City of Madison Engineering Division

# John Nolen Drive Reconstruction

Project I.D. 5992-11-20
City of Madison, John Nolen Drive
(Olin Avenue – North Shore Drive)

Public Information Meeting #2
February 23, 20233

# Project Team





# Zoom Meeting Protocols

- ✓ This meeting will be **recorded** and posted to the City's project page.
- ✓ All attendees should stay be **muted** to keep background noise to a minimum.
- ✓ You may use the **"raise hand"** option at the bottom if you have something that required immediate clarification.
- ✓ Use **"chat"** option if you are having technical issues and a staff person can try to assist.
- ✓ Please use the **"Q&A"** option at the bottom of the screen to type your question. Questions will be answered at the end of the presentation. Inappropriate questions may be dismissed.
- ✓ If you cannot ask via typing your question, use the "raise hand" option and you will be unmuted when it is your turn.

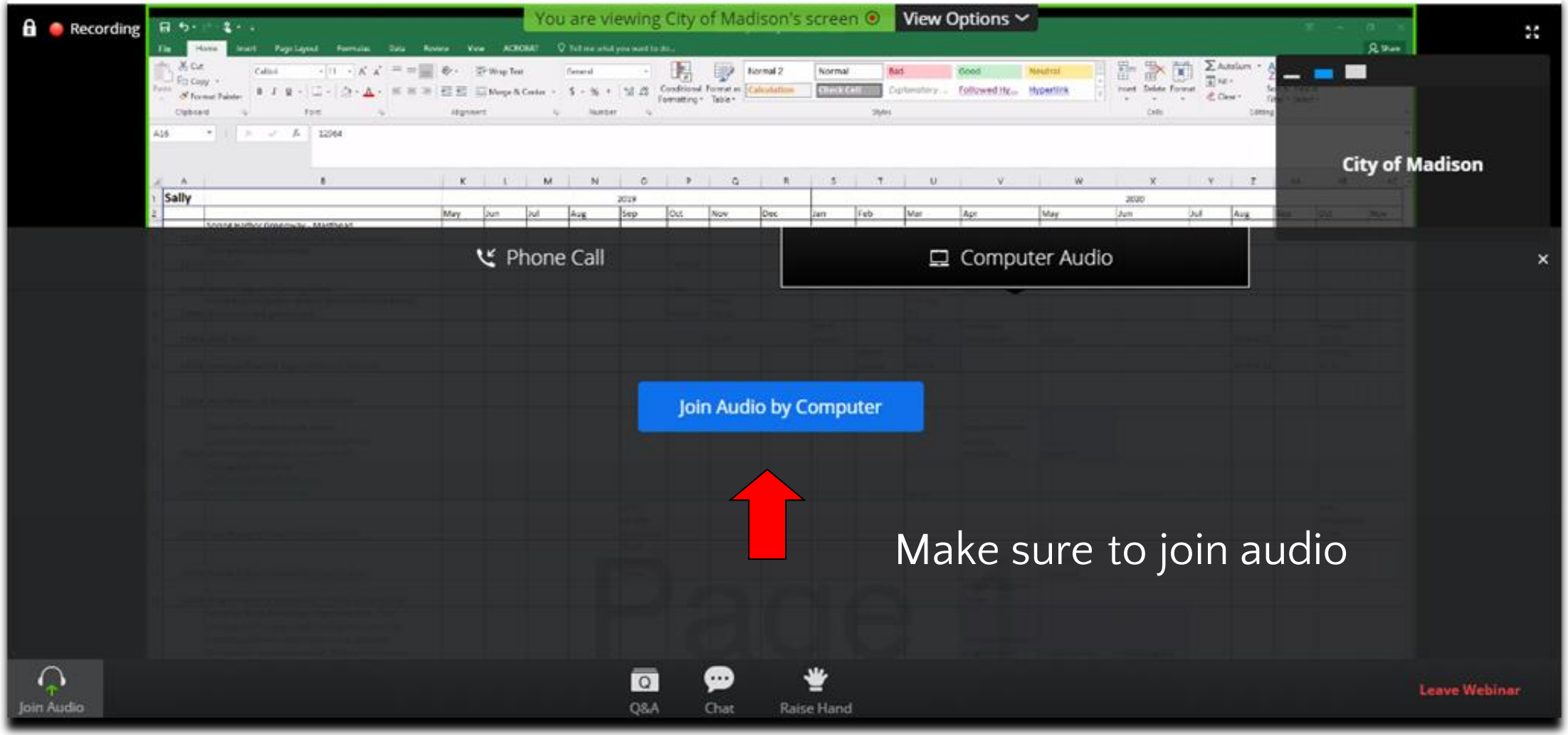
# Recording

**This meeting is being recorded.**

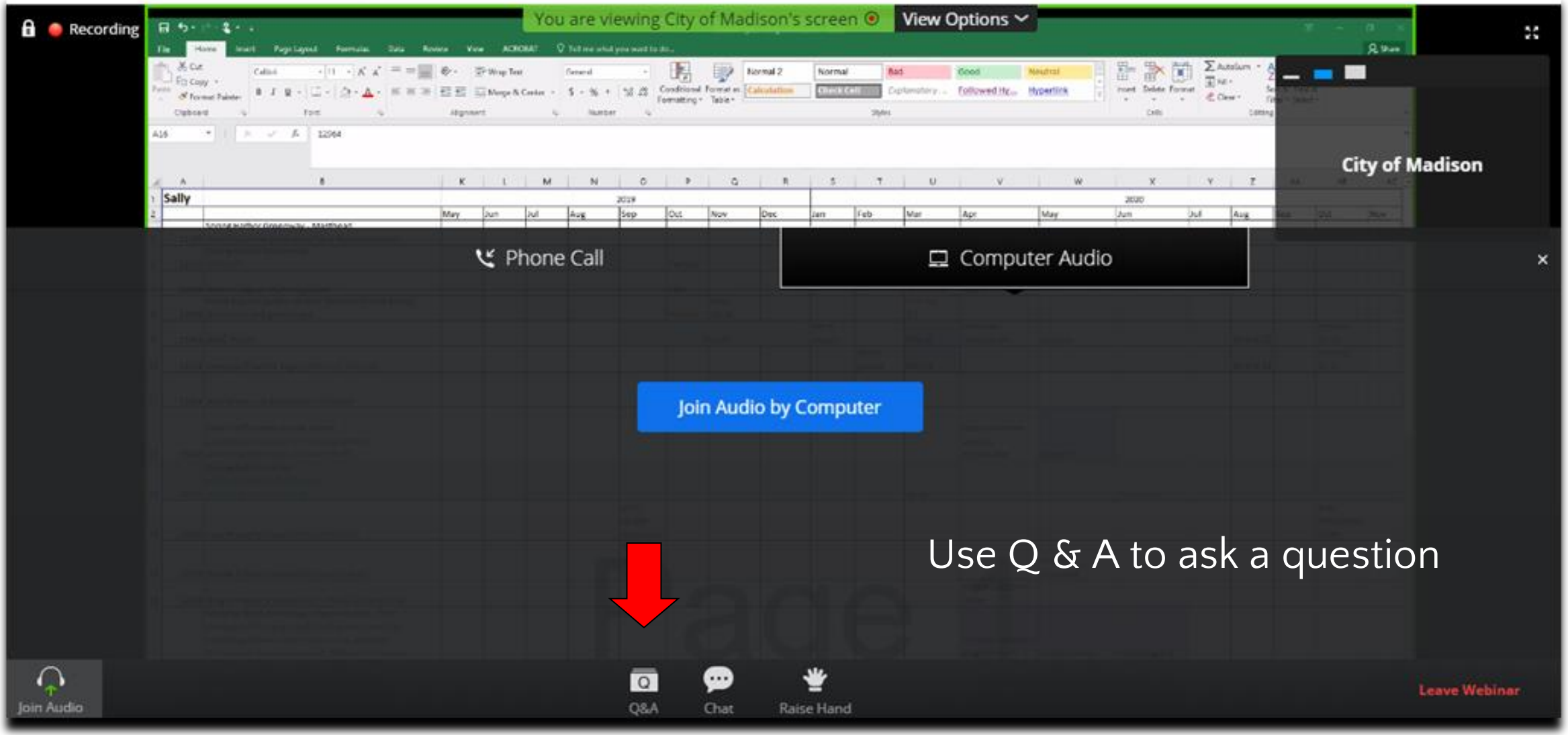
**It is a public record subject to disclosure.**

By continuing to be in the meeting, you are consenting to being recorded and consenting to this record being released to public record requestors.

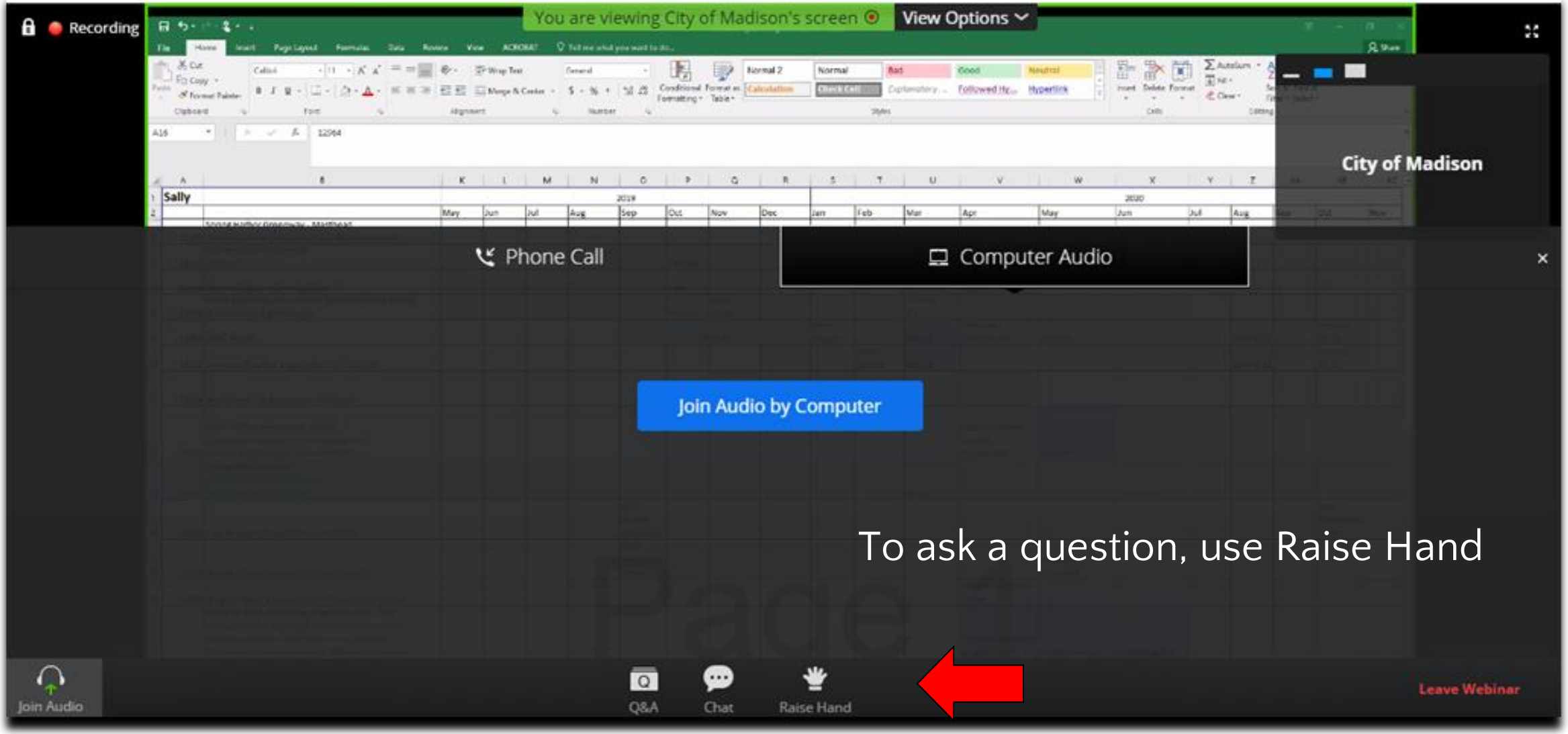
# How to Participate



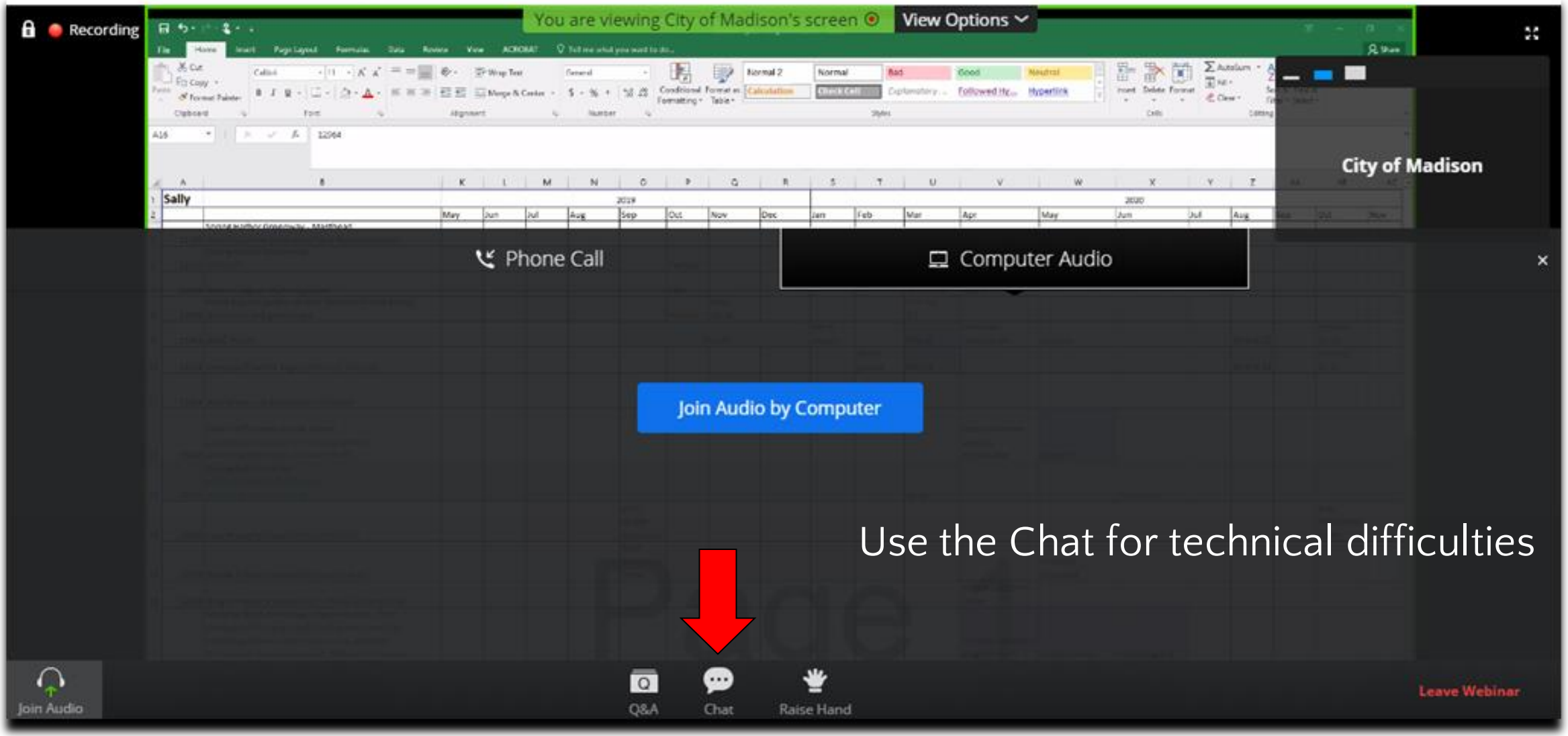
# How to Participate



# To Ask a Question, Raise Your Hand



# Technical Difficulties



# Discussion Ground Rules

1. Respect your neighbors' time and perspectives.
2. Focus your input on the **future roadway design**.
3. Ask clarifying questions as we go (e.g., explain a term or repeat a statement).
4. Save other questions for the Q&A – they may be answered during the presentation!

# Agenda

1. Project Overview
   - Overview of John Nolen Drive
   - Project Review
   - Next Steps
2. Design Alternative Presentation (community engagement)
   - Review Designs
   - Clarifying Questions
   - Polling
3. OPTIONAL Breakout for Design Questions (Padlet for comments)

# John Nolen Drive Today

- Gateway "Iconic" Entrance to Downtown
  - Six (6) Lanes (Olin Ave to Lakeside St)
  - Four (4) Lanes (Lakeside St to North Shore Dr)
- Causeway Bridges
  - Connecting Lake Monona & Monona Bay
- Capital City Trail
  - Linking Olin Park and Law Park
- Lake Monona Shoreline
- Wisconsin & Southern Railroad (WSOR)

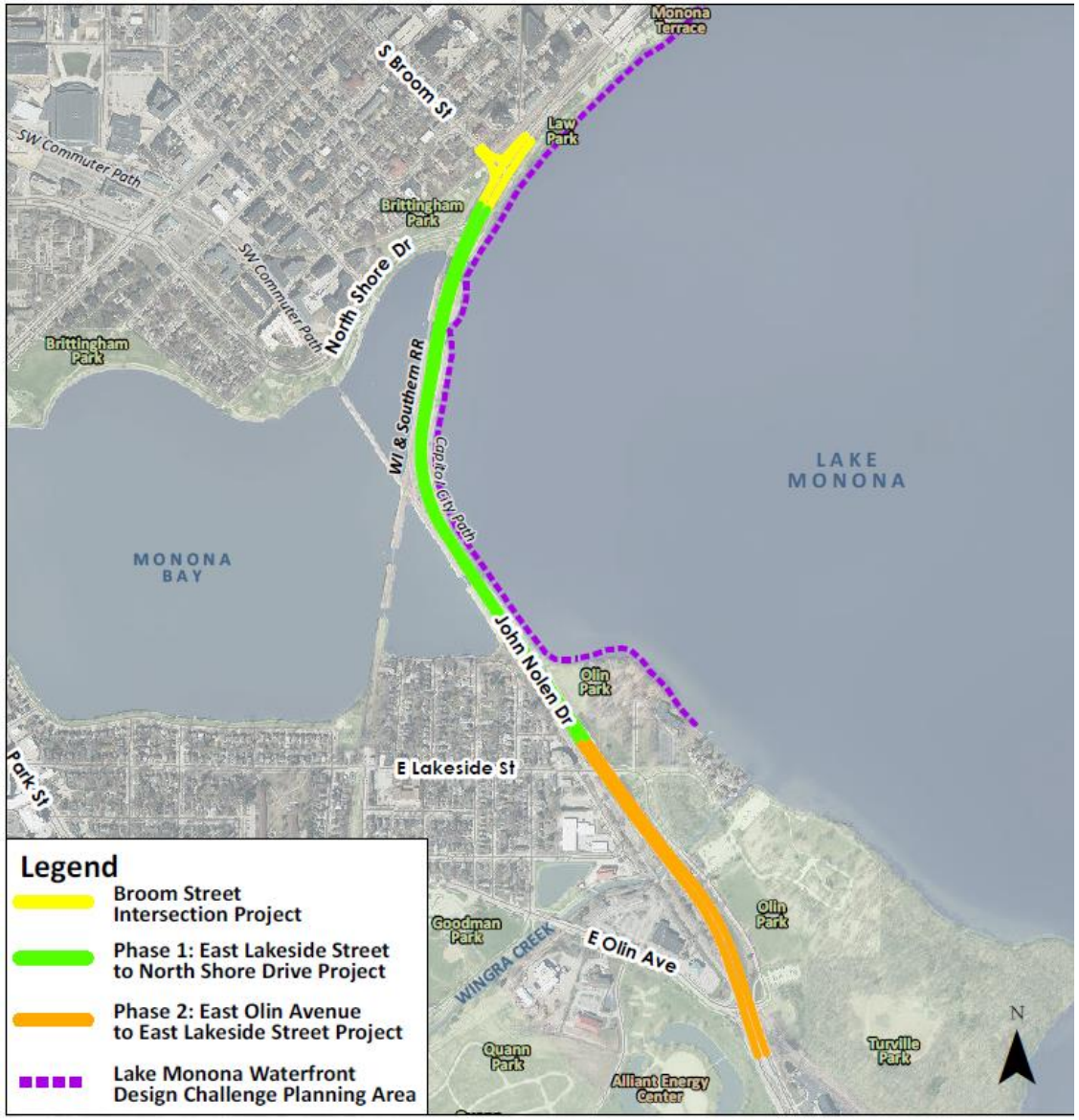
# Project Overview

Reconstruction of John Nolen Drive between North Shore Drive to Olin Avenue including roadway, bridges, multi-use path, and shoreline

Phase One – East Lakeside St to North Shore Dr
Phase Two – East Olin Ave to East Lakeside St
Future – Broom Street Intersection

**Project Goals**

- ✓ Increase safety
- ✓ Improve mobility and environment
- ✓ Replace aging infrastructure
- ✓ Improve lake front accessibility
- ✓ Improve stormwater management



# Project Overview

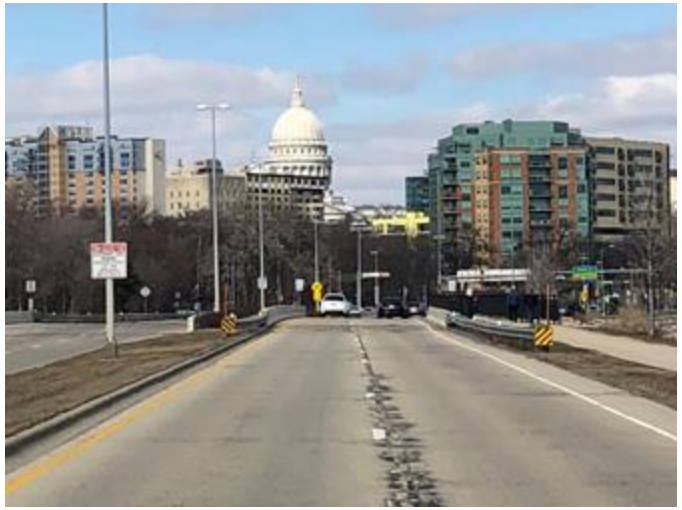
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|
| **Phase 1** | **East Lakeside St - North Shore Dr** | | | | | | | |
| | Alternative Analysis & Preliminary Design | | | | | | | |
| | Final Design | | | | | | | |
| | Advanceable Schedule | | | | | | | |
| | Construction | | | | | | | |
| | Construction (Advanceable Schedule) | | | | | | | |
| **Phase 2** | **East Olin Ave - East Lakeside St** | | | | | | | |
| | Alternative Analysis & Preliminary Design | | | | | | | |
| | Final Design | | | | | | | |
| | Construction (Dependent on Funding) | | | | | | | |
| **Broom Street Intersection** | | | | | | | | |
| | Alternative Analysis | | | | | | | |
| | Preliminary & Final Design | | | | TBD | | | |
| | Construction (Dependent on Funding) | | | | TBD | | | |
| **Lake Monona Waterfront Design Challenge & Master Plan** | | | | | | | | |

Community engagement, planning, and design through Spring 2026.

# Project Needs

- Pavement Condition
- Bridge Condition
- Shoreline Protection
- Improved Bike/Pedestrian Mobility
- Promote “Urban” Environment
- Stormwater Considerations
- Safety/Crash Prevention

** Recent Fatality & Past Incidents**



# Project Challenges

- Causeway Movement/Settling
- Madison Parks – Lake Monona Waterfront Planning
- Madison Metro Route Planning
- Stormwater Quality
- Railroad Coordination
- Parks & Public Use Space (4f/6f)
- Construction Staging / Traffic Control
- Project Funding


# Public Engagement Goals

- Inform the community
- Gather community input
- Engage diverse perspectives
- Achieve a project the community supports

# Public Engagement

## June 2021 – Present

- Project flyers – distributed electronically, posted at locations throughout city
- Project website - https://www.cityofmadison.com/JohnNolenDrive
- Tabling at community events
- Community surveys
- PIM #1
- Español, Hmong, and Mandarin Chinese: flyer, website, meetings
- Questions and comments - JohnNolenDrive@cityofmadison.com

# Public Information Meeting #1 Takeaways

**PADLET Results from PIM#1**

| Value Most | Concerns | Changes/ Improvements | COVID Impact |
|---|---|---|---|
| Aspects of water | High Traffic | Expand for Green space | Less cars = more bikes |
| Good commuting | Different Users & Speeds | Separation of Bike/Ped | Very quiet due to COVID |
| Multi-use (Bike, Ped, Vehicle) | Safety | Reduce Traffic Noise | |

**Other things to note**:

- How are different stakeholders working / communicating together in best interest of JND (DNR/County)
- Huge waste to have multiple teams working on same space together

# Lake Monona Waterfront Feasibility Study

## General Takeaways about Monona Waterfront

Connectivity and Access

- Crosswalk improvements for peds/bikes – longer signals, traffic calming measures
- Accessible boat launches
- Wayfinding enhancements
- Additional pedestrian amenities
- Alliant Energy Center as shuttle hub
- Better lighting for Wingra Creek underpass


## Specific Takeaways about John Nolen Drive

- Wider bike/ped path
- Space for passive recreation or gathering
- Reduce conflict between competing path users
- Raise height of bridge – difficult to get under using watercraft
- Noise reduction measures
- Improve Causeway, so that it is less of a barrier – consider a bridge

Honors BIPOC history, experiences, and culture

Intentionally designed to serve and support ALL community members

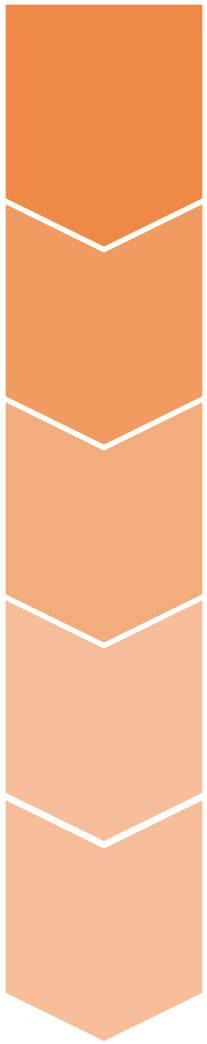
# Lake Monona Waterfront Design Challenge


Agency Landscape + Planning

James Corner Field Operations


Sasaki Associates

# Lake Monona Waterfront Design Challenge



| | |
|---|---|
| January 26 | Master Plan presentations and start of public review and comment |
| March 23 | End of public comment phase |
| April | Ad-hoc Committee master plan evaluations |
| May - Aug | Refinement of the selected master plan |
| August | Anticipated Common Council introduction |
| Sept - Dec | City committee referrals |
| December | Common Council action |

# Lake Monona Waterfront Design Challenge

Visit the project webpage and take the online master plan survey! The survey is open until March 23, 2023 for the eight-week public review and comment phase.

# Next Steps

1. Online Survey
2. Develop 30% Design Alternatives
3. Monona Waterfront Parks Master Plan
4. Public Meeting #3 – Winter 2024

# John Nolen Drive Alternatives

*Design Presentation & Polling*

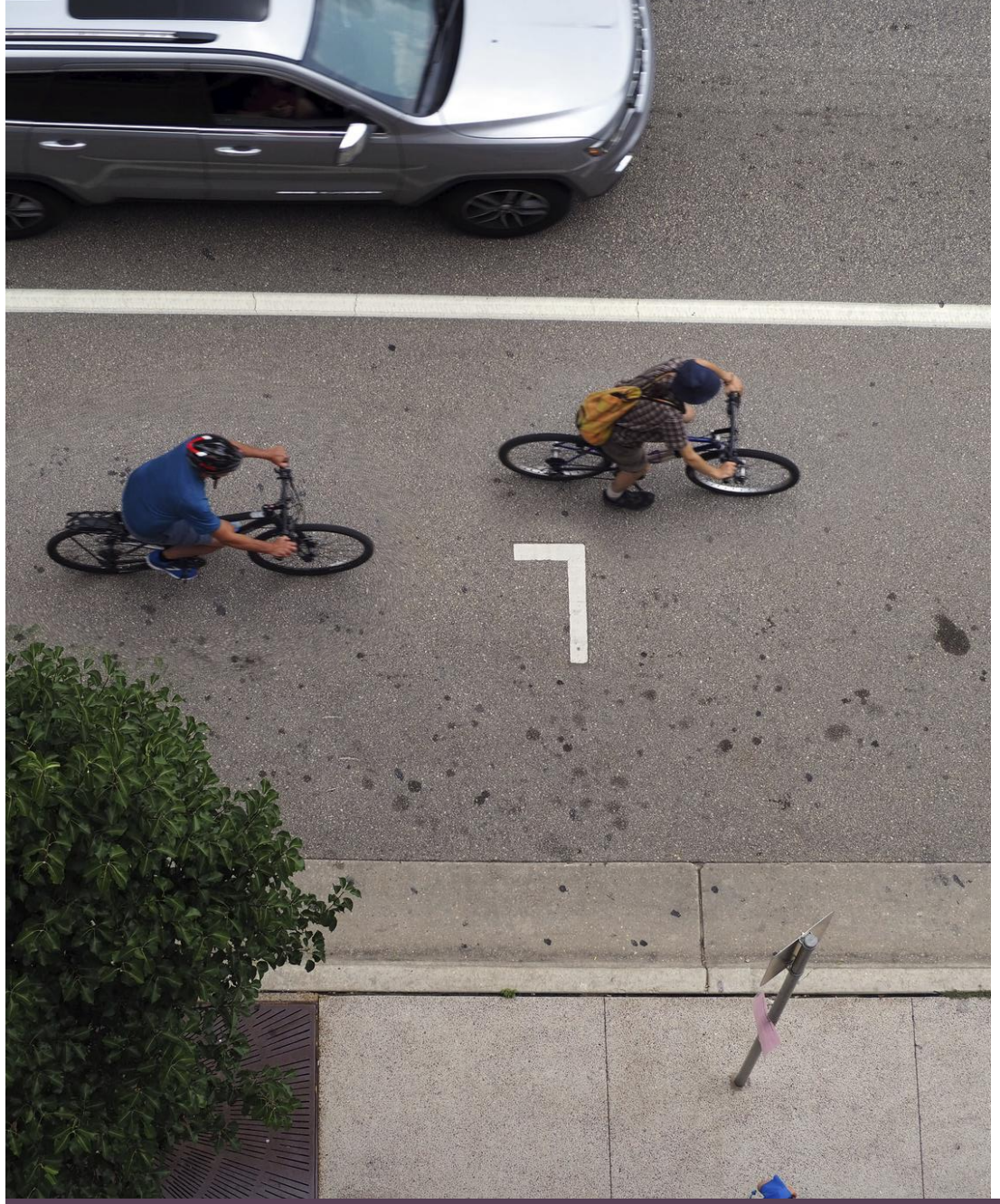
# What We Heard...

- Increase safety for all
- Replace aging infrastructure
- Increase space between path and road
- Reduce speeds
- Better lighting
- Safer merges for vehicles
- Wider bicycle/pedestrian facilities
- Reduce traffic noise
- More “Green” infrastructure
- Improve water quality
- Improve accessibility to the shoreline

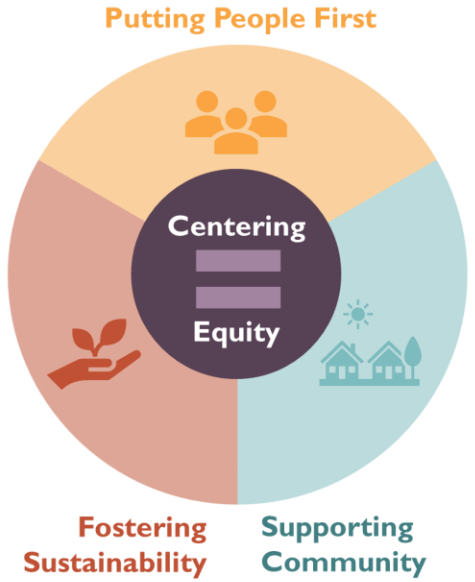
Less “Highway”...

City of Madison

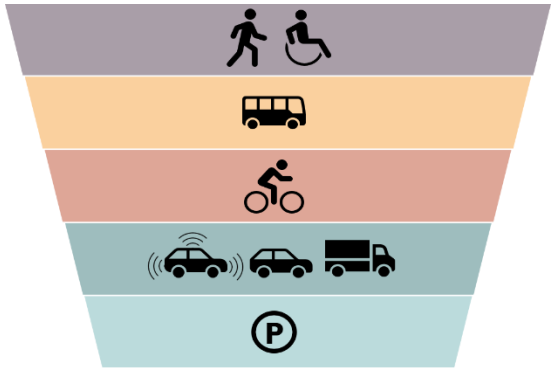
# Complete Green Streets Guide



## STREET VALUES




## MODAL HIERARCHY



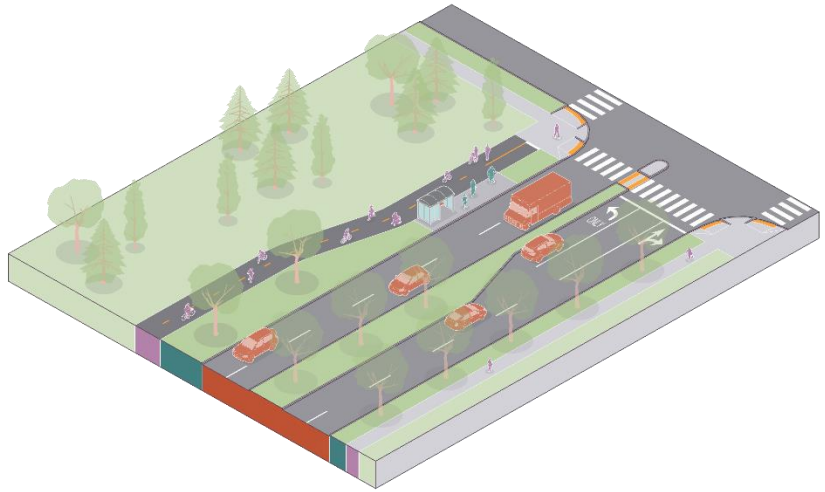
**Approved January 6, 2023**

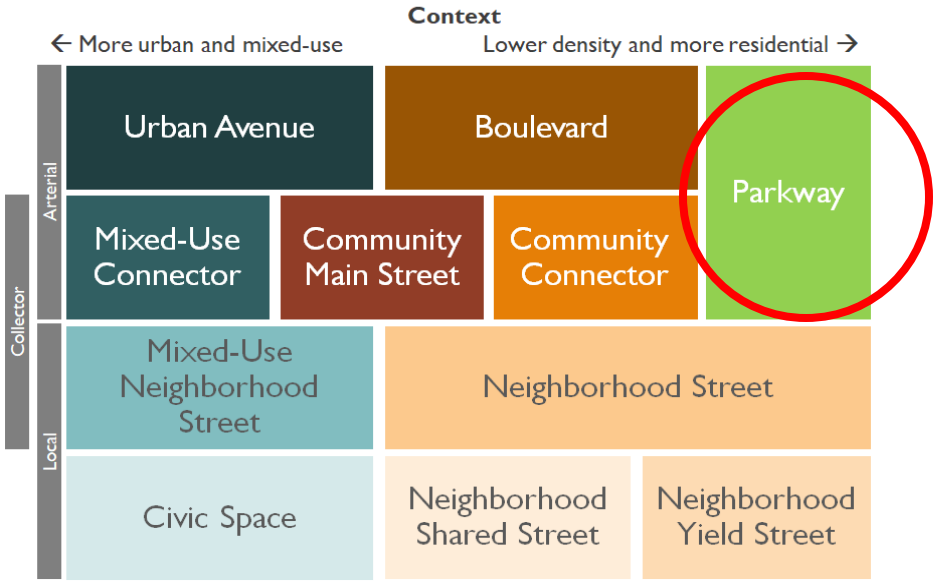
HTTPS://CITYOFMADISON.COM/TRANSPORTATION/INITIATIVES/COMPLETE-GREEN-STREETS

# John Nolen Drive

## Street Type: Parkway

**Context:** Alongside parks & lakes. Possible in some areas with significant building setbacks.
**Description:** Connecting multi-modal corridors that convey large numbers of people, near open spaces/water with a focus on minimizing impacts on nearby greenspace/water. May be part of the National Highway System or serve as a Truck Route.
**Target Speed:** 25-35 mph





# Urban Multimodal Streets

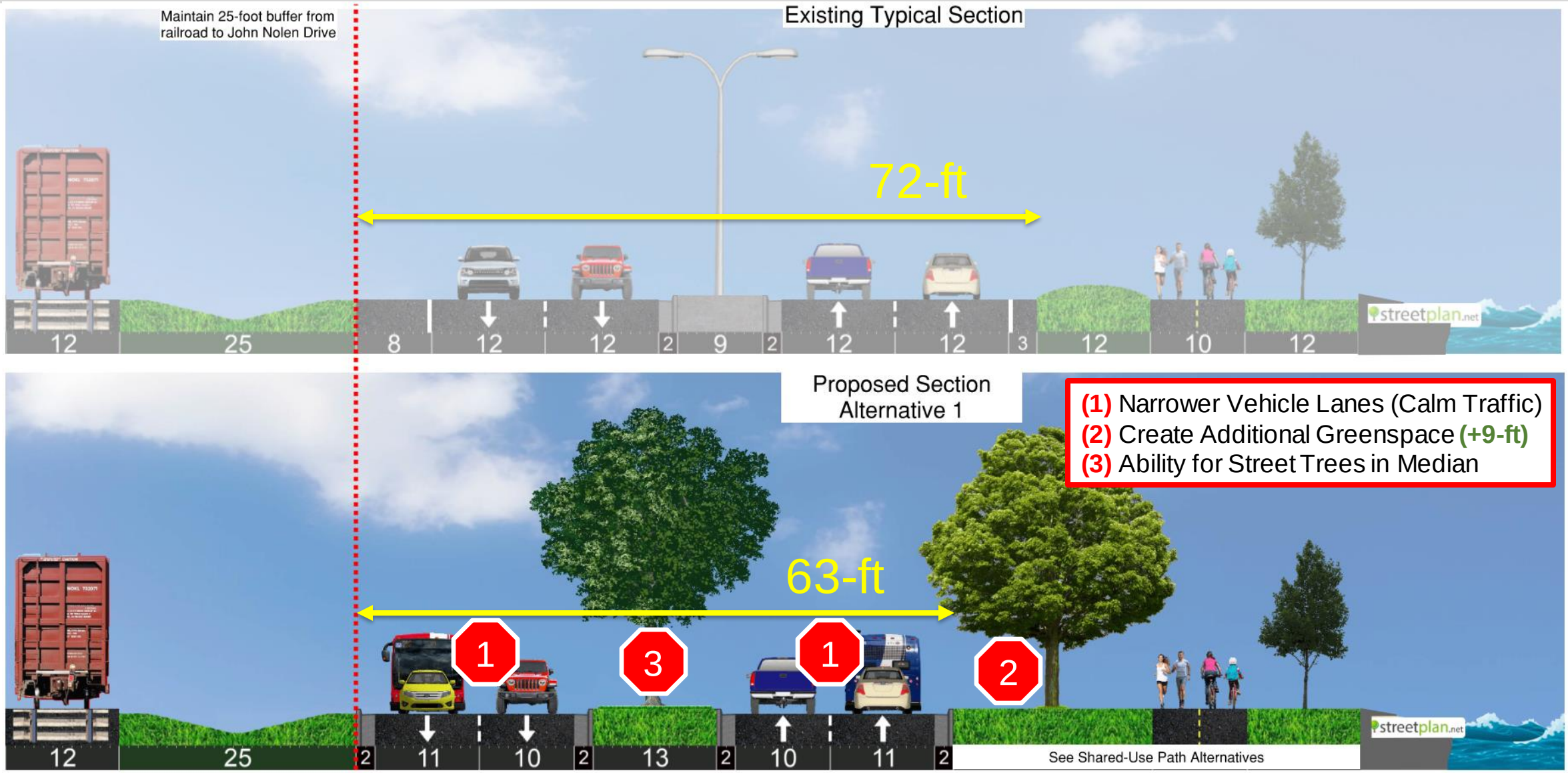
| Features | Safety Benefits |
|---|---|
| Narrower Roadway Lanes & Shoulders | Calm Travel Speeds & Buffer from Pathways<br>****Gray to Green** (20% Reduction in Vehicle Pavement)** |
| Narrower Intersections | Improve Delineation & Shorten Ped/Cyclist Crossing Distance |
| Expanded Pathways | Path Space for All Speeds (Commuters to Strollers) |
| Use Curb & Gutter over Beam Guard | Calm Travel Speeds & Less “Highway” |
| Signal Head per Travel Lane (Traffic Signals) | Increased Driver Awareness (Better Compliance) |

# Alternatives Presentation and Exercise

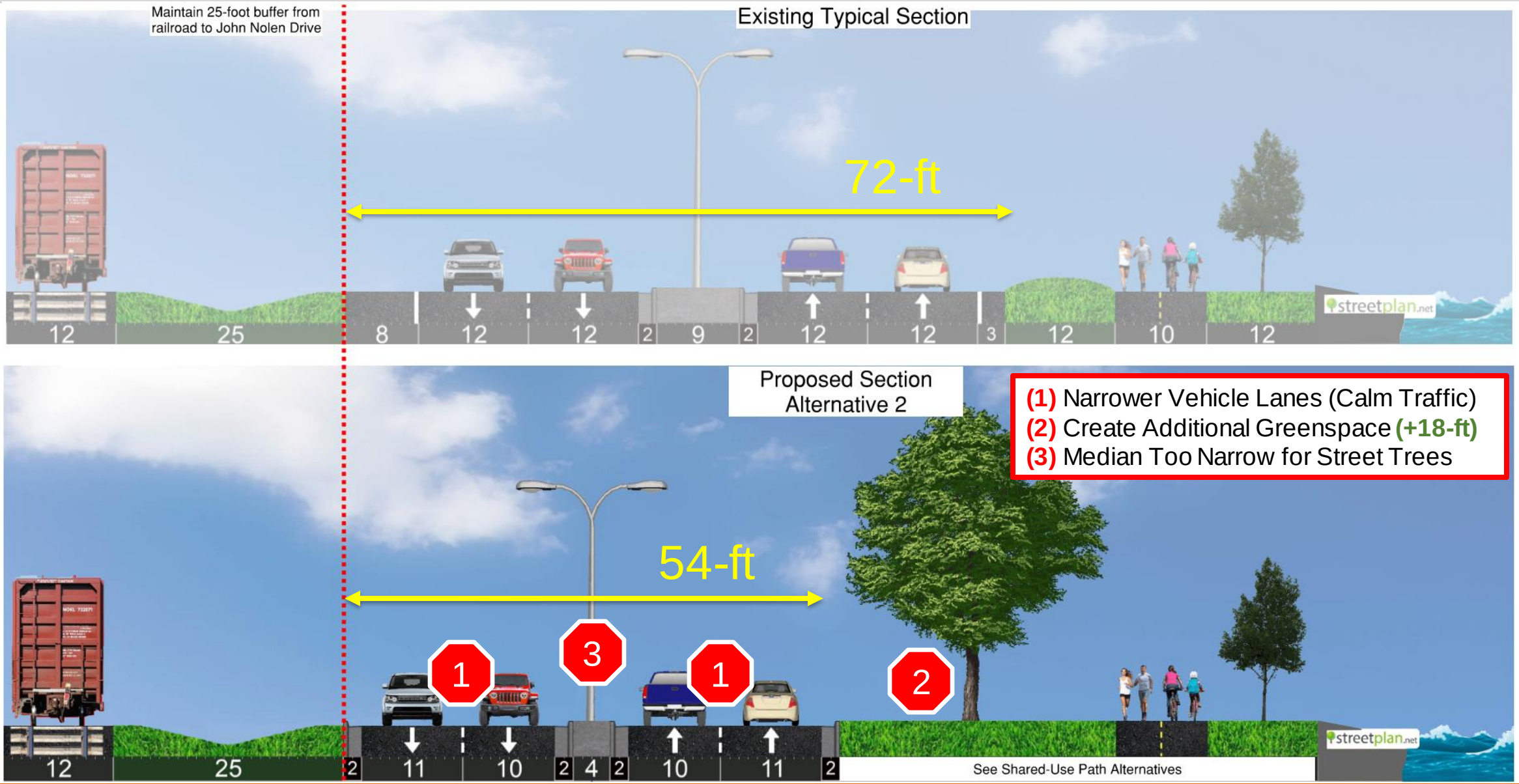
**Instructions**

- Alternatives presented for each design
- Use the Q & A for clarifying questions only after each design
- Polling after each alternative presentation
- Detailed Q & A and discussion after the alternatives presentations in breakout room (s) [OPTIONAL]
- Padlet Survey for alternative questions and concerns

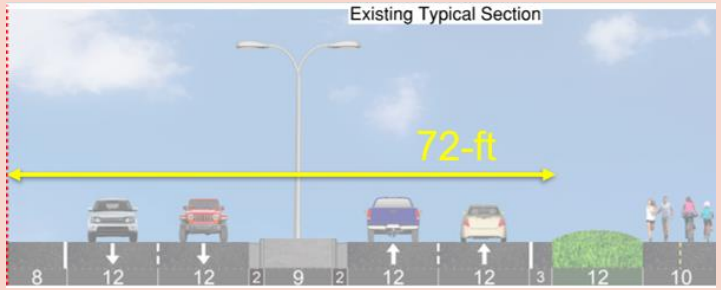
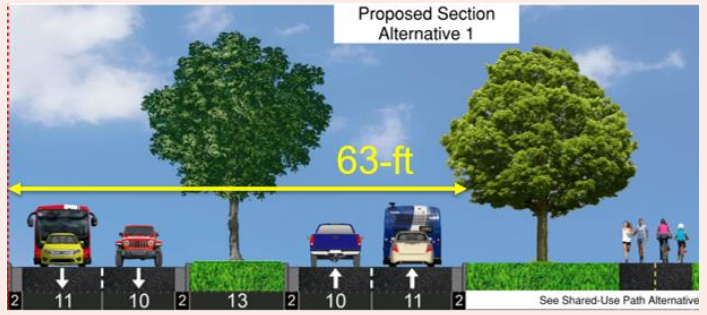
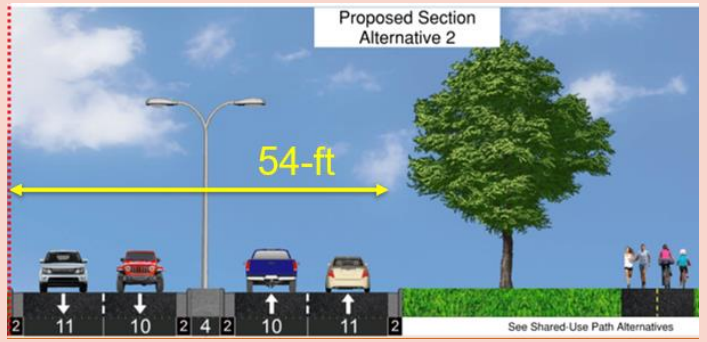
# Roadway Typical Sections – Alt 1 (Wide Median)



# Roadway Typical Sections – Alt 2 (Narrow Median)



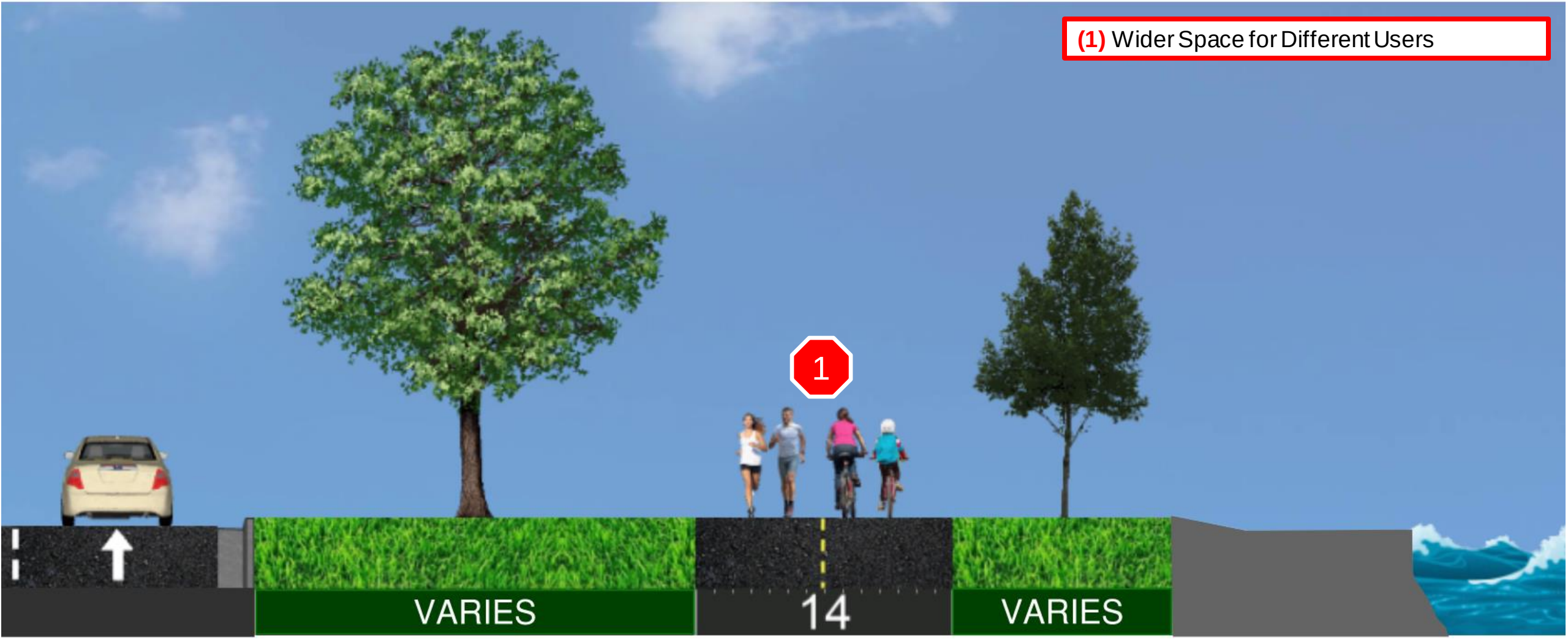
# Roadway Typical Sections – POLLING

| | NOTES | DETAILS |
|---|---|---|
| **EXISTING**<br>(No Change) | 72-ft Roadway Width<br>No Trees in Median |  |
| **ALT 1** | 63-ft Roadway Width<br>Wider Median<br>Trees in Median<br>Balance Green Space |  |
| **ALT 2** | 54-ft Roadway Width<br>Narrower Median<br>No Trees in Median<br>Max Green Space to Park |  |

# Pathway Typical Sections – Existing

(1) Safety (No “Barrier” from Vehicles)
(2) Capacity (Too Narrow - Congested)
(3) Experience (Mix of User Speeds on Path)

# Pathway Typical Sections – Alt 1 (Wide Shared-Use)

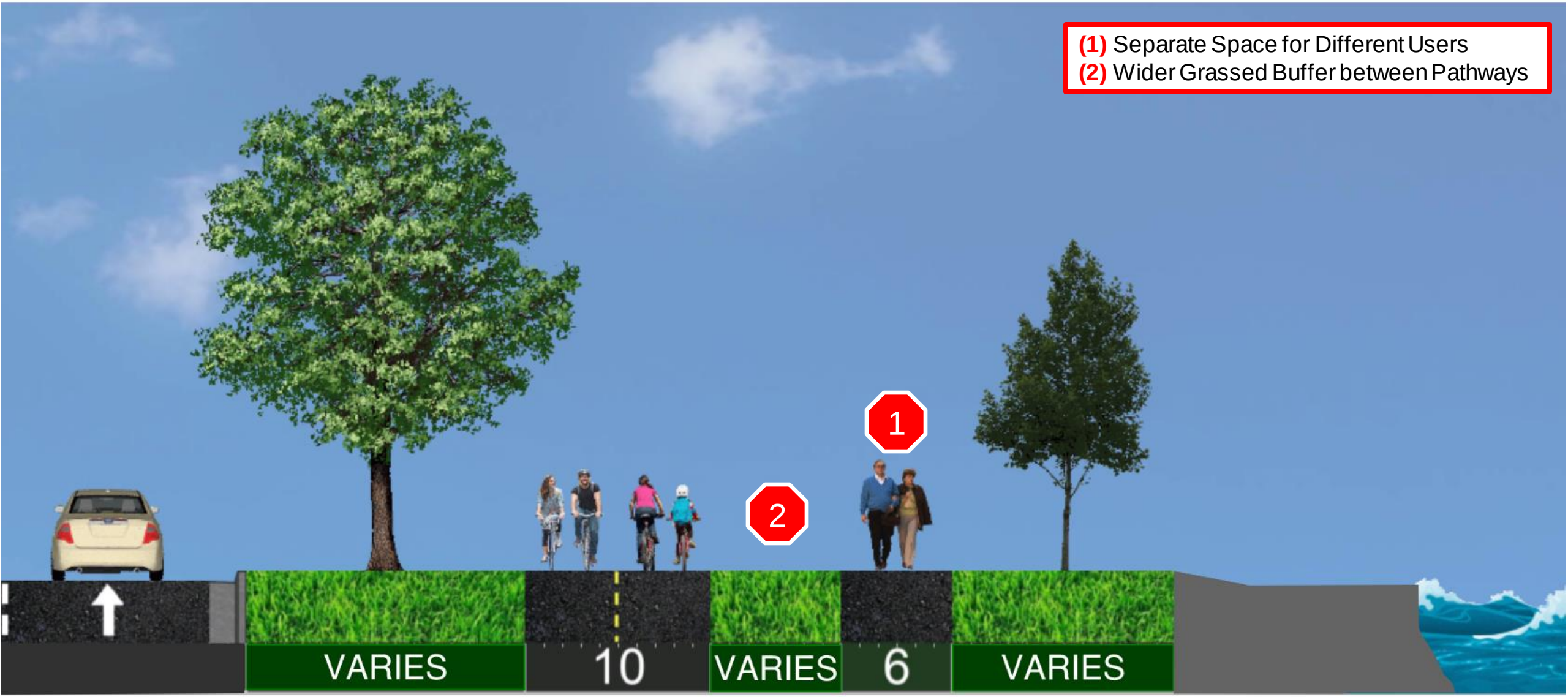


# Pathway Typical Sections – Alt 2 (Separate w/ Buffer)

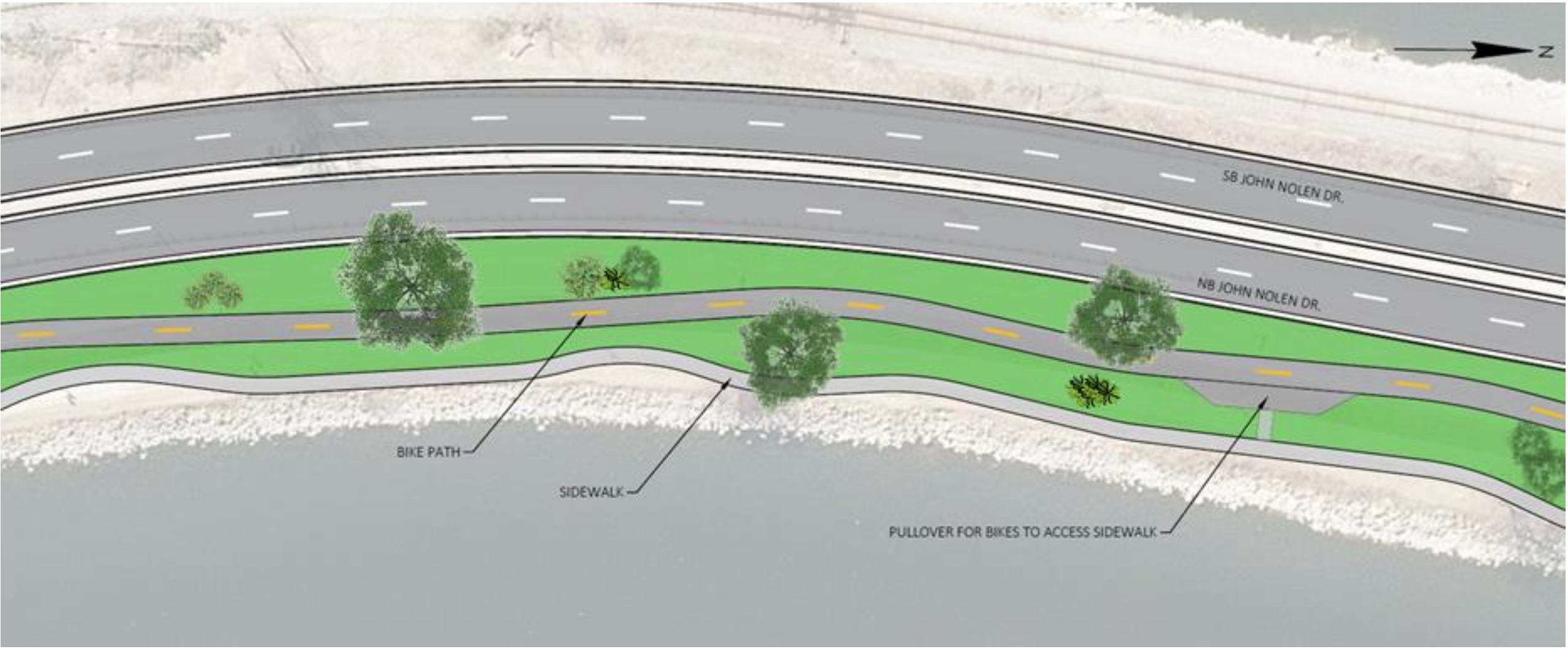
Pathway Near Monona Terrace

**(1)** Separate Space for Different Users
**(2)** Narrow Paved Buffer between Pathways

# Pathway Typical Sections – Alt 3 (Separate Pathways)



# Conceptual Pathway

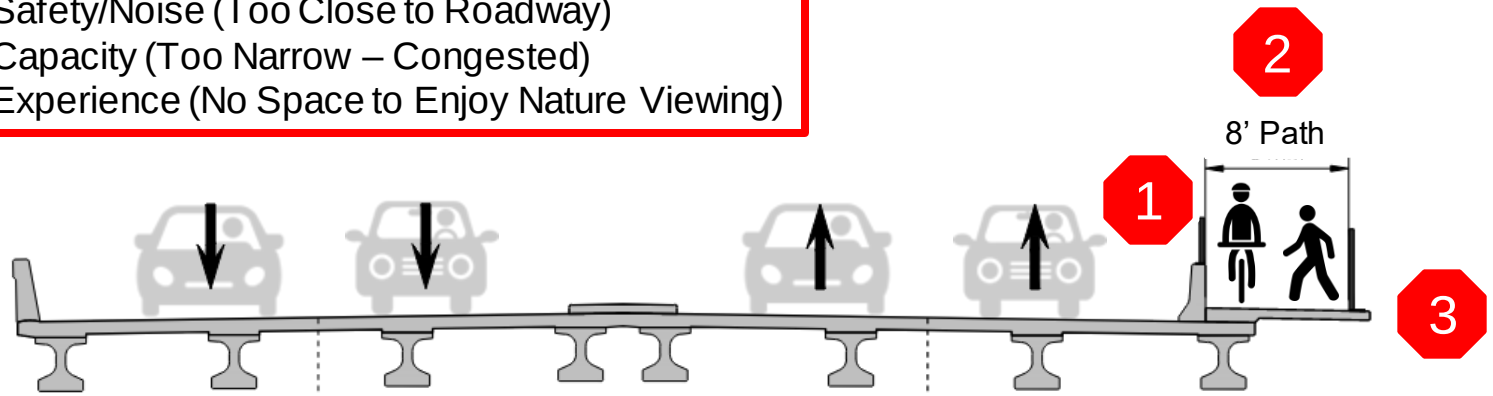


# Pathway Typical Sections – POLLING

| | NOTES | DETAILS |
|---|---|---|
| **EXISTING** (No Change) | 10-ft Width |   |
| **ALT 1** | 14-ft Width |   |
| **ALT 2** | 10-ft & 6-ft Width w/ 2-ft Paved Buffer |   |
| **ALT 3** | 10-ft & 6-ft Width w/ Wider Grass Buffer |   |

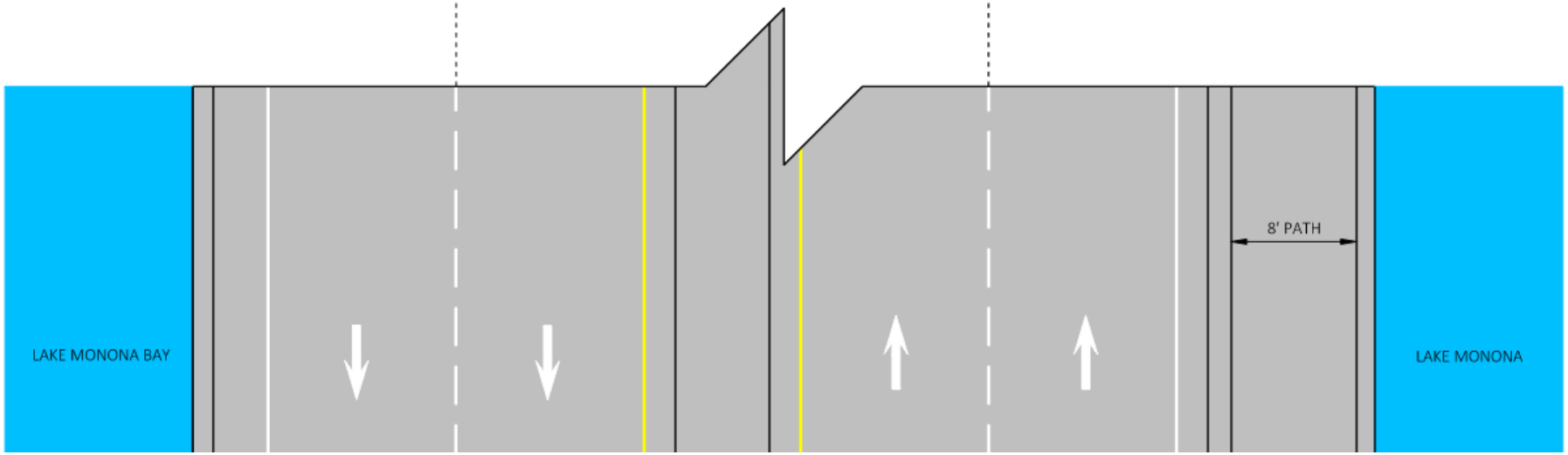
# Pathway Bridge Sections – Existing

**(1)** Safety/Noise (Too Close to Roadway)
**(2)** Capacity (Too Narrow – Congested)
**(3)** Experience (No Space to Enjoy Nature Viewing)

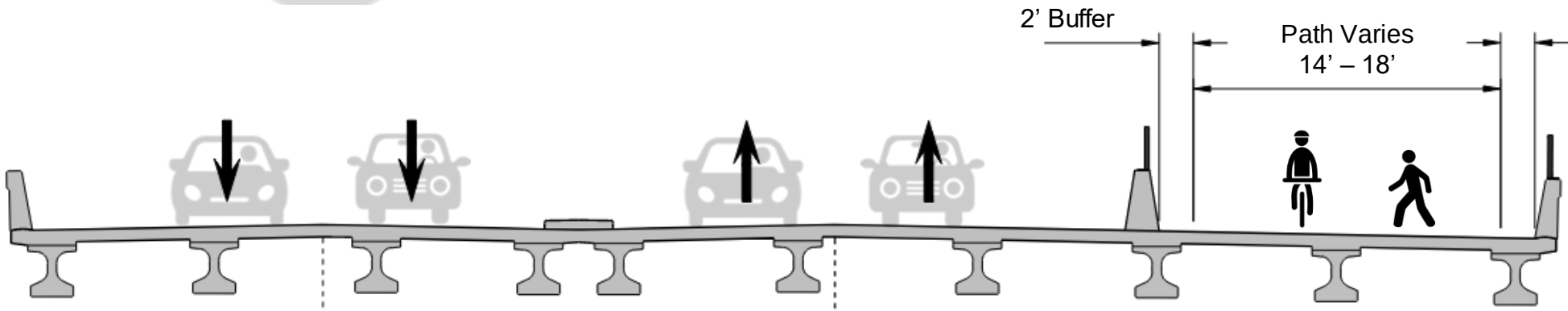




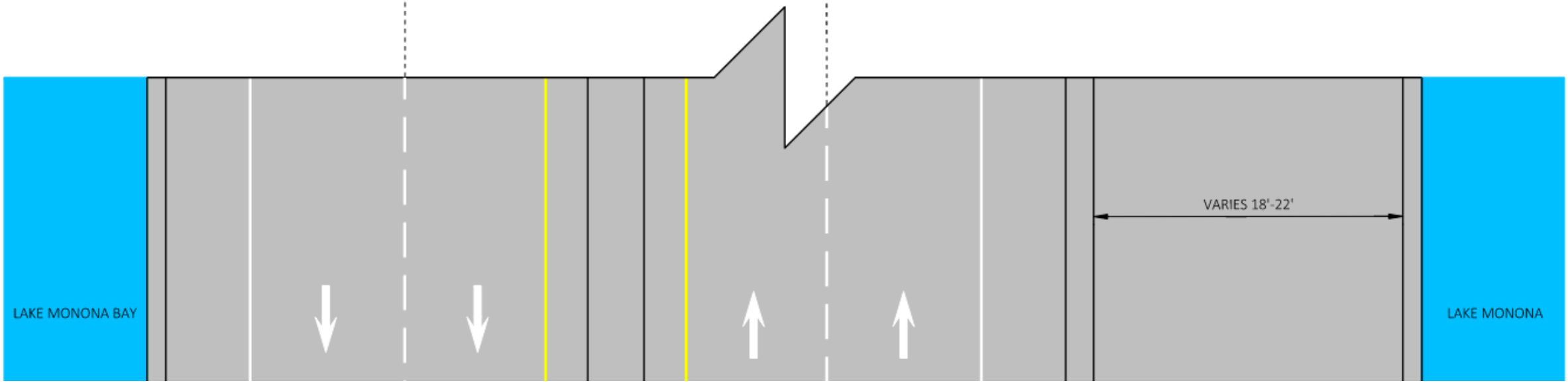
Existing Pathway Structure



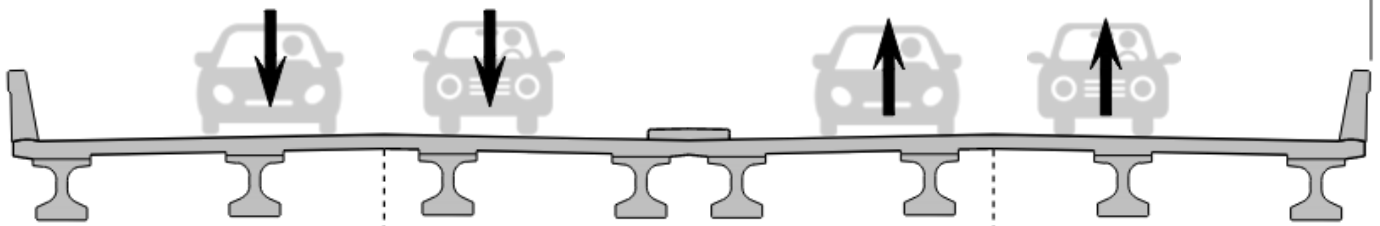
# Pathway Bridge Sections – Alt 1 (Combined Structure)

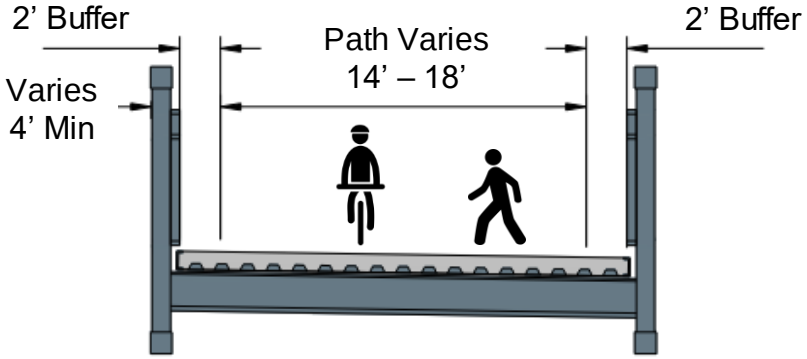



Note: Pathway Bridge is Pre-Stressed Concrete Girder Style
(Same as Roadway Bridge)

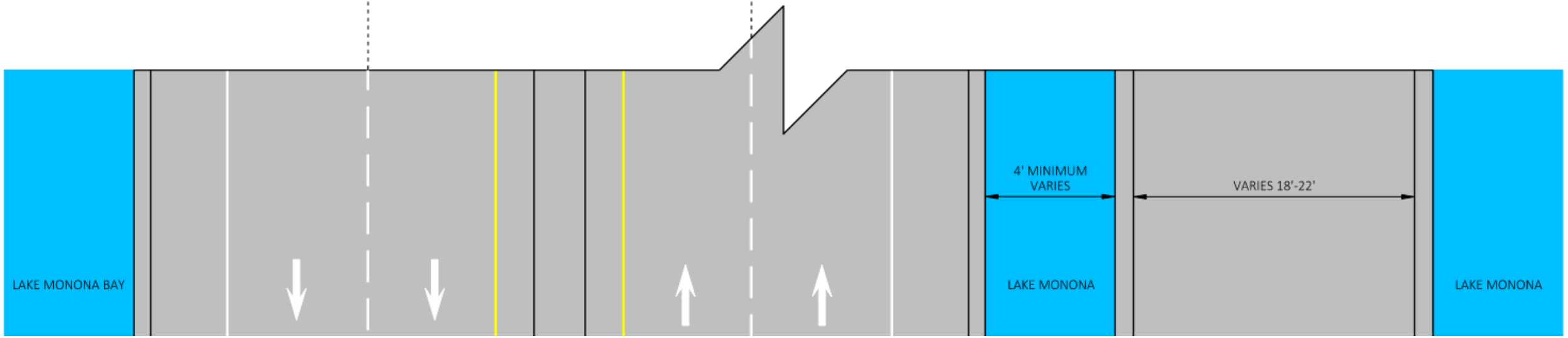


# Pathway Bridge Sections – Alt 2 (Separate Structures)

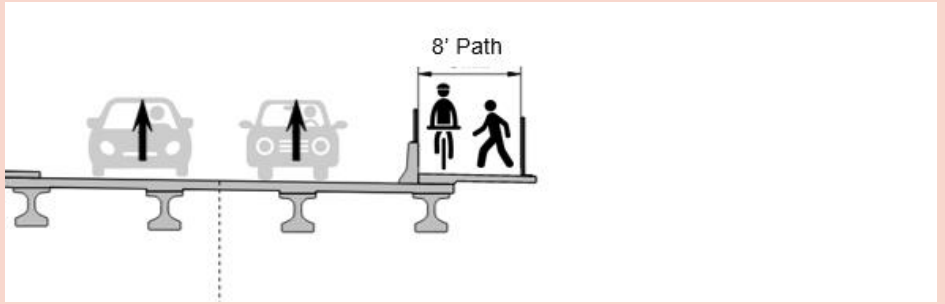
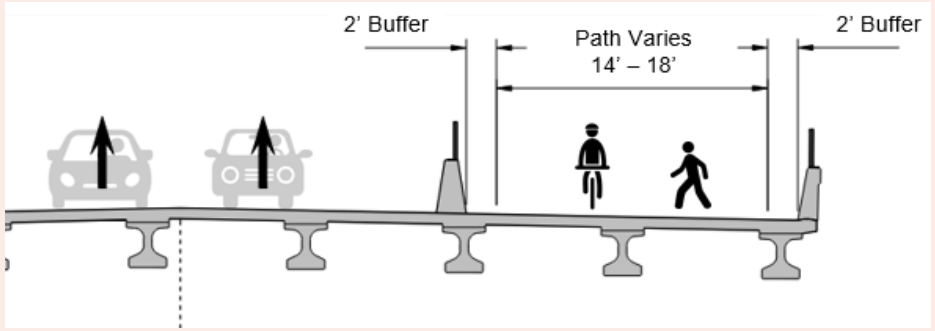
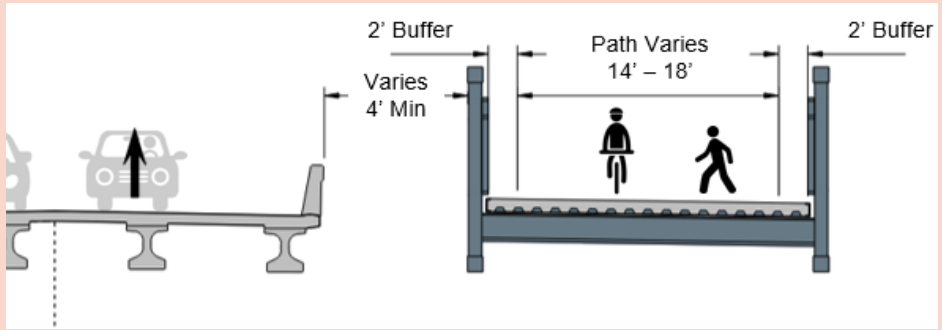





Note: Pathway Bridge is Pre-Fabricated Truss Style
(~5% - 15% Cost Savings vs Roadway Bridge)



# Pathway Bridge Sections – POLLING

| | NOTES | DETAILS |
|---|---|---|
| **EXISTING**<br>(No Change) | Narrow Width<br>Attached to Roadway Structure |  |
| **ALT 1** | Attached to Roadway Structure |  |
| **ALT 2** | Separated from Roadway Structure |  |

# Intersections – Right Turns

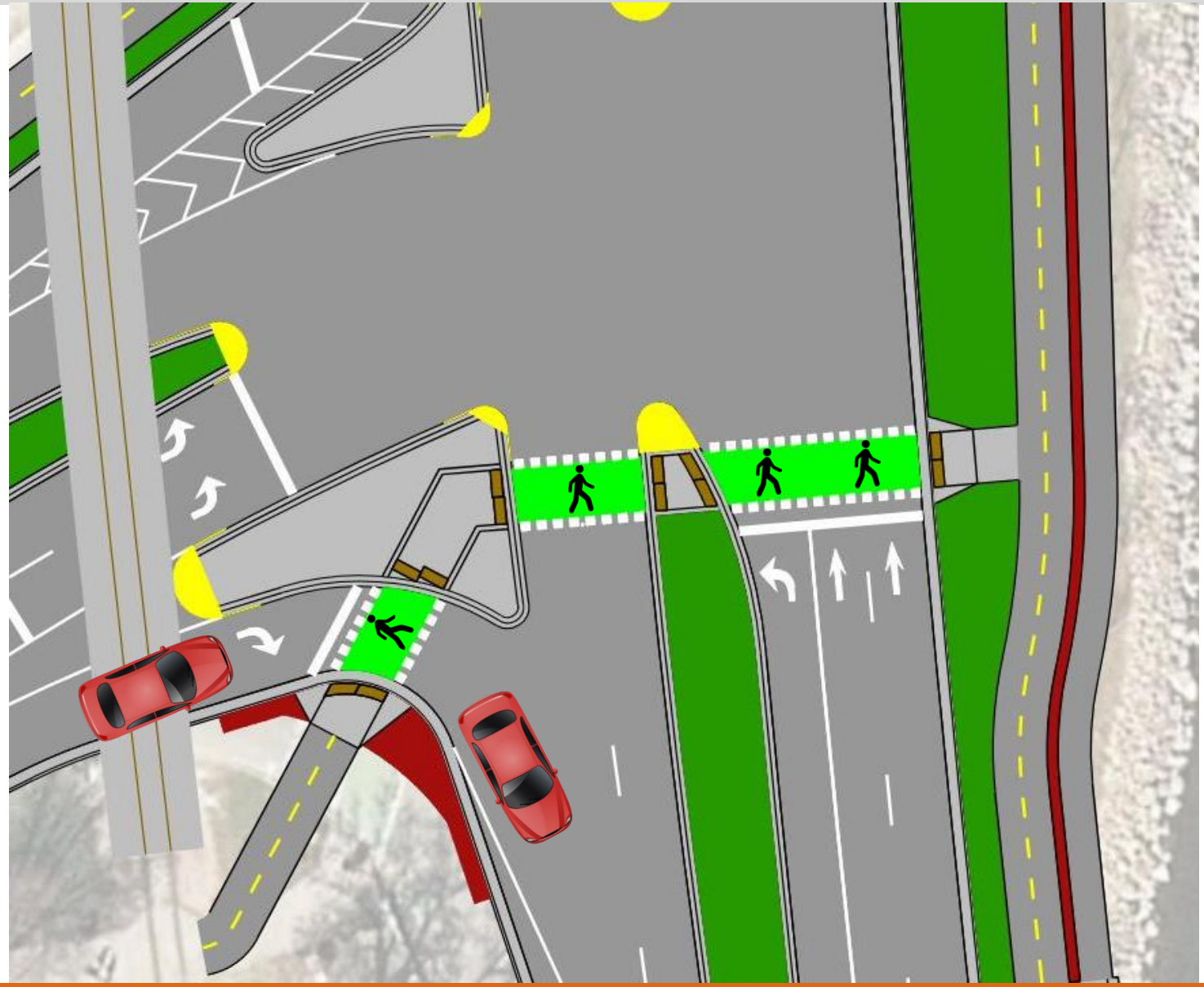
**With a Refuge Island:**

The channelization of the right turns allow the right turn lane to be controlled independently of the through lanes and walk signal. **Pedestrians/cyclists are able to cross** on the walk signal without conflict from **right turning vehicles**. Pedestrians/cyclists are able to cross the right turn lane on their own phase.

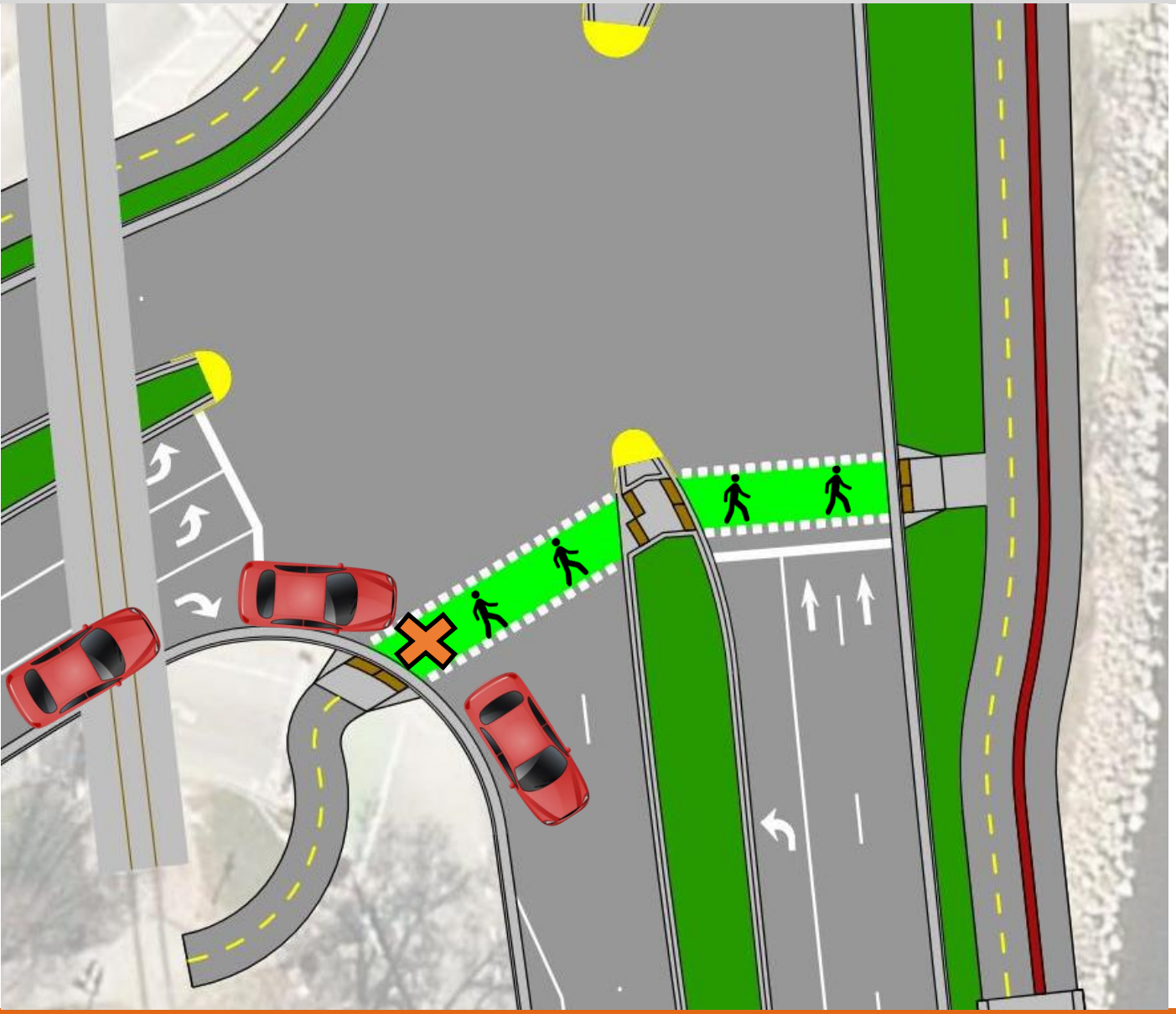
No right-turn-on-red compliance is better at channelized crossing (a focus of Vision Zero).

A channelized right turn lane can be a raised crossing.

The disadvantages include performing this crossing maneuver in multiple stages and waiting in a limited size island.



# Intersections – Right Turns



**Without a Refuge Island:**

**Right turning vehicles** have the same signal phase as the walk phase for **pedestrians/cyclists crossing**. This concurrent walk signal and right turn green light increases **conflicts between peds/cyclists and right turning vehicles**. Delays for both peds/cyclists and right turning vehicles increases.

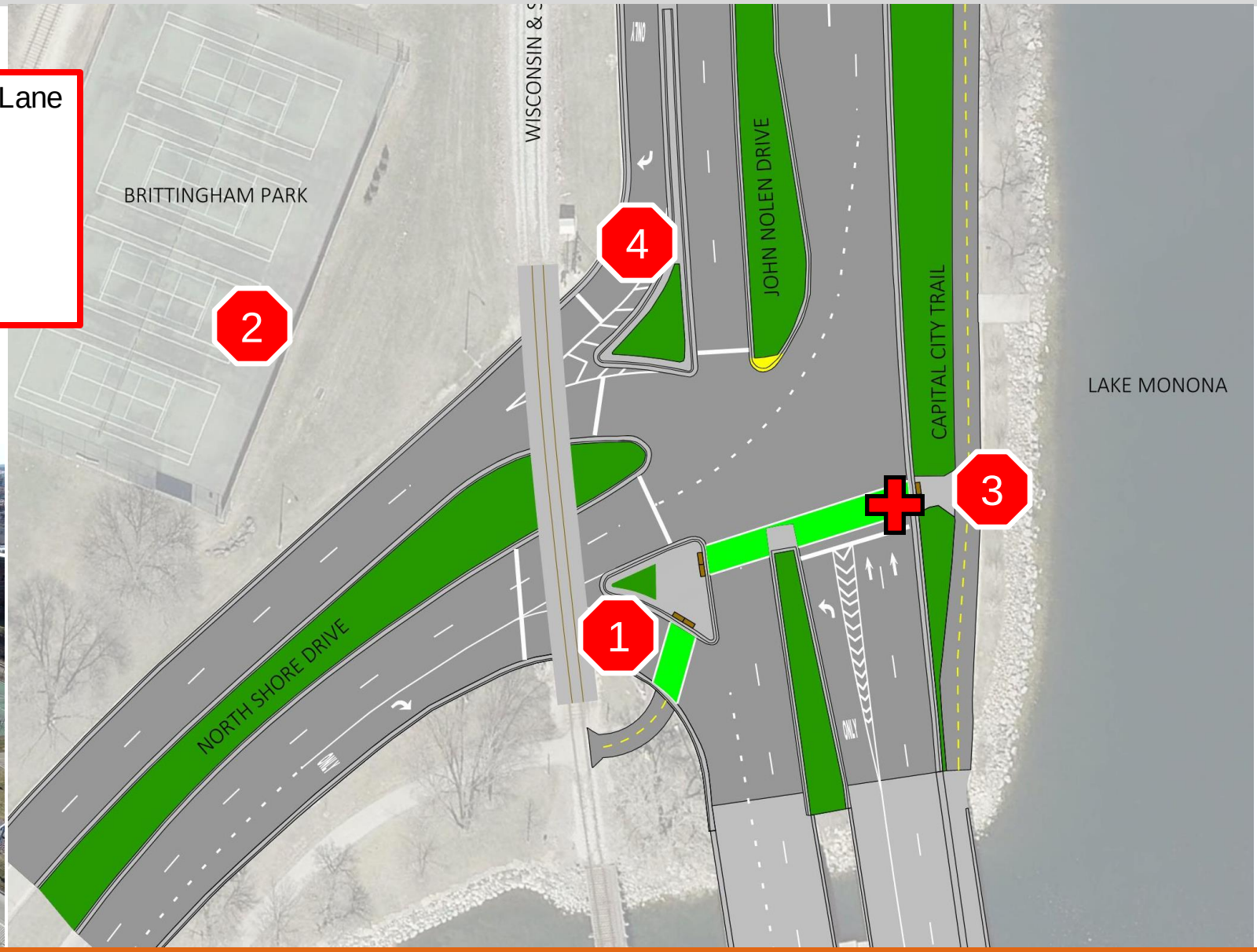
Without channelizing (refuge island), curb radii are large enough to allow for truck turning movements, which creates longer and more exposed ped/cyclist crossings (often experiencing higher operating speeds).

The advantages include performing this crossing maneuver in a single stage and plenty of storage for peds/cyclists is available on the side of the roadway.

# North Shore Drive Intersection – Existing

**(1)** Wide Large Radii Right Turn into Dedicated Merge Lane
**(2)** Limited Access to Brittingham Park
**(3)** Single Crossing of John Nolen Drive
**(4)** Wide Large Radii Right Turn

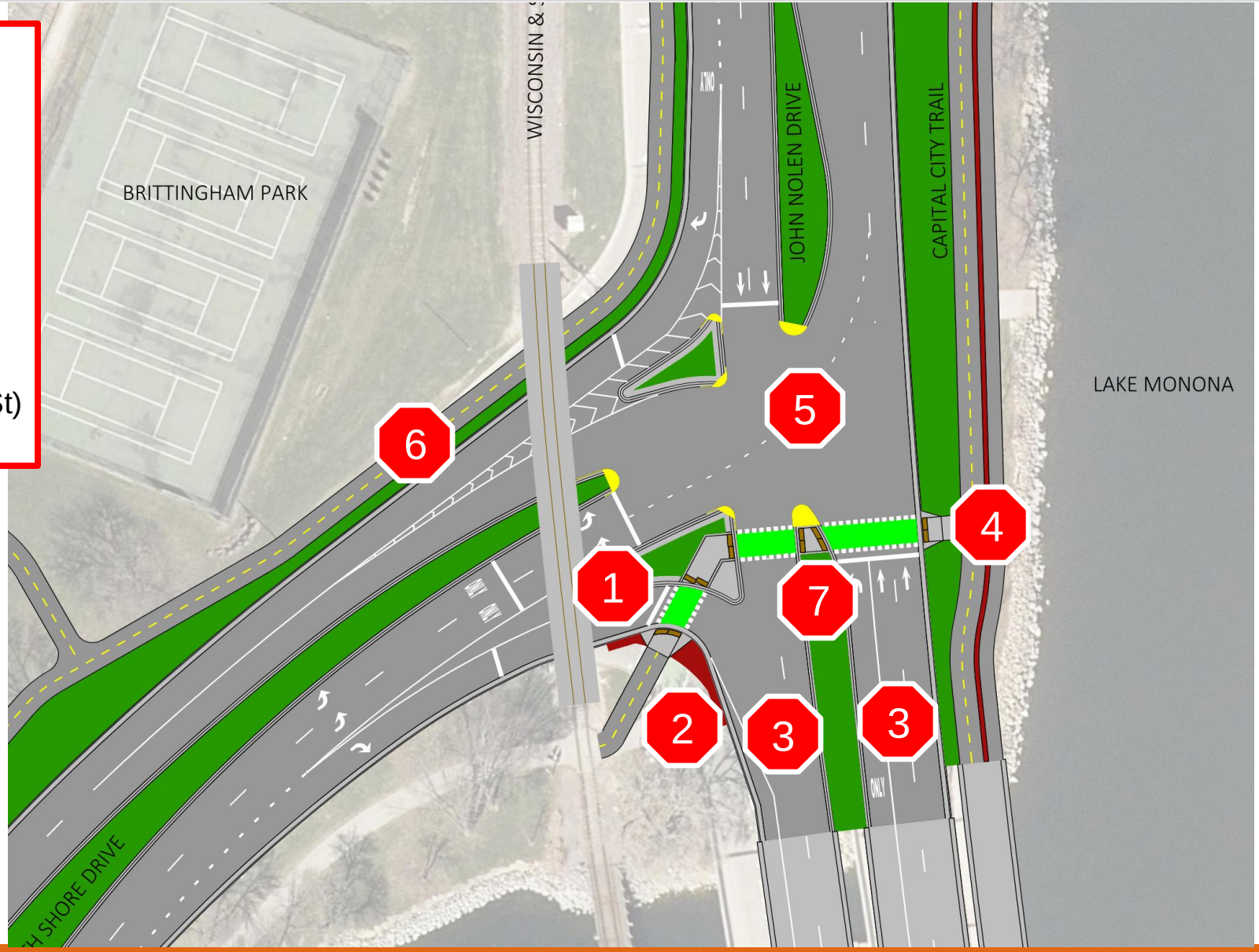
**(+)** October 2022 Cyclist Fatality



# North Shore Drive Intersection – Alt 1 (Single Crossing w/ Island)

**(1)** Smaller Radius Intersection to Calm Traffic
(Remove Merge Lane)
**(2)** Tracking Pavement for Larger Turning Vehicles
**(3)** Narrower Roadway Lanes to Calm Traffic
(Reduced Pavement)
**(4)** Single Crossing of John Nolen Drive (Single-Stage)
(Reduced 14-ft)
**(5)** Traffic Signal with Head per Lane
(Increased Driver Awareness & Compliance)
**(6)** Pathway with Access to Brittingham Park
(Connections to Bedford St, Bassett St, & Broom St)
**(7)** Improved Median Refuge

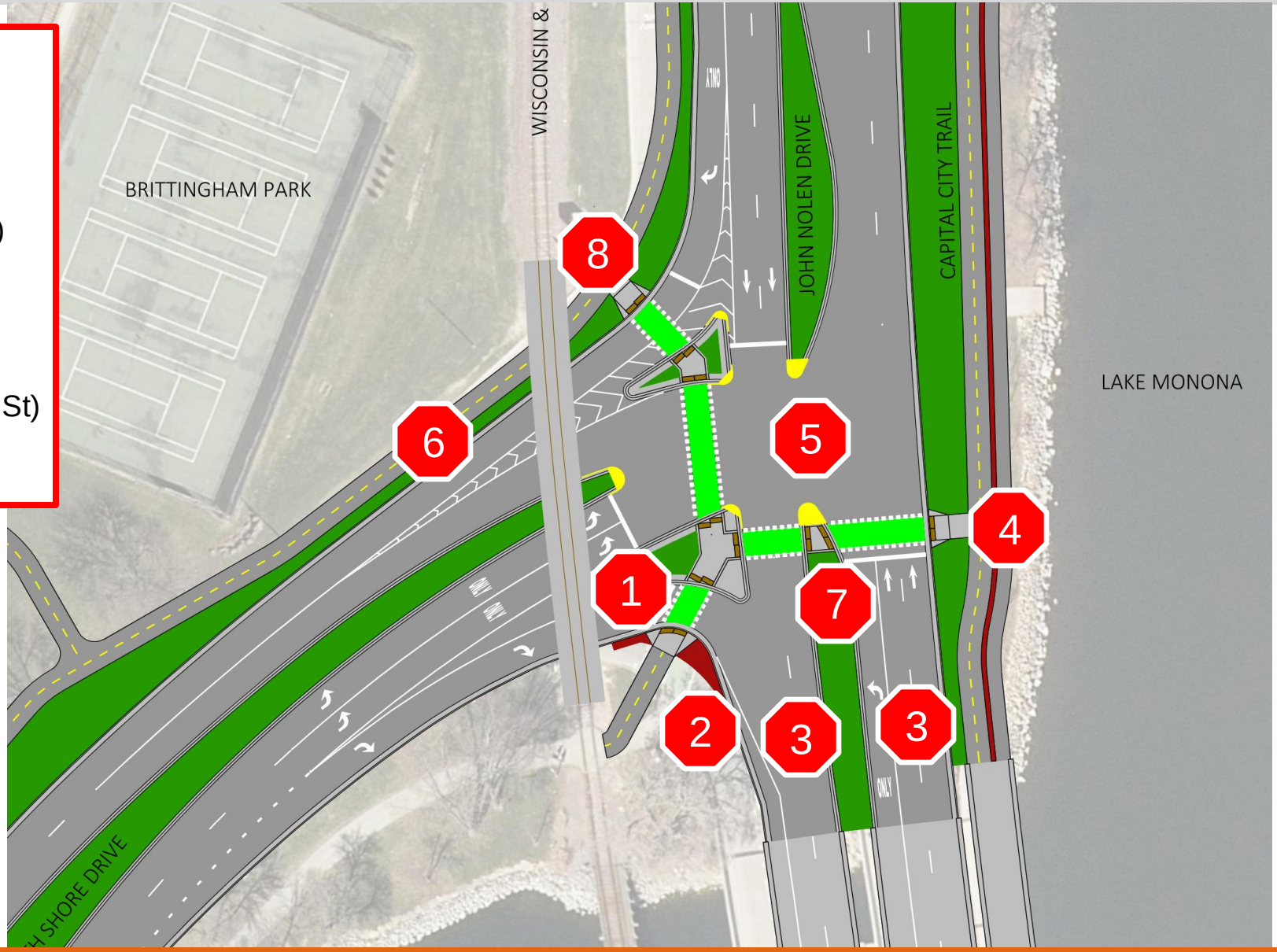
| | ADDITIONAL OPERATIONAL DELAY PER VEHICLE (SECONDS) | |
|---|---|---|
| | **JND** | **NSD** |
| **ALT 1** | **---** | **+5** |
| ALT 2 | --- | +5 |
| ALT 3 | +10 | --- |
| ALT 4 | +35 | +80 |



# North Shore Drive Intersection – Alt 2 (Single "L" Crossing w/ Islands)

**(1)** Smaller Radius Intersection to Calm Traffic
(Remove Merge Lane)
**(2)** Tracking Pavement for Larger Turning Vehicles
**(3)** Narrower Roadway Lanes to Calm Traffic
(Reduced Pavement)
**(4)** Single Crossing of John Nolen Drive (Single Stage)
(Reduced 14-ft)
**(5)** Traffic Signal with Head per Lane
(Increased Driver Awareness & Compliance)
**(6)** Pathway with Access to Brittingham Park
(Connections to Bedford St, Bassett St, & Broom St)
**(7)** Improved Median Refuge
**(8)** Crossing of North Shore Drive

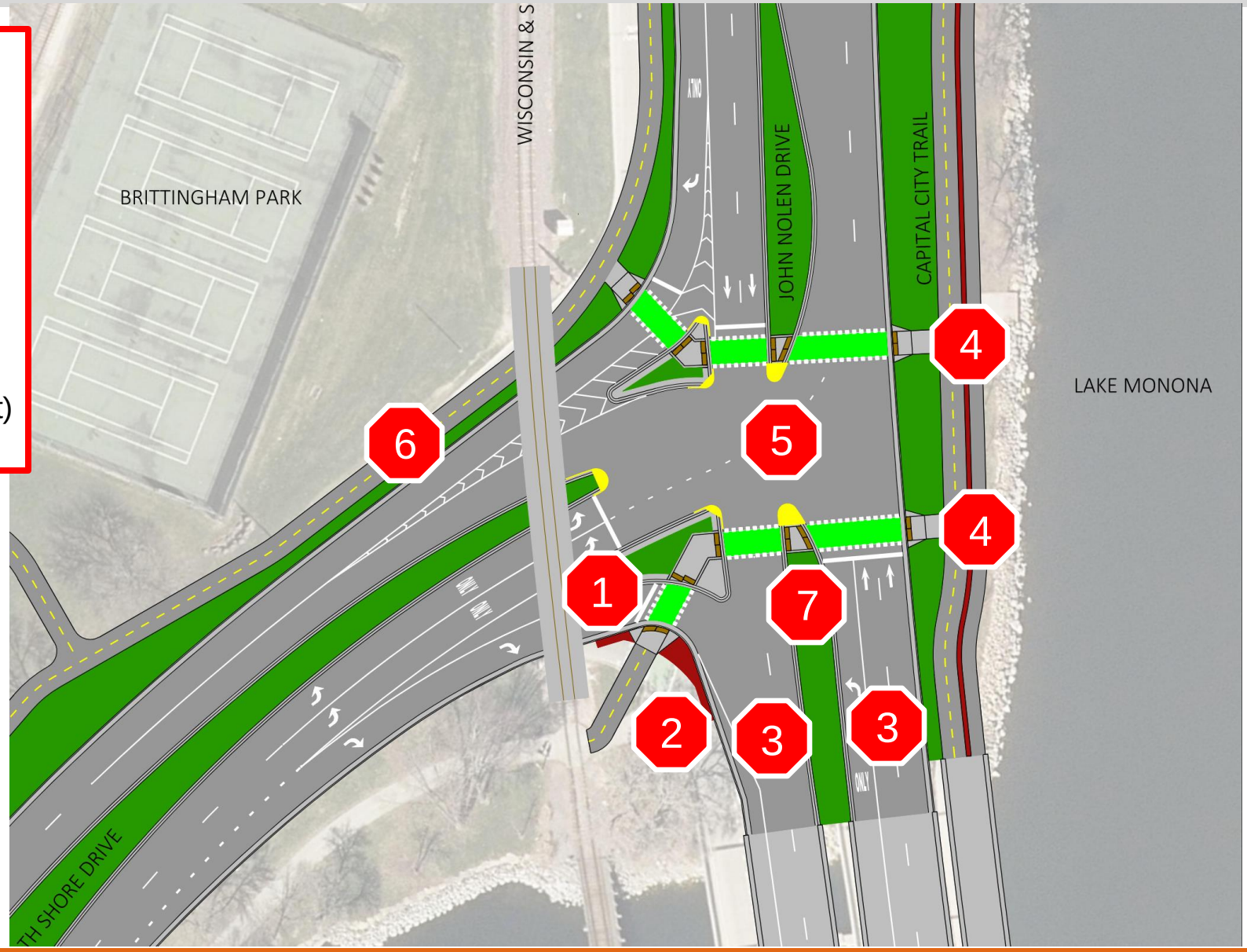
| | ADDITIONAL OPERATIONAL DELAY PER VEHICLE (SECONDS) | |
|---|---|---|
| | **JND** | **NSD** |
| ALT 1 | --- | +5 |
| **ALT 2** | **---** | **+5** |
| ALT 3 | +10 | --- |
| ALT 4 | +35 | +80 |



# North Shore Drive Intersection – Alt 3 (Dual Crossings w/ Islands)

**(1)** Smaller Radius Intersection to Calm Traffic
(Remove Merge Lane)
**(2)** Tracking Pavement for Larger Turning Vehicles
**(3)** Narrower Roadway Lanes to Calm Traffic
(Reduced Pavement)
**(4)** Dual Crossings of John Nolen Drive (Single Stage)
(Reduced 14-ft)
**(5)** Traffic Signal with Head per Lane
(Increased Driver Awareness & Compliance)
**(6)** Pathway with Access to Brittingham Park
(Connections to Bedford St, Bassett St, & Broom St)
**(7)** Improved Median Refuge

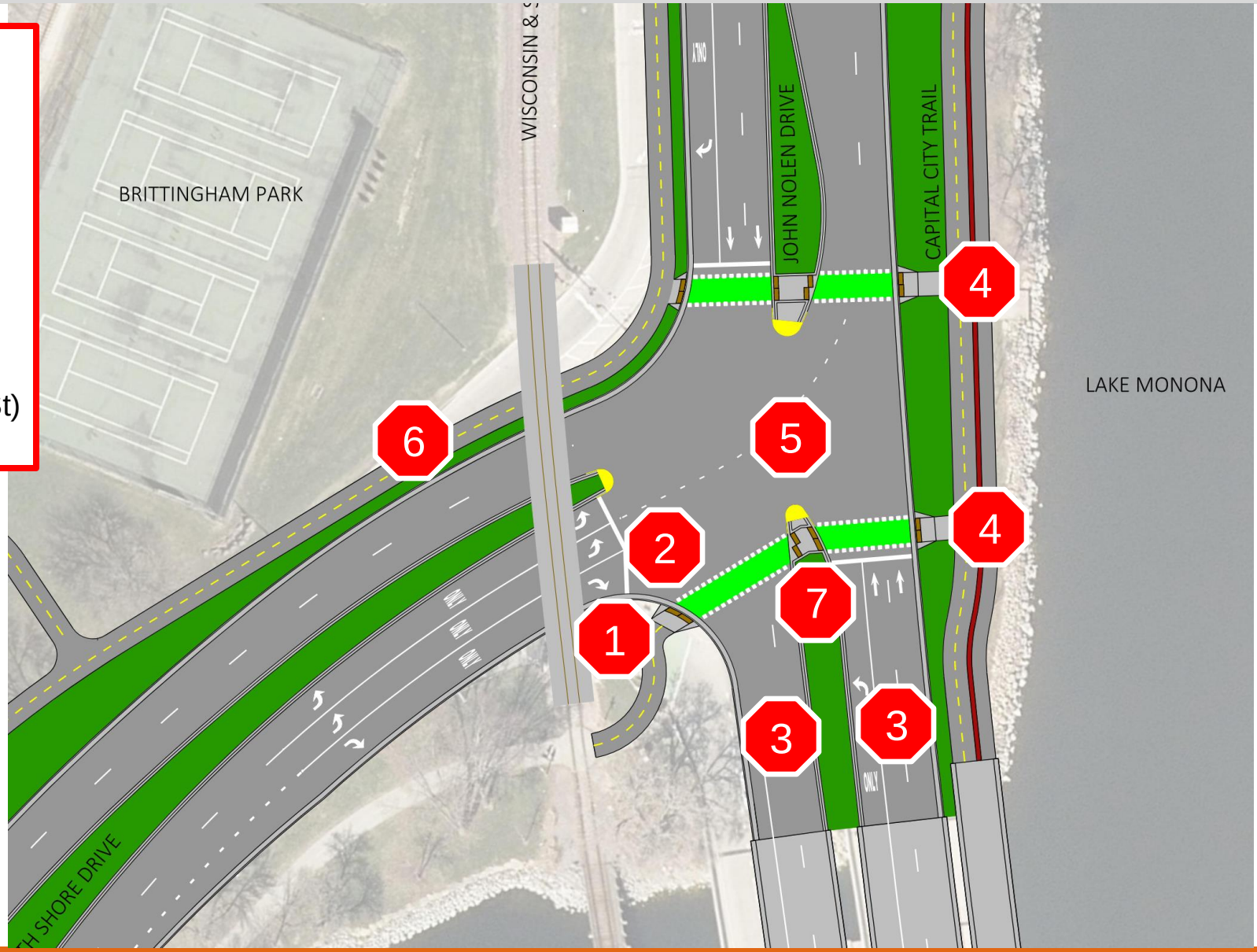
| | ADDITIONAL OPERATIONAL DELAY PER VEHICLE (SECONDS) | |
|---|---|---|
| | **JND** | **NSD** |
| ALT 1 | --- | +5 |
| ALT 2 | --- | +5 |
| **ALT 3** | **+10** | **---** |
| ALT 4 | +35 | +80 |



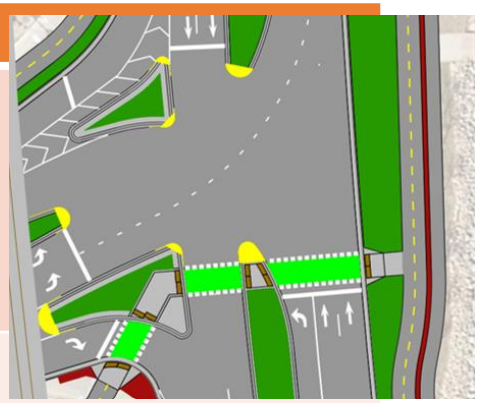
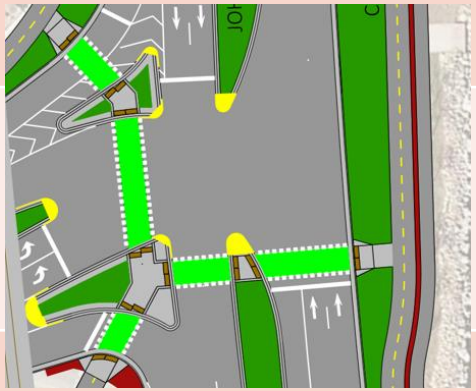
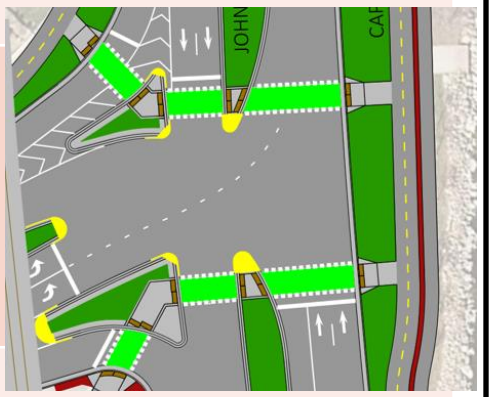
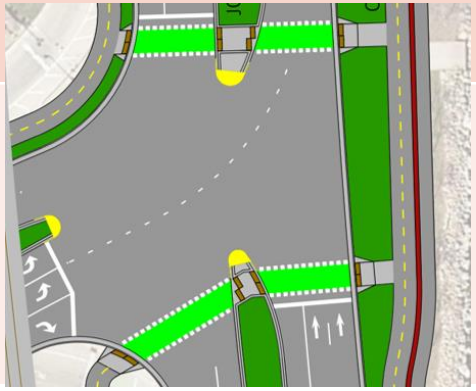
# North Shore Drive Intersection – Alt 4 (Dual Crossings w/o Islands)

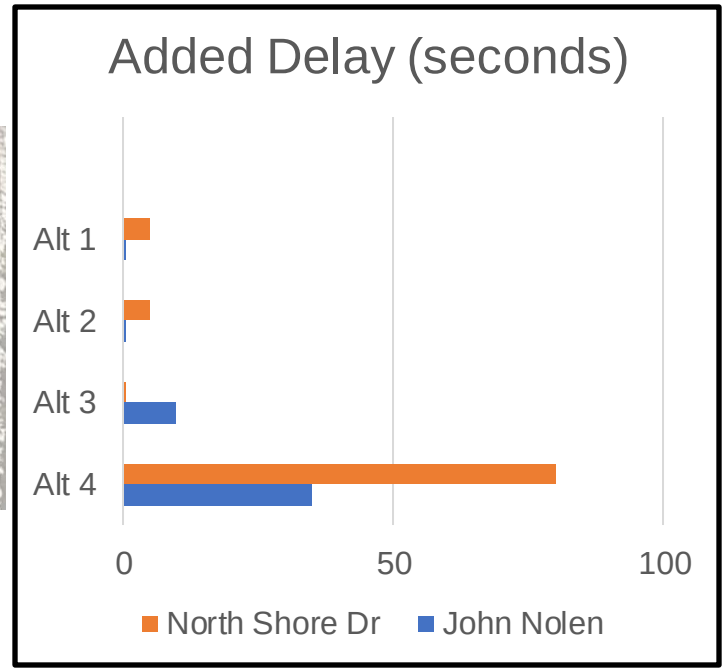
**(1)** Larger Radius for Turning Vehicles
(Remove Merge Lane)
**(2)** Curbed Island (Channelized Right) Removed
**(3)** Narrower Roadway Lanes to Calm Traffic
(Reduced Pavement)
**(4)** Dual Crossings of John Nolen Drive (Single Stage)
(Reduced 14-ft)
**(5)** Traffic Signal with Head per Lane
(Increased Driver Awareness & Compliance)
**(6)** Pathway with Access to Brittingham Park
(Connections to Bedford St, Bassett St, & Broom St)
**(7)** Improved Median Refuge

| | ADDITIONAL OPERATIONAL DELAY PER VEHICLE (SECONDS) | |
|---|---|---|
| | **JND** | **NSD** |
| ALT 1 | --- | +5 |
| ALT 2 | --- | +5 |
| ALT 3 | +10 | --- |
| **ALT 4** | **+35** | **+80** |



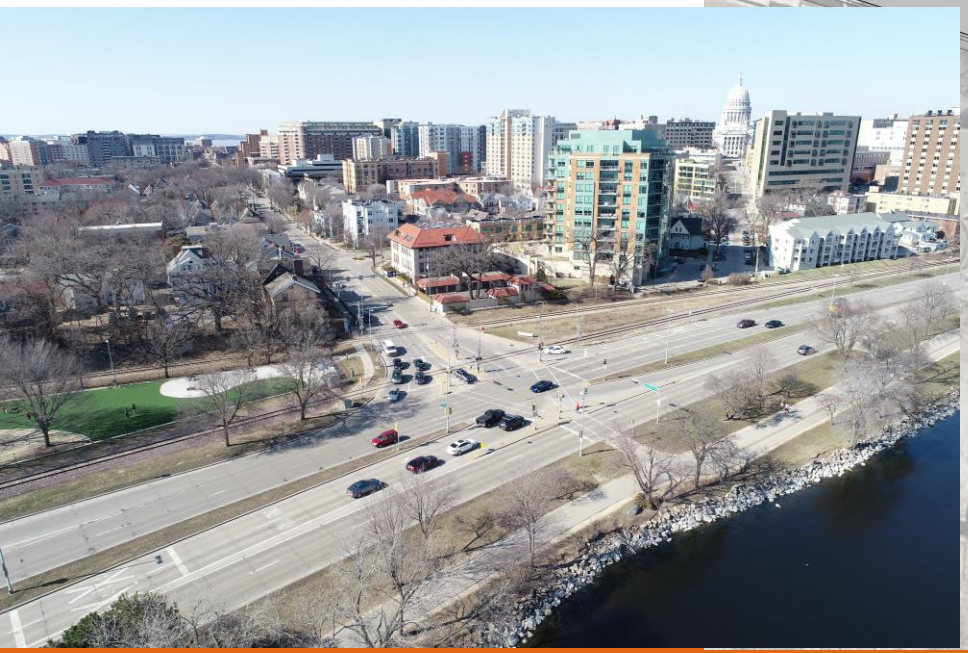
# North Shore Drive Intersection – POLLING

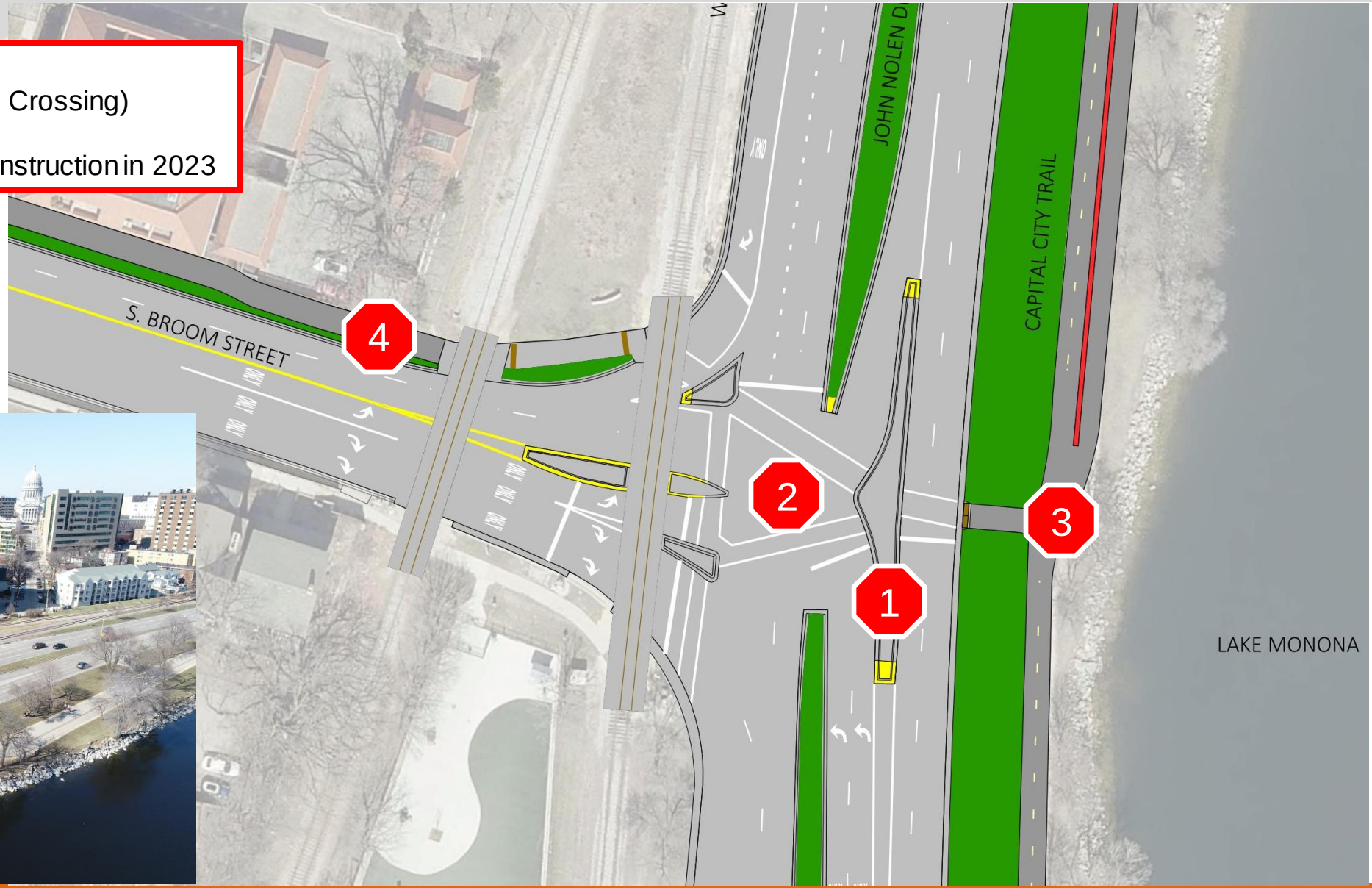
| | NOTES | DETAILS |
|---|---|---|
| **ALT 1** | Single Crosswalk w/ Islands<br>+0 Sec Delay (JND)<br>+5 Sec Delay (NSD) |  |
| **ALT 2** | Single “L” Crosswalk w/ Islands<br>+0 Sec Delay (JND)<br>+5 Sec Delay (NSD) |  |
| **ALT 3** | Dual Crosswalks w/ Islands<br>+10 Sec Delay (JND)<br>+0 Sec Delay (NSD) |  |
| **ALT 4** | Dual Crosswalks w/o Islands<br>+35 Sec Delay (JND)<br>+80 Sec Delay (NSD) |  |



# Broom Street Intersection – Existing

**(1)** Protected-T Intersection
**(2)** Pedestrian Confusion (Non-Typical Crossing)
**(3)** Crossing of John Nolen Drive
**(4)** Broom Street Shared-Use Path Construction in 2023





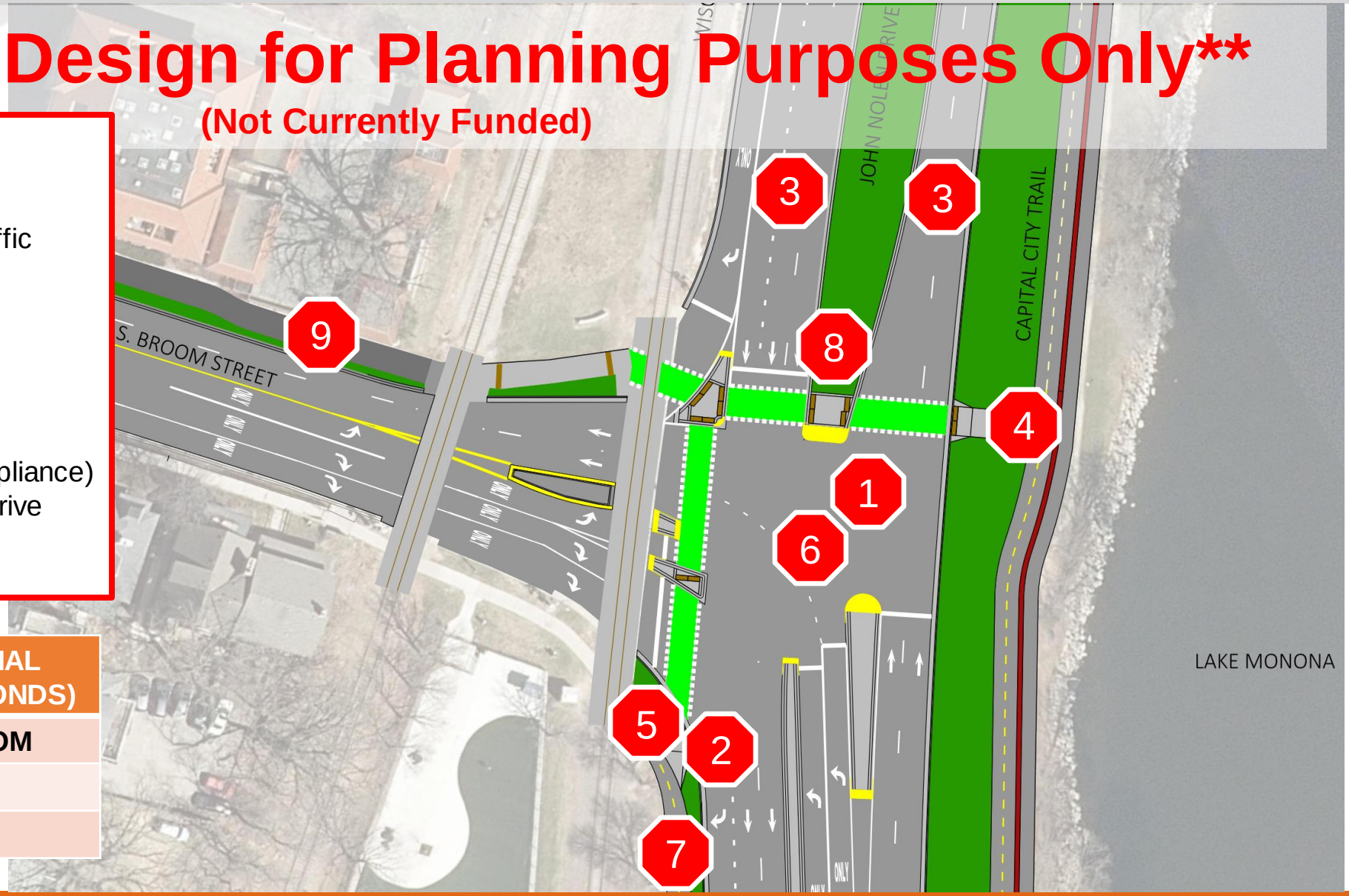
# Broom Street Intersection – Alt 1 (Conventional-T)

****Conceptual Design for Planning Purposes Only****

**(Not Currently Funded)**

**(1)** Conventional-T Intersection (Simpler/Safer Crossing)
**(2)** Smaller Radius for Turning Vehicles
**(3)** Narrower Roadway Lanes to Calm Traffic (Reduced Pavement)
**(4)** Single Crossing of John Nolen Drive (Reduced 28-ft)
**(5)** Single Crossing of Broom Street (Reduced 15-ft)
**(6)** Traffic Signal with Head per Lane (Increased Driver Awareness & Compliance)
**(7)** Pathway with Access to North Shore Drive
**(8)** Improved Median Refuge
**(9)** Shared-Use Path Construction in 2023

| | ADDITIONAL OPERATIONAL DELAY PER VEHICLE (SECONDS) | |
|---|---|---|
| | **JND** | **BROOM** |
| **ALT 1** | **+10** | **-5** |
| ALT 2 | +10 | -5 |



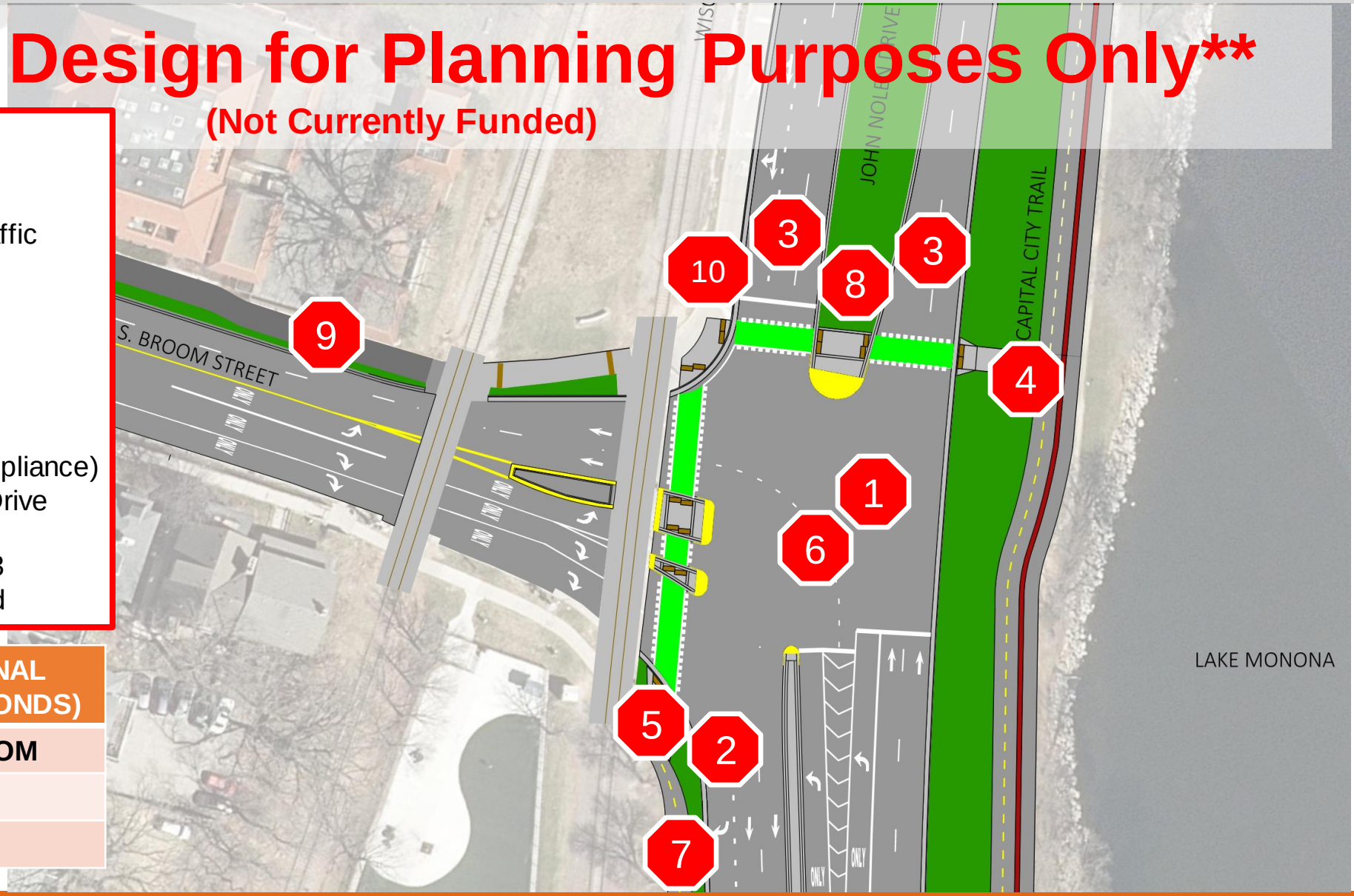
# Broom Street Intersection – Alt 2 (Conventional-T w/o Right Turn Lane)

## **Conceptual Design for Planning Purposes Only**

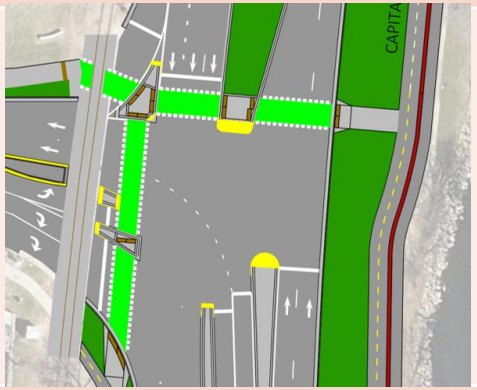
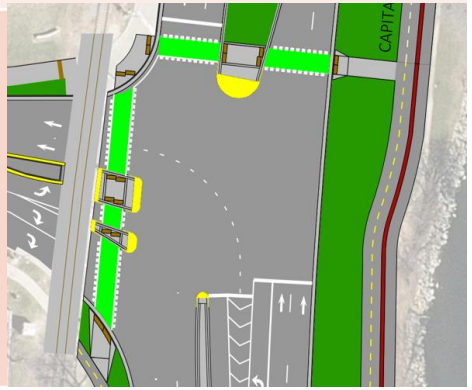
**(Not Currently Funded)**

**(1)** Conventional-T Intersection
(Simpler/Safer Crossing)
**(2)** Smaller Radius for Turning Vehicles
**(3)** Narrower Roadway Lanes to Calm Traffic
(Reduced Pavement)
**(4)** Single Crossing of John Nolen Drive
(Reduced 59-ft)
**(5)** Single Crossing of Broom Street
(Reduced 41-ft)
**(6)** Traffic Signal with Head per Lane
(Increased Driver Awareness & Compliance)
**(7)** Pathway with Access to North Shore Drive
**(8)** Improved Median Refuge
**(9)** Shared-Use Path Construction in 2023
**(10)** Dedicated Right Turn Lane Removed

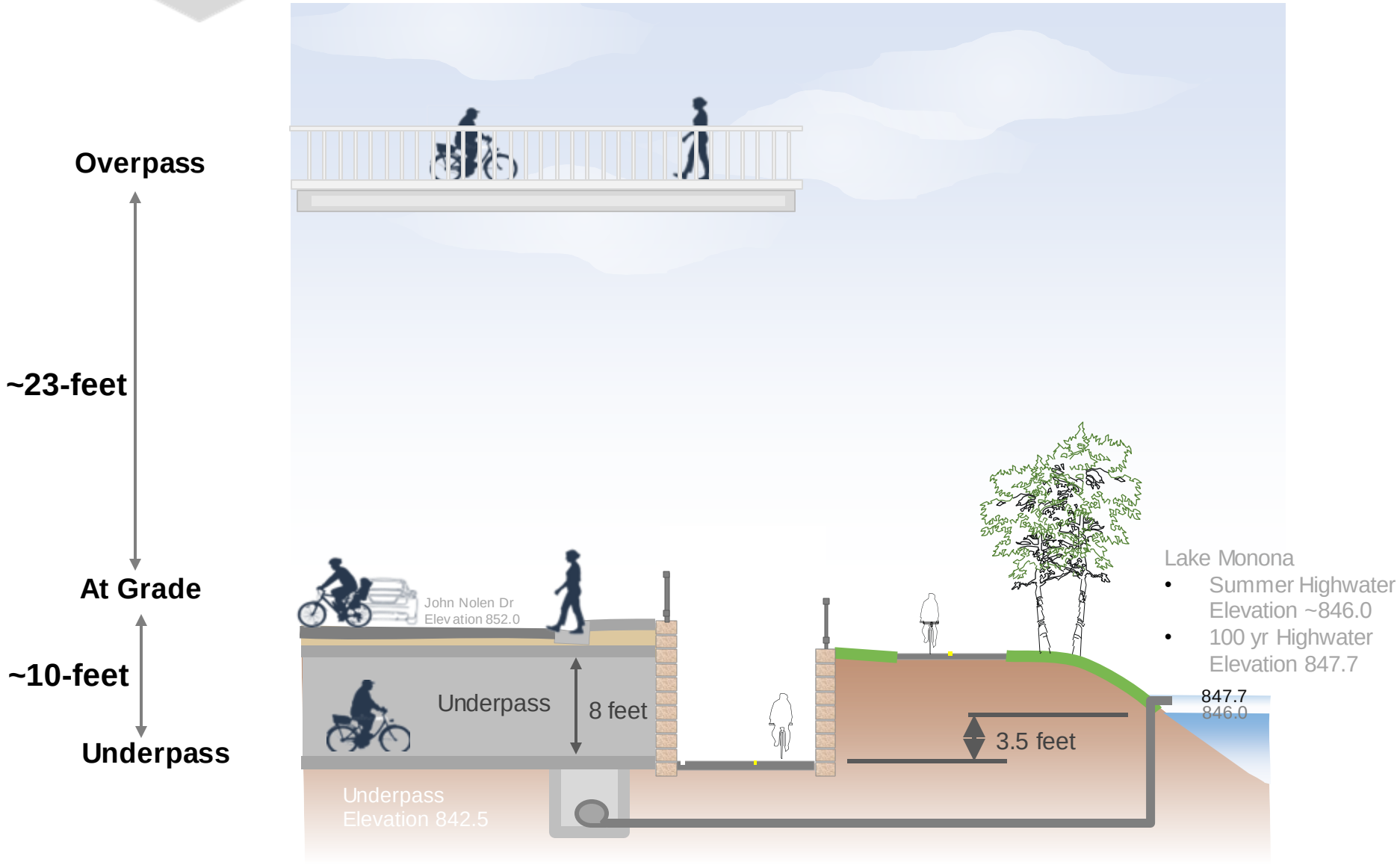
| | ADDITIONAL OPERATIONAL DELAY PER VEHICLE (SECONDS) | |
|---|---|---|
| | **JND** | **BROOM** |
| ALT 1 | +10 | -5 |
| **ALT 2** | **+10** | **-5** |



# Broom Street Intersection – POLLING

| | NOTES | DETAILS |
|---|---|---|
| **EXISTING**<br>(No Change) | Protected-T Intersection |  |
| **ALT 1** | Conventional-T Intersection<br>Includes Southbound Right Turn Lane<br>+10 Sec Delay (JND)<br>-5 Sec Delay (Broom) |  |
| **ALT 2** | Conventional-T Intersection<br>Removes Southbound Right Turn Lane<br>+10 Sec Delay (JND)<br>-5 Sec Delay (Broom) |  |

# Mobility Crossing Options (North Shore – Broom)



# Mobility Crossing Examples

Underpass (Tunnel) Examples

# Mobility Crossing Examples

Overpass (Bridge) Examples

# Mobility Crossing Options – POLLING

| | DETAILS |
|---|---|
| **UNDERPASS (TUNNEL)** |  |
| **OVERPASS (BRIDGE)** |  |
| **AT-GRADE (STREET-LEVEL)** |  |

# Stormwater Management – Challenges

- High Groundwater

  Roots of plants often underwater (kills plants and undermines treatment within rain gardens, swales, biofiltration, etc.)

- Salt & Sand Application on Street & Pathway

  Sand is challenging to clean/remove from treatment devices or native plantings

  Salt clogs/crusts soil making treatment ineffective and native plants struggle to survive

- Space Constraints

  Treatment takes “green” space away from competing priorities

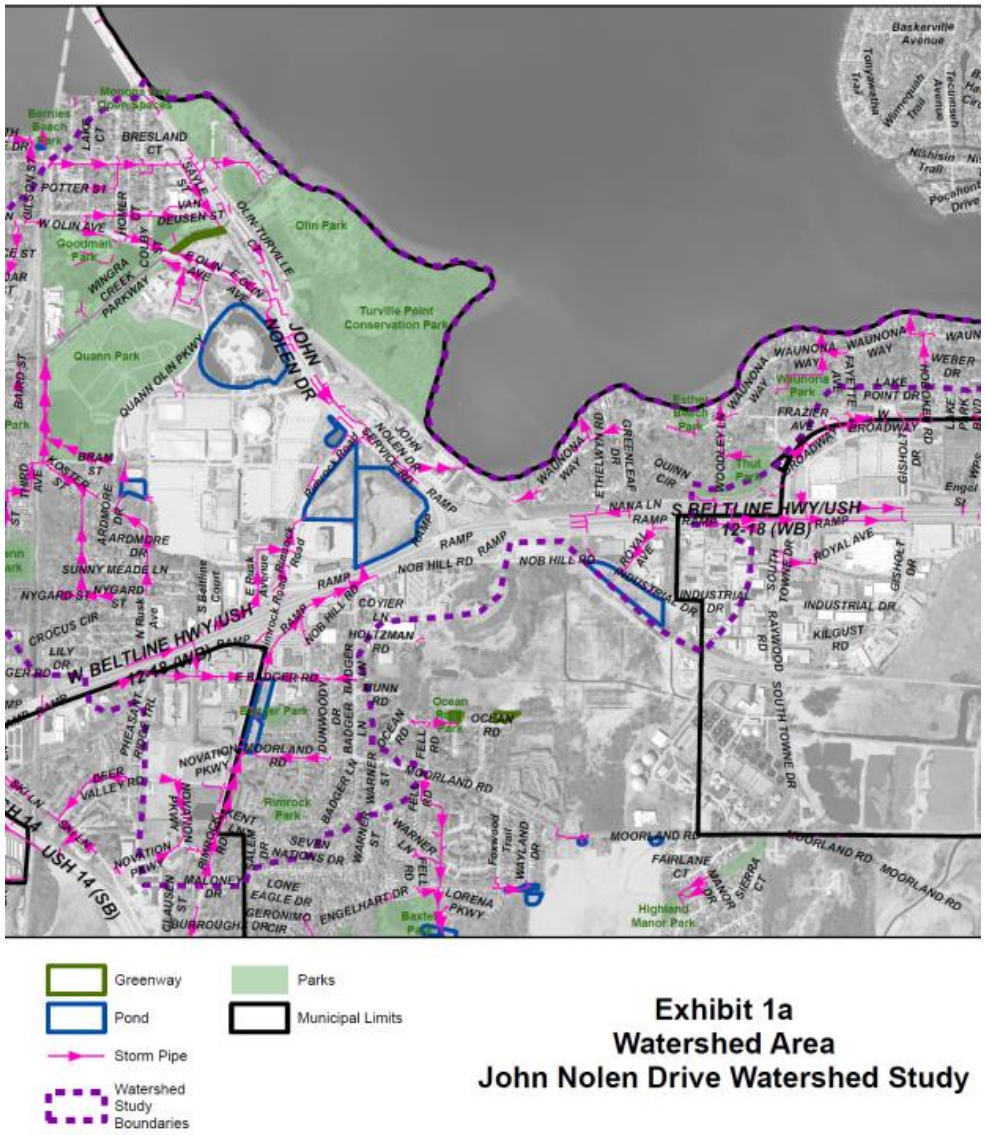
# Stormwater Management – Ongoing Coordination

- John Nolen Drive Watershed Study

https://www.cityofmadison.com/engineering/projects/john-nolen-drive-watershed-study

- Lake Monona Waterfront Design Challenge (Future Master Plan)

https://www.cityofmadison.com/parks/projects/lake-monona-waterfront-design-challenge



# John Nolen Drive Alternatives

*BREAK OUT ROOM [OPTIONAL]*

*Q & A*

# THANK YOU!

- Project Website: https://www.cityofmadison.com/JohnNolenDrive
- Survey link:
- Contact: JohnNolenDrive@cityofmadison.com