GOING FOR SILVER

A PLAN FOR THE CITY OF MONONA, WISCONSIN TO REACH SILVER STATUS AS A BICYCLE FRIENDLY COMMUNITY WITH THE LEAGUE OF AMERICAN BICYCLISTS

AUTHORED BY THE UNIVERSITY OF WISCONSIN DEPT. OF URBAN & REGIONAL PLANNING'S BICYCLES, PEDESTRIAN, AND THE CITY CLASS | SPRING 2016

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INTRODUCTION

The City of Monona, Wisconsin, continues to enhance the quality of life for its residents and the connectivity of its transportation system. This includes building upon and improving its bicycle and pedestrian infrastructure. In its Sustainability Plan, adopted in 2015, Monona links an increase in biking to decreased greenhouse gas emissions and carbon footprints, as well as the opportunity to strengthen community bonds. Bicycling for transportation and recreation is also correlated with better physical and mental health outcomes.

In order to enhance its local biking environment and encourage more people to bike, Monona has been working towards the League of American Bicyclists' (LAB) Bicycle Friendly Community silver designation. The LAB was founded as the League of American Wheelmen in 1880 and has been striving for better bicycling conditions ever since. The LAB's Bicycle Friendly Community guidelines combine the knowledge of engineers, government officials, and bicycle advocates from across the country to serve as a framework for communities to improve their local bicycling environment. Each year, the LAB reviews applications for the designation and provides personalized feedback about how each community can get more bicyclists on the road.

Figure 1: LAB's Five E's

The LAB's Bicycle Friendly Community criteria is based on the "Five E's:" Education, Encouragement, Enforcement, Engineering, and Evaluation. See Figure 1 to learn more about each "E." In order to earn the designation of a bronze, silver, gold, or platinum Bicycle Friendly Community, municipalities must fulfill increasingly rigorous requirements in each of the Five E's. See Figure 2 for details about these requirements.

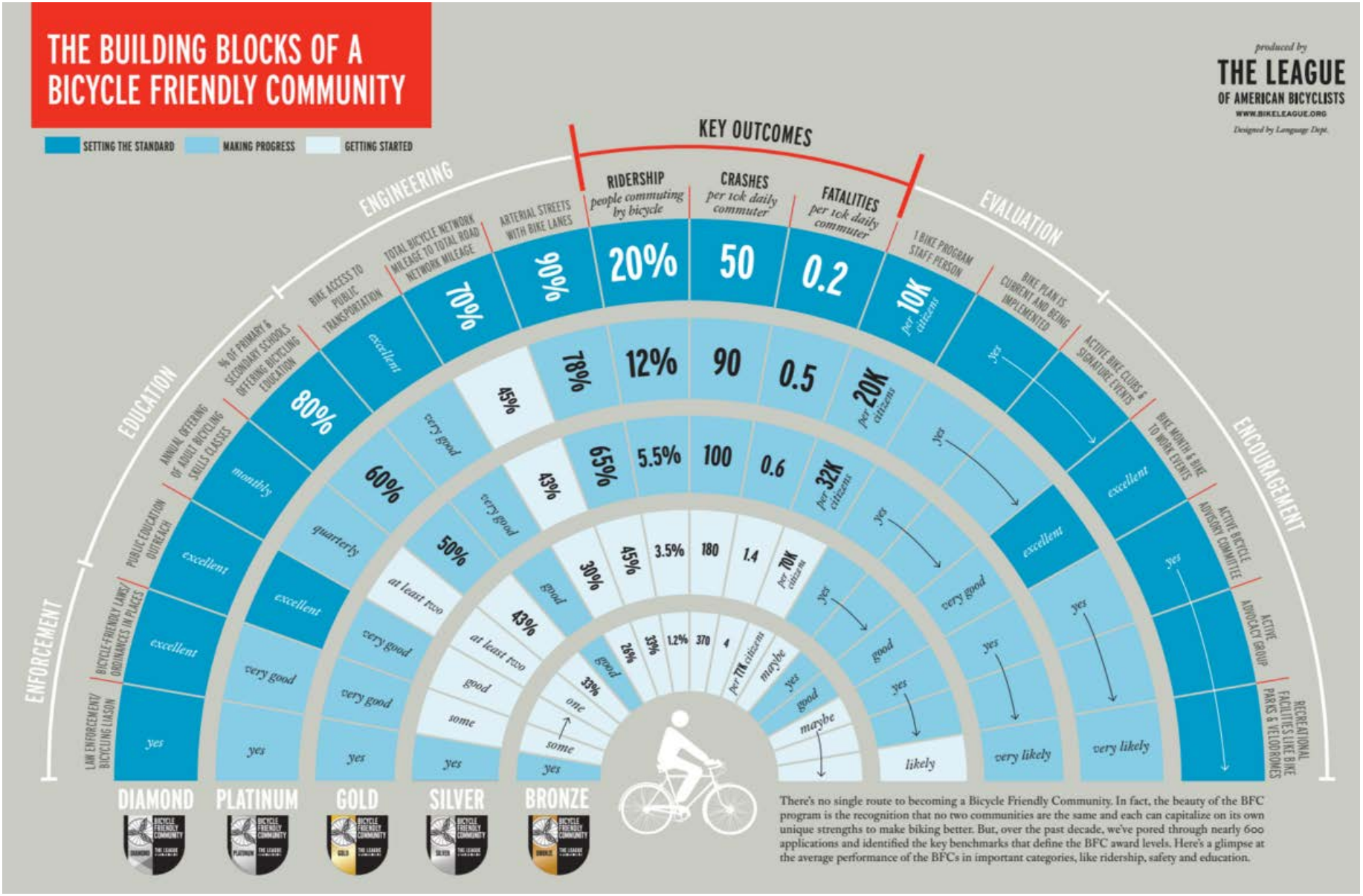

Figure 2: Requirements for bronze, silver, gold, and platinum Bicycle Friendly Community designation. (LAB)

Monona is one of 18 communities in Wisconsin designated as a Bicycle Friendly Community. It is currently designated as a bronze-level Bicycle Friendly Community, and has enlisted the help of the University of Wisconsin-Madison's UniverCity Alliance to bring it to the silver level. The UniverCity Alliance brings together representatives from different university departments and institutes in order to "connect education, service and research on campus with cities to further the practice of sustainability." Through the UniverCity Year program, the alliance will coordinate collaboration between existing university courses and community-defined projects in Monona during the 2016-2017 academic year.

The Department of Urban and Regional Planning's Spring 2016 graduate class, "Bicycles, Pedestrians, and the City," taught by Professor Dave Cieslewicz, got a head start on the UniverCity Year program. The class worked closely with Brad Bruun, project coordinator and GIS specialist in Monona's Department of Public Works, to define Monona's needs and coordinate with the city.

The result of this collaboration was a neighborhood bicycle and pedestrian audit conducted by the class on March 10, 2016. The audit tool used was developed by the Wisconsin Department of Health Services, Division of Public Health, Nutrition, Physical Activity and Obesity Program. The basic audit tool can be found in the Appendix D of this document. To view the extended audit tool, visit https://www.dhs.wisconsin.gov/physical-activity/active-communities.htm.

The class split into teams of two and Bruun assigned each team two to four intersections of interest. The teams rated their intersections and adjacent road segments on items in the areas of land use environment, transportation environment, walking environment, bicycling environment, and facilities and aesthetics. Particular care was taken to record detailed notes about the walking and bicycling environments and each team also recorded the number of bikers and walkers they saw during the study period. Auditors covered around 30 intersections, and gave Monona an average score of 41.6 out of 100. The lowest score was 12, and the highest score was 69.

This report compiles the findings of the neighborhood audits; the current status of bicycling in Monona, reflected in Monona's 2015 Bicycle Friendly Community application and resulting scorecard, as well as the city's planning documents; the LAB's Bicycle Friendly Community publications; and research into regional and national precedents and opportunities. The report offers research-based recommendations, organized into LAB's Five E's, for Monona to move towards a silver Bicycle Friendly Community designation.

EDUCATION

CHARLES ANDROSKY, BREANA NEHLS, KAYCIE STUSHEK

OVERVIEW

In order to get more riders on the road, all ages and abilities must be given the skill and confidence to get on their bikes. This is achieved through education. To ensure that all members of the community are reached, it is important to offer a wide variety of educational programs to fit everyone's need. It is essential that all bikers and motorists are educated on the rules of the road. Generally, education allows for all bikers to gain the skills and confidence to safely ride, making education a crucial component for enhancing Monona's current bike programming.

IT IS IMPORTANT TO OFFER A WIDE VARIETY OF EDUCATIONAL PROGRAMS TO FIT EVERYONE'S NEEDS

Rating "Education" in Monona:

The LAB organizes their ratings for Education thus:

Community Status	Public Education/Outreach	Annual Offering of Adult Bicycle Skills Classes	Percent of Schools Offering Bicycle Education
Bronze	Some	One	33%
Silver	Good	2 or more	43%
Gold	Very Good	2 or more	50%

The LAB is very helpful in providing feedback for how to get to silver designation. Monona's scorecard from Fall of 2015 listed building blocks toward a Bicycle Friendly Community. In 2015, Monona reported multiple efforts toward increasing bike education to its citizens. These events and programs included:

- Bike Rodeo: Teaching Safe Bicycling
- Monona's Traveling Tween Camp
- Safe Routes To School

With these efforts in place, **Monona received a score of three out of ten for Education** by the LAB. Fortunately, there are many avenues by which Monona can score higher in Education without reinventing the wheel.

Audit Summary

Results of the neighborhood audit showed that in Monona:

- Residents used bicycle lanes, sidewalks or street lanes incorrectly
- Residents did not always wear a helmet when riding bikes
- There were multiple schools close to each other, which can be an asset
- Residents did not always know how to cross difficult intersections
- There were not many bikers out on the streets

Educating citizens would help resolve these issues, make people feel safer when riding bikes, and lead to increased ridership.

RECOMMENDATIONS

Public Education and Outreach

The following existing biking resources should be shared widely throughout Monona so that citizens are well-informed about how to make biking fun and convenient:

- **Rideshare Etc.** (sponsored by the Madison Area Transportation Planning Board and the Wisconsin Department of Transportation) connects commuters to others interested in alternative modes of transportation, including linking up "biking buddies."
- **Event bicycle parking** is available at many Dane County events, making biking to events fun and convenient.
- The **University of Wisconsin-Madison Bicycle Resource Center** provides space, tools, and advice for students to do their own bike maintenance.
- The U.S. Department of Transportation's **Bikeability Community Checklist** gives community members the opportunity to assess the quality of biking and walking infrastructure in their community.
- The **National Capital Region Transportation Planning Board** outlines the various economic, health, and infrastructure benefits of bicycling, as well as benefits for commuters and businesses.
- **The LAB's education and outreach materials** on safety, bike maintenance, and cycling skills appeal to a wide variety of users.
- The City of Los Angeles offers a series of **Spanish-language bicycle public service announcements** that would ensure that information about bicycling safety is accessible for all.

In addition, Monona should develop the following resources:

- **City bicycling maps**, like the ones prepared by other cities in the area (Madison, Fitchburg, DeForest, Marshall and Sun Prairie) should be distributed widely to the community. The map should also be made available Monona's website.
- A report or presentation to **educate developers how to incorporate the needs of bikers** in new development projects.

Adult Bicycling Skills Classes

- A **Bike Rodeo is a bicycling skills event** that provides an opportunity for bicyclists to learn skills and practices that enable them to be safer cyclists. It generally focuses on registration, maintenance, bike and helmet fit, starts and stops, scanning, hazards, and crossroads. While Monona hosted a Bike Rodeo for students as part of the Year of the Bike program, the City of Monona should coordinate with more organizations to **host bike rodeos at places other than schools** so that adults also have the opportunity to learn safe bicycling skills. Many adults may have difficulty riding, but are not affiliated with a school. These events should be hosted at least twice a year.
- The **mayor could be recorded** explaining how to fix a flat, or properly adjust a helmet. This could be used as **part of an online resource** that would provide the same information provided at the bike rodeo.
- Information should also be provided in **multiple languages** to make it accessible to all people.
- The **Savvy City Cycling monthly roundtable sessions hosted by the Wisconsin Bike Federation** provide informational presentations with the goal of increasing skill levels of cyclists of all experiences and ages. Monona should offer to host some of these monthly events throughout the year.

Youth Education

- Monona already participates in the **Traveling Tween Camp** program, during which youth bike to locations like the Vilas Zoo and the Wisconsin State Capitol building in order to learn the rules of the road and gain independence and confidence on a bicycle. Currently only ten children participate in the program at a time. **We recommend that Monona expands this program to educate more children.**
- Monona's schools should partner with the National Interscholastic Cycling Association to host **Youth Mountain Bike League teams**, something that several Dane County schools already do.
- Monona should **strengthen and maintain relationships with the Wheels for Winners program** and initiate "earn-a-bike" programs within the city. In the program, youth participate in community service and safety training in order to receive bicycles free of charge.
- Monona currently has an active **Safe Routes to School (SR2S) initiative**, which includes two crossing guards in key locations near Nuestro Mundo Elementary School and Winnequah Elementary School. This national-scale initiative involves ongoing, customizable programs by local, state, and federal governments in partnership with citizens to encourage and enable children to take active transportation to school. **The City should continue and expand their SR2S program** by working with local schools, parent-teacher associations, and neighborhood organizations to enhance and increase participation in the program.
- Monona should encourage citizens to participate in **Dane County's annual Walk or Wheel Challenge**, a one-week biking and walking competition that encourages students to walk or bike to school. Dane County schools earn points based on education, encouragement, and awareness-raising activities, and top schools receive prizes.
- The City and its schools should promote a **"Youth Pledge"** to encourage healthy living in its school-age children. A youth pledge is a checklist for safety for youth to sign with an adult sponsor.
- **After school bicycle clubs** are a great way to educate school-aged children with the skills and confidence to ride.

Bike Equity

One often forgotten, but crucial part, to bike education is that education is not readily given or available for all user groups. Traditionally, Caucasian males have utilized cycling; however, this is changing with active programming. Focusing on bike equity to look at language, race, family structure, employment type, and locale will benefit Monona on increasing ridership for everyone.

ONE OFTEN FORGOTTEN, BUT CRUCIAL PART, OF BIKE EDUCATION IS THAT EDUCATION IS NOT READILY GIVEN OR AVAILABLE FOR ALL USER GROUPS

Monona should consider the following actions:

- Provide programs at various times and locations, and in multiple languages
- Increase outreach with programs geared towards specific, underrepresented user groups
- Advertise widely the Wisconsin Bike Fed's **Women and Bicycles Ambassador Program**
- **Partner with the Madison chapter of the United Spinal Associates,** Inc. in order to host bicycling events for people who are visually impaired or disabled in other ways. United Spinal Associates will provide adaptive and tandem bicycles at these events.

CONCLUSION

In attaining the silver Bicycle Friendly City designation from the LAB, Monona should build upon its existing bicycle education programs. The City should expand and strengthen its existing efforts to give citizens of all ages and abilities the skills and confidence to ride bicycles. Various national, regional, and local bicycle education programs offer the city many promising opportunities to enhance bicycle education and make progress toward attaining the silver Bicycle Friendly City designation from the LAB.

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ENCOURAGEMENT

PHANNISA NIRATTIWONGSAKORN, SYDNEY PRUSAK, MATTHEW SORENSEN

OVERVIEW

As a bronze-rated bicycle community, the City of Monona is clearly working to strengthen its bicycling community and to make the city an overall better place to bike. However, in terms of Encouragement, the city **received only two out of the ten available points in its 2015 application**.

The LAB defines encouragement as the "E" responsible for "mainstreaming bicycling culture." A variety of cycling events, programs, and campaigns create an environment supportive to bicycling and encourage cyclists of all levels to ride. Whether they are learning with training wheels or racing around the Lake Loop, encouragement efforts help get all cyclists out on the road.

The League gave this advice to Monona to achieve silver designation in Encouragement:

> "Host, sponsor and encourage a greater variety of bicycle-themed community events, campaigns, and programs. Increase your efforts on Bike to Work Day and Bike to School Day. Ensure to widely advertise all bicycle-themed community events and programs."

Encouragement efforts not only get more people bicycling, but because many of the events and programs are done as a group, they can also foster strong community relations. By implementing a few more encouragement programs and policies, Monona is more likely to reach the status of a silver-rated Bicycle Friendly Community.

RECOMMENDATIONS

Host, sponsor, and encourage a greater variety of bicycle-themed community events, campaigns, and programs

In order to encourage a diverse cycling community, Monona should implement bicycle-themed events, campaigns, and programs targeted at specific demographic groups, in addition to activities aimed at the broader public. The city must expand its bicycling efforts to all types of riders so everyone who has the ability to ride also has a community support system.

THE CITY MUST EXPAND ITS BICYCLING EFFORTS TO ALL TYPES OF RIDERS SO EVERYONE WHO HAS THE ABILITY TO RIDE ALSO HAS A COMMUNITY SUPPORT SYSTEM

- Encourage women to participate in the **Annual CycloFemme Ride.** Madison hosts a very popular CycloFemme ride every year that Monona residents could participate in. Women from Monona could ride it together as a pack, strengthening community ties and proudly representing Monona cyclists to the greater Madison area.
- Create a Bike to Church Day
- Create **community programs and sponsor bike clubs for more diverse ridership.** Having a club open to all Monona residents, regardless of their riding ability, creates a less intimidating atmosphere for newer riders and encourages more people to participate. Additionally, not requiring a formal commitment to ride every week fosters a less stressful environment.

Increase promotion of national bike month, bike to work week, and bike to school day

Sponsored by the LAB, Bike to Work Day is a campaign to introduce the bicycle as an alternative way to commute for new cyclists and current cyclists who only bike for recreational purposes. The San Diego Association of Governments' found that one out of five cyclists who joined a Bike to Work Day in San Diego converted to bike to work regularly.

ONE OUT OF FIVE CYCLISTS WHO JOINED A BIKE TO WORK DAY IN SAN DIEGO CONVERTED TO BIKE TO WORK REGULARLY

Actionable steps for Monona include:

- Because most students in Monona live within a five-mile radius of their school, a distance defined by the LAB as feasible to commute by a bicycle**, the city should hold a Bike to School Day campaign to encourage younger generations to use bicycles** for transportation.
- Bike to Work Day may also be expanded to the **LAB's Bike to Work Week**—the third week of May—**or Bike to Work Month**, which is May.
- **These campaigns might be combined with other bicycling encouragement initiatives** such as a bicyclist parade, bike valet parking program to help cyclists find bicycle parking, or Car vs Bus vs Commuter Race mini event to try to reach an assigned destination during rush hours using any routes (which bicycles always win).
- **Leverage partnerships** with local businesses and organizations to help fund bike campaigns and recruit volunteers.

Create more visible signage for the Lake Loop

The Monona Lake Loop brings bicyclists from all parts of Madison to Monona. The City can market this bicycling feature as a way to attract new residents and homeowners.

- If the city provides **more signage throughout the Loop**, it may encourage more people in Monona to bicycle on it.

- **Additional signs on Winnequah would remind residents each day that Monona is a "bicycling community"** even if there are no visible cyclists. This presence encourages people to take advantage of the city's bicycle amenities.

Create incentives and competitions

If media promotion for bicycling is a push-based strategy, incentives and competitions are a pull-based one.

- The City of Monona can **request cooperation from local businesses to provide discounts or rewards for bikers** in exchange for advertisements on city media or tax concessions.
- Periodic **bicycle-related competitions** will also keep the community active. The prizes can be sponsored by local businesses and the types of competitions can range from road racing and triathlons to commuting challenges and bike rallies to bike-riding video and photo contests.

Create printed and digital guides

Another way to communicate bicycle-related topics with Monona's current cyclists and new riders is by **providing printed and digital guides** to be ordered or downloaded on the city's website. Because some people may not have internet access, printed guides should be available to be ordered via phone or mail or picked up at City Hall. The guides can be compiled from the LAB's materials covering various topics.

Examples of guides include:

- Safe routes to school maps
- Attraction and destination maps
- Guides to overcome bike commuting concerns
- Calendars of upcoming bike events

Promote bicycle friendly businesses

Local cycling competitions can be a great way to encourage bicycling. The National Bike Challenge is one example. Places of employment and private citizens register online and agree to compete for prizes and recognition with other groups in the area. Several cities in the Madison metro area already compete against each other in the National Bike Challenge and other competitions like it. It's also a great way to build camaraderie among employees and demonstrate local support for bicycling efforts.

Build a partnership with the Wisconsin Bike Fed as an advocacy representative

Building partnerships with bicycle advocacy groups is crucial for promoting bicycling in small cities. Advocacy groups, like the Wisconsin Bike Fed, are important resources for riders seeking accurate information on local bicycling laws and important issues facing cyclists. Advocacy organizations can provide the necessary support to assist local governments in promoting bicycling. They also provide branding, marketing, and special event coordination opportunities for municipalities.

Increase multi-modal transit options by becoming a part of Madison Metro

Because Monona Transit buses have limited service and are too small to include bicycle racks**, it is recommended that the City of Monona become part of Madison Metro.** This will increase transit options for residents, which in turn encourages bicycling.

Survey the community and pass a referendum about active transportation

Surveying the local community about issues related to sustainability, including transportation choices, can be a great way to understand how much local support exists for bicycling. Having local citizen committees (such as a new Bicycle Advisory Committee, to be discussed in the Evaluation section of this report) craft a referendum that supports alternative transportation choices can also catalyze bicycle-friendly change in a community. Δ

ENFORCEMENT

CAMERON BRAATZ, ELIZABETH DOYLE, JAKE SWENSON

OVERVIEW

Enforcement consists of laws and regulations that support safe and equitable treatment of all users of the road. A positive relationship between law enforcement and the bicycling community will increase awareness.

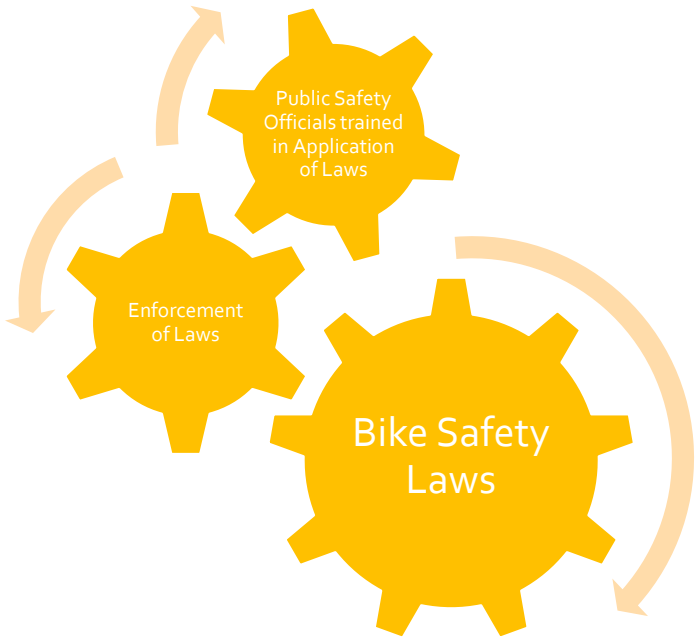

Figure 3: The Components of Bicycle Friendly Enforcement

CURRENT POLICIES

- Declaration of Year of the Bike in 2015
- Current American Association of State Highway and Transportation Officials' (AASHTO) standards are met in design manual
- Guidelines for streetscape design
    - Improves multi-modal experience by making travel by foot or bicycle more attractive
- Mixed-use zoning
    - Allows for more connectivity and access by alternative transportation users

- Form-based/design-based codes
    - Expands code beyond land use focus to take additional components into consideration
    - Interconnection of buildings, streets, and open spaces
- Connectivity policy or standards
    - Sets minimum amount of street intersections per mile
- On-street bicycle facilities maintenance
    - Sweeping as well as snow and ice removal are completed in accordance with other travel lane standards
    - Potholes are addressed within one month of identification

Other Adopted Enforcement Strategies

- Monona Police Department Bike Patrol Unit
- Bicycle Safety Education in Schools
    - Provided by the police and Parks and Recreation Department
- Annual Bike Rodeo
- Police Department tracks bicycle-related safety data and reports hazards to necessary municipal staff
- Recovery system in place for stolen or impounded bicycles
- Non-mandatory bicycle registration system

RECOMMENDATIONS

BFC Scorecard Recommendations

- Create a Bicycle Advisory Committee
    - Composition of this committee should include at least one police officer, among a mix of other disciplines and citizens
- Adopt Complete Streets policy
    - Clarity in regard to creation of bicycle and pedestrian infrastructure
    - Creation of a process that defines policy compliance

Potential Ordinances

- Bicyclist anti-harassment
- Outlaw parking or driving in bicycle lanes
- End-of-trip facilities for bicyclists such as locker rooms and showers
- Standards for bicycle parking
- Car parking standards
    - Enact maximum standard or abolish minimum parking requirements
    - Encourage shared-parking between businesses with complementary parking needs

Other Enforcement Strategies

- Designate public safety liaison for Safe Routes to School Program
- Additional training options for police officers
- Giveaways
    - Helmets, lights, bike locks
    - Potential private-public partnership via sponsorship
- Ticketing campaigns of motor vehicle and bicycle operators that support safe multi-modal interactions
    - Positive behaviors should be encouraged while behaviors that negatively affect safety (e.g. motor vehicles not stopping at crossings) should be discouraged
- Share the Road Campaigns
    - *Share the Road with Bicycles!* --(State of Wisconsin Department of Transportation)
- Additional public safety officials on bike
    - EMS
- Collaboration with other municipalities and jurisdictions
    - Uniformity eases compliance and enforcement
- Corner captains
    - Volunteer program of supervisors during peak bike hours for "eyes on the streets"
    - Could be implemented as a joint project with existing adult crossing guards
- Safe houses program
    - "Safe homes" for kids to stop at or seek safety after bike accident or hassling
- Safe nodes/stations along bike route to and from school
- Campaign utilizing yard signs to promote safe road conditions
    - *Slow Down Yard Sign Campaign* --(Safe Communities Madison-Dane County)

POSITIVE BEHAVIORS SHOULD BE ENCOURAGED WHILE BEHAVIORS THAT NEGATIVELY AFFECT SAFETY SHOULD BE DISCOURAGED

ENGINEERING

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OVERVIEW

The City of Monona is a well-developed suburban city surrounded by the City of Madison on the north, east, and south sides, and Lake Monona on the west. The city consists mostly of developed streets through neighborhoods of single-family homes. These streets often lack sidewalks and/or bicycle accommodations, though traffic volumes are generally low. Many full-grown trees line the roads, making expansion of the right-of-way undesirable for residents. The two main corridors are Broadway and Monona Drive. These two roads border the City, as shown in Appendix A.

Key areas of interest include employment centers such as WPS, the Monona Grove district building, and the City Municipal buildings near Winnequah Park; shopping destinations such as South Towne, Walmart, and Copps; schools including Monona Grove High School, Winnequah School, and Nuestro Mundo; and recreational destinations such as Winnequah Park, Capital Springs, Bridge Road Park, Oneida Park, Maywood Park, and the Monona Municipal Golf Course. These destinations are highlighted in Appendix B.

Audits of existing conditions were completed on March 10, 2016, as discussed in the Introduction section of this report. Results of these audits are shown in Appendix C. Through these results, six key corridors of focus were identified and are discussed below: Lake Loop, Bridge Road, Broadway West, Broadway East, Monona Drive North, and Monona Drive South.

LAKE LOOP

The Lake Loop Corridor consists of seven audited intersections: Dean Ave at Midmoor, Dean Ave at Schofield, Winnequah Rd at Nichols Rd, Winnequah Rd at Baskerville Ave, Winnequah Rd at Healy Lane, Winnequah Rd at Dellwood Circle, and Winnequah Rd at Woodridge Rd. This route receives a great deal of bicycle traffic, as it is part of the Lake Loop route around Lake Monona. No official bicycle infrastructure is utilized, though this is a designated bicycle route.

Traffic counts along the Lake Loop range between 1,100 and 1,400 vehicles per day. With these low traffic volumes, fully separating bicycle facilities may not be required. Providing traffic calming features such as traffic circles would likely be very successful, cost-effective measure.

PROVIDING TRAFFIC CALMING FEATURES SUCH AS TRAFFIC CIRCLES WOULD BE A COST-EFFECTIVE MEASURE

Auditors did comment on the quality of the pavement, particularly near the vertical curve between Dellwood and Healy. Pavement deterioration poses a greater risk to bicyclists than vehicular traffic, and maintenance through bicycle corridors should be a high priority.

This corridor also lacked sidewalks to accommodate pedestrians. Though traffic volumes are low on this corridor, the high presence of bicyclists also poses a risk to pedestrian traffic. These users should not feel as if they are competing for space. The addition of sidewalks would improve safety and access for both user groups through this corridor.

Recommended Improvements

- Slow traffic speeds to 20 mph and install more visible signage
- Improve maintenance of deteriorating pavement at vertical curve locations
- Add sidewalks through corridor to accommodate pedestrians
- Consider installation of bicycle boulevards along the Lake Loop route in Monona

BRIDGE ROAD CORRIDOR

Bridge Road represents an opportunity to significantly increase bikeability. The steep slope from Winnequah to Ford St is slated to gain painted on-street bike lanes with removed parking on the east side of the street. This is crucial, as vehicle speeds increase heading downhill to the west. Bicyclists also pick up major speed heading down Bridge Rd and occasionally must swerve to avoid parked vehicles. The intersections at Winnequah and Metropolitan can be improved to better serve bicyclists and pedestrians.

The intersection at Metropolitan is adjacent to a commercial district which is going to be redeveloped as part of the city's Waterfront Redevelopment Project, which will include a major bike hub. The audit shows that there is enough space in the roadway for bicyclists and the intersection is designed well to accommodate crossings. Therefore, we expect that the redevelopment project will lead to an increase in daily traffic volumes, and that during redevelopment the intersection will be altered to favor bicycle and pedestrian safety.

The intersection at Winnequah is at the bottom a long steep hill to the east which brings fast moving vehicles and bicyclists to a stop sign. From the west, vehicles have the right of way through the intersection towards any direction. We have since learned of the proposed bike lane addition project on Bridge Rd from Winnequah to Ford St. This will help bicyclists coming down the hill from the east to have enough space to ride comfortably and give room to churn up the hill from the west away from traffic. This intersection also has a slip turn from Winnequah onto Bridge from the north to the west which is a hazard for bicyclists or pedestrians crossing on Bridge, since sight lines are short around the corner and vehicles traveling on Winnequah are moving 30 mph before reaching the intersection.

Recommended Improvements

- In the future, extend on-street bike lanes southward down Bridge Rd to Broadway Ave
- Create a marked crosswalk for bicyclists and pedestrians crossing Bridge Rd to get to the Paunack Park Path

- Convert the slip lane on Winneqauh to a perpendicular stop with stop sign before turning westbound on Bridge Rd
- At Winnequah, extend the two north side curbs by 5-10 feet to provide shorter crossing distances for all modes, which will also calm traffic for vehicles approaching the intersection
- Create a full four-way stop at Winnequah by placing a stop sign on Bridge Rd for eastbound travel
- Support proposed Bridge Rd bike lane extension project

BROADWAY WEST

Broadway West is the lowest scoring corridor of the audit. This corridor consists of West Broadway at WPS Drive, West Broadway at Frazier, South Towne Drive at Royal Ave, and Royal Ave at Walmart. Individual audit scores through this corridor ranged from 12 at Royal Ave and Walmart to 26 at West Broadway and WPS Drive.

Bicycle accommodations are partially provided along West Broadway through this corridor. They are only placed on the south side of the roadway for bicyclists travelling to the east. The north side of the roadway does have a paved shoulder, but it is not marked as a bicycle lane. No bike lanes are provided once the corridor crosses the Beltline along South Towne Drive.

The intersection at Broadway and Frazier can be intimidating to both cyclists and pedestrians, as three separate lanes of traffic must be crossed. Though there are pedestrian refuges between each, these are very narrow and uncomfortable for users stop on.

South of the Beltline along South Towne Drive, there are no bicycle lanes at all and high traffic volumes of over 20,000 vehicles per day. This route provides access to both South Towne and Walmart, major shopping destinations and employment centers for the city. The lack of bicycle accommodations discourages residents from utilizing their bicycles in daily activities such as running errands.

SIDEWALKS ARE PRESENT THROUGHOUT THIS CORRIDOR, THOUGH NAVIGATING INTERSECTIONS CAN BE DIFFICULT FOR PEDESTRIANS WITH THE HIGH TRAFFIC VOLUMES

Sidewalks are present throughout this corridor, though navigating intersections can be difficult for pedestrians with the high traffic volumes. Along West Broadway, striping at crosswalks is missing at some locations, or only present on one side of the intersection. For example, at WPS Drive, crosswalks are only present along the west side of the intersection and no connection is provided to the intersection from the adjacent neighborhood. Pedestrian islands are present in some locations, though inadequately sized when present. Along South Towne Drive, the colored concrete was utilized for pedestrian crossings. However, this was the only safety measure utilized and is not adequate on its own without additional measures such as signage.

Recommended Improvements

- Add pavement markings to north shoulder along West Broadway to provide bicycle accommodations
- Add bicycle lanes along South Towne Drive
- Add pedestrian crossing signage for vehicles at and before pedestrian crossings
- Maintain and/or add striping at crosswalks
- Add pedestrian refuges in the medians of intersections
- Create trail to connect neighborhood to WPS Drive
- Add pedestrian signals to existing traffic signals

BROADWAY EAST

The stretch of Broadway east of the Yahara River, running from Falcon Circle in the west to Stoughton Road in the east, is a high-speed traffic corridor that serves cars well but leaves much to be desired from cyclists and pedestrians. There are a number of destinations along Broadway, including restaurants; hotels; a public boat launch; the Roselawn Memorial Park; and Ahuska Park, the site of the Monona Farmers' Market. Except in the parks, however, there are few public amenities such as benches or water fountains.

There are well maintained sidewalks on both the north and south side of the street for almost the entire length of Broadway. However, there is no dedicated lighting for sidewalks, which can make certain sections fairly dark at night. Sidewalk connectivity is also an issue, with side streets having sidewalks on only one or neither side of the street. Broadway east of Copps Avenue, however, is most lacking in connectivity, as the sidewalk on both sides of Broadway ends abruptly at the intersection with Copps.

As with the sidewalks, narrow bike lanes, or what appear to be bike lanes, run the entire length of Broadway on both sides. These lanes are unmarked for long stretches, a potential source of confusion for would-be users. The lanes are made to feel even narrower by the intrusion of the curb seam on one side and proximity to speeding cars on the other, and as such may seem unsafe to novice or casual bicyclists.

There are four traffic signals along this stretch of Broadway: one at Monona Drive, one at the entrance to the strip mall just east of Roselawn Avenue, one at the entrance to Ahuska Park, and one at Copps Avenue. This last intersection, however, has no north-south crosswalk, meaning a pedestrian or cyclist who has taken the southern sidewalk or bike lane east must either turn around (not an option for the bicyclist) to cross at Ahuska Park, continue to Stoughton Road (not an option for the pedestrian, who would have to trudge through marshy grass), or cross illegally. This dearth of crossings, not just at Copps Ave but also at Edna Taylor Parkway, Roselawn Ave, River Place, and Falcon Circle, turn Broadway more into a barrier than a facilitator of transportation for bicyclists and pedestrians.

THIS 'DEARTH' OF CROSSINGS TURN BROADWAY MORE INTO A BARRIER THAN A FACILITATOR OF TRANSPORTATION FOR BICYCLISTS AND PEDESTRIANS

Recommended Improvements

- Short Term
    - Widen bike lanes: this would necessarily mean making car lanes narrower, which might help calm traffic and make cyclists feel even safer
    - Add clear bike lane signage and wayfinding tools
    - Add north-south crosswalks to intersections where they do not exist
    - Add bicycle parking and public amenities such as benches at destinations

- Long Term
    - Create safe bike and pedestrian approaches to the Dutch Mill Park and Ride to increase intermodal connectivity
    - Add or convert sidewalk to off-street bike path, at least on south side of Broadway: this would connect the Dutch Mill Park and Ride to the hotels and shopping centers at Monona and Broadway
    - Add bike share stations at Monona and Broadway and at the Park and Ride: this would give more local mobility to visitors coming in by bus or staying at the Country Inn or AmericInn Lodge
    - Add signaled intersections and crosswalks along Broadway to calm traffic and improve pedestrian and cyclist connectivity

MONONA DRIVE NORTH

This corridor includes four audited intersections: Monona Drive at Dean Ave, Monona Drive at Lofty Ave, Monona Drive at Coldspring Ave, and Monona Drive at Winnequah Rd. Audit results ranged from 35.5 at Winnequah Rd to 60 at Dean Ave. The cross-section in this corridor consists of two 11-foot travel lanes in either direction, paved bicycle lanes along the shoulder, and sidewalks.

Though bicycle lanes are present along Monona Drive, auditors commented that they felt inadequately wide. According to Google Maps street view, the bike lanes do meet the standard 5-foot minimum width, however there is no separation from vehicular traffic, making it uncomfortable for many users.

Bicycle accommodations would be improved though the analysis of turning movements. Many side streets do not include bicycle accommodations and Monona Drive does not provide accommodations for turning movements. This is especially critical at Coldspring Ave, north of Monona Grove High School. Any students wishing to leave the school on bicycle must utilize the vehicular lanes along Coldspring, often requiring them to make a turning movement from a stopped position in live traffic. This is very hazardous to users and may discourage some users from biking.

Pedestrian accommodations through this corridor were generally in good condition. The sidewalks appeared relatively new and met ADA-standards. Crossing accommodations were generally well-provided for, with the exceptions of Winnequah and the mid-block crossing at Monona Grove High School. At Winnequah Road, Monona Drive is coming out of a curve north of the intersection. Along this curve, there are few destinations for pedestrian traffic or intersections, which in turn results in higher speeds for vehicles. The visibility for pedestrians at this location is low, and no accommodations besides a striped crosswalk are provided. A potential crossing beacon would help alert drivers of

pedestrians while not adversely impacting traffic flow, as it would only operate if pedestrians were present.

The second pedestrian crossing that seemed inadequate was the mid-block crossing at Monona Grove High School. While auditors were present, this appeared to be functioning well since many students were present at the end of the school day. However, they expressed concern over the visibility of this crossing when there is not a lot of pedestrian presence in the area. The crossing had no "Crossing Ahead" warning from either direction, just a sign at the actual location. Colored concrete was utilized to increase visibility, which appeared successful. Greater visibility, though, could be achieved through the addition of a flashing beacon or a raised crosswalk.

Recommended Improvements

- Improve bicycle turning movements through addition of bicycle boxes
- Improve bicyclist comfort through separation of bicycle facilities
- Add warning signage ahead of pedestrian crossings that are not otherwise signaled
- Increase visibility of pedestrian crossings through addition of flashing beacons
- Consider raised pedestrian crossing in front of Monona Grove High School

MONONA DRIVE SOUTH

The southern portion of Monona Drive, roughly stretching from Pflaum Road in the north to Femrite Drive in the south, is well situated to be the City of Monona's proverbial Main Street, with a variety of businesses lining either side of the street and flanked by residential neighborhoods. The southernmost portion of Monona Drive, from Femrite to Broadway, was not targeted for auditing, but it stands to reason that the conditions observed in the audit area continue on down to Broadway.

Where pedestrian infrastructure exists (Monona Drive, certain sections of Owen, Frost Woods, and Femrite), it is very well maintained and appears new. There are sidewalks on either side of Monona Drive with crosswalks regularly spaced at and between intersections. Intersections have clear lines of sight and bright signals. However, major pedestrian challenges arose from several factors. The high traffic volume along Monona Drive creates challenges to pedestrians on adjoining sidewalks.

AN OVERALL LACK OF PEDESTRIAN FACILITIES CREATED AN ENVIRONMENT THAT COULD BE DESCRIBED AS BARREN AND INHOSPITABLE

An overall lack of pedestrian facilities (water fountains, trash bins, benches, visual interest, parks, recreational equipment) created an environment that could be described as barren and inhospitable to pedestrian and bike traffic. All along Monona Drive, businesses are set back from the street by parking lots, enhancing this barren, pedestrian-unfriendly feeling. For the time of day, there seemed to be less bicycle and pedestrian traffic than was reasonable to expect. This is most likely due to the above negative conditions.

Recommended Improvements

- Short Term
    - Widen bike lanes either by narrowing car lanes or dropping one car lane on either side of Monona Drive
    - Lower the speed limit on Monona Drive
    - Add bike racks and public amenities such as benches
- Long Term
    - Convert one lane on either side of Monona Drive to street parking in order to create a protected bike lane
    - Use signage and bike boxes to make left turns easier for bicyclists
    - Add sidewalks and bike lanes to side streets to enhance network connectivity

OVERALL RECOMMENDATIONS

One glaring deficiency evident in Monona's 2015 Bicycle Friendly Community is that **only 20 percent of arterial and collector streets have facilities that meet the American Association of State Highway and Transportation Officials' standards.** There are no separated bicycle facilities in the city, meaning cyclists must ride next to traffic to travel to destinations in Monona or to leave the city on a commute to Madison. The LAB application lists several improvements, including adding sharrows to mark bike routes. This is not an effective strategy, though, considering the research that has accumulated showing that sharrows do not increase bicycling numbers or safety.

- Therefore, alternatives to sharrows, such as forms of **traffic calming devices and protected bicycle facilities** are encouraged for installation.
- When the State of Wisconsin did away with their Complete Streets law, so did Monona. Monona should **create their own local Complete Streets Policy** to guide future construction with bicycle and pedestrian conscious design.
- The City of Monona should **consider lowering their local street speed limit to 20 mph** throughout the city. Accumulated research shows that crashes between vehicles and bikes or pedestrians at speeds of 20 mph or lower rarely result in death. Crashes at 30 mph have been shown to produce odds of 20-50 percent for fatalities. Pedestrians and bicyclists also recognize the danger of speed and feel less safe traveling along roads with higher speed limits.
- However, it has been shown that drivers travel at the speed they feel comfortable moving, regardless of posted speed limits. **Therefore, road diets on wider local streets will be necessary to produce a slower environment.** This is especially crucial at major intersections, to reduce vehicle speeds as well as shorten crossing distances for bicyclists and pedestrians.
- **Bike boxes should be considered on collectors and arterial streets at stoplights.** These green boxes with a bike symbol ahead of vehicles at intersections allow bicyclists to move to the front of the queue and give them visibility as they try to turn right or left. These are a major safety strategy that reduces conflicts at intersections. Δ

EVALUATION

LISA CHARRON, JONATHAN FOK, THERESA MACFARLANE

OVERVIEW

One important way for Monona to create bicycle-friendly programs and policies is to incorporate bicycles into its city-wide planning and evaluation. The LAB scores communities on how well they have included the needs of bicyclists into their governance. Monona scored a **one out of ten for it's the Evaluation section** its 2015 Bicycle Friendly Community application. Monona can make improvements in this area by creating a Bicycle Advisory Committee, by adopting a Bike Master Plan, and by collecting more data on bike usage.

BICYCLE ADVISORY COMMITTEE

A bicycle advisory committee (BAC) is a key component of developing a bicycle friendly community. The BAC is generally citizen-based, rather than composed of government officials. In this way, the BAC is relatively immune to political changes and can act as a watchdog for government policy and project implementation.

The City of Monona already has Sustainability Committee in place, but a separate BAC should be formed to align with the recommendations of the LAB**.** This committee should be comprised mainly of citizens, but could also include members of related government agencies like:

- Public Works
- Facilities
- Public safety
- Mass Transit

In addition to the BAC, larger communities should have a staff member dedicated to bicycle policy and programming. The LAB suggests that communities have one full-time staff person for every 70,000 citizens, and this recommendation is followed by the City of Monona with one staff member dedicating 10 percent of their work to bicycle and pedestrian programming. This staff member should continue to plan bicycling events and promote bicycling policies in Monona.

The BAC and bike coordinator should meet monthly or quarterly with the Sustainability Committee to make sure bike programming and policy is moving forward in a timely manner. In addition, Dane County regularly holds coordination meetings to discuss bicycle projects. The bike coordinator should attend these coordination meetings to stay up-to-date on regional bike programs and policies.

BIKE MASTER PLAN

While the bike master plan may take years to develop, it should be comprehensive. It must include all five of the E's (Engineering, Education, Enforcement, Encouragement, and Evaluation), because each and every one of these components must be addressed in order to create a truly bicycle friendly

community. A Bike Master Plan lays out specific goals, objectives, benchmarks, performance measures, and responsible individuals or agencies in each of the five E categories.

A strong bike master plan is developed with input from the community and cooperation with the BAC. The LAB looks for plans that have specific targets for ridership and safety, tools for evaluating progress towards those targets, and dedicated funding for implementation. The LAB also emphasizes that plans have strategies to reduce the number of bicycle fatalities and injuries, and that mechanisms are in place to ensure that bicycle infrastructure and programming serve the community equitably.

A BIKE MASTER PLAN LAYS OUT SPECIFIC GOALS, OBJECTIVES, BENCHMARKS, PERFORMANCE MEASURES, AND RESPONSIBLE INDIVIDUALS OR AGENCIES IN EACH OF THE FIVE E CATEGORIES

Monona does not have a bicycle plan, but elements of its 2016 Comprehensive Plan and 2015 Sustainability Plan address bicycling as a mode of sustainable "alternative" transportation. The Sustainability Plan's transportation section is devoted primarily to objectives and implementation strategies involving bicycles or "alternative transportation" more broadly.

The objectives in the Sustainability Plan generally call for an increase in the percentage of people "using alternative transportation." To the plan's credit, each objective has a list of specific implementation and evaluation strategies. These strategies, though, are listed as "potential." Rather than stipulating the action that will take place, the plan becomes a list of ideas that could happen, greatly reducing its strength. In addition, the evaluation strategies rarely provide benchmark numbers or 2025 target numbers. **In order to create an effective Bike Master Plan that inspires action, Monona should use binding words like "shall" and "will," and should develop benchmarks for measuring success.**

The first step in developing a bicycle plan for the city of Monona is to incorporate recommendations for bicycle infrastructure development into its Comprehensive Plan. The efforts should not be done to develop a bicycle infrastructure as a subset to streets and roads, but as an equal part. The city of Monona should look into strategies to create a safe and connected bicycle network in the major areas. The plans should also take into account the existing regional network for future preservation and redevelopment.

The next step is to make sure that neighborhood and transportation plans are kept up-to-date when future plans are made. The up-to-date plans are especially important for bicycle and other alternative transportation facilities in Monona. Therefore, the city of Monona should look to review and support zoning ordinances to ensure a connected bicycle network with bicycle facilities. The development of alternative transportation-oriented areas in conjunction with the Comprehensive Plan will be helpful for tracking progress towards goals. Goals include increasing percentages of commuters traveling by bicycle and students traveling by bicycle to schools, and decreasing bicycle fatalities.

The final step is to identify dedicated funding sources for bicycle implementation in Monona. Dedicating funding sources will be crucial for moving forward in the construction of bicycle facilities in Monona. Collaboration between Monona's public agencies will be important to ensure proper bicycle facilities are planned and constructed. Sources of funding could include impact fees, which are

designed to make sure that new developments contribute a proportional part of the costs to provide bicycle and other alternative transportation facilities.

DATA COLLECTION & EVALUATION

Lastly, bicycle planning and policy needs to be supported with a robust data collection system. Beyond the data that can be obtained through the American Community Survey, the LAB suggests that communities conduct statistically valid surveys and on-the-ground counts of people bicycling, collect data on bicycle crashes, and develop a network analysis of low-stress streets.

This type of data collection serves as the base upon which a bike plan can be built. Baseline data allows communities to compare to others across the nation, but it is also necessary in order to develop targets and show progress. In addition, robust data tracking on bicycling can help communities justify bicycle projects and program expenses.

Monona's 2015 Bicycle Friendly Community application showed that it does not regularly collect information on bicycle usage, does not have target goals for bicycle usage, does not conduct pre/post evaluations for bicycle projects, has not conducted a network analysis, does not have a plan to reduce bicycle crashes, and has not conducted an economic impact study of bicycling in the community.

In order to remedy the lack of data collection in Monona, the city should:

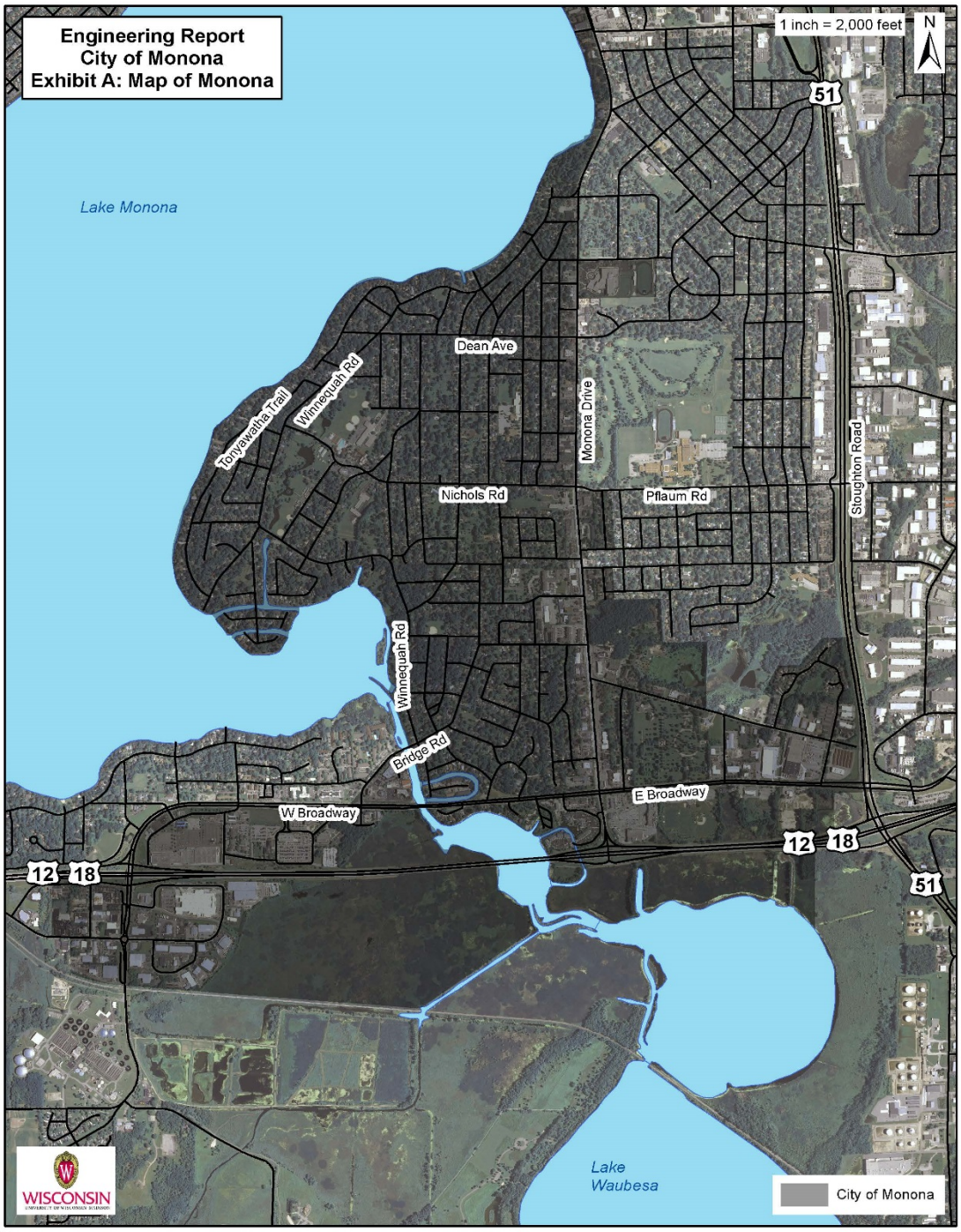
- Implement a survey similar to the one the University of Wisconsin conducts every two years, which focuses on student and faculty transportation. The survey should be conducted on-site at community destinations, and should include residents and visitors. It could count **the ratio of bikes to cars at community destinations**, number of people seen biking, or number of bikes parked at racks. Recommended study locations are areas such as libraries and stores.
- **Install automated bike counters at key bike paths in Monona to receive automated bike usage data.** The Madison MPO currently has several automated bike counters that detect bike path users year-round.
- **Conduct a network analysis** of low-stress bike routes through Monona.
- **Use the Capital Area Regional Planning Commission's Active Living Index** to gain data and understanding of the challenges facing bikers and walkers in Monona. Δ

CONCLUSION

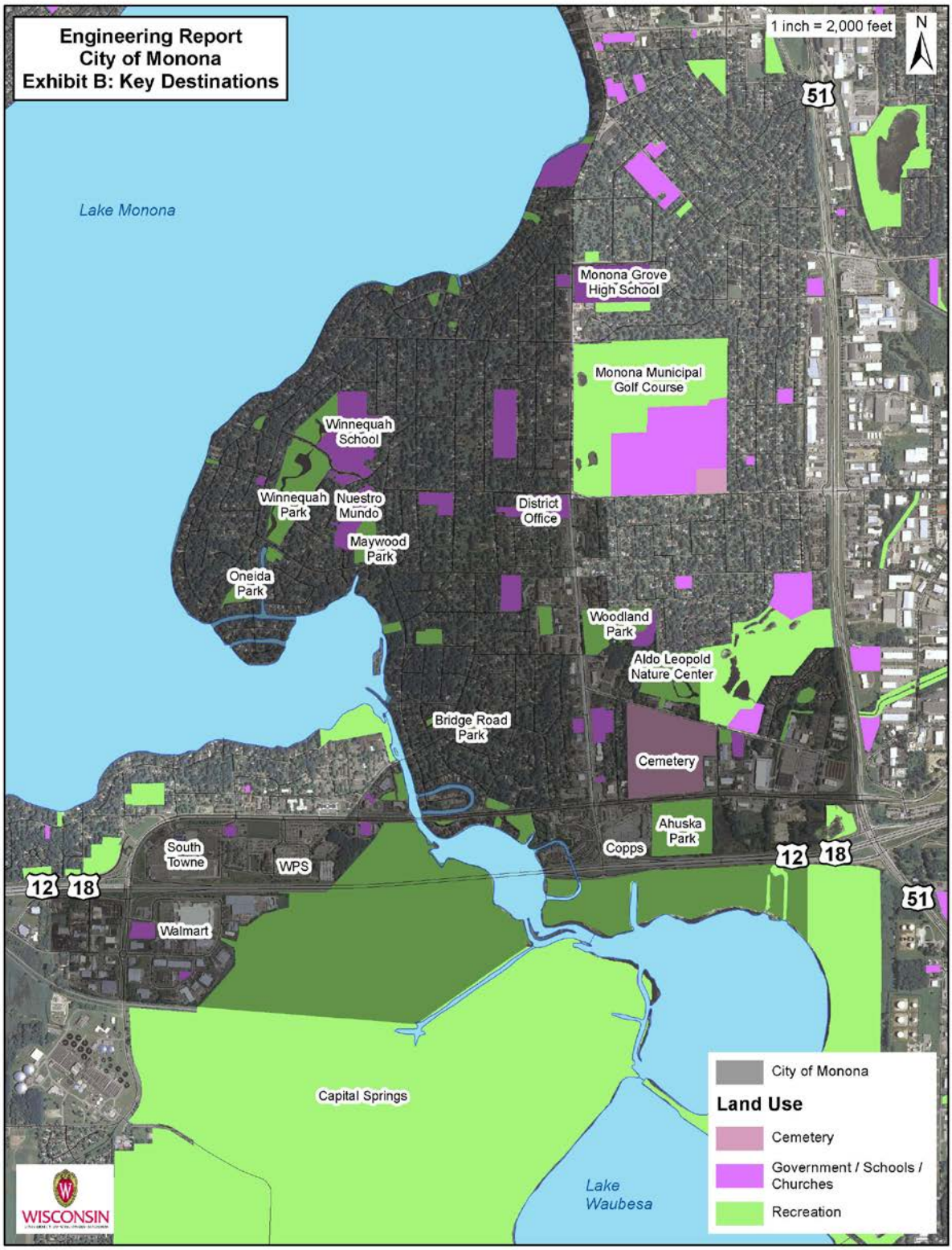
The City of Monona has secured its place as a Bicycle Friendly Community, which is an accomplishment to be proud of. By taking advantage of opportunities to increase the safety and accessibility of bicycling through the Five Es, Monona's bicycling environment can be further advanced. This will attract more people to Monona and enhance the quality of life for its residents. The policy, infrastructure, and program changes recommended in this report will move Monona towards the silver Bicycle Friendly Community designation and make it an even better place to live, work, and play. Although these strategies require the investment of time and resources, the resulting improvements will greatly benefit the community. Δ

APPENDIX

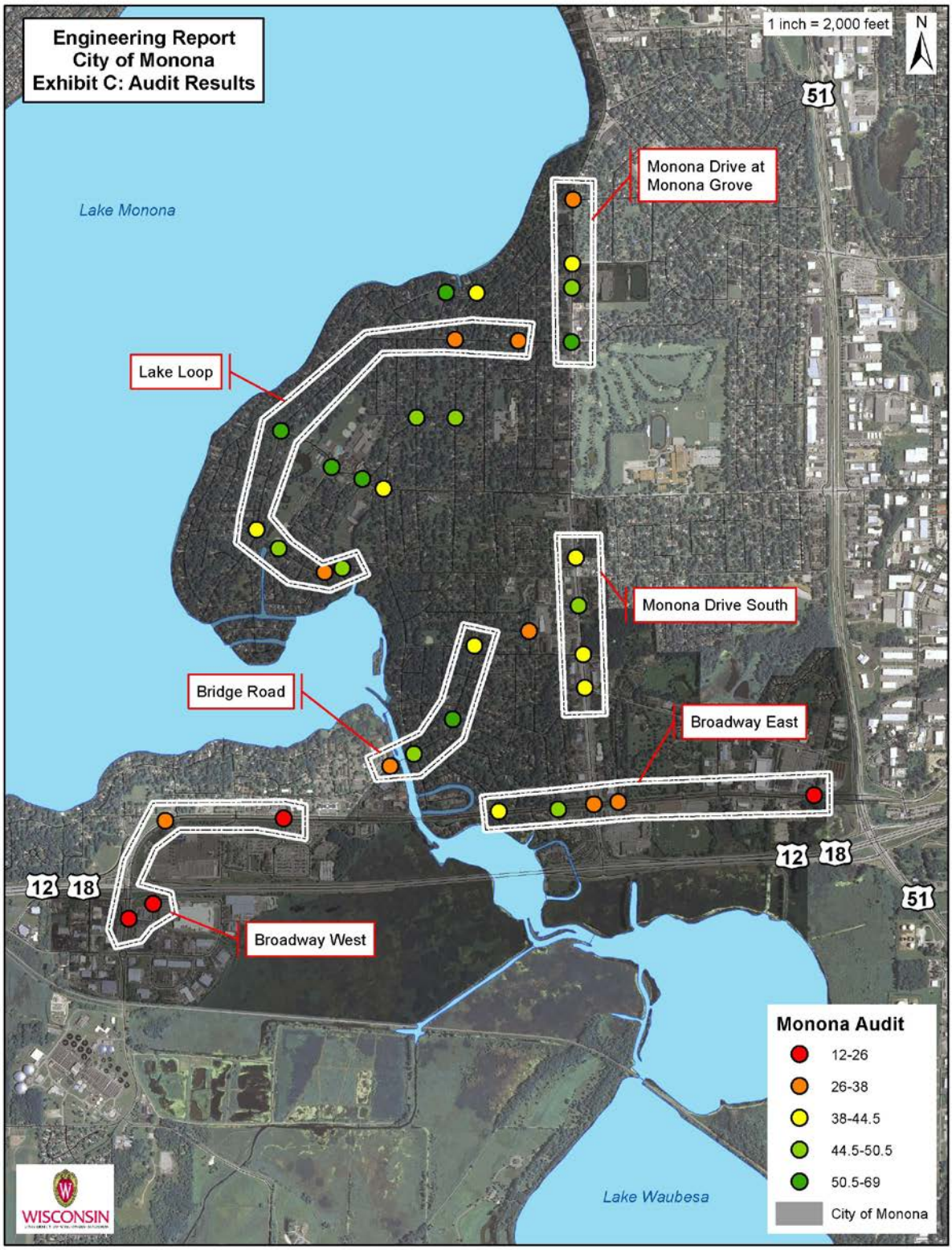
A: MAP OF MONONA



B: MONONA KEY DESTINATIONS



C: AUDIT RESULTS



Community Walking and Bicycling Audit Tool

The tool consists of three parts:

- **Part 1: Audit Tool. A two-sided audit tool to score the features in the area being reviewed.**
- **Part 2: Audit Map. A two-sided map with a sample on one side and space on the other side to paste the area being reviewed and make notes and references on specific features.**
- **Part 3: Reference Guide. A seven-page reference list to assist with completing the 2-page audit and/or to record more detail on what you see as part of the audit.**

DIRECTIONS:
The benefits of walking and bicycling include improved health, cleaner air and more social interaction in the community. Walking and bicycling audits can help identify key intersections or areas where physical and environmental changes could make a big difference in improving opportunities to be more physically active. This tool can guide you on what to look for in selecting and evaluating site(s).

Key Steps:

1. **Identify key players** who should be involved. The list of key players may vary depending on your goals, but a list of possible members could include: Public health officials, city planners, law enforcement, school representatives and neighborhood or community groups. Depending on who is initiating this effort and what you hope to see as an outcome, you should have a variety of stakeholders at the table when you start considering sites you want to audit.

2. **Site Selection**. Your sites can be chosen for a specific goal, like instituting a Safe Routes to School program at the elementary school or a broader goal of making the community more pedestrian and bicycling friendly. Depending on your goals and resources, you may have to limit the audit to just a few sites, so you want to choose sites that are pivotal to your goals. That might mean an area where a connecting trail could increase walker and biker numbers a great deal because it would provide a bridge over a stream or it could mean an approach area to a school that has high traffic volume that needs to be slowed or requires providing a different route for walkers and bikers. Another important consideration for site selection is whether there are areas where access to walking and bicycling is limited due to lack of resources or safety issues (real or perceived), or where residents have limited access to other modes of transportation. In any case, you want key players involved to maximize your chance of selecting sites wisely.

3. **Audit Team**. Ideally, each audit should be done by at least two people. Having two people allows for easier recording and provides for some give and take about what each person is seeing. If possible, the team should consist of people with a variety of skill sets or experiences (e.g. pair a "health" person with a "planning" person).

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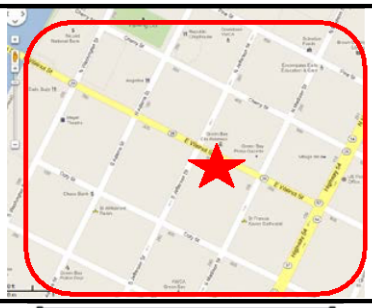
Suggested citation: Department of Health Services, Division of Public Health, Nutrition, Physical Activity and Obesity Program, Wisconsin Partnership for Activity and Nutrition. Wisconsin Worksite Resource Kit to Prevent Obesity and Related Chronic Diseases. July 2012. P-00399 (9/12)

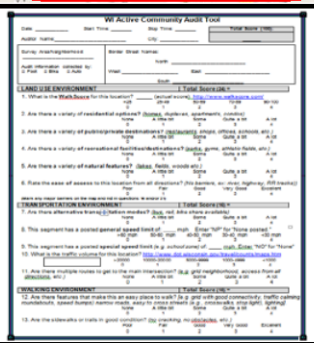
4. **How to Audit**. You can use the audit tools in whatever manner works for you. If you have two reviewers auditing a site, the recommended distribution of duties would be for one person to record on the two-sided audit tool, and the other person provide background information from the seven-page reference document and record on major features on the map. Consider using photos, videos and voice memos to supplement your audit results.

5. **Using the Audit Tools.**

Audit Area
The suggested audit area is a two block radius around the key intersection that is the center point. Because the area a block or two off of a major street could be considerably different that the main street that you are looking at, use the main intersection as the deciding factor if a score could either go up or down for each question.



Audit Tool
The two-sided audit tool is the main recording document while you are out evaluating the route. You can make marks on the document as you tour the route and then meet afterwards with your partner to record your final answer and score for each question. Two of the questions (#1 & #10) require an online search which you can do before or after touring the route.



Scoring Example:

LAND USE ENVIRONMENT — *Total Score (24) = 15*

1. *What is the **WalkScore** for this location? _____ (actual score)* http://www.walkscore.com/

<25	25-49	50-69	70-89	90-100
0	1	2	3	4

2. *Are there a variety of **residential options?** (homes, duplexes, apartments, condos)*

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

3-6. + questions 3-6. Score each section as you go and place the total for the section at the top.

Audit Map
The map is a way to visually mark key areas from your audit. You will need to go online and copy and paste a map of your audit area (ex. Google or Bing maps) prior to doing the audit. While on the audit, mark any key aspects of the area right on the map. This will assist you in your final scoring and will help others looking at the results to see where the key aspects are that you recorded.

Reference Guide (use is optional)
The seven-page reference guide provides additional information for each of the 28 questions. The guide can be used prior to the audit as a learning tool, during the audit to clarify the criteria or after the audit to help select a final score for each item.

WI Active Community Audit Tool

Date: _____

Poor

14. Are intersections easy to navigate? *(can see traffic, signals, signs, space, etc.)*

Poor	Fair	Good	Very Good	Excellent
0	1	2	3	4

15. Are there buffers between pedestrians and traffic? *(terraces, parking, bike lane, etc.)*

Poor	Fair	Good	Very Good	Excellent
0	1	2	3	4

16. List any key walking issues or problems (ex: bridge) encountered and their location:

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

BICYCLING ENVIRONMENT **Total Score (16) =**

17. Are there features that make this an easy place to bike? *(bike lanes, signs, bike racks, few hazards, etc)*

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

18. Is the surface that you rode on in good condition? *(no potholes, debris, bad surface, etc.)*

Poor	Fair	Good	Very Good	Excellent
0	1	2	3	4

19. Are intersections easy to navigate? *(can see traffic, signals, signs space, etc.)*

Poor	Fair	Good	Very Good	Excellent
0	1	2	3	4

20. Are there accommodations for all wheeled devices? *(curb cuts, wheelchair access, etc.)*

Poor	Fair	Good	Very Good	Excellent
0	1	2	3	4

21. List any key bicycling issues or problems (ex: bridge) encountered and their location:

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

FACILITIES & AESTHETICS **Total Score (28) =**

22. Is there **recreational equipment** visible (playground equipment, sports equipment, etc.)?

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

23. Are there **service amenities** visible (restrooms, water fountains, vending, etc.)?

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

24. Are **attractive features** visible (e.g. architectural design, building variety, pedestrian and bicycle traffic, vegetation, signage)?

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

25. Are **comfort features** visible (e.g. shade trees, benches, etc.) ?

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

26. Is **air or noise pollution** visible (e.g. diesel fumes, factory emissions, trains, constructions)?

A lot	Quite a bit	Some	A little bit	None
0	1	2	3	4

27. Is the **physical environment safe and attractive** (no debris, no graffiti, no crime, etc.)?

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4

28. Are **people visible** (kids, adults, older adults)?

None	A little bit	Some	Quite a bit	A lot
0	1	2	3	4