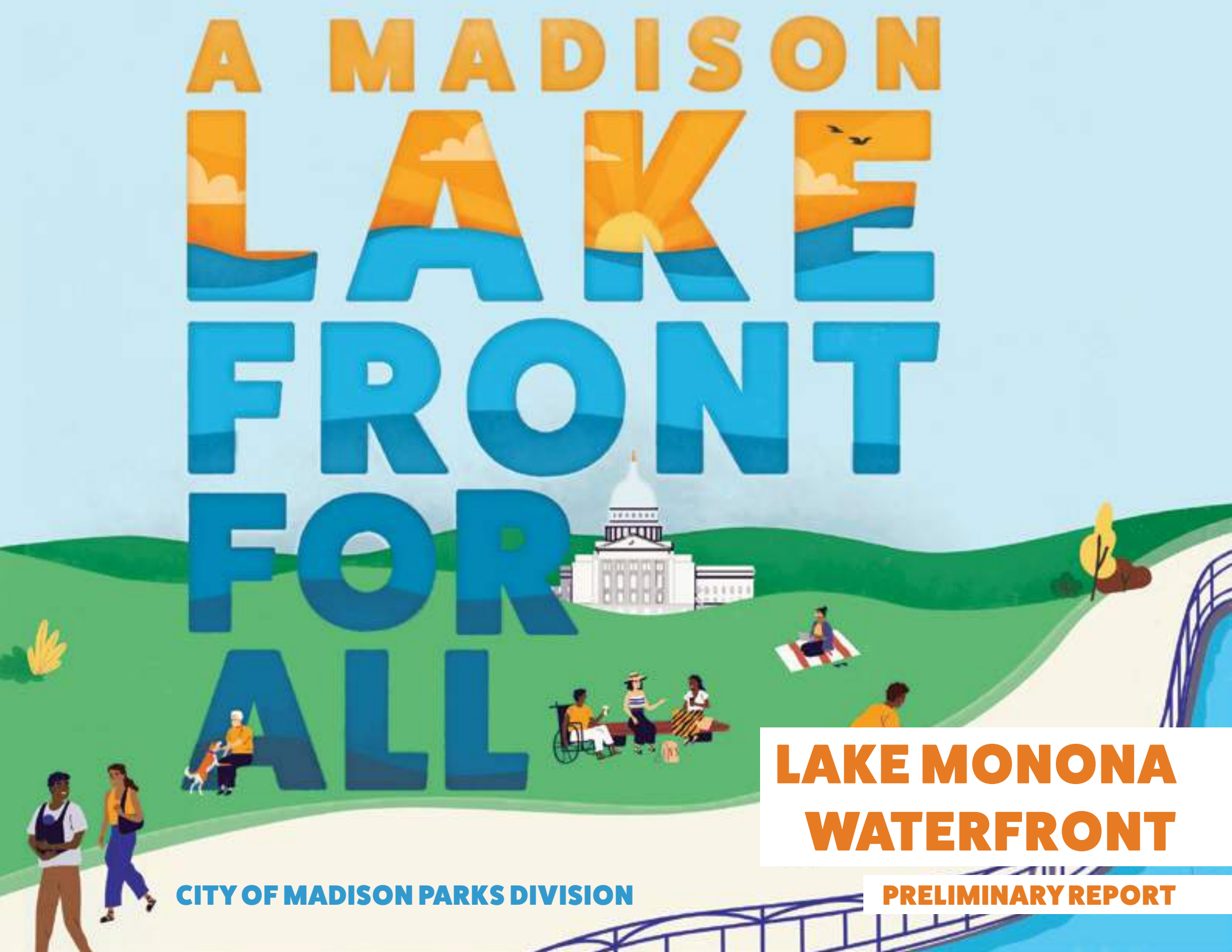
A MADISON LAKE FRONT FOR ALL



LAKE MONONA WATERFRONT

CITY OF MADISON PARKS DIVISION

PRELIMINARY REPORT

ACKNOWLEDGMENTS

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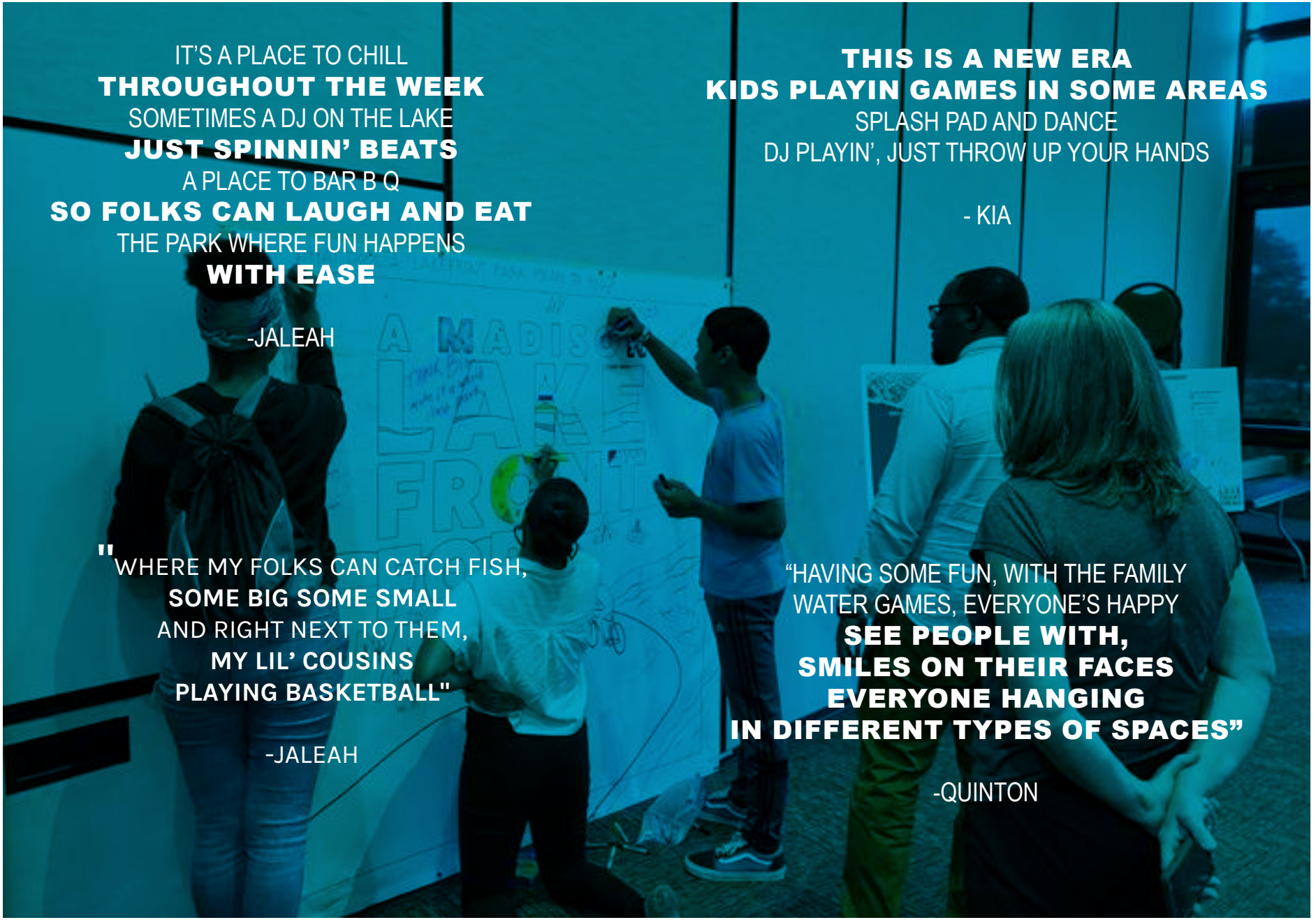
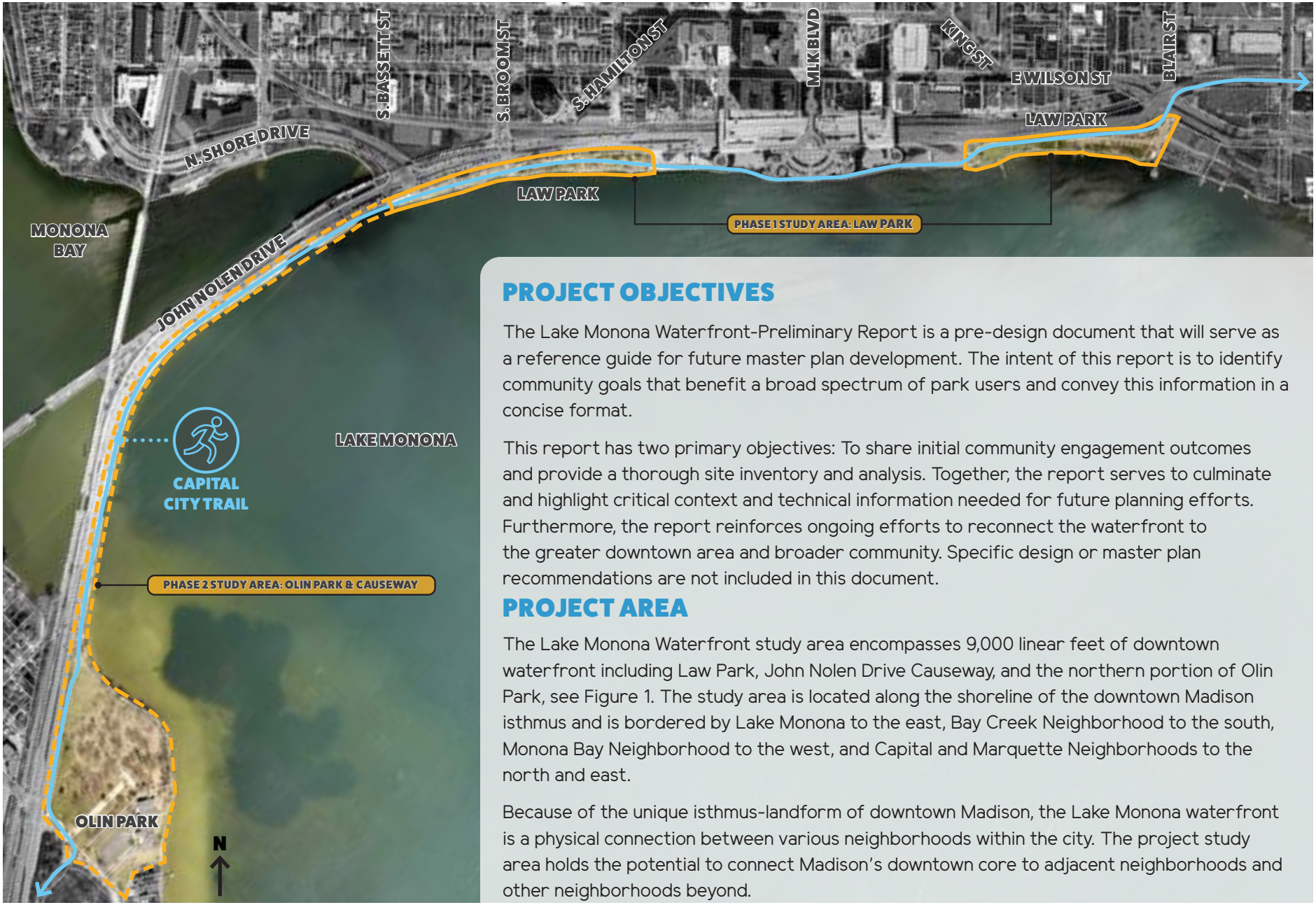

IT'S A PLACE TO CHILL
THROUGHOUT THE WEEK
SOMETIMES A DJ ON THE LAKE
JUST SPINNIN' BEATS
A PLACE TO BAR B Q
SO FOLKS CAN LAUGH AND EAT
THE PARK WHERE FUN HAPPENS
WITH EASE
-JALEAH
THIS IS A NEW ERA
KIDS PLAYIN GAMES IN SOME AREAS
SPLASH PAD AND DANCE
DJ PLAYIN', JUST THROW UP YOUR HANDS
- KIA
"WHERE MY FOLKS CAN CATCH FISH,
SOME BIG SOME SMALL
AND RIGHT NEXT TO THEM,
MY LIL' COUSINS
PLAYING BASKETBALL"
-JALEAH
"HAVING SOME FUN, WITH THE FAMILY
WATER GAMES, EVERYONE'S HAPPY
SEE PEOPLE WITH,
SMILES ON THEIR FACES
EVERYONE HANGING
IN DIFFERENT TYPES OF SPACES"
-QUINTON

TABLE OF CONTENTS

INTRODUCTION



PROJECT OBJECTIVES

The Lake Monona Waterfront-Preliminary Report is a pre-design document that will serve as a reference guide for future master plan development. The intent of this report is to identify community goals that benefit a broad spectrum of park users and convey this information in a concise format.

This report has two primary objectives: To share initial community engagement outcomes and provide a thorough site inventory and analysis. Together, the report serves to culminate and highlight critical context and technical information needed for future planning efforts. Furthermore, the report reinforces ongoing efforts to reconnect the waterfront to the greater downtown area and broader community. Specific design or master plan recommendations are not included in this document.

PROJECT AREA

The Lake Monona Waterfront study area encompasses 9,000 linear feet of downtown waterfront including Law Park, John Nolen Drive Causeway, and the northern portion of Olin Park, see Figure 1. The study area is located along the shoreline of the downtown Madison isthmus and is bordered by Lake Monona to the east, Bay Creek Neighborhood to the south, Monona Bay Neighborhood to the west, and Capital and Marquette Neighborhoods to the north and east.

Because of the unique isthmus-landform of downtown Madison, the Lake Monona waterfront is a physical connection between various neighborhoods within the city. The project study area holds the potential to connect Madison's downtown core to adjacent neighborhoods and other neighborhoods beyond.

Figure 1 Project Area

Law Park is a 4.7-acre park situated along the shore of Lake Monona at the northern end of the study area. The park is three blocks from the State Capitol and offers over 2,500 linear feet of shoreline access. The park was originally conceived in 1911 by John Nolen in his seminal plan Madison: A Model City. Nolen's plan envisioned a waterfront esplanade that connected the lake to the Capitol. In 1943, a greatly reduced park was constructed on filled lakebed, establishing the park's current extents. Although the park provides a linear connection along the south edge of the isthmus, the available green space is isolated from the greater downtown area and Capitol Square. Separated by a six-lane highway and railroad corridor, access to the park is limited to connections at its far ends and an interior stair and elevator connection within the Monona Terrace Community and Convention Center.

The park is primarily comprised of two sections of green space east and west of the Monona Terrace. The east section averages approximately 100 feet in width for approximately 1000 feet. The west section averages approximately 90 feet in width for a length of 1500 feet. Both sections are relatively flat with little topography.

Current amenities in the park include a public boat launch, bench seating, public art, floating piers, a small beach area and parking. The convention

Figure 2 Easter Portion of Law Park View Looking West

center, a Frank Lloyd Wright - inspired structure, provides a vertical circulation connection between downtown Madison to the park. Public access is through a series of interior stairs, elevators and escalators and is dependent upon the convention center's hours of operation and events occurring at the facility.

The existing vegetation in the park is primarily lawn with a variety of shade trees. The majority of the shoreline is protected by large stone rip-rap, offering few opportunities for direct interaction with the lake. Numerous plans to improve Law Park and re-connect it to greater downtown Madison and the surrounding area have been proposed over the park's history. None have been implemented to date.

Continuing south of Law Park, the John Nolen Drive Causeway is an artificially constructed connection built in 1965. The causeway divides Lake Monona from Monona Bay and includes three bridges over connecting channels between the bodies of water. The causeway was widened to 4-lanes in 1975 and reconstructed in 1995. The 2.8-acre area between the eastern edge of the roadway and Lake Monona is included in the project study area and consists of riprap shoreline, lawn, scattered shade trees, bridges, and a section of the Capital City Trail, a 10-ft wide off-street shared-use asphalt path. John Nolen Drive provides a dramatic approach to Madison's downtown, offering panoramic views over Lake Monona to the

Figure 3 Western Portion of Law Park View Looking Northeast

Figure 4 John Nolen Drive Causeway View Looking Southwest

downtown skyline. Carrying over 40,000 vehicles per day on average, John Nolen Drive is a heavily trafficked corridor linking downtown Madison to the Beltline Highway and Interstate highway system.

At the southern end of the John Nolen Drive Causeway, the portion of Olin Park included in the study area is a 13.4-acre open space located on the shores of Lake Monona with excellent views of the lake and downtown Madison. It is bounded by John Nolen Drive to the West and East Lakeside St to the south. The Park also includes a paved roadway known as Edgewater Ct., a portion of the Capital City Trail, and the recently acquired properties at 330 and 343 E. Lakeside Street. Assessment of the existing office building located at 330 E. Lakeside Street is not included in this report. However, the study area does include the existing parking lot and park area immediately surrounding the facility.

Figure 5 Olin Park View Looking South

All parts of the study area are situated within the municipal boundaries of the City of Madison and are public property. Although many users pass through daily, the Lake Monona Waterfront holds significant potential for improvement as a destination. As summarized in the 2012 Downtown Plan, the condition of the waterfront is not equal with its prominence as a gateway corridor, and access to Lake Monona from the greater downtown area is limited.

PRELIMINARY REPORT ORGANIZATION

This report is organized in five main sections: Community Engagement & Outcomes, Site Investigation & Analysis, Site History, Current Development Plans, and Looking Forward.

Section A - Community Engagement & Outcomes focuses on input from Madison residents, stakeholder groups, and park users regarding desired improvements to the study area.

Section B - Site Investigation & Analysis is a technical exploration of current site conditions, identification of potential improvement opportunities, and regulatory processes for future improvements.

Section C - Site History includes an overview of pre-European and post-European development at or near the project site. Pre-European Settlement focuses on Native American cultures, their land use, and historic sites in proximity to this project. Post-European Settlement History is a summary of initial settlement and review of historical planning efforts for Madison and the downtown waterfront.

Section D – Current Development Plans includes a summary of recent planning efforts for the park and documents that have been adopted to guide the growth of downtown Madison and surrounding neighborhoods.

Section E - Looking Forward concludes with next steps and appendix information.

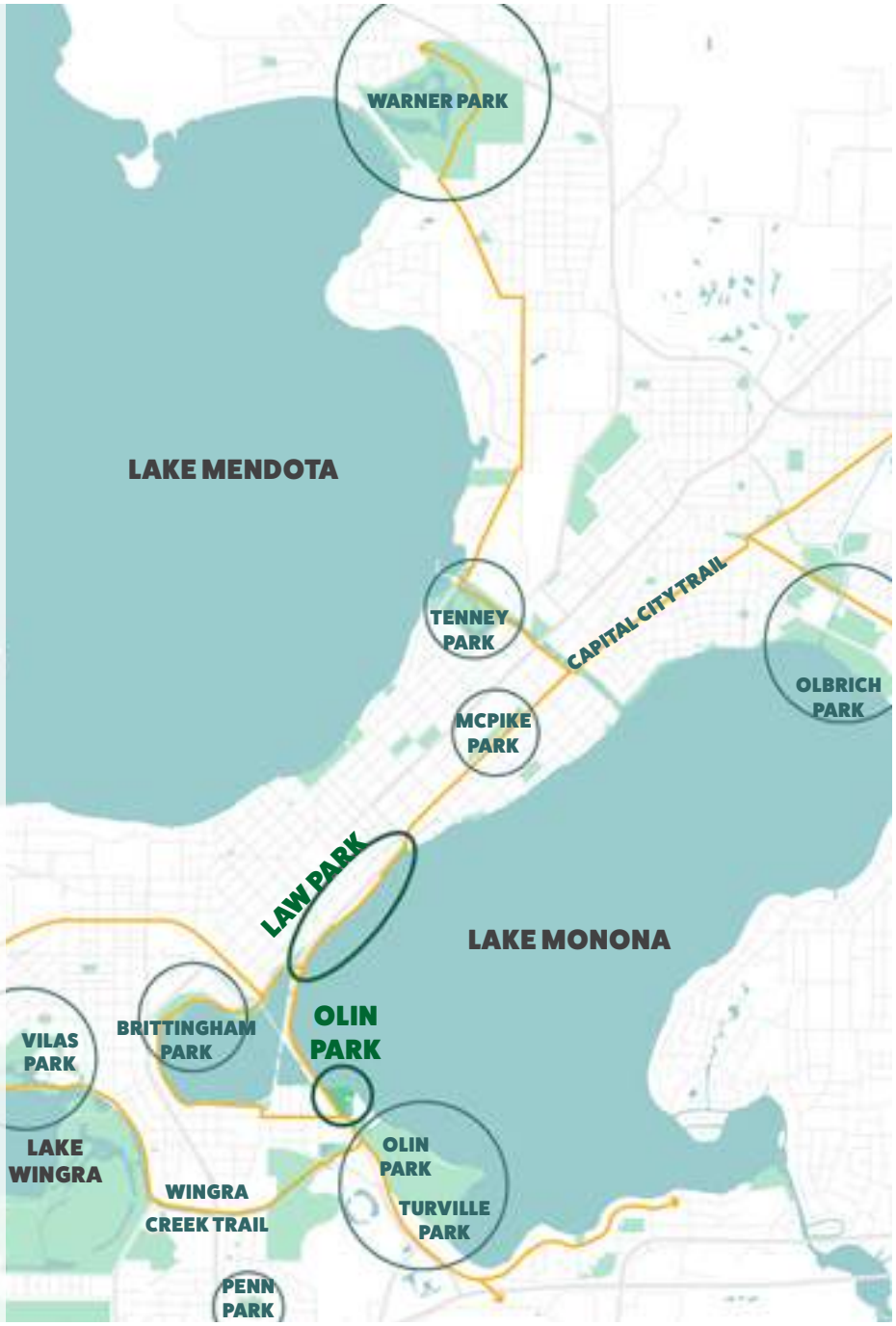


Figure 6 Regional Context

SECTION A

COMMUNITY ENGAGEMENT & OUTCOMES

ENGAGEMENT INTRODUCTION

Community engagement for the Lake Monona Waterfront was conducted in two phases of outreach. The first phase focused on gathering input on the Law Park portion of the study area. The second phase focused on the John Nolen Drive causeway and Olin Park section of the project. Objectives included in the City of Madison's Racial Equity and Social Justice Initiative (RESJI) guided both phases of engagement, with input gathered from a diverse range of Madison residents.

The intent of the process was to build broad community awareness and buy-in through an equitable, transparent, and iterative outreach approach that reduced barriers to participation and incorporated a range of community needs, concerns, and priorities for the project area.

Figure A.1 Onsite Interview with Anglers

ENGAGEMENT PROCESS & APPROACH

The engagement process included a mix of in-person, print, and online tools to provide residents with a variety of choices and opportunities for engagement. This allowed area residents to participate in the project in multiple ways.

Particular engagement strategies, such as the community workshops, targeted the public broadly, while others, such as small group conversations, focused on reaching traditionally underrepresented communities through a more tailored approach to these specific groups and organizations.

Phase I Engagement: Law Park

- Event Tabling & Intercept Interviews – 21 events attended
- Small Group Meetings – 15 meetings
- Project Listserv Contacts – 200 contacts
- Community Workshops – 4 area-focused workshops
- Community Survey – 946 survey responses

Figure A.2 Tabling at Law Park during Mad-City Ski Team shows

Phase II Engagement: John Nolen Drive and Olin Park

- Small Group Meetings – 7 meetings
- Community Survey – 52 survey responses
- Community Workshop – 1 city-wide workshop

ENGAGEMENT OUTCOMES: LAW PARK

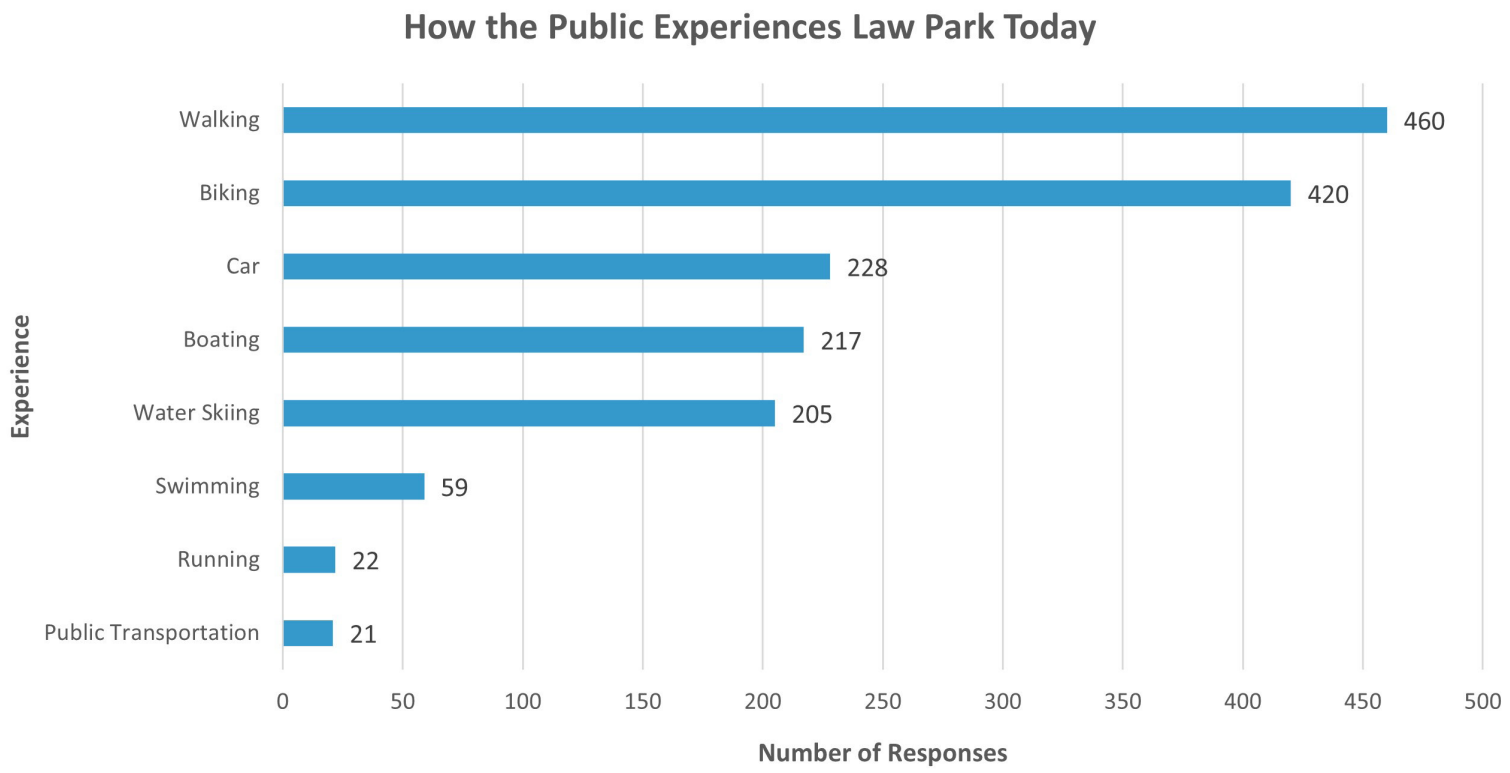
GENERAL FINDINGS

Several themes emerged from input gathered through the channels identified above. The themes, described below, are consistent across engagement tools/ methods utilized and various groups engaged. They demonstrate a broad base of support for the goals and direction of the project and should be used to inform future programming initiatives and improvements to the study area.

All public input data shown below was derived from direct engagement with community members through public meetings, intercept interviews, focus groups, and community surveys offered in multiple languages.

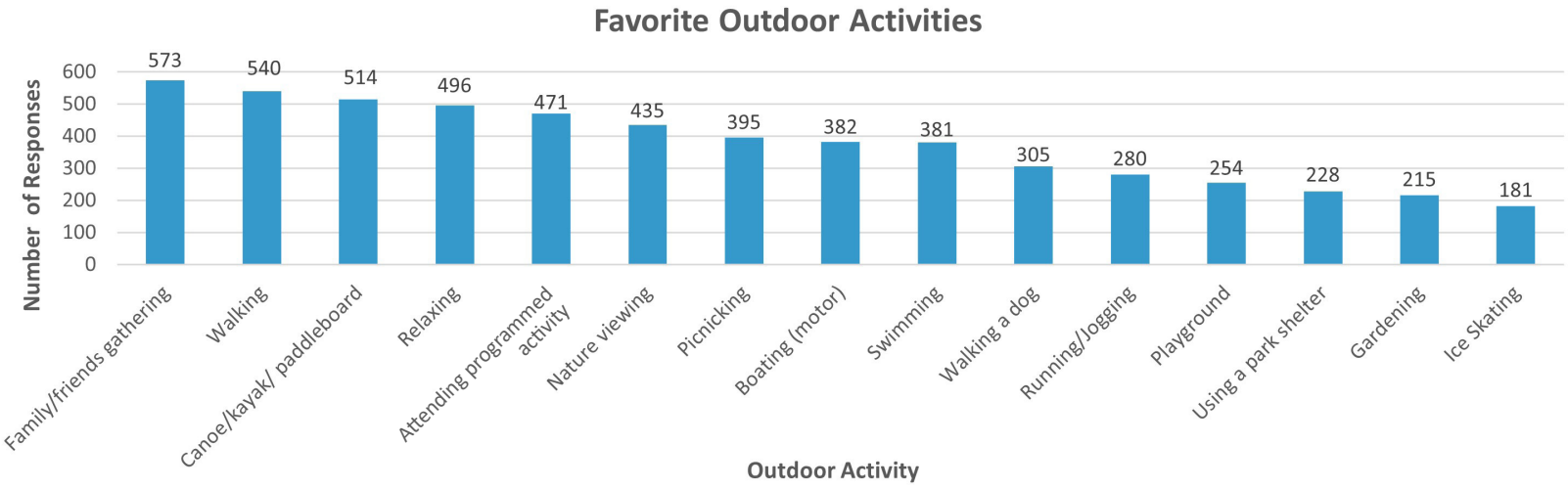
HOW LAW PARK IS EXPERIENCED TODAY

In order to improve Law Park, it is essential for the project team and other involved parties to understand how the park is experienced today.



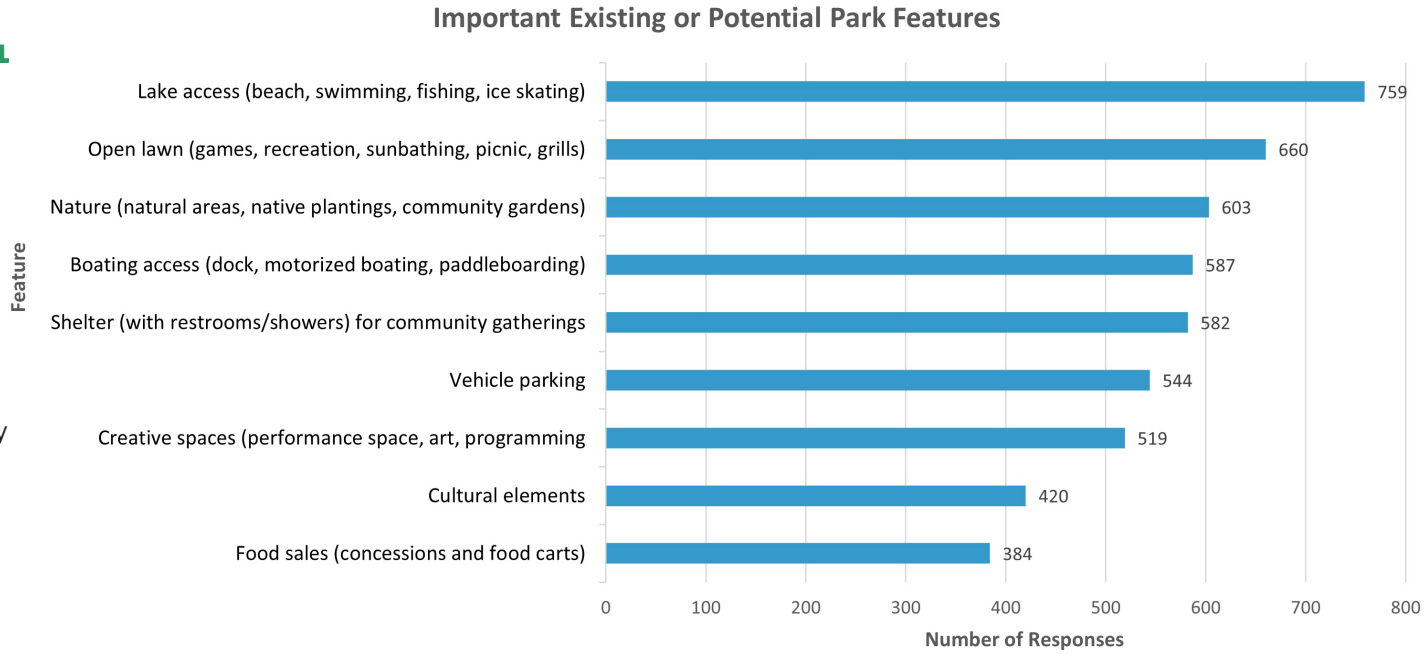
FAVORITE OUTDOOR ACTIVITIES

Gathering input regarding outdoor activities allowed the consultant team to better understand potential desired facilities, features, and activity spaces.



IMPORTANT EXISTING OR POTENTIAL PARK FEATURES

A major priority for the consultant team was to gather input regarding what existing features the community would like to see remain at Law Park and types of features they would like to see at Law Park in the future. This input can be an effective agent in the development of an inclusive community space.

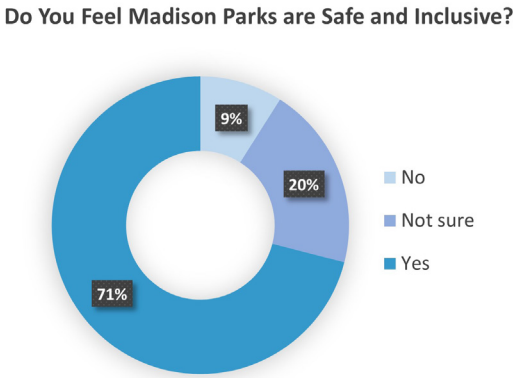


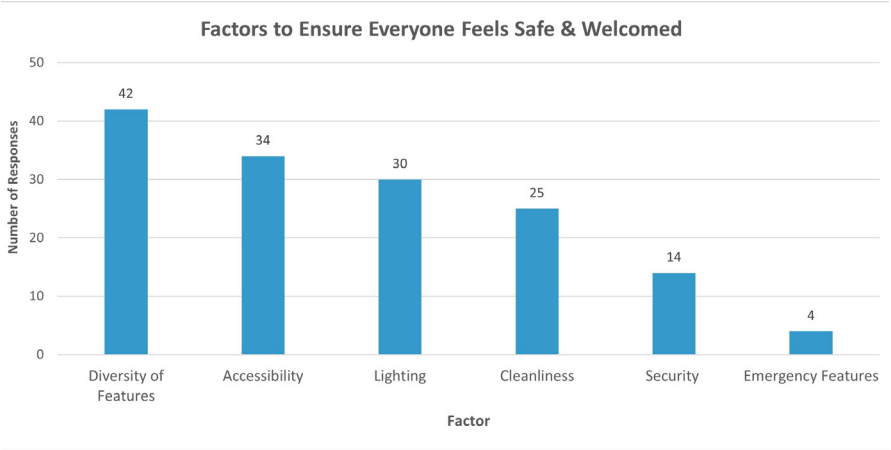
CHALLENGES TO ACCESSING LAW PARK

Access was stated as major point of concern for Law Park, both for people who live in the downtown area and other parts of the city. The project team gathered input from the public on what they felt were the largest barriers to accessing the park.

LAW PARK SAFETY AND INCLUSION

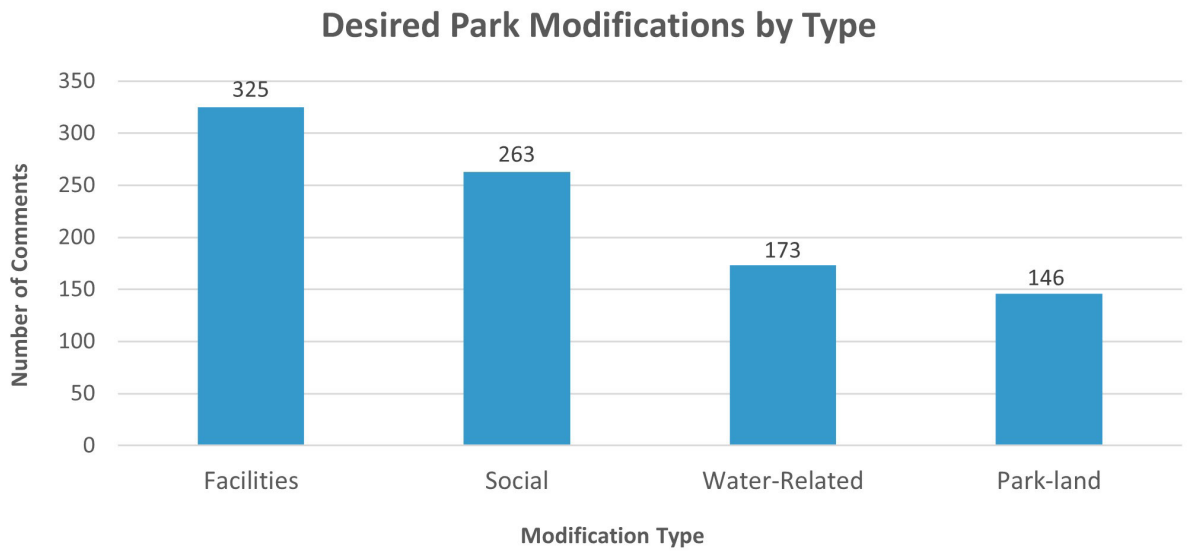
To ensure Law Park is a welcoming public open space for all community members, it was essential for the project team to first understand how the public feels about the safety and inclusion more broadly in all Madison Parks and what specific factors the community believes are key to making sure everyone feels safe and welcomed at Law Park.





COMMUNITY-DESIRED MODIFICATIONS TO LAW PARK

There are several factors that determine the overall quality of a public open space, as perceived by the community. Public input was gathered regarding changes the community would like to see at Law Park, in order to make it the quality, accessible, and inclusive public open space it has potential to be.



COMMON INPUT THEMES - MODIFICATIONS

Facilities:

- Parking
- Restrooms
- Seating and resting areas

Park/Land:

- Expand
- Plantings and Gardens

Water-Related:

- Non-motorized watercraft rentals
- Beach
- Accessible dock(s) and pier(s)

Social:

- Access and inclusion
- Safety
- Events and food sales

HISTORICALLY MARGINALIZED COMMUNITY VOICES

The Engagement team led a series of small group meetings during the first phase of community engagement that focused on working with traditionally underrepresented community members. This method of outreach helped gather essential input from constituencies that might not otherwise participate in traditional engagement approaches.

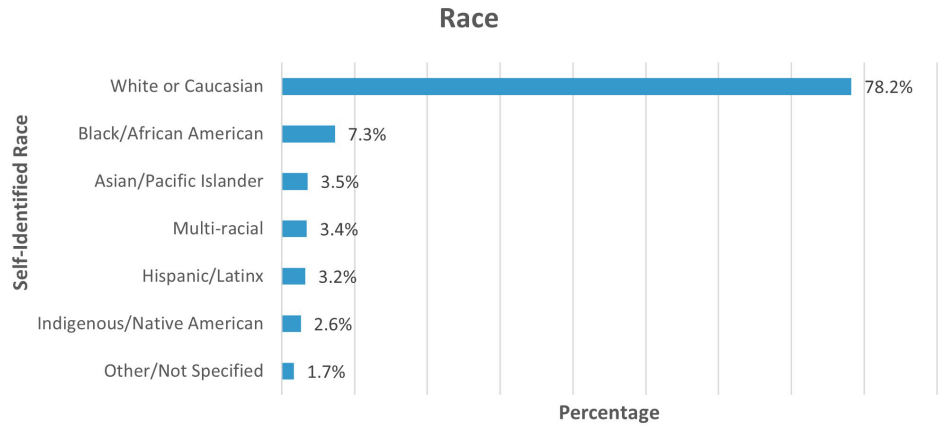
When we think about race, culture, and class, it is very apparent that what these groups are looking for are different – their experiences are different, and their desires are different. There is no ONE solution, rather various solutions that address the multiple constituencies in our community.

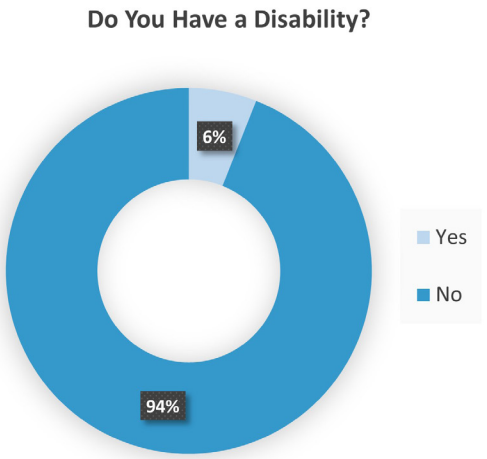
Quotations from conversations with historically marginalized community members regarding Law Park:

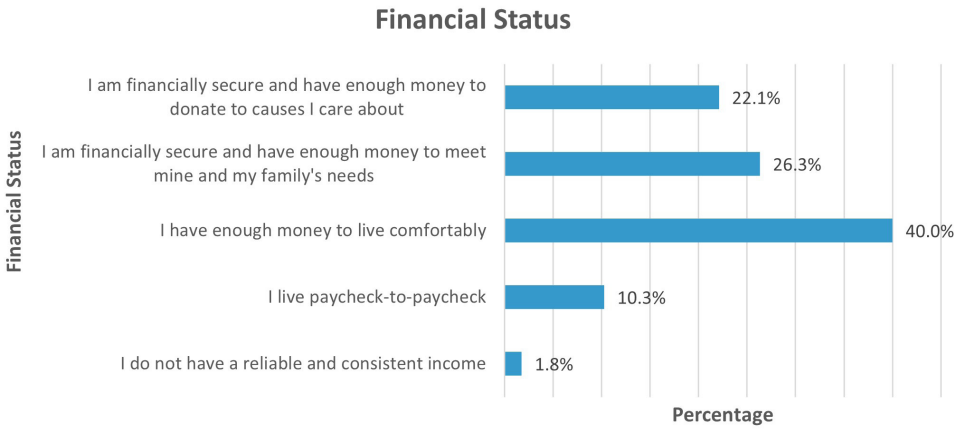
- "Tell the whole story and not just parts ... tell the history"
- "[I] would appreciate culturally diverse art...and [I] want culturally diverse events to take place"
- "Access to lakes is not inclusive to seniors, people with disabilities"
- "Madison parks lack wayfinding and language that speaks to historically underrepresented individuals"

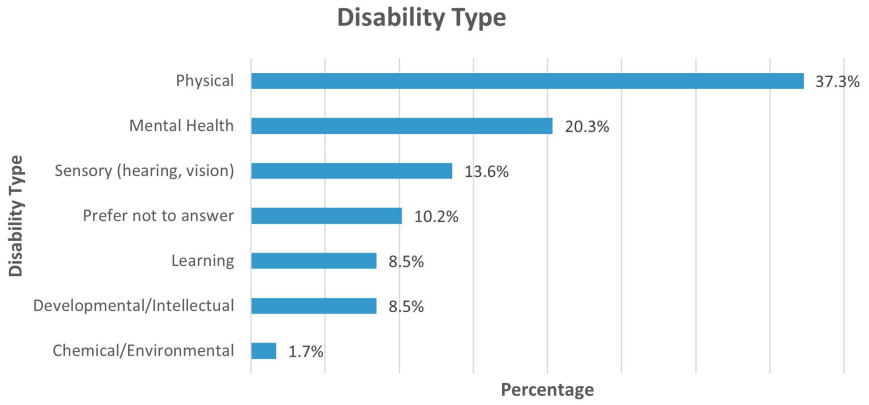
DEMOGRAPHICS

Demographic data was gathered during the first phase of engagement. The demographic data gathered is important to ensure Law Park, as well as other Madison public open spaces that may benefit from this data, are designed in a fashion that accommodates all members of Madison's diverse community. All demographic data below is self-reported.

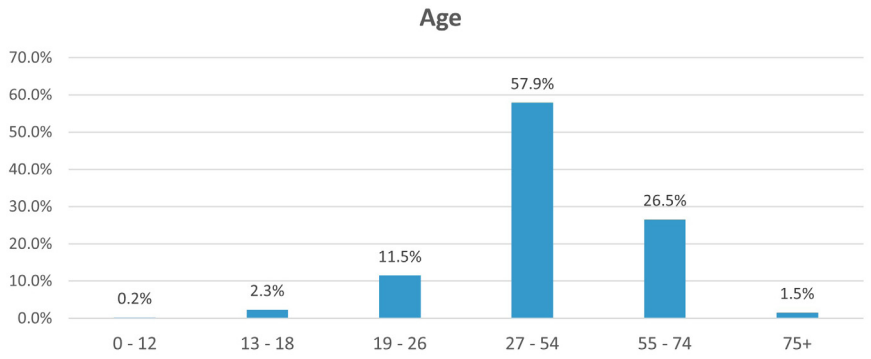








DEMOGRAPHICS - CONTINUED



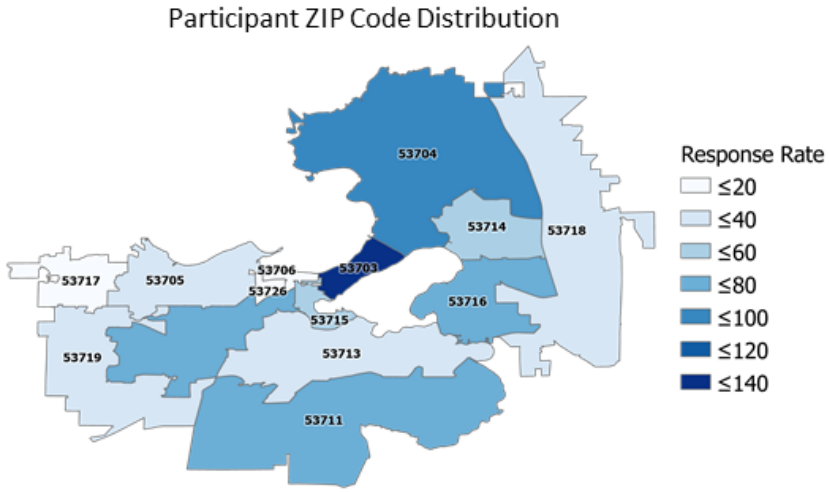


Figure A.3 Collaborative exercise during Phase I Community Workshop at The Village on Park Street

ENGAGEMENT OUTCOMES: JOHN NOLEN DRIVE & OLIN PARK

GENERAL FINDINGS

Several themes emerged from input gathered through a variety of engagement methods (community workshop, community survey, and small group meetings, including targeted conversations with historically marginalized groups).

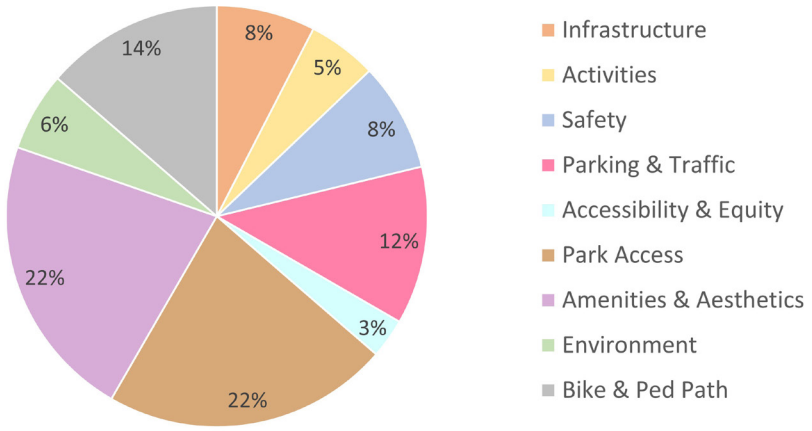
The themes, described below, are consistent across engagement tools/methods utilized and various groups engaged. They demonstrate a broad base of support for the goals and direction of the project and should be used to inform future programming initiatives and design of Olin Park and pertinent areas of the John Nolen Causeway.

All public input data shown below was derived from direct engagement with community members through public meetings, small group meetings, and the community survey offered in multiple languages.

SMALL GROUP MEETINGS

The project team led community-focused small group discussions with a broad demographic of community members, including local community organizations, leaders, and park user groups.

Input Received by Topic

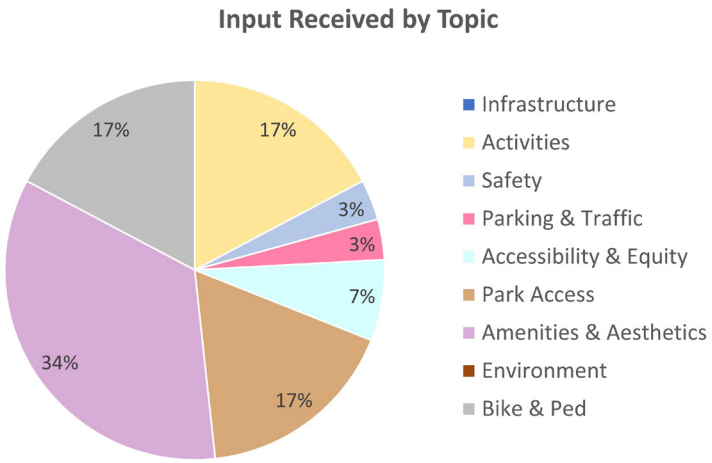


Common Input Themes:

- Pedestrian/bike connections
- Signage and wayfinding
- Modifications to public use areas and activity zones
- Amenities (i.e., restrooms, benches, and water
- Accessible docks and piers

COMMUNITY SURVEY

The project team worked closely with Parks Division staff to design and administer a community survey, used to identify neighborhood and community priorities.

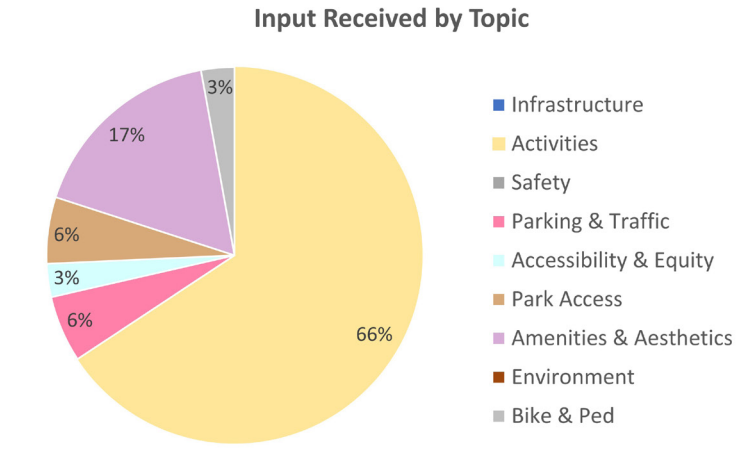


Common Input Themes:

- Structural and aesthetic changes
- Pedestrian/bike connections
- Level of programming
- Lake interaction
- Current/potential features and amenities

SPORTS EVENTS ORGANIZERS AND PARTICIPANTS SURVEY

The consultant team also worked closely with Parks Division staff to design and administer a community survey, which targeted organizers and/or participants of sporting events that utilize the John Nolen Drive Causeway and Olin Park.



Common Input Themes:

- Access to study area (particularly crossings and intersections)
- Wayfinding and historical recognition
- Seating and passive areas
- Environmental concerns, including green space, plantings, and lake health

COMMUNITY WORKSHOP

The project team conducted a city-wide community workshop (virtual) during the second phase of the Lake Monona Waterfront – Preliminary Report process. The team utilized MURAL – an online interface that allows meeting participants to collaborate by using virtual whiteboards and other graphics to provide input. This interactive engagement tool cultivated engaging discussion, meaningful feedback, and collaboration, and learning among participants of diverse backgrounds, including residents, current park users, non-current park users and project stakeholder groups.

Figure A.4 Summary of input received during Phase II Community Workshop, categorized by topic

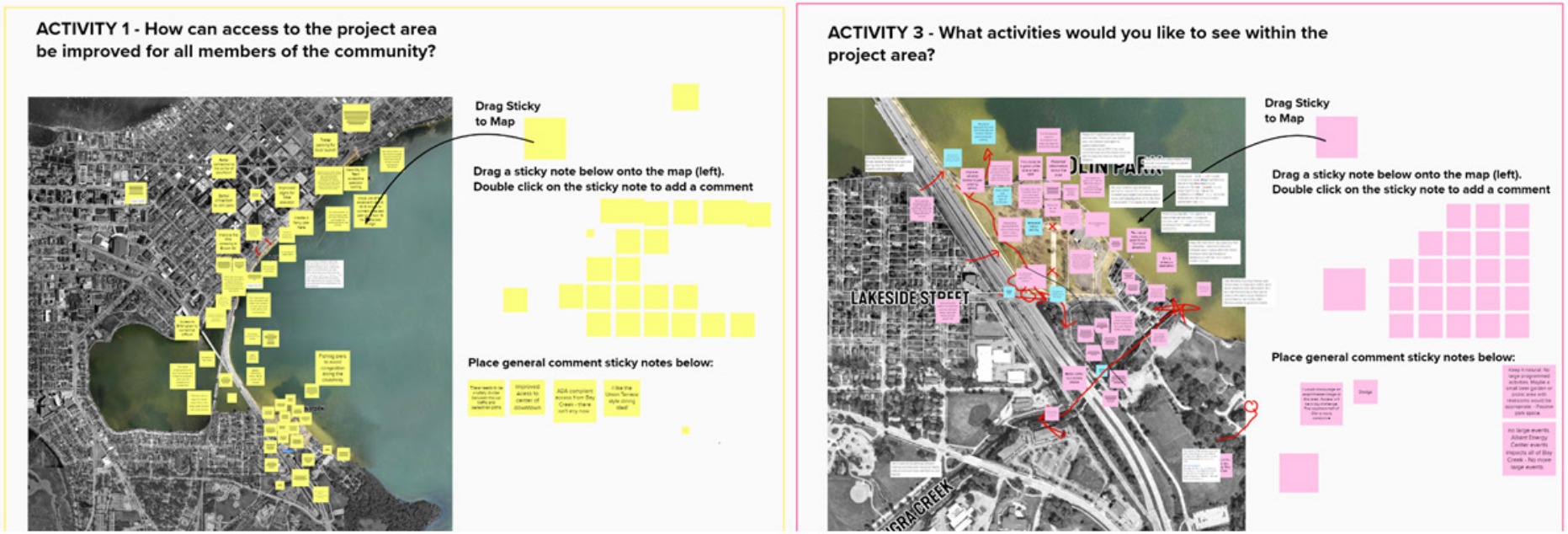


Figure A.5 Screenshots of MURAL virtual whiteboards used for collaborative group exercises during Phase II Community Workshop.

HISTORICALLY MARGINALIZED VOICES

The consultant team again led a series of small group meetings during the second phase, focused on engaging traditionally underrepresented members of the community to help ensure their voices were heard.

Input received from small group meetings with historically marginalized community members can be attributed to three major input categories:

1. Features necessary for an inclusive waterfront
2. Connectivity
3. Study area activities

The following features were identified by participants during these small group meetings as necessary for an inclusive waterfront experience:

- Honors Black, Indigenous, and People of Color (BIPOC) history, experiences, and culture
  - Honors and explicitly acknowledges the Ho-Chunk land on which the waterfront sits
  - Acknowledges the history, intersectionality, and belonging of Madison's diverse communities (e.g., BIPOC-created art, signage showcasing diversity of Madison community)
  - Incorporates clear signage re: space use and policies to mitigate policing of BIPOC community members, specifically BIPOC young people
- Intentionally designed to serve and support ALL community members
  - Includes intergenerational activities and intergenerationally - accessible spaces
  - Provides opportunities for multicultural music and food vendors to sustainable thrive
  - Includes pedestrian-only spaces better separated from roadway and bike lanes
  - Improves connection between other Madison areas to increase access
- Quotations:
  - "Need to acknowledge the history and the intersectionality of our communities and build ways we can really relate to our history."
  - "John Nolen is fast and not safe - Slow it down!"
  - "Currently feels like it's limited to certain types of people in our community and it also feels small; not everyone feels welcome and comfortable coming downtown like folks from certain income levels and not many BIPOC [feel comfortable]."
  - "Walkable, multicultural, filled with art, affordable, accessible by different forms of transportation, safe for youth, elderly, and disabled."

HISTORICALLY MARGINALIZED VOICES - CONTINUED

CONNECTIVITY (QUOTATIONS):

- "[We] don't have space FOR everything...Can we have connected space TO everything."
- "The first goal should be to connect [Lake Monona Waterfront] to...downtown and the southside. Even though it is feet from each location it seems a world away right now. By connecting to downtown you open the space to so many more people because of the already existing strong transportation network. By connecting it to the southside (and eastside) we can open the space directly to the neighborhoods."
- "Trolley, park & ride, riverwalk or neighborhood connecting walkway, increased bus access."
- "More things to do to encourage people to stay" and "people watch!"
- "Clean up connecting path, roads, view, etc. from southside to Monona Waterfront."

ACTIVITIES

- Generationally diverse, interactive, and experiential, which include:
  - Fishing, clean beach, boathouse or other indoor/covered community space
  - Sand volleyball, soccer, basketball court
  - Family picnics, BBQ, community garden, skate park, amphitheater, stage for performances
- Quotations:
  - "Art and food will attract families...would be great to have small events throughout the summer (comparable to a Dane Dances theme)."
  - "Need places to stop and rest easily, places for food vendors/carts that are affordable and represent different cultures in our city, [places that are] relatively safe for young children (e.g. biker doesn't have to stop to avoid hitting someone walking - can the space accommodate for all of that?) .... need culture and art that is attractive and reflects things that are meaningful to people."
  - "Ultimately, rethink where the activities are that families can engage in and better separate from boaters and boater areas."
  - "[We need] Interactive activities, food carts, regular events, tactile 'things' that people can use (for example, xylophone in front of the Summerfest grounds, play areas for kids, workout machines)

SUMMARY OF FINDINGS

The intent of the process was to build broad community awareness and buy-in through an equitable outreach approach that reduced barriers to participation to effectively gather input community needs, concerns, and priorities pertaining to the project area. Both phases of the engagement process included a mix of in-person, print, and online tools and strategies created to reach all members of the community.

Several themes emerged from input gathered, however, there were key themes consistent across all engagement tools utilized and various groups engaged:

Access and Wayfinding

Members of the general public have limited knowledge of the study area and its existing features. Access is important – community members identified multiple barriers (John Nolen/US Highway 151, minimal pedestrian connections to North of John Nolen Drive, perceived lack of wayfinding elements, and perceived lack of prominent or easily identifiable connections to South Madison) that pose difficulties when accessing the study area and the desire for improved wayfinding features.

Activity Areas and Lake Interaction

Passive areas are important to the community - the most common input received related to facilities such as seating and gathering space for friends and families. Increased opportunities to interact with the lake was just as common of a theme, including enhanced beach areas, non-motorized watercraft, and accessible public docks and piers.

Features and Programming

While data indicates many people use the study area as a thoroughfare, community members expressed a common desire for it to become a destination with programming. Given Mad-City Ski Team's historical ties to the project area, Mad-City Ski Team and other park users expressed a great desire for additional features to improve existing functionality and spectator atmosphere. There is a great level of interest in events, food carts, and youth activities.

Safety and Inclusion

The vast majority of the community believes the study area is safe and inclusive. However, an increased diversity of accessible features and activity areas would make the study area more welcoming to all people. Cultural, educational, and historical features were commonly identified as factors the public believes are essential to achieving the highest level of inclusivity.

Please see **Appendix 2** For complete community engagement input summary (Phase I & Phase II).

Visit https://www.cityofmadison.com/clerk/about/public-records for information on how to obtain the complete data file, including unprocessed primary input received.

SECTION B

SITE INVESTIGATION AND ANALYSIS

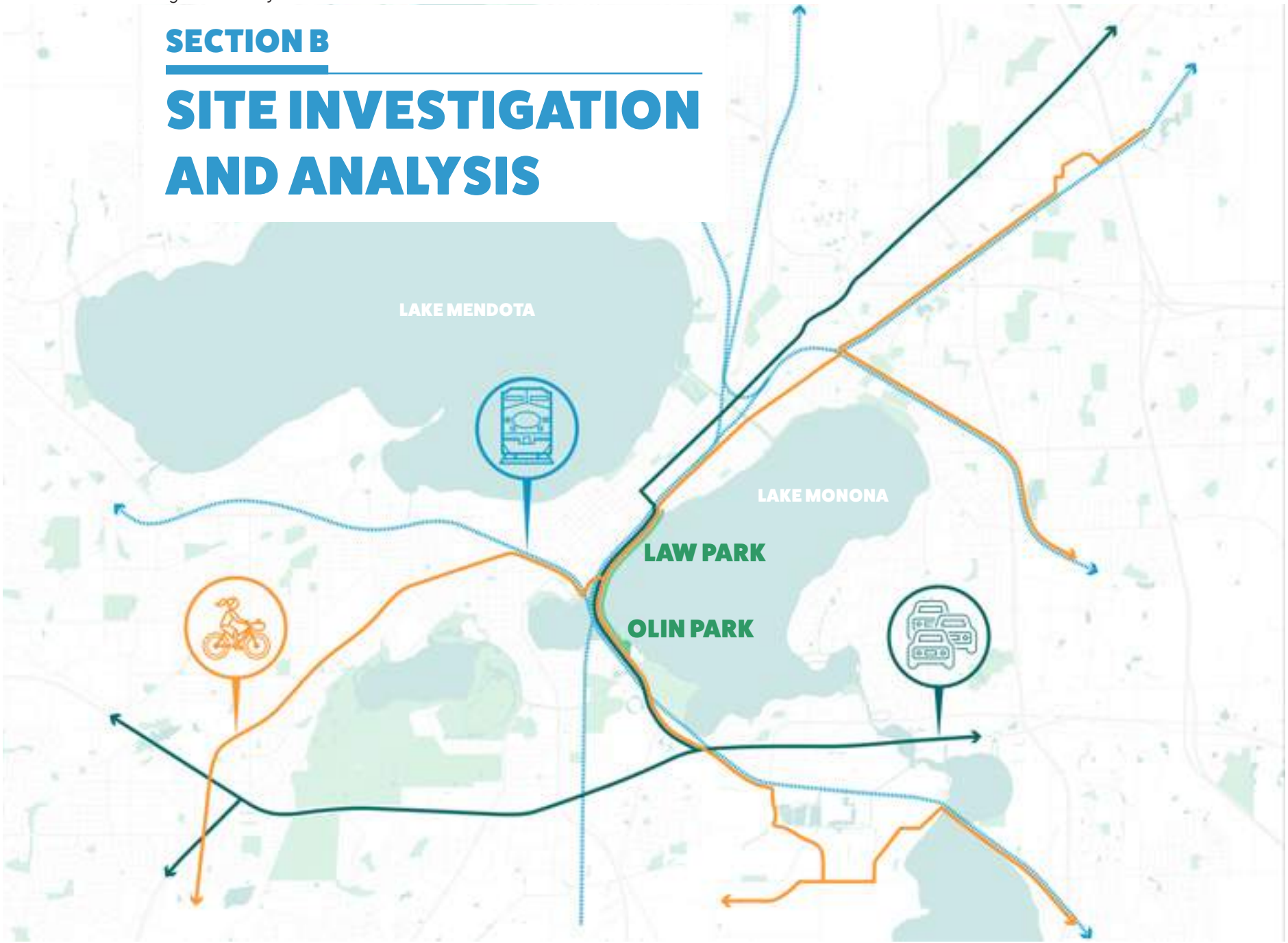


Figure B.1 Lake Monona Waterfront Context

SITE INVESTIGATION & ANALYSIS INTRODUCTION

The intersection of various regional circulation patterns, shoreline conditions, and urban context of the project study area creates a variety of technical challenges to consider. The following section investigates the existing site and shoreline conditions influencing Law Park, the John Nolen Causeway and the northern portion of Olin Park. The section is generally organized by a progression of increasingly technical data; beginning with qualitative data related to experiencing the site and programming to more technically driven investigation including adjacent parcels, site circulation, utilities, and the shoreline environment. This section takes the various ideas from past studies and evaluates them in a single report. The technical and regulatory considerations related to site improvements are also outlined.

LAKE MONONA SHORELINE DEVELOPMENT

The Lake Monona shoreline has seen significant change during its post-European history. The causeway connecting Law Park and Olin Park has improved circulation across the isthmus and provides one of the most stunning and iconic views of Madison. To understand the existing site and its significance within the city, it is important to understand how much of the site originated as lake fill.

Since 1854, Lake Monona has been crossed by a series of railroad causeways. At the time, these lake crossings were boasted as marvels of ingenuity and a solution unique to Madison. Figure B.2 highlights the Lake Monona shoreline and the single railroad track. This illustrates how most of the project site, excluding Olin Park, was created with lake fill.

In 1967 the John Nolen Drive Causeway was constructed, improving vehicular access to downtown, creating Law Park, and establishing the iconic entry view of the Madison skyline. The causeway has remained largely unchanged since its construction, but Figure B.3 shows Law Park as a continuous park space prior to the construction of the Monona Terrace.

The 1997 construction of the Monona Terrace brought the shoreline of Lake Monona to its current location. Due to the deep water immediately offshore, a portion of Monona Terrace is built over the lake on a series of piles rather than additional fill. The historic shoreline and land reclamation that occurred are notable when considering future improvements along the Lake Monona shoreline.

Present Day Shoreline

Project Site

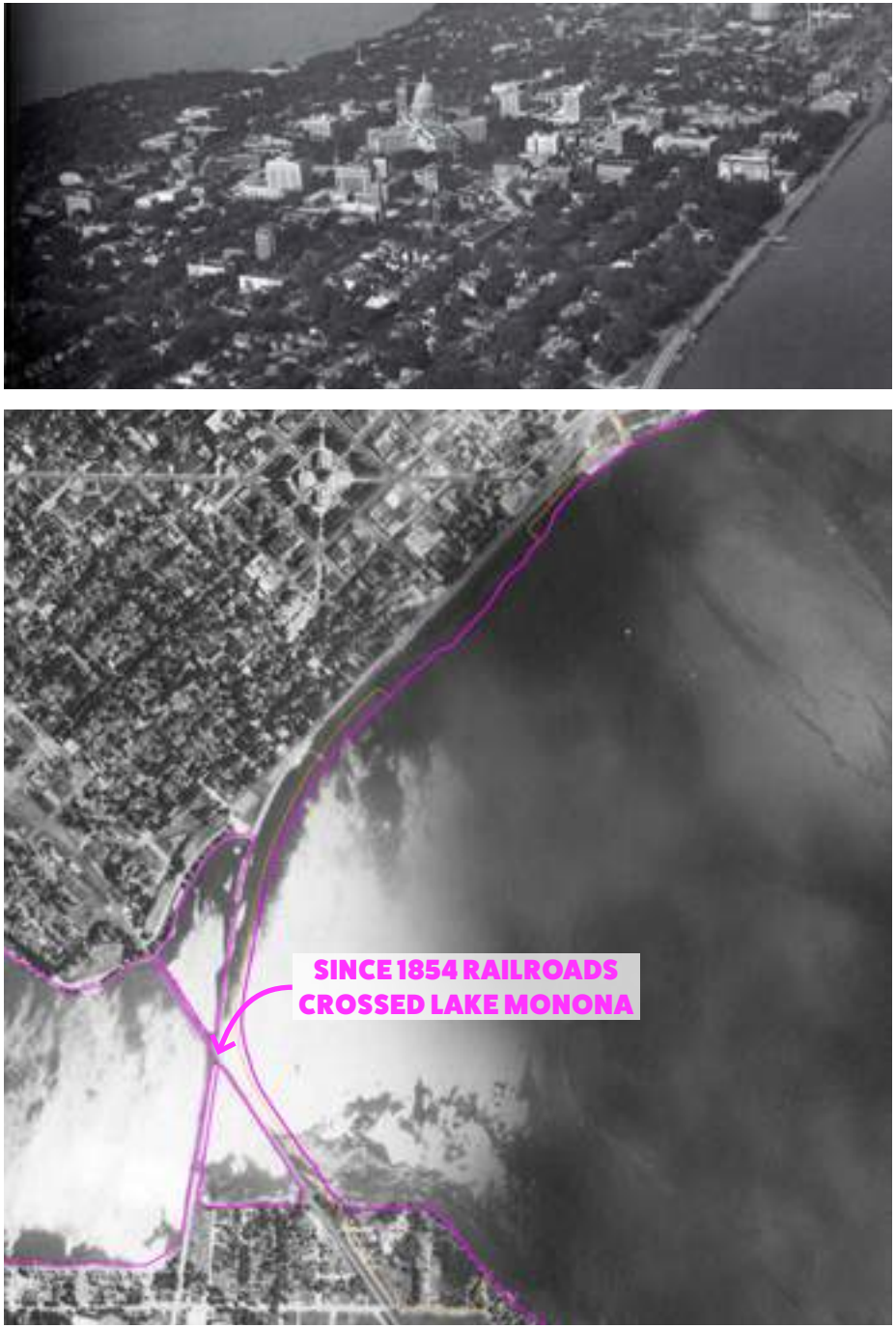


Figure B.2 Pre-Law Park and John Nolen Drive Causeway, (top 1932, bottom 1937)

Figure B.3 1992 Pre-Monona Terrace Law Park (top date unknown, bottom 1992)

Figure B.4 2019 Aerial Imagery

SITE TOPOGRAPHY

The topography of the isthmus plays an important role in the visibility of the Capitol and access to Lake Monona. The elevated nature of the Capitol creates unique view corridors both locally and regionally, however, the topographic transition to Lake Monona's edge from the downtown capitol square creates a significant barrier for pedestrians. Wilson Street and Martin Luther King Jr. Boulevard are approximately 50 feet higher than the 850-ft elevation of Law Park. This grade change requires a circuitous 10-minute walk along East or West Wilson Street to reach Law Park. The elevation of downtown compared to Law Park does create opportunity for a pedestrian bridge connection over the railroad corridor which is discussed in further detail on pages 52-53 (Bridge Connection Easement and John Nolen Drive Corridor Overpass).

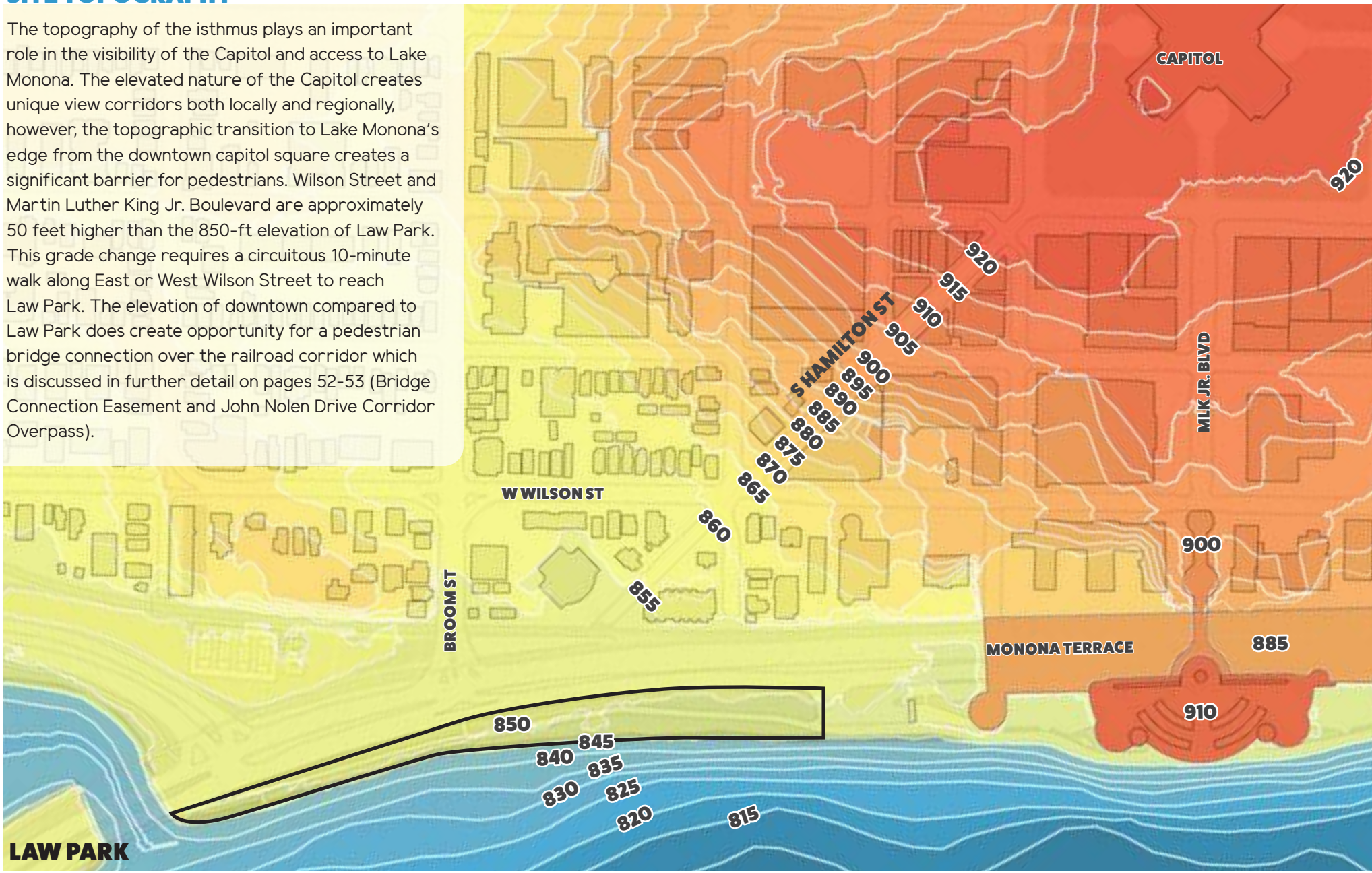


Figure B.5 Law Park Topography

Olin Park's topography is generally divided into two areas, a relatively flat, open lawn area and a naturalized wooded hill and shore. The lawn area offers the first views of downtown Madison when approaching from the south on John Nolen Drive. The wooded portion of the site also provides spectacular views of the Madison cityscape due to the rise in topography. The wooded hill also provides some relief from John Nolen Drive traffic noise, offering a quiet respite along the lake shore . The topographic change from the high point of Olin Park to the lake is approximately 30 feet (875-ft to 845-ft respectively).

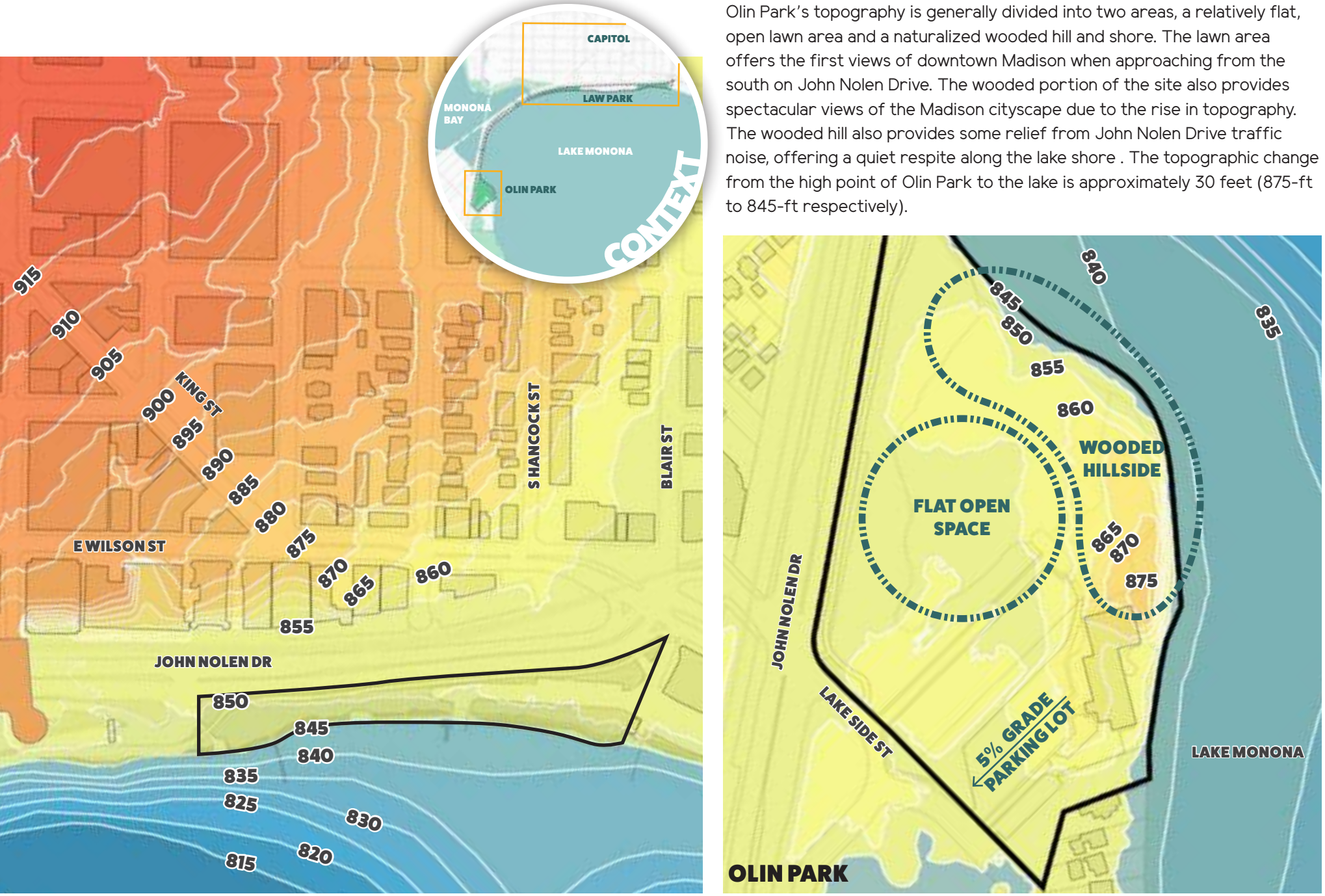


Figure B.6 Olin Park Topography

VIEWSHED

The City of Madison has numerous views that show up routinely in print and media and are enjoyed by both visitors and residents alike. Many of those views were celebrated by Madison's first peoples, and throughout Madison elevated lakeside views are often the sites of effigy mounds (See Effigy Mound Builders, page 83). View corridors were also established during early city planning through an intentional framework of eight diagonal streets bisecting the overall grid, providing unique corridor views throughout the isthmus city.

Views of the Capitol dome are protected by both State statute and city ordinance, and as stated in the Downtown Plan, "...views to and across the lakes from Downtown vantage points are among Madison's most engaging attributes."

Furthermore, views of the lakes and Capitol help orient people as they move through the city as a passive but invaluable method of wayfinding.

Notable view corridors include:

- Axial between the Capitol and Monona Terrace to Lake Monona
- To Lake Monona from John Nolen Dr / Williamson intersection
- To Lake Monona from north/south secondary streets
- Priority viewshed to Capitol and skyline moving northeast along John Nolen Drive

See Section D: 2012 Downtown Plan for more description of viewsheds.

Figure B.7 John Nolen Causeway View

Figure B.8 Hamilton Street Capitol View from Law Park

Figure B.9 Blocked Capitol View from Law Park

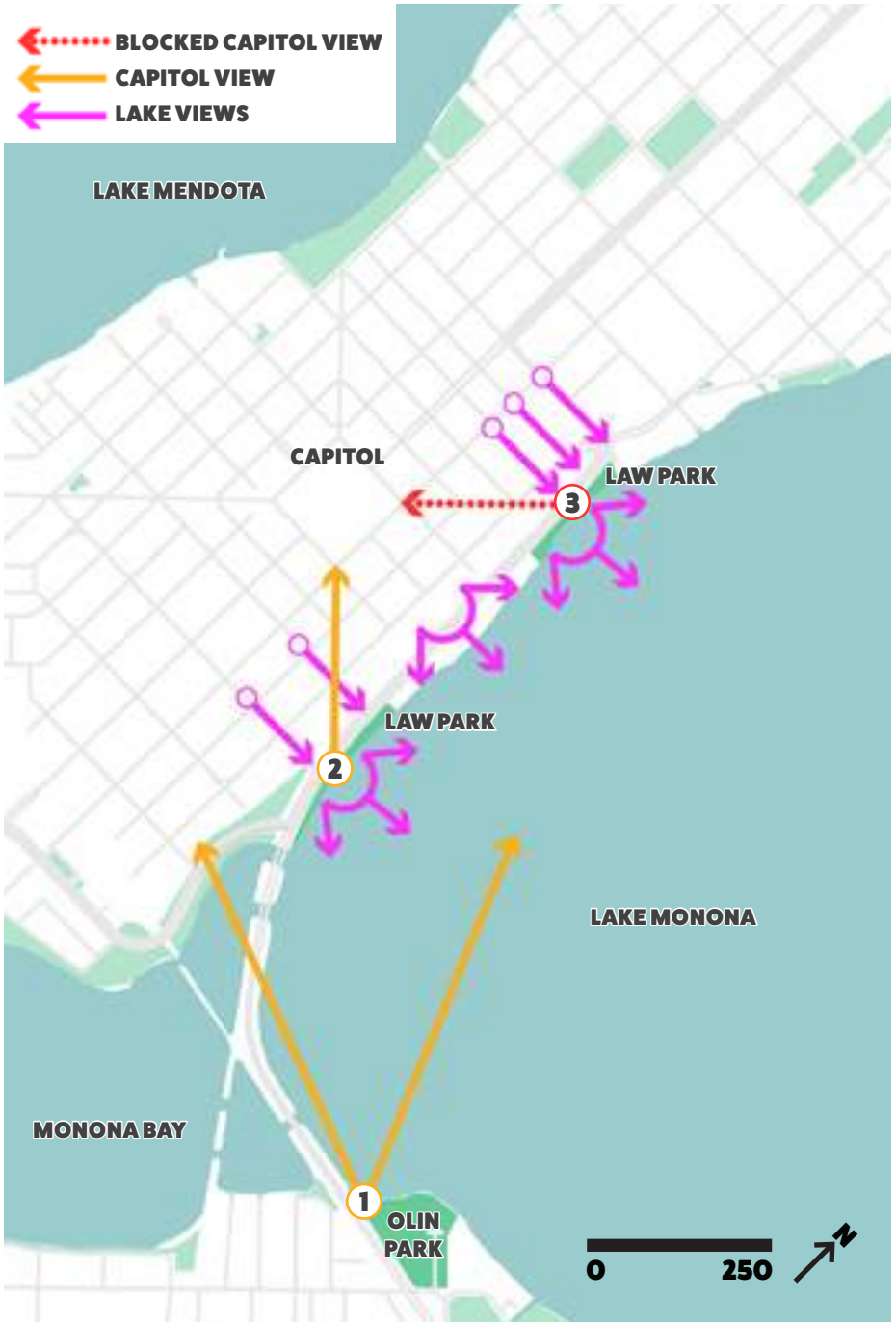


Figure B.10 Monona Waterfront Viewshed Map

MONONA TERRACE COMMUNITY AND CONVENTION CENTER

The Monona Terrace, originally designed by Frank Lloyd Wright and completed by former Wright apprentice Anthony Putnam, was constructed in 1997 after 59 years of various iterations and failed attempts to make the convention center a reality. The Terrace connects the Madison's downtown to Lake Monona, bridging over John Nolen Drive and the railroad, both which had blocked the downtown from the lake for over 100 years.

The Monona Terrace serves as a landmark and attraction for Madison, hosting a wide range of events from as small as 40 people to gatherings of over 4,000. The convention center provides popular convention space within downtown. The Terrace both activates and divides Law Park into two, separate but connected shoreline green spaces.

CONVENTION CENTER FUTURE NEEDS

Monona Terrace representatives have indicated the need for convention space in downtown Madison has increased with the recent influx of hotel rooms. An expansion would help the convention center remain competitive with similar centers in other cities. The adjacent Figure B.11 shows a potential expanded facility over John Nolen Drive. The expansion would approximately double the amount of meeting space and provide additional parking and rooftop area. The adjacent renderings are conceptual and were developed by the Madison Design Professionals Work Group. Although the plans were developed without direct Monona Terrace involvement and have not been adopted, they suggest a potential long-term vision to continue the success of the community and convention center.

Considering the context of Law Park, convention center guests often take breaks from indoor activities and step outside to enjoy the lake. Although there is significant outdoor plaza space on the roof of the facility, Monona Terrace representatives indicated that the existing shoreline area lacks adequate space for larger groups. Additional accommodations for gatherings in Law Park would be a positive addition to the Monona Terrace program.

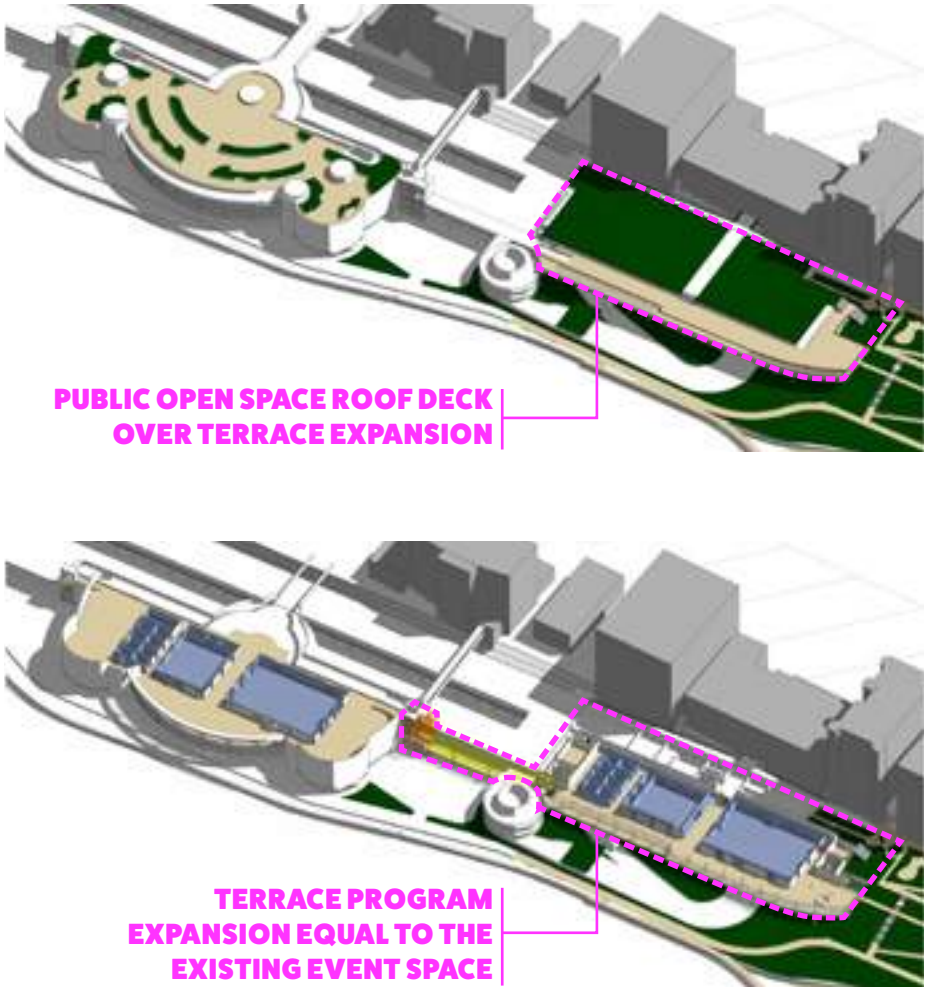


Figure B.11 Monona Terrace Expansion Concept by Madison Design Professionals Work Group

Figure B.12 Monona Terrace Bike Elevator

Figure B.13 Monona Terrace View from Law Park Ski Team Dock

Figure B.14 Monona Terrace Aerial

WATER UTILITY FACILITY

Madison Water Utility (MWU) owns and operates Well No. 17 located at 201 South Hancock Street (at the corner of South Hancock and East Wilson Streets). The 0.28-acre parcel (shown in figure B.15) contains a municipal well and a water reservoir that serves a portion of the isthmus. The building is comprised of two parts: the well and pumping station, which is the higher part of the structure, and the reservoir, the lower portion of the building. A community garden is located on the roof of the reservoir. The well fills the reservoir and the booster pumps pressurize the water distribution system. The facility operates 24 hours a day from April through October.

Due to the proximity of this parcel to downtown and Lake Monona, developers have sought after the site for redevelopment. Due to its location, Well No. 17 is a critical water supply facility in the Madison water system and will be maintained. Relocating the well and reservoir on the isthmus would be both costly and difficult given the lack of available open space on this portion of the Isthmus. Private development of the site with a structure or other compatible use above the well and reservoir has been explored. MWU representatives have speculated that the challenges with this approach include providing 24/7/365 operational and maintenance access to Well No. 17 and navigating the regulatory process with WDNR and the Public Service Commission. In addition, the narrow property dimensions limit development opportunities unless the adjacent parcel is also purchased.

Figure B.15 Water Utility Facility Map and Parking Utility Lot

PARKING UTILITY LOT

The 0.52-acre parcel just southeast of the MWU property (499 East Wilson St shown on Figure B.15) is owned by the City of Madison Engineering Division and is operated as a municipal parking lot by the City Parking Utility. This 50-stall surface parking lot ('Wilson Lot') is reserved for monthly permit holders during the work week and is open to public parking on nights and weekends. The parking utility lot is also the closest parcel to the recently improved Blair/Williamson/Wilson intersection, and pedestrian access through the intersection has recently improved.

Use of the MWU parcel or Parking Utility lot for improved access over the railroad and John Nolen Drive presents several challenges. First, the site elevation is significantly lower than the elevation of the East Wilson Street Access easement, and achieving the necessary 23-feet of vertical clearance over the railroad corridor and John Nolen Drive would be challenging from this location (elevation +/- 860-ft).

Second, any modification to the Parking Utility lot would need to incorporate the existing parking uses or relocate them elsewhere to mitigate parking venue loss.

Also, a Madison Municipal Sewerage District (MMSD) sanitary sewer force main and utility easement occupy much of the parcel creating another significant obstacle for development. See figures B.19 Existing public utilities and Figure B.22 Parcel Map.

Figure B.16 MWU Water Reservoir Building Interfacing with East Wilson St Sidewalk

Figure B.17 Community Garden - MWU Water Reservoir Roof at 201 S Hancock St.

Figure B.18 Law Park View from the MWU Water Reservoir Roof at 201 S Hancock St.

UTILITY INFRASTRUCTURE

Figure B.19-21 shows the mapped public utilities owned by the City of Madison in the vicinity of the Lake Monona Waterfront.

Sanitary Sewer - The nearest sanitary sewers adjacent to the Lake Monona Waterfront run parallel to John Nolen Drive in permanent easements along the northern edge of Wisconsin Department of Transportation (WisDOT) right of way. The sewers south and west of Monona Terrace run south/westerly and the sewers east and north of Monona Terrace run north/easterly. There is also an 8-inch sanitary sewer running just behind Monona Terrace which crosses under the road and railroad tracks to connect with the 18-inch sanitary sewer running north/east. The City sanitary sewers in the vicinity of Law Park are PVC gravity sewers ranging from 8 to 18 inches in diameter and, according to City records, were constructed in 1996.

Water - The majority of the Lake Monona Waterfront does not have readily available water service. For approximately 1,100 feet, a water main runs directly northwest of Monona Terrace between its two parking ramp access points and feeds multiple fire hydrants at the ground level. This section of water main loops back to the water main on East Wilson Street in two locations: near South Carrol Street and near South Pinckney Street. The water main parallel to Monona Terrace is 10 inches in size according to City-provided records.

Any future water needs at Law Park would need to be either serviced from the water main near Monona Terrace or from Machinery Row, where there is also a 10-inch main extending into the parking lot southwest of the building.

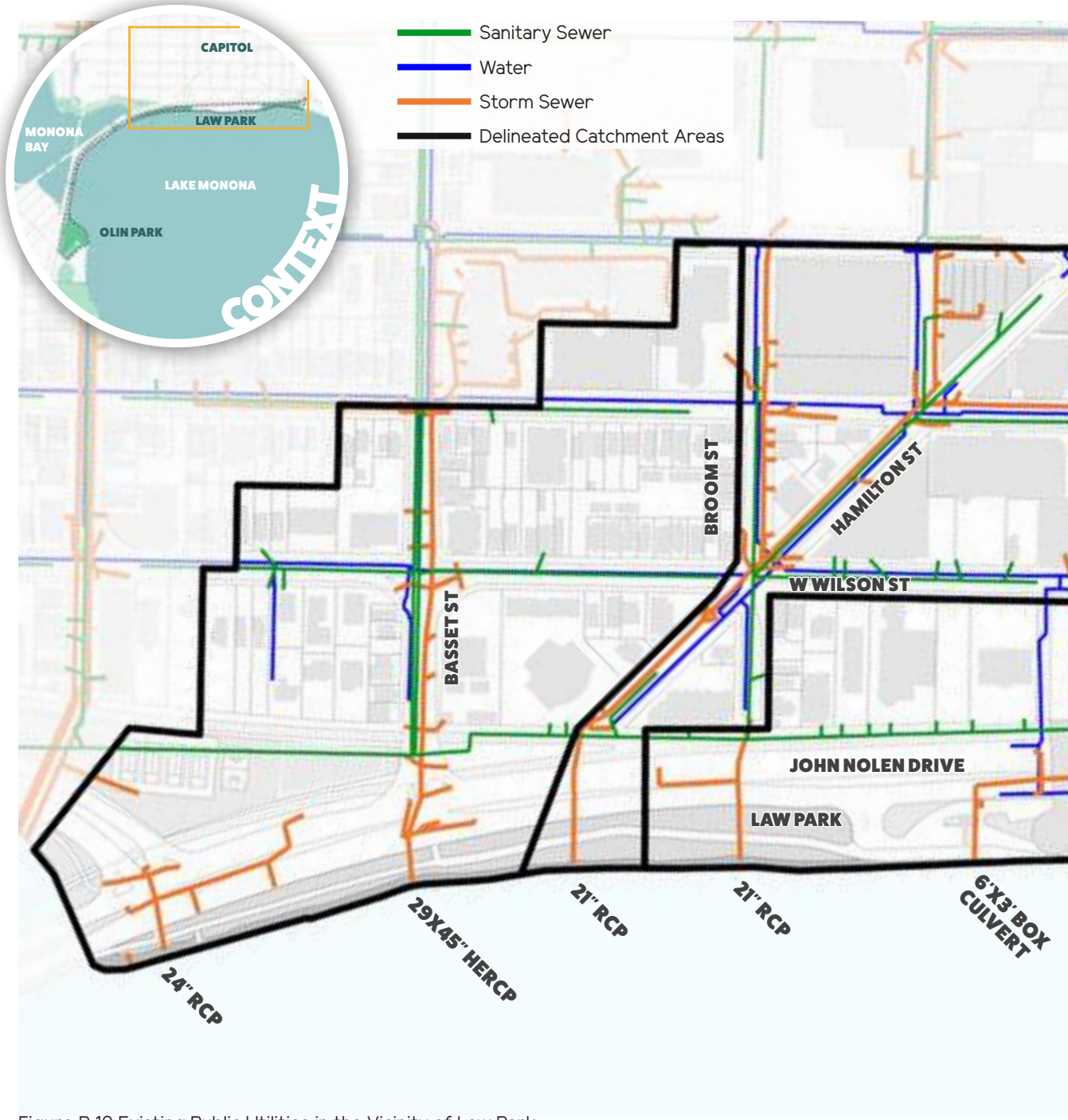
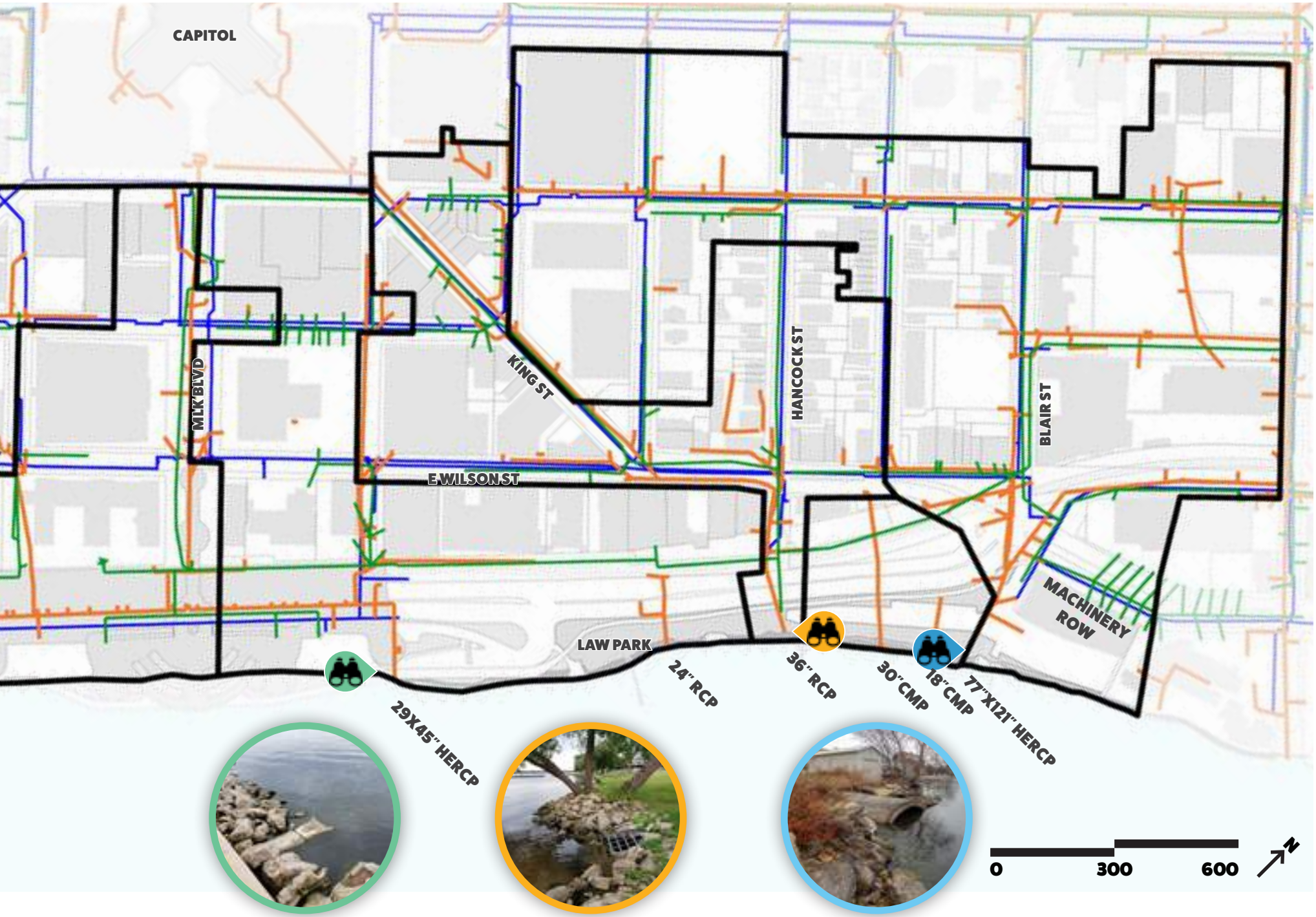


Figure B.19 Existing Public Utilities in the Vicinity of Law Park


CAPITOL
MLK BLVD
KING ST
HANCOCK ST
BLAIR ST
E WILSON ST
MACHINERY ROW
LAW PARK
24" RCP
36" RCP
30" CMP
18" CMP
77" X 121" HERCP
29X45" HERCP
0
300
600
N

Storm Sewer - As shown on Figure B.19, there are approximately 11 storm sewer outfalls that pass-through Law Park or through the Monona Terrace Property. These range in size from 18 inches to a 77 inch by 121-inch horizontal elliptical reinforced concrete pipe (HERCP) at the northeast end by Machinery Row. Most of the outfalls are concrete and are either round pipes, elliptical pipes, or box culverts, however two pipes are corrugated metal pipes (CMP).

According to City Engineering, there are no known plans to replace or repair any of the existing storm sewers or outfalls near Law Park unless they are impacted by development at Law Park. Any future development at Law Park will need to consider the locations of this infrastructure and either work around it or reroute it. Also, outfalls are sometimes impacted by ice shove forces so they do require repairs from time to time and these forces should be kept in mind when proposing any new outfalls at Law Park.

Collectively, the storm sewer outfalls discharge runoff from the entire southeast half of the isthmus, with the East/West Washington corridor and Capitol generally serving as the watershed line. While there are no known "hot spots" of urban runoff causing immediate water quality issues along the shoreline, with so many outfalls passing through Law Park, there may be an opportunity to provide end-of-pipe water quality treatment. However, Law Park is low-lying and lake levels have been high in recent years causing many of the outfalls to be submerged. This limited head may impact the effectiveness of water quality practices such as proprietary hydrodynamic separators.

CAUSEWAY EXISTING STORM SEWERS

Several storm sewers are located along the John Nolen Drive Causeway and outfall east into Lake Monona. Stormwater is collected in curb inlets and discharged to the lake. Replacement of the causeway outfalls is anticipated as part of the causeway reconstruction project slated for 2024. City Engineering staff noted desire for stormwater to be pre-treated for pollutant and sediment removal prior to discharge. However, they acknowledge there is limited room along the causeway to store or treat water through typical BMP devices.

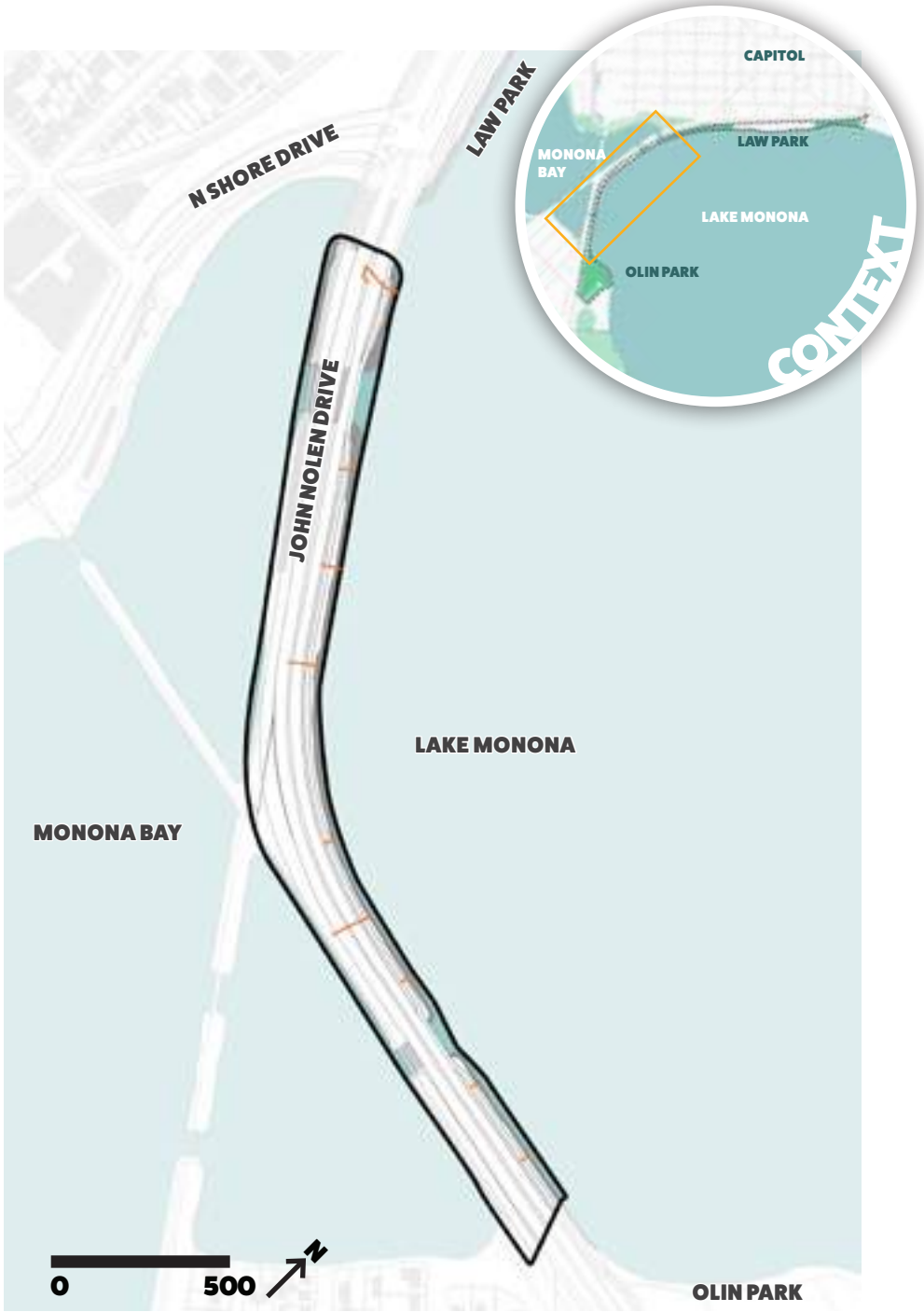


Figure B.20 Existing public utilities in the vicinity of John Nolen Drive Causeway

OLIN PARK EXISTING UTILITIES

Olin Park sits relatively high in relation to John Nolen Drive and East Lakeside Street. Within the Olin Park delineated catchment area, there are two storm sewer networks. The north network along John Nolen Drive directs stormwater to the north edge of Olin Park and outfalls into Lake Monona. The south network takes runoff from John Nolen Drive, Edgewater Court, and Lakeside Street and outfalls into Wingra Creek which flows into Lake Monona.

The sanitary sewer network terminates at Edgewater Court to service the former Medical Society building. The sanitary sewer runs south servicing the homes along Lake Side Street before crossing Wingra Creek and into the remaining portion of Olin Park.

SUMMARY OF UTILITY OBSERVATIONS:

The City's Engineering Division is generally interested in green infrastructure (GI) improvements along the Lake Monona Waterfront, but past review has shown that limited available space and high-water levels relative to the land and pipe elevations are constraining factors for potential GI. Due to minimal head for stormwater pipe, other (GI) improvements such as pervious pavement for driveways or parking facilities may be considered.

Promoting infiltration at Law Park or the causeway requires further evaluation. Both are former land fill sites with shallow groundwater, and infiltration is likely impractical or prohibited based on the results of future testing.

Figure B.21 Existing public utilities in the vicinity of Olin Park

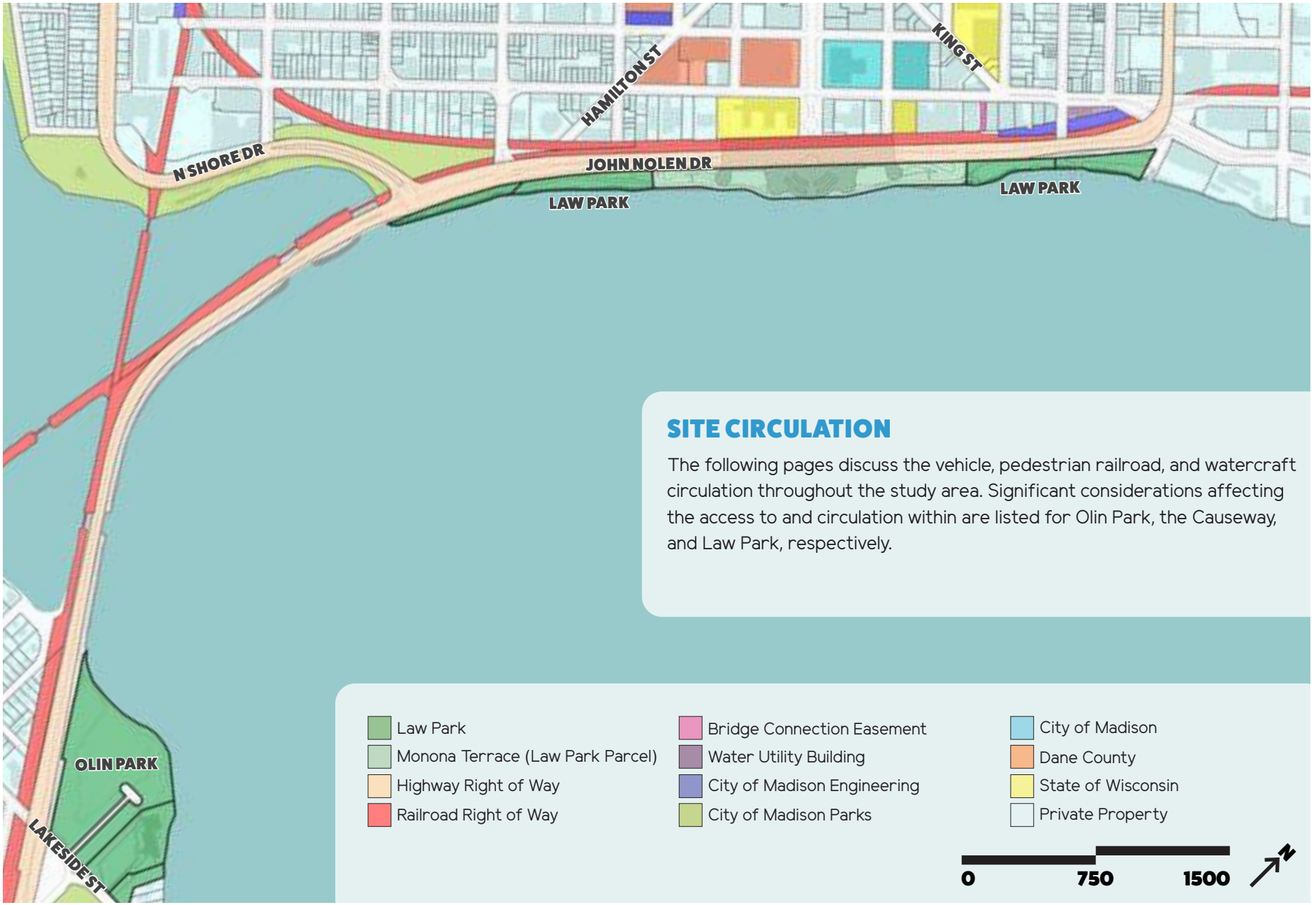


Figure B.22 Parcel Map

WISCONSIN & SOUTHERN RAILROAD REQUIREMENTS

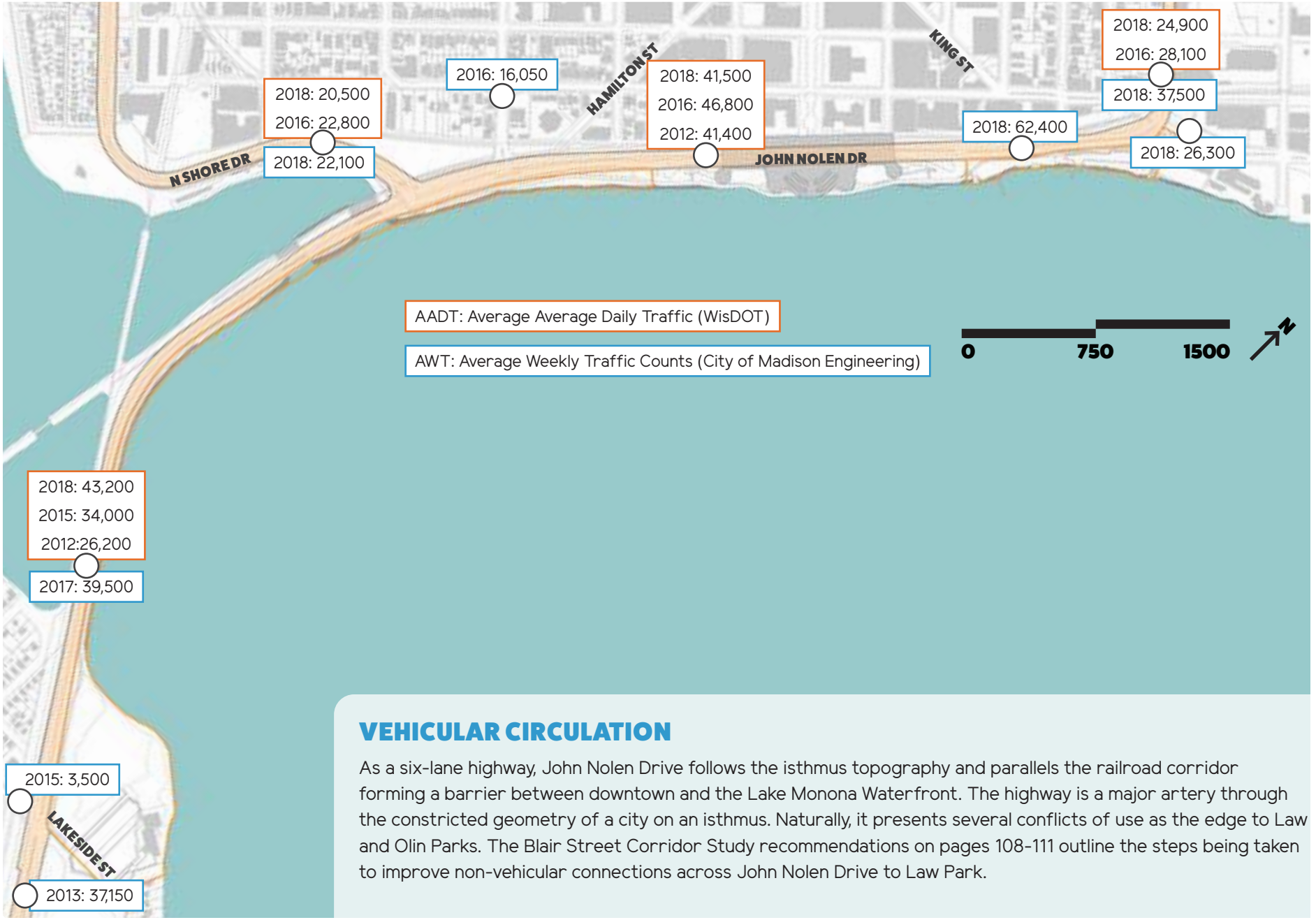
From the construction of Law Park in the 1950's, the railroad has been the backdrop to the Lake Monona Waterfront and it is a significant barrier to downtown connectivity. Operated by Watco and headquartered in Madison, this segment of the Wisconsin and Southern Railroad (WSOR) operates solely as a Class II regional freight rail. Trains pass along Law Park six to nine times per day.

Other critical information provided by WSOR:

- Structures must maintain 23-ft min vertical clearance over the top of rails.
- Typical longitudinal grade of the rail is 0.5%.
- Any load-bearing pier or column within 25-ft horizontal distance of the rails must be designed with 'crashworthy' parameters in the case of train buckling.
- A new rail crossing would require a petition to the Office of the Commissioner of the Railroad, overall implementation of new modifications to the rail may take 2 years to review, approve, and implement.
- Consider proximity of any structure footing, shoring and excavation when planning for structures adjacent to railroad right of way.
- Sight lines at pedestrian crossings must remain open for 300-ft.

Figure B.23 View from Monona Terrace Parking Ramp Looking West

Figure B.24 View from Monona Terrace Parking Ramp Looking East



VEHICULAR CIRCULATION

As a six-lane highway, John Nolen Drive follows the isthmus topography and parallels the railroad corridor forming a barrier between downtown and the Lake Monona Waterfront. The highway is a major artery through the constricted geometry of a city on an isthmus. Naturally, it presents several conflicts of use as the edge to Law and Olin Parks. The Blair Street Corridor Study recommendations on pages 108-111 outline the steps being taken to improve non-vehicular connections across John Nolen Drive to Law Park.

Figure B.25 Vehicular Traffic Counts

REGIONAL TRAIL CONNECTIVITY

Although the railroad corridor currently divides the Lake Monona shoreline from downtown, prior rail connections played a significant role in the creation of the project site and the bike network that exists today. Portions of the Southwest Commuter Trail and Capital City Trail are former rail lines that converge at Law Park making the project site the center of the pedestrian and bicycle network through downtown. On average, 1,500 trail users pass through Law Park daily according to the Law Park Eco-Totem (bike counter). At the peak of summer, this number can reach upwards of 4,000 trail users. From this centrally located trail hub improved trails would enhance mobility south to Wingra Creek Trail, west to Brittingham Park, east along the Capital City Trail to McPike Park, and north along the Yahara River Bike Path to Warner Park. Improving trail safety, especially at road and railroad crossings, and wayfinding are key to enhancing these connections.

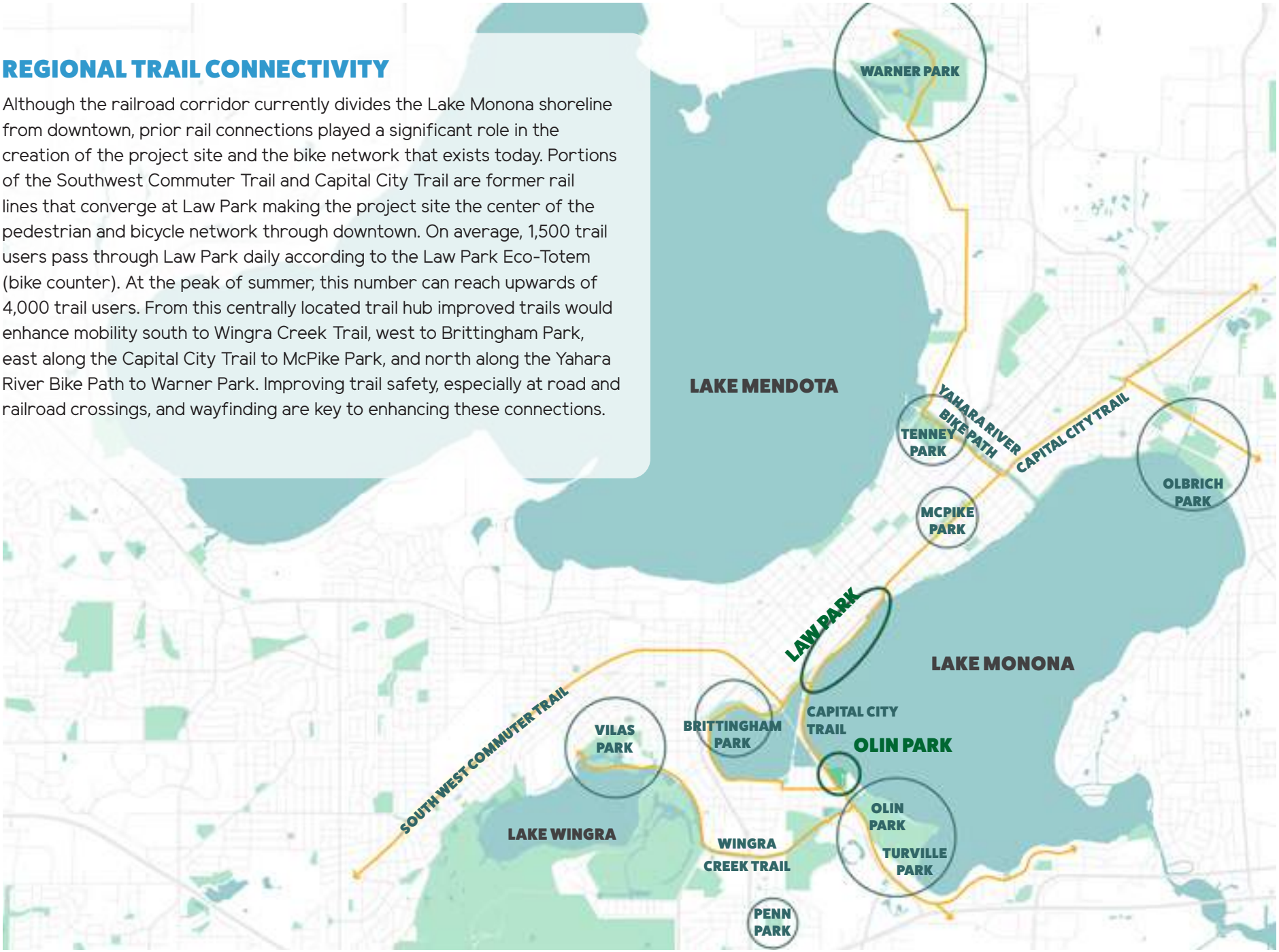


Figure B.26 Regional Trail Connectivity

LAKE MONONA LOOP

Law Park and Olin Park are located on the popular 11-mile Lake Monona Bike Loop and the 3-mile Monona Bay Loop. Portions of these bicycle routes are located on city streets, but the section of path through the project area provides beautiful waterfront views, making it a highlight of the recreational or commuting experience.

Figure B.27 highlights the two bike loops as well as various parks, beaches, and boat ramps around Lake Monona.

1. Law Park
2. BB Clarke Beach
3. Morrison Park
4. Yahara Place Park
5. Schuetzen Park
6. Olbrich Park
7. Schluter Beach
8. Tonyawatha Park
9. Winnequah Park
10. Frost Woods Beach
11. Paunach (A.O.) Park
12. Ester Beach Park
13. Turville Park
14. Olin Park
15. Bernie's Beach Park
16. Brittingham Park

Lake Monona Loop

Monona Bay Loop

Figure B.27 Lake Monona Loop

OLIN PARK & JOHN NOLEN DRIVE - LAKE STREET INTERSECTION

The John Nolen Drive and East Lakeside Street intersection can be difficult for pedestrians to cross given the short crosswalk time and high vehicle travel speeds. Also, due to the location of the 11 and 12 bus stops, which provide significant access to the Bay Creek Neighborhood, the intersection would benefit from improved pedestrian access across John Nolen Drive.

Within Olin Park, the Capital City Trail is the only improved (asphalt) trail. The unimproved (dirt) trails through the wooded portion of the park provide an opportunity for urban hiking.

The adjacent figures highlight the existing conditions and key circulation considerations for the intersection and Olin Park.

1. Busy intersection, difficult for pedestrian crossing
2. Unimproved trails (dirt) through forested hill
3. Capital City Trail, 10-ft width
4. 600-ft from the connection to Wingra Creek Bike Path
5. Bike Lane along East Lakeside Street
6. Sharrow allow Olin-Turville Court
7. Posted speed limit 45 mph, travel speeds often higher at approximately 50-55 mph
8. Accessible pedestrian railroad crossing only located on the north side of tracks
9. Road narrows from 3-lanes in each direction to 2-lanes in each direction from south to north

Figure B.28 Olin Park Circulation

1. Typical causeway bridge section (Figure B.30-1)
2. Typical causeway section (Figure B.30-2)
3. 8-ft wide pedestrian bridge, feels narrow when trail is busy
4. 10-ft wide trail between bridges
5. Posted speed limit 45 mph along the causeway
6. Posted speed limit 35 mph north of causeway
7. Trail shoulder (dirt) often used by runners and walkers
8. Only available water route to pass under John Nolen Drive (limited to small boats and watercraft due to limited clearance)
9. Brittingham Boats, popular watercraft rental

Figure B.29 John Nolen Drive Causeway Circulation

JOHN NOLEN DRIVE

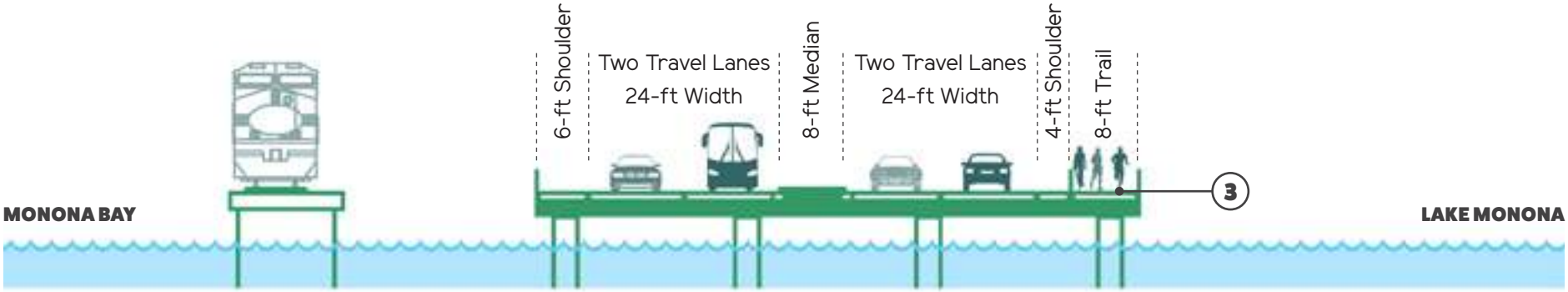
John Nolen Drive is the primary traffic corridor to and from downtown Madison from the 12-18 State Highway to the south. Along its length, John Nolen Drive has several classifications and multiple levels of agency oversight depending on the segment:

a. South of Olin Park, is classified as a Dane County jurisdiction.

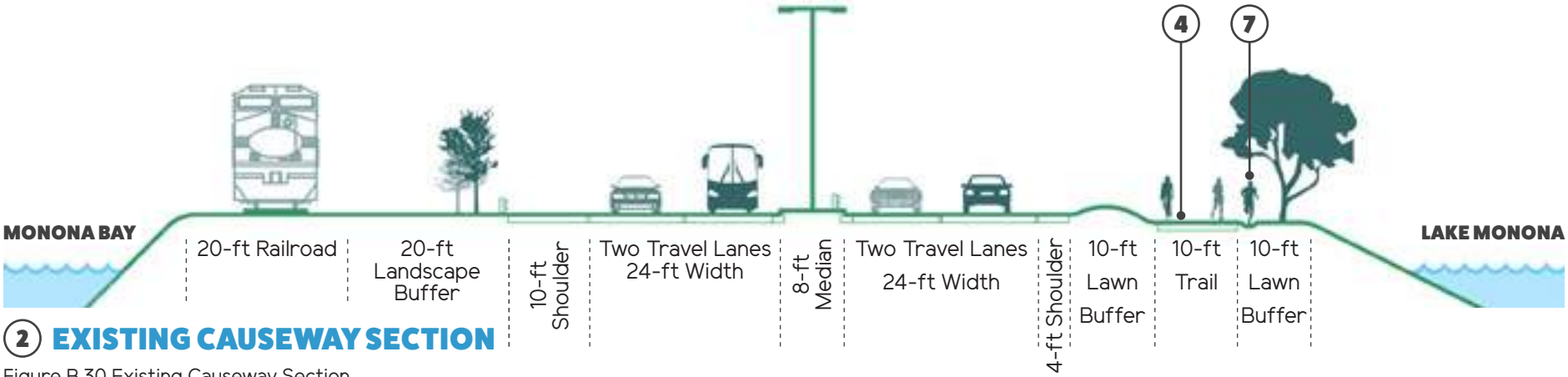
b. Olin Park to North Shore Drive is City of Madison jurisdiction.

c. North of North Shore Drive is WisDOT State highway jurisdiction.

The figures below highlight the existing conditions and key considerations for causeway circulation.



(1) EXISTING CAUSEWAY BRIDGE SECTION



(2) EXISTING CAUSEWAY SECTION

Figure B.30 Existing Causeway Section

LAW PARK AND JOHN NOLEN DRIVE

The mix of high-volume pedestrian and vehicle traffic at the North Shore Drive, Broom Street and Blair Street intersections create significant congestion and use conflicts. Travel speed along and width of John Nolen Drive both contribute to the division between downtown and the lakefront. The Blair Street Corridor Study (pages 108-111) includes recommendations for each intersection.

The exhibit below denotes key circulation factors within and connecting to Law Park.

1. 18-ft wide trail with separate bike and pedestrian lanes
2. 10-ft wide trail
3. 20-ft wide trail with separate bike and pedestrian lanes. Anglers often use the pedestrian lane for fishing along Monona Terrace Vertical Seawall. Trail is not a fire lane.
4. As captured by this aerial, trains passing through during daytime can cause significant traffic delays
5. Large amount of pedestrian traffic can often backup into trail
6. Posted speed limit 35 mph
7. Important pedestrian crossing to Southwest Commuter Trail

Figure B.31 Law Park Circulation

8 Entrance drives and service to Monona Terrace must be maintained

9 Boat Launch is used for EMS watercraft launch

10 Bike elevator, see Figure B.14

11 Entrance to Machinery Row conflicts with trail traffic. Vehicles must enter from east bound traffic along John Nolen Drive and have a right turn only to exit.

12 The Blair Street intersection is the most complicated intersection affecting the project site. Heavy 4-way pedestrian and vehicle traffic with the bisection of a rail line create an uncomfortable environment with increased conflict

JOHN NOLEN DRIVE CAUSEWAY RECONSTRUCTION PROJECT

The pending 2026 John Nolen Drive Causeway Reconstruction Project includes street reconstruction of the causeway from Broom Street through to Olin Park. The City of Madison Engineering Division is initiating the project and the scope also includes reconstruction of the Lake Monona shoreline stone revetment, widening of the bike path and reconstruction of all three bridges. The causeway fill has been monitored for 20-plus years for structural stability; vertical movement has occurred in the past but appears to have stabilized in recent years. Horizontal shifting has also been recorded near the bridges. The existing rail line and railroad bridges will likely limit major changes to the roadway elevation along the causeway.

The causeway reconstruction project includes studying a bike and pedestrian underpass between North Shore Drive and Broom Street. Also, the project intends to reduce or eliminate the need for concrete traffic barriers unless they benefit the bike and pedestrian realm by creating more space for a buffer zone. City Engineering staff note the following observations and issues relevant to the Lake Monona Waterfront:

- Curb and gutter can provide adequate safety barrier up to 40 mph, and jersey barriers are not necessary with curb and gutter under 40 mph.
- Adding trees to John Nolen Drive may be advantageous for traffic calming. However, tree locations will need to be offset to not interfere with tall vehicles (buses and tractor trailers). For this reason, trees located on the lake-side of the bike path are preferable. The causeway is currently devoid of trees in most areas due to removal of ash trees during the City's efforts to control the emerald ash borer.
- Lights are currently present in the median and appear to be LED or LED-retrofit. No major changes to lighting or electrical are anticipated other than to upgrade fixtures to LED as necessary.
- Pedestrian bridges may be separated from the vehicular traffic bridge. Minimum pedestrian bridge width is anticipated to be 17-ft.
- Broom Street will be updated in 2021 with a two-way cycletrack from Main Street to John Nolen Drive.

TRAVEL SPEEDS ON JOHN NOLEN DRIVE

The City of Madison 'Vision Zero' initiative proposes to lower speed limits across the city. 'Vision Zero' is a data driven strategy intended to eliminate traffic deaths and severe injuries on City streets by 2030. The City of Madison 'Vision Zero' initiative strives to improve pedestrian and bike safety for all users throughout the City and improve the identified high injury intersections, all in an effort to prevent avoidable fatal crashes. John Nolen Drive has been identified as part of the city's high-injury network. Pending further study, safety improvements for the roadway may include lowering the posted travel speed. The goal for John Nolen Drive is to replace its highway characterization and improve it for greater bike and pedestrian comfort and safety.

PEDESTRIAN BRIDGE CONNECTION EASEMENT AND JOHN NOLEN DRIVE CORRIDOR OVERPASS

The City of Madison has an access easement at East Wilson Street for a potential pedestrian overpass connection to Law Park (Figure B.32 - B.34).

The 20-ft easement passes between two, tall residential buildings at 151 East Wilson Street and 137 East Wilson Street. The easement was acquired due the height of the potential connection, which is approximately 30-ft higher than the elevation of Law Park. As there is a 23-ft minimum requirement to pass over the railroad corridor, the connection point is a suitable location for a potential pedestrian overpass over the rail and highway corridor. A potential direct pedestrian connection from East Wilson Street to Law Park is an exciting opportunity to better link the city given the difficulty to cross the Blair Street Intersection and the circuitous nature of the Monona Terrace bike elevator.

Features such as a pedestrian bridge connection to East Wilson Street will likely involve property air-right concerns, objections to blocked views of Lake Monona from existing development and land easement challenges relative to foundation locations.

Figure B.32 View of Law Park and lake from East Wilson Street Easement

- The property below the easement connection is privately controlled (no footings). Contact City Engineering for structural design considerations for the connection point.)
- See Appendix 6 for additional easement and waterfront photos.

Figure B.33 View from Wilson Street

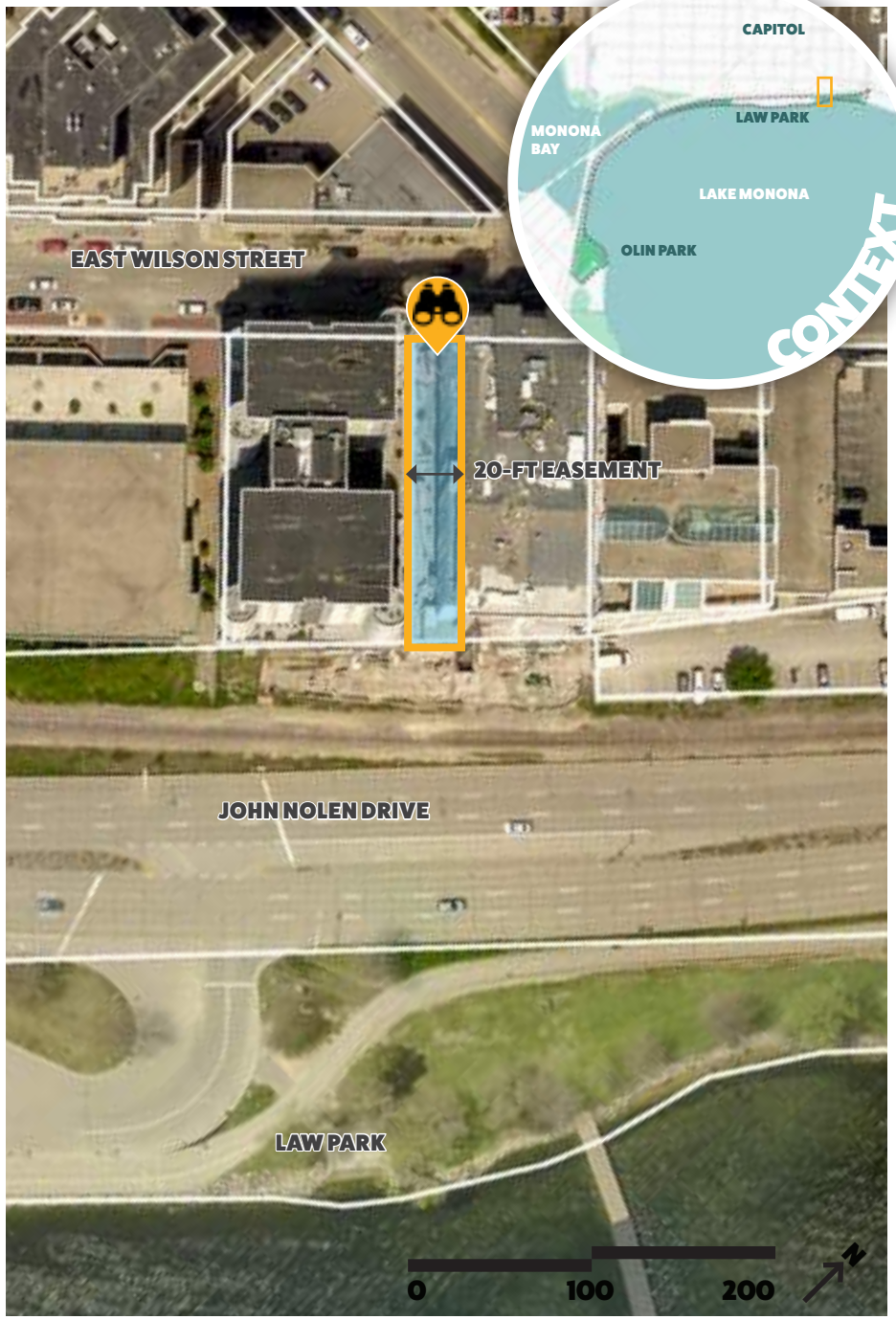


Figure B.34 Bridge Connection Easement Map

Figure B.35 View Looking East from Monona Terrace Parking Ramp

SUMMARY OF SITE CIRCULATION OBSERVATIONS:

- John Nolen Drive is a "connecting highway", a designation overlaid on a city street. It is maintained by the City of Madison but owned by WisDOT.
- WisDOT regional office reviews any modifications within John Nolen Drive's right-of-way at both a 60% and final review level.
- Lowering John Nolen Drive would require pumping stations and present major utility conflicts. Currently the roadway surface is approximately 7-ft above Lake Monona's average water depth.
- The John Nolen Drive Causeway is maintained by the City of Madison.
- Capital City Trail routine maintenance is performed by the City of Madison Engineering Division.
- Preliminary Design for the causeway reconstruction began in 2020 with the potential roadway and trail reconstruction for 2026.
- Elevation of the causeway is largely dictated by the existing railroad tracks.
- 20-ft easement width. Law Park Elevation: +/-850 / Wilson Street Elevation: +/-870-ft.
- Structures must maintain 23-ft min vertical clearance over the top of rails and 16-ft 9-inches minimum clear from roadway to underside of overhead structures.
- Any load-bearing pier or column within 25-ft horizontal distance of the rails must be designed with 'crashworthy' parameters in the case of train buckling.
- Consider proximity of any structure footing, shoring and excavation when planning for structures adjacent to railroad right-of-way.
- Proximity to Frank Lloyd Wright designed Monona Terrace creates aesthetic considerations of complementing or contrasting the landmark.
- Consider the effect the pedestrian bridge overpass may have on lake views from residences, John Nolen Drive, and within Law Park.

EMERGENCY ACCESS

The driveway and parking lot adjacent to Law Park's northeast end that provides access to the Machinery Row property are designated emergency vehicle access lanes. Any future structures proposed within the study area

and any modifications to the entry parking lot that serve both Law Park and adjacent businesses should reference the City of Madison Fire Deparment (MFD) Fire Apparatus Access and Fire Hydrant worksheet. Currently, fire lanes require:

- 75 psi
- Min. load of 85,000 lbs
- 150-ft max. dead-end drive length

Per MFD, any park feature with a roof is considered a structure by law, and therefore, subject to the codes and requirements as such. Furthermore, any roofed structure supported by piers over the water or water edge would require a special performance-based risk analysis. Other improvements to the Lake Monona Waterfront, such as tunnels, bridges, or overpass features, may require detailed performance-based risk analysis by specialized professionals.

As further stated by the City of Madison Fire Department, any development of the Lake Monona Waterfront should consider how people exit the Monona Terrace and disperse to safety during an emergency evacuation. Not all areas connecting to the bike path around the Monona Terrace are currently designed or intended for emergency access vehicles, and the Capital City Trail is not designed or rated for fire truck access.

The Law Park boat launch is the primary launch for emergency response lake access by the City of Madison, and MFD currently uses the gravel area at the end of the parking lot for Y-turning movements. The condition of the current boat launch is poor, and MFD desires an improved, reconstructed launch. An improved boat launch could potentially be located anywhere along the northeast end of Law Park, where shallow water allows trailer launching.

The MFD Lake Response Team is based at Fire Station #1 (314 W Dayton), and the Fire Department truck & trailer typically park in the boat launch ramp during emergency responses.

The lake response team uses two different vehicle rigs:

- ¾ ton truck with trailer/boat and 58-ft total length.
- ¾ ton truck with trailer/airboat, 52-ft total length.

The Olin Park boat launch, just south of the project study area, is too far away to be re-designated as the primary emergency boat launch. An Olin launch would add at least 5 minutes to any Lake Monona response time, including emergencies located on water near Olin Park. Other critical observations and issues noted by the City of Madison Fire Department relevant to the Lake Monona Waterfront include:

- Emergency responses can occur during all seasons, especially when ice is present.
- A sunken dive platform exists in approximately 30-ft depth of water offshore from the Monona Terrace west driveway entrance. The platform is a concrete pad used as a sold submerged surface for training exercises.
- Emergency responses along the bike path often use John Nolen Drive to access and park emergency vehicles. Emergency vehicles will also drive along the bike path if necessary.
- Special care is needed for turning into the Law Park driveway given heavy use and conflict by bikes and pedestrians.
- Hydrants are located and used along John Nolen Drive.
- Edgewater Ct., in Olin Park, is likely to be abandoned, and the street does not provide emergency access service to Medical Services facility.

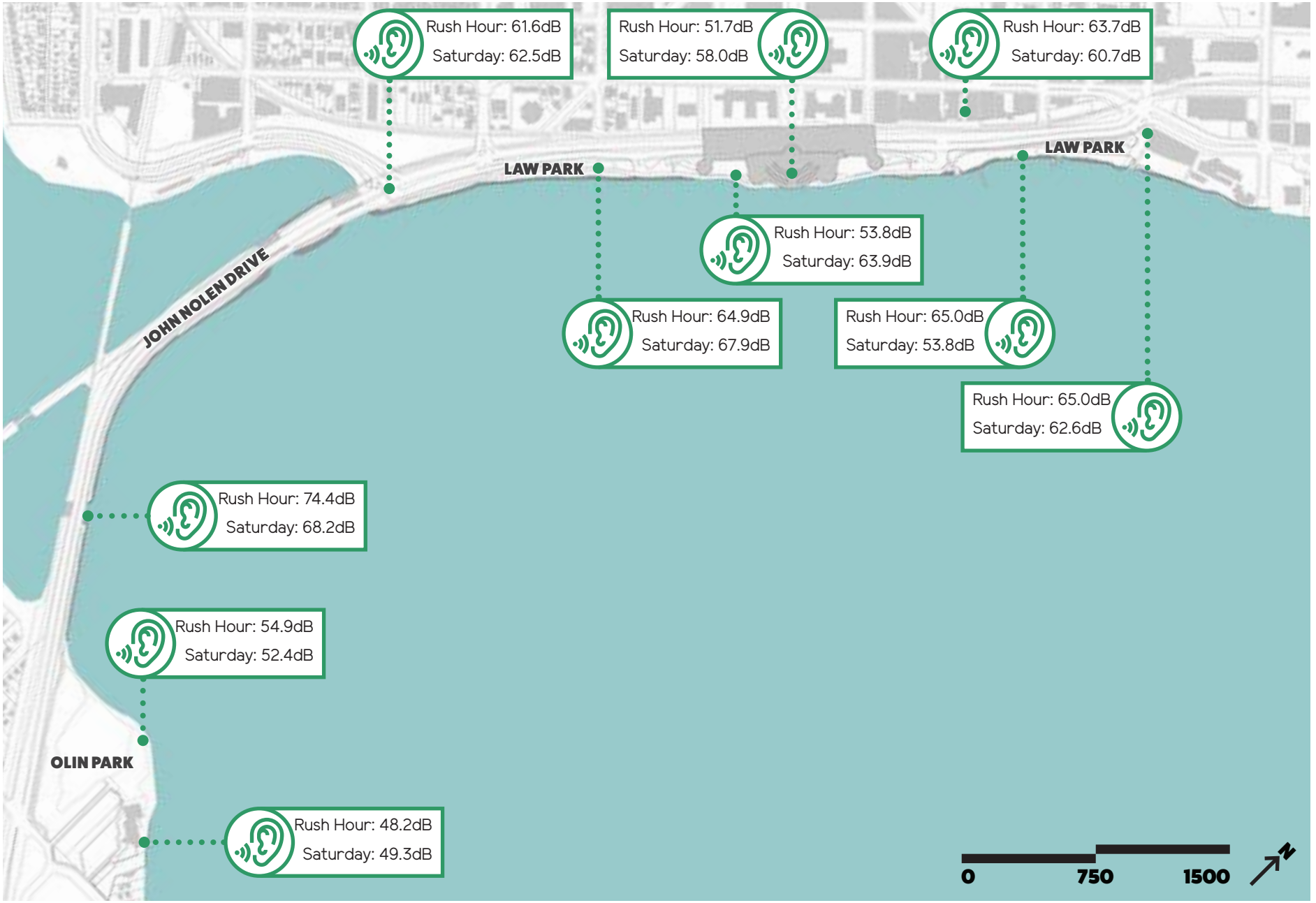


Figure B.36 Soundscape Map in Decibels

SOUNDSCAPE

Noise levels from vehicle traffic on John Nolen Drive are significant and make normal conversation difficult at times in Law Park and along the causeway. The adjacent image shows the decibel (dB) levels recorded during a weekday rush hour in comparison to a weekend, with levels recorded in late summer 2019 and 2020. The elevated decibel level and need to shout to hold a conversation is most apparent along the causeway where increased vehicle speeds, clanking of vehicles over bridge plates, and exposure to lake winds create an uncomfortable amount of noise.

One constant between weekday and a weekend vehicle traffic is the presence of wind. On a windy day, decibel readings can range between 65-70 dB, requiring the need for elevated conversation. However, a reduction in noise level occurs when traffic volumes and wind levels are lower.

The quietest portion of the project site is along the shoreline of Olin Park away from John Nolen Drive. Here, decibel readings can range from the mid 55s to upper 40s, allowing for more normal conversation levels.

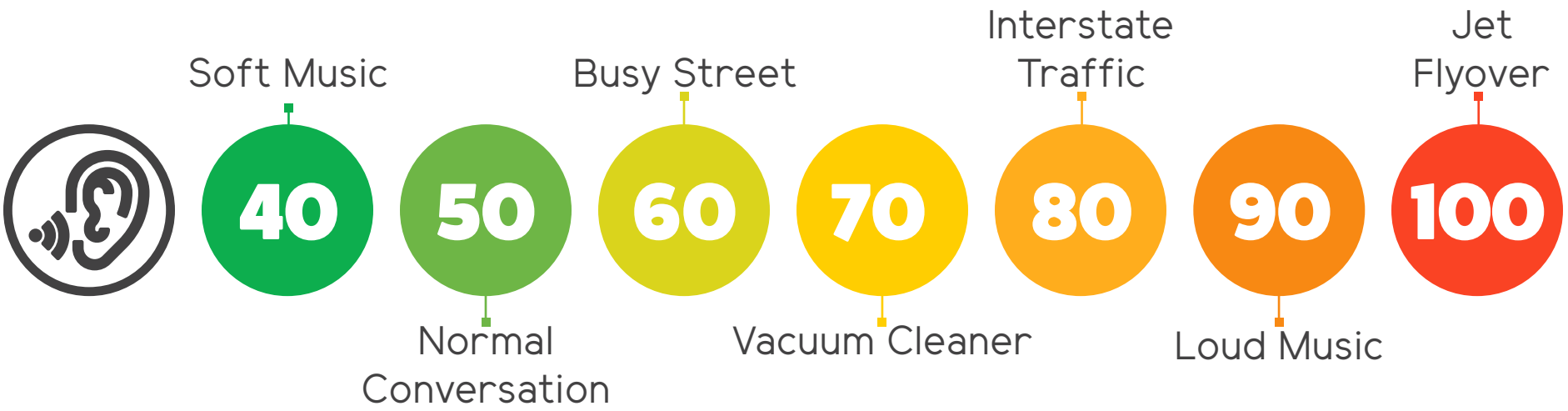


Figure B.37 Soundscape Scale in Decibels

VEGETATIVE SURVEY

Olin Park contains the largest mass of open space along the Downtown Waterfront. Whereas Law Park can simply be characterized by open lawn with a scattering of low to medium quality shade trees, Olin Park contains a variety of unique ground flora and canopy zones.

OLIN PARK GROUND FLORA

Ground flora species were documented on a site walk in northern Olin Park on September 17, 2020. Sampling was conducted by walking the site and identifying visible species. The objective was to develop a qualitative assessment of the general ecological health of the systems present in the project area. Existing canopy structure and woody species were not inventoried but are documented in Appendix 4.

The northern Olin Park project area contains four primary vegetative community zones: Western open grove, near lake north end, and near lake east end, and Back of the building. Many species were found in the western open grove, near lake north end, and near lake east end. All communities were dominated at the ground layer with non-native or invasive species. The presence of weeds far exceeded that of desirable native species.

The western open grove appeared to have higher populations of reed canary grass, red top, and Kentucky blue grass than the Near Lake communities. Whereas in the two Near Lake communities, large fans of native Carex (crx) species (spp) were observed. Invasive species still dominated these communities but fans of Carex were noticeable. The leaf blade size and length were consistent with Crx pensylvanica and Crx rosea. In addition to the Carex ssp, other native species observed included two types of aster, zigzag goldenrod, white snakeroot and native anemone.

Based on visual assessment, it appeared the west open grove had greater species diversity than the remaining vegetative community areas, though most of the species were invasive. This is a community transitioning from a remnant savanna into a novel ecosystem. Restoration of the system is possible but would require aggressive treatment and control of some

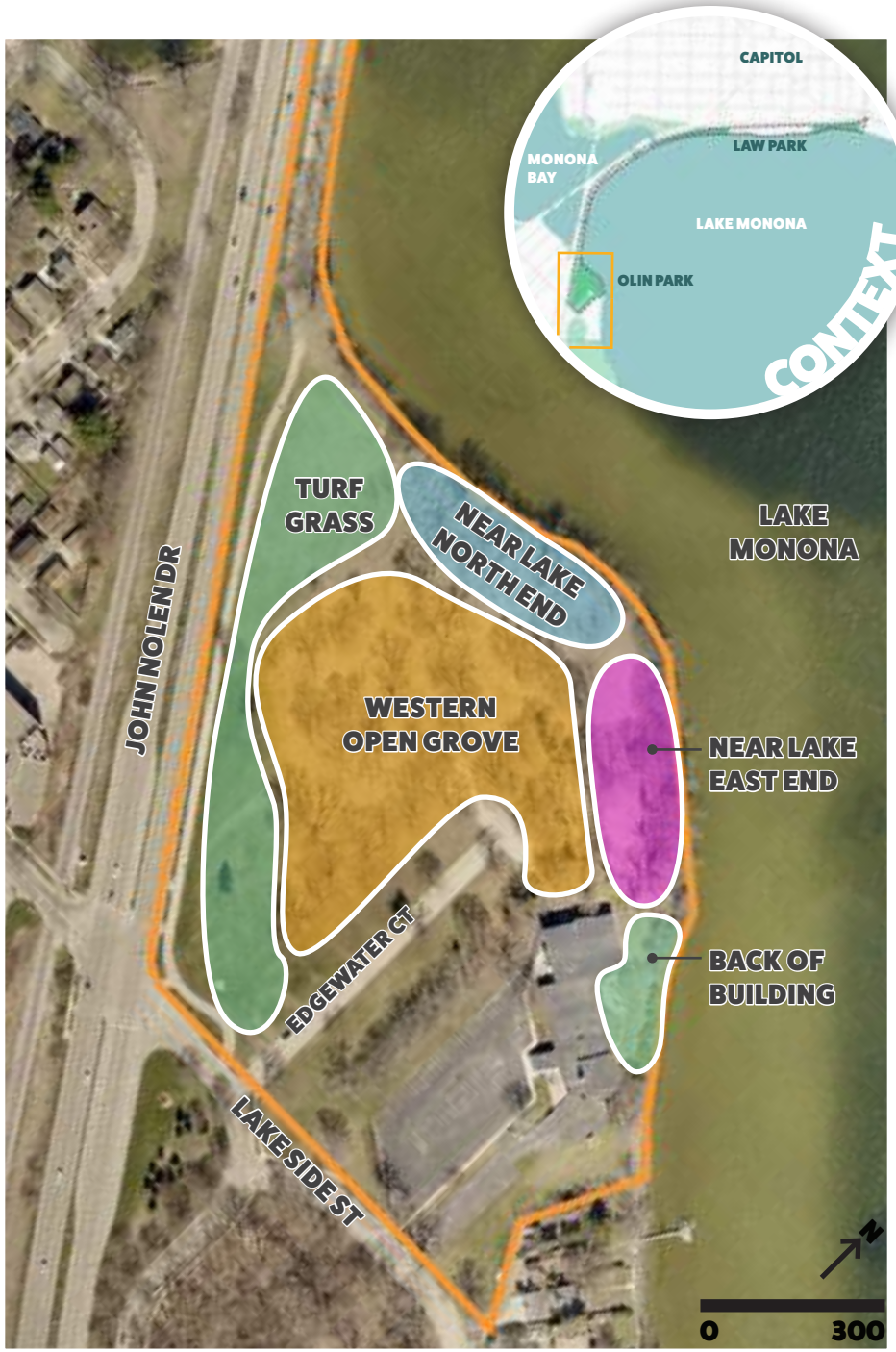


Figure B.38 Olin Park Ground Flora

species. Still the presence of some native species suggest restoration is plausible.

The two near-lake communities were less open and more populated with woody undergrowth, particularly along the lake shore's edge. In places, woody undergrowth all but excluded ground layer vegetation. As noted earlier, the largest intact stands of native sedges (Carex spp) were found in these communities. Aster, anemone, and goldenrod were also found on the more upland portions of these communities.

The back-of-building vegetative community is the outlier of the four communities sampled. Unlike the other three communities, which represented native remnant habitats invaded by invasive species, this community is an ornamental, planted community with native and non-native invasive species. Most of this community is dominated by turf grass. A planted lakeshore edge has been invaded with other species.

VEGETATIVE SURVEY

A tree inventory was conducted for Olin Park. The distribution of desirable species, deadwood or decaying species and invasive species are depicted below. The full tree inventory can be found in Appendix 4.

Figure B.39 Olin Park Canopy

LAKE MONONA WATERSHED

Lake Monona is the second of five lakes in the Yahara River Watershed. The lake has experienced water quality issues due to both agricultural and urban runoff. The Yahara River which flows from Lake Mendota to Lake Monona is the most significant contributor to phosphorus loading, reducing water quality. The second largest contributor to phosphorus within Lake Monona is Starkweather Creek which receives a significant amount of urban runoff from east Madison. The Yahara CLEAN plan for Lake Monona recommends reducing runoff from construction sites and improved street clean-up to reduce phosphorus loading in the lake.

The project site is small in relation to the overall watershed, but its proximity to Lake Monona makes it an ideal location for stormwater improvement projects that will both educate the community on the issues and set precedents for projects higher in the watershed.

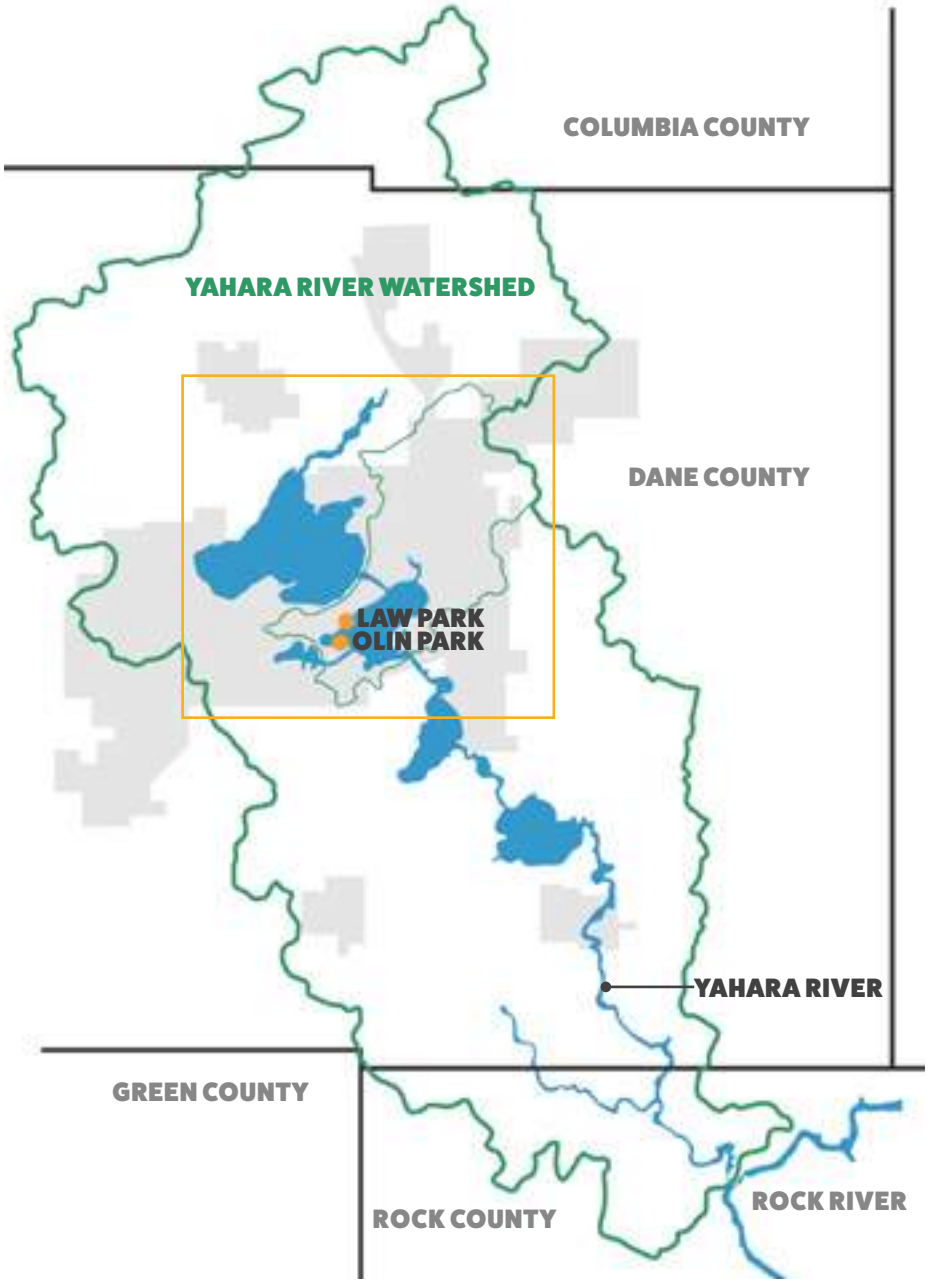


Figure B.40 Yahara River Watershed

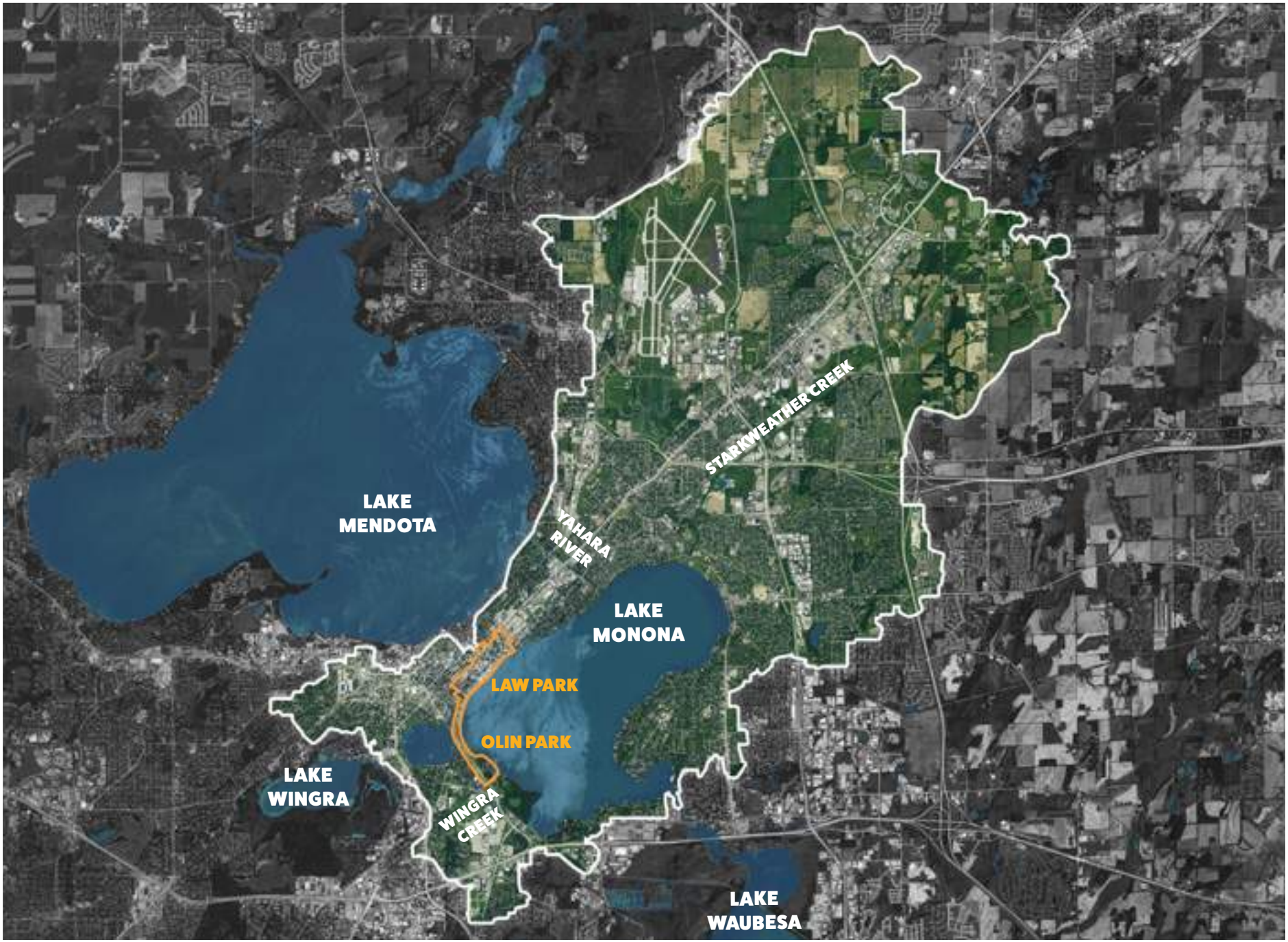


Figure B.41 Lake Monona Watershed

LAKE LEVELS

Lake water levels have been a significant area of conversation in recent years, amplified by the historic 2018 flood that caused record high water levels throughout the Yahara Lakes. Lake levels are important from a flooding and accessibility standpoint. Generally, lake levels are controlled by locks at the Tenney Dam between Lake Mendota and Lake Monona. Situated along the Yahara River, the locks play an important role in regulating the Lake Monona water level. However, as shown in the figure below, flooding can affect access to the Capital City Trail causing major flooding across the downtown isthmus. Lake levels also affect the damage that can be caused by waves.

Lake Monona General Statistics

Water Levels

848.52-ft - Historic High 9/6/2018

847.7-ft - 1% Flood

845.2-ft - Summer Maximum

844.7-ft - Summer Minimum

845-ft - Average Depth

843.22-ft - Historic Low 1/20/1965

842.2-ft - Winter Minimum

- Lake Monona must remain 4.9-ft lower than Lake Mendota
- Annual High Water Level: July
- Annual Low Water Level: January
- Average Annual Variation (High-Low)=1-ft
- Lake Depth: 64-ft
- Lake Surface Area: 3,274 acres

Vertical Datum Conversion	NGVD29	NAVD88(1991)	NAVD88(1991)
Water Level	847.7-ft	847.7-ft	847.67-ft

*Water Levels shown in NGVD29

Independently, high water levels and strong winds generating large waves are important factors, but together they can cause significant shoreline issues. Large waves during high water conditions can cause upland wave damage and erosion. For Law Park and the Nolen Park Causeway this is significant given the proximity of the Capital City Trail and John Nolen Drive.

Figure B.42 2018 Flood encroaching on the Capital City Trail

SHORELINE ENVIRONMENT

Understanding the shoreline environment of Lake Monona is key to understanding the potential opportunities to improve access to the lake. This section discusses the essential shoreline conditions to consider along the waterfront.

WIND

Wind is a driving force in wave action, ice shoves in early spring, and lake currents. Figure B.43 shows the predominant wind patterns for Lake Monona which occur primarily from the south during summer months and the west-north west during the winter.

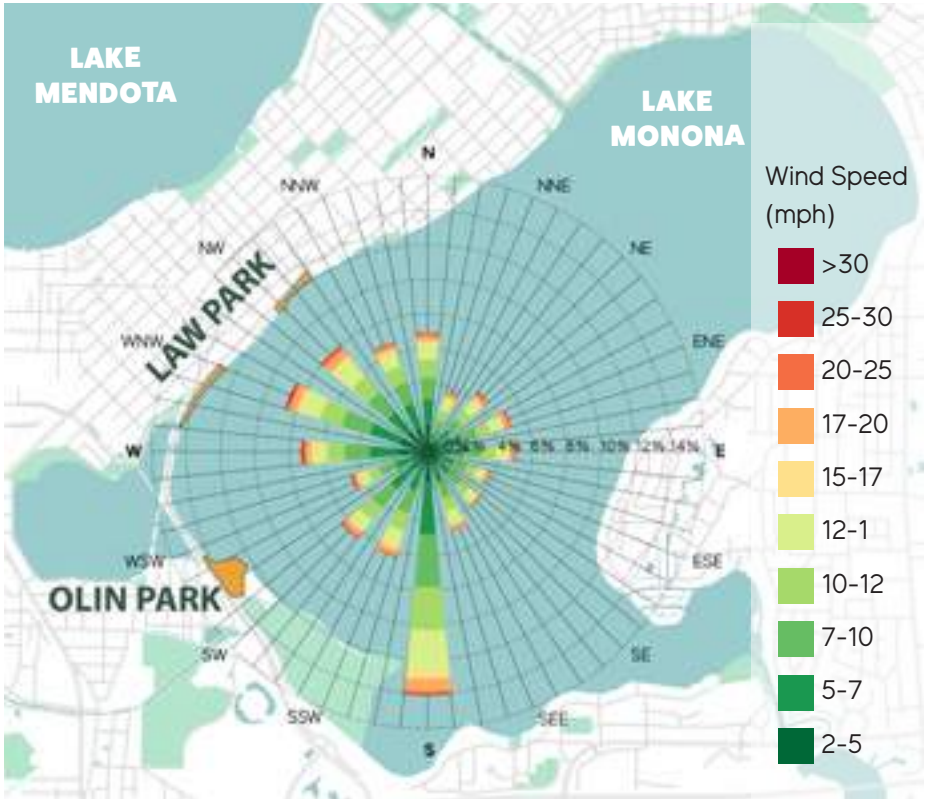


Figure B.43 Madison Wind Rose *MSN Airport (1948-2019)

LAKE FETCH

Lake fetch is the longest stretch of open water wind can travel. The largest waves will be generated by wind traveling over the longest expanse of open water. Understanding the highest energy waves are a key factor in understanding what type of shoreline improvements can be considered. The wind and lake fetch analysis together inform that for Law Park summer storms from the south will generate the largest waves. For Olin Park, although not frequent, strong late season northeast winds known as a ''nor'easter'' will generate the largest waves.

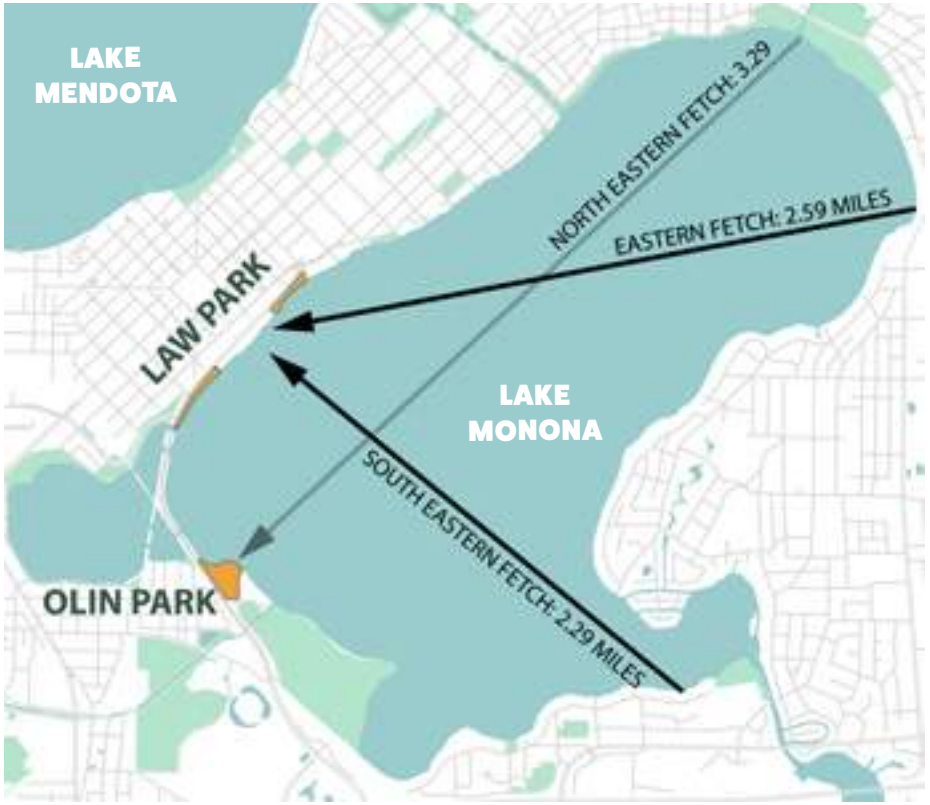


Figure B.44 Lake Fetch

LONGSHORE LAKE CURRENT

Along the Lake Monona shoreline between Olin and Law Park, the general currents are longshore currents from west to east. These currents affect the movement of surface algae and debris along the shoreline. Any fixed or floating structure projecting into the lake, like the existing floating docks adjacent to the Monona Terrace, tend to form a buildup of algae and debris. Any shoreline improvement should consider the effect it has on this existing current.

Figure B.45 Lake Monona Longshore Currents

SUBMERGENT VEGETATION

Submergent vegetation is an important habitat for fish spawning and juvenile fish. These habitats are limited and valuable resources within Lake Monona. For purposes of fish habitat, native non-invasive submergent vegetation should be protected and enhanced wherever possible. See subsequent section 'Limnological Considerations' for more information. Figure B.46 shows the approximate submergent vegetation areas in Lake Monona based on the 1980 Wisconsin Department of Natural Resources (WDNR) bathymetric survey.

Figure B.46 Submergent Vegetation *1980 DNR Lake Survey Map

Figure B.47 2018 Air Freezing Index

ICE

Of the various shoreline conditions, ice is the most limiting design factor. When considering any year-round shoreline improvement such as riprap or a pile supported dock, design for the ice loading exceeds other structural considerations caused by wind, waves, or other considerations. Figure B.45, air-freezing index map is defined as cumulative degree days below 32°F. It is used as a measure of the combined magnitude and duration of air temperature below freezing and an important consideration for the duration of ice cover and ice thickness to expect on Lake Monona.

The ice thickness chart below can be utilized to determine the design requirements for various shoreline structures such as walls and piles.

Ice Thickness

Return Period	AFDD	Ice Thickness (in)
1 year	481	13.2
5 year	1474	23.0
10 year	1633	24.2
50 year	1918	26.3
100 year	2019	27.0

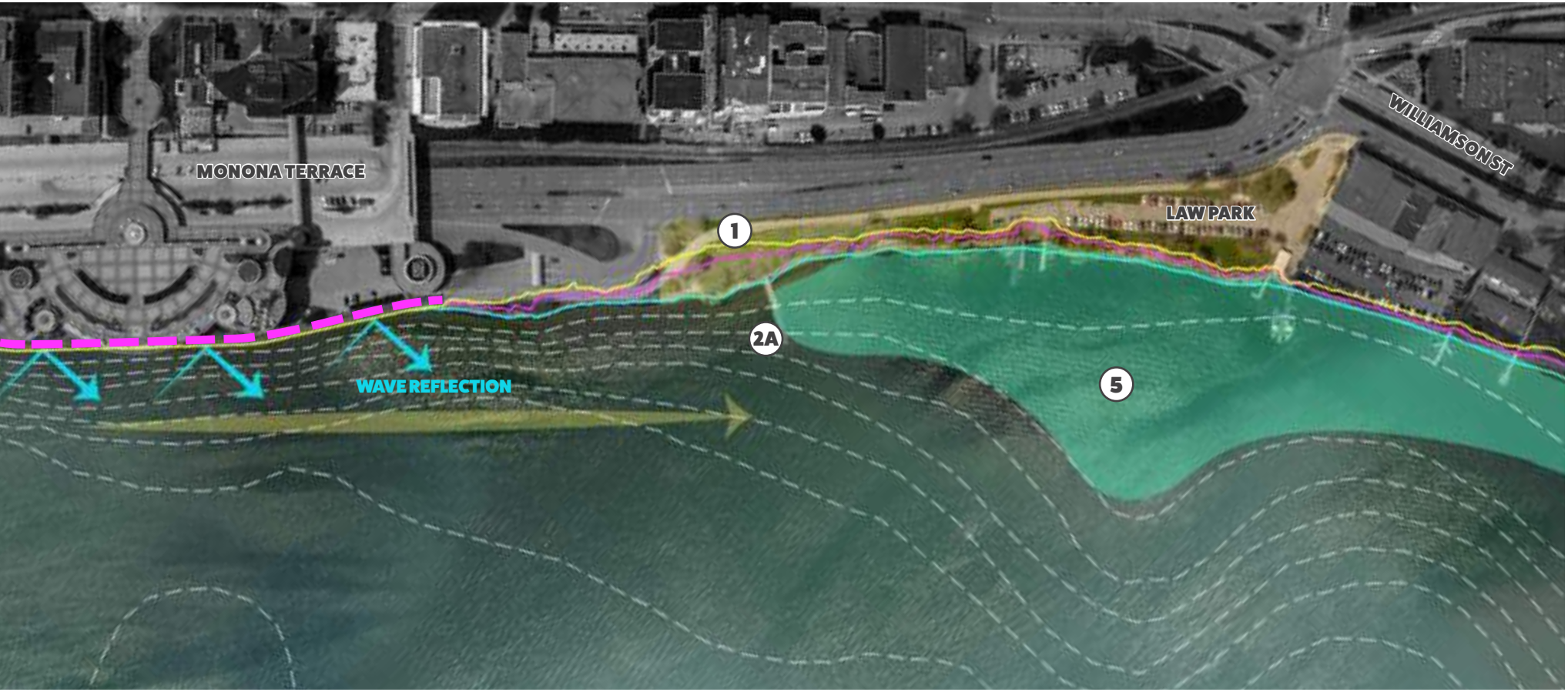
*Ice Thickness is based on a Stefan Equation Coefficient of 0.6

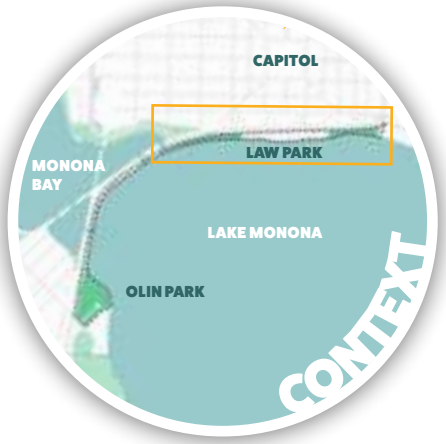
LAW PARK SHORELINE

The numerical list highlights the various shoreline conditions along Law Park.

1. During the 2018 flood, portions of the Capital City Trail were narrowed to impassible.
2. Longshore currents carry algae and debris that can catch on shoreline structures like the Ski Team Docks (2A).
3. Wave reflection off the Monona Terrace Seawall can make swimming and boating off the face of the Terrace difficult.
4. Popular, floating fishing piers, seasonally removed.
5. Submergent habitat located with shallow near shore water. Lake fill for the John Nolen Causeway and Law Park make this one of the few shallow water zones on the northeastern shoreline.

Figure B.48 Law Park Shoreline Analysis


MONONA TERRACE
WILLIAMSON ST
LAW PARK
1
2A
5
WAVE REFLECTION


CAPITOL
LAW PARK
MONONA BAY
LAKE MONONA
OLIN PARK
CONTEXT

OLIN PARK AND CAUSEWAY SHORELINE

The numerical list highlights the various shoreline conditions along Law Park.

Figure B.49 Olin Park Shoreline Analysis

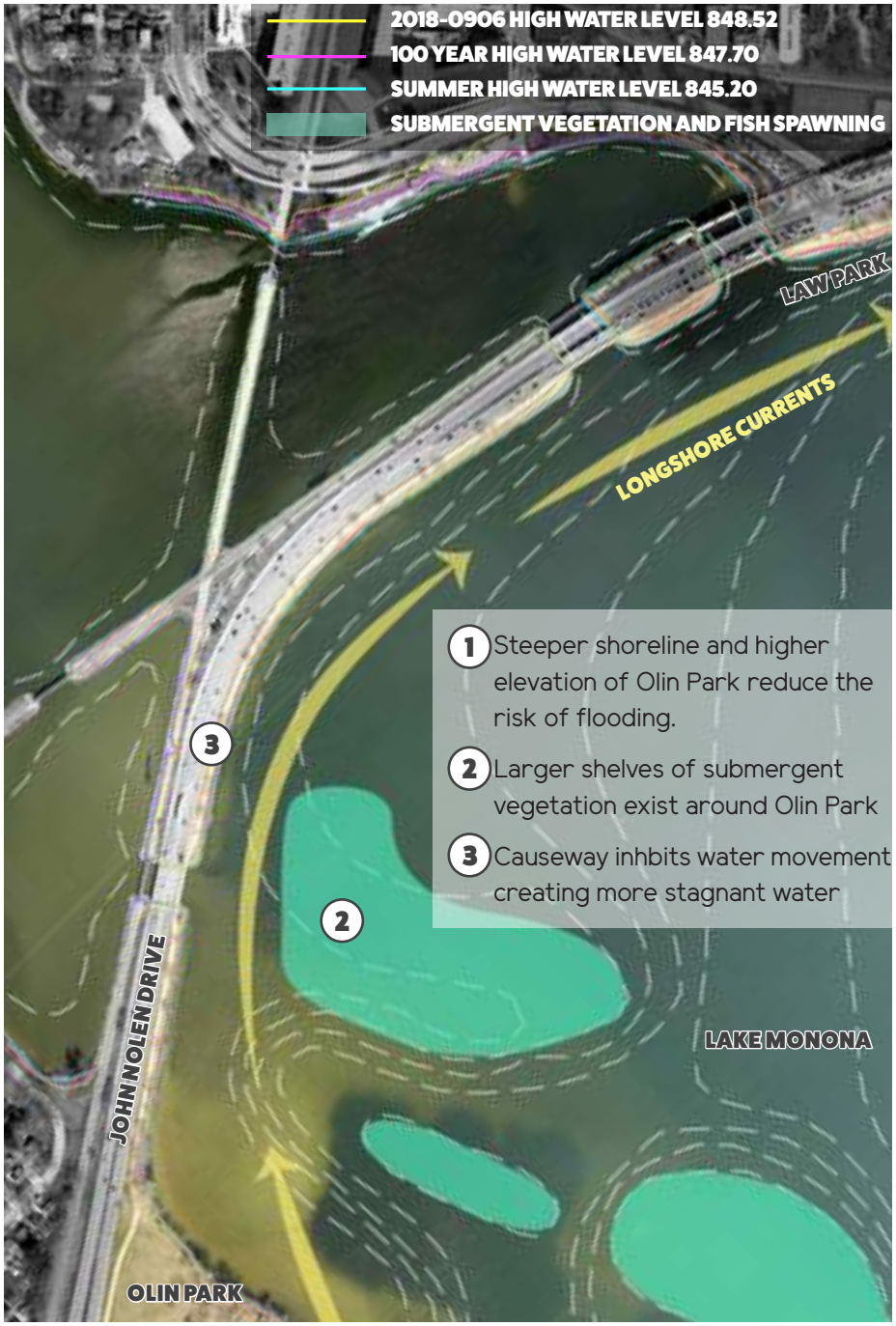
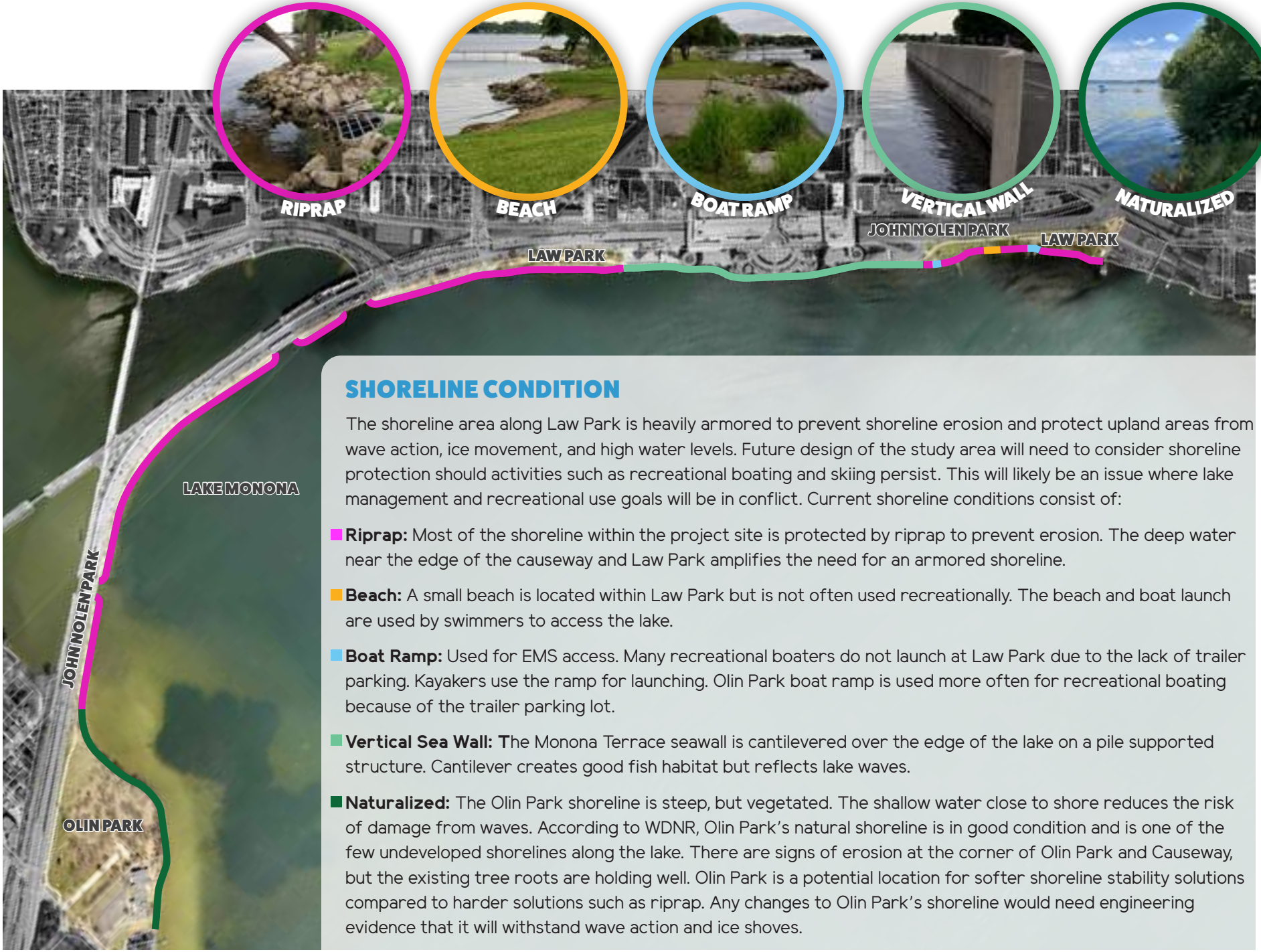


Figure B.50 John Nolen Causeway Shoreline Analysis



SHORELINE CONDITION

The shoreline area along Law Park is heavily armored to prevent shoreline erosion and protect upland areas from wave action, ice movement, and high water levels. Future design of the study area will need to consider shoreline protection should activities such as recreational boating and skiing persist. This will likely be an issue where lake management and recreational use goals will be in conflict. Current shoreline conditions consist of:

- **Riprap:** Most of the shoreline within the project site is protected by riprap to prevent erosion. The deep water near the edge of the causeway and Law Park amplifies the need for an armored shoreline.
- **Beach:** A small beach is located within Law Park but is not often used recreationally. The beach and boat launch are used by swimmers to access the lake.
- **Boat Ramp:** Used for EMS access. Many recreational boaters do not launch at Law Park due to the lack of trailer parking. Kayakers use the ramp for launching. Olin Park boat ramp is used more often for recreational boating because of the trailer parking lot.
- **Vertical Sea Wall: T**he Monona Terrace seawall is cantilevered over the edge of the lake on a pile supported structure. Cantilever creates good fish habitat but reflects lake waves.
- **Naturalized:** The Olin Park shoreline is steep, but vegetated. The shallow water close to shore reduces the risk of damage from waves. According to WDNR, Olin Park's natural shoreline is in good condition and is one of the few undeveloped shorelines along the lake. There are signs of erosion at the corner of Olin Park and Causeway, but the existing tree roots are holding well. Olin Park is a potential location for softer shoreline stability solutions compared to harder solutions such as riprap. Any changes to Olin Park's shoreline would need engineering evidence that it will withstand wave action and ice shoves.

Figure B.51 Shoreline Condition

LIMNOLOGICAL CONSIDERATIONS

The shoreline of Lake Monona is fairly deep along Law Park with depths of 10-20 ft under the Monona Terrace vertical sea wall and approaches 30 ft depths or greater perpendicular to the shore in some areas according to the available bathymetry map (Figure B.52). This area is popular for public fishing and sustains a healthy recreational fishery according to the WDNR.

The longshore currents that span along the northern lakeshore adjacent to Law Park carry debris and muck; a condition typical of lakes the size of Lake Monona. This material will likely accumulate along any artificial structures in the currents' path causing unsightly conditions and increasing potential to further degrade water quality. Shoreline improvements should take the long shore currents into consideration to avoid the deposition of debris.

Accumulation of debris from longshore currents and algae control measures will need to be considered in the planning effort for the Lake Monona Waterfront in addition to maintaining the existing level of shoreline protection that is currently in place. Hydrodynamic modeling may be of use to determine the degree to which the shoreline will need to be stabilized for future design scenarios.

Lake Monona is currently characterized as a mesotrophic lake according to the WDNR, and algal blooms are typical for the summer growing season. These conditions will likely be exacerbated now that zebra mussels have been introduced to the lake. Zebra mussels are an invasive species that cause significant ecological harm to lakes. Zebra mussels are incredibly efficient grazers that consume algae and particulates which can actually increase water clarity. This can in turn increase light penetration to bottom waters thereby causing filamentous algae to grow and spread. Extensive filamentous algae is not only unsightly along the shoreline, but it can also lead to odor problems as the biomass dies and decays. In addition, this situation can also create optimal conditions for growth of Cyanobacteria and associated algal toxins. Zebra mussels are becoming more prevalent in the lake leading to scum-forming algae blooms and increase in aquatic plants.

From a fisheries perspective, the deep areas along Law Park are important refuge and habitat for adult fish. Near the east end of Law Park, the shallow water littoral zone offers habitat for nesting and reproduction. Cumulatively, this area along Law Park appears to be an important area for full life history of desired recreational fishes. Park shoreline improvements will need to maintain or increase the same level of habitat for the fishery in order to maintain and/or increase ecological function.

Generally, the habitat value improves moving counter-clockwise around the bay from the northwest corner adjacent to the John Nolen Drive Causeway to the southeast corner of Olin Park. The offshore condition of the causeway is important fish habitat. Filling should be avoided, as this is a nesting location for fish, actively cleaning sand so additional fill should not be placed on top of existing substrate.

Geese are problematic along the shore with considerable evidence of scat. This obviously causes issues for pedestrians, but goose scat can also be a significant load of bacteria to surface waters, which can impair recreational swimming uses. Measures to reduce goose colonization should be considered. Vegetated planting along the shoreline has been shown to reduce goose density and should be considered in the future planning effort.

Through meetings with WDNR and City of Madison Engineering Department, several critical pieces of information were noted regarding the habitat along the causeway and Olin Park shoreline:

- Undeveloped shoreline along Olin Park is important for fish habitat and contributes to the scenic value of the lake.
- In a WDNR angler survey, natural scenic beauty was a top motivation for fishing.
- This area is important for blue gill spawning and fish use in spring.
- Dane County Aquatic Plant Management Plan lists this area as a non-developed shoreline and shallow cut zone.

In summary, the Lake Monona Waterfront holds potential for the City of

Madison to revitalize this area. However, care must be taken with shoreline development. According to representatives from WDNR Fisheries, WDNR Stormwater, and WDNR Waterways, future designs should focus on opportunities to reduce negative impacts to Lake Monona as the area is already highly developed. Nutrient load reduction, stormwater management, and goose management are key considerations for this. Improvements should focus on ecological benefits to this highly valued urban lake, which will also allow for ample educational opportunities in this heavily trafficked area of the City of Madison.

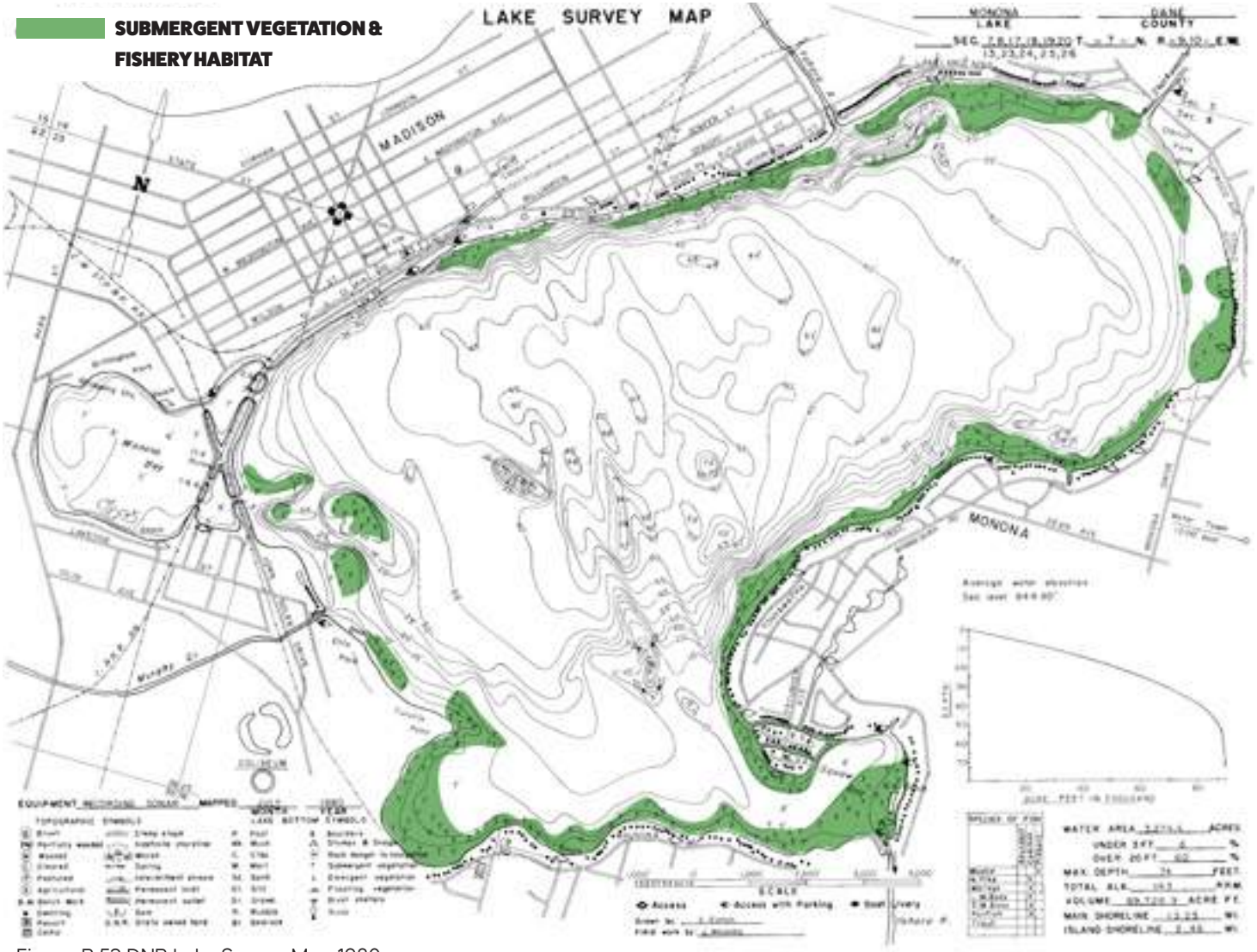


Figure B.52 DNR Lake Survey Map 1980

BUILDABLE DOCKLINE AND CHALLENGES TO LAKE FILL

As outlined in the 2012 Downtown Plan, in 1990 the City of Madison was issued a permit from the U.S. Army Corps of Engineers (USACE) to fill approximately four acres of Lake Monona to expand Law Park. The application relied on a 1927 State Statute establishing a buildable dockline along Lake Monona's west shore. In 1993, the City received an extension and alteration of the USACE permit to construct the Monona Terrace. The 1996 Law Park Master Plan proposed fill to expand the park as initially permitted in 1990. Views on lake fill for park expansion have changed considerably since the 1990s. The flooding events of 2018 demonstrated Lake Menodota's and Lake Monona's role in the greater four-lakes waterway, and improving the system's capacity to accommodate and convey larger storm events is an on-going effort by Dane County and the City of Madison. Filling Lake Monona for park and shoreline improvements appears contrary to this goal. Also, WDNR fisheries oppose lake bed fill within the project study area as most existing shallow shoreline conditions are also prime fishery habitat. At a minimum, any proposed lake fill must provide significant benefits to shoreline habitat and water quality with no reduction in the waterway's flood mitigation capacity. In general, proposed lake fill will likely be met with significant opposition from environmental and regulatory perspectives.

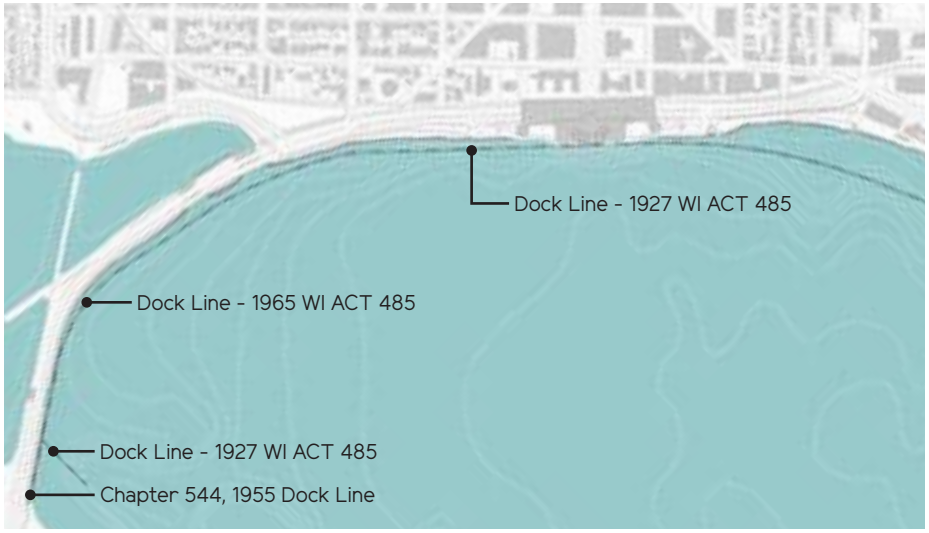


Figure B.53 Dock Line Easement

Figure B.54 Existing Law Park Section & Historic Lake Fill

The Lake Monona Waterfront holds potential for the City of Madison to improve connections between its downtown, east, west, and south side communities. However, careful planning is required with shoreline development. Per guidance from the WDNR, future improvements need to reduce negative impacts to Lake Monona as the area is already highly developed. Nutrient load reduction, stormwater management, and goose management are a few key considerations. Proposed improvements should focus on ecological benefits to this highly valued lakeshore corridor, which also offers ample educational opportunities due to the large volume of pedestrian and bicycle traffic along its length.

Figure B.55 Law Park Shoreline View Looking East

SUMMARY OF SHORELINE ENVIRONMENT OBSERVATIONS:

- Any proposed lake fill must provide significant benefits to shoreline habitat and water quality with no reduction in the waterway's flood mitigation capacity. In general, proposed lake fill will likely be met with significant opposition from environmental and regulatory perspectives.
- Fish life cycle within the context of Law Park: juvenile fish spawn at the shallow shelf and adult fish hunt in the deep water adjacent to Monona Terrace making it a popular spot for anglers.
- The existing shoreline is the preferred shoreline condition as discussed with the WDNR.

Figure B.56 Anglers along the Monona Terrace Seawall

GENERAL REGULATORY REQUIREMENTS AND APPROVAL FRAMEWORK

The following section outlines the regulatory requirements and agencies that have jurisdiction over the project area.

Approval process for public works projects for bike/pedestrian path or other street projects:

1. Design plans are developed to a 50% construction document-level
2. 50% plans are presented to the Board of Public Works, Transportation Commission and Common Council for approval of proposed geometry. Changes within parks also require approval of the Board of Parks Commissioners.
3. 100% plan review by Board of Public Works, Transportation Commission Common Council and Board of Park Commissioners (as necessary).
4. State review occurs through the City Building Permit request process. WDNR and Army Corps of Engineering reviews occurs during the WisDOT Environmental Document process.
5. Final construction documents are let for public works bidding.

WATER RESOURCES APPLICATION FOR PROJECT PERMITTING

For redevelopment expected to exceed one acre, a Water Resources Application for Project Permits (WRAPP) is required by the WDNR. This application is intended to demonstrate compliance with Wisconsin State Statutes regulating stormwater management and erosion control for the redevelopment activities.

TEMPORARY AND PERMANENT EROSION CONTROL MEASURES

Construction site erosion controls will be implemented by the Contractor in compliance with WDNR Codes NR 216 and NR 151. Permanent stormwater management BMPS may be required by the WDNR or City of Madison ordinance. The post-construction land cover and usage of the tributary area could change significantly compared to existing conditions. Therefore, the post-construction peak discharge rate, volume and sediment load of stormwater discharge will need to be quantified and submitted with the WRAPP permit.

Construction site best management practices for this project will likely include a combination of a turbidity barrier, tracking pads, inlet protection, and silt fence, as well as additional practices as required for permit compliance.

Additional requirements included in construction documents include:

1. Temporary or permanent erosion control measures applicable to each phase of grading must be installed prior to commencing on that phase.
2. Only those areas designated for the placement of improvements or earthwork may be cleared before placement of the final cover.
3. Soil or other erodible materials may not be stockpiled within 25 feet of the lake edge. Temporary stabilization and erosion control measures must be provided on disturbed areas and soil stockpiles, which will remain for a period of more than seven consecutive calendar days.
4. Unsuitable excavation materials must be removed from the site immediately after rough grading. The disposal site for the surplus excavation materials shall also be subject to these erosion control requirements.
5. Dewatering discharge must be routed to a sedimentation basin or sedimentation vessel to reduce the discharge of sediments to meet the requirements of NR 151.
6. The Contractor shall inspect all erosion control measures within 24 hours of the end of each rainfall event that exceeds 0.25-inches, daily during periods of prolonged rainfall, or weekly during periods without rainfall. Immediately repair and/or replace all damaged, failed, or inadequate erosion control measures.

7. The Contractor must maintain records of all inspections and any remedial actions taken on-site.
8. The Contractor must remove any sediment reaching a public or private roadway, parking lot, sidewalk, or other pavement. Do not remove tracked sediments by flushing. Completely remove any accumulations not requiring immediate attention at least once daily at the end of the workday.
9. Frequently dispose of all waste and unused construction materials in licensed solid waste or wastewater facilities. Do not bury, dump, or discharge, any garbage, debris, cleaning wastes, toxic materials, or hazardous materials on the site, on the land surface or in detention basins, or otherwise allow materials to be carried off the site by runoff onto adjacent lands or into receiving waters or storm sewer systems.

CHAPTER 30 PERMITTING

For projects located in close proximity to wetlands or waterways within the state, a Chapter 30 permit is required by the WDNR. The Chapter 30 permit includes structures, dredging, outfalls, and some exemptions.

Pile Supported Structures

Expansion or creation of a dock/pier/wharf could be accomplished by placing a steel sheet pile wall, or individual piles driven into the lakebed. The sheet pile will extend above the Ordinary High Water Mark. To protect the sheet pile, scour stone will be placed against the sheet pile at the lake bottom. This will require a temporary disturbance of the lakebed and removal of existing lakebed material to properly install or "key-in" the scour stone. A pilings permit is required by the WDNR for any pilings installed.

An alternative to pile supported dock installation could be accomplished by other means, such as lake fill with a riprap revetment, however, this may cause greater impacts to the footprint of the structure lake bed. Placement of riprap would require a greater footprint of impact than placement of a sheet pile wall.

Revetment Replacement

Additional riprap may need to be placed to supplement the existing riprap along the waters edge at the property or at adjacent properties. The property owner will need to submit a Riprap General Permit application. The existing stone revetment will be removed and replaced or at least supplemented with additional rock. This stone will need to be sized to withstand erosion due to wave action and to resist movement and damage due to ice.

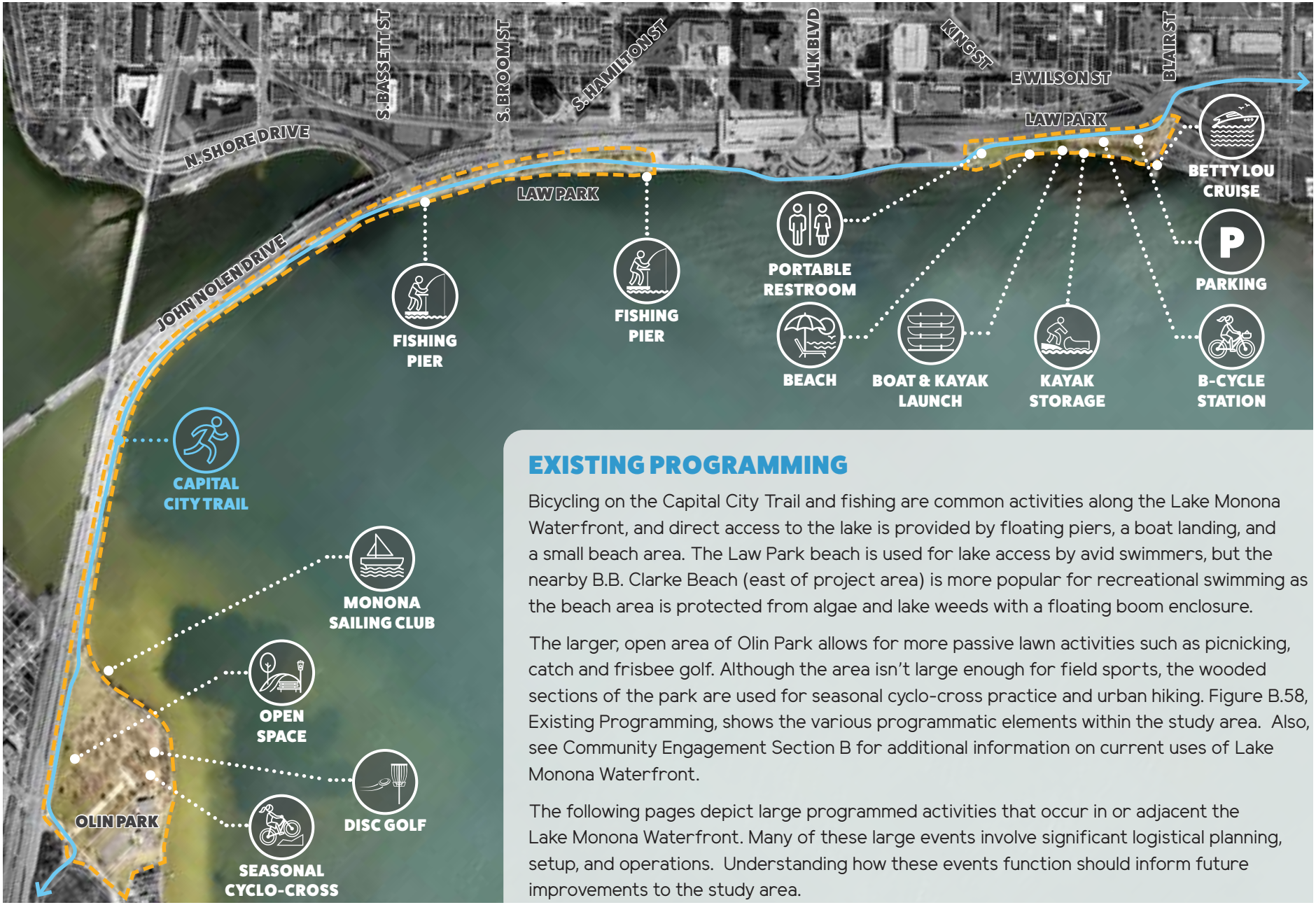
EXEMPT ACTIVITIES

Piers, Docks and Wharves

If any existing permanent waterway structures meet the conditions of the WDNR Pier, Dock or Wharf Exemption Checklist, the structures may be exempt from needing a permit.

OUTFALL STRUCTURES

There are several existing storm sewer outfalls located within the project limits. The existing outfalls are likely exempt from needing an addition Chapter 30 permit because they meet the WDNR Intake or Outfall Structure Exemption Checklist. The outfalls will continue to discharge to the lake but will be reconstructed to discharge through the redeveloped area.



EXISTING PROGRAMMING

Bicycling on the Capital City Trail and fishing are common activities along the Lake Monona Waterfront, and direct access to the lake is provided by floating piers, a boat landing, and a small beach area. The Law Park beach is used for lake access by avid swimmers, but the nearby B.B. Clarke Beach (east of project area) is more popular for recreational swimming as the beach area is protected from algae and lake weeds with a floating boom enclosure.

The larger, open area of Olin Park allows for more passive lawn activities such as picnicking, catch and frisbee golf. Although the area isn't large enough for field sports, the wooded sections of the park are used for seasonal cyclo-cross practice and urban hiking. Figure B.58, Existing Programming, shows the various programmatic elements within the study area. Also, see Community Engagement Section B for additional information on current uses of Lake Monona Waterfront.

The following pages depict large programmed activities that occur in or adjacent the Lake Monona Waterfront. Many of these large events involve significant logistical planning, setup, and operations. Understanding how these events function should inform future improvements to the study area.

Figure B.57 Existing Programming

EVENT PROGRAMMING

MADISON SKI TEAM

Law Park is specifically used by the Madison Ski Team due to the deep, near-shore water depth along this section of Lake Monona. The lake bottom's steep drop to deeper water allows ski team power boats to travel closer to the shore which allows for easy on-shore spectation. Between Memorial Day and Labor Day, the Madison Ski Team utilizes the park for free, public ski shows, which typically occur on Sunday evenings. The team also uses the park for practices that are held most weekday evenings.

Figure B.58 Madison Ski Team

However, several considerations for hosting the ski team events include:

- Limited access, including drop-off and launching. The ski team boats launch from Olin Park.
- Interference with bike path traffic. Gear drop-off often occurs at the corner of the Monona Terrace driveway, resulting in crossings of the Capital City Trail at a tight radius turn in the path.
- Lack of on-site storage facilities.
- Access by public is limited with minimal parking as a drive-to event destination.
- Inadequate space for viewing. Aluminum bleachers are provided but are often over-capacity.
- Wave reflectance from the vertical sea wall at the Monona Terrace can negatively impact the approach of a ski team performance.
- Ski shows can conflict with other watercraft traffic near the Monona Terrace.
- Portable restrooms are provided, but capacity, maintenance, and aesthetics are all lacking.

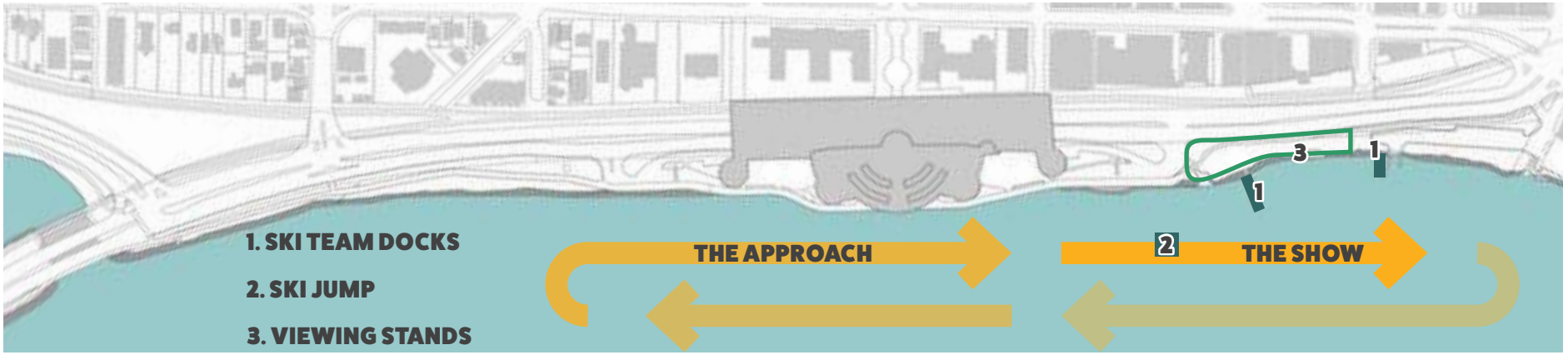


Figure B.59 Madison Ski Team

Figure B.60 Iron Man Swim View from Monona Terrace

IRONMAN COMPETITION

Monona Terrace is the home for the Madison Iron Man. During race day, the transitions between swim, bike, and run occur at Monona Terrace and Law Park. The swim begins from the shoreline of Law Park and ends with the transition to the bikes staged within the Monona Terrace parking deck. Bikers then head south along the closed John Nolen Drive causeway for the 112-mile bike before returning along the causeway to Monona Terrace. The marathon does not occur along Lake Monona's Waterfront but concludes nearby on Martin Luther King Jr. Boulevard between the Capitol and Monona Terrace. Together, Monona Terrace and Law Park are vital to the success of the Ironman Competition.

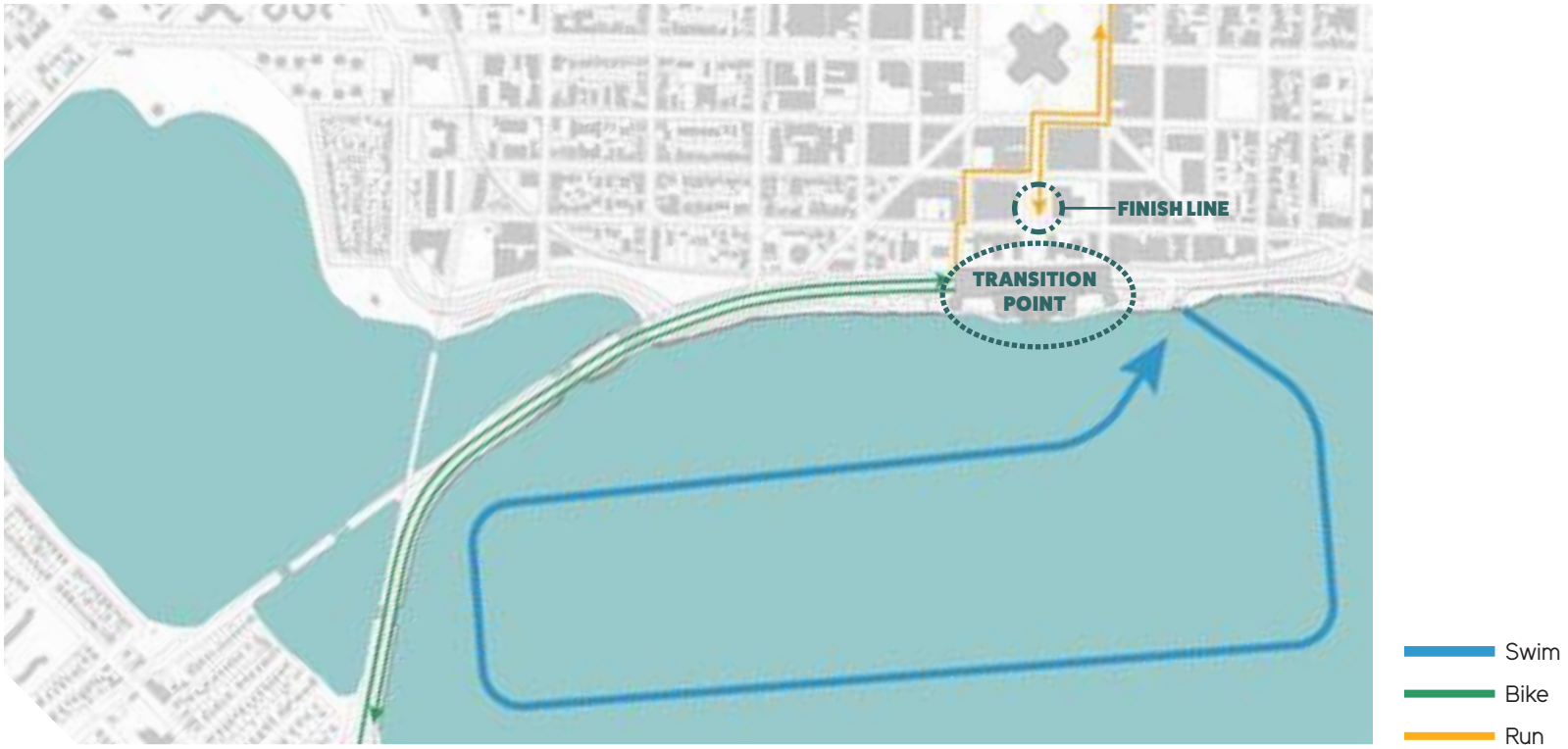


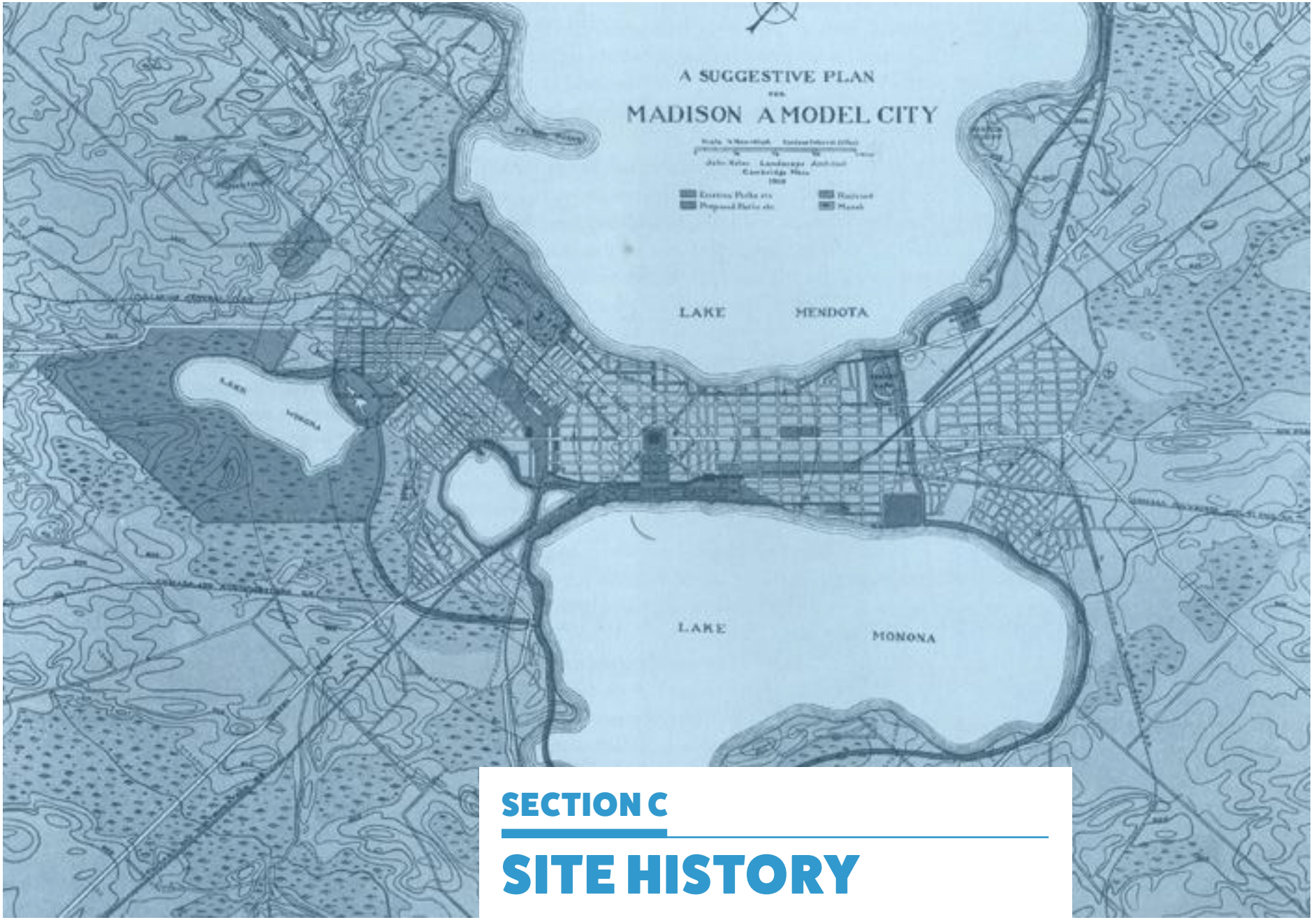
Figure B.61 Iron Man Course Map

RIDE THE DRIVE

Ride the Drive is a free public event that closes a four mile section of John Nolen Drive to vehicle traffic, from Law Park to Olin Park. The closed section of roadway is open to bicyclists, rollerbladers, walkers and all forms of human powered transportation. In addition to public use of the drive, a promenade of pedestrian and cycle festivities is set up along the course. The event is typically held once a year and closes vehicle access to John Nolen Drive for one weekend morning.

Figure B.62 Ride the Drive Event Photos

Figure B.63 Ride the Drive Event Map



SECTION C

SITE HISTORY

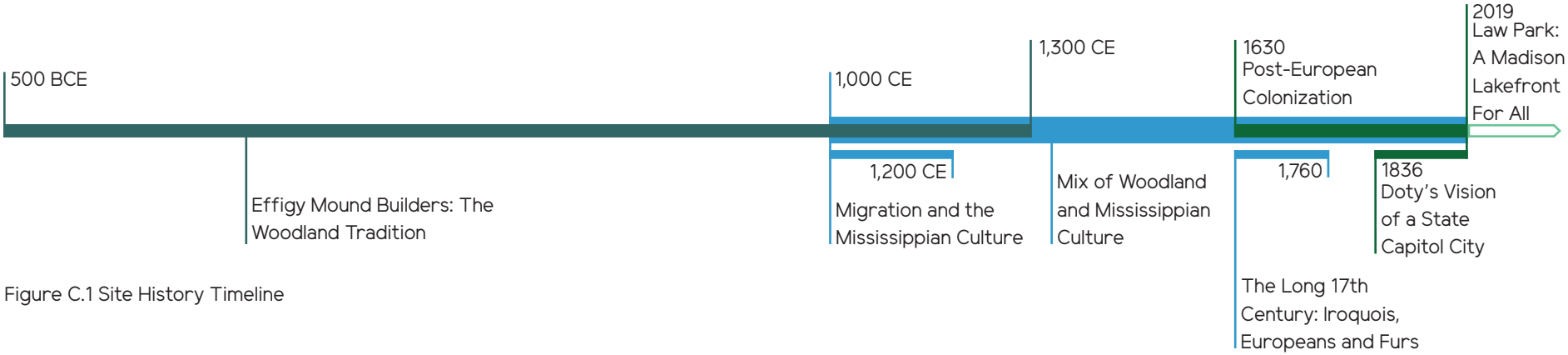


Figure C.1 Site History Timeline

SITE HISTORY

The following overview provides a historic summary of the Madison environment during the eras of the first peoples and the colonial era. The overview is followed by a chronology of the various planning efforts that have guided development in Madison, with a particular focus on Law Park. Additional resources are available that provide a detailed history of the isthmus and the importance of the region. Please see the bibliography attached to this report for a list of additional historical resources.

The Lake Monona Waterfront, as it exists today, does not contain any pre-European history or any local, state or nationally designated historic features, buildings or landscapes. This is largely because the Law Park and John Nolen Drive Causeway sites were created by filling Lake Monona in the middle of the twentieth century.

However, as noted in the various post-James Doty city planning efforts, multiple plans have been proposed to develop the waterfront as a public place, as an urban amenity and as an identifying feature of the City of Madison. The following narrative provides an overview of the historical forces that shaped the four lakes area and the historic and cultural forces that inform the future of the Lake Monona Waterfront.

PRE-EUROPEAN SETTLEMENT

There have been thousands of years of occupation on the isthmus and around the four lakes area. Historically, rivers, streams and lakes are central to the creation of settled cultures, the development of agriculture and trading networks. The following overview of the area's pre-European history provides context for understanding the importance of the four lakes region to the First Peoples of Wisconsin. The region's history should be part of the narrative that informs the uses, forms, and impact that Law Park will have on all residents of the City of Madison.

THE FIRST AMERICANS (12,500 BCE-4,000 CE)

Wisconsin has been occupied by humans since the glaciers receded nearly 13,000 years ago forming the four lakes geography. The first known Americans, the "Paleo-Indians," were nomadic hunters of mastodons and bison and are known through their tools and remains of their prey discovered throughout the state, including butchered remains of wooly mammoths in southern Wisconsin. Study of the first Americans of Wisconsin has led the development of much of our understanding of the early inhabitants of all the northern parts of North America. Because the first Americans were nomadic, there is no evidence of them shaping the landscape or building structures and cities that we can see today.

EFFIGY MOUND BUILDERS: THE WOODLAND TRADITION (500 BCE-1300 CE)

The origins of the Effigy Mound culture began with the emergence of plant domestication, creation of pottery and construction of the first human impacts on the landscape that we can experience today: mounds. The effigy mounds often are shaped like animals, birds or even people. Their purpose seems to have been both spiritual, illustrating their place in the universe, and/or as burial markers. The mounds also have served as cultural and spiritual markers for the still largely nomadic communities. Until the time that the mound builders started to settle in permanent villages around 900CE. The conflict between settled communities and nomadic communities began an era of conflict as the needs of each type of community varied. With the development of settled communities, new social, economic, and spiritual traditions were developed to ensure the stability. These settled communities became the intersection points as migrations of other native American groups began moving more broadly across the Midwest as others created the larger social and economic networks.

MIGRATION AND THE MISSISSIPPIAN CULTURE (1,000 CE-1,200 CE IN WISCONSIN)

The Mississippian Culture was centered in the Cahokia mounds across the Mississippi River in St. Louis. This world heritage city was a city of 10,000-40,000 inhabitants by 1200CE. It grew to that size by relying on an extensive trade network made possible by the Mississippi River. Their culture was agriculturally based, using pottery and tools similar to the Effigy Mound Buildings. As the Mississippians moved further up the river and its tributaries, they inevitably interacted with the settled Woodlands culture of Wisconsin. Evidence shows there was trade but also that during this time of interaction, the first fortifications around woodland settlements were constructed. The best-known sites of interaction are Aztalan and Trempealeau. These settlements were abandoned at about the same time as Cahokia around 1200 CE.

Over the ensuing four to five centuries, many assume the interactions of the Woodland peoples and the Mississippians led to the origins of the descendants of the tribal groups still in Wisconsin and the Midwest today.

THE LONG SEVENTEENTH CENTURY: IROQUOIS, EUROPEANS AND FURS

From around 1630 to 1760, the native populations of Wisconsin were shocked by several larger economic and political events that reverberated from the east coast into the Midwest. The French arrived in Wisconsin as early as 1620 but certainly before the 1630's. By the middle of the seventeenth century, French fur traders were settled in the upper great lakes. Their arrival also marked the beginning of Europeans moving through Wisconsin to get to the Mississippi River to travel south.

The fur trade also fed another eastern event that, in many ways in the seventeenth century, impacted the existing local tribes more than the French. The Iroquois wars in upstate New York, Pennsylvania and Canada forced a migration of eastern tribes into the Midwest. Wisconsin became the intersection between the western migrating tribes and the defensive wall of the Sioux at the Mississippi River. Becoming trapped in Wisconsin, these refugee tribes competed with the local inhabitants, the Ho-Chunk, Menominee and Ojibwe, for land, food and trade products.

Further European incursions throughout the Midwest caused even more tribes, in addition to those fleeing the Iroquois, to migrate west and into Wisconsin. The influx of the eastern peoples led to nearly a century of warfare and competition for furs among all the tribes now located in Wisconsin. At the same time, both the French and British were warring with many of the tribes over furs and trade routes. By the middle of the eighteenth century, these wars and pervasive hostilities started to die down. As a result, many of the tribes that had become farmers and settlers in villages, had reverted to hunters/trappers using western utensils and struggling to maintain native religious and social orders intact. The fur trade made the local tribes dependent on the British and French fur traders.

The nineteenth century proved to be the century where the Europeans forcibly removed the first peoples from Wisconsin. By the end of the Black Hawk War in 1832, there were no more instances of organized military resistance from the tribes of Wisconsin (Figure C.2 Mound Map of the Madison Environs).

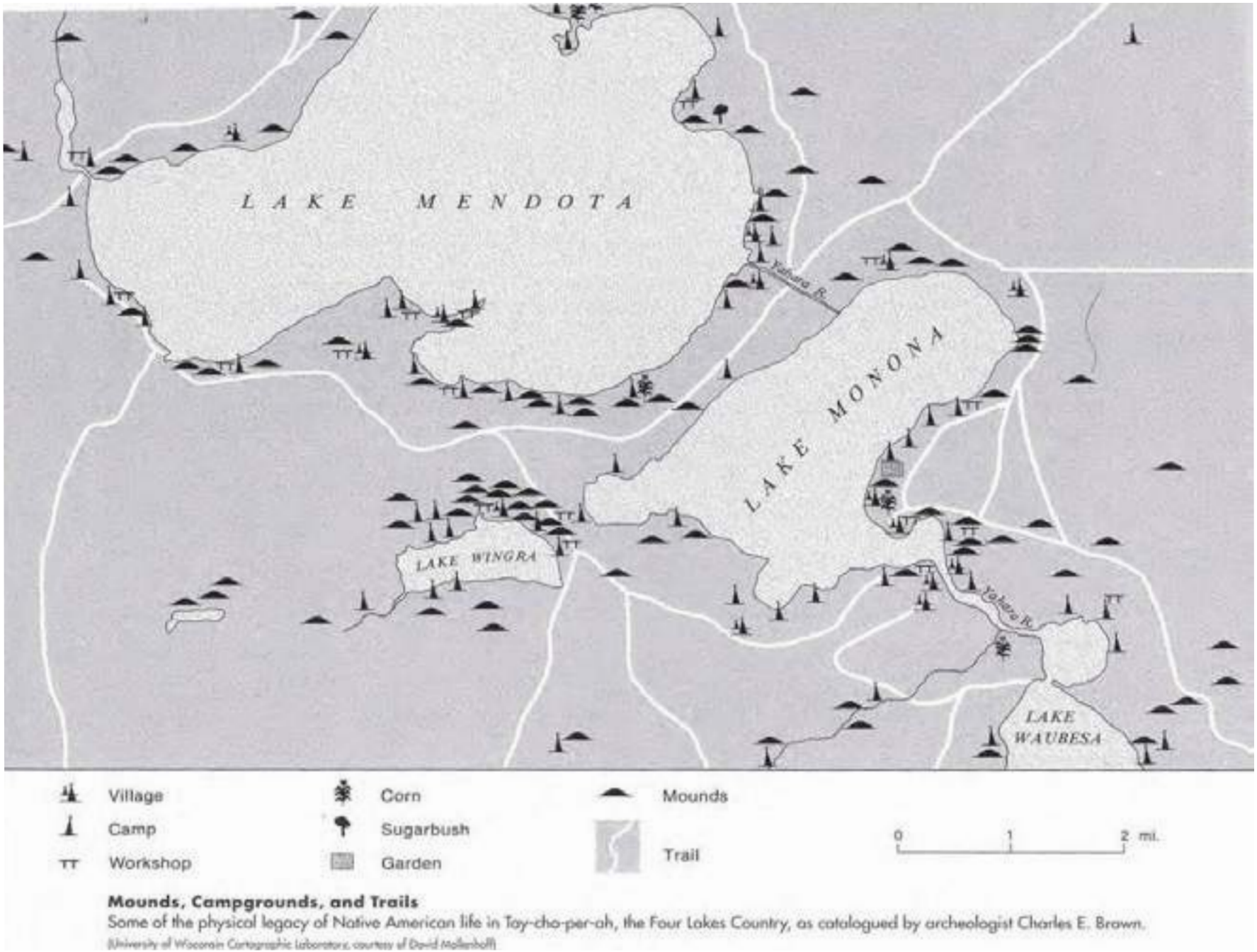


Figure C.2 Mound Map of the Madison Environs

POST-EUROPEAN SETTLEMENT:

French fur traders and missionaries first arrived in 1634. For a century and a half, the fur trade created a very different relationship between native peoples and the French, English and Americans. When the settlers started arriving between 1804 and 1832, a series of treaties were enacted, not always with native occupants' agreement, that started the process of dividing Wisconsin up among the various native groups and the settlers. The effects of these treaties lead to most natives being removed from their ancestral lands by the end of the 19th century. These processes enabled the government to launch education and forced "assimilation" programs aimed at "de-Indianizing" the native peoples.

The most significant observations from understanding the history of Wisconsin's first peoples are, first, the complexities and history of the various tribes and their relationship to the land and their culture. Second, that the European/United States history of Wisconsin only represents about 400 years of the 15,000 years the land has been occupied. The City of Madison is half that, and by the time Madison was forming, the first peoples had largely been displaced and the four lakes region was being recast in the intellectual trappings of western politics.

HISTORIC PLANNING EFFORTS

Over the nearly two centuries of Madison's history as a city, there have been some milestone planning efforts that have shaped the urban form, culture, and waterfronts of Madison. These efforts are summarized below with a focus on each plan's contribution to themes and attitudes that have shaped the current view of the Lake Monona Waterfront. Each plan should be referred to for details and additional information as necessary.

DOTY'S VISION OF A STATE CAPITOL CITY (1836)

Madison's founding is now commemorated in the First Settlement Historic District nearly adjacent to the northeastern end of Law Park. Madison's planning history begins with James Doty's original plan for Madison. The plan was created as part of the process of site selection for the capitol of Wisconsin. Doty's plan created the essential form of Madison known today and it was uniquely a product of its time. In the hope of getting his site chosen as the capitol, Doty drew inspiration from L'Enfant's Washington, DC, plan. Both sites were undeveloped at their founding, both bounded and defined by water and, according to Doty's will, both became grounded in the "capitol city" planning ideas of their time. The features of Doty's plan that make Madison a truly unique plan remain today: the central location of the capitol on the highest hill, the grid bisected by a hierarchy of wider orthogonal and diagonal streets connecting important urban features or street intersections and a hierarchy of streets defined by diagonals and street widths.

Notably, and very much a reflection of cities of the early 19th Century, the waterfronts were not reserved as public amenities. The water's edge was treated much like the working waterfronts of east coast cities of the time with the urban fabric going to the water's edge. In most cities, the water's edge was a river or harbor and the water was a key transportation route for materials and people.

Figure C.3 Plat of the Town of Madison, James Doty

A MODEL CITY, JOHN NOLEN'S PLAN (1909)

Eighty years later, the innovative Madison Parks and Pleasure Drive Association funded and hired John Nolen, a landscape architect from Massachusetts, to create a new city plan. Nolen was one of America's early urban planners and his work helped shape the profession and rigor of urban planning as a discipline. Madison's plan was a seminal piece of his work and contributed greatly to his theories and practice of urban planning. His plan was communicated in a document named "Madison: A Model City." Nolen also created a plan for the University of Wisconsin and a very influential plan for Wisconsin's state park system.

As a product of its time, Nolen's plan referenced the cities of the United States and Europe for inspiration and justification of his recommendations. Nolen strongly felt that parks were central to improving city life and nurturing good citizens. This philosophy and his planning ideas were the products of the City Beautiful movement which focused on public health and good citizenship. Equally important, Nolen was an early advocate for the conservation of nature and natural areas in the face of growing economic forces that were consuming natural resources as raw materials for a growing society.

The Nolen plan incorporated demographic information, geography, and precedents from around the world. Nolen based much of his planning ideas on his critique of the failings of the Doty plan, and in particular, its failings relative to its claim being inspired by L'Enfant. Nolen noted all the ways that the Madison plan was not L'Enfantian. Nolen focused on creating hierarchies of public space, celebrated the intersections of streets, considered the importance of terminations on important streets, and planned a network of public parks and playgrounds. This plan also begins to highlight the socio-economic bifurcation of the city with the rail lines converging on the industrial areas in eastern Madison and the "professional" residential areas between the capitol and the university on the west of the capitol.

The waterfronts were important edges to the city for health, recreation, and beauty. Nolen's plan was the first to show a connection between the capitol and Lake Monona in the urban form and the first plan to show a park along the Lake Monona waterfront. Additionally, Nolen incorporated the great work of the Madison Park and Pleasure Drive Association efforts prior to them hiring him. The association was the leader in calling for, funding and advocating for a parkway system that connected the lakes and the city. They also set the example for citizen and public participation in shaping the city and advocating for a healthier and more inclusive city and urban form. In "A Model City", Nolen calls for the formation of a parks commission and governmental infrastructure to plan, build and maintain a true parks system for Madison.

Figure C.4 A Suggestive Plan for Madison: A Model City, 1909

THE SEGOE PLAN AND CREATION OF LAW PARK (1930S - 1950S)

The Segoe Plan, sometimes referred to as the "Centennial Plan," builds on the basic framework outlined by Nolen. However, like Nolen, Segoe was a pioneer developing the urban planning processes and tools we recognize in today's planning. Not only did the plan outline a future physical plan for the city but it also addressed zoning ordinances, development guidelines and called for more formalization of government structures to support a regulated planning and zoning process for Madison.

The plan studied and incorporated extensive data and comparative information on the economics, demographics, retail behaviors, transportation patterns, historic development patterns of Madison and the entire region. It is the first plan that includes information on the racial and ethnic make-up of Madison. Segoe notes how unique Madison is regarding the diversity and strength of its population as a balance of government, educational, commercial and light industrial economies. This diverse economic base allowed Madison to weather the great depression with less direct impact than many cities with a largely retail, financial or heavy industrial base. Madison was notably whiter and wealthier than most of the referenced cities; 0.6% African American and no mention of First Peoples.

The Segoe plan did begin discussing and focusing on the relationship between the quality of the urban environment and the distribution of social "pathologies", i.e. crime, illegitimacy, home ownership, etc. The plan noted the socio-economic differences between eastern and western Madison. Segoe noted that planning should address these social ills and disparities through improved distribution of jobs, transportation, parks and playgrounds, schools, and commercial and industrial growth. (C.5: Segoe Tentative Zoning Plan)

The new dimension of Madison that the Segoe plan incorporates is transportation planning in many modes: rail, air, and automobile. In the 30 years between Nolen and Segoe, rail continued to grow but automobiles began remaking the landscape and creating new issues for cities. While the plan addresses both rail and aviation, the changes in the urban and regional landscape were to accommodate cars. Segoe identifies a completely new need for a parking analysis and a need for planning strategies about where to park cars on and off the streets. Madison had become a commercial, educational and government center for people from the entire region who were now arriving by cars.

Segoe notes that in the past, parks and playgrounds were planned to be within walking distances of all citizens—to bring nature into the city. With the explosion of cars, bringing nature into the city was no longer necessary. Now citizens could drive to nature. This led Segoe to focus on further developing the regional parkway plan first suggested by Nolen and the Madison Parks and Pleasure Drive Association. This focus directly called for the creation of Law Park as we now know it. In developing and enhancing current auto parkways around and through the region, Segoe was connecting the city park system with the greater environs in the most robust manner to date.

Figure C.5 Segoe Tentative Zoning Plan (Centennial Plan)

His integration of a Monona Parkway that would run along the Lake Monona shoreline on landfill was the seminal idea that eventually led to the creation of the Law Park site and the current parkway in the middle of the twentieth century. Because the waterfront was built up, this plan for infilling the lake finally realized the late nineteenth century vision of the Madison Parks and Pleasure Drive Association to beautify the shoreline. Since they had been unable to prevent unsightly development along the lake, the infill created a new space for the park without removing existing urban fabric.

FRANK LLOYD WRIGHT AND MONONA TERRACE PLAN

Frank Lloyd Wright was born and raised in Wisconsin. He designed nearly 150 buildings in Wisconsin but only 60 were built. The following introductory summary to the World Heritage dossier captures the universal importance of Frank Lloyd Wright's architecture. These ideas should be paramount in understanding how to further integrate Wright's legacy in Madison and the Lake Monona Waterfront without reverting to simple, stylistic interpretation of his work.

"The 20th-Century Architecture of Frank Lloyd Wright entails eight properties that have figured prominently in shaping the course of architecture. This series played a definitive role in the development and evolution of Modern architecture during the first half of the twentieth century and continuing to the present. The Outstanding Universal Value of the series is manifested in three attributes. First, it represents a new conceptual approach to the development of form and space, where interior and exterior aspects are closely related spatially, experientially, and often structurally, with the interior arrangement being the primary generating factor. Second, the design of the buildings in this series is fundamentally rooted in nature's forms and principles such as growth, suitability to location, and unity—in the way the parts relate to the whole. Third, the series represents an architecture conceived to be responsive to the evolving American experience. This work vigorously embraces the new—new technology, new kinds of space, new uses of materials, new modes of living."

All of the downtown plans since the 1960's have called for a strong Wright design inspiration and most call for the construction of his unbuilt work: the Monona Terrace Convention Center (built in 1989) and the boat house (unbuilt). Wright's legacy and identification with the Lake Monona Waterfront has as much to do with the plan created by William Wesley Peters, architect at Taliesin and head of the Frank Lloyd Wright Foundation, as with what anyone remembers about Wright's actual designs for the site.

Wright designed a boathouse for Lake Mendota that was completed in 1893 and demolished in 1926 (Figure C.6, Lake Mendota Boathouse). This was the year Wright left his position at Adler and Sullivan and so the design is pre-prairie style. In 1900 he designed the Fred Jones Boathouse at Delavan Lake in Wisconsin. This boathouse burned to the ground in 1978 but was rebuilt from the original drawings in 2005 (Figure C.7, Lake Delavan Boathouse).

There are two unbuilt boathouse designs. Designed in 1905, the Fontana Boathouse was never built in Madison for the University of Wisconsin rowing team, but instead was built in Buffalo, New York, in 2007 (C.8 Fontana Boat House). Regarding Law Park, in the same year Wright designed the Mendota Lake boathouse, he designed a boathouse for Lake Monona that was never realized. The location of the boathouse would not have been in the current Law Park because the landfill had not created the park yet. However, David

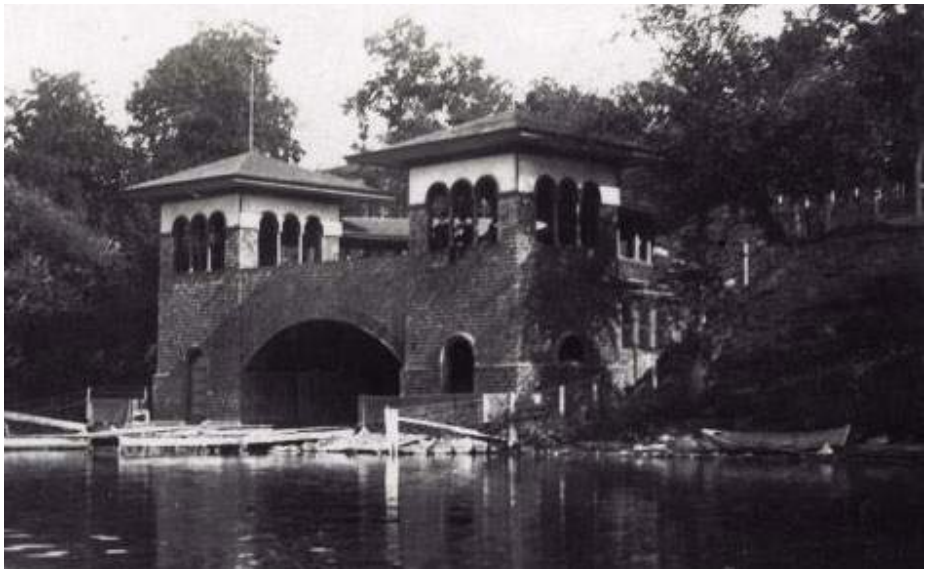


Figure C.6 Lake Mendota Boathouse

Mollenhoff, a local historian, describes the boathouse as being located at the end of King Street on Lake Monona. There do not appear to be any images of Wright's actual design and today's vision of what his boat house might have looked like is an interpretive rendering from 1989. (C.9 Lake Monona Boathouse)

These early boathouses are not noticeably Wrightian because they are not prairie style. In total, according to Wikipedia, there have been twelve Wright designs built posthumously.

Wright's design for the boathouse on Lake Monona has been a topic of discussion in the recent decade. The ambition to construct a boathouse adjacent to the Monona Terrace would represent a piece of work and style from the beginning of Frank Lloyd Wright's career with the adjacent Monona Terrace as one of his final works. If the boathouse was constructed, the two structures would represent career bookends of a storied architect.

Figure C.8 Fontana Boat House

Figure C.7 Lake Devalan Boathouse

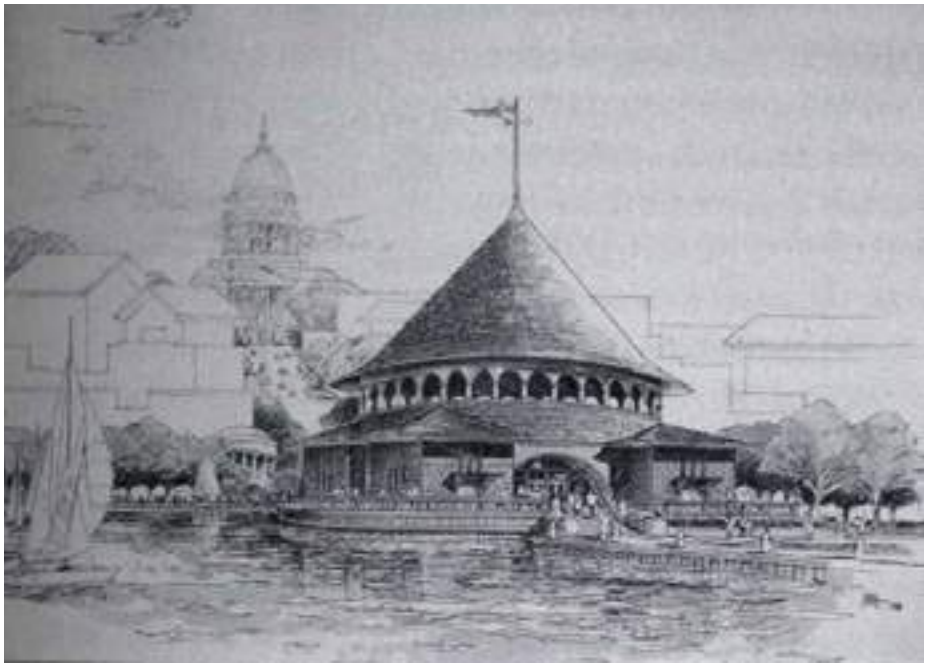


Figure C.9 Lake Monona Boathouse,

MONONA BASIN PLAN (1967)

The Monona Basin plan builds on the larger Madison environs plans mapped out by both Nolen and Segoe for an expansive park beyond Law Park and the civic terrace area. More uniquely, the Monona Basin Plan perpetuates Wright's aesthetic legacy for the Lake Monona waterfront through the plan's "dedication to the principles of organic architecture." Nowhere does the plan explicitly refer to Wright's individual designs or previous work but the connections with the Frank Lloyd Wright Foundation and with Taliesin clearly pull those design and concepts forward in the plan. (C.10 Monona Basin Plan)

The new plan was intended to accommodate Madison's growing need for cultural, social and recreational needs and was organized around a number of facilities that would support both local and tourist/visitor activities in downtown Madison. The program was to include a civic auditorium, a state theater, a convention/banquet hall, and a community center. Buildings largely used by the local community and residents would be located in Olin Park, southwest of downtown and Law Park. The convention center and uses used by visitors and tourists would be located in Law Park. Law Park is near downtown and all plans show some form of urban design to connect Law Park with the government offices, businesses, hotels, and retail of downtown Madison. The plan's arrangement keeps the "fundamental design conceived by Wright for Monona Terrace."

Given that roads and railroad occupied much of the site by the time this plan was commissioned, a great focus on transportation to and from the site was considered. The plan was seen as an opportunity to further develop a downtown bus transit system. Even air travel was a planning and design concern. The plan states, "it is expected that air traffic to and from downtown will increase in the years to come. . . Doubtless the day will come when goers from 40 to 50 miles away from Madison will arrive by airbus." The buildings were all designed to accommodate this mode of travel.

Since this plan was focused on specific buildings and programmatic needs, it was very comprehensive in considering the specific building programs, construction and development costs and phasing. They included a letter from the Mayor supporting the funding of the plan. The civic auditorium was first phase, which would enhance the connection to state house and downtown business district. This first phase was realized in the early 1990's through the construction of the Wright-inspired Monona Terrace. Wright promoted this project from 1938 until his death in 1959, including continually revising and updated the design. (C.11 Monona Terrace Rendering Plan)

Figure C.10 Monona Basin Plan (Monona Basin Project)

Figure C.11 Monona Terrace Rendering Plan (Monona Basin Project)

CITIZEN GROUP VISIONS

MADISON DESIGN PROFESSIONALS WORK GROUP

The Madison Design Professionals Workgroup is a consortium of local design professionals and community advocates for completing Nolen's vision for a waterfront park along Lake Monona. Their mission is:

"To transform Madison's premier lakefront into a beautiful, activity-rich signature park that provides a welcoming destination for all Madison residents and visitors, connects Downtown Madison to Lake Monona, increases access to the lake, improves Lake Monona's water quality and aquatic habitat, and celebrates Frank Lloyd Wright's architectural legacy."

Through their design and advocacy, they are capturing key design issues that help inform the final shape and function of Law Park. They are also focusing on the completion of the park as a priority to providing safe, equitable and public access to the lake. Their visions also build on the Nolen-Wright legacy of Law Park becoming an identifying feature of Madison for residents and visitors alike. (Figure C.12).

Key design elements collected from Nolen-Segoe-Wright-Peters through today are:

- Connecting city over John Nolen Drive
- Environmental improvement of waterfront and lake health
- Shoreline protection
- Improved access to lake
- Community pride
- Public – private partnerships -- bringing along spirit that attracted Nolen to Madison in the first place.

Further, the Madison Design Professional Workgroup is focused on a strongly integrated design approach that includes architects, landscape architects, planners, ecologists, waterfront engineers and designers and a robust outreach program to partners, constituents, stakeholders, city officials and activists. Their work is ongoing and will be significant in informing the future of the park.

Figure C.12 Madison Design Professionals Work Group Law Park Sketches

KENTON PETERS

Citizen and architect Kenton Peters, Sr. has a vision of a lakeside park over John Nolen Drive. His concept bridges John Nolen Drive to connect the downtown to the lakeshore through a series of park terraces. A key component to Kenton Peters' plan is a parking ramp that would sit beneath the park space and over the John Nolen Drive corridor. Peters' vision is to use the revenue from the parking ramp to pay off the yearly debt service on the loan needed to construct the park. Eventually, the revenue from the parking ramp would cover the cost of the park space.

Conceived prior to the construction of Monona Terrace, the intent of the concept remains consistent, and Peters remains engaged with planning efforts for the park.

NOLEN CENTENNIAL PROJECT (2012)

The Nolen Centennial Project was an effort privately funded by Tim and Kevin Metcalfe, supporting a Task Force comprised to create a vision and concept for the region adjacent John Nolen Drive.

Vision Statement: The Nolen Centennial Project will connect, unify, and enhance the abundant natural, cultural, and recreational assets surrounding John Nolen Drive between the Beltline and Lake Monona to create a world-class lakefront park, education, and event destination, provide an economic catalyst for the entire community, encourage careful stewardship of all the area's resources, and embellish the beauty of the city's most dramatic entrance.

The vision includes a continuous gesture enhancing the connection between the Olin Park area to Monona Terrace. Multi-modal connectivity is envisioned through the Lake Monona Waterfront project site, including bicycle, pedestrian, trolley, auto, future rail transit, and water taxi between the Olin Park area and Monona Terrace. The plan also references the 1967 William Wesley-Peters advancement of Frank Lloyd Wright's vision for Monona Terrace developed for the area including a continuous connection including Olin Park and Turville Park. Plan goals include:

- Increase the synergy and utility of the 400 acres of publicly owned land in the project area through the improvement and unification of assets on both sides of John Nolen Drive
- Create a world-class lakefront park, recreation area, and event destination for residents and visitors alike
- Optimize public access to the lake and open spaces
- Design the area to provide year-round family-friendly activities
- Address the growing problems of the lake-level volatility and reduced water quality in Monona
- Cause the project area to become an economic catalyst for the city and region. Enhance the drama and beauty of the causeway entrance experience
- Create a recreational and gathering experience that invigorates daily life for residents

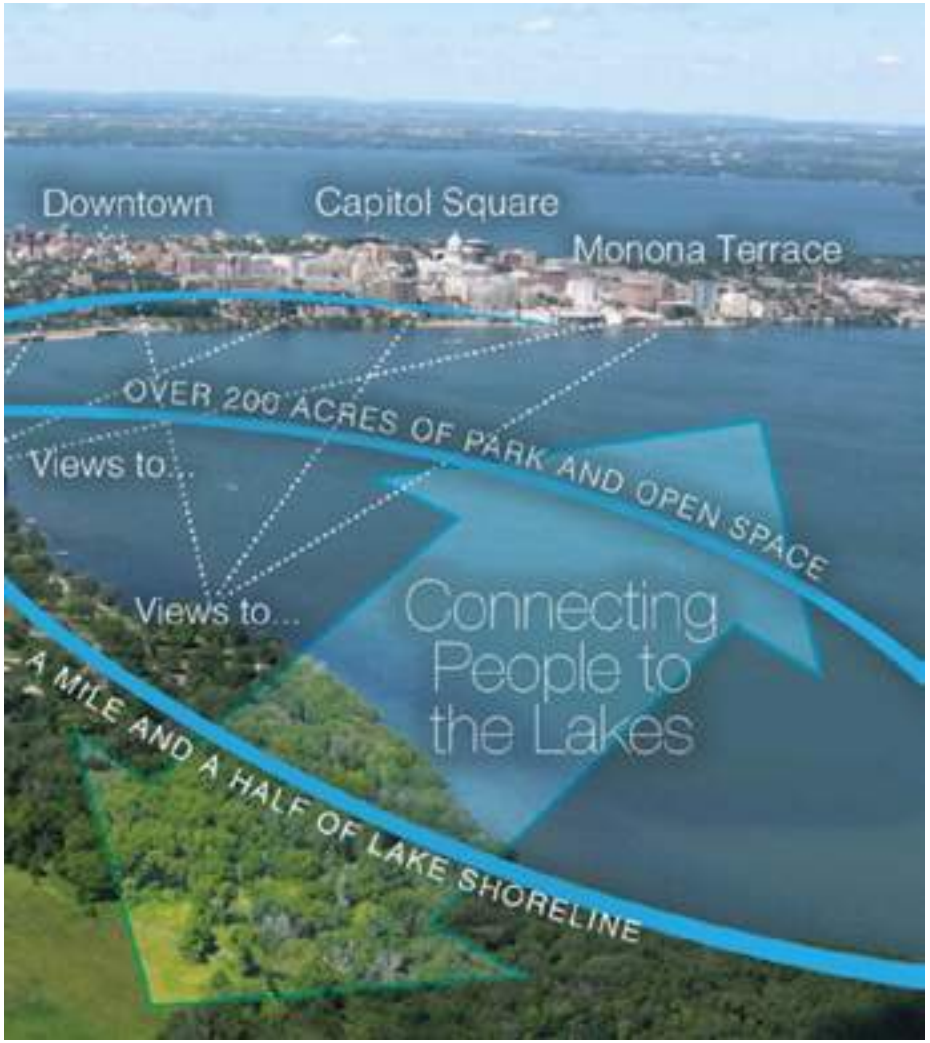


Figure C.13 Connecting People to the Lake (Nolen Centennial Project)

The plan envisions the Nolen Centennial Project as an event destination and lakefront park to complement and connect to Downtown and complement the Capitol East District and University of Wisconsin-Madison:

- Views and connections between these destinations are possible
- Over 200 acres of park and open space, including woodlands, prairie, wetlands, and beach exist in the project area
- Causeway Crescent along John Nolen provides a view corridor to the Monona Terrace and Capitol
- Opportunities exist for a holistic plan including the Alliant Energy Center Campus + Nolen Centennial Project
- Attract new markets, events, and programming
- Framed around themes of "health" and "future"

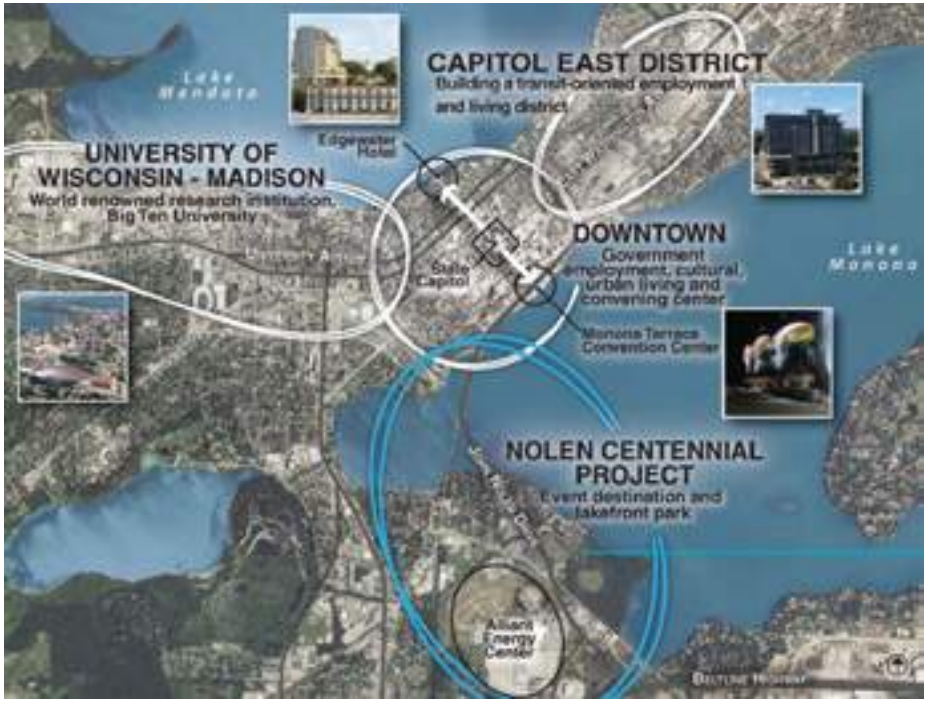


Figure C.14 Context Map (Nolen Centennial Project)

Figure C.15 Circulation Concept (Nolen Centennial Project)

ARCHAEOLOGY AND CULTURAL RESOURCES

According to the Cultural Resources Study (Appendix 5) solicited by the City of Madison Parks Division, the project area does not contain any previously-recorded archaeological resources. However, the project site does contain several architectural resources.

Within Law Park, the TimeKeeper statue embodies significance as the initial project funded by Madison's One Percent for Art program (Figure C.16). While the sculpture does not currently meet the age requirement to be listed on the National Register of Historic Places (NRHP), it is recorded in the state's Architectural and History Inventory. Impacts to the statue will require review by an architectural historian per Wisconsin Statute § 44.40.

The John Nolen Drive causeway contains three bridges constructed between 1965 and 1967. Because they are greater than 50 years old, additional evaluation by an architectural historian is recommended to determine the bridges' eligibility for listing on the NRHP.

At the southernmost end of the study area, two architectural resources are mapped in the Wisconsin Historic Preservation Database. However, both structures were demolished in 1996 and are no longer present.

Finally, the report states, "An archaeological survey of the project area within the north part of Olin Park is recommended, as the location is a natural landform that has been utilized throughout the historic era and possibly during the prehistoric."

See Cultural Resources Study, Appendix 5 for more info.

SITE HISTORY CONCLUSIONS

While there are no officially-designated historic sites or structures, and no archaeological material associated with first peoples, the Lake Monona Waterfront serves as the interface between the City of Madison and Lake Monona.

The Lake Monona Waterfront is an important opportunity to re-inscribe the historic relationship between first peoples and the land of Wisconsin. The first peoples marked the land physically and spiritually throughout Wisconsin with mounds and earthworks, with settlements, and with agriculture. These features and patterns can be interpreted and re-activated for the current Ho-Chunk peoples as well as the current residents of Madison. This lens will provide a more accurate interpretation of the role Lake Monona and Wisconsin have played in the broad pattern of United States history and, specifically, the role Wisconsin played in the fate of the first peoples who lived here for millennia. Madison is not even 200 years old, but the land has been occupied for over 13,000 years. In nearly every waterfront city in the world , the waterfront is often a record of the city's history. Although much of the study area is artificial landform, the Lake Monona Waterfront provides a clean slate to re-introduce the history that has not been consistently or prominently told.

Figure C.16 Law Park Public Art Installation ''The Timekeeper''

SECTION D

CURRENT CITY & NEIGHBORHOOD PLANS

CURRENT DEVELOPMENT PLANS INTRODUCTION

Law Park, the John Nolen Drive Causeway, and Olin Park are significant public spaces within the center of Madison, and have the power to impact a greater vision for the City and community. The City desires to improve the Lake Monona Waterfront but also enhance connections to greater Madison and the surrounding region. The following is a summary of key ideas and goals from a selection of the most relevant current city, neighborhood, and development plans. Review of the complete plans is encouraged as there is a breadth of information not highlighted herein which may inform future solutions.

JUDGE DOYLE SQUARE (2011)

A 10-minute walk from the Lake Monona Waterfront, Judge Doyle Square is a 2-block area in Downtown Madison which is the site of the Madison Municipal Building (MMB) and Government East (GE) parking garage. The MMB is on the Register of Historic Places and is a City of Madison landmark. The GE parking garage is at the end of its useful life. At an important location in Madison's downtown, The Judge Doyle Square plan seeks to develop a destination for residents, employees, and visitors by expanding and unifying the restaurant and entertainment district on the south side of Capitol Square.

This development will improve walkability of the Central Business District (CBD), including improving connections between the Square and Monona Terrace. The concepts include mixed uses of residential, retail, restaurant, bicycle and parking facilities, and a hotel. The redevelopment seeks to capture group, commercial, and leisure travel sectors and periodic and peak demand. The resulting hub of activity will attract residents and related services. The retail/business district from the Capitol Square and King Street will grow toward Monona Terrace and Wilson Street and activate the pedestrian level at Doty, Wilson, and Pickney. Intermodal connectivity will be essential for success, and the plan strives to enhance bicycle use and enable connectivity to Madison Metro and Intercity bus.

MADISON SUSTAINABILITY PLAN (2011)

The Madison Sustainability Plan envisions the city as a "self-reliant, peaceful community that relies on renewable, local resources and is able to adapt to changing environmental, social, and economic conditions over time. It will be a beautiful place in harmony with the environment where life thrives."

Sustainability Definition: Madison defines sustainability as meeting the current environmental, social, and economic needs of our community without compromising the ability of future generations to meet their needs. Sustainability represents a desire to pass onto our children and grandchildren a world that is as good as, if not better than, the one we found.

The Sustainability Plan's goals include:

- Improve air quality
- Improve groundwater/drinking water quality
- Improve surface water quality
- Improve storm water management
- Increase water conservation
- Prevent solid waste from entering landfill
- Restore and maintain natural habitat

The Planning and Design goals of the plan are to:

- Improve transportation planning and systems to provide better access for community's needs
- Foster holistic land use
- Support sustainable infrastructure and buildings (including demonstrating sustainability on all public projects)
- Promote and foster local food systems

Furthermore, three broad areas are explored in the Sustainability Plan: Environment, Economic Prosperity, and Social/ Community Initiatives. The plan recognizes that "a healthy environment underpins economic and social well-being". Within the plan's Natural Systems subcategory is the intention for Madison to create a state of balance between the natural and built environments wherein human, plant, and animal communities live in harmony. City residents breathe clean air, drink clean water, swim and boat in clean water and enjoy those waters from the shore. Any human alteration of natural systems is balanced with restoration and enhancement of other natural system elements.

DOWNTOWN PLAN (2012)

The Downtown Plan geographically focuses on the isthmus as shown in Figures D.5-D.9. Taken directly from the Downtown Plan, the following are "nine keys for ensuring the vision for the future of Downtown" and the recommendations that relate to the Lake Monona Waterfront Preliminary Report.

Key 1 - Celebrate the Lakes: The number one priority is to embrace the lakes and make them more integral to Downtown. This plan lays out exciting concepts for reconnecting Downtown with its lakes. It proposes changes to the Lake Monona/John Nolen Drive corridor that will greatly improve its appearance, provide a variety of recreational opportunities, and reconnect it onto the fabric of Downtown.

- Recommendation 1: Transform Law Park to make it a signature park for the City.
- Recommendation 2: Improve streetscape and public land along John Nolen Drive from Olin-Turnville Park to Blair Street to make a more formally designed, unified, connected, and active urban lakefront and approach to Downtown. Including the Broom Street Gateway and enhancing the appearance of the tunnel under Monona Terrace through the provision of public art.
- Recommendation 4: Create short-term docking facilities for boaters visiting Downtown.

Key 2 - Strengthen the Economic Engine: Attracting and retaining large and small employers, providing a thriving retail and service environment, and supporting activities that attract visitors and tourists are important components of Downtown's continued role as the region's economic center.

- Recommendation 14: Improve transportation linkage between Downtown and Downtown edge employment centers generally, including motor vehicles, bicycle and pedestrian connections.
- Recommendation 39: Develop a strategy for enhancing connections among major Downtown visitor and tourist destinations, including the Alliant Energy Center, UW campus, State Street / Capitol Square, and others.

Key 3 - Ensure a Quality Urban Environment: Preserving Downtown's unique identity and building on the qualities that make it special is critical in continuing to attract new jobs, residents, and visitors. This plan seeks to enhance these qualities and makes recommendations on preserving important views, setting expectations for integrating new development, enhancing the design of streets and public ways, and other elements.

- Recommendation 40: Preserve and enhance the identified priority viewsheds and corridors.

Key 4 - Maintain Strong Neighborhoods and Districts: The Downtown Plan seeks to enhance the variety of special neighborhoods, districts, and smaller nodes that, although unique places in their own right, in aggregate truly make Downtown more than simply a sum of its parts.

- Recommendation 110: Improve public lakefront access as part of any redevelopment south of East Wilson Street.

Key 5 - Enhance Livability: Downtown is a great place to live. Since the adoption of Downtown 2000 (1990), Downtown has attracted a much more diverse population in age, income, and other characteristics. This plan makes recommendations to ensure that Downtown remains an attractive living environment by providing a diversity of living options and a safe environment.

Figure D.1 Broom Street Gateway Capital City Trail and Overlooks

Figure D.2 John Nolen Drive Causeway Capital City Trail and Overlooks

Figure D.3 Downtown Plan: Density Representation (Downtown Plan)

Key 6 - Increase Transportation Sources: It is critical to have a downtown that is easily accessible for employers, residents, and visitors. This plan makes recommendation for improvements to Downtown's transportation network and also provides a framework for a comprehensive, multi-modal transportation study that will examine in detail future transportation options.

- Recommendation 133: Investigate park and bike options for the last leg of an inter-city journey.
- Recommendation 144: Improve the safety and aesthetic of the following key gateways intersections (John Nolen Drive, Williamson Street and Blair Street) while enhancing the ability of pedestrian and bicyclists to cross the streets and facilitating efficient traffic movement.
- Recommendation 170: Construct sidewalks along the north side of North Shore Drive extending from John Nolen Drive to Proudfit Street, including an additional connection from this sidewalk across the railroad tracks connecting to Bassett Street.

Key 7 - Build on Historic Resources: One of the building blocks that helps frame a direction for Downtown's future is its historic buildings and districts. The plan includes recommendations for elevating these historic resources and making them a more prominent part of the Downtown environment through a more holistic approach that includes steps such as enhancing historic districts' identities, considering new districts, providing preservation incentives, and addressing property maintenance.

Key 8 - Expand Recreational, Cultural, and Entertainment Offerings: As Downtown continues to grow, it must continue to provide parks and recreational facilities to meet the needs of its residents.

- Recommendation 200: Upgrade the open space at North Shore Drive, John Nolen Drive, and Broom Street to improve its aesthetic as a gateway into Downtown, and to enhance its connectivity and use.
- Recommendation 206: Locate signature public art at key Downtown locations, such as gateways and parks.

Key 9 - Become a Model of Sustainability: Downtowns are inherently the most sustainable part of a community. They usually have higher residential densities, more jobs in close proximity to workers, a wider variety of transportation options, and more goods, services, and activities that are integrated into the urban fabric. This plan recognizes the interrelationships among these and other "urban systems" and the objectives and recommendations in each theme area advance the goal of having Downtown become a leader in sustainability.

Overall Significance of the Downtown Plan to the Downtown Waterfront

The Downtown Plan focuses on many of the same themes Segoe used to organize his plan including neighborhoods, the lakes, recreation, historic resources, economic development, and transportation. In the call for action, and as noted throughout the process, improving the relationship of the lakes to the city were common and highly ranked themes. The Downtown Plan also focuses on sustainability as a guiding principle across all the initiatives and themes of the plan.

Furthermore, of the four major intersection improvements noted in the Downtown Plan, three of them are along the Lake Monona Waterfront. These intersections are at John Nolen Drive with Blair Street, Broom Street and North Shore Drive. In additional to rapid bus service, the plan notes the important of bike path and pedestrian path along the waterfront and the importance of addressing the safe separation of all these modes of movement.

While there are no known historic resources or archaeology located in the landfill of the Lake Monona Waterfront, the area is near two key downtown historic districts, including some of the older parts of the city. These surrounding neighborhoods and historic districts should be considered as important context because the creation of Law Park and John Nolen Drive significantly altered the nature of these neighborhoods.

Finally, the Downtown Plan contains a number of summaries regarding the planning efforts in downtown Madison from the 1980's through the completion of the plan. Included in this report is a timeline focused

specifically on the Lake Monona Waterfront. This summary only reinforces the century long desire and discussion to make the Lake Monona Waterfront a thriving, defining feature of the City of Madison (Figure D.4).

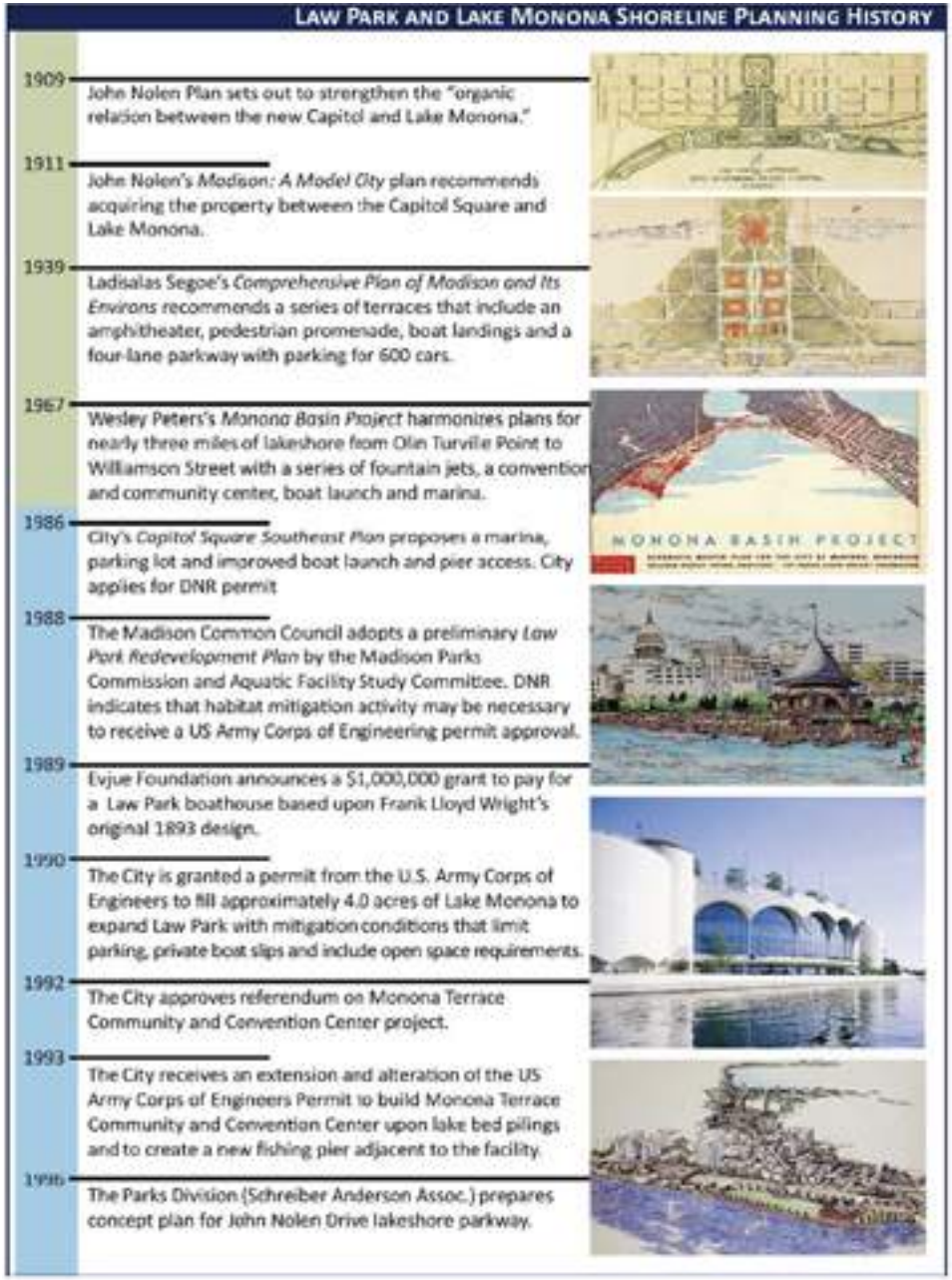


Figure D.4 Law Park and Lake Monona Shoreline Planning History, Downtown Plan (2012)

Figure D.5 Viewsheds (Downtown Plan)

Figure D.6 Employees Per Acre (Downtown Plan)

Figure D.7 Pedestrian Circulation Opportunities (Downtown Plan)

Figure D.8 Open Space Proximity (Downtown Plan)

Figure D.9 Open Space Opportunities (Downtown Plan)

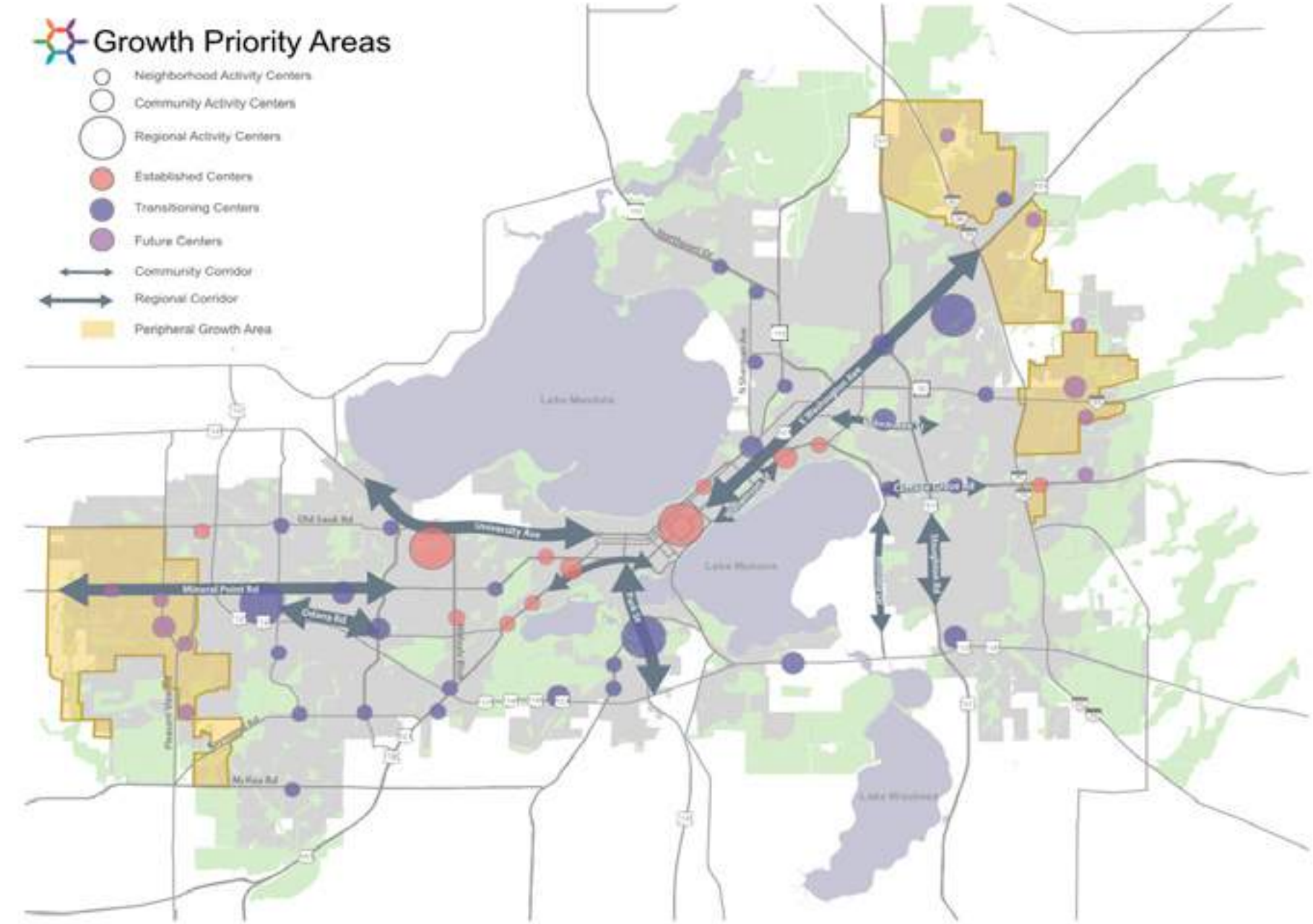


Figure D.10 Growth Framework (Madison Comprehensive Plan)

CITY OF MADISON COMPREHENSIVE PLAN - IMAGINE MADISON (2018)

A key outcome of the Madison Comprehensive Plan is to attract more people to downtown Madison. Considering how downtown can draw more people from around the region is important, through programming, events, and strategies that invite people to participate in activities they find enjoyable and stay for a while. Equity, Sustainability, Health and Adaptability are the lenses applied by the Madison Comprehensive Plan. It is estimated that the city will gain 70,000 additional residents by 2040 (an increase of approximately 25%) and the population will become increasingly more diverse. The plan has developed six elements and goals to support its existing and growing community:

The Comprehensive Plan "Green and Resilient Strategy 7: Improve public access to lakes" specifically mentions connections to Law Park. "A great deal of feedback from the community mentioned needing improved connections to the lakes from downtown, often calling out improvements to Law Park. Because downtown is so well served by transit, access to lakes can be significantly increased with additional and enhanced downtown connection to and along the lakes."

Site-Specific to Law Park

The site of Law Park is considered an "established community activity center, comprised of "downtown core" and "parks and open space" use designations. It is directly adjacent "medium residential" use with tertiary adjacency to "employment", "downtown mixed use". A significant site for transportation, the site includes the "principal artery" (25,001-40-000 daily traffic count) John Nolen Drive with high congestion (0-33.3% flow) through the site. Adjacent streets are "urban collectors" and "minor arterials". Madison Metro Service includes an all-day service route through the site. A high-use, prominent bike path passes through the site along Monona.

A water well / water reservoir site is located at the project site. Site water drains to Lake Monona; the drainage basin includes a large proportion of the Isthmus and downtown Madison as compared to Lake Mendota to the north. Large storm pipes (36" +) run perpendicular to the shore of Monona along the lake shore at Law Park. Forcemain and gravity wastewater also runs parallel to the lakeshore.

Comprehensive Plan Goals and Strategies

The following selection of the Comprehensive Plan goals cover strategies specifically related to the downtown waterfront. Several strategies include quotes from the Comprehensive Plan that emphasize the importance of the specific strategy.

Land Use and Transportation (T&LU):

- Madison will be comprised of compact, interconnected neighborhoods anchored by a network of mixed-use activity centers.
  - Madison will have a safe, efficient, and affordable regional transportation system that offers a variety of choices among transportation modes. T&LU Strategy 7: Maintain downtown Madison as a major Activity Center for the region while improving access and inclusivity.
  - T&LU Strategy 9: Implement new technologies to more efficiently use existing transportation infrastructure.

Neighborhoods and Housing (N&H):

- Madison should be a safe and welcoming city of strong and complete neighborhoods that meet the needs of all residents.

Economy and Opportunity:

- Madison will have a growing, diversified economy that offers opportunity for businesses and residents to proper.

Culture and Character (C&C):

- Madison will be a vibrant and creative city that values and builds upon its cultural and historic assets.
- Madison will have a unique character and strong sense of place in its neighborhoods and the city as a whole.
  - C&C Strategy 2: Preserve historic and special places that tell the story of Madison and reflect our racially and ethnically diverse cultures and histories.
    - "The Madison area is the Ho-Chunk Nation's ancestral home, a history not often included in Madison, which usually prioritizes references to people like John Nolen and Frank Lloyd Wright."– Missy Tracy (Cap Times, March 1, 2018)C&C Strategy 3: Create safe and affirming community spaces that bring people together and provide social outlets for underrepresented groups.
  - "When members of Madison's Hmong community go to the park, they may host a gathering of 30 or 40 people, which is complicated by the fact that many parks have isolated picnic tables or grills. Something as simple as putting grills or tables closer together would make the community more willing to use Madison parks." –Peng Her (Cap Times, March 1, 2018)
  - C&C Strategy 5: Preserve defining views of the lake, downtown skyline, and Capitol from publicly accessible locations.

Green and Resilient (G&R):

- Madison will be a leader in stewardship of our land, air, and water resources.
- Madison will have a model park and open space system that preserves our significant natural features and offers spaces for recreation and bringing residents together.
  - G&R Strategy 2: Improve lake and stream water quality.
  - G&R Strategy 4: Acquire Parkland and upgrade park facilities to accommodate more diverse activities and gatherings.
  - G&R Strategy 5: Improve and preserve urban biodiversity through an interconnected greenway and habitat system.
  - G&R Strategy 6: Develop a healthy and diverse urban tree canopy.
  - G&R Strategy 7: Improve public access to the lakes.

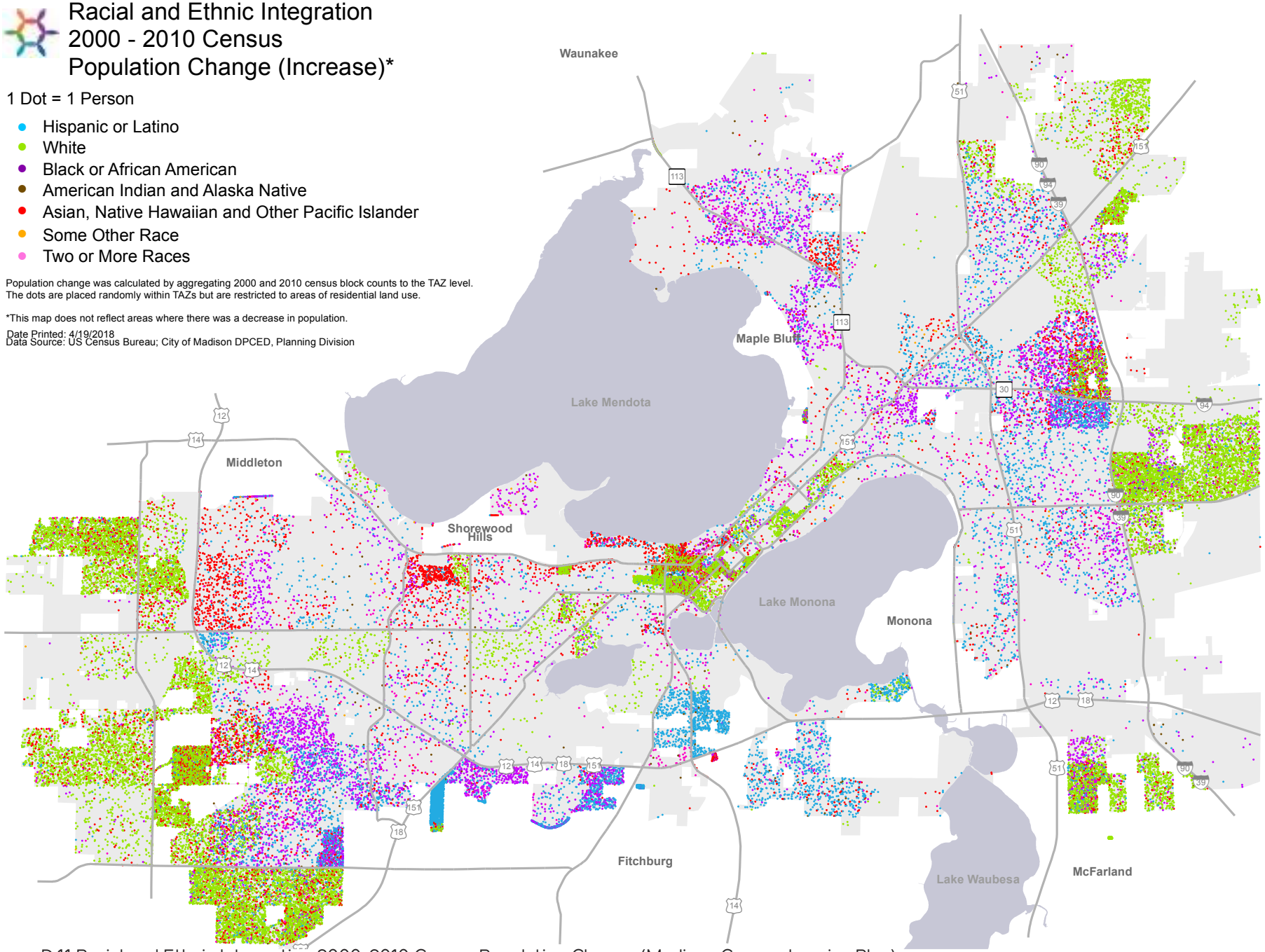


Figure D.11 Racial and Ethnic Integration 2000-2010 Cencus Population Change (Madison Comprehensive Plan)

SOUTH CAPITOL TRANSIT ORIENTED DEVELOPMENT (2014)

Figure D.12 South Capitol TOD Study Area (SCTOD)

Figure D.13 Recommended Intermodal Transit Center, Corner of Mifflin and Bedford Street (SCTOD)

The South Capitol Transit Oriented Development Plan (South Capitol TOD Plan) was conducted in response to the 2012 Downtown Plan recommendation to continue planning and evaluating sites for an Intermodal Transit Center (ITC). The plan addresses potential solutions to improve connectivity between Lake Monona's waterfront and downtown. The following excerpt summarizes recommendations from the South Capitol TOD Plan as they relate to Lake Monona Waterfront:

Intermodal Transit Center

The ITC location is recommended at the corner of North Bedford and West Mifflin Streets on the West Washington Avenue and North Bedford Street site. A site at East Wilson and Pickney Street (the current location of the State's Department of Administration Building adjacent Law Park) was also evaluated among others; it received the lowest score of all sites due to the issues of access for other modes of transportation, design constraints, congestion concerns with buses, taxis, and drop-off queuing issues.

West Gateway Intersections

From the South Capitol TOD Plan, ''the intersections at North Shore Drive and John Nolen Drive is recommended to be reconfigured with a "super crossing" that provides dedicated directional bicycle lanes and a shared pedestrian lane for crossing John Nolen Drive. This recommendation was further refined in the Blair Street Corridor Intersection Study as discussed in this plan on pages 108-111.

East Gateway Intersection

East Gateway Intersection recommendations from the TOD plan are not preferred and have been refined in the Blair Street Corridor Intersection Study as discussed in this plan on pages 108-111.

Bridge Connection

The TOD plan recommends an overpass connection from downtown Madison to Law Park on the east sides of the Monona Terrace be further evaluated. This recommendation was also elaborated on in the Blair Street Corridor Intersection Study discussed in this plan on pages 108-111.

Figure D.14 Shore Drive and Broom Street intersections with John Nolen (SCTOD)

The connections between the Capitol Square and Lake Monona / Bridge Connections between Lake Monona and Downtown should be established. The connection goals in the South Capitol TOD Plan are to:

- Protect views of downtown / Capitol
- Increase interaction with water
- Increase public open space
- Ensure pedestrian safety on Williamson / Wilson / Nolen / Blair intersection

While challenges are discussed within the South Capitol TOD Plan, the three John Nolen Drive Intersections, including North Shore Drive, Broom Street, and Blair Street that are being addressed independently by the City. Each of these intersections are discussed further on page 108-111.

Paths and Parks

Pedestrian and bike circulation should be separated along the Capital City Trail through Lake Monona Waterfront. The plan recommends the pedestrian path meander along the Lake Monona Waterfront and that the bicycle path remain close to John Nolen Drive.

A dedicated place for anglers should be provided so anglers and pedestrian routes do not conflict. A removable pier was discussed as a possible solution. Lake edge modification should be further considered to enhance the use of Lake Monona Waterfront.

BLAIR STREET CORRIDOR STUDY INTERSECTION RECOMMENDATIONS

This plan recommended two improvements for North Shore Drive. They entail improvements to the existing pedestrian crossing (below) where the Brittingham Park Trail meets the Capital City Trail and a long-term pedestrian underpass located between North Shore and Broom Street Intersections. The underpass would require significant improvements including raising a portion of John Nolen Drive and providing a stormwater lift station for the underpass.

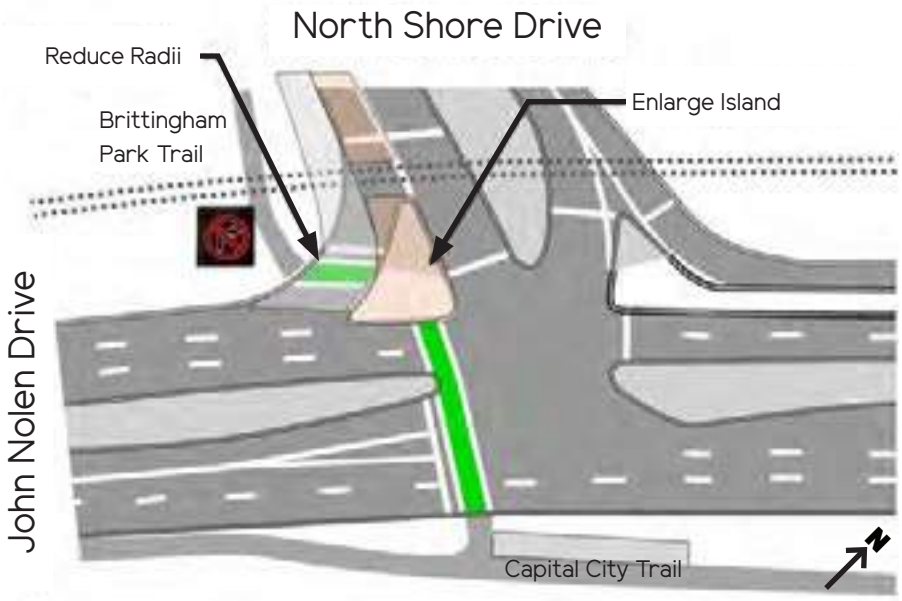


Figure D.15 North Shore Drive-Long Term Solution (Blair Street Corridor Study Report)

NORTH SHORE DRIVE INTERSECTION RECOMMENDATIONS

North Shore Drive is comprised of two recommendations. Improving the existing pedestrian crossing (below) where the Brittingham Park Trail meets the Capital City Trail and a long-term pedestrian underpass located between North Shore and Broom Street Intersections. The underpass would require significant improvements including:

Figure D.16 North Shore Drive-Long Term Solution (Blair Street Corridor Study Report)

- Raising John Nolen Drive about 2 feet between North Shore Drive and Broom Street
- Having the Capital City Trail run parallel to the ramp to the underpass.
- Constructing the underpass with a flood elevation of about 842.5-ft.
- Because the underpass is beneath the normal lake level, the underpass would need to be watertight and would require a stormwater pump station.

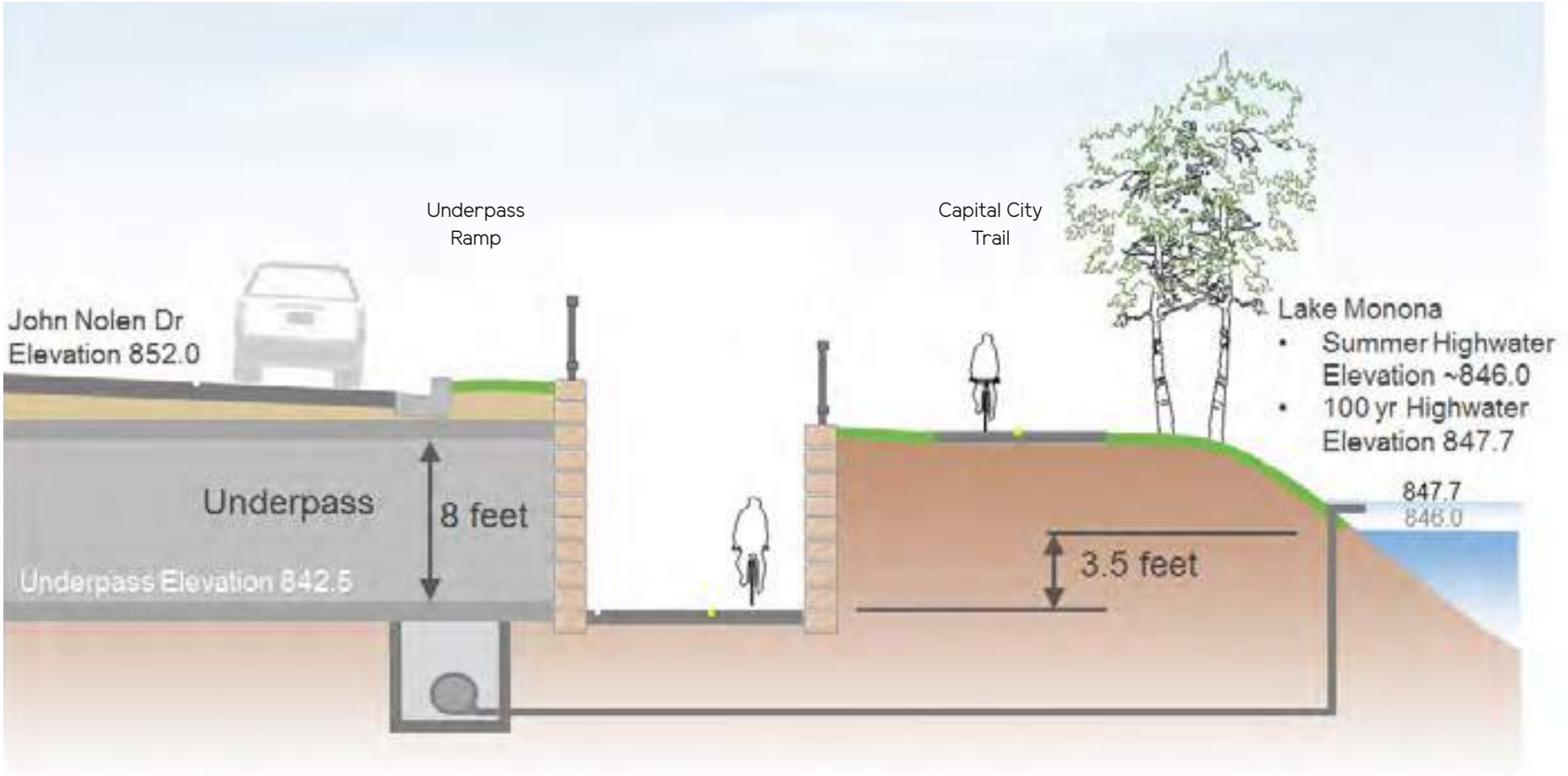


Figure D.17 North Shore Drive-Long Term Solution - Underpass Cross Section (Blair Street Corridor Study Report)

BROOM STREET INTERSECTION RECOMMENDATIONS

1. Long Term Solution
   - Reconstruct Broom Street with 10-foot lanes
   - Install a 10-foot multiuse path on east side of Broom Street.
2. Short Term Solution
   - Restripe Broom to 10-ft, 10-ft, 12.5-ft, 10-ft, 12.5-ft
   - Place Sharrow on 12.5-ft lanes (southbound middle lane, northbound outside lane)
3. Short Term or Long Term Solution
   - Path connecting Broom Street to Hamilton Street
4. Short Term Solution
   - Colored pavement directing cyclists to island
   - Bike box for eastbound to northbound cyclist
5. Short Term Solution
   - Ladder cross walk markings

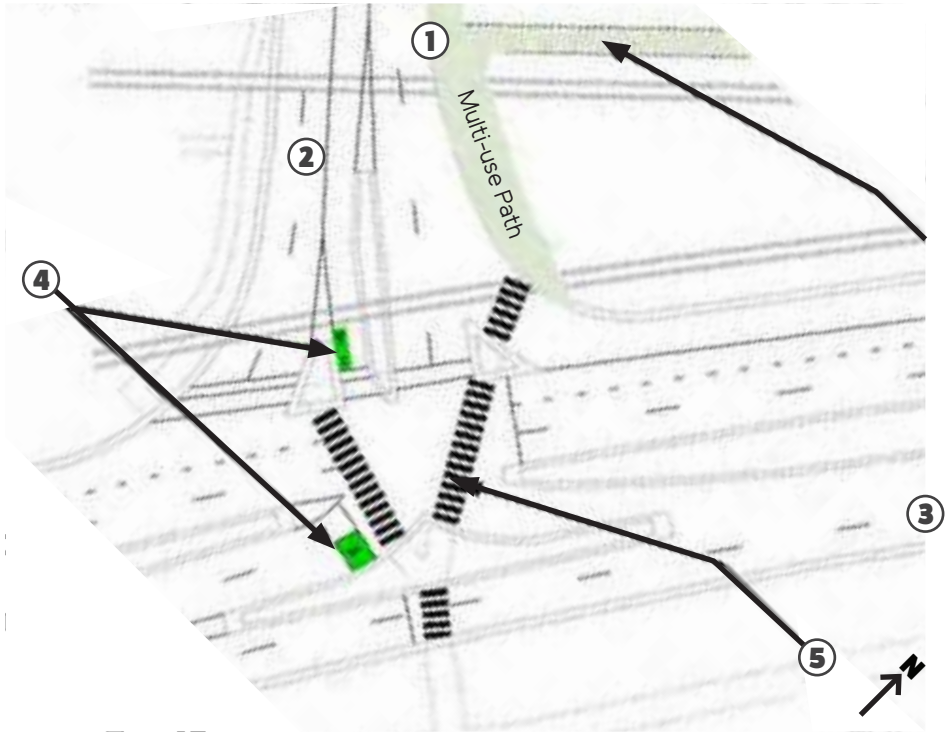


Figure D.18 Broom Street Intersection: Long Term Solution per Blair Street Corridor Study

BLAIR STREET INTERSECTION RECOMMENDATIONS

The figure below highlights the comprehensive improvements recommended by the City for the Blair Street intersection at the Lake Monona Waterfront. The entrance to Machinery Row is relocated further south from the Blair Street intersection which helps reduce the congestion of the Blair Street Intersection. The Capital City Trail would also be rerouted through the parking lot rather than directly adjacent to the vehicle entrance. The proposed right-angle of the trail at the parking lot crossing is a difficult turning motion, but separation from John Nolen Drive and the entrance is a positive. The boat launch is also relocated in closer proximity to the Betty Lou Cruise Pier to reduce conflicts with trail users.

Reducing the complexity of the intersection and clearly marking pedestrian infrastructure will help improve the safety of this congested intersection.

Figure D.19 Long Term Solution per Blair Street Corridor Study (Blair Street Corridor Study Report)

PARK AND OPEN SPACE PLAN (2018)

The Park and Open Space Plan applied the guiding lenses of equity, sustainability, public health, and adaptability. Climate change is noted as a specific concern, and sustainable and adaptable principles are recommended to address the impacts, which include flooding, extreme weather, ecosystem shifts, algal blooms, and increased runoff. Major themes included: water and the environment, park access and quality, facilities, and activities that are equitable and inclusive. Water quality is also a major concern noted in the plan.

Activity inclusivity was one of the most prominent issues identified. The plan reports that the public sought features that will make parks functionally more welcoming such as drinking fountains, restrooms, and safety features such as crosswalks. These features will support an expanded population, including the elderly. There was concern with the lack of amenities specific to different cultures, such as Hmong Tuj Lub courts, large picnic tables, capacity for large family gatherings, and track and field activities. Park and Open Space Plan Appendix 2 "Engagement Summary Data" has additional information including the top activities.

The Park and Open Space Plan classifies Law Park as a "community" park, and currently serves 1,501-3,000 residents. Adjacent Brittingham Park to the west currently serves 4,501-6,500 residents. Law Park has eight programmed event days per year. The Downtown Plan recommendation of expanding the eastern portion of Law Park to create a signature city park and gathering space is described as "notable" within the Park and Open Space Plan. The features of this space may include boat docking, and land bridges and plazas connecting Law Park to downtown.

The plan concludes with twelve recommended strategies which support the guiding lenses:

1. Improve public access to the lakes
2. Design park facilities to accommodate diverse activities and populations
3. Protect and enhance natural and cultural resources

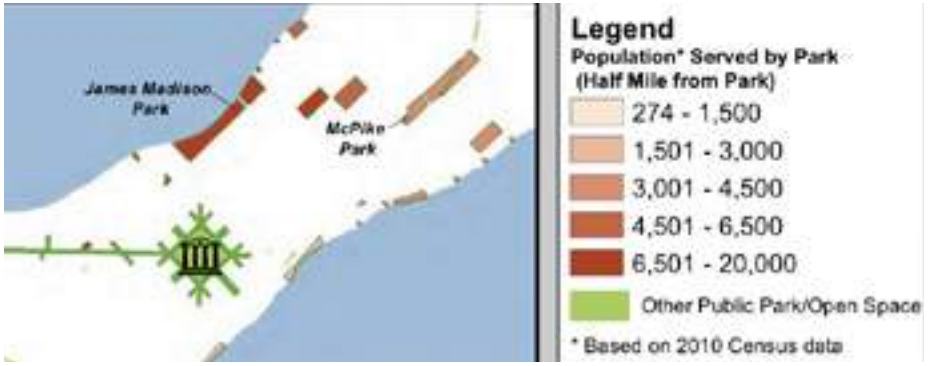


Figure D.20 Population Served by Park *2010 Census (Park and Open Space Plan)

4. Acquire parkland to reduce parkland deficiencies and address increasing residential density
5. Ensure that new park development occurs in a fiscally sustainable manner
6. Ensure that existing levels of service are maintained and supported through the park system and are increased as new parks and facilities are developed
7. Create equitable access and funding for parks
8. Improve the park system's capacity to withstand future environmental changes
9. Increase connectivity between parks to enhance access
10. Develop a healthy and diverse urban tree canopy within parks
11. Increase engagement with groups and organizations and develop new ones
12. Pursue regional solutions to regional issues

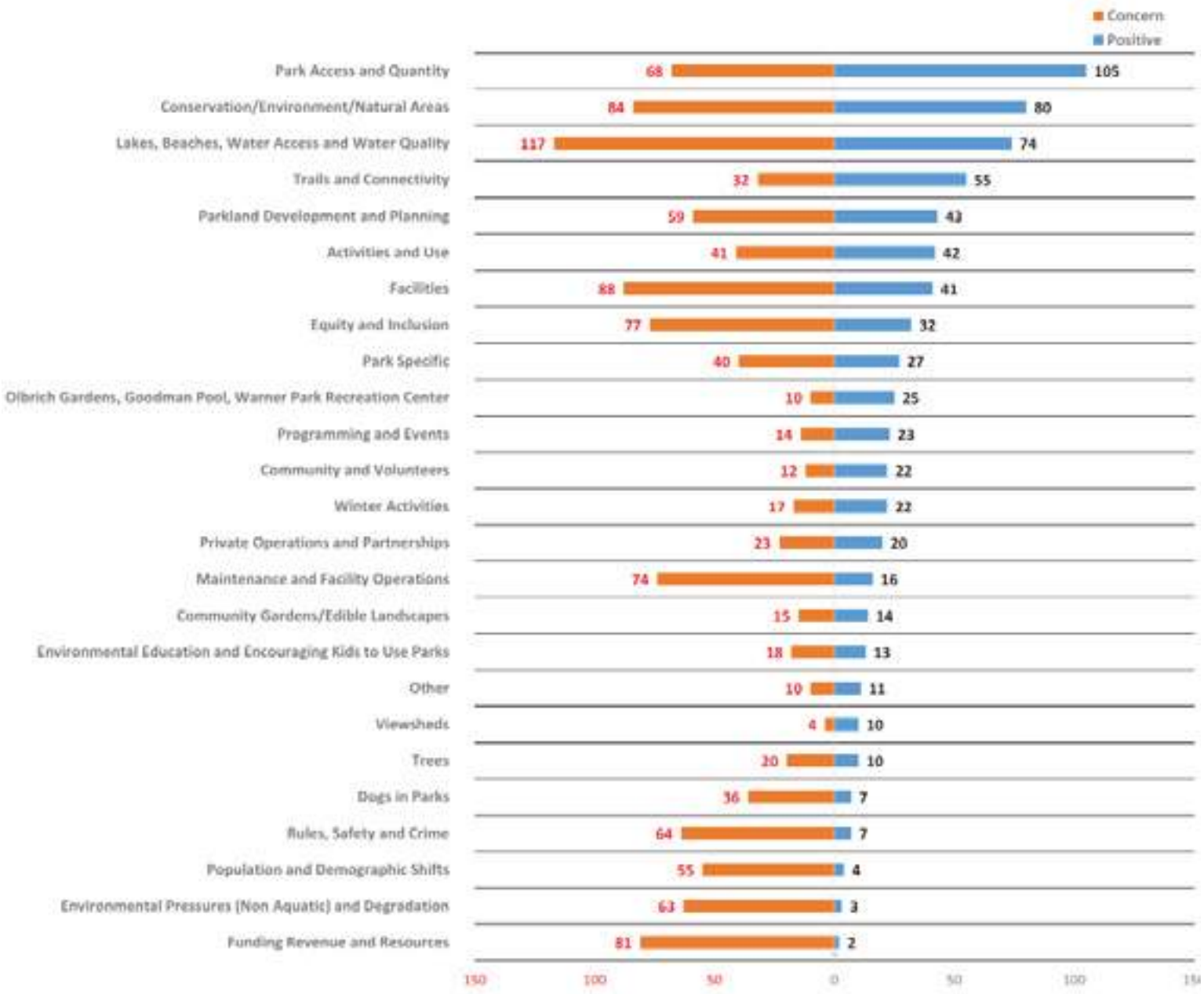


Figure D.21 Top Comments During Engagement Process (Park and Open Space Plan)

Figure D.22 Downtown Neighborhoods (Downtown Plan)

MARQUETTE-SCHENK-ATWOOD NEIGHBORHOOD PLAN (1994)

This central city neighborhood (Figure D.23) has an array of features which make it a sought-after place to live, work, and do business.

Within the neighborhood, the area directly adjacent to Lake Monona is designated the Third Lake Ridge Historic District. The area directly east of the Law Park site is CC-X Commercial / Residential along the lakeshore and I - Industrial to the north.

Park areas within the Marquette-Schenk-Atwood neighborhood include BB Clarke Beach (on the Monona lakeshore) and Orton Park, as well as the Yahara River and smaller parklets. The neighborhood is deficient in parkland, at about half the City of Madison park and open space standard for its population. Linking parks, including Law Park, to the neighborhood, are a significant goal of the neighborhood plan.

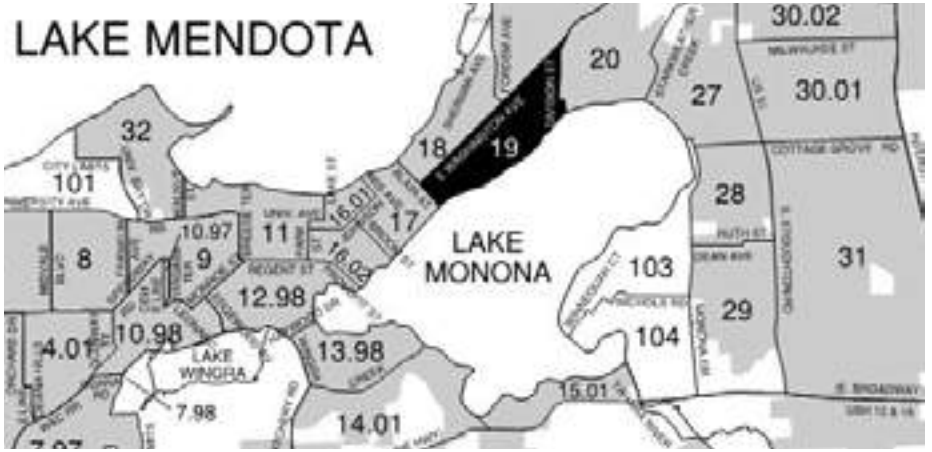


Figure D.23 Context Map (Marquette-Schenk-Atwood Neighborhood Plan)

BAY CREEK NEIGHBORHOOD PLAN (1995)

Located between Monona Bay to the north, Wingra Creek to the east and south and Olin Park to the west, the Bay Creek Neighborhood has significant access to open space in comparison to other downtown neighborhoods (Figure D.24). The neighborhood plan recommends several improvements that are relevant to the Lake Monona Waterfront Preliminary Report including:

- Improving Wingra Creek and Monona Bay water quality
- Enhancing Park Street as a primary business corridor
- Improving traffic safety
- Enhance John Nolen Drive as Gateway to the City

Since the creation of the neighborhood plan, many changes have occurred within the neighborhood. Most significantly, the redevelopment of numerous Park Street properties and the prominence of the Wingra Creek bike trail. The Wingra Creek bike trail has become a major pedestrian corridor and serves as a primary route for south Madison's connection to Law and Olin Park and downtown. The west end of the trail terminates at the intersection with the Capital City Trail within Olin Park near the south boundary of the project site.

Figure D.24 Platting of Bay Creek (Bay Creek Neighborhood Plan)

TRIANGLE BAY NEIGHBORHOOD PLAN (2019)

This neighborhood is directly west of Law Park and surrounds Lake Monona Bay (Figure D.25). Per the Triangle Bay Neighborhood Plan, area residents want to preserve safe, familiar, affordable housing, with a variety of options and intentional diversity.

The household and family incomes for the Triangle Bay Neighborhood are lower than city-wide averages, with 88.2% of the population designated low and moderate income. The neighborhood is also more diverse with notably greater percentages of Asian and Pacific Islanders, Hmong, African Americans, and other ethnicities.

Also, within the neighborhood approximately 370 residents live in Community Development Authority (CDA)-owned properties, and these are generally seniors or younger adults with mobility issues and/or mental challenges. It is critical to reduce social isolation, create safe places, and ease of connectivity and mobility within and to destinations for these residents.

Many residents utilize public transportation; only 1 in 2 owns a vehicle (14% less than other Madison residents); and while transit access and walkability within the neighborhood are good, walkability from the neighborhood is constricted by major road corridors. Crossing these corridors is difficult, especially for the very young, seniors, and people living with disabilities. The neighborhood plan recommends a network of publicly accessible pathways to increase residents' access to the neighborhood and larger community.

Finally, the neighborhood plan notes recent flooding events have affected the Triangle Bay neighborhood, making the path connections through Brittingham Park to the Lake Monona Waterfront impassible at times.

Figure D.25 Publicly Accessible Pathways (Triangle Bay Neighborhood Plan)

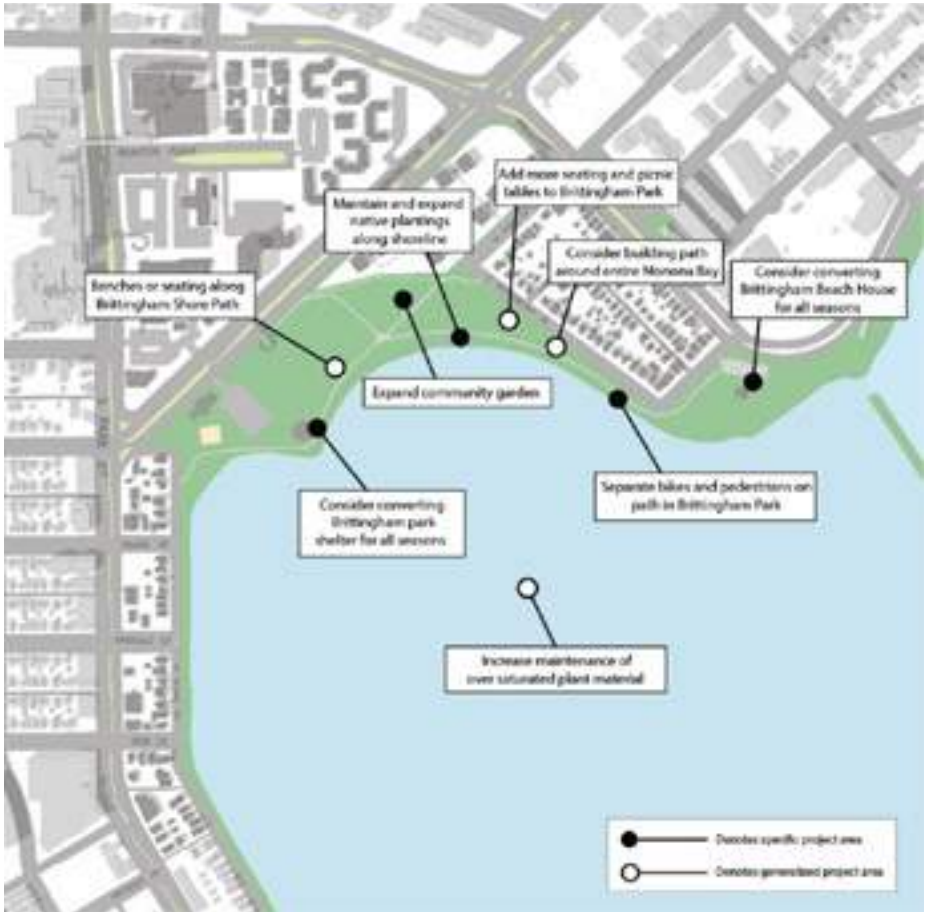
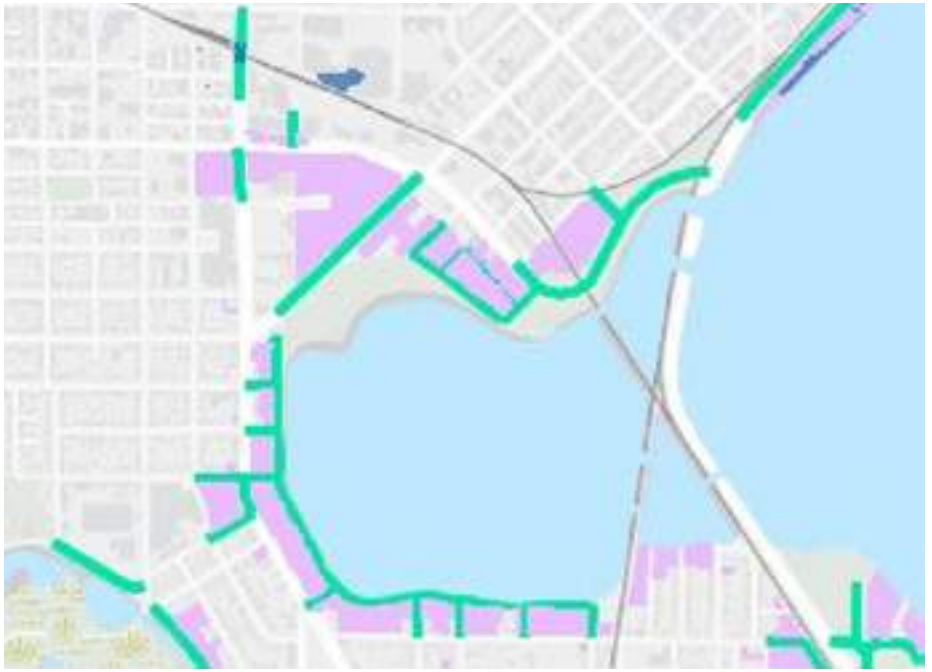


Figure D.26 Brittingham Park Recommendations (Triangle Bay Neighborhood Plan)



May experience flooding due to rising lake levels and flash flooding during rainstorms

Streets that could experience flash flooding during rainstorms

Figure D.27 Flooding Area Map (Triangle Bay Neighborhood Plan)

ADDITIONAL REFERENCES

City of Madison Historic Preservation Plan (Draft 2/2020)

Madison in Motion Sustainable Transportation Master Plan (2017)

Madison's Energy Plan (2016)

Madison's Cultural Plan (2013)

South Madison Neighborhood Plan (2005)

Nolen Centennial Project (see Section D History)

SECTION E

LOOKING FORWARD

NEXT STEPS

The next phase of the Lake Monona Waterfront planning initiative is establishing a plan development framework and review process. The planning effort will require engagement and cooperation by a wide-range of project stakeholders – including Alders, community leaders, neighborhood association representatives, City and County agencies, area residents, and park users. Combined with WDNR and Army Corp of Engineer regulatory reviews, the initiative's scale and scope necessitate a more comprehensive process than the Parks Division's current masterplan development approach. Parks is preparing a framework for consideration by elected representatives and policymakers before initiating the project's plan development phase.

The Lake Monona Waterfront project will influence how park visitors experience Lake Monona and the city for decades to come. Its confluence with other city initiatives is a once-in-a-generation opportunity for Madison to create a holistic vision for this critical lakeshore corridor. The Parks Division looks forward to working with project stakeholders and Madison residents in developing a plan that fosters neighborhood connections and celebrates the natural beauty of Lake Monona.

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