improvements:
169	7	0	Infrastructure Need	-add protected bike lanes on all major streets
170	1	0	Infrastructure Need	-reduce speed limits to 25 on all major streets, and 20 on residential streets
171	0	0	Intersection	-plant more street trees
172	1	0	Unsafe Facility	-build more traffic calming
173	1	0	Unsafe Facility	-extend curb bumpouts farther back from the"
174	0	0	Intersection	Our neighborhood is isolated from access to the La Crosse area. We have a number of people that not only would like to both walk and ride to town, but ones that utilize wheelchairs. A path was planned but then cancelled because of a land dispute between
175	0	0	Speed	While there's a pedestrian island and a big neon sign here, but I would expect there to be a crossing light (RRFB) as traffic rarely stops for pedestrians or cyclists.
176	2	0	Intersection	Need to have a ped traffic light so children can cross safely. Safe Routes to School and say they want to "encourage families to walk/bike to school" and families will never feel safe doing that unless there is something that physically stops traffic for
177	4	0	Infrastructure Need	Overpass is very steep for walkers and bikers using this route to walk/bike to school or work (many many children travel on this route to school). The western sidewalk is skinny and if passing another bike you have to get off and walk. During the winter,
178	0	0	Speed	Overpass is very steep for walkers and bikers using this route to walk/bike to school or work (many many children travel on this route to school). The western sidewalk is skinny and if passing another bike you have to get off and walk. During the winter,
179	1	0	Infrastructure Need	Need to have a ped traffic light so children can cross safely. Safe Routes to School and say they want to "encourage families to walk/bike to school" and families will never feel safe doing that unless there is something that physically stops traffic for
180	1	1	Physical Barrier	Children/families that are crossing George street wait FOREVER for safe passage traveling to and from Hickey Park. George street is way too fast and cars do not stop if they see someone on the corner.
181	0	0	Infrastructure Need	"Getting across West Ave on a bike or on foot during AM and PM rush hour traffic is dangerous. Crossing at the lights on Market or Cass Streets does not feel safe on foot or on a bike. Motorists are not aware of nor accommodating for pedestrians or cycli

182	0	1	Physical Barrier	Need bridge rebuilt to reconnect bike path
183	0	0	Infrastructure Need	Cars drive way too fast down this road. They often get to 35-40 mph, sometimes faster. It's so dangerous for pedestrians and bicyclists. The city bus comes through twice an hour, shaking my house and barely moving out of the way for any cars or pedestria
184	0	0	Intersection	Both walking and biking. A direct access to Fields for Kids that is from the existing bike path would encourage safer entry for those choosing to commute to practice by bike or foot.
185	0	0	Infrastructure Need	It is extremely scary and intimidating to walk or bike through the homeless encampment in this area. People are camped right next to the bike trail. I have seen people overdosed on fentanyl laying on the bike path. I no longer feel safe going through thi
186	0	0	Intersection	Kane Street tunnel needs adequate lighting.
187	3	0	Infrastructure Need	For walking or biking there is a good sidewalk here. But I have seen a young man riding an electric scooter on the highway edge off sidewalk. Assuming he did so because the sidewalk has too much debris to use the scooter safely. Behavior was very dang
188	1	0	Infrastructure Need	There are so many trucks traveling through the downtown to go north and south that it makes walking, biking and living downtown stressful and difficult. The trucks also makes it unsafe for biking and unpleasant for walking and dining and sidewalk cafés.
189	1	0	Infrastructure Need	Ward & Losey is a dangerous intersection
190	0	0	Intersection	Town of Shelby has sidewalk gaps, need to carry bikes over RR tracks
191	0	0	Intersection	Intersection is too wide
192	0	0	Intersection	Reroute bikes/peds away from this intersection or make improvements so it is safer
193	0	0	Intersection	Bridge?
194	0	0	Infrastructure Need	Unofficial shortcut here
195	0	0	Intersection	Complicated intersection
196	0	0	Intersection	Losey & Green Bay intersection is not friendly to walkers or bikers

Map 1.5A: Barriers by Type

Map 1.6A: Bike Rack Locations

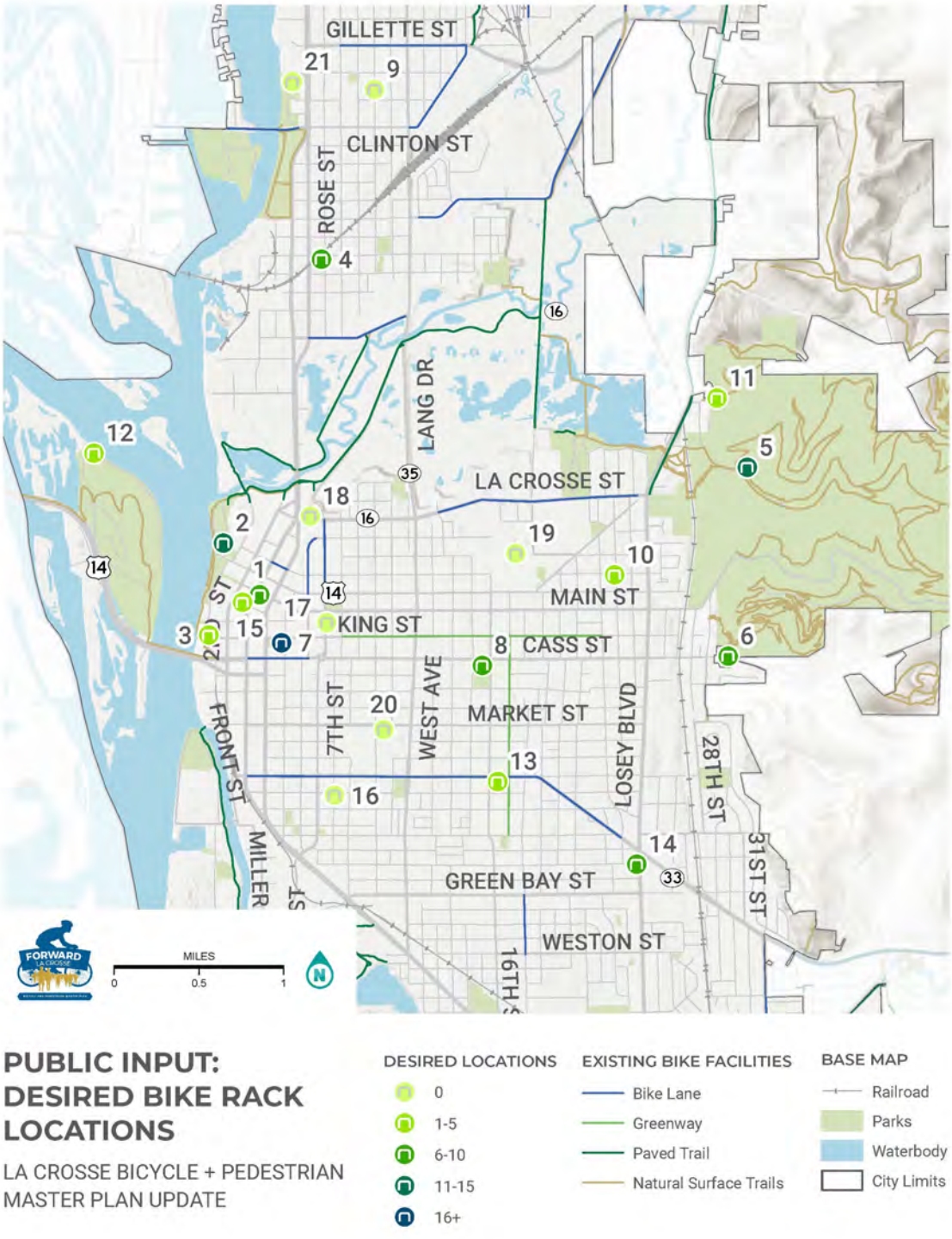


Table 1.5A: Desired Bike Rack Locations

#	Likes	Dislikes	Desired Locations	Comment
1	7	1	3rd and Main	More bike parking downtown. Near corner of 3rd and Main by Grounded.
2	12	0	Riverside Park	More bike parking by Riverside Park/band shell
3	5	0	Weber Arts Center	More bike parking near Weber Arts Center
4	6	0	Amtrak Station	Bike parking could be better at the Amtrak station if it was more secure, enclosed, possibly with dedicated cargo bike or ebike parking. It could also use a Drift Cycle bikeshare station.
5	14	0	Trailhead	Secure bike parking would assist with busy times when traffic overfills the small parking lot. Many hikers would likely bike if they could safely get here and securely park.
6	9	0	Trailhead	Trailhead bike parking please!
7	21	0	Downtown	On every block downtown where there is car parking, the "front" space needs to be covered secure bike hangar or high-densuty bike parking. This would also improve vision at intersections. Or use vacant stores to provide indoor, supervised parking. Ppl a
8	7	0	City parks	Every city park should have decent bike parking that is not a metal loop that tangles and rubs off paint. Wheel-trays with locking posts and hi-low design give good hogh-density, non-tangle, scratch-free parking. Like https://www.sportworks.com/product/o
9	0	0	Residential neighborhoods	We don't have any options for bike parking in residential neighborhoods. Having some parking in residential neighborhoods would be cool.
10	2	0	Residential neighborhoods	There is nowhere to lock a bike for a couple block radius in this area. Having some city bike parking throughout the city would be cool.
11	5	0	Trailhead	Secure bike parking please!
12	1	0	Beach - Pettibone Park	Something near the beach on this side of Pettibone would be nice!
13	4	0	Jackson Plaza	Adjust Jackson Plaza area to be a transit hub and include secure, covered bike parking
14	9	0	Losey Restaurants	The restaurants around this intersection all have poor bike parking options. Something central, secure, monitored, and covered would be great for all shops/restaurants in this area!
15	1	0	The Pearl	Would love bike parking by the Pearl, last time I was there I had to lock to a tree as there is currently none on this block that I could find.
16	0	0	Hamilton's	Parking on this side of Hamilton's new addition - also for those who attend Alano AA Hall.
17	0	0	Explore La Crosse	Explore La Crosse needs a bike rack!! C'mon!
18	0	0	WisCorps	Bike Parking for WisCorps' new office in the brick building - maybe a shared station with the building housing Metropolitan Salon also?
19	0	0	UW La Crosse	Heated, indoor bike parking please!
20	0	0	Mayo Clinic	Better bike parking at Mayo Clinic
21	0	0	Black River Beach	Better bike parking at Black River Beach

G

Appendix

Bicycle Network Development and Prioritization Methodology

La Crosse Bicycle and Pedestrian Master Plan Network Development + Prioritization Process

Developing the Network:

The items below are what we used to draft an initial recommended bike network in La Crosse. Once the draft network was solidified (reviewed by the City, BPAC members, and the public), we began the prioritization process.

1. Review existing facilities.
    a. Are they acceptable? Do they need to be upgraded?
2. Review previously planned facilities.
    a. Do they still make sense? Do they need to be upgraded? (Especially important since many of the recommended facilities in La Crosse from the previous bike and pedestrian master plan were shared roadways).
3. Review public input.
    a. Which areas are clear that a new/updated facility is desired/needed?
4. Look for missing links.
    a. Are there obvious segments that are missing between two existing facilities that could create a more connected network?
5. Connect facilities to priority destinations (schools, parks, employment centers, hospitals, grocery stores, commercial hubs, etc.)

Prioritization Process:

With the recommended network drafted, we then prioritized the recommended projects to determine which should be considered most important for the city to fund and implement.

Method:

The first step in the prioritization process was to identify a set of prioritization factors (nine total were identified). We then went through the proposed network, project by project, and assigned 0, 1, or 2 points to each project based on each of the factors that applied to each project. The project factors are highlighted in the table on the following page.

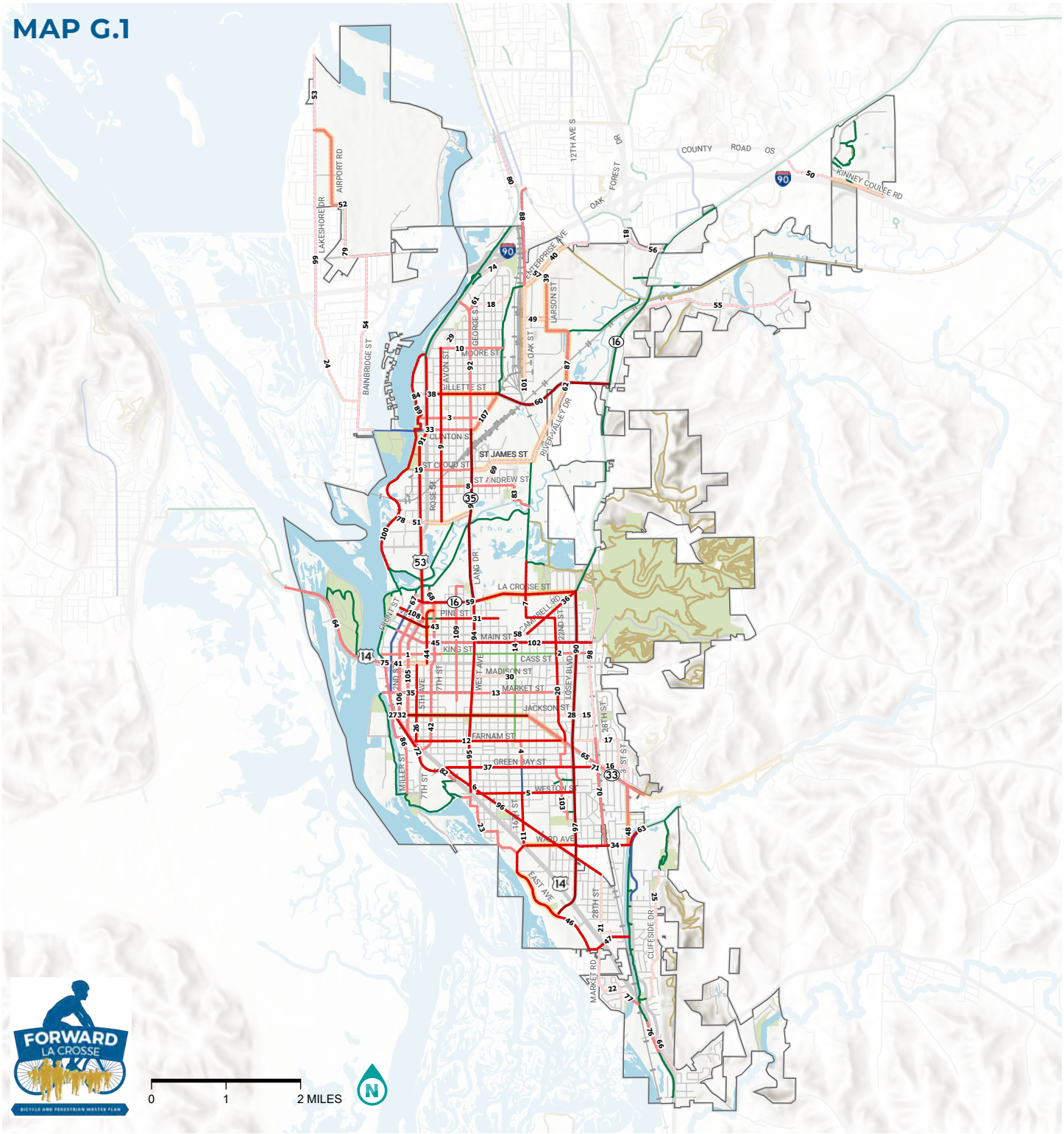
Prioritization Factors and Scores

Prioritization Factor	Score	Score Breakdown
1. Connects to an existing bike facility	0	No connections
	1	Connects to one existing bike facility
	2	Connects to multiple existing bike facilities
2. Connects to schools	0	No connections
	1	Connects to one K-12 school
	2	Connects to multiple K-12 schools or connects to one higher education campus
3. Connects to parks	0	No connections
	1	Connects to one park
	2	Connects to multiple parks
4. Connects to a frequent destination (Employment center, hospital, grocery store, commercial hub)	0	No connections
	1	Connects to one employment center, hospital, grocery store, or commercial hub
	2	Connects to multiple employment centers, hospitals, grocery stores, or commercial hubs
5. Receives public support on routes needing improvement and/or barriers map	0	Received minimal support/ widespread opposition in online input map (zero likes)
	1	Received some public support and limited opposition in online input map (1-5 likes)
	2	Received widespread public support and limited opposition in online input map (6+ likes)
6. Touches a high equity need area	0	Within a 3rd or 4th Quartile area
	1	Within a 2nd Quartile area
	2	Within a 1st Quartile area
7. Falls within an active trip potential area under a certain mileage	0	Within an area where 15-30% of car/taxi trips are under 3 miles
	1	Within an area where 30-40 or 50-60% of car/taxi trips are under 3 miles
	2	Within an area where 50-60 or 60-70% of car/taxi trips are under 3 miles
8. Connects across a key barrier (highway, railroad corridor, water)	0	Doesn't connect across a barrier
	1	Connects across one barrier
	2	Connects across multiple barriers
9. Connects North La Crosse to South La Crosse	0	Connects North La Crosse to South La Crosse
	2	Connects North La Crosse to South La Crosse

The scores for all categories are then added up to determine the quantitative score. Maps (G.1 and G.2) and Tables (Table G.1 and G.2) show those scores in Appendix G of the plan.

To get the final priority projects, an additional quantitative analysis (highlighted in the plan) was included.

MAP G.1



ALL AGES AND ABILITIES FACILITY NETWORK QUANTITATIVE PRIORITIZATION

LA CROSSE
BICYCLE + PEDESTRIAN
MASTER PLAN UPDATE

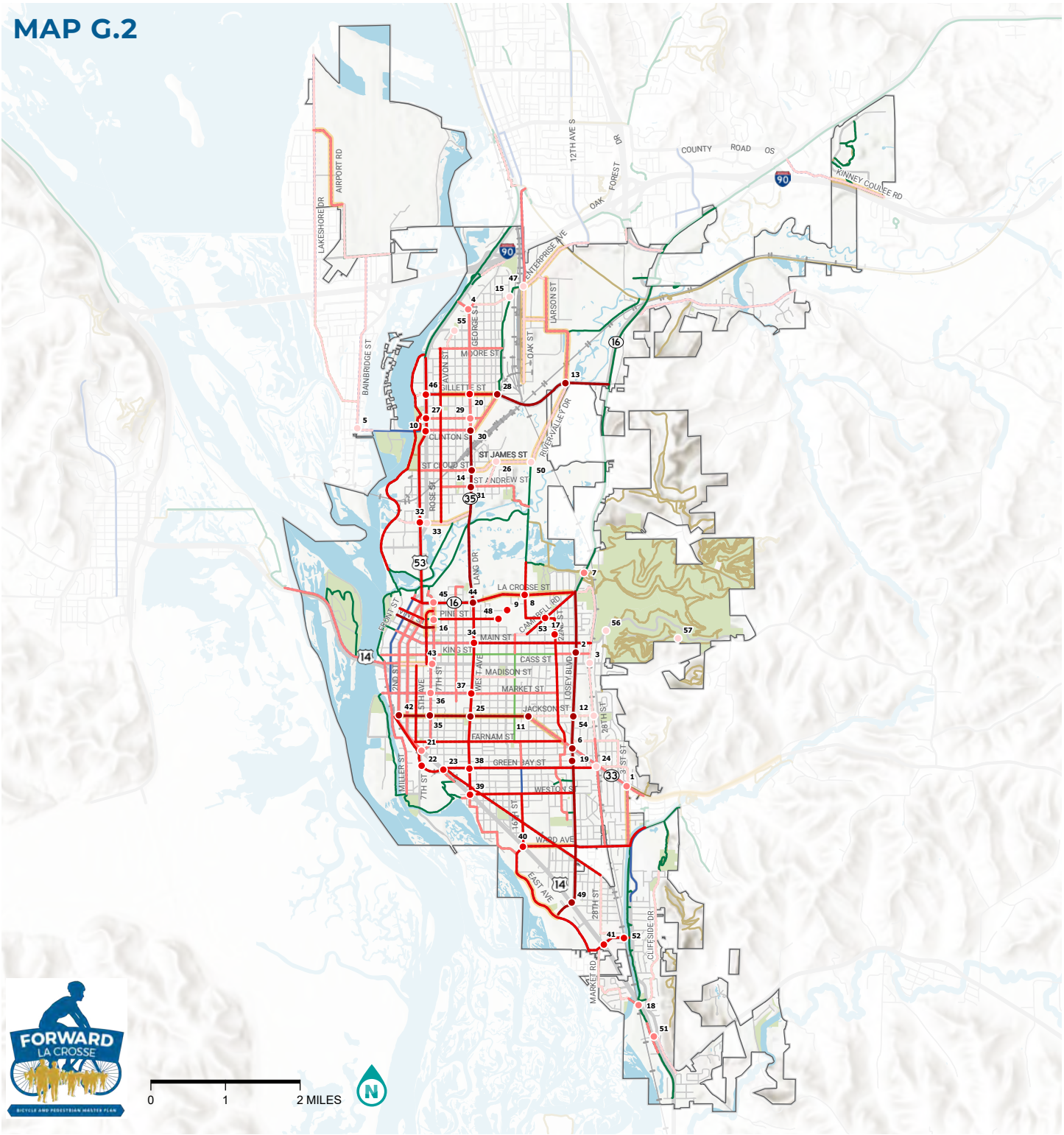
RECOMMENDED FACILITIES BY SCORE

- 1-4 points
- 5-8 points
- 9-12 points
- 13+ points

BASE MAP

- Existing Greenway
- Existing Bike Lane
- Existing Paved Trail
- Existing Natural Surface Trail
- Railroad
- Parks
- Waterbody
- City Limits

MAP G.2



ALL AGES AND ABILITIES SPOT IMPROVEMENT QUANTITATIVE PRIORITIZATION

LA CROSSE
BICYCLE + PEDESTRIAN
MASTER PLAN UPDATE

RECOMMENDED FACILITIES BY SCORE

- 1-4 points
- 5-8 points
- 9-12 points
- 13+ points

SPOT IMPROVEMENTS BY LIKES

- 1-4
- 5-8
- 9-12
- 13-16

BASE MAP

- Existing Greenway
- Existing Bike Lane
- Existing Paved Trail
- Existing Natural Surface Trail
- Railroad
- Parks
- Waterbody
- City Limits

TABLE G.1

RECOMMENDED ALL AGES AND ABILITIES FACILITY NETWORK							
PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
1	King St Greenway	7th St	8th St	Greenway	Extend Greenway by one block	0.10	5
2	King St Greenway	22nd St	27th St	Greenway	Extend Greenway treatments, considering traffic calming options and intersection treatments	0.30	5
3	Logan St Greenway	Northside Beach Rds	Range Dr	Greenway	Build off of existing Greenway-type features including the traffic diverting median on George St and the curb extensions at Kane St; create trail through Logan Middle School property; could instead implement only AAA facility on Clinton St	0.60	8
4	17th St/East Ave Greenway	Farnam St	Green Bay St	Greenway	Continue the 17th St Greenway to the south with traffic calming features and intersection improvements	0.30	8
5	Weston St Greenway	13th St	Losey Blvd	Greenway	Create a Greenway with traffic calming features and intersection improvements; create a trail crossing using the existing sidewalk crossing at the railroad on the west side of town; connect up to Central High School Athletic Fields and over to Losey	0.90	9
6	Weston St Greenway Connection	West Ave	Weston St	Greenway	Provide traffic calming and signs to indicate the connection between the Weston St Greenway and the West Ave facility	0.10	4
7	E Ave Greenway	Marsh Loop Trailhead	Cass St	Greenway	Create a Greenway connection between the Marsh Loop Trailhead and Campbell Rd bikeway	1.23	11
8	St Andrew St Greenway	Avon St	Oak St	Greenway	Add traffic-calming features and improve intersections along route	0.70	6
9	Avon St Greenway	Moore St	Monitor St	Greenway	Add traffic-calming features and improve intersections along route	1.70	10
10	Moore St Greenway	Avon St	Bud Hendrickson Trail	Greenway	Add traffic-calming features and improve intersections along route	0.60	6
11	17th St/East Ave Greenway	Weston St	Ward Ave	Greenway	Add traffic-calming features and improve intersections along route	0.50	9
12	Farnam St Greenway	Hwy 14	Hwy 33	Greenway	Add traffic-calming features and improve intersections along route	1.40	10
13	Market St Greenway	West Ave	22nd St	Greenway	Add traffic-calming features and improve intersections along route	0.80	5
14	17th St Greenway	State St	King St	Greenway	Continue Greenway from King St	0.20	8
15	Jackson St Greenway	Losey Blvd	28th St or terminus of Jackson St	Greenway	If a RR crossing can be added, extend connection to 28th	0.20	4

PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
16	Southeast Greenway	Rail with Trail	Hwy 33	Greenway	Connect greenway from Hwy 33 to the proposed Rail with Trail	0.40	4
17	Southeast Greenway	Losey Blvd	Green Bay St	Greenway	Connect greenway from Green Bay St, up 31st, and west to Losey	0.70	3
18	N Salem Rd Greenway	George St	Hamilton St	Greenway	Add traffic-calming features and improve intersections along route; provide connection to Bud Hendrickson Trail	0.40	2
19	St Cloud St Greenway	Hwy 53	George St	Greenway	Add traffic-calming features and improve intersections along route	0.50	7
20	22nd St Greenway	Cass St	Farnam St	Greenway	Add traffic-calming features and improve intersections along route; end at park; provide signage for sidewalk/trail connecting to signal on Losey	0.80	10
21	28th St Greenway	Railroad	Shelby Rd	Greenway	Add traffic-calming features and improve intersections along route	0.70	4
22	Markle Rd Greenway	Shelby Rd	Richard Dr	Greenway	Add traffic-calming features and improve intersections along route; provide clear back entrance to Walmart; extend to connect to bridge in Sherwood Park	0.80	4
23	Southwest La Crosse Greenway	VIP Trail	East Ave	Greenway	Create greenway connection between VIP trail and East Ave; add traffic-calming features and improve intersections along route	1.00	7
24	Lakeshore Dr Greenway	Hinkley Rd	Bainbridge St	Greenway	Create greenway connection; Add traffic-calming features and improve intersections along route	1.10	3
25	Cliffside Dr Greenway	Chad Erickson Memorial Park	33rd St/ Juniper St	Greenway	Add traffic-calming features and improve intersections along route; connect to existing trails	1.30	4
26	5th Ave Greenway	Cass St	Farnam St	Greenway	Add traffic-calming features and improve intersections along route	0.70	9
27	Hwy 33 Greenway	Jackson St/ Norplex Dr	Hwy 14	Greenway	Add short greenway connection between bikeways on Hwy 33	0.00	4
28	Jackson St Greenway	19th St	28th St or terminus of Jackson St	Greenway	Connect existing bikeway on Hwy 33 to proposed rail with trail; if a RR crossing can be added, extend connection to 28th	0.40	4
29	Liberty St Greenway	Palace St (Badger-Hickey Park)	Moore St	Greenway	Continue greenway from Avon St Greenway to connect to Badger-Hickey park	0.20	4
30	Madison St Greenway	Hwy 35	17th St	Greenway	Add brief greenway connection to connect Weigent Park into the network	0.40	4
31	Pine St Greenway	8th St	UW Campus	Greenway		0.60	9
32	Hwy 33 Bikeway	Hwy 14	Jackson St Curve	Protected Bike Lanes	Convert existing buffered or standard lanes into protected; use existing shoulder, shift parking to one side, narrow turn lanes	1.20	15

PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
33	Clinton St Bikeway	Hwy 53	Gillette St	Protected Bike Lanes	Convert existing buffered bike lanes to protected, and add protected bike lanes where no lanes currently exist	0.45	11
34	Ward Ave Bikeway	Hwy 14	33rd St	Protected Bike Lanes	Use extra lane width to add protected bike lanes	1.00	8
35	Market St Bikeway	Mississippi River	West Ave	Protected Bike Lanes	Consider removing parking and adding a two-way bike lane or protected bike lanes on either side of Market	0.90	11
36	Campbell Rd	State St	Losey Blvd	Protected Bike Lanes	Use extra roadway width	0.60	9
37	Green Bay Bikeway	Hwy 14/ Hiawatha Pioneer Trail	Losey Blvd	Protected Bike Lanes	Use extra roadway width to add a separated facility; heard mention of construction happening on this corridor soon	1.40	9
38	Gillette St Bikeway	Rose St	Onalaska Ave	Protected Bike Lanes	Extend existing bike lanes to span the length of the corridor	0.70	7
39	Palace St/ Larson St Bikeway	Hauser St	River Valley Dr	Protected Bike Lanes	Add raised buffer into existing bike lane buffer space to create a protected facility	0.70	4
40	Enterprise Ave Bikeway	Oak St	12th Ave S	Protected Bike Lanes	Add raised buffer into existing bike lane buffer space to create a protected facility	0.80	3
41	Cass + 7th Bikeway	3rd St	7th St	Protected Bike Lanes	Restripe roadway and use remaining width to add protected bike facilities; use existing bike ramps through roundabout	0.30	7
42	7th St Bikeway	La Cross St	Hwy 14	Protected Bike Lanes	Continue bikeway facility up to existing bike lanes; convert bike lanes to protected facility	1.50	14
43	Vine St Bikeway	Front St	7th ST	Protected Bike Lanes	Work from existing bike lanes to establish protected bike lanes connection Front St to 7th St	0.40	12
44	6th St Bikeway	7th St	Cass St	Protected Bike Lanes	Use extra lane width/remove parking on one side of street in some areas to add protected bike facility	0.60	7
45	Main St	2nd St	West Ave/ Hwy 35	Protected Bike Lanes	Narrow traffic lanes, shift parking to one side where necessary, work with existing curb extensions, to add protected bike facility	1.10	11
46	East Ave Bikeway	Ward Ave	Shelby Rd	Protected Bike Lanes	Work from existing bike lanes, add protected bike lanes	1.40	10
47	Shelby Rd Bikeway	East Ave	Pammel Creek Trail	Protected Bike Lanes	Add protected bike facility to connect East Ave bikeway with Pammel Creek Trail	0.40	6
48	32nd St S	Hwy 33	Ward Ave	Protected Bike Lanes	Use extra wide bike lane on west side of street to establish protected bike lanes	0.60	3
49	Cunningham St Bike Lanes	Oak St	Larson St	Protected Bike Lanes	Add protected bike lanes or use sidewalk space to create a wide sidepath	0.20	3
50	Kinney Coulee Rd	STH 16 Trail	La Crosse Border	Protected Bike Lanes	Reallocate space to create protected bike lanes	1.00	2

PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
51	Car St Bikeway	Milwaukee St	Lang Dr	Protected Bike Lanes	Reallocate road space to add protected bike facility; extend west of Rose	0.60	7
52	Airport Rd Bikeway	Lakeshore Dr	Airport Entrance	Protected Bike Lanes	Use buffer space to add protected facility	0.90	0
53	Lakeshore Dr Bikeway	Nelson Park	Richmond St	Protected Bike Lanes	Use existing shoulder/reallocate travel lane width to add protected bike facility	1.50	3
54	Bainbridge St Bikeway	Fanta Reed Rd	Clinton St Bridge	Protected Bike Lanes	Create protected bikeway (consider greenway with bikeway over bridge)	1.75	3
55	Rd B Bikeway	Hwy 16	La Crosse border	Protected Bike Lanes	Add protected bike facility	1.60	4
56	Hwy 157 Protected Facility	Rd SS	Hwy 16 trail	Protected Bike Lanes	Add protected bike lanes or sidepath/ cycletrack to connect the two trails	0.30	4
57	Hauser St Bikeway Connection	Enterprise Ave	Larson ST	Protected Bike Lanes	Use wide roadway to add brief protected bike lanes or sidepath	0.10	2
58	State St bikeway connection	17th St	Campbell Rd	Protected Bike Lanes	Reconfigure this section of roadway to narrow travel lanes and add a brief bike connection; may be challenging with the pedestrian refuge, but worth considering	0.10	10
59	La Crosse St Bikeway	2nd St	Losey Blvd	Sidepath	Convert sidewalk on one side of the street to a sidepath to be shared by bikes and peds	1.60	15
60	Gillette St Bikeway	Onalaska Ave	Hwy 16	Sidepath	Road diet to gain space on roadway for bike facilities, or widen sidewalk to become sidepath	1.20	7
61	George St Trail	George St	N Salem Rd	Sidepath	Connect short sidepath facility from George St to N Salem Rd	0.10	3
62	River Valley Rd Sidepath	George St	Gillette St	Sidepath	Use existing sidewalk to widen into a sidepath; existing bike lanes are too narrow to provide a AAA facility	1.40	9
63	Pammel Creek Rd Trail	Ward Ave	Drivein Rd	Sidepath	Widen sidewalk to create a continuous Pammel Creek Rd trail	0.20	6
64	La Crosse Westbound Bridge Trail	DNR Landing Rd	Front St	Sidepath	Consider moving barriers to create a narrower shoulder and widen sidewalks to become trails; could consider making one side of the bridge for pedestrians and the other for bikes to ease flow of traffic	1.30	7
65	Hwy 33 Bikeway	Jackson St Curve	Edge of La Crosse/ Southdale Dr	Protected Bike Lanes	Convert existing buffered or standard lanes into protected; use existing shoulder, shift parking to one side, narrow turn lanes	1.40	8
66	Hwy 35 sidepath	33rd St S	Hwy 14/35/61 Roundabout	Sidepath	Add sidepath on east side of the roadway connecting roundabout to 33rd St	0.40	3
67	Oktoberfest Strasse	La Crosse St	La Crosse River Trail	Trail	Add connection from facility on La Crosse St to the La Crosse River Trail	0.00	8
68	7th St Connection	La Crosse River Trail	La Crosse St	Trail	Use existing sidewalk or remove parking; formalize trail connection that runs between Sleeping Giant Gaming and New Castle Title	0.10	6

PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
69	Diagonal Trail	St James St	St Andrew St	Trail	Work with property owners to establish a diagonal trail connection between businesses	0.30	4
70	East La Crosse Rail with Trail	La Crosse St	Ward Ave	Trail	Work with RR companies to add a rail with trail where feasible	1.00	7
71	Rail with Trail Connector	Green Bay St	Rail with Trail	Trail	Add a paved trail connecting from Green Bay St to rail with trail	0.10	2
72	Diagonal Rail with Trail	Hwy 33	Hwy 14	Trail	Work with RR companies to add a rail with trail where feasible	0.80	10
74	Wittenberg Park Connection	Hwy 53 Trail	Wittenberg Park	Trail	Add trail connection to park and north neighborhood	0.20	3
75	Front St Trail Connection	Front St	3rd St	Trail	Connect between the Front St bikeway and existing bike lanes on Cass. This connection will be under the bridge.	0.10	6
76	Pammel Creek Trail Gap Connection	Five Star Telecom	Calvert Rd	Trail	Fill trail gap	0.30	5
77	Pammel Creek Trail to Sherwood Park Connection	Scarlett Dr	Pammel Creek Trail	Trail	Formalize bridge as trail crossing, cross railroad	0.10	5
78	West Lacrosse Trail Connection	Proposed Trail	Milwaukee St	Trail	Work with property owners to get easement for trail	0.10	3
79	Airport Rd/ Fanta Reed Rd Trail	Airport Entrance	Dawson Ave	Trail	Add trail alongside roadway	0.90	1
80	Onalaska Trail Connection	Main St	Oak Forest Dr	Trail	Add trail connection to create a complete trail connection to Onalaska. Consider whether paving trail or leaving it as a natural surface trail makes the most sense	0.60	4
81	Crossing Meadows Dr connection	Schroeder Rd	Rd SS	Trail	Add trail connection	0.10	3
82	Hiawatha Pioneer Trail	Sims Pl	Hospital Trail	Trail	Add sidepath on west side of Hwy 14 to connect existing trail with proposed rail with trail, connect to intersection to allow for safe crossing	0.20	6
83	Red Cloud Park Trail Connection	St Andrews St	3 Rivers Trail	Trail	Add trail connection from park to trail	0.30	5
84	Gillette St Trail Connection	River Trail	Rose St	Trail	Add trail connection	0.10	3
85	King St Bikeway	Front St	6th St	Two-way Cycle Track	Add two-way cycletrack on south side of street, incorporated into existing curb extensions and connecting to the river trail; remove parking on one side	0.50	11
86	Front St Protected Bike Lanes	North of Hwy 14 *under the bridge)	Cook St	Two-way Cycle Track	Use wide industrial roads to provide a continuous connection between trails; eliminate parking on one side where needed	1.40	8

PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
87	River Valley Dr Two-Way Cycle Track	Great River State Park Trail	Gillette St	Two-way Cycle Track	Provide a raised buffer between existing cycle track and travel lanes; narrow lanes where needed; connect to Great River State Park trail	0.50	6
88	Oak Ave Bikeway	Oak Forest Dr	Enterprise Ave	Two-way Cycle Track	Use existing bike lane space to create a protected cycle track or work within sidewalk area to add a sidepath	1.00	5
89	Riverfront Trail	Livingston Rd	Clinton St	Trail	Recommendation pulled from previous plan	0.90	7
90	Losey Blvd Bike Facility	La Crosse St	East Ave	Further Evaluation Needed	Consider narrowing traffic lanes and exploring a "road diet" treatment to create additional space for protected bike lanes	1.50	14
91	Hwy 53 Bike Facility	Livingston St	Monitor St	Further Evaluation Needed	Reallocate travel lane space to incorporate a protected bike facility; consider removing two-way turn lane on bridge between 2nd St N and River Bend Rd to add room for bike facility; consider this as a more feasible route than a trail along river	1.60	10
92	Lang Dr/ George St/Hwy 35	Hwy 53	Hwy 14	Further Evaluation Needed	Could be part of a road diet project	4.80	12
93	Lang Dr/Hwy 35	Clinton St	La Crosse St	Protected Bike Lanes	Most important north/south link	1.7	14
94	West Ave/Hwy 35	La Crosse St	Jackson St	Further Evaluation Needed	Low feasibility, unlikely to be completed with current state of the road	1	9
95	West Ave/Hwy 35	Jackson St	Hwy 14	Further Evaluation Needed	Could be part of a road diet project	0.8	10
96	Diagonal Rail with Trail	Hwy 33	28th St	Trail	Work with RR companies to add a rail with trail where feasible	1.7	12
97	Losey Blvd Bike Facility	Hwy 33	East Ave	Further Evaluation Needed	Consider narrowing traffic lanes and exploring a "road diet" treatment to create additional space for protected bike lanes	1.7	14
98	East La Crosse Rail with Trail	Farnam St	Ward Ave	Trail	Work with RR companies to add a rail with trail where feasible	1.6	4
99	Lakeshore Dr Bikeway	Richmond St	Sky Harbor Dr	Protected Bike Lanes	Use existing shoulder/reallocate travel lane width to add protected bike facility	1	2
100	Riverfront Trail	Clinton St	Marsh	Trail	Recommendation pulled from previous plan	1.6	10
101	Oak Ave Bikeway S	Enterprise Ave	South of Rublee St	Two-way Cycle Track	Use existing bike lane space to create a protected cycle track or work within sidewalk area to add a sidepath	0.9	4
102	Main St	West Ave/ Hwy 35	RR tracks	Protected Bike Lanes	Narrow traffic lanes, shift parking to one side where necessary, work with existing curb extensions, to add protected bike facility	1.1	9
103	22nd St Greenway	Jackson St	Chase St	Greenway	Add traffic-calming features and improve intersections along route; end at park; provide signage for sidewalk/trail connecting to signal on Losey	1.2	7

PROJECT #	PROJECT NAME	FROM (N/W)	TO (S/E)	FACILITY TYPE	PROJECT NOTES	MILEAGE	SCORE
104	Hwy 53 Bike Facility	Monitor St	La Crosse St	Further Evaluation Needed	Reallocate travel lane space to incorporate a protected bike facility; consider removing two-way turn lane on bridge between 2nd St N and River Bend Rd to add room for bike facility; consider this as a more feasible route than a trail along river	0.8	12
105	4th St Bikeway	La Crosse St	Merge of E/W 53	Long Term Separated Facility	From Imagine 2040 Plan	1.3	5
106	3rd St Bikeway	La Crosse St	7th St	Long Term Separated Facility	From Imagine 2040 Plan	1.6	6
107	Clinton St Bikeway	Hwy 35	Gillette St	Protected Bike Lanes	Convert existing buffered bike lanes to protected	0.45	8
108	Pine St Trail	Front St	6th St	Trail	Connect trail from existing Pine St connection to Front St	0.3	9
109	10th St Greenway	Lueth Park	Winnebago St	Greenway	From Imagine 2040 Plan	1.2	8

TABLE G.2

RECOMMENDED ALL AGES AND ABILITIES SPOT IMPROVEMENTS				
PROJECT #	**LOCATION**	**IMPROVEMENT TYPE**	**PROJECT NOTES**	**SCORE**
1	32nd St + Hwy 33	Protected Intersection	Connects facilities on Hwy 33 and 32nd St; tighten up intersection with protected elements, eliminate slip lane	7
2	King St + Losey Blvd	Traffic Diverter	Considering adding a median that only allows bike/peds to continue west on King from Losey	14
3	Cass St + 27th St	Accessible Crossing	Provide striped crosswalks and connected paved path to allow bikes/peds to easily cross the railroad tracks	3
4	George St + McDonalds Pl	Eliminate Slip Lanes	Eliminate both slip lanes, tighten up intersection	7
5	Clinton St + Bainbridge St	Eliminate Slip Lanes	Eliminate slip lane heading north on Bainbridge	3
6	Hwy 33 + Losey Blvd	Protected Intersection	Eliminate slip lane; tighten up intersection; carry bike facility through	14
7	Undercrossing near Quarry Rd	Undercrossing	Formalize trail undercrossing; add lights; maintain in winter	7
8	La Crosse St + E Ave N	Signal Adjustment	Adjust traffic signal to allot longer times for bikes/peds crossing La Crosse St on E Ave	11
9	Badger St	Curb Cut	Add curb cut to allow those biking on Badger St to access the paths on campus	9
10	Clinton St & Hwy 53	Eliminate Slip Lanes	Tighten up intersection; consider removing slip lane; add protected features for bikes	10
11	19th St/Hwy 33 & Jackson St	Protected Intersection	Tighten up intersection and add features to accommodate bicyclists and pedestrians crossing	15
12	Jackson St & RR	Railroad Crossing	Explore creating a way to cross the railroad tracks, especially if a Rail with Trail corridor is added	4
13	River Valley Dr & Gillette St	Eliminate Slip Lanes	Eliminate slip lanes from all directions, create a protected intersection for bicyclists	15
14	St Cloud St + George St	Protected Intersection	Merge mix of facilities at this intersection to create a protected intersection	14
15	N Salem Rd + Hamilton St	Trail Access	Provide formalized access to the Bud Hendrickson Trail	2

PROJECT #	LOCATION	IMPROVEMENT TYPE	PROJECT NOTES	SCORE
16	7th St & Ped Street	Bike Ramps	Ramp bikes up to sidewalk level to avoid the condensed condition created by the curb extensions.	7
17	Campbell Rd & Pine ST	Traffic Diverter	Create bike/ped-only access to Pine Street to the east; potentially to the west but could be a logistical issue for campus	11
18	Pammel Creek RR crossing	Railroad Crossing	Provide a formal crossing of the railroad tracks to connect the Pammel Creek Trail to the west side of the tracks	5
19	Redfield St & Losey Blvd	Flashing Signal	Consider adding a flashing signal to create an accessible, safer crossing for those using this intersection to get to Festival	14
20	Gillette St & George St	Leading Pedestrian Interval	Add LPI, or at least automatic walk signs here when the light turns green	9
21	7th St & Hwy 14	Protected Intersection	Create protected intersection treatment for those traveling across Hwy 14 on 7th St	7
22	7th St & Proposed Trail	RRFB	Add RRFB so trail users can cross 7th	10
23	Sims Pl & Hwy 14	Protected Intersection	Bring proposed rail trail to Sims/Hwy 14 intersection for a crossing, create protected condition for bicyclists crossing the highway	10
24	Green Bay St & Hwy 33	Undercrossing	Create an undercrossing between the separated bikeway on Green Bay, the proposed rail with trail, and the greenway on the east side of Hwy 33	4
25	West Ave & Hwy 33	Protected Intersection	Create a protected intersection for the bikeways on west & Hwy 33	15
26	St James St & Proposed Trail	RRFB	Add RRFB if proposed trail goes in, making a safer crossing on St James	4
27	Logan St & Hwy 53	Flashing Signal	Add flashing signal for greenway crossing	8
28	Gillette St & Range Dr/Onalaska Ave	Protected Intersection	Create a protected intersection that incorporates a connection to the Bud Hendrickson Trail	15
29	Logan St & George St	RRFB	Add RRFB for those on the Logan Greenway	8
30	Clinton St & George St	Protected Intersection	Create protected intersection/narrow intersection	14
31	St Andrews St & George St	Protected Intersection	Create protected intersection/narrow intersection; incorporate greenway	14
32	Copeland Ave & Monitor St	Protected Corners	Add protected intersection corners	12
33	Rose St & Monitor St	Protected Corners	Add protected intersection corners	2

PROJECT #	LOCATION	IMPROVEMENT TYPE	PROJECT NOTES	SCORE
34	Main St & West Ave	Protected Intersection	Create protected intersection incorporating both bikeways	9
35	Hwy 33 & 7th St	Protected Corners	Add protected corners at intersection	15
36	Market St & 7th St	Protected Corners	Add protected corners to intersection	8
37	Market ST & West Ave	Protected Corners	Add protected corners to intersection	9
38	Green Bay St & West Ave	Protected Intersection	Add protected intersection	10
39	West Ave & Hwy 14	Protected Intersection	Add protected intersection	10
40	Ward Ave & Hwy 14	Eliminate Slip Lanes	Eliminate slip lane and tighten up intersection, add protected features	11
41	Hwy 14 & Shelby Rd	Protected Corners	Add protected corners on Shelby Rd	10
42	Hwy 33 & Hwy 14	Protected Intersection	Add protected intersection to accommodate all facilities joining here	15
43	Cass St & 7th St	Protected Intersection	Ensure separated facilities on 7th and Cass connect to existing protected roundabout intersection	7
44	La Crosse St & Lang Dr	Protected Intersection	Create a protected intersection	14
45	La Crosse St & 7th ST	Flashing Signal	Add flashing signal for trail/bikeway users	7
46	Gillette St & Rose St	Protected Corners	Add protected corners on Gillette St to cross Rose	10
47	Enterprise Ave & Oak St	Protected Intersection	Add protected intersection for bikeways and Bud Hendrickson Trail	4
48	Pine St & UW Campus	Curb Cut	Add a curb cut immediately onto campus path instead of just offset at the crosswalk	9
49	Losey Blvd & Hwy 14	Protected Intersection	Tighten up this intersection and add protected features for bicyclists crossing Hwy 14 on Losey	14
50	Grand Crossing Trail & St. James	Trail Access	Adjust transition of Grand Crossing Trail to easily connect onto the road (curb ramp) if constructed before the proposed improved facility on St. James/River Valley Dr	3
51	33rd St S + Hwy 14	Flashing Signal	Add flashing signal to make crossing easy between east side facility and path that connects on the bridge over the river	5

PROJECT #	LOCATION	IMPROVEMENT TYPE	PROJECT NOTES	SCORE
52	Broadview Pl & RR tracks	Railroad Crossing	Create clear, continuous sidewalk/trail connection across the railroad tracks	10
53	22nd St & State St	Improved Crossing	Improve crossing along 22nd St Greenway to ensure a safe crossing of State St	11
54	Jackson St & Losey	Improved Crossing	Improve crossing of Losey for those on the Jackson St Greenway; consider routing down to RRFB or adding another clear crossing at this location	16
55	Liberty/Charles & Palace St	Improved Crossing	Tighten up intersection here, extending triangle space into open pavement to create park space; add marked crosswalk to get to the park	4
56	Bliss Rd	New/Updated Signs	Add frequent signs along entirety of Bliss Rd indicating presence of bicyclists and speed limit; add large mirrors at tight turns so drivers/ bicyclists are aware of traffic coming around a turn	3
57	Grandad Bluff Rd	New/Updated Signs	Add frequent signs along entirety of Grandad Bluff Rd indicating presence of bicyclists and speed limit; add large mirrors at tight turns so drivers/bicyclists are aware of traffic coming around a turn	3

H

Appendix

Priority Project Cost Estimates

1A Avon St. (Greenway)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1A	9	Avon St	Greenway	Moore St	Monitor St	1.67

Notes:
19 intersections within project limits
Intersection with Monitor Street already has curb bump outs
Intersection with Gould Street already has a traffic circle
Intersection with Hagar Street has a railroad crossing
Intersection with Sill Street already has curb bump outs
Intersection with Gillette Street already has curb bump outs
15 intersections that need improvements
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be HMA as intersections with existing Greenway features are HMA
Unit prices based off of total project quantity and used Estimator to gather prices
Assume 5 traffic circles, 5 raised intersections, 5 sidewalk bump outs

Cost	
Traffic Circles	$164,820.00
Raised Intersection	$302,250.00
Sidewalk Bump Outs	$319,140.00
Contingency (25%)	$196,550.00
Total Cost	**$982,760.00**

Construction Costs Only

1A Avon St. (Greenway)

Traffic Circles					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	410 SY	5	$2,050.00	$10,250.00	Remove entire intersection pavement
Tack Coat	16 GAL	4	$64.00	$320.00	
HMA Pavement (4")	72 TON	120	$8,640.00	$43,200.00	
Curb and Gutter	100 LF	45	$4,500.00	$22,500.00	
Sawing Asphalt	130 LF	2	$260.00	$1,300.00	
Restoration	90 SY	25	$2,250.00	$11,250.00	In traffic circle
Permanent Signs	8 EA	330	$2,640.00	$13,200.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$16,000.00	
Traffic Control	1 EA	3000	$3,000.00	$15,000.00	
Pavement Marking	260 LF	11	$2,860.00	$14,300.00	Crosswalk Marking
Mobilization	1 EA	4000	$3,000.00	$15,000.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$32,964.00	$164,820.00	

Rasied Intersection					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	580 SY	4.5	$2,610.00	$13,050.00	Remove entire intersection pavement
Removing Curb and Gutter	220 LF	6.5	$1,430.00	$7,150.00	
Removing Sidewalk	110 SY	8.5	$935.00	$4,675.00	
Base Aggregate	190 TON	20	$3,800.00	$19,000.00	
Tack Coat	30 GAL	3.5	$105.00	$525.00	
HMA Pavement (4")	130 TON	115	$14,950.00	$74,750.00	
Curb and Gutter	220 LF	20	$4,400.00	$22,000.00	
Concrete Sidewalk	960 SF	10	$9,600.00	$48,000.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$26,000.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$16,000.00	
Sawing Asphalt	120 LF	2.5	$300.00	$1,500.00	
Sawing Concrete	40 LF	3	$120.00	$600.00	
Restoration	30 SY	30	$900.00	$4,500.00	In traffic circle
Moving Signs	8 EA	130	$1,040.00	$5,200.00	
Traffic Control	1 EA	3000	$3,000.00	$15,000.00	
Pavement Marking	260 LF	11	$2,860.00	$14,300.00	Crosswalk Marking
Mobilization	1 EA	5500	$5,500.00	$27,500.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$60,450.00	$302,250.00	

1A Avon St. (Greenway)

Sidewalk Bump Outs					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	780 SY	4	$3,120.00	$15,600.00	Remove entire intersection pavement
Removing Curb and Gutter	300 LF	6	$1,800.00	$9,000.00	
Removing Sidewalk	107 SY	9	$963.00	$4,815.00	
Tack Coat	30 GAL	3.5	$105.00	$525.00	
HMA Pavement (4")	130 TON	115	$14,950.00	$74,750.00	
Curb and Gutter	340 LF	35	$11,900.00	$59,500.00	
Concrete Sidewalk	960 SF	9	$8,640.00	$43,200.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$26,000.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$16,000.00	
Sawing Asphalt	120 LF	2.5	$300.00	$1,500.00	
Sawing Concrete	40 LF	3	$120.00	$600.00	
Restoration	30 SY	30	$900.00	$4,500.00	In traffic circle
Moving Signs	8 EA	130	$1,040.00	$5,200.00	
Traffic Control	1 EA	3000	$3,000.00	$15,000.00	
Pavement Marking	190 LF	11	$2,090.00	$10,450.00	Crosswalk Marking
Mobilization	1 EA	6000	$6,000.00	$30,000.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$63,828.00	$319,140.00	

1B Clinton St. (Protected Bike Lane)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1B	33	Clinton St	Protected Bike Lane	HWY 53	HWY 35	0.43

Notes:
Existing urban cross section with about 36' paved width, 30" C+G, 5' terrace, 5' sidewalk
Mainly residential but 2 east blocks are commercial
Proposed: 11' Driving lane, 2' curb median, 5' bike lane, 30" C+G (to remain), 5' terrace (to remain), and 5' sidewalk (to remain)
5 Intersections within limits
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be HMA
Unit prices based off of total project quantity and used Estimator to gather prices
Assume no replacement of the sidewalk and tying into existing
Will need to gap bike protection at intersections, driveways, and alleys

Cost	
Protected Bike Lane	$351,672.50
Contingency (25%)	$87,920.00
Total Cost	**$439,592.50**

Construction Costs Only

1B Clinton St. (Protected Bike Lane)

Protected Bike Lane				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	3340 SY	5.5	$18,370.00	7' removal for bike lanes and raised median
Base Aggregate	130 TON	30	$3,900.00	
Tack Coat	100 GAL	4.5	$450.00	
HMA Pavement (4")	440 TON	135	$59,400.00	5' Bike Lane each side
Curb	6490 LF	25	$162,250.00	
Concrete Sidewalk	3245 SF	11	$35,695.00	Raised median between driving land and bike lane
Sawing Asphalt	3545 LF	1.5	$5,317.50	
Permanent Signs	10 EA	220	$2,200.00	No Motorized Vehicle signs
Adjusting Manholes/Water Valves	20 EA	800	$16,000.00	
Traffic Control	1 EA	5000	$5,000.00	
Pavement Marking	3545 LF	2	$7,090.00	Roadway Edgeline and arrows and symbols in bike lane
Mobilization	1 EA	35000	$35,000.00	10%
Construction Staking	1 EA	1000	$1,000.00	
			$351,672.50	

1C Ranger Dr. (Protected Bike Lane-Protected Intersection)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1C	107	Ranger Dr.	Protected Bike Lane	HWY 35	Gillette St	0.44
	Spot 28	Ranger Dr. & Gillette St	Protected Intersection			

Notes:
Existing urban cross section: three 11' lanes, 4' paved bike lane both sides, 30" C+G, 10' terrace on east, 8' sidewalk
Sidewalk on east side entire project, sidewalk on west side between Logan St and Loomis St
Residential on west and high school on east
Proposed: 11' Driving lane, 2' curb median, 5' bike lane, 30" C+G, 7' terrace on east, 8' sidewalk on east (to remain)
3 Intersections within limits
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be HMA
Unit prices based off of total project quantity and used estimator to gather prices
Will need to gap bike protection at intersections, driveways, and alleys
Assume no replacement of the sidewalk and tying into existing
Midblock pedestrian ramps will need to be replaced since the roadway is widening

Cost	
Protected Bike Lane	$610,241.50
Protected Intersection	$82,405.00
Contingency (25%)	$173,160.00
Total Cost	**$865,806.50**

Construction Costs Only

1C Ranger Dr. (Protected Bike Lane-Protected Intersection)

Protected Bike Lane				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	1800 SY	6.5	$11,700.00	4' removal for bike lanes and raised median
Removing Curb and Gutter	4130 LF	6	$24,780.00	
Removing Sidewalk	182 SY	14.5	$2,639.00	
Base Aggregate Dense	150 TON	30	$4,500.00	
Tack Coat	115 GAL	4.5	$517.50	
HMA Pavement (4")	510 TON	130	$66,300.00	5' bike lane
Curb and Gutter	12390 LF	25	$309,750.00	raised median curb and curb and gutter
Concrete Sidewalk	5770 SF	10	$57,700.00	
Detectable Warning Fields	120 SF	65	$7,800.00	12 ramps
Sawing Asphalt	4130 LF	1.5	$6,195.00	
Sawing Concrete	300 LF	3	$900.00	
Restoration	1200 SY	25	$30,000.00	
Permanent Signs	10 EA	220	$2,200.00	no motor vehicles signs
Adjusting Inlets/Manholes/Water Valves	20 EA	800	$16,000.00	
Traffic Control	1 EA	5000	$5,000.00	
Pavement Marking	4130 LF	2	$8,260.00	roadway edgeline and arrows and symbols and bike lanes
Mobilization	1 EA	55,000	$55,000.00	10%
Construction Staking	1 EA	1000	$1,000.00	

$610,241.50

Protected Intersection				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	610 SY	9	$5,490.00	Remove entire intersection pavement
Base Aggregate	20 TON	13	$260.00	
Tack Coat	25 GAL	5.5	$137.50	
HMA Pavement (4")	125 TON	155	$19,375.00	
Curb	340 LF	75	$25,500.00	
Concrete Sidewalk	535 SF	13.5	$7,222.50	
Sawing Asphalt	160 LF	2.5	$400.00	
Sawing Concrete	100 LF	3	$300.00	
Permanent Signs	4 EA	230	$920.00	
Adjusting Manholes/Water Valves	6 EA	800	$4,800.00	
Traffic Control	1 EA	3000	$3,000.00	
Pavement Marking	350 LF	20	$7,000.00	Crosswalk Marking
Mobilization	1 EA	7500	$7,500.00	10%
Construction Staking	1 EA	500	$500.00	

$82,405.00

1D STH 35 (Protected Bike Lane-Protected Intersection)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1D	93	George St/HWY 35	Protected Bike Lane	Clinton St	La Crosse St	1.67
	Spot 30	Clinton St&George St/HWY 35	Protected Intersection			
	Spot 44	La Crosse St&Land Dr/HWY 35	Protected Intersection			

Notes:
Bridge at La Crosse River and over Railroad tracks
Existing urban cross section : four 12' lanes, 30" C+G, 4' HMA terrace, 5' Sidewalk
Turn Lanes and medians near intersections
No Terrance and 8' sidewalk north of river
Sidewalk with no terrace on bridges
TWLTL north of river
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Proposed South of River: four 11' lanes, 2' raised median, 5' bike lane, 30" curb and gutter, 5' sidewalk (to remain)
Proposed North of River: four 11' lanes, 2' raised median, 5' bike lane, 30" curb and gutter, 6' sidewalk (tie into existing)
Structures: four 10' lanes, 10' sidewalk (no stucture widening)
6 Intersections within limits
Unit prices based off of total project quantity and used Estimator to gather prices

Cost	
Protected Bike Lane	$1,735,720.00
Protected Intersection	$178,500.00
Protected Intersection	$178,500.00
Contingency (25%)	$523,180.00
Total Cost	**$2,615,900.00**

Construction Costs Only

1D STH 35 (Protected Bike Lane-Protected Intersection)

Protected Bike Lane				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	1740 SY	6.5	$11,310.00	2' removal for bike lane
Removing Concrete Pavement	1520 SY	11.5	$17,480.00	2' removal for bike lane
Removing curb and gutter	14680 LF	4.5	$66,060.00	
Removing sidewalk	1520 SY	8.5	$12,920.00	
Base Aggregate	760 TON	24	$18,240.00	
Concrete Pavement (8")	2280 SY	80	$182,400.00	
Tack Coat	260 GAL	4	$1,040.00	
HMA Pavement (4")	1170 TON	115	$134,550.00	
Curb and Gutter	14680 LF	27	$396,360.00	
Curb	29360 LF	20	$58,520.00	
Concrete Sidewalk on Bridge	2800 SF	150	$420,000.00	
Concrete Sidewalk	14680 SF	9	$132,120.00	
Sawing Asphalt	7840 LF	1.5	$11,760.00	
Sawing Concrete	13680 LF	2.5	$34,200.00	
Permanent Signs	20 EA	200	$4,000.00	No Motor Vehicle Signs
Adjusting Inlets/Manholes/Water Valves	40 EA	800	$32,000.00	
Traffic Control	1 EA	15000	$15,000.00	
Pavement Marking	34,760 LF	1	$34,760.00	Need to change all lane line if adjusting lane widths
Mobilization	1 EA	150000	$150,000.00	10%
Construction Staking	1 EA	3000	$3,000.00	
			$1,735,720.00	

Protected Intersection				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Concrete Pavement	1040 SY	13	$13,520.00	Remove entire intersection pavement
Base Aggregate	300 TON	27	$8,100.00	
Concrete Pavement (8")	930 SY	88	$81,840.00	
Curb	500 LF	70	$35,000.00	
Concrete Sidewalk	1000 SF	12.5	$12,500.00	
Sawing Concrete	240 LF	3	$720.00	
Permanent Signs	4 EA	230	$920.00	
Adjusting Manholes/Water Valves	8 EA	800	$6,400.00	
Traffic Control	1 EA	3000	$3,000.00	
Pavement Marking	450 LF	18	450*18	Crosswalk Marking
Mobilization	1 EA	16000	$16,000.00	10%
Construction Staking	1 EA	500	$500.00	
			$178,500.00	

1E 22nd St. (Greenway-Signal Adjustment-Traffic Diverter-Improved Crossing)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1E	7	22nd St/Hillview Ave	Greenway	Park Dr	Cass St	1.23
	Spot 8	La Crosse St & E Ave N	Signal Adjustment			
	Spot 17	Campbell Rd & Pine St	Traffic Diverter			
	Spot 53	22nd St & State St	Improved Crossing			

Notes:
13 intersections within project limits
La Crosse St & E Ave N is a signal controled intersection
Intersection with King Street already has curb bump outs
12 intersections that need greenway improvements
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be concrete as intersections with existing Greenway features are Concrete
Unit prices based off of total project quantity and used Estimator to gather prices
Assume 3 traffic circles, 3 raised intersections, and 3 sidewalk bump out intersections

Cost	
Traffic Circles	$183,930.00
Raised Intersection	$333,997.50
Sidewalk Bump Outs	$370,719.00
Signal Adjustment	$7,500.00
Traffic Diverter	$39,870.00
Improved Crossing	$3,171.00
Contingency (25%)	$234,800.00
Total Cost	**$1,173,987.50**

Construction Costs Only

1E 22nd St. (Greenway-Signal Adjustment-Traffic Diverter-Improved Crossing)

Traffic Circles					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt	400 SY	7.5	$3,000.00	$9,000.00	Remove entire intersection pavement
Base Aggregate	110 TON	27	$2,970.00	$8,910.00	
Concrete Pavement (8")	325 SY	90	$29,250.00	$87,750.00	
Curb and Gutter	100 LF	60	$6,000.00	$18,000.00	
Sawing Asphalt	125 LF	2	$250.00	$750.00	
Restoration	80 SY	25	$2,000.00	$6,000.00	In traffic circle
Permanent Signs	8 EA	330	$2,640.00	$7,920.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$9,600.00	
Traffic Control	1 EA	3000	$3,000.00	$9,000.00	
Pavement Marking	250 LF	12	$3,000.00	$9,000.00	Crosswalk Marking
Mobilization	1 EA	5500	$5,500.00	$16,500.00	10%
Construction Staking	1 EA	500	$500.00	$1,500.00	
			$61,310.00	**$183,930.00**	

Rasied Intersection					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	580 SY	6.5	$3,770.00	$11,310.00	Remove entire intersection pavement
Removing Curb and Gutter	270 LF	8.5	$2,295.00	$6,885.00	
Removing Sidewalk	85 SY	17.5	$1,487.50	$4,462.50	
Base Aggregate	200 TON	25	$5,000.00	$15,000.00	
Concret Pavement (8")	580 SY	85	$49,300.00	$147,900.00	
Curb and Gutter	230 LF	50	$11,500.00	$34,500.00	
Concrete Sidewalk	750 SF	11	$8,250.00	$24,750.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$15,600.00	
Adjusting Inlets/Manholes/Water Valves	8 EA	800	$6,400.00	$19,200.00	
Sawing Asphalt	120 LF	2.5	$300.00	$900.00	
Sawing Concrete	40 LF	3	$120.00	$360.00	
Restoration	30 SY	25	$750.00	$2,250.00	
Moving Signs	4 EA	145	$580.00	$1,740.00	
Traffic Control	1 EA	3000	$3,000.00	$9,000.00	
Pavement Marking	240 LF	12	$2,880.00	$8,640.00	Crosswalk Marking
Mobilization	1 EA	10000	$10,000.00	$30,000.00	10%
Construction Staking	1 EA	500	$500.00	$1,500.00	
			$111,332.50	**$333,997.50**	

1E 22nd St. (Greenway-Signal Adjustment-Traffic Diverter-Improved Crossing)

Sidewalk Bump Outs					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	780 SY	6	$468.00	$1,404.00	Remove entire intersection pavement
Removing Curb and Gutter	300 LF	8.5	$2,550.00	$7,650.00	
Removing Sidewalk	110 SY	12.5	$1,375.00	$4,125.00	
Base Aggregate	240 TON	24	$5,760.00	$17,280.00	
Concrete Pavement (8")	720 SY	80	$57,600.00	$172,800.00	
Curb and Gutter	340 LF	45	$15,300.00	$45,900.00	
Concrete Sidewalk	960 SF	10	$9,600.00	$28,800.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$15,600.00	
Adjusting Inlets/Manholes/Water Valves	8 EA	800	$6,400.00	$19,200.00	
Sawing Asphalt	120 LF	2.5	$300.00	$900.00	
Sawing Concrete	40 LF	3	$120.00	$360.00	
Restoration	40 SY	25	$1,000.00	$3,000.00	
Moving Signs	8 EA	140	$1,120.00	$3,360.00	
Traffic Control	1 EA	3000	$3,000.00	$9,000.00	
Pavement Marking	190 LF	12	$2,280.00	$6,840.00	Crosswalk Marking and Stop Bars
Mobilization	1 EA	11000	$11,000.00	$33,000.00	10%
Construction Staking	1 EA	500	$500.00	$1,500.00	
			$123,573.00	**$370,719.00**	

Taffic Signal Adjustment				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Retime Traffic Signals	1EA	7500	$7,500.00	Re-time traffic signals at intersection for longer bike/pedestrian crossing time

Traffic Diverter				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing concrete pavement	80 SY	25	$2,000.00	
Removing curb and gutter	100 LF	13.5	$1,350.00	
Removing sidewalk	30 SY	23	$690.00	ewalk where trail would cross
Base Aggregate	25 TON	13	$325.00	
Concrete Pavement (8")	55 SY	115	$6,325.00	
Curb and Gutter	320 LF	70	$22,400.00	median and next to bike lane
Concrete Sidewalk	270 SF	15	$4,050.00	ane crosses existing sidewalk
Sawing Concrete	130 LF	3	$390.00	
Pavement Marking	100 LF	9	$900.00	line and bike symbols in bike lane
Permanent Signing	4 EAC	360	$1,440.00	
			$39,870.00	

Improved Crossing				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Pavement Marking	128LF	19	$2,451.00	crosswalk markings ladder pattern
Permanent Signing	2EA	360	$720.00	2 yield to pedestrian signs
			$3,171.00	

1F King St (Greenway)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1F	1	King St	Greenway	Front St	8th St	0.57

Notes:
8 intersections within project limits
Intersection with 8th Street already has curb bump outs
Intersection with Front Street already has curb bump outs
Intersection with Second Street reconstructed in 2023
5 intersections that need improvements
3 raised alleys
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be concrete as intersections with existing Greenway features are Concrete
Unit prices based off of total project quantity and used Estimator to gather prices
Traffic circles would not be recommended at 3rd, 4th, and 5th Streets due to higher ADT, and truck traffic
Assume 5 sidewalk bump outs based on previous study work

Cost	
Traffic Circles	$0.00
Raised Alley	$407,317.50
Sidewalk Bump Outs	$649,825.00
Contingency (25%)	$264,290.00
Total Cost	**$1,321,432.50**

Construction Costs Only

1F King St (Greenway)

Rasied Alley					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	875 SY	5	$4,375.00	$13,125.00	Remove entire intersection pavement
Removing Curb and Gutter	270 LF	7.5	$2,025.00	$6,075.00	
Removing Sidewalk	115 SY	10.5	$1,207.50	$3,622.50	
Base Aggregate	290 TON	22	$6,380.00	$19,140.00	
Concret Pavement (8")	875 SY	75	$65,625.00	$196,875.00	
Curb and Gutter	270 LF	42	$9,240.00	$27,720.00	
Concrete Sidewalk	1050 SF	10	$10,500.00	$31,500.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$15,600.00	
Adjusting Inlets/Manholes/Water Valves	8 EA	800	$6,400.00	$19,200.00	
Sawing Asphalt	160 LF	2.5	$400.00	$1,200.00	
Sawing Concrete	40 LF	3	$120.00	$360.00	
Moving Signs	4 EA	130	$520.00	$1,560.00	
Traffic Control	1 EA	5000	$5,000.00	$15,000.00	
Pavement Marking	440 LF	12	$5,280.00	$15,840.00	Crosswalk Marking and Stop Bars
Mobilization	1 EA	13000	$13,000.00	$39,000.00	10%
Construction Staking	1 EA	500	$500.00	$1,500.00	
			$135,772.50	**$407,317.50**	

Sidewalk Bump Outs					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	875 SY	5	$4,375.00	$21,875.00	Remove entire intersection pavement
Removing Curb and Gutter	300 LF	7	$2,100.00	$10,500.00	
Removing Sidewalk	115 SY	10	$1,150.00	$5,750.00	
Base Aggregate	240 TON	22	$5,280.00	$26,400.00	
Concrete Pavement (8")	720 SY	75	$54,000.00	$270,000.00	
Curb and Gutter	350 LF	40	$14,000.00	$70,000.00	
Concrete Sidewalk	1375 SF	10	$13,750.00	$68,750.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$26,000.00	
Adjusting Inlets/Manholes/Water Valves	8 EA	800	$6,400.00	$32,000.00	
Sawing Asphalt	160 LF	2.5	$480.00	$2,400.00	
Sawing Concrete	40 LF	3	$120.00	$600.00	
Moving Signs	4 EA	130	$520.00	$2,600.00	
Traffic Control	1 EA	5000	$5,000.00	$25,000.00	
Pavement Marking	440 LF	12	$2,090.00	$10,450.00	Crosswalk Marking and Stop Bars
Mobilization	1 EA	15000	$15,000.00	$75,000.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$129,965.00	**$649,825.00**	

1G 7th St (Protected Bike Lane-Protected Corners)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1G	42	7th St	Protected Bike Lane	King St	Farnam St	1.2
	Spot 35	HWY 33 & 7th St	Protected Corners			
	Spot 36	Market St & 7th St	Protected Corners			

Notes:
Existing urban cross section: two 18' lanes, 30" C+G, 5' terrace, 5' sidewalk
Mainly Residential
Proposed: 11' Driving lane, 2' curb median, 5' bike lane, 30" C+G (to remain), 5' terrace (to remain), 5' sidewalk (to remain)
Curb bump outs at Johnson St
RAB at intersection with Cass St
10 Intersections within limits
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be HMA
Unit prices based off of total project quantity and used Estimator to gather prices
Will need to gap bike protection at intersections, driveways, and alleys

Cost	
Protected Bike Lane	$734,070.00
Protected Corner	$27,750.00
Protected Corner	$27,750.00
Contingency (25%)	$197,390.00
Total Cost	**$986,960.00**

Construction Costs Only

1G 7th St (Protected Bike Lane-Protected Corners)

Protected Bike Lane				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	6010 SY	4.5	$27,045.00	7' removal for bike lanes and raised median
Base Aggregate	290 TON	27.5	$7,975.00	
Tack Coat	215 GAL	4	$860.00	
HMA Pavement (4")	960 LF	120	$115,200.00	5' Bike Lane each side
Curb	15460 LF	25	$386,500.00	
Concrete Sidewalk	7730 SF	10	$77,300.00	Raised median between driving land and bike lane
Sawing Asphalt	7730 LF	1.5	$11,595.00	
Permanent Signs	24 EA	375	$9,000.00	No Motorized Vehicle signs
Adjusting Manholes/Water Valves	15 EA	800	$12,000.00	
Traffic Control	1 EA	8000	$8,000.00	
Pavement Marking	7730 LF	1.5	$11,595.00	Roadway Edgeline and arrows and symbols in bike lane
Mobilization	1 EA	65000	$65,000.00	10%
Construction Staking	1 EA	2000	$2,000.00	
			$734,070.00	

Protected Corner				
Item	**Quantity**	**Unit Price**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	50 SY	20	$1,000.00	Remove pavement at intersection corners where islands will be installed
Base Aggregate	10 TON	15	$150.00	
Curb	120 LF	85	$10,200.00	
Concrete Sidewalk	200 SF	15	$3,000.00	
Sawing Asphalt	160 LF	2.5	$400.00	
Traffic Control	1 EA	3000	$3,000.00	
Pavement Marking	350 LF	20	$7,000.00	Pavement markings for bike crossing
Mobilization	1 EA	2500	$2,500.00	10%
Construction Staking	1 EA	500	$500.00	
			$27,750.00	

1H Farnam St. (Greenway)

Label	Project Number	Roadway	Facility Type	From	To	Mileage
1H	12	Farnam St	Greenway	HWY 14	HWY 33	1.41

Notes:
19 intersections within project limits
Intersection with 20th Street already has a traffic circle
Intersection with 17th Street already has curb bump outs
Intersection with 10th Street already has a traffic circle
Intersection with 6th Street already has curb bump outs
15 intersections that need improvements
Assumed no additional inlets or storm sewer, or other underground utility work would be required
Assumed new pavement will be HMA as most intersections with existing Greenway features are HMA
Unit prices based off of total project quantity and used Estimator to gather prices
Assume 5 traffic circles, 5 raised intersections, 5 sidewalk bump outs

Cost	
Traffic Circles	$164,290.00
Raised Intersection	$289,825.00
Sidewalk Bump Outs	$319,140.00
Contingency (25%)	$193,310.00
Total Cost	**$966,565.00**

Construction Costs Only

1H Farnam St. (Greenway)

Traffic Circles					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt/Concrete Pavement	400 SY	5	$2,000.00	$10,000.00	Remove entire intersection pavement
Tack Coat	16 GAL	4	$64.00	$320.00	
HMA Pavement (4")	75 TON	120	$9,000.00	$45,000.00	
Curb and Gutter	95 LF	45	$4,275.00	$21,375.00	
Sawing Asphalt	132 LF	2	$264.00	$1,320.00	
Restoration	80 SY	25	$2,000.00	$10,000.00	In traffic circle
Permanent Signs	8 EA	330	$2,640.00	$13,200.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$16,000.00	
Traffic Control	1 EA	3000	$3,000.00	$15,000.00	
Pavement Marking	265 LF	11	$2,915.00	$14,575.00	Crosswalk Marking
Mobilization	1 EA	3000	$3,000.00	$15,000.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$32,858.00	**$164,290.00**	

Sidewalk Bump Outs					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	780 SY	4	$3,120.00	$15,600.00	Remove entire intersection pavement
Removing Curb and Gutter	300 LF	6	$1,800.00	$9,000.00	
Removing Sidewalk	107 SY	9	$963.00	$4,815.00	
Tack Coat	30 GAL	3.5	$105.00	$525.00	
HMA Pavement (4")	130 TON	115	$14,950.00	$74,750.00	
Curb and Gutter	340 LF	35	$11,900.00	$59,500.00	
Concrete Sidewalk	960 SF	9	$8,640.00	$43,200.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$26,000.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$16,000.00	
Sawing Asphalt	120 LF	2.5	$300.00	$1,500.00	
Sawing Concrete	40 LF	3	$120.00	$600.00	
Restoration	30 SY	30	$900.00	$4,500.00	
Moving Signs	8 EA	130	$1,040.00	$5,200.00	
Traffic Control	1 EA	3000	$3,000.00	$15,000.00	
Pavement Marking	190 LF	11	$2,090.00	$10,450.00	Crosswalk Marking and Stop Bars
Mobilization	1 EA	6000	$6,000.00	$30,000.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$63,828.00	**$319,140.00**	

1H Farnam St. (Greenway)

Rasied Intersection					
Item	**Quantity**	**Unit Price**	**Total Price Per Intersection**	**Total Price for Project**	**Comments**
Removing Asphalt Pavement	500 SY	4.5	$2,250.00	$11,250.00	Remove entire intersection pavement
Removing Curb and Gutter	220 LF	6.5	$1,430.00	$7,150.00	
Removing Sidewalk	110 SY	8.5	$935.00	$4,675.00	
Base Aggregate	170 TON	20	$3,400.00	$17,000.00	
Tack Coat	30 GAL	3.5	$105.00	$525.00	
HMA Pavement (4")	115 TON	115	$13,225.00	$66,125.00	
Curb and Gutter	220 LF	20	$4,400.00	$22,000.00	
Concrete Sidewalk	960 SF	10	$9,600.00	$48,000.00	
Detectable Warning Fields	80 SF	65	$5,200.00	$26,000.00	
Adjusting Inlets/Manholes/Water Valves	4 EA	800	$3,200.00	$16,000.00	
Sawing Asphalt	120 LF	2.5	$300.00	$1,500.00	
Sawing Concrete	40 LF	3	$120.00	$600.00	
Restoration	30 SY	30	$900.00	$4,500.00	
Moving Signs	8 EA	130	$1,040.00	$5,200.00	
Traffic Control	1 EA	3000	$3,000.00	$15,000.00	
Pavement Marking	260 LF	11	$2,860.00	$14,300.00	Crosswalk Marking
Mobilization	1 EA	5500	$5,500.00	$27,500.00	10%
Construction Staking	1 EA	500	$500.00	$2,500.00	
			$57,965.00	**$289,825.00**	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