Welcome!
We will begin shortly…

Virtual Meeting Schedule	
6:30 – 6:40	Welcome
6:40 – 7:15	Presentation
7:15 – 7:30	Presentation Q & A (General)
7:30 – 8:15	Zoom Breakout Rooms

CITY OF MADISON

Near West and John Nolen Watershed Studies Public Information Meeting No. 3

City of Madison Engineering Division
March 18th, 2025

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Meeting Technical Housekeeping

- This meeting will be **recorded** and posted to the project page.
- All attendees should be **muted** to keep background noise to a minimum.
- Use the **"Q and A"** button for technical issues with meeting to troubleshoot with staff to assist.
- Use the **"Q and A"** button to type questions about presentation. Questions will be answered live after the presentation.
- Inappropriate questions may be dismissed.
- Use the **"raise your hand"** button to verbally ask your question. You will be prompted to unmute when it is your turn.

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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.

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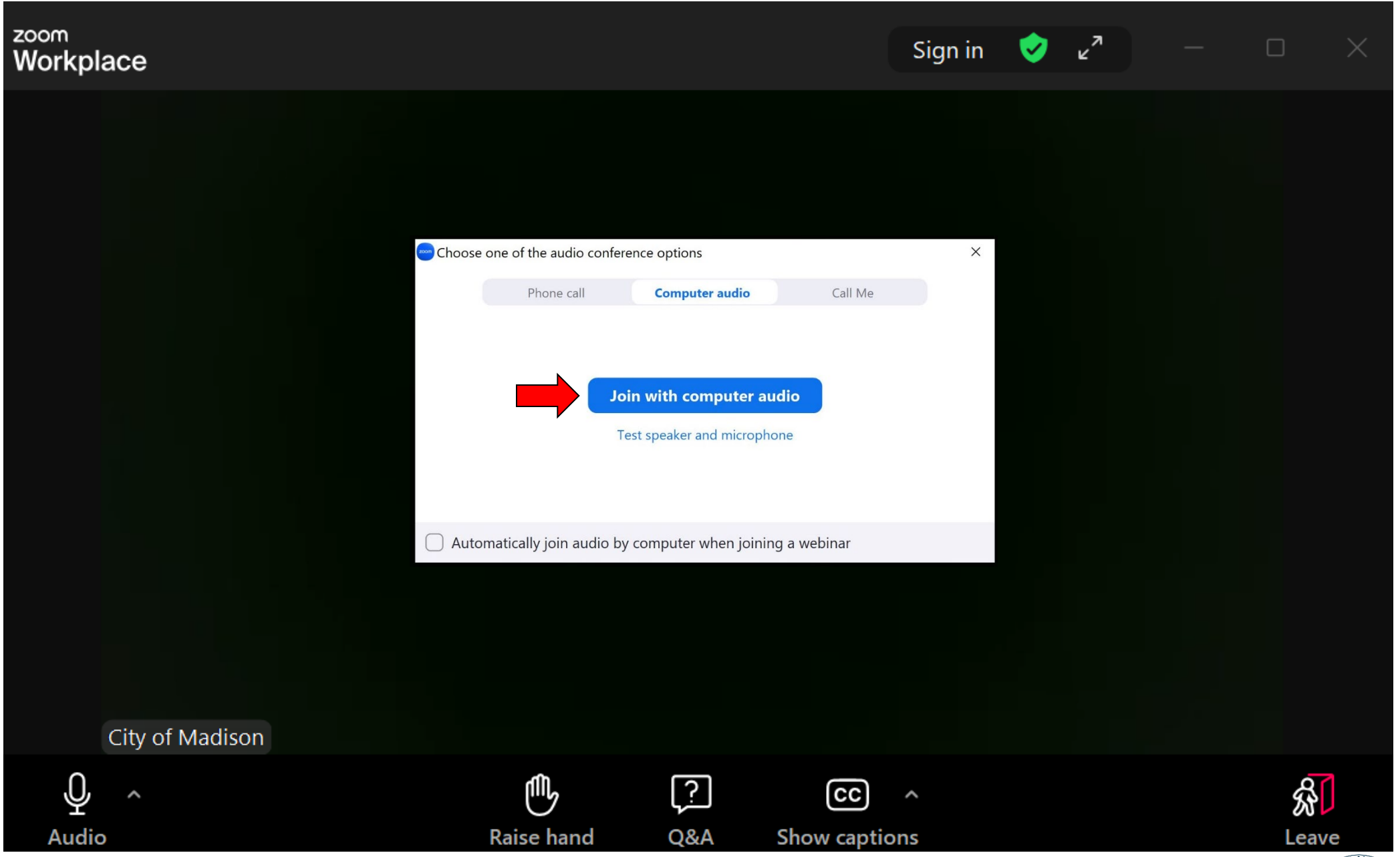
How to Participate



Make sure to join audio

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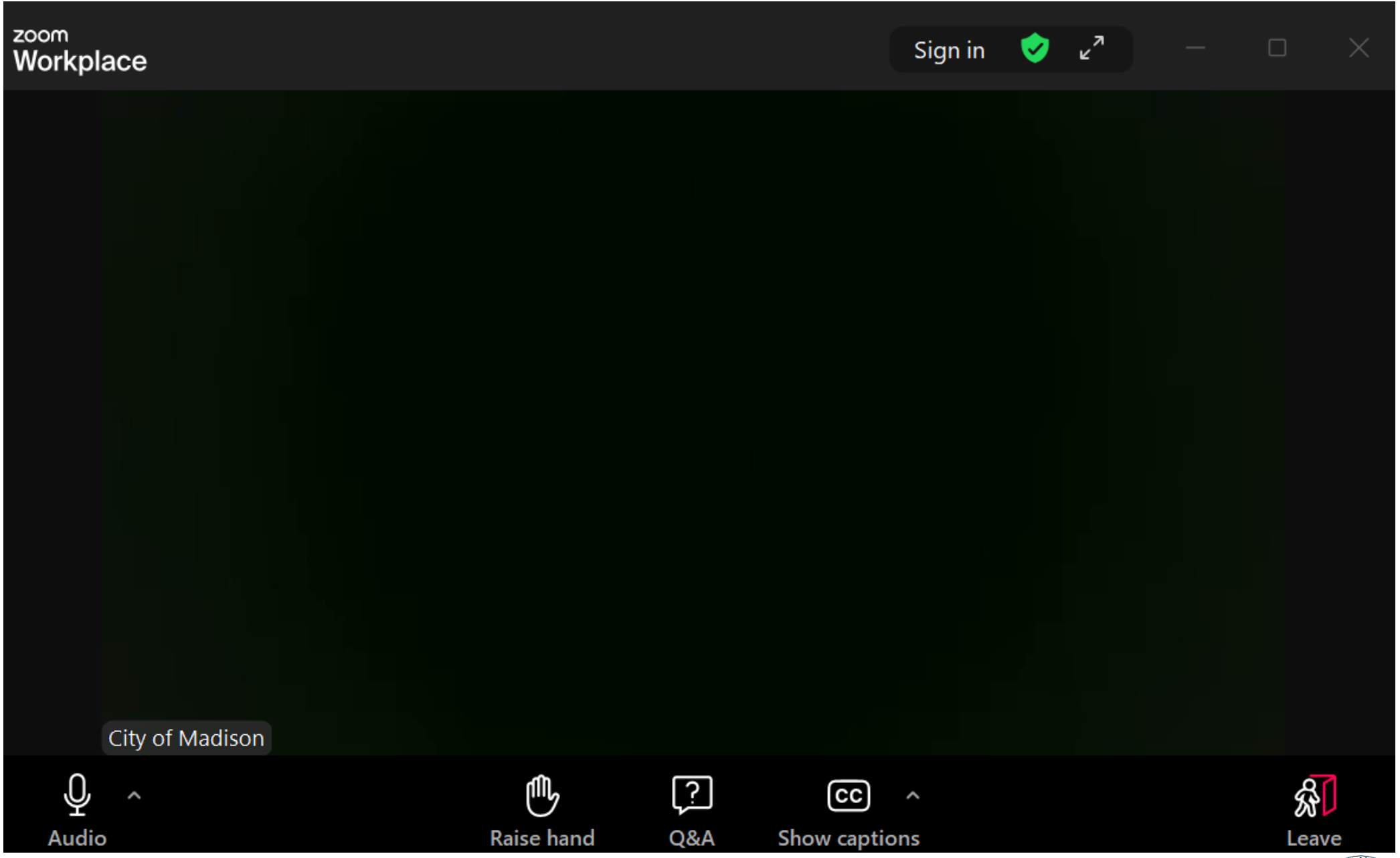
How to Participate



Raise your hand to be unmuted for comments or ask additional questions.

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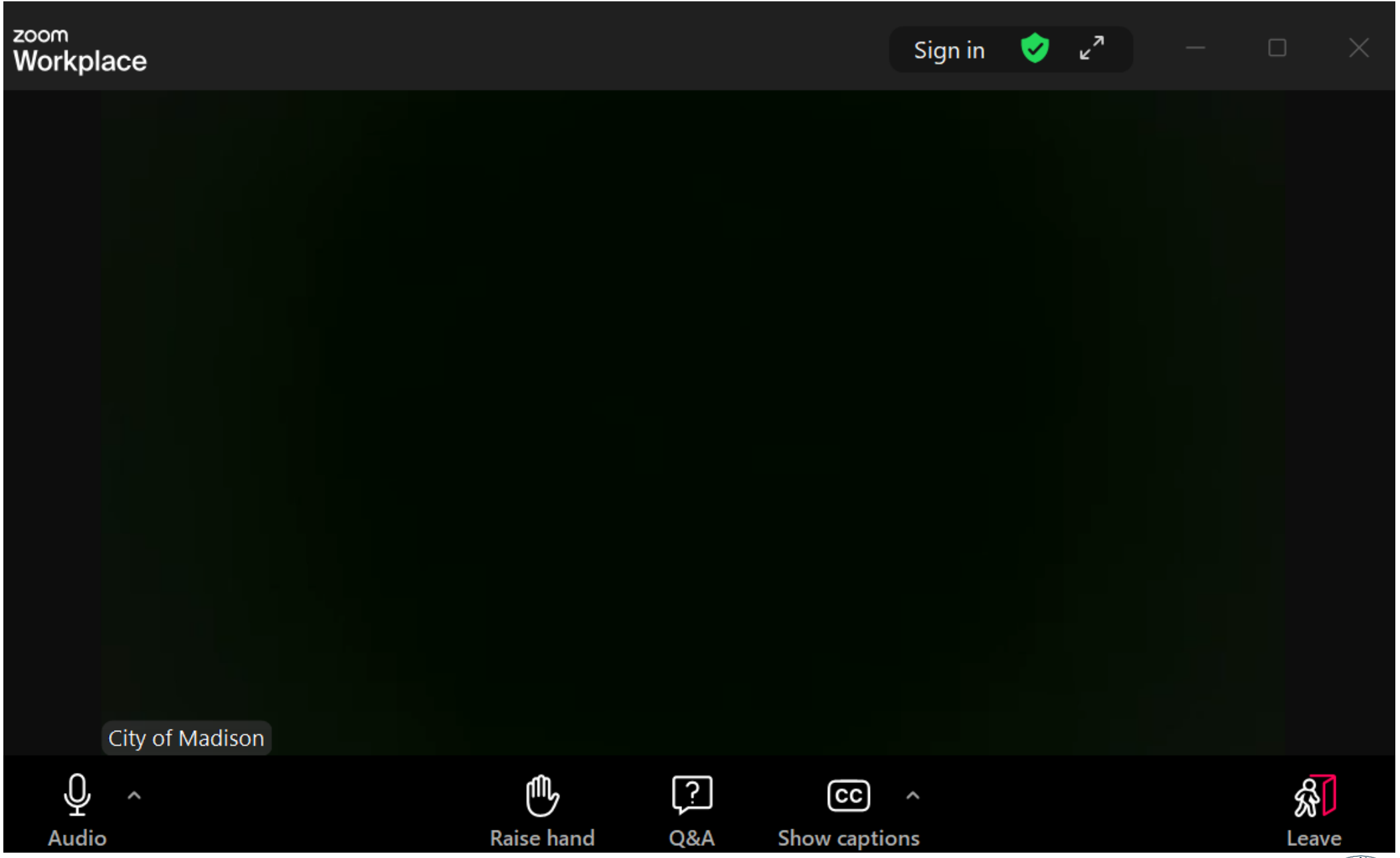
How to Participate



Use Q&A button if you have technical issues or a question for the panelists.

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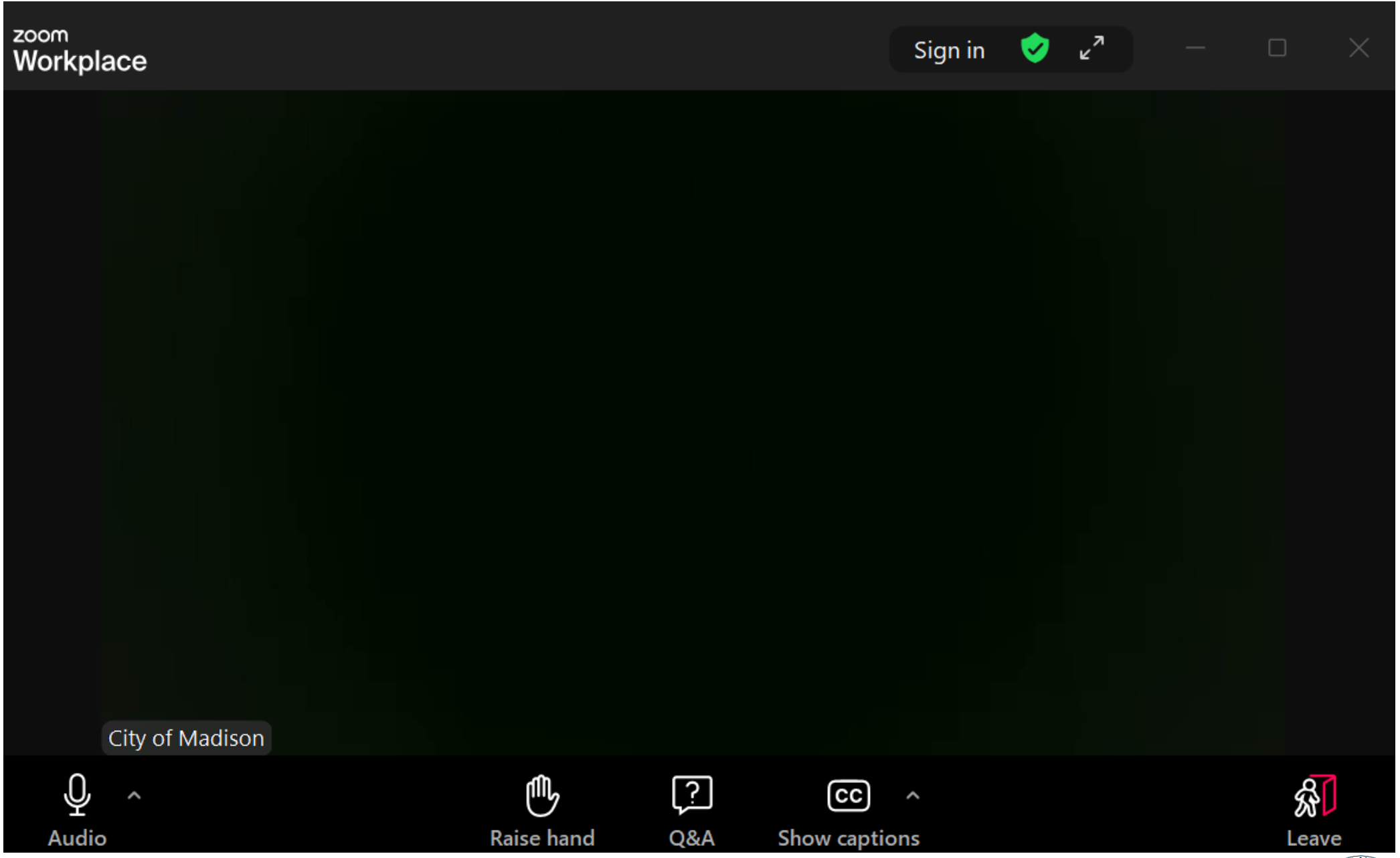
How to Participate



Use Q&A button for all other questions.
We will answer after the presentation.

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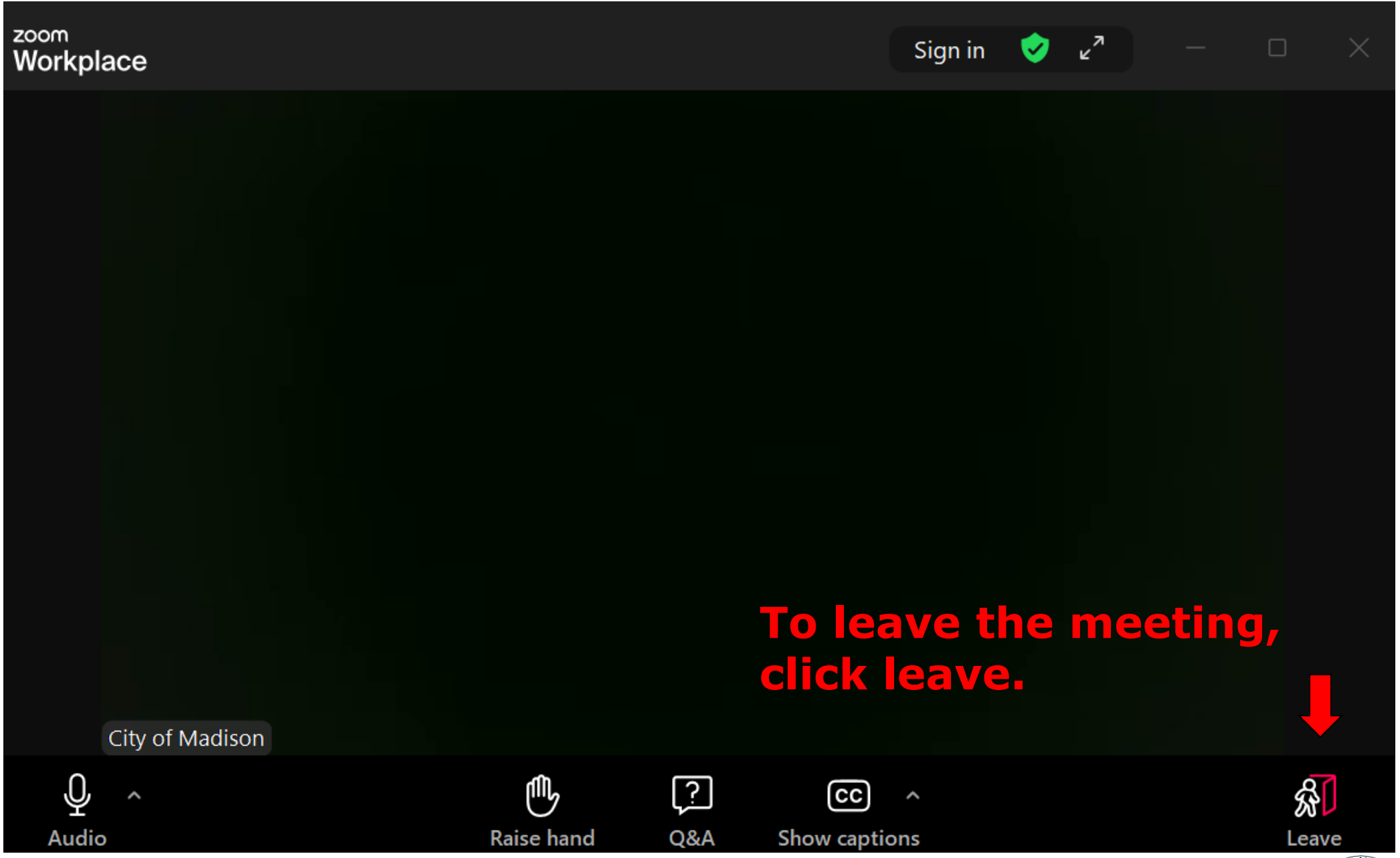
How to Participate



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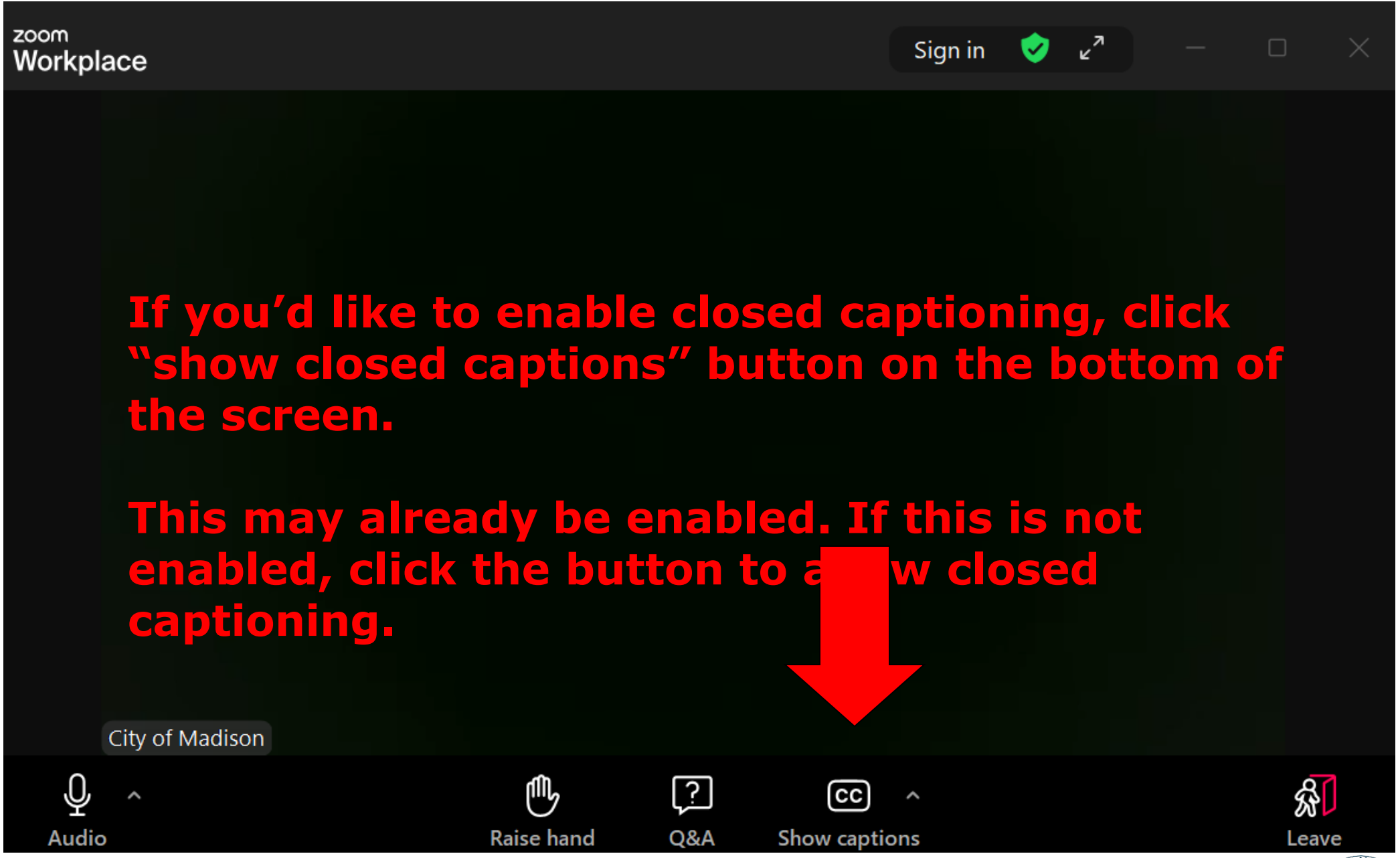
How to Participate



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Project Contact Introductions

- Project Manager: Ryan Stenjem, Stormwater Engineer
- Other City Staff:
  - Hannah Mohelnitzky, Public Information Officer
  - Janet Schmidt, Stormwater Section Manager
  - Greg Fries, Deputy City Engineer- Sanitary, Storm and Landfill

Project Contact Introductions

Alder Information

District 2: Juliana Bennett

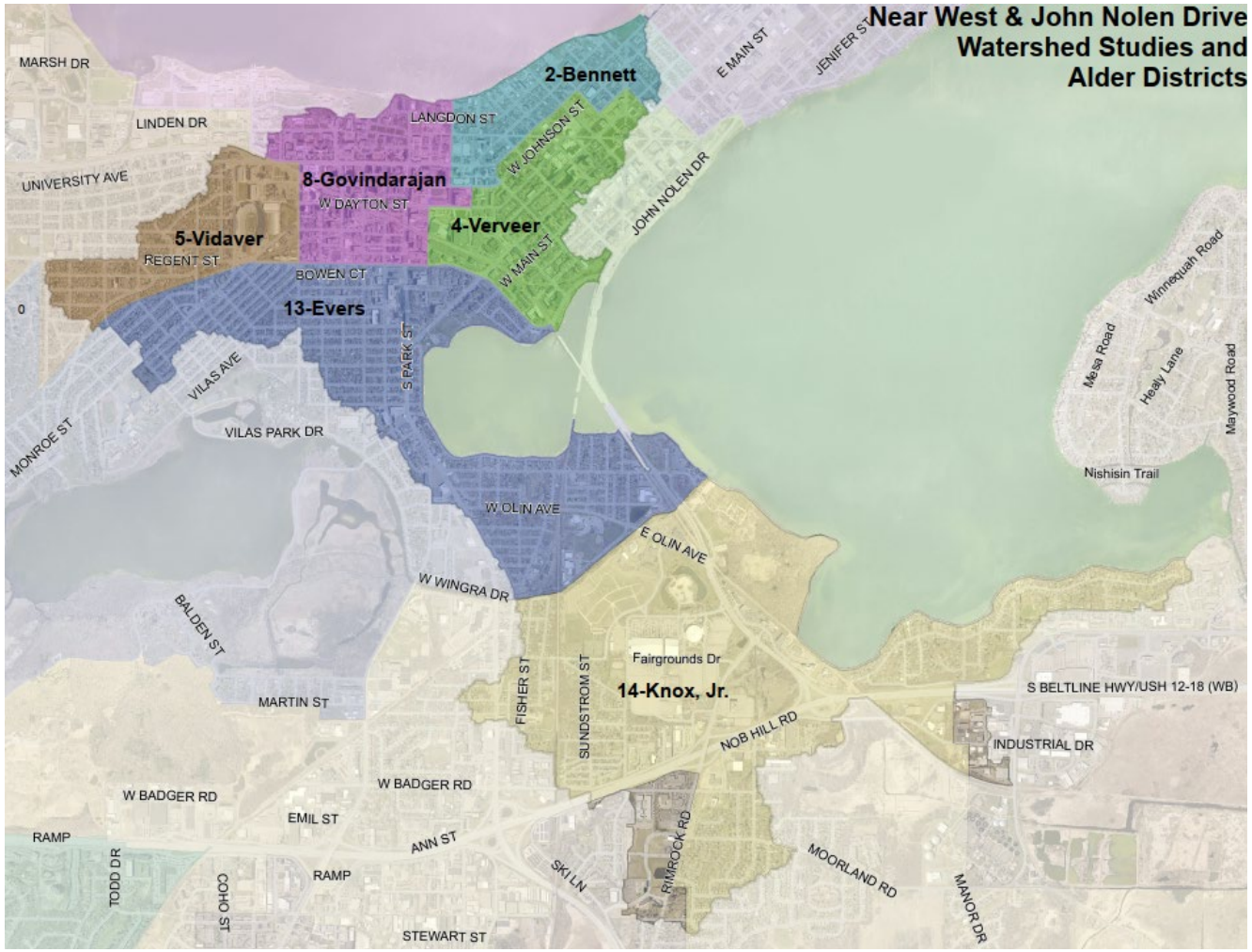
District 4: Michael Verveer

District 5: Regina Vidaver

District 8: Muralidharan (MGR) Govindarajan

District 13: Tag Evers

District 14: Isadore Knox, Jr.



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Evening Overview

- Welcome (Hannah Mohelnitzky, City of Madison)
- Presentation (Eric Thompson, MSA Professional Services)
- Q&A (facilitated by Hannah Mohelnitzky, City of Madison)
  - Submit questions through Zoom “Q and A”
  - Questions answered at the end of the Presentation
- Wrap Up (Ryan Stenjem, City of Madison)
- Breakout Groups (MSA and City of Madison staff)
  - An option to join breakout groups will appear on your screen

Presentation Outline

1. Definitions of commonly used terms
2. Project locations
3. Watershed study schedule
4. Flood mitigation targets
5. Inundation mapping
6. Proposed solutions development process
7. Proposed solutions
   a. Standalone projects
   b. Local storm sewer
8. Implementation and cost
9. Why aren't all flood targets met?
10. Next steps

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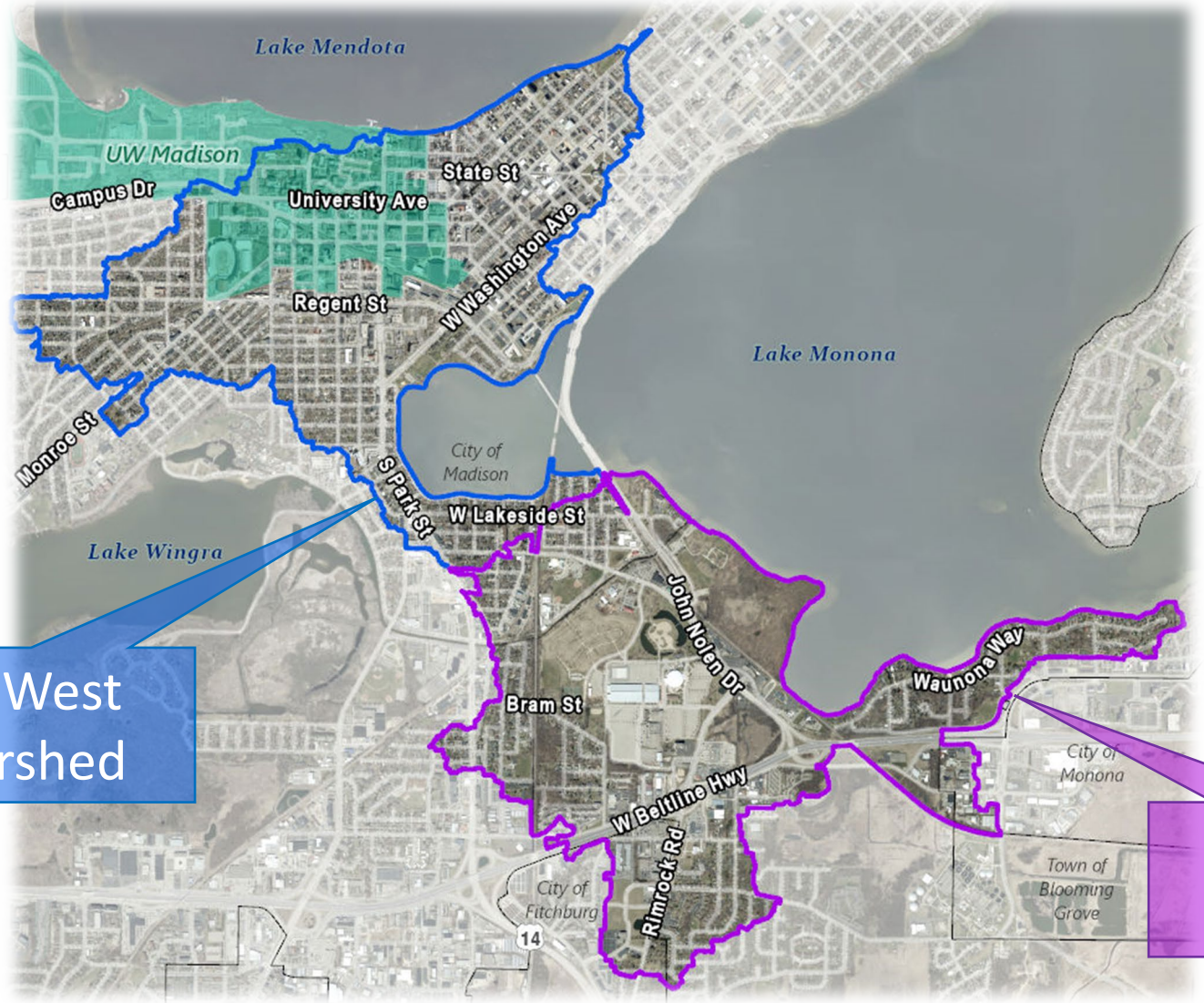
Watershed Study Limitations

- Utilizing computer models for analysis (computer models have inherent limitations, require assumptions, and are for one specific set of circumstances)
- Retrofitting infrastructure takes a lot of time and money
- Not all problems can be solved
- Repairs are not always easy, popular, or inexpensive
- Best engineering solution may not be the one chosen
- Property owners will need to create solutions, too
- Solutions will need broad community cooperation
- Groundwater problems not easily addressed by infrastructure

Definitions of commonly used terms

- **Stormwater**: rainwater produced from a rain event
- **Stormwater runoff**: the portion of the rainwater that does not soak into the ground
- **Stormwater inlets**: grates in the ground that take in stormwater runoff; connected to the stormwater conveyance system
- **Detention ponds**: ponds designed to hold stormwater runoff to improve water quality and/or help prevent flooding
- **Model**: computer software that is used to evaluate the stormwater conveyance system
- **Local Sewer Projects**: storm sewer that is reconstructed with another already-scheduled project – typically street reconstruction
- **Stand-alone Projects**: Flood mitigation projects that will be constructed on their own – not tied to another already-scheduled project
- **Enclosed Depression:** topographic depressions in public right-of-way where stormwater needs to reach private property to overflow from the depression

Project Locations



Near West Watershed

John Nolen Watershed

A watershed is an area of land that drains to a single location.

These are the Near West and John Nolen Watersheds in the City of Madison.

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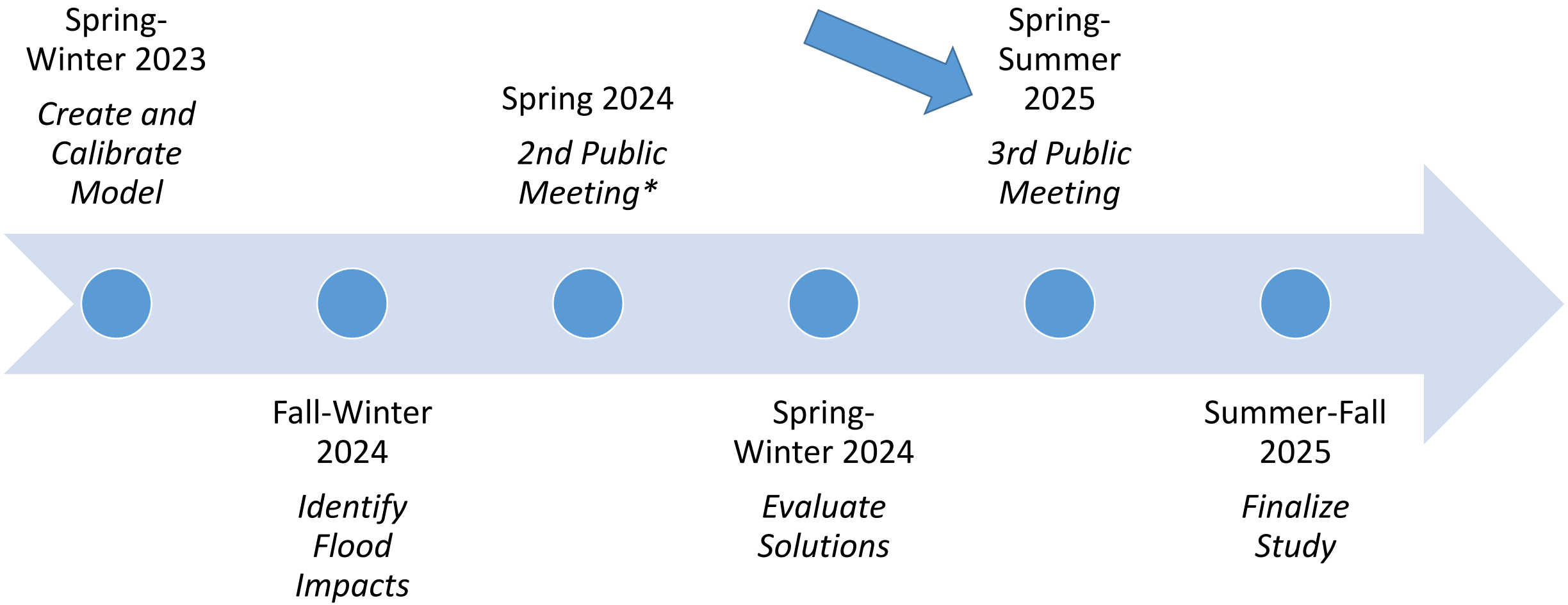
Schedule



*Presentations from PIM1 and PIM 2 can be found on the Watershed Study Website

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Flood Mitigation Targets

10% Chance Event

No surcharging of storm sewer onto roadway (storm sewer pipes are sized to carry storm)

4% Chance Event

0.2’ at Centerline of Road (roads passable for emergency vehicles)

1% Chance Event

No structure (home/building) flooding

No greenway crossing overflow (stormwater does not come out of greenway and flow over the road)

0.2% Chance Event

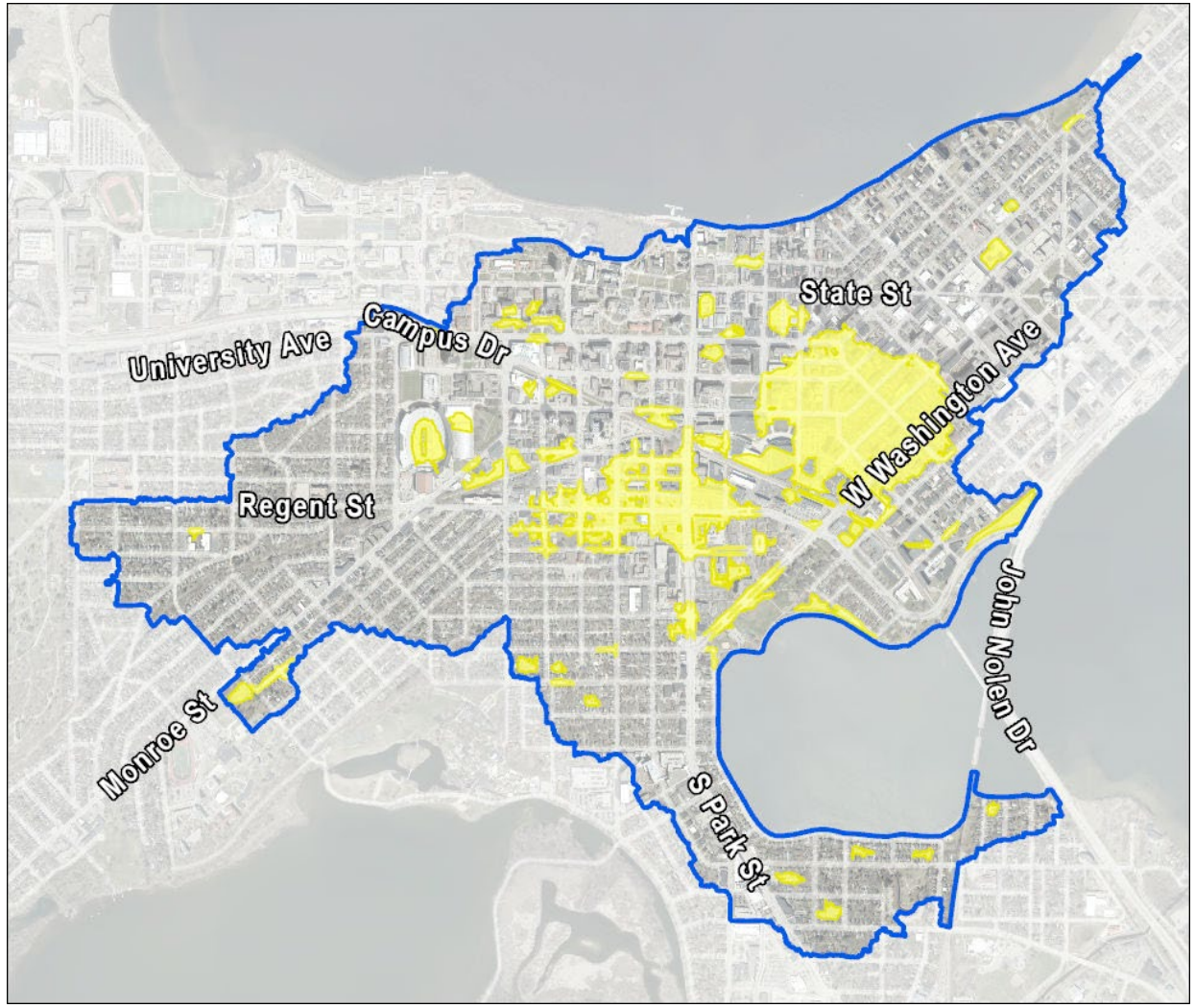
Safe conveyance of overflow

INUNDATION MAPPING DISCLAIMER

THE INTENT OF THE INUNDATION MAPS ARE TO ASSIST INDIVIDUALS IN QUICKLY FINDING GENERAL FLOOD RISK INFORMATION FOR THE INCORPORATED AND UNINCORPORATED AREAS OF THE CITY OF MADISON. INUNDATION MAPS DO NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING. THE CITY OF MADISON PROVIDES THE MAPS AS AN ADVISORY TOOL FOR FLOOD HAZARD AWARENESS. INDIVIDUALS SHOULD NOT USE INUNDATION MAPS AS THEIR PRIMARY RESOURCE FOR MAKING OFFICIAL FLOOD RISK DETERMINATIONS FOR INSURANCE, LENDING, OR OTHER RELATED PURPOSES. THIS IS NOT AN OFFICIAL FLOOD MAP.

THE CITY OF MADISON ASSUMES NO LIABILITY FOR ANY ERRORS, OMISSIONS, INACCURACIES, COMPLETENESS OR USEFULNESS OF THE INFORMATION PROVIDED REGARDLESS OF THE CAUSE OR FOR ANY DECISION MADE, ACTION TAKEN, OR ACTION NOT TAKEN BY THE USER IN RELIANCE UPON ANY OF THE MAPS OR INFORMATION PROVIDED.

Closed Depressions



Geographic Definition:

A low area of land with no (natural) outlet that accumulates or receives runoff.

Watershed Study Definition:

Topographic depressions in public right-of-way where stormwater needs to reach private property to overflow from the depression

There are 58 closed depressions in the Near West Watershed

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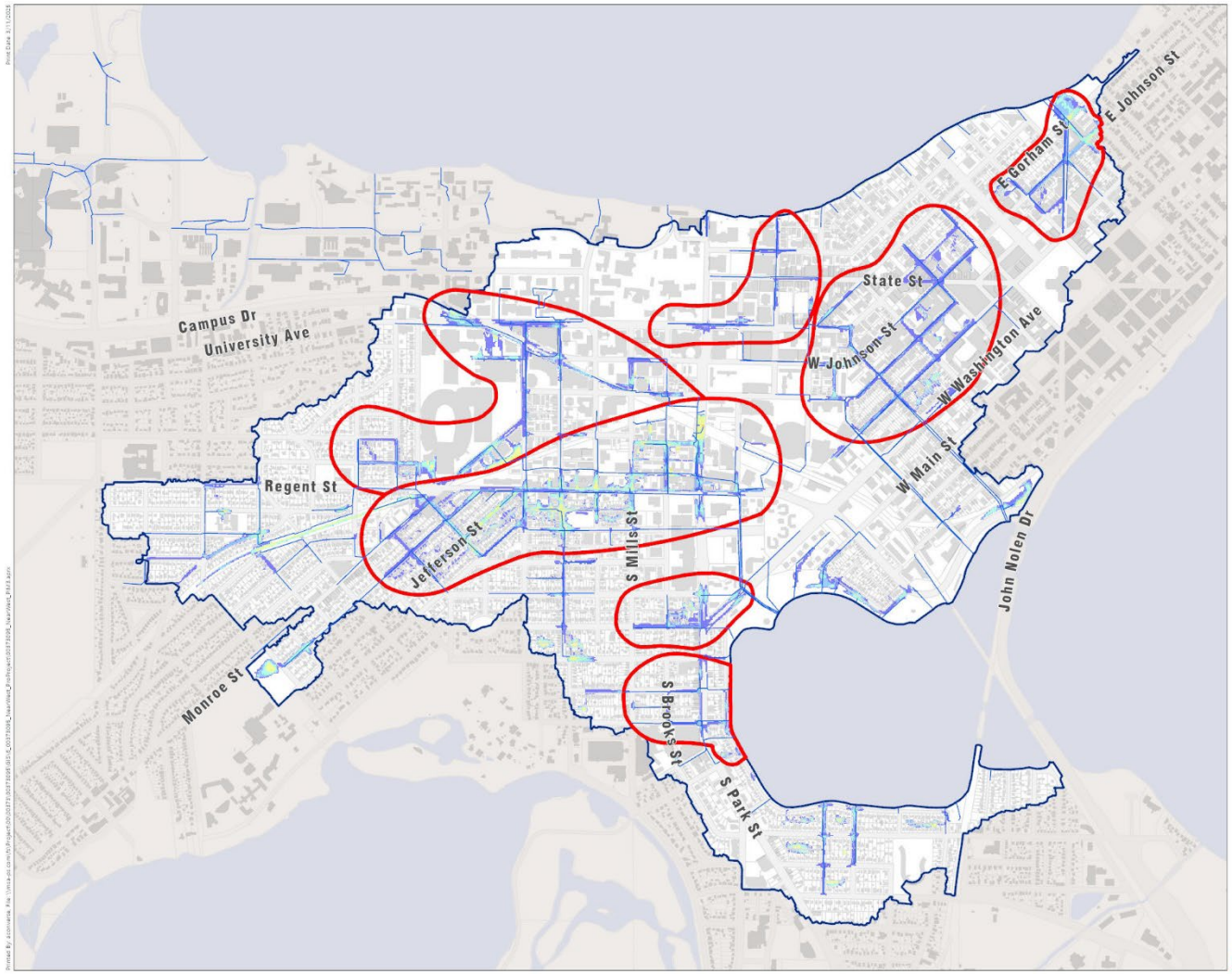
Near West: 10% Chance (10-year) Existing Inundation Mapping



Existing Conditions

10% Chance Event

Near West Watershed Study

City of Madison
Dane County, WI

- Watershed Study Area
- Modeled Link
- Goals Not Met

10% Annual Exceedance Probability Storm

Maximum Water Depth (ft)

- 0.01 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 6

Data Sources:
Parcels: Dane County
Watershed Boundaries: MSA
Stormwater System: City of Madison

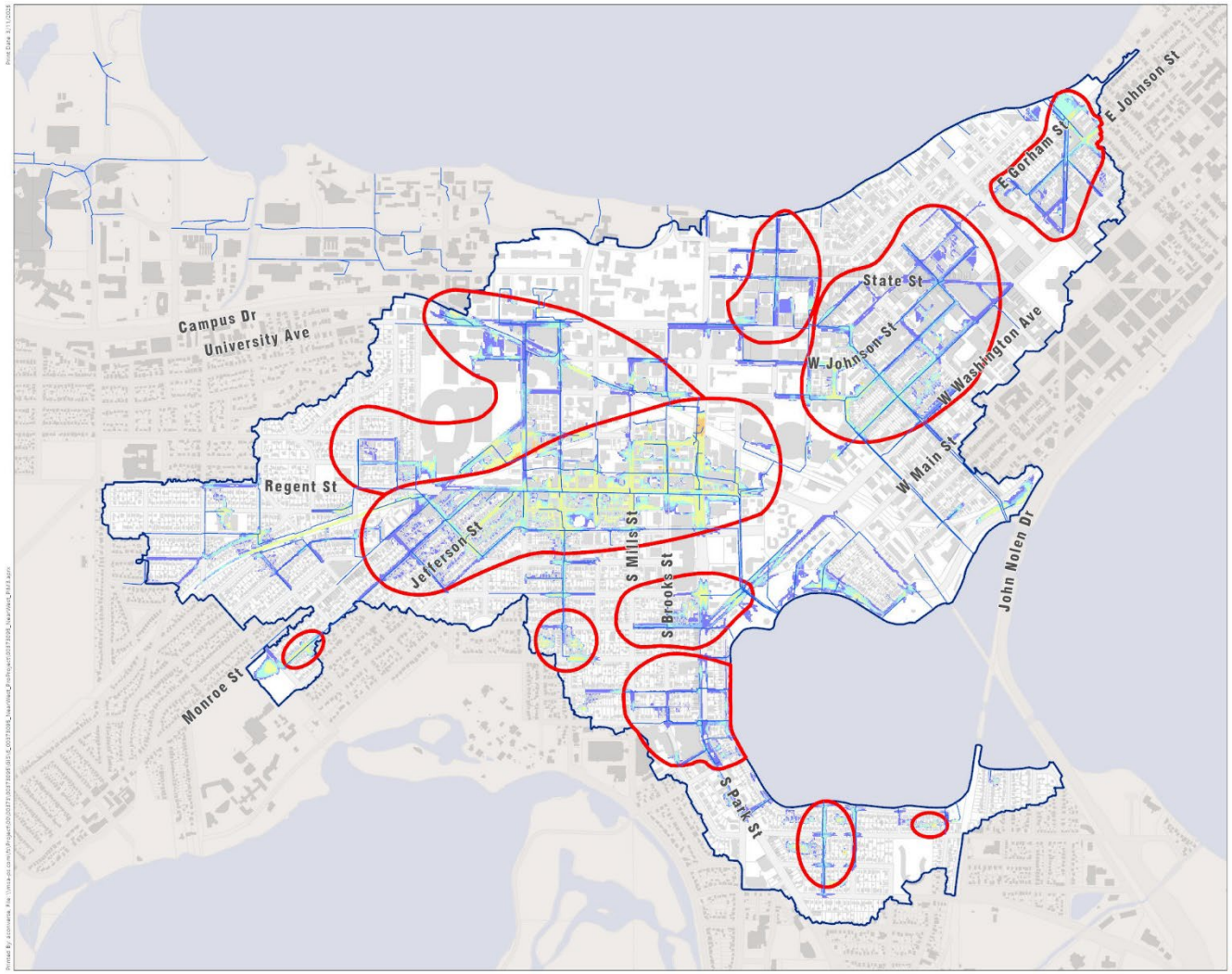
MSA

0 550 1,100 Feet

- 268 out of 464 stormwater structures do not meet 10% target

CITY OF MADISON

Near West: 1% Chance (100-year) Existing Inundation Mapping



Existing Conditions

1% Chance Event

Near West Watershed Study

City of Madison
Dane County, WI

- Watershed Study Area
- Modeled Link
- Goals Not Met

1% Annual Exceedance Probability Storm
Maximum Water Depth (ft)

- 0.01 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 6
- 6+

Data Sources:
Parcels: Dane County
Watershed Boundaries: MSA
Stormwater System: City of Madison

MSA

0 550 1,100 Feet

N

- 319 out of 4,678 buildings do not meet 1% chance target

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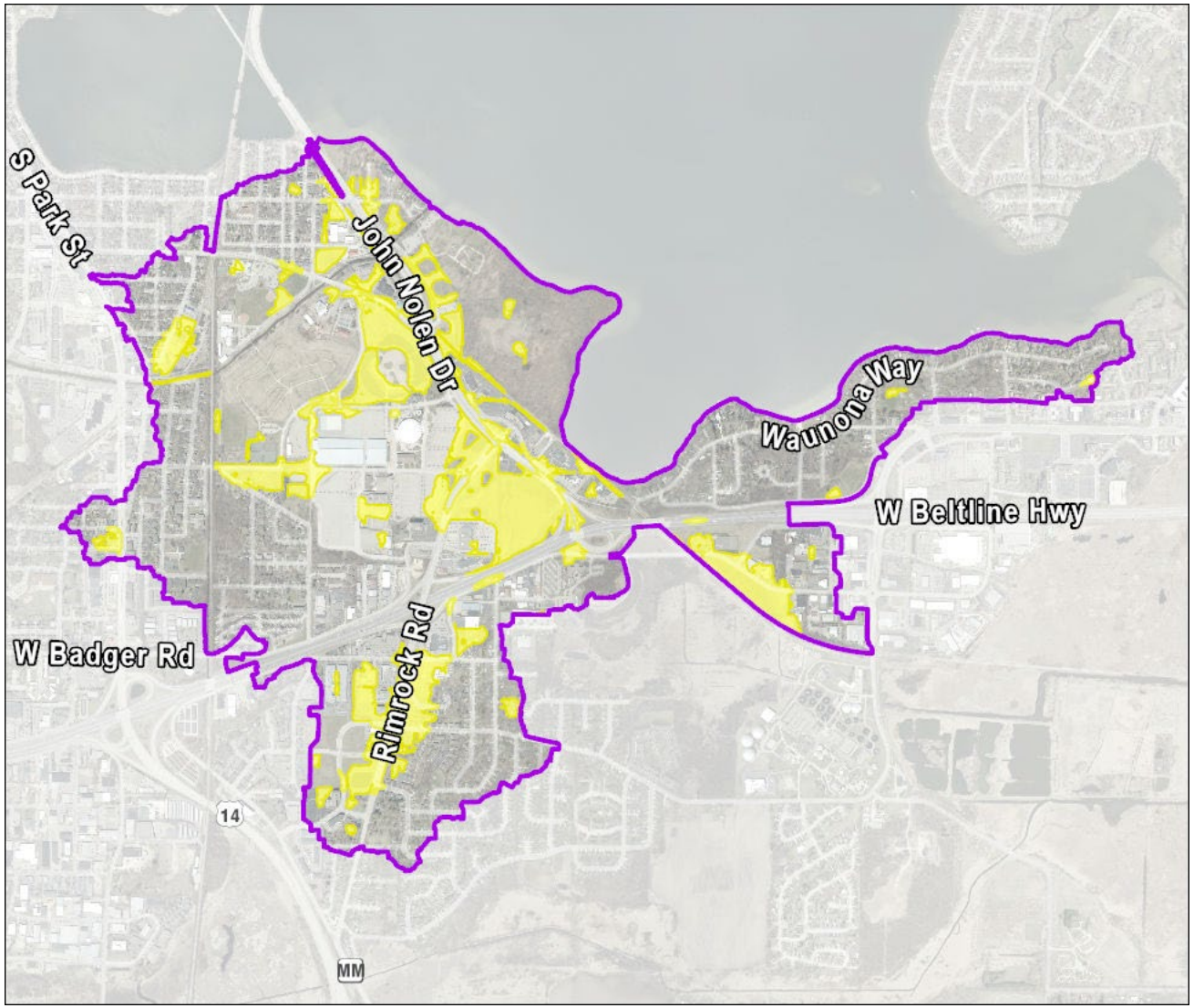
A note about enclosed depressions



Geographic Definition:

A low area of land with no (natural) outlet that accumulates or receives runoff.

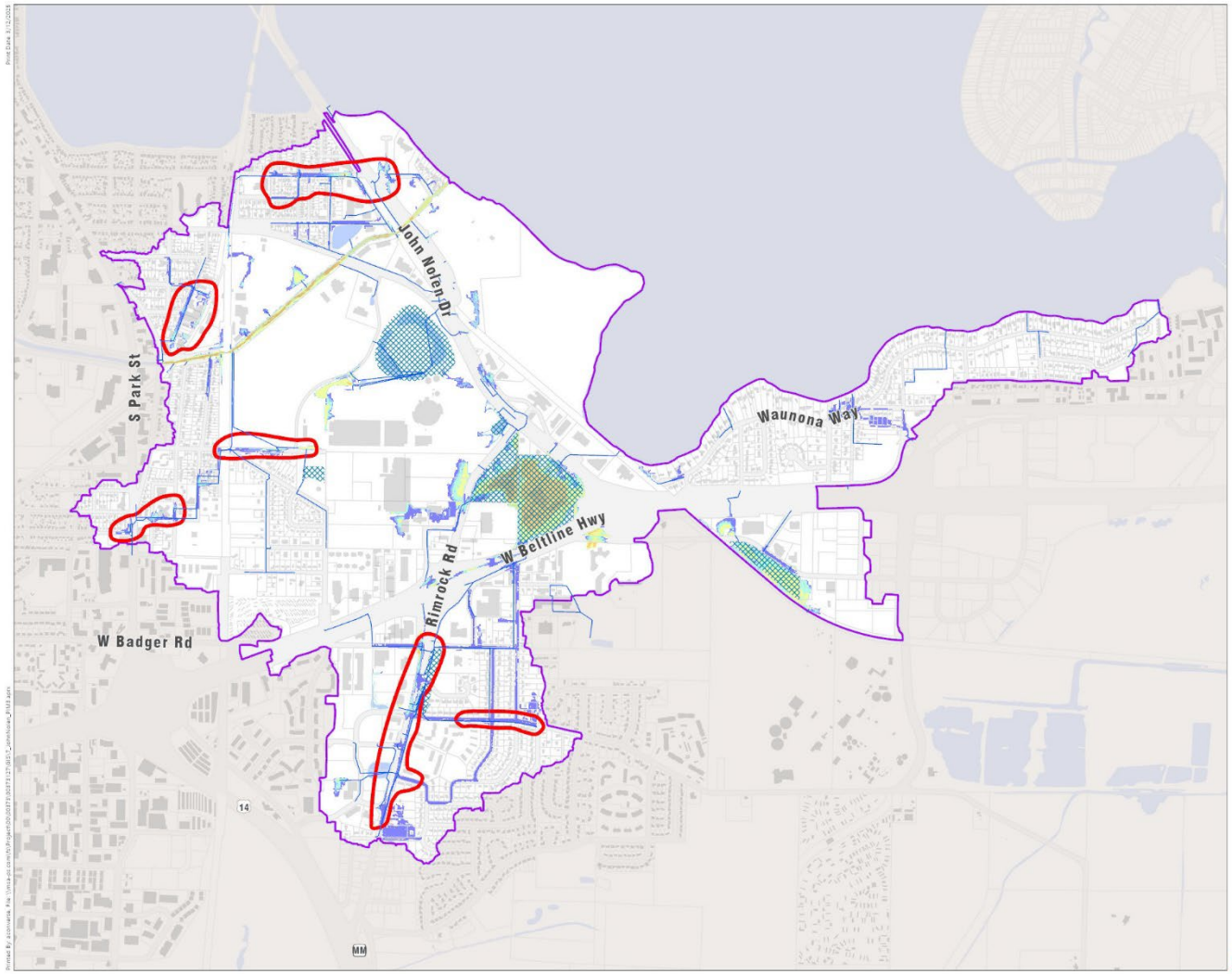
Watershed Study Definition:

Topographic depressions in public right-of-way where stormwater needs to reach private property to overflow from the depression

There are 66 closed depressions in the John Nolen Watershed

CITY OF MADISON

John Nolen: 10% Chance (10-year) Existing Inundation Mapping



Existing Conditions

10% Chance Event

John Nolen Watershed Study

City of Madison
Dane County, WI

- Watershed Study Area
- Modeled Link
- Goals Not Met
- Modeled Stormwater Detention

10% Annual Exceedance Probability Storm

Maximum Water Depth (ft)

- 0.01 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 6

Data Sources:
Parcels: Dane County
Watershed Boundaries: MSA
Stormwater System: City of Madison

MSA

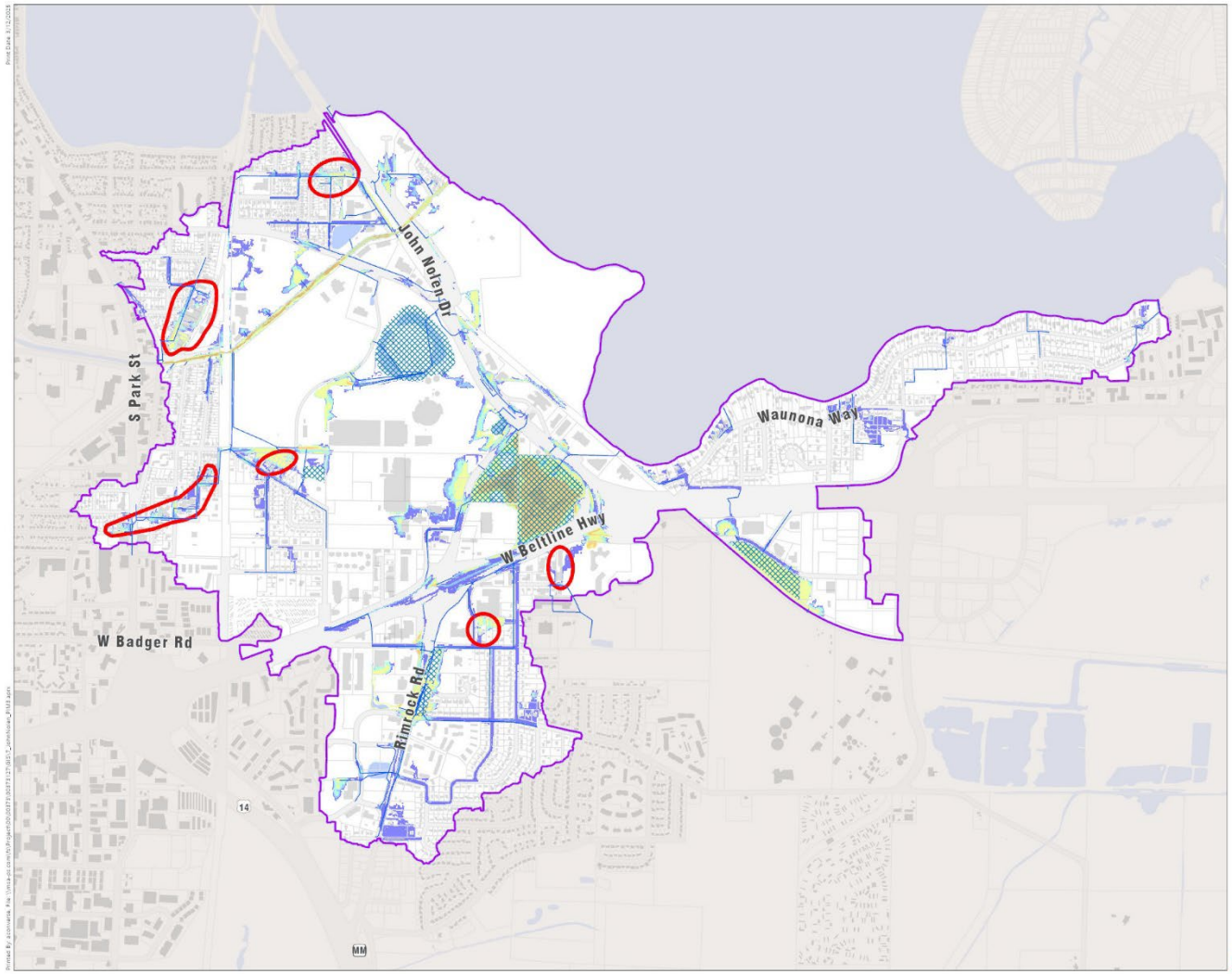
0 550 1,100 Feet

N

- 176 out of 354 stormwater structures do not meet 10% target

CITY OF MADISON

John Nolen: 1% Chance (100-year) Existing Inundation Mapping



Existing Conditions

1% Chance Event

John Nolen Watershed Study

City of Madison
Dane County, WI

Watershed Study Area
Modeled Link
Goals Not Met
Modeled Stormwater Detention
1% Annual Exceedance Probability Storm
Maximum Water Depth (ft)
0.01 - 0.25
0.25 - 0.5
0.5 - 1
1 - 3
3 - 6

Data Sources:
Parcels: Dane County
Watershed Boundaries: MSA
Stormwater System: City of Madison

MSA

0 550 1,100 Feet

N

- 43 out of 2,107 buildings do not meet 1% chance target

CITY OF MADISON

Proposed Solutions Process

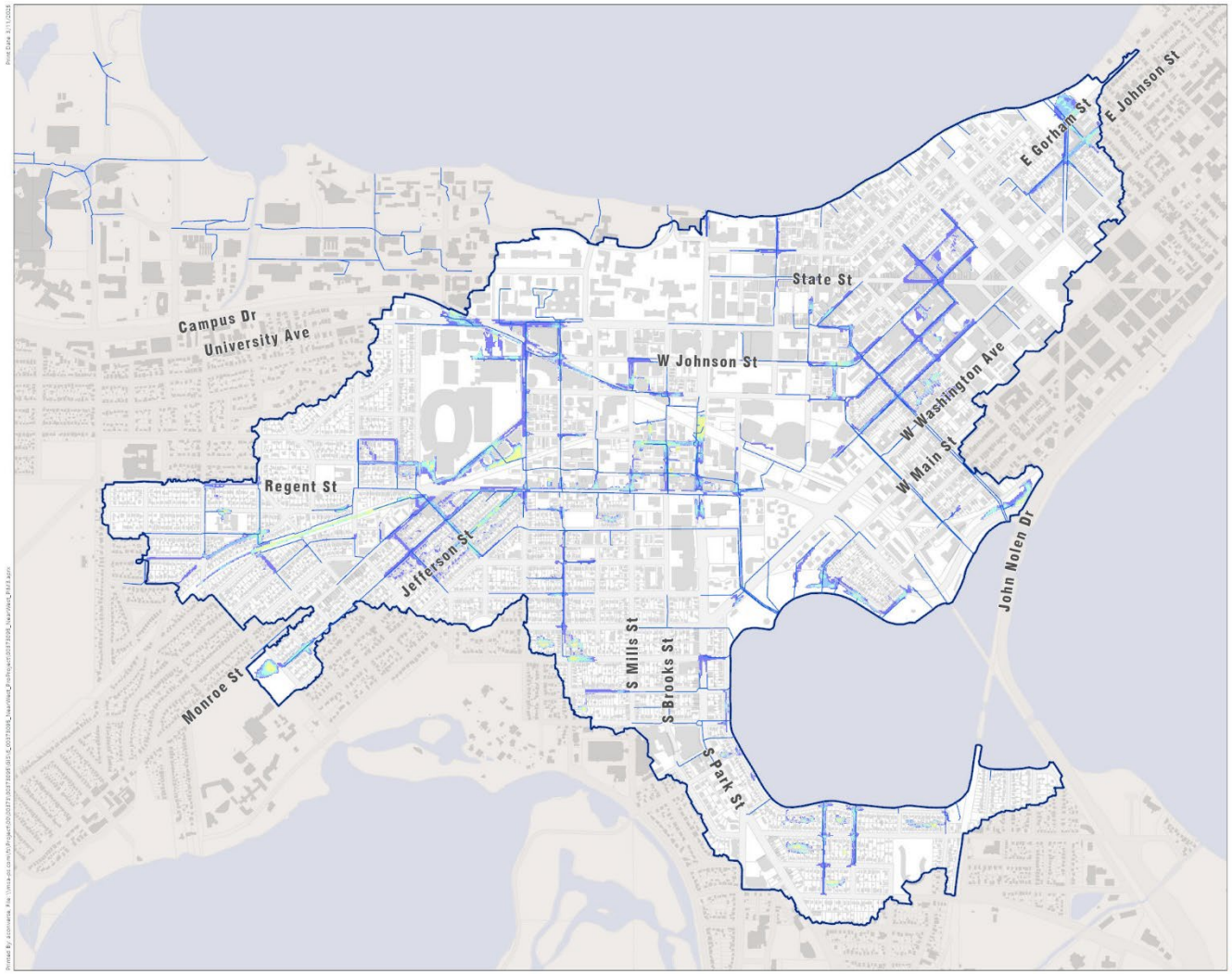
- Iterative process
  - Brainstormed solutions
  - Consultant analyzed ideas and provided results
  - Some solutions not found to be viable for various reasons
  - Several meetings to develop the “suite of solutions”

- Met with City Agencies for feedback on
  - Impacts to Agency’s infrastructure/property
  - Additional solutions
  - Places for cooperation/win-win solution

- Revised solutions based on agency feedback – If needed

- Meeting with you tonight

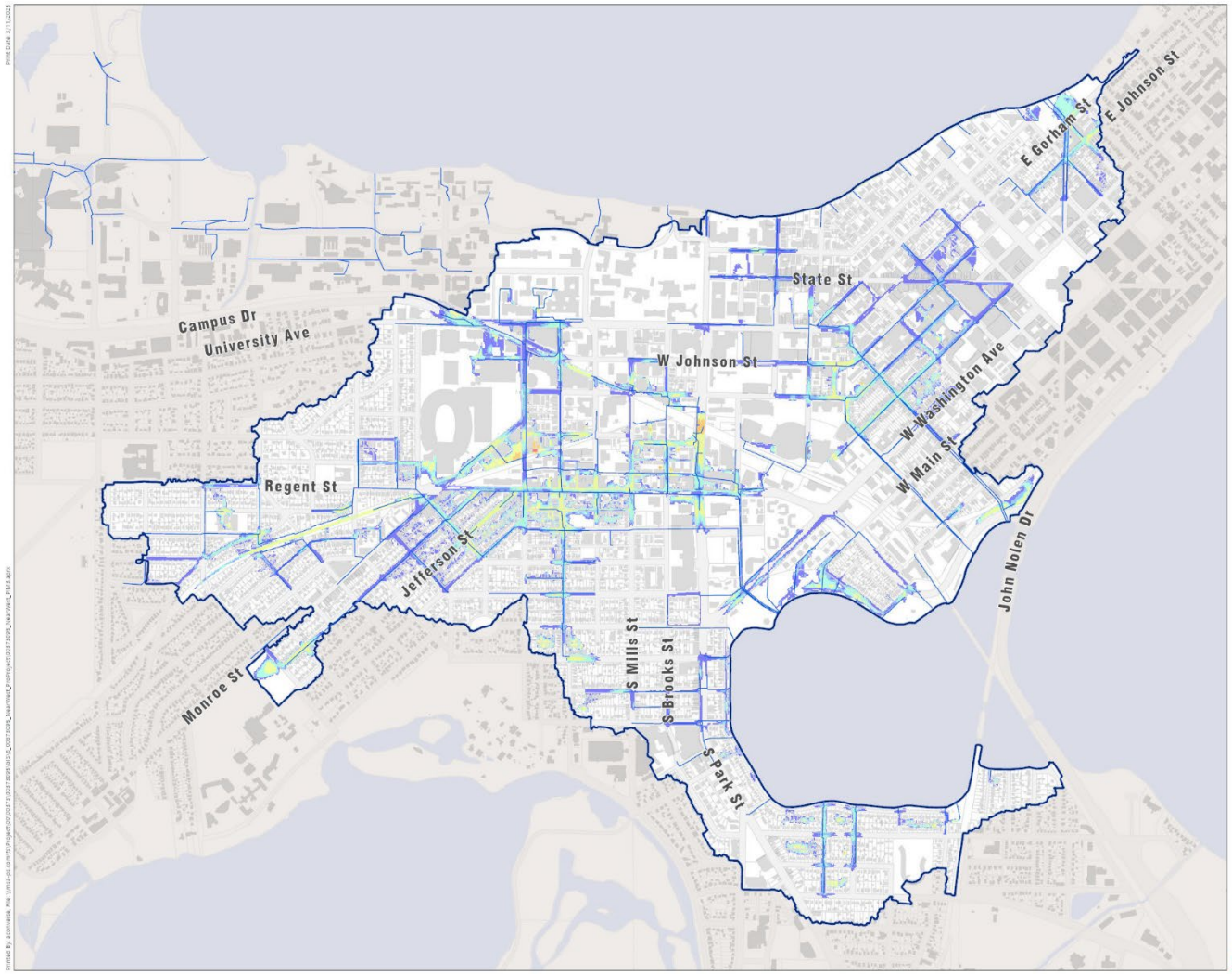
Near West: 10% Chance (10-year) Proposed Inundation Mapping



- Existing: 268 out of 464 stormwater structures do not meet 10% target
- 35 additional stormwater structures will meet 10% target

CITY OF MADISON

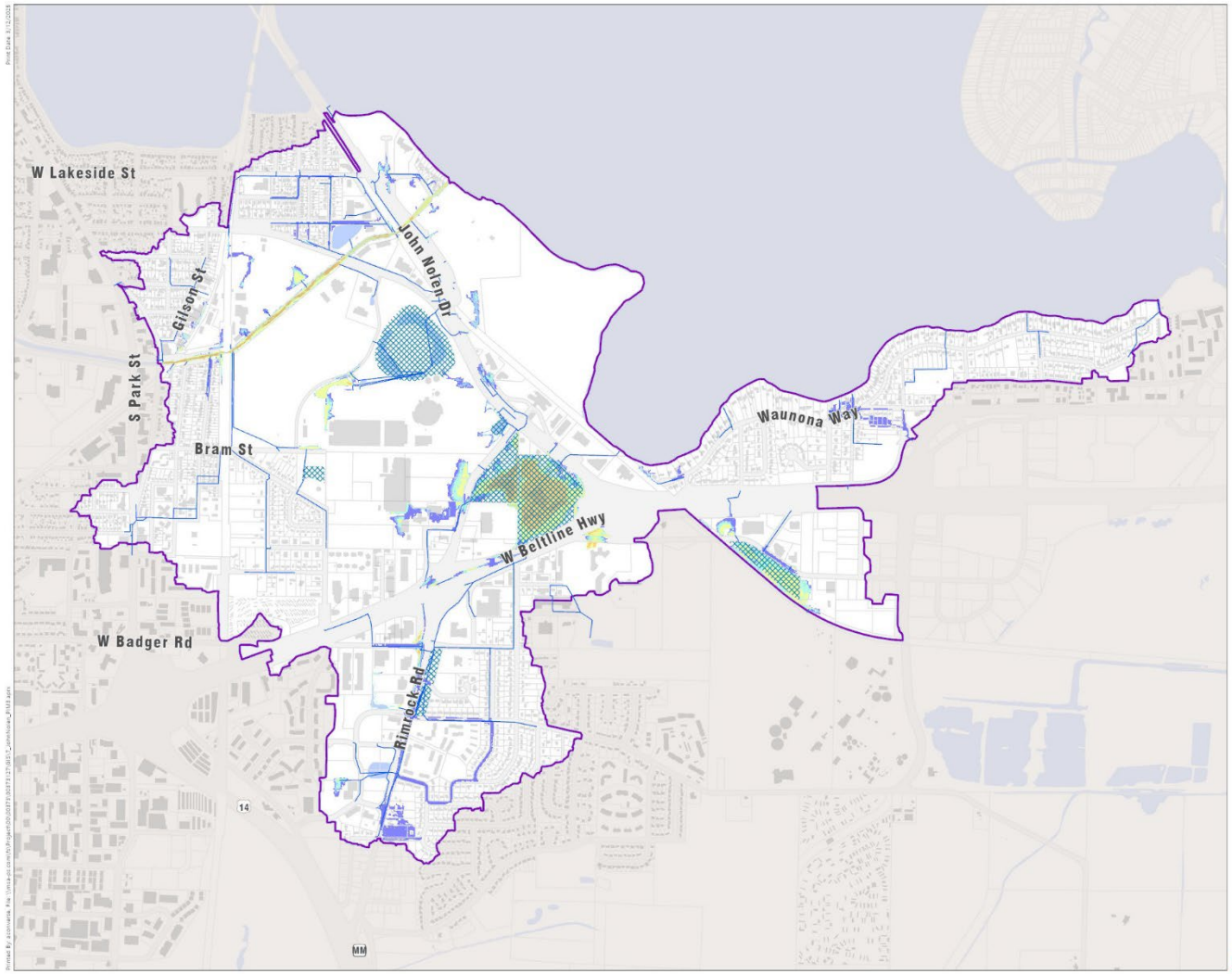
Near West: 1% Chance (100-year) Proposed Inundation Mapping



- Existing: 319 out of 4,678 buildings do not meet 1% chance target
- 84 additional buildings will meet 1% chance storm target

CITY OF MADISON

John Nolen: 10% Chance (10-year) Proposed Inundation Mapping



Proposed Conditions

10% Chance Event

John Nolen Watershed Study

City of Madison
Dane County, WI

Watershed Study Area
Modeled Link
Modeled Stormwater Detention
10% Annual Exceedance Probability Storm
Maximum Water Depth (ft)
0.01 - 0.25
0.25 - 0.5
0.5 - 1
1 - 3
3 - 6

Data Sources:
Parcels: Dane County
Watershed Boundaries: MSA
Stormwater System: City of Madison

MSA

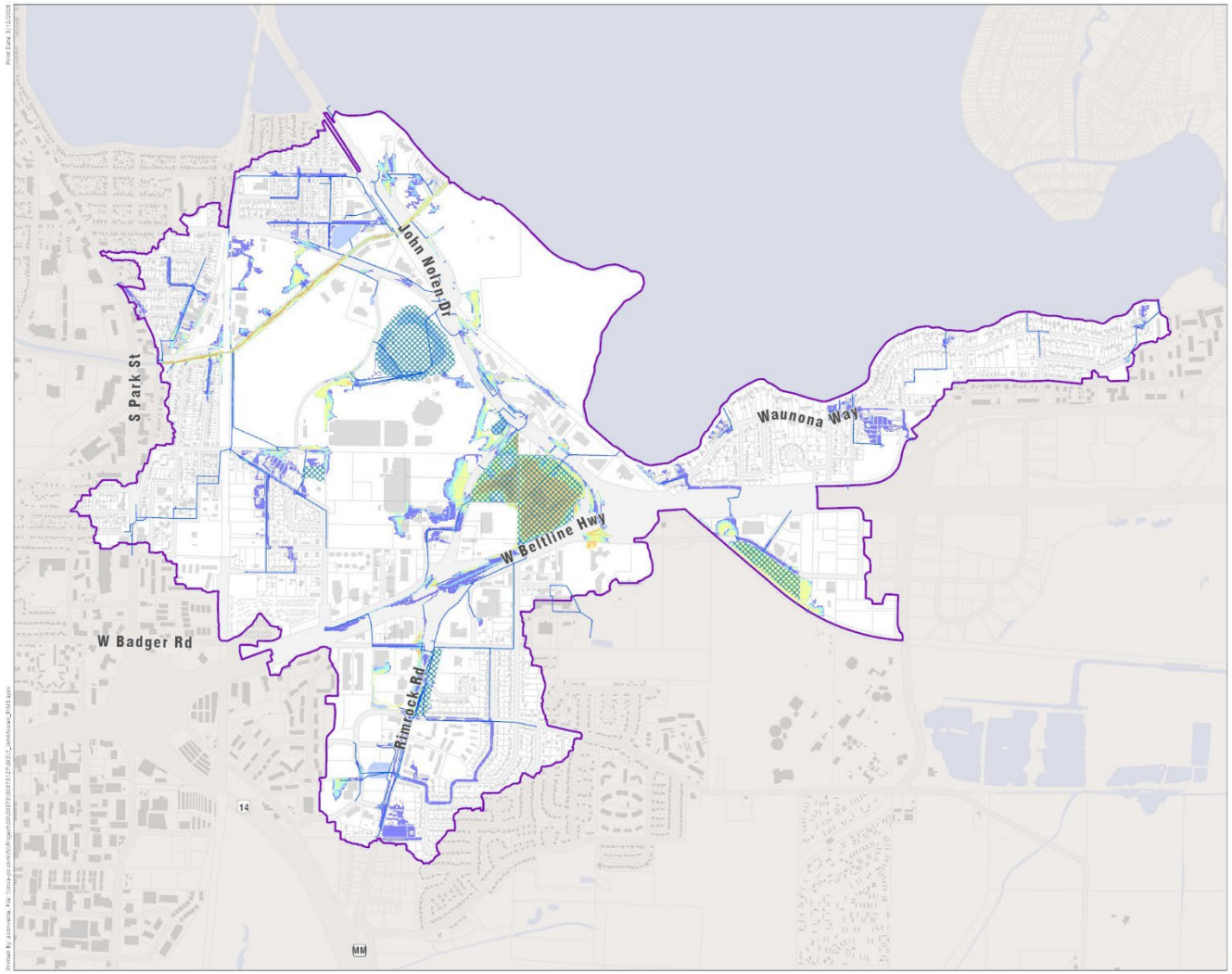
0 550 1,100 Feet

N

- Existing: 176 out of 354 stormwater structures do not meet 10% target
- 41 additional stormwater structures will meet 10% target

CITY OF MADISON

John Nolen: 1% Chance (100-year) Proposed Inundation Mapping



Proposed Conditions

1% Chance Event

John Nolen Watershed Study

City of Madison
Dane County, WI

Watershed Study Area
Modeled Link
Modeled Stormwater Detention
1% Annual Exceedance Probability Storm
Maximum Water Depth (ft)
0.01 - 0.25
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0.5 - 1
1 - 3
3 - 6

Data Sources:
Parcels: Dane County
Watershed Boundaries: MSA
Stormwater System: City of Madison

MSA

0 550 1,100 Feet

N

- Existing 43 out of 2,107 buildings do not meet 1% chance target
- 27 additional buildings will meet 1% chance storm target

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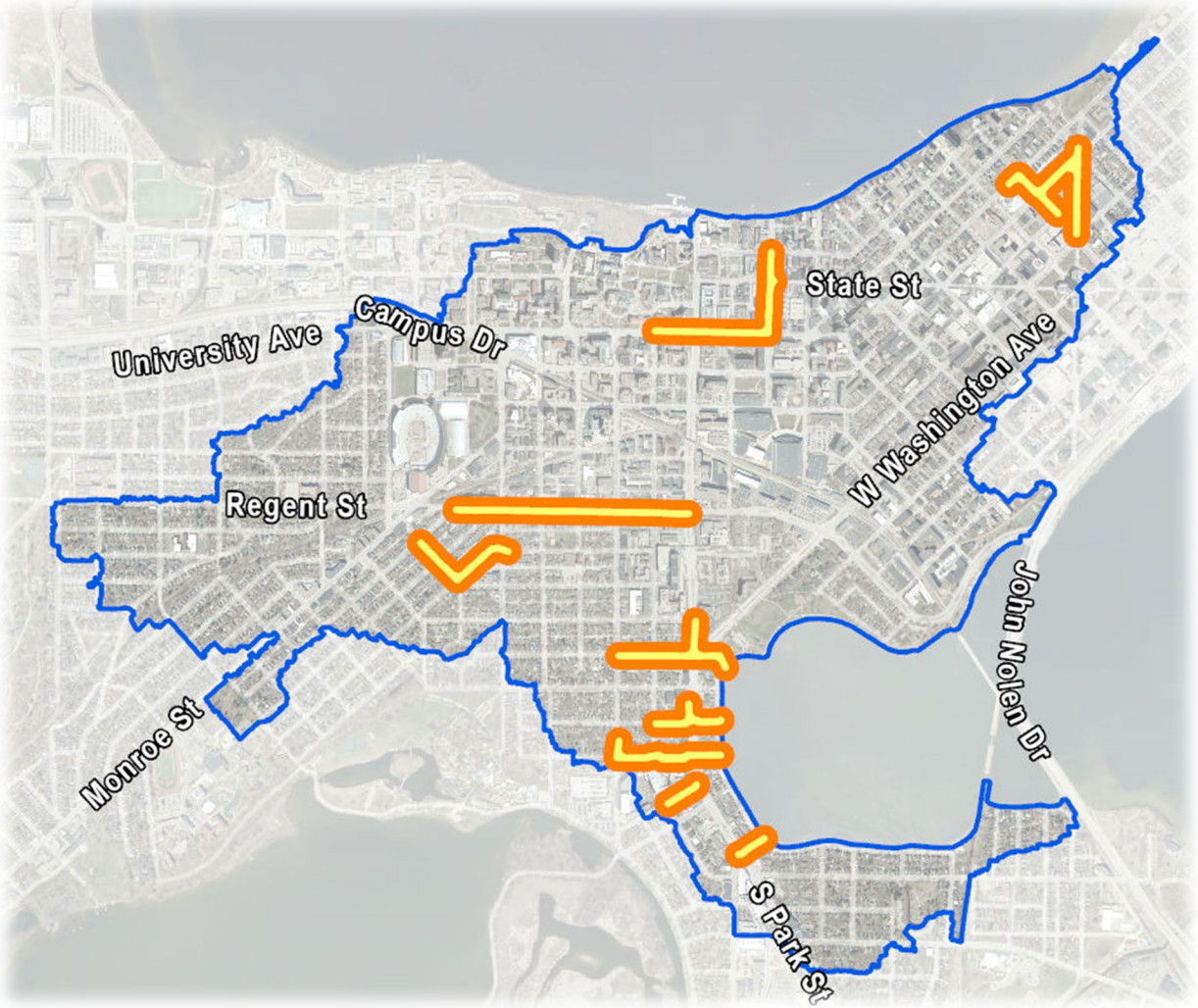
Near West Proposed Solutions

8 local storm sewer improvements

<u>Stand Alone Projects</u>

- Hancock St and outfall in James Madison Park
- S Mills St Relief Sewer

Near West: Local Storm Sewer Improvements



- These will primarily be scheduled to be completed with street reconstruction projects.
- Recently reconstructed streets may not be revisited to implement storm sewer capacity improvements for a long time

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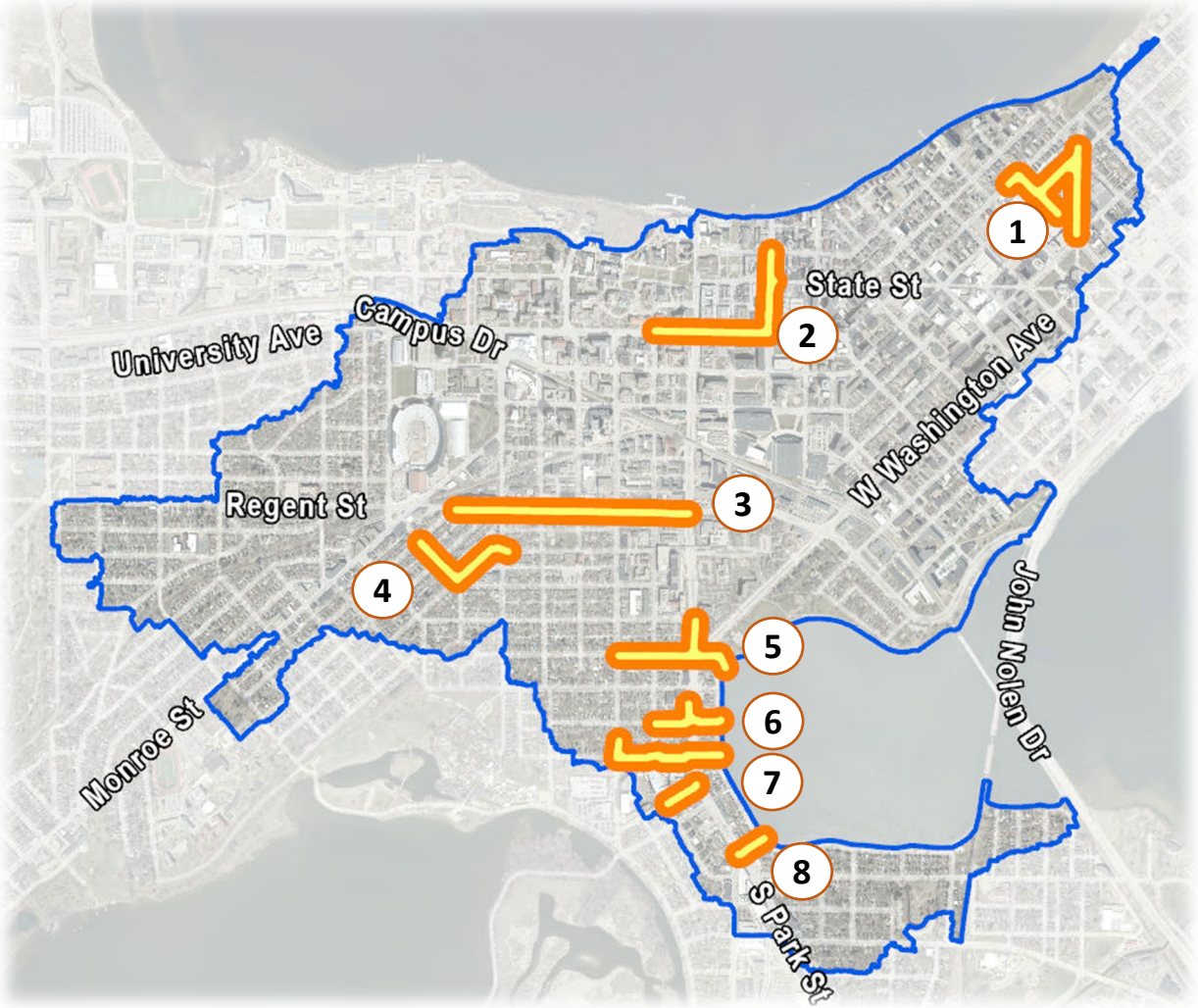
Near West: Local Storm Sewer Improvements



1. N Hamilton St/E Johnson St/E Gorham St
2. University Ave/Lake St
3. Regent St
4. Oakland Ave/Adams St
5. Vilas Ave/S Park St
6. Emerald St/S Park St
7. Erin St/Delaplaine Ct
8. Parr St

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Near West: All Proposed Solutions

1. N Hamilton St/E Johnson St/E Gorham St
2. University Ave/Lake St
3. Regent St
4. Oakland Ave/Adams St
5. Vilas Ave/S Park St
6. Emerald St/S Park St
7. Erin St/Delaplaine Ct
8. Parr St

Stand-alone Projects

9. S Mills St Relief Sewer
10. Hancock St and outfall in James Madison Park

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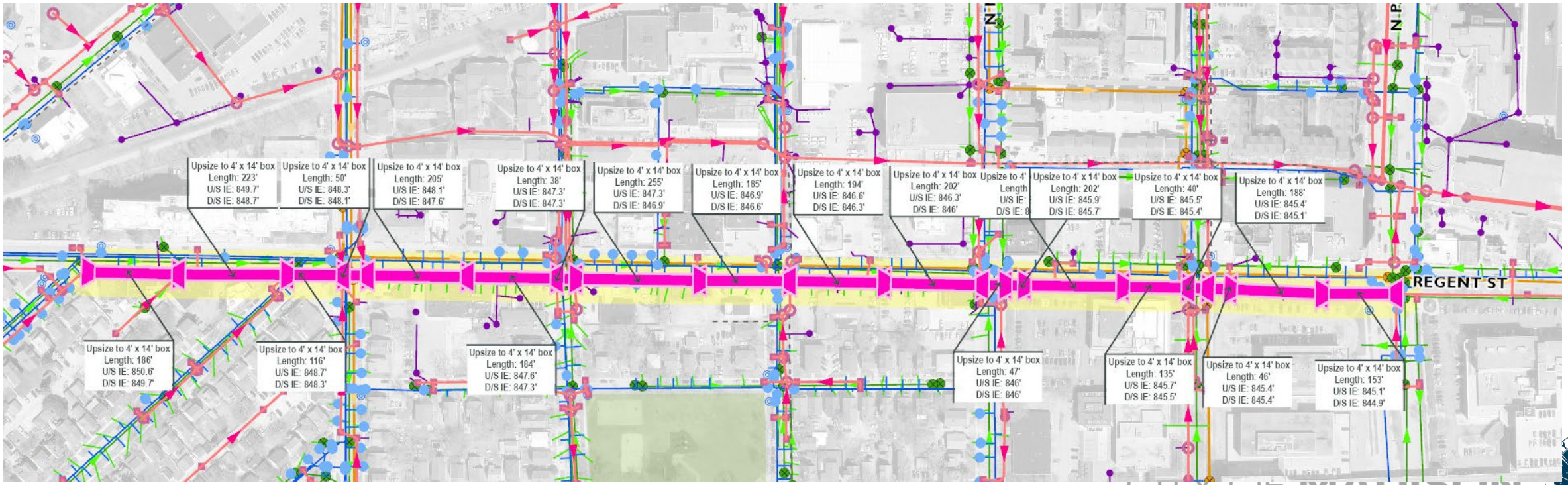
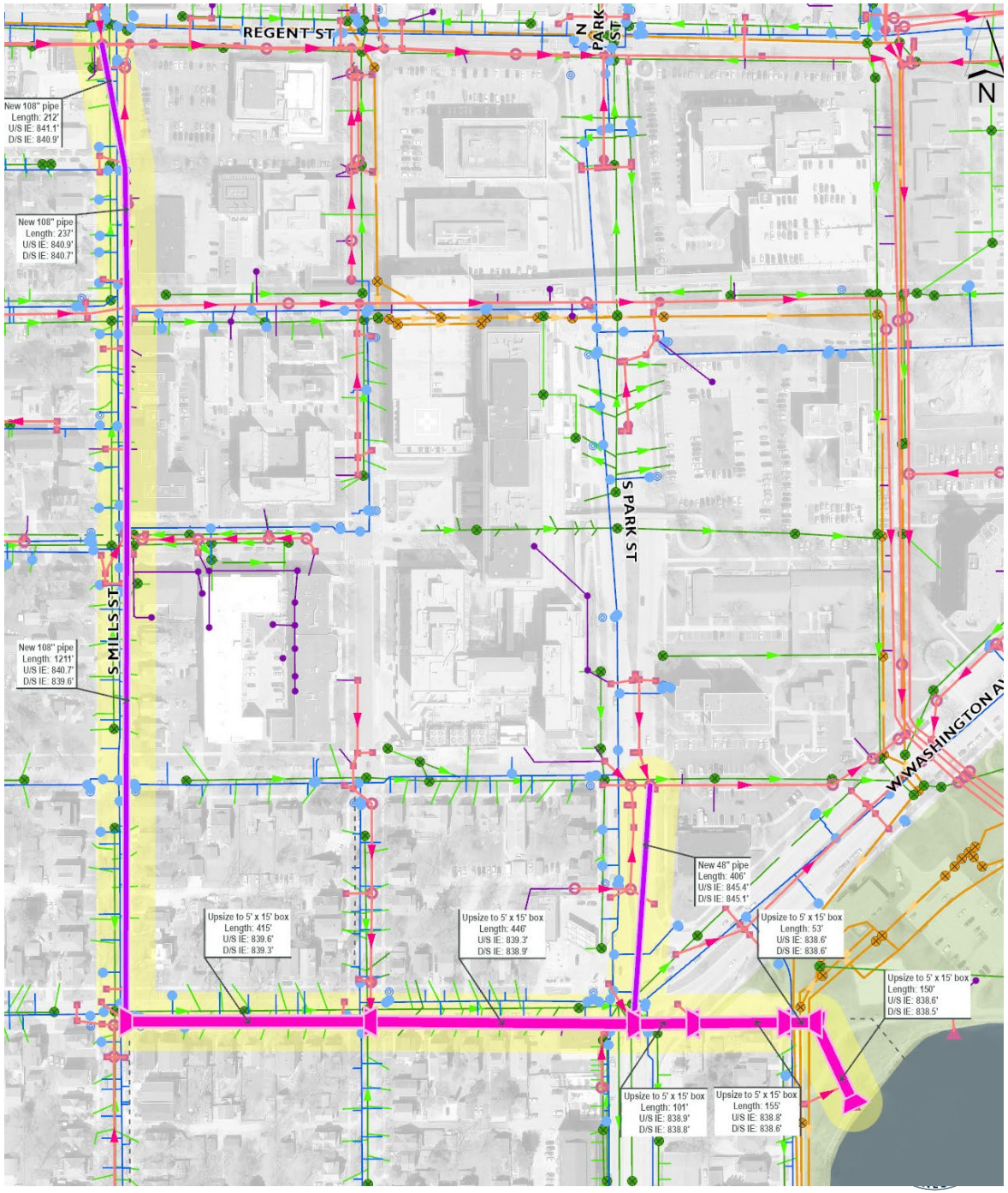
Regent St (local storm sewer project)

- Reduce flooding for 25-yr event
- Existing box culvert needs repair
- City planning reconstruction within the next few years
- Est. Cost - $10.5M



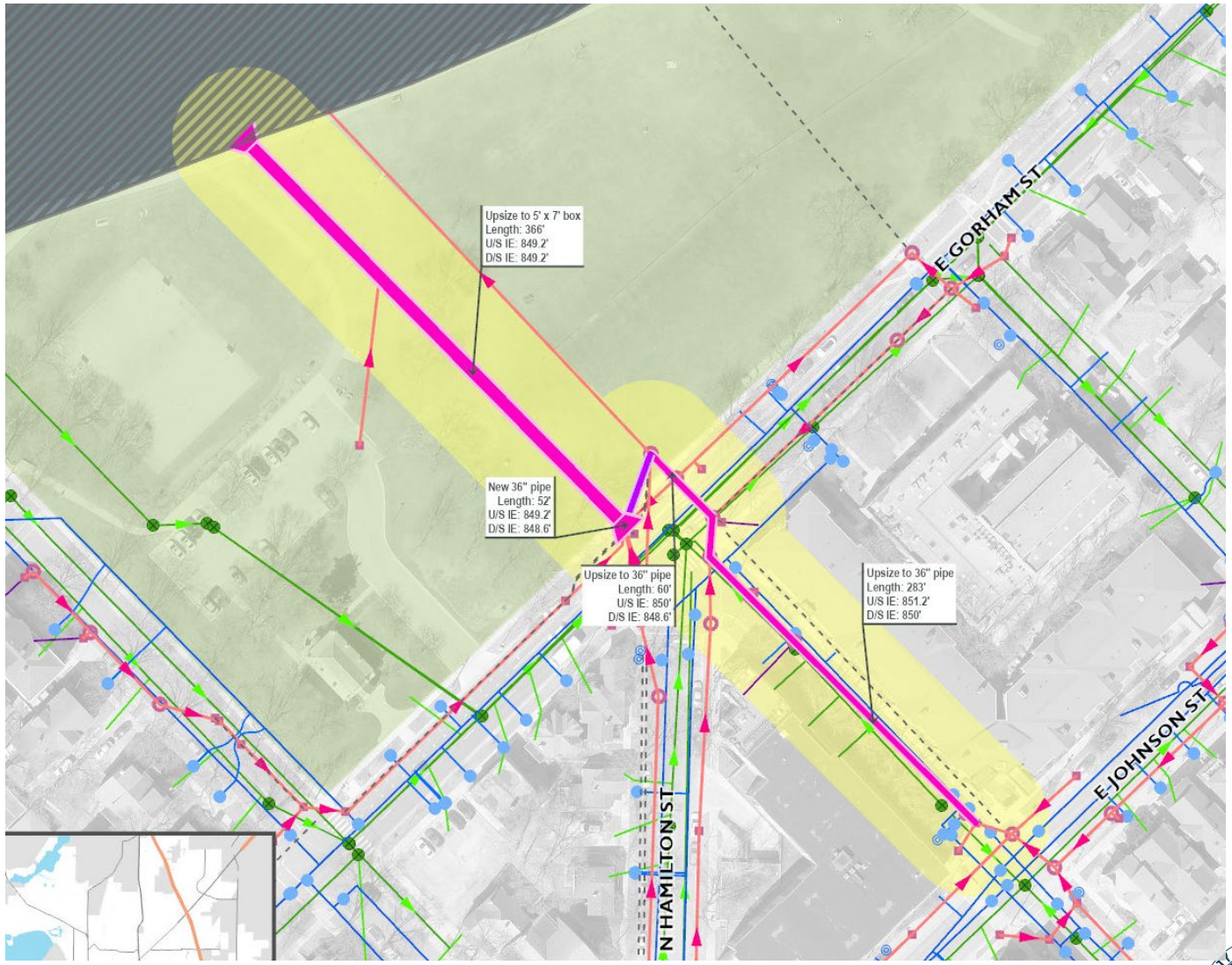
S Mills St Relief Sewer

- Reduce flooding for 100-yr event
- Provide a secondary outlet for the Regent St enclosed depression
- Est. Cost - $32.2M



Hancock St and outfall in James Madison Park

- Reduce flooding for 100-yr event
- Replace aging pipe & increase storm sewer size
- Est. Cost - $1.43M



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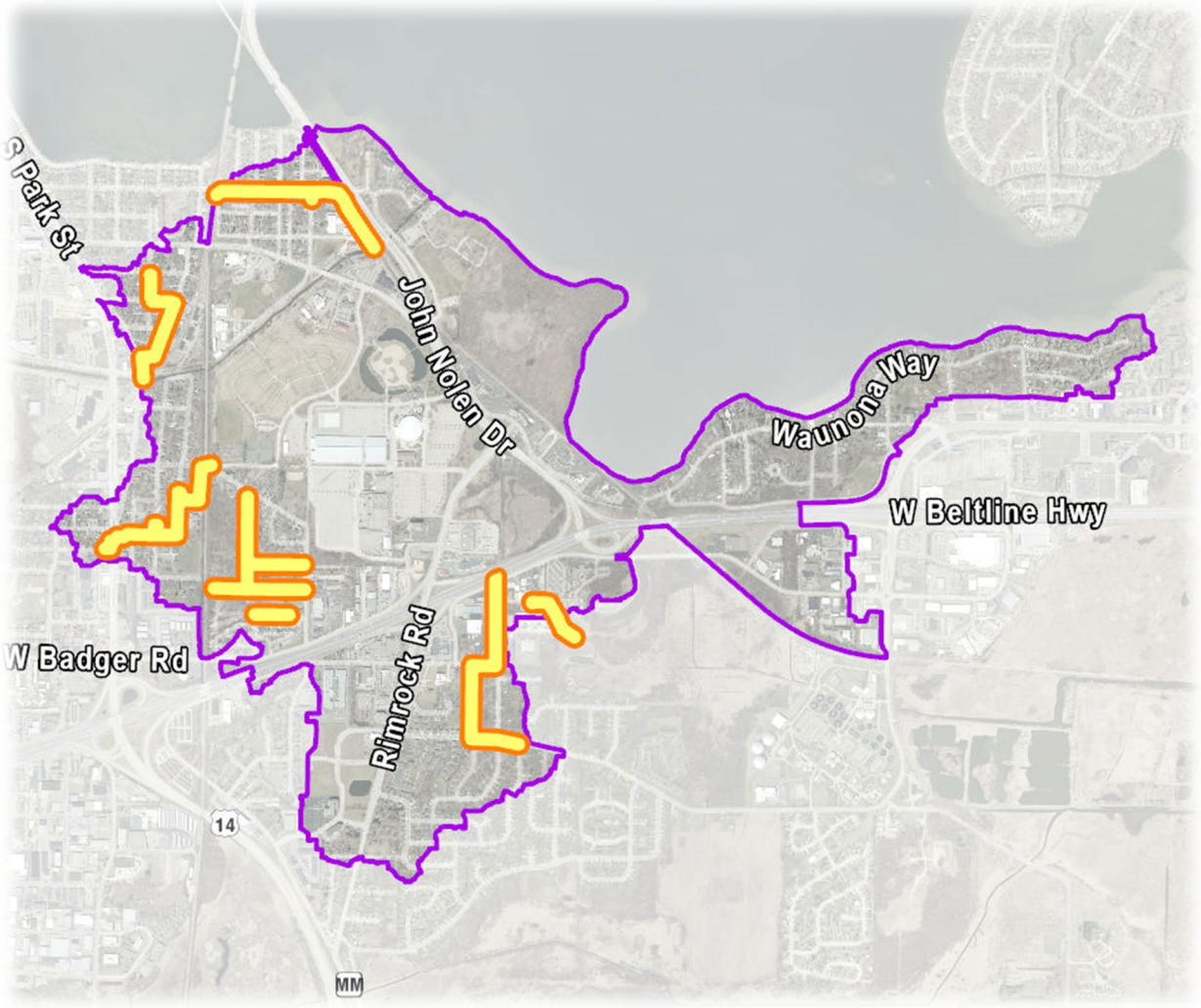
John Nolen Proposed Solutions

6 local storm sewer improvements

<u>Stand Alone Projects</u>

- Bram to Wingra and Alliant Energy Outlet
- Rimrock Pond Outlet

John Nolen: Local Storm Sewer Improvements



- These will primarily be scheduled to be completed with street reconstruction projects.
- Recently reconstructed streets may not be revisited to implement storm sewer capacity improvements for a long time

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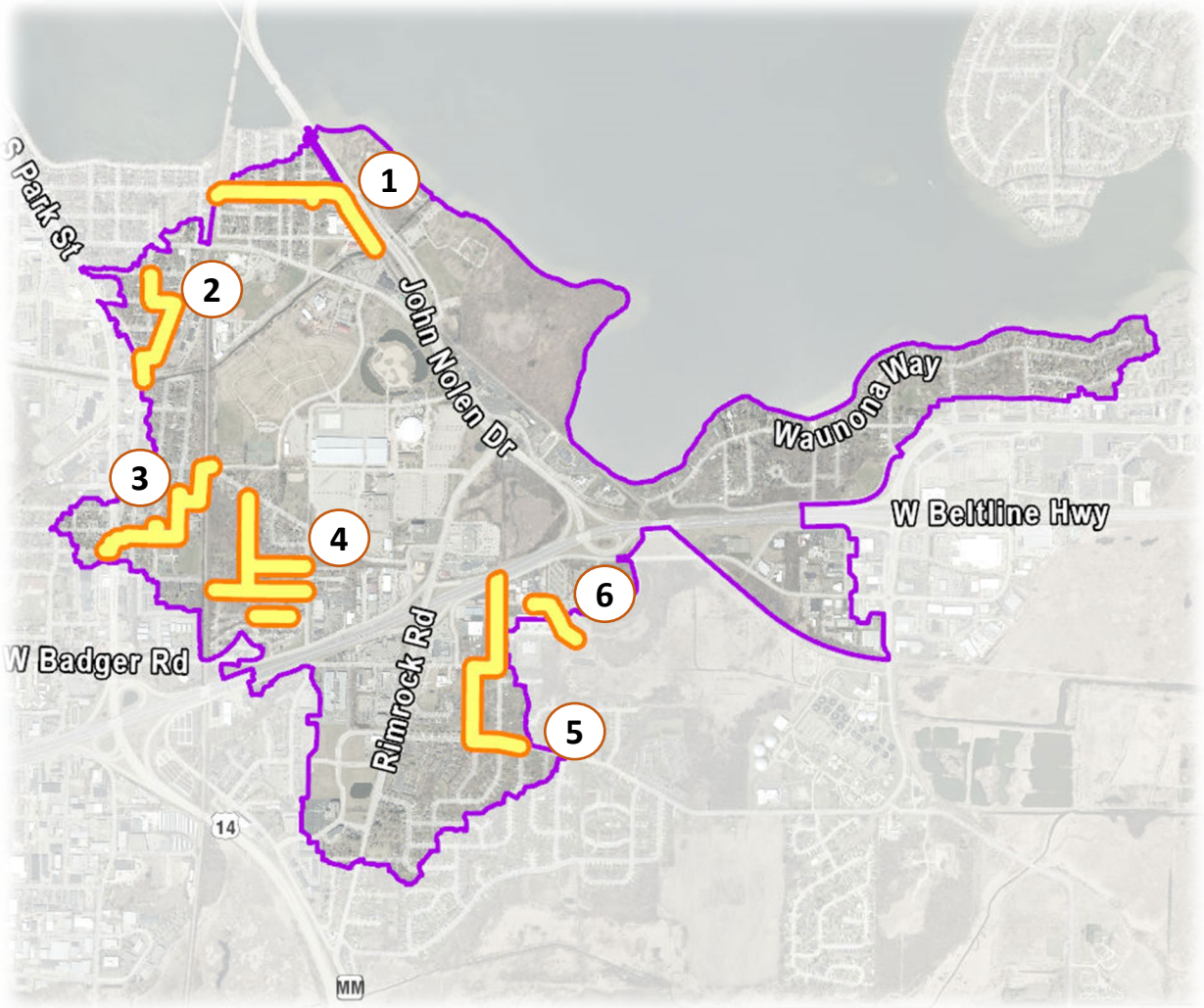
John Nolen: Local Storm Sewer Improvements



1. E Lakeside St/Sayle St
2. Gilson St
3. Brams Addition
4. Nygard and Sunstrom St
5. Badger Lane
6. Holtzman Rd

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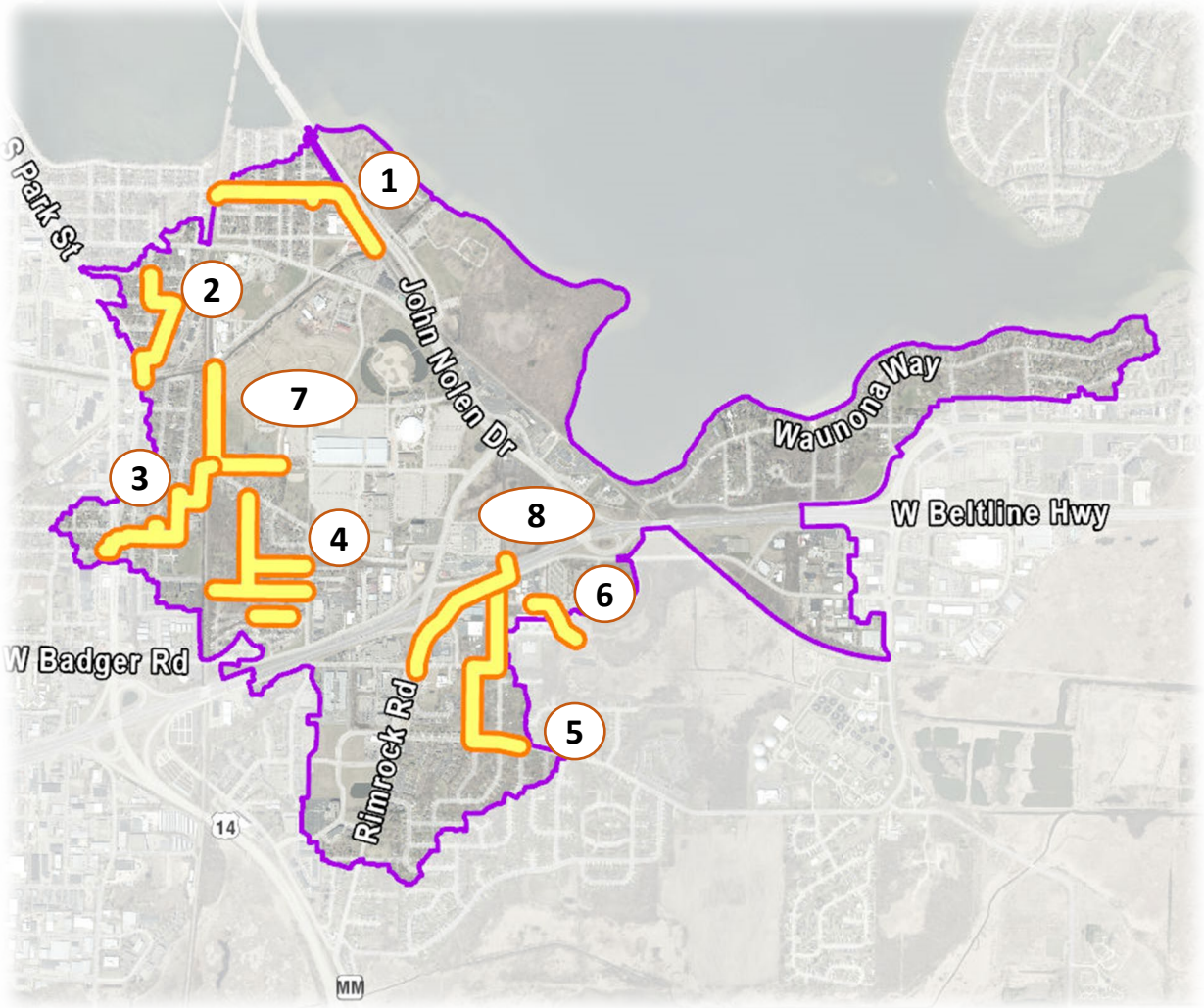
John Nolen: Local Storm Sewer Improvements



1. E Lakeside St/Sayle St
2. Gilson St
3. Brams Addition
4. Nygard and Sunstrom St
5. Badger Lane
6. Holtzman Rd

Stand-alone Projects

7. Bram to Wingra and Alliant Energy Outlet
8. Rimrock Pond Outlet

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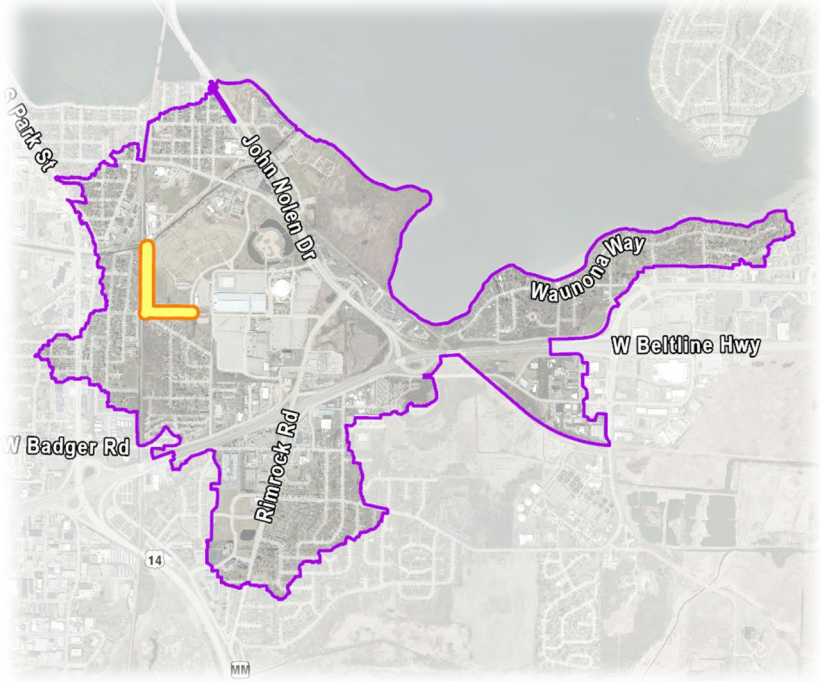
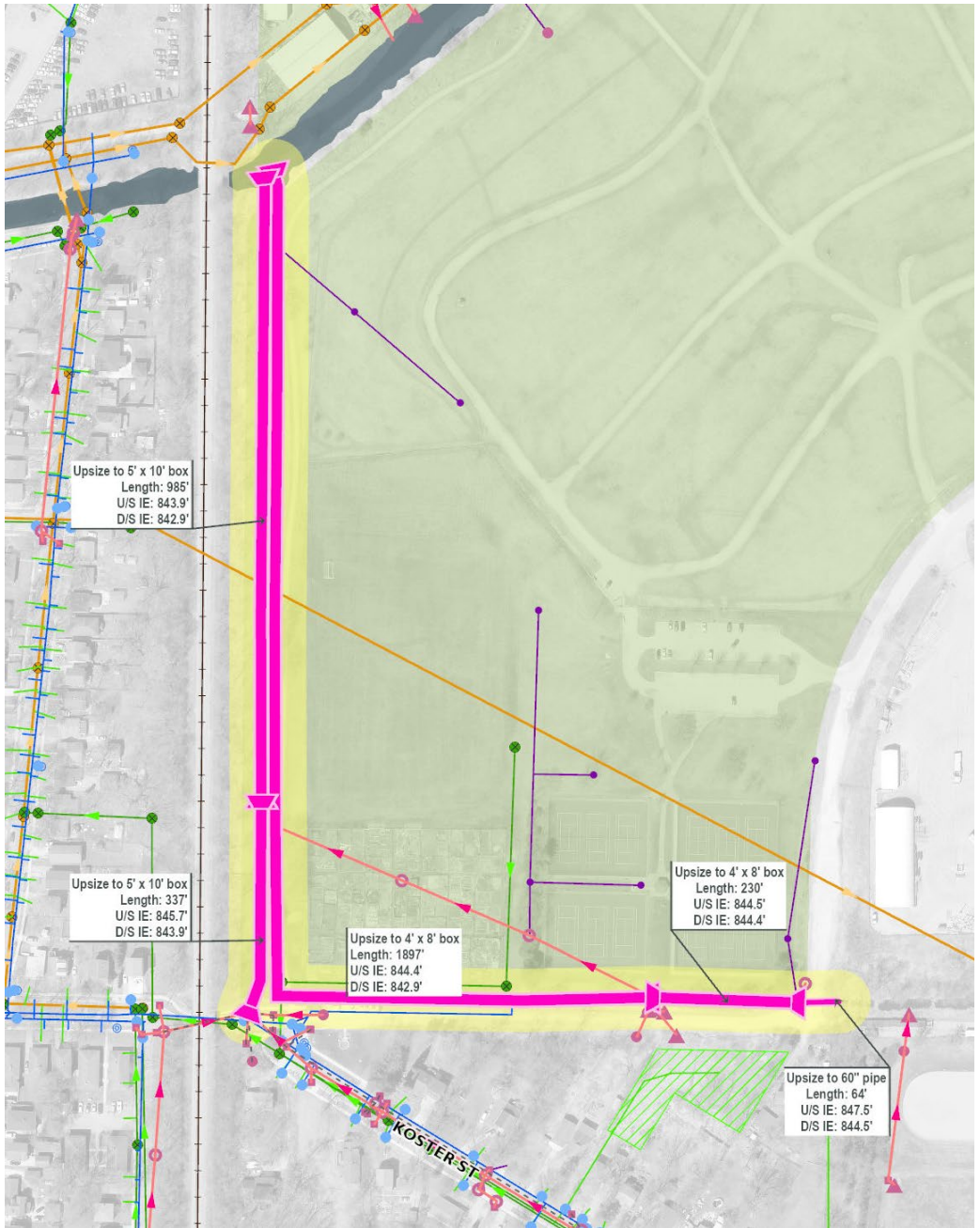
Bram to Wingra and Alliant Energy Outlet

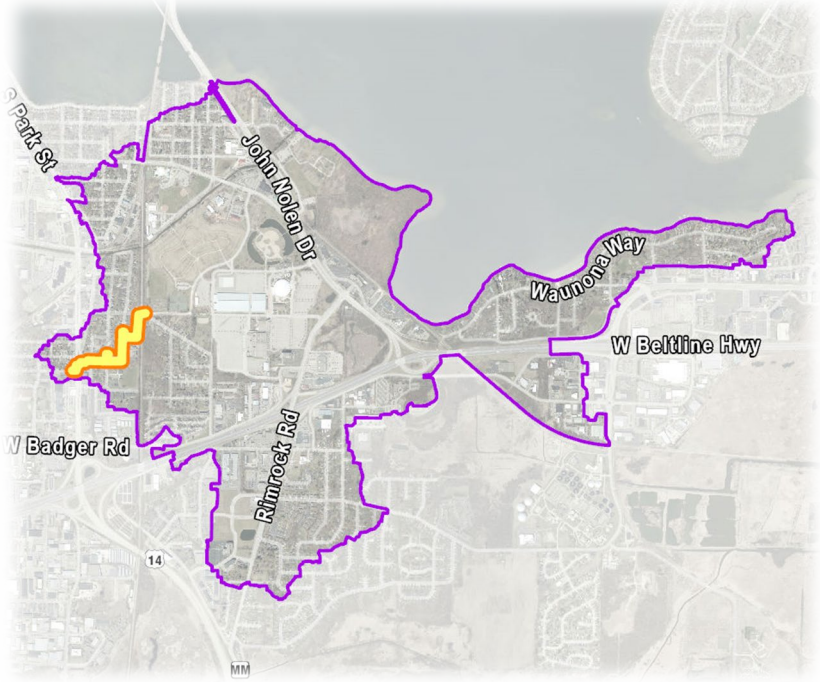
- Reduce flooding for 100-yr event
- Increase storm sewer size, realign Alliant pipe to street right-of-way
- Cross old landfill area
- Est. Cost - $7.5M+

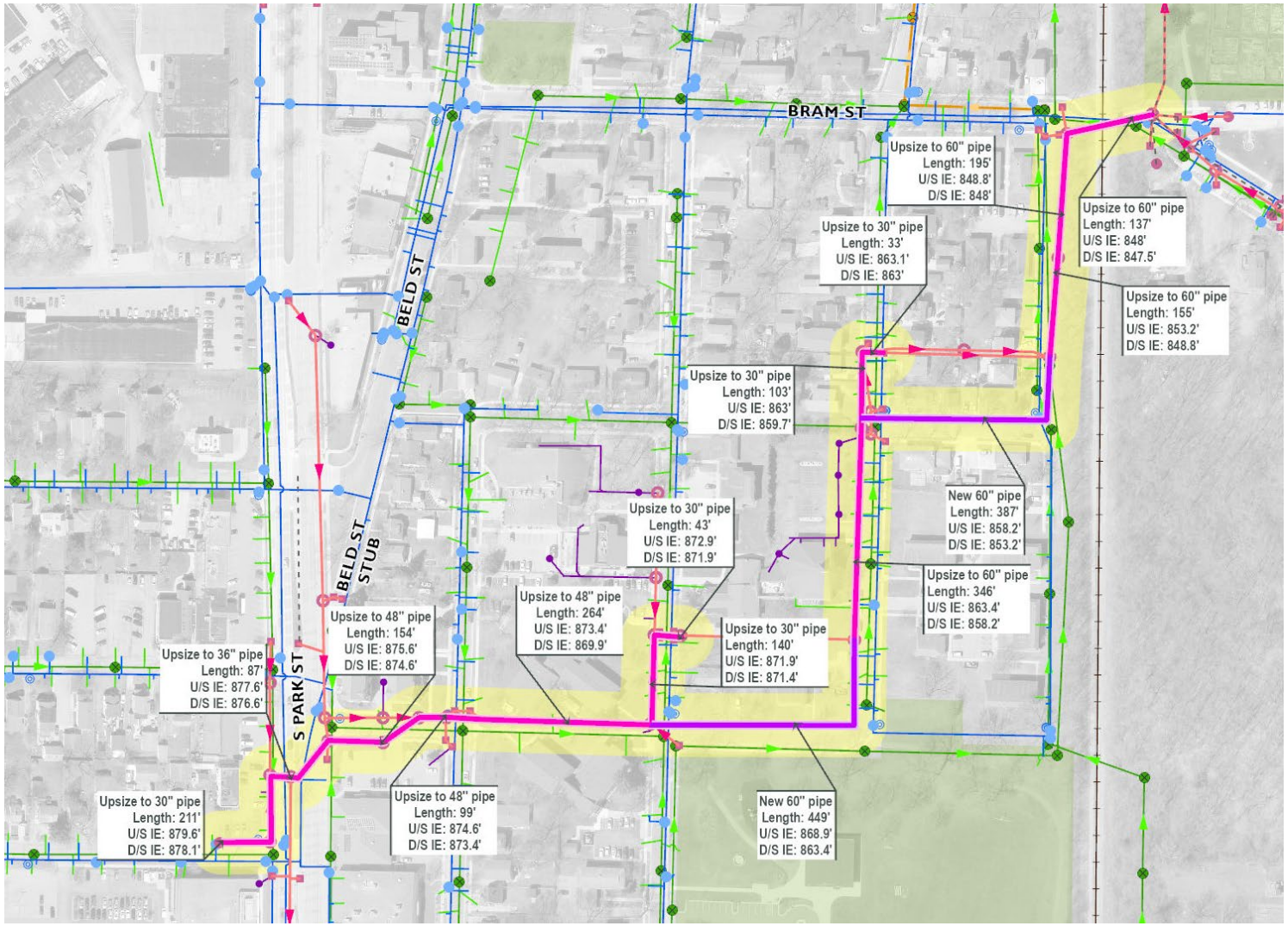




Brams Addition (local storm sewer project)

- Reduce flooding for 100-yr event
- Increase storm sewer size
- Remove pipes between private structures and into right-of-way
- Est. Cost - $1.4M

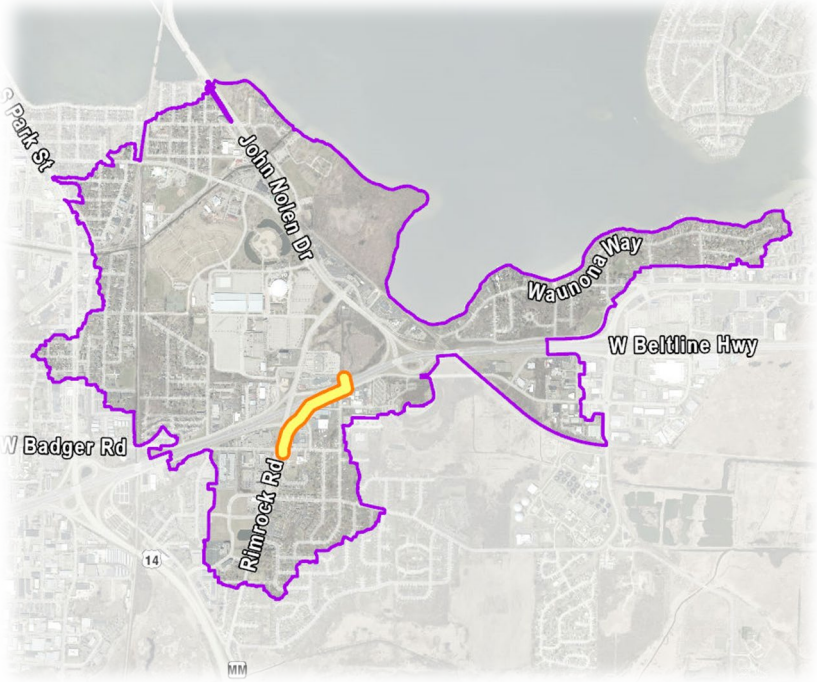


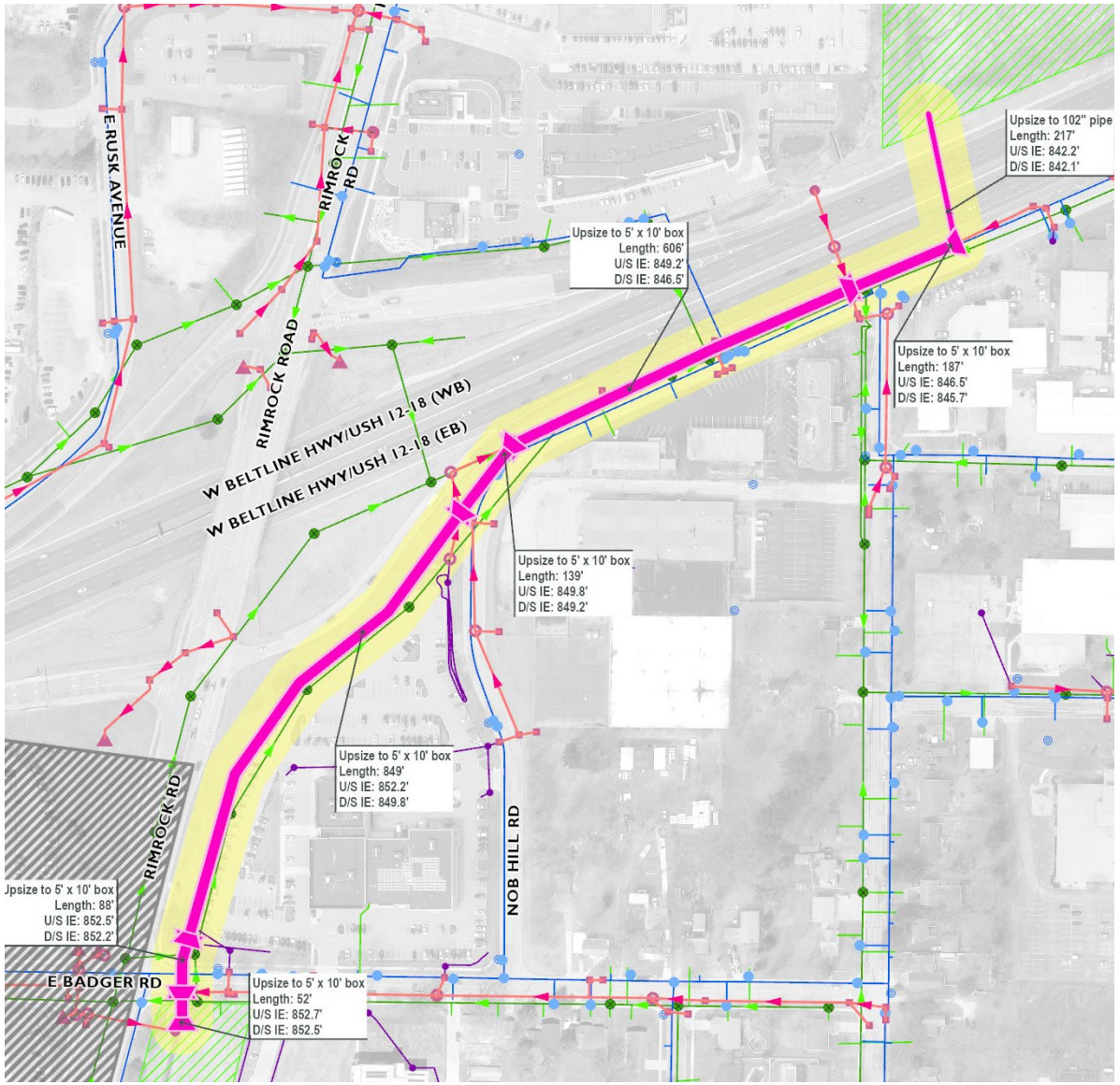


CITY OF MADISON

Rimrock Pond Outlet

- Reduce flooding for 100-yr event
- Improve conveyance from the pond to the lake
- Requires tunneling under the beltline
- Est. Cost - $5.8M

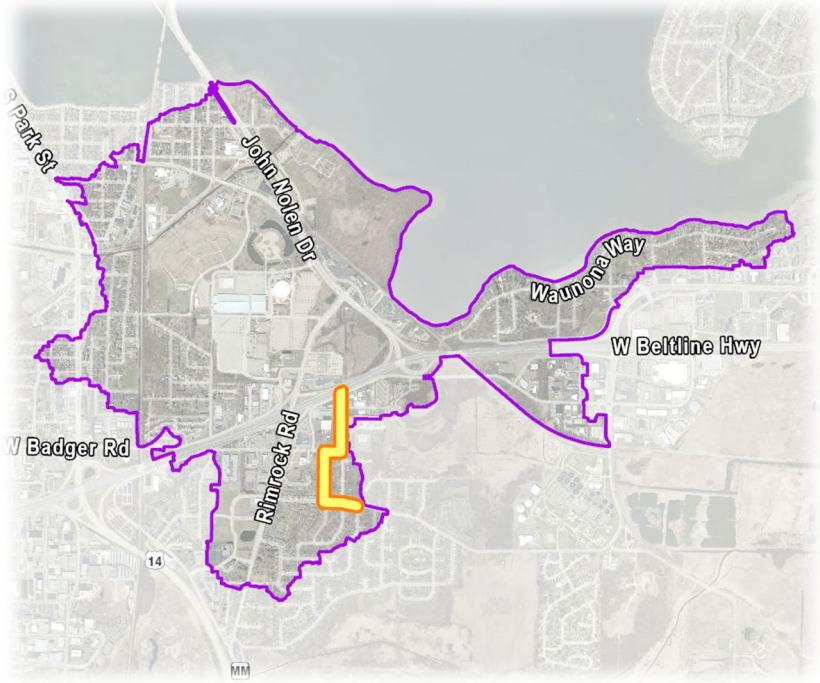


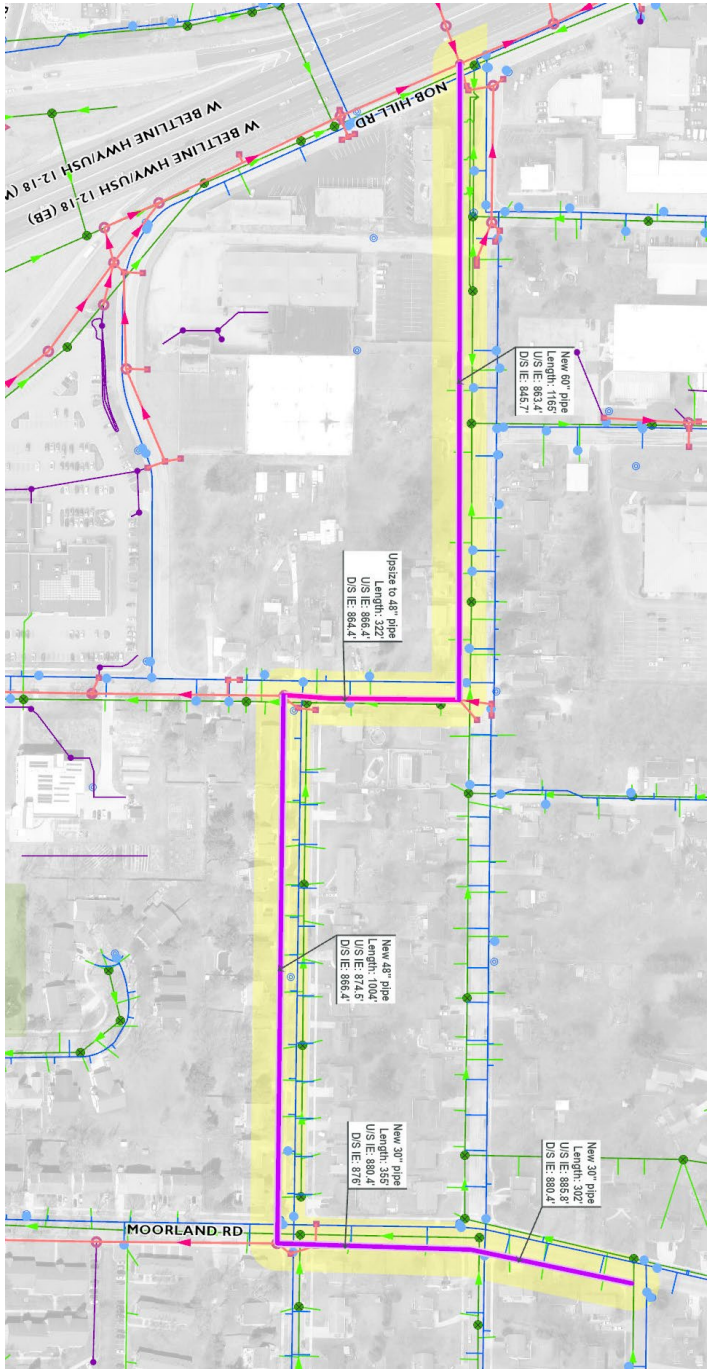


CITY OF MADISON

Badger Lane
(local storm sewer project)

- Reduce flooding for 100-yr event
- Install new storm sewer (currently unsewered)
- Est. Cost - $1.2M





CITY OF MADISON

Estimated Costs and select implementation order

Near West

Project	Estimated Total Cost
N Hamilton St/E Johnson St/E Gorham St Storm System Improvements	$0.7M
University Ave/Lake St Storm System Improvements	$1.5M
Regent St Storm System Improvements	$10.5M
Oakland Ave/Adams St Storm System Improvements	$2.9M
Vilas Ave/S Park St Storm System Improvements	$0.7M
Emeral St/S Park St Storm System Improvements	$0.3M
Erin St/Delaplaine Ct Storm System Improvements	$0.7M
Parr St Storm System Improvements	$0.2M
S Mills St Relief Sewer	$32.3M
N Hancock St Storm System Improvements	$1.4M
Total	**$51.2M**

John Nolen

Project	Estimated Total Cost
E Lakeside and Sayle St Storm System Improvements	$3.1M
Gilson St Storm System Improvements	$0.9M
Brams Addition Storm System Improvement	$1.4M
Nygard and Sunstrom Street Improvements	$0.2M
Badger Lane Storm System Improvements	$1.2M
Holtzman Rd Storm System Improvements	$0.5M
Bram to Wingra and Alliant Energy Outlet Improvements	$7.6M
Rimrock Pond Outlet Improvement	$5.8M
Total	**$20.7M**

CITY OF MADISON

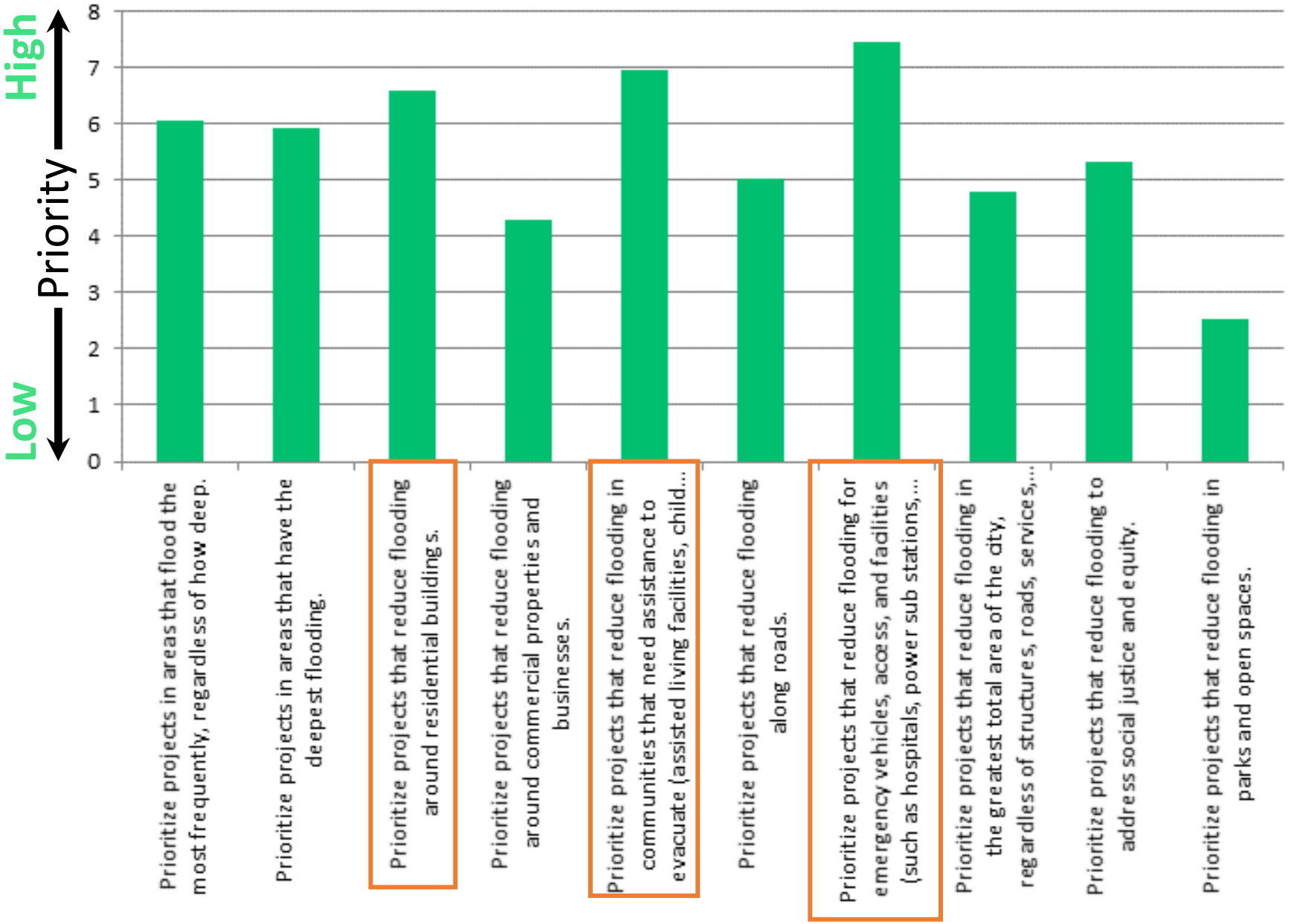
Budgeting Considerations

- Not all projects are yet identified
  - Currently 75 stand-alone projects in 9 study areas (22 watersheds will be studied)
  - $290M (current day dollars)
- Stormwater Utilities fees fund projects
  - Double digit rate increases – not sustainable
  - Without additional funding, only 1-2 medium/large projects completed each year
- Additional funding mechanisms
  - Grants, appropriations, earmark funds
- Most projects take 1 ½ - 2 years to design & permit before construction

Citywide Prioritization Tool

- City creating prioritization tool to prioritize when solutions will be constructed
  - Will include all flood mitigation solutions in the City (23 watersheds)
  - Currently revisited annually as more studies are completed and solutions are added.
- Solutions prioritized based on:
  - Flood reduction abilities
  - Vulnerability
    - Income
    - Evacuation
  - Ability to improve emergency service access
  - Cost
  - Water quality benefits
- Surveys completed to provide input on how solutions are prioritized

Prioritization Survey Results



Effort to collect resident input citywide on what type projects should be prioritized.

Results were used to develop scoring system for prioritization tool, along with other factors previously shown

CITY OF MADISON

Why Aren’t all Targets Met for the Watershed?

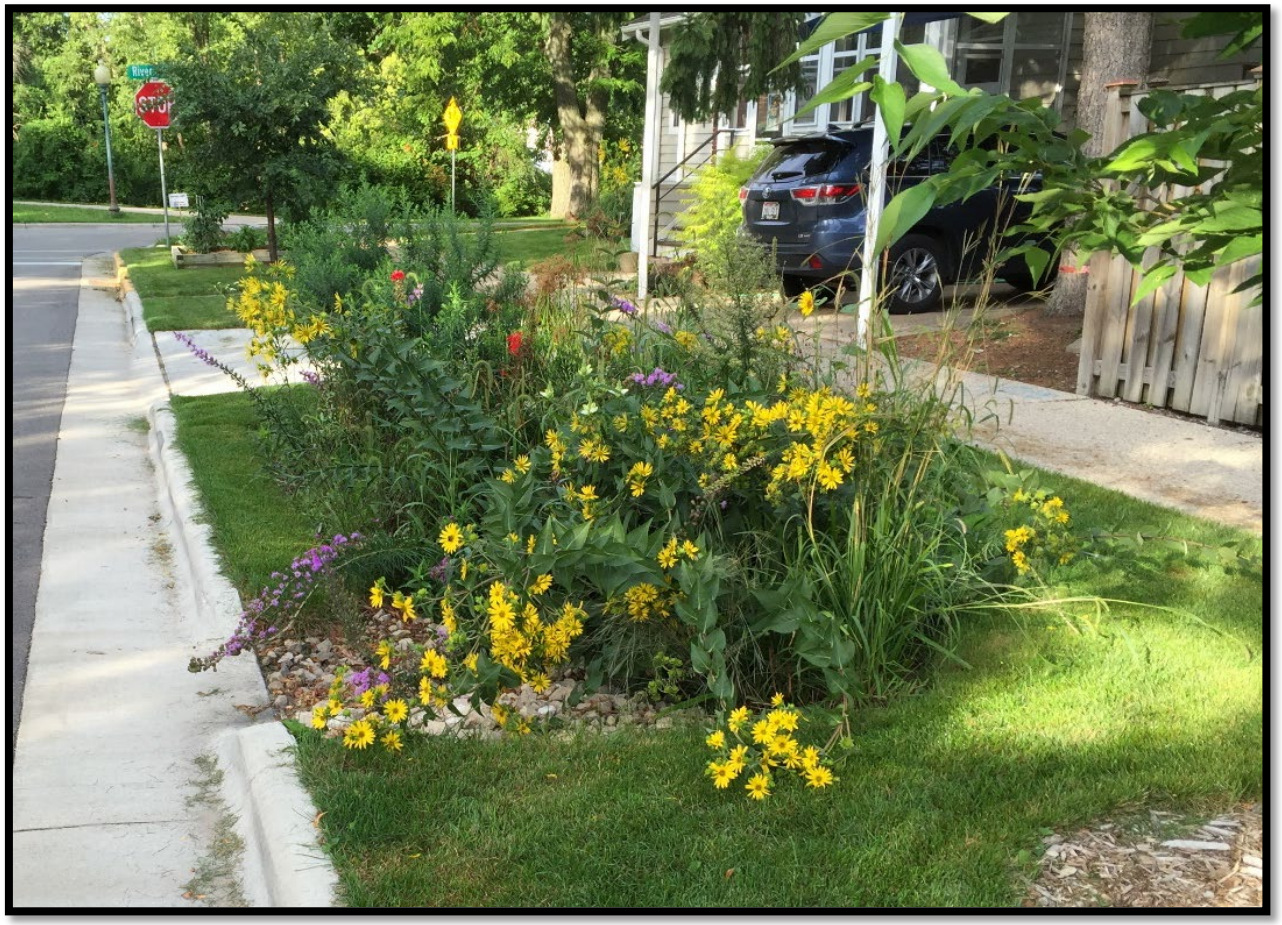
- Space constraints
- Conflict with other major utilities (drinking water wells, large gas mains, etc)
- Property ownership
- Cost impacts

Next Steps

- Finalize Report
- Finalize Prioritization Process
- Begin Implementing Solutions

CITY OF MADISON

Other Watershed Opportunities - What The City is Doing

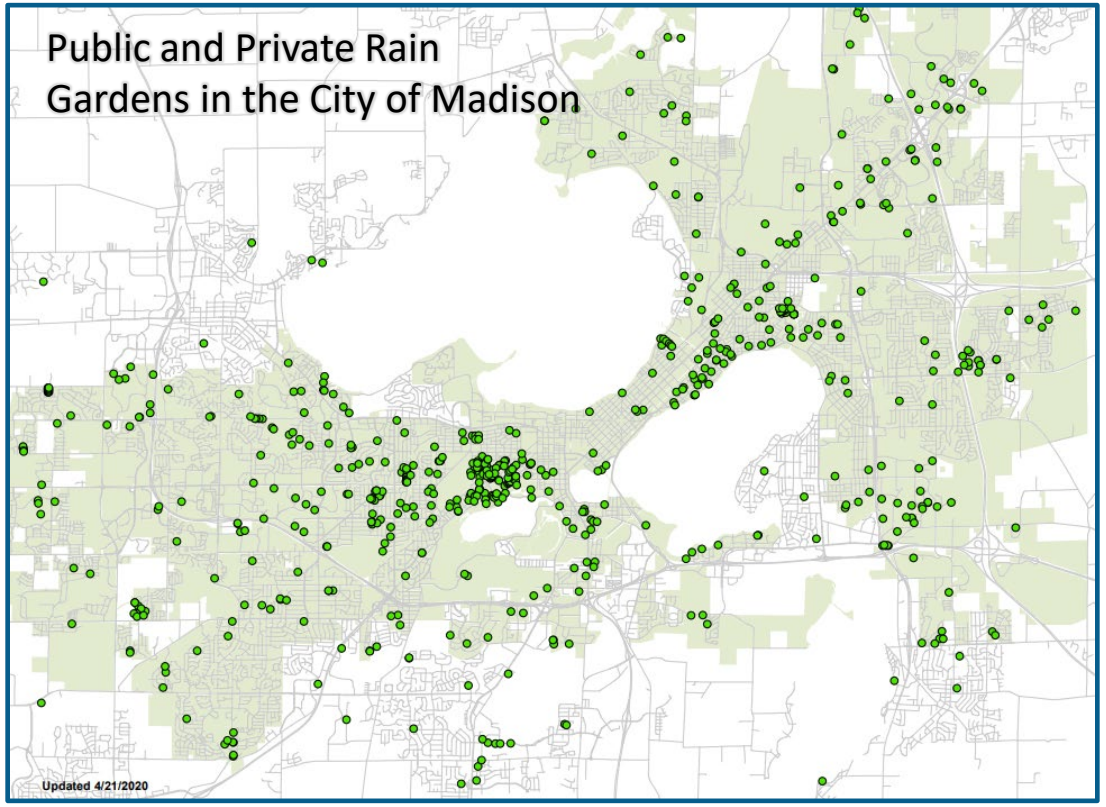


CITY OF MADISON

What The City is Doing

- Green Infrastructure (GI) Successes in The City

- GI Effectiveness Analysis – modeled the impact of using widespread GI for flood mitigation
- Westmorland GI Pilot Study – Paired with the USGS to implement significant amounts of GI and study the downstream impact
- Roger Bannerman Rain Garden Initiative (Terrace Rain Garden Program)
    - The City is well on its way to the 1000 Rain Garden Goal! As of February 2024, there are 773 which is a 24% increase since 2020!
- Stormwater Ordinance Revision – resulted in an increase in GI with private development. Over 20 green roofs have been built since the ordinance revision
- Supplies residents with additional online Educational Resources



CITY OF MADISON

What Residents Can Do

- Be a Watershed Steward

- Talk about the Impacts of Stormwater Runoff with Neighbors
- Install a rain garden --> credit on your stormwater bill
  - Learn how to build a rain garden to collect stormwater from your roof
  - Buy reduced costs native plants from Plant Dane
  - Apply for a Stormwater Fee Adjustment
- If you're impacted by road reconstruction, you may qualify for the City's terrace rain garden program
- Modify your leaf management techniques by removing leaves from the street and using them in your yard
- Learn about Ripple Effects, Madison Area Stormwater Partnership
  - Celebrate Wisconsin Stormwater Week - September 2025
  - Adopt A Storm Drain
  - Install a Rain Barrel
- See Illegal Dumping to Storm Drains or Waterways – Report it!

Scan me!

CITY OF MADISON

Contact Information & Resources

- Project Manager: Ryan Stenjem, RStenjem@cityofmadison.com
- Public Information Officer: Hannah Mohelnitzky, hmohelnitzky@cityofmadison.com
- Project Webpages:
  https://www.cityofmadison.com/engineering/projects/near-west-watershed-study
  https://www.cityofmadison.com/engineering/projects/john-nolen-drive-watershed-study

  Sign-up for project email updates on the website
  Report flooding, past or current on the Report Flooding form
  Learn ways to protect your property from flooding with on-site fixes

- Near West and John Nolen Feedback Survey: https://www.surveymonkey.com/r/52CMSDW
- New Flooding Website: www.cityofmadison.com/flooding
- Everyday Engineering Podcast

Instagram: @MadisonEngr Facebook: City of Madison Engineering X:@MadisonEngr

CITY OF MADISON

Zoom Breakout Rooms

- Join a Zoom Breakout Room Session
  - Window will pop up where you can select which group you'd like to join
  - If a window doesn't pop up, look for a button on the bottom that says "Breakout Rooms." Click the button and room options will appear.

CITY OF MADISON

Breakout Groups

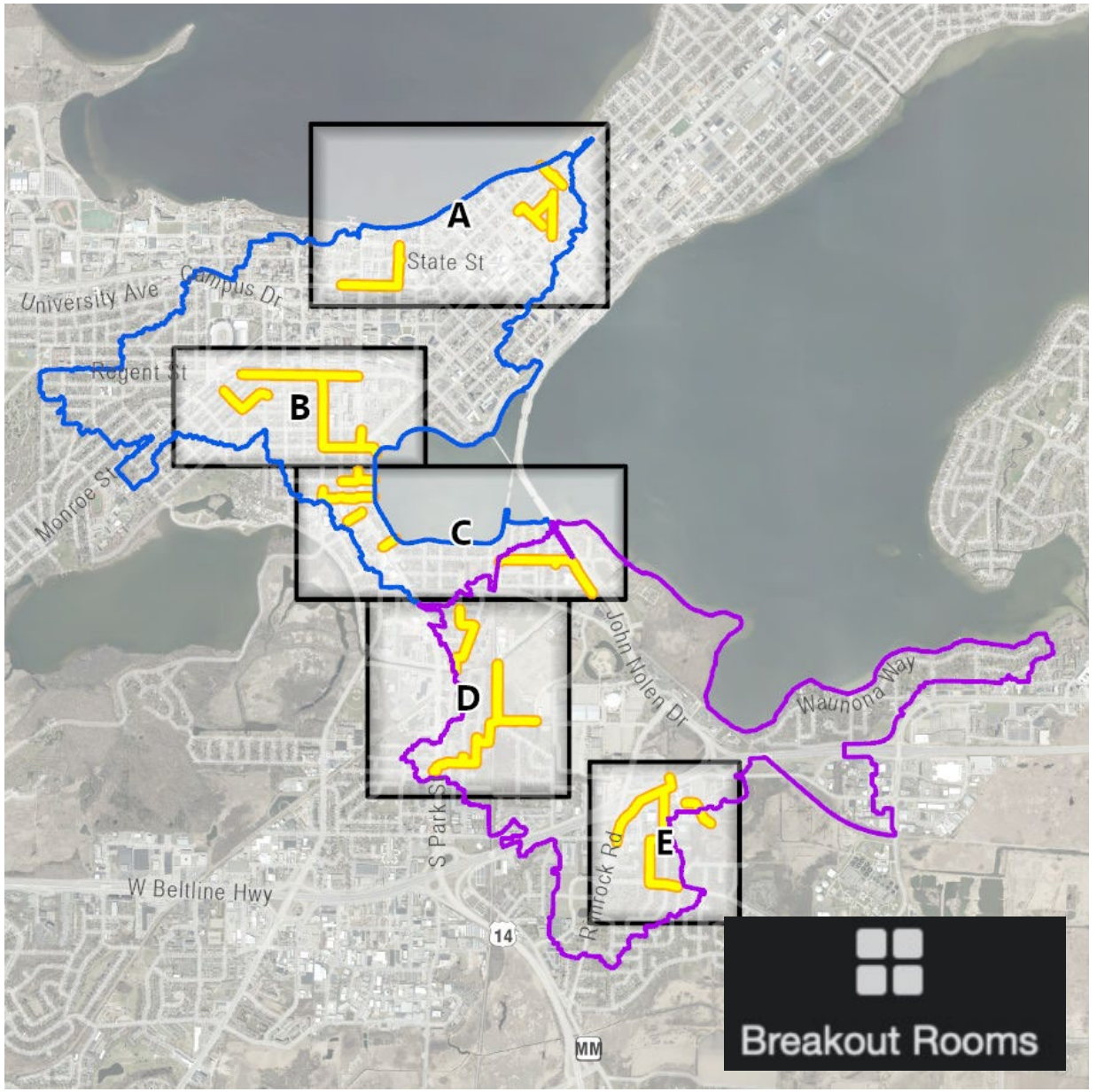
A. **Near West**: Northern Improvements

B. **Near West**: Regent St and S Mills Relief Sewer

C. **Near West**: Southern Improvements
John Nolen: S Lakeside Dr

D. **John Nolen**: Gilson St, Quann Park & Alliant Energy Center outlet, Brams Addition Neighborhood

E. **John Nolen:** Rimrock Rd pond outlet, Badger Ln, Holtzman Rd



CITY OF MADISON

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Near West Proposed Solutions

1. N Hamilton St/E Johnson St/E Gorham St
2. University Ave/Lake St
3. Regent St
4. Oakland Ave/Adams St
5. Vilas Ave/S Park St
6. Emerald St/S Park St
7. Erin St/Delaplaine Ct
8. Parr St

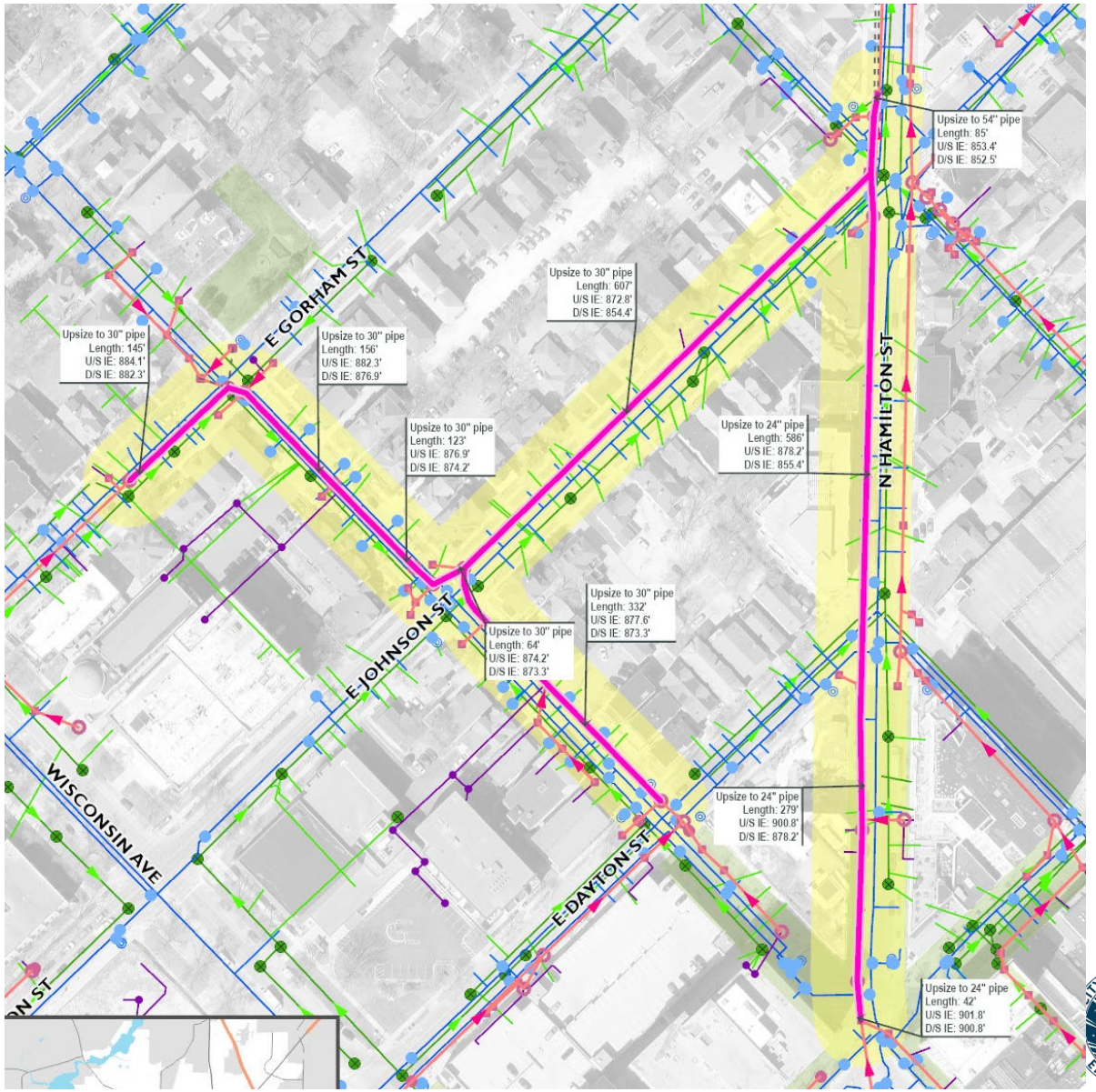
Stand-alone Projects

9. S Mills St Relief Sewer
10. Hancock St and outfall in James Madison Park

CITY OF MADISON

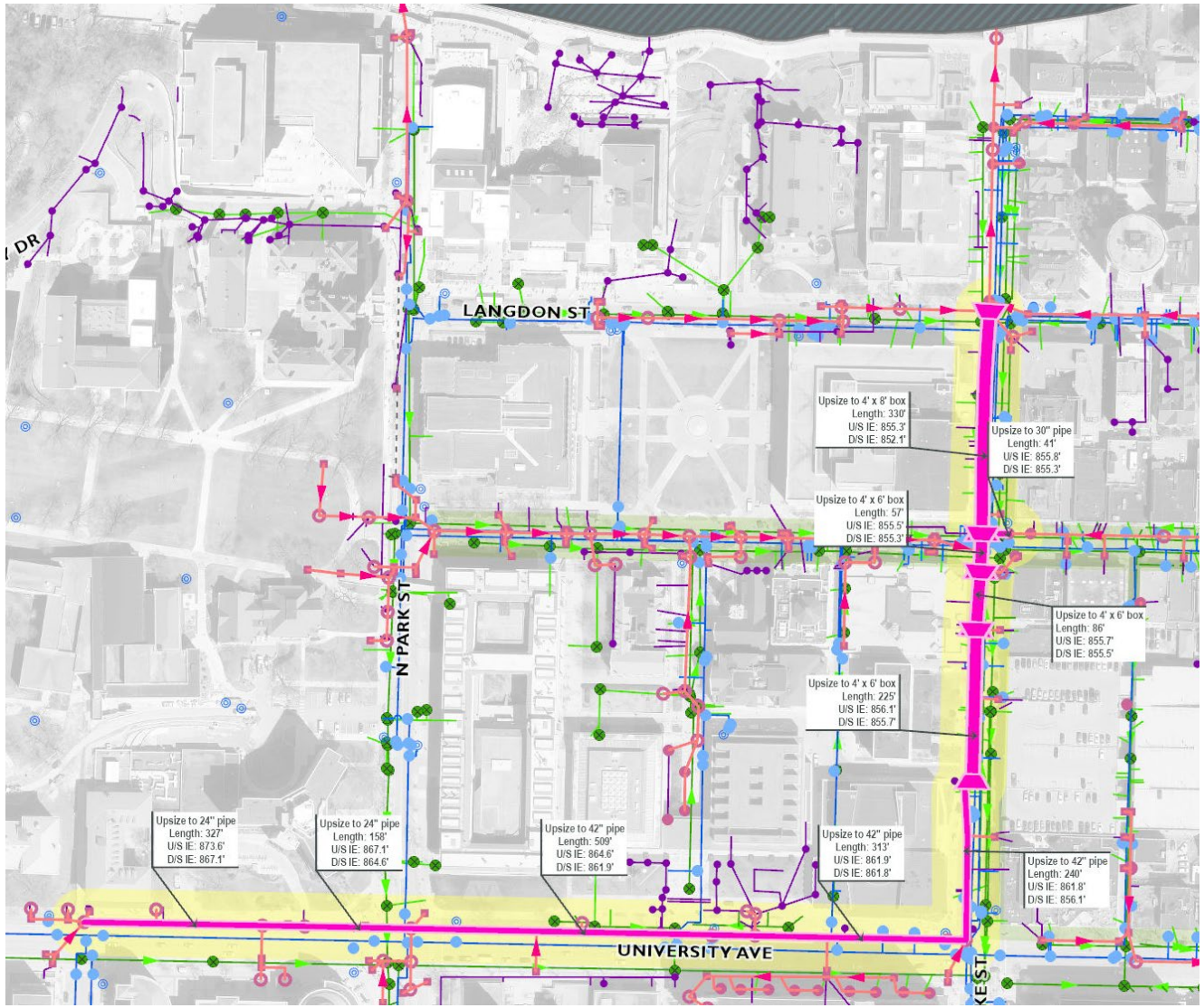
N Hamilton St/E Johnson St/E Gorham St

- Reduce flooding for 100-yr event
- Reduce localized flooding
- Est. Cost - $0.7M



University Ave/Lake St

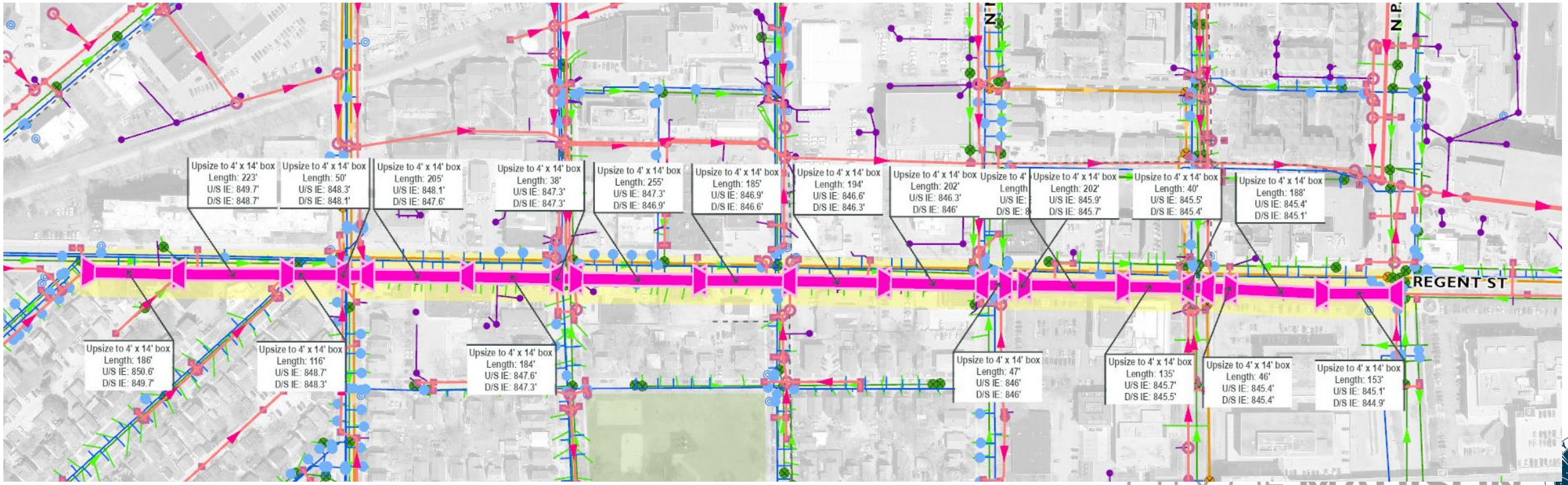
- Reduce flooding for 50-yr event
- Lake St construction underway; this improvement will happen when the road requires replacement in the future.
- Est. Cost - $1.5M



CITY OF MADISON

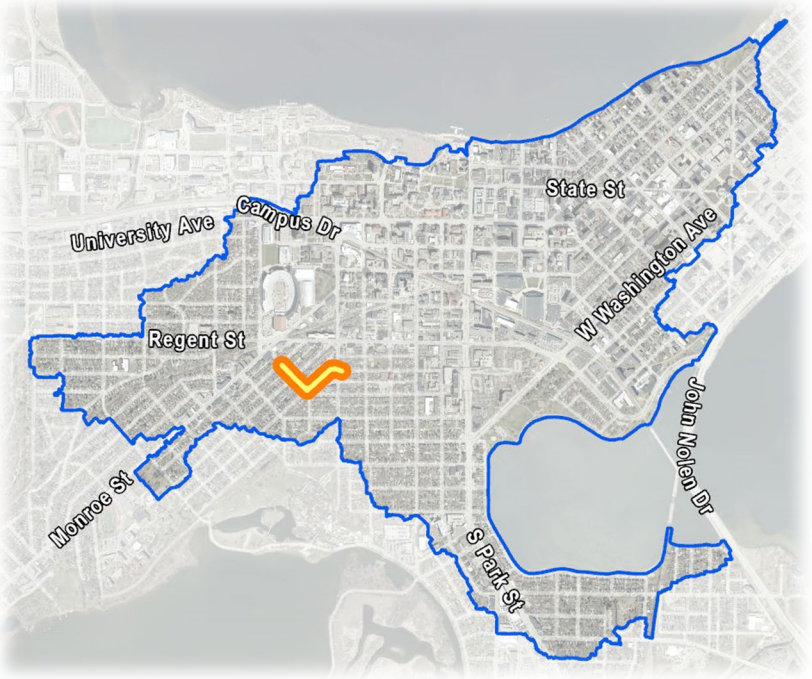
Regent St

- Reduce flooding for 25-yr event
- Existing box culvert needs repair
- City planning reconstruction within the next few years
- Est. Cost - $10.5M



Oakland Ave/Adams St

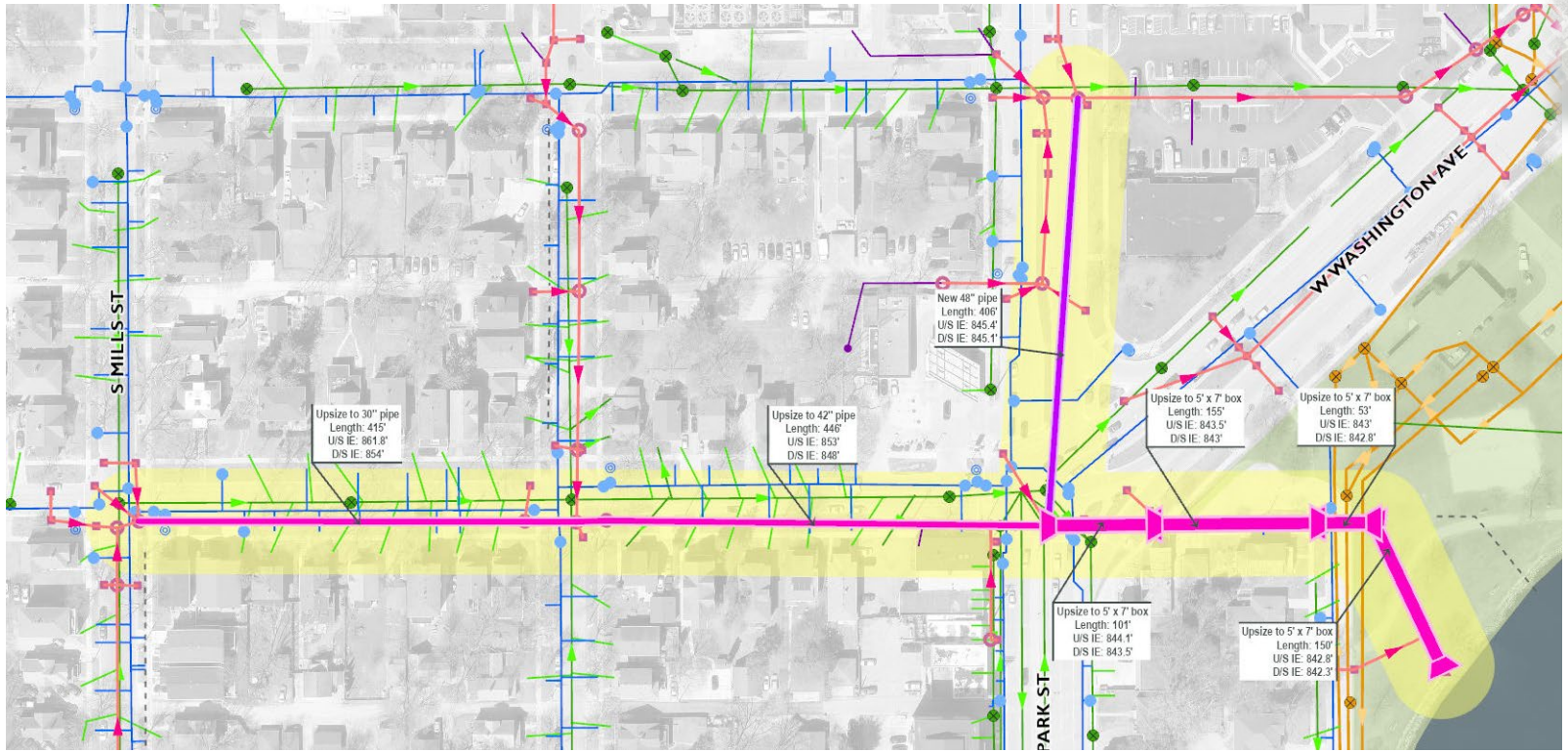
- Existing pipes are old ellipticals
- Solution is to replace with equivalent capacity box culverts, as downstream capacity is limited
- Est. Cost - $2.9M



CITY OF MADISON

Vilas Ave/S Park St

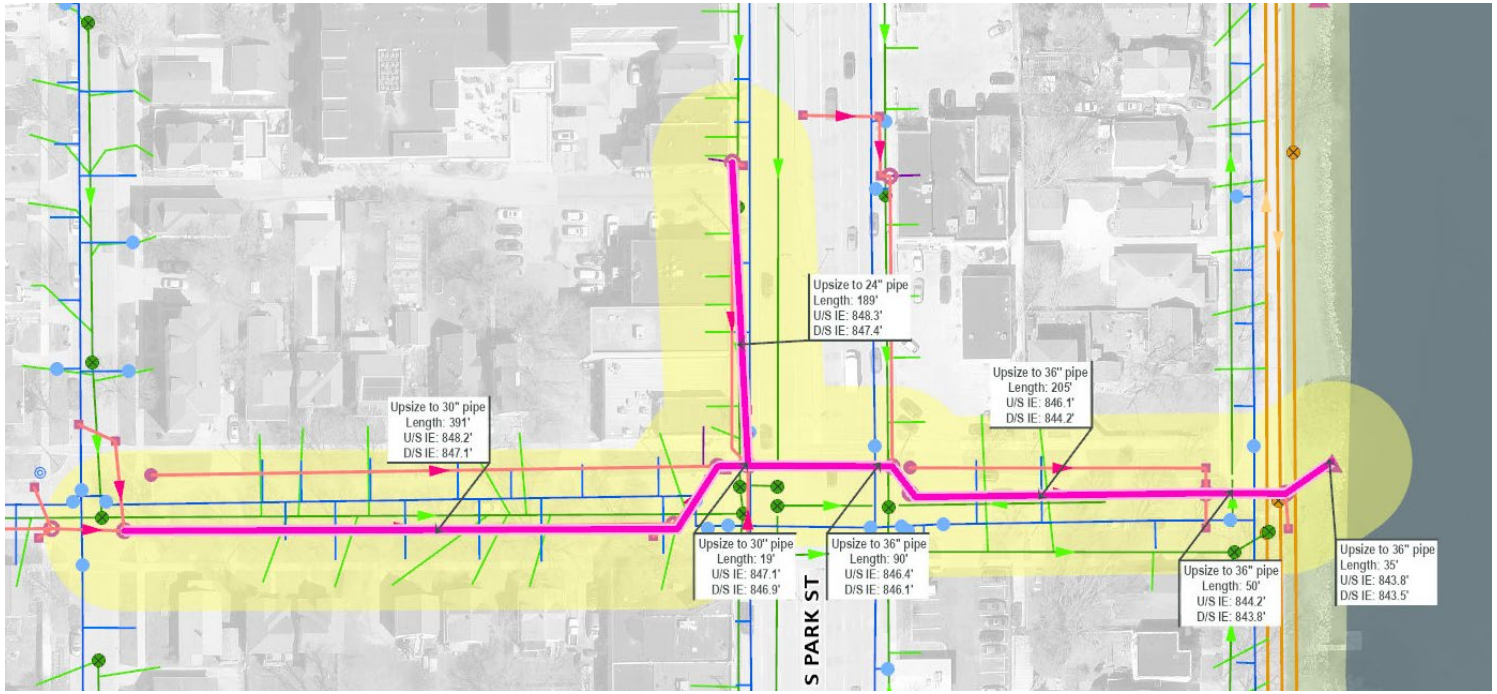
- Alternative solution, if S Mills Relief Sewer is not constructed
- Drains enclosed depression on Park St
- Est. Cost - $0.7M



CITY OF MADISON

Emerald St/S Park St

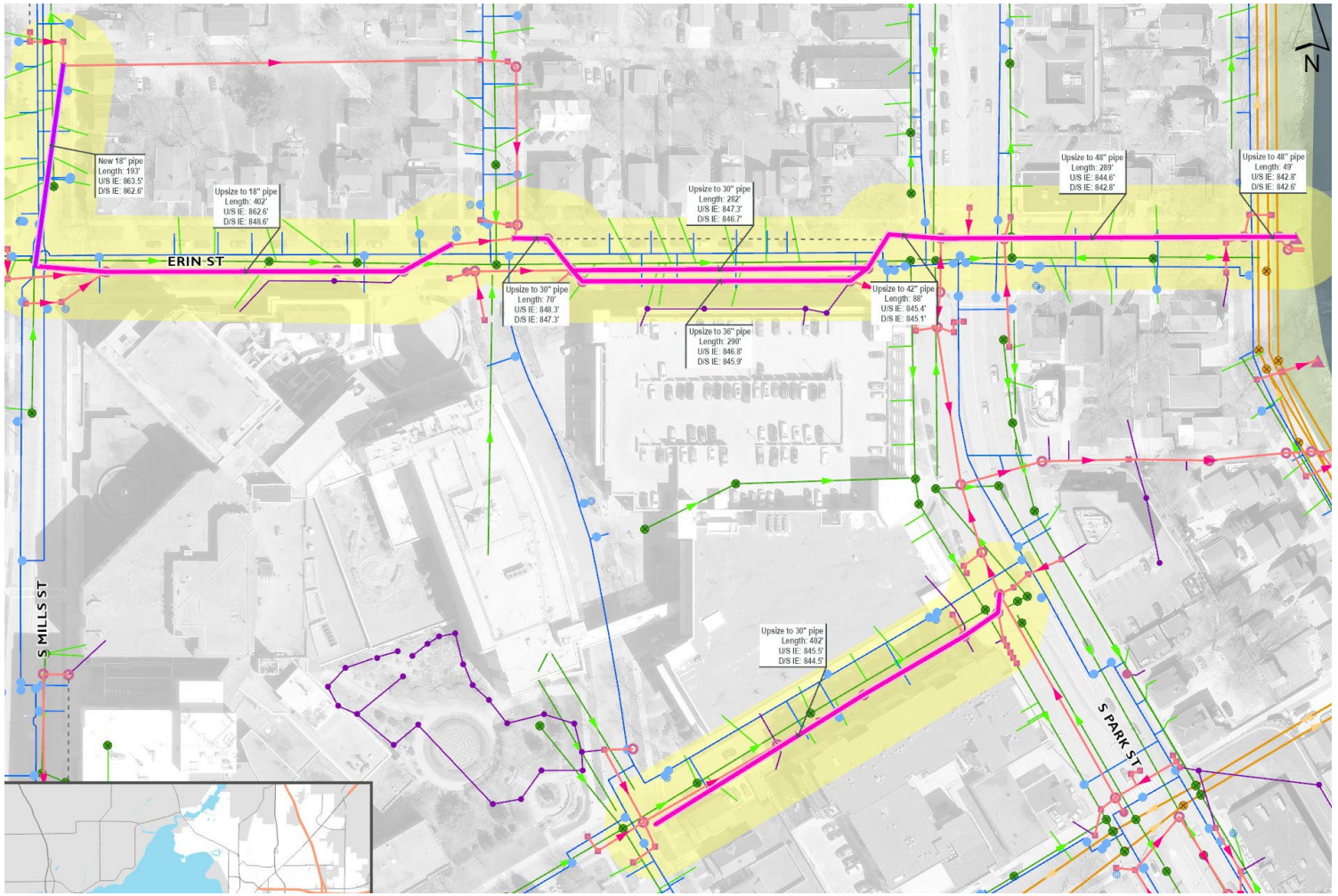
- Reduce flooding for 25-yr event
- Improves localized flood concerns
- Est. Cost - $0.3M



CITY OF MADISON

Erin St/Delaplaine Ct

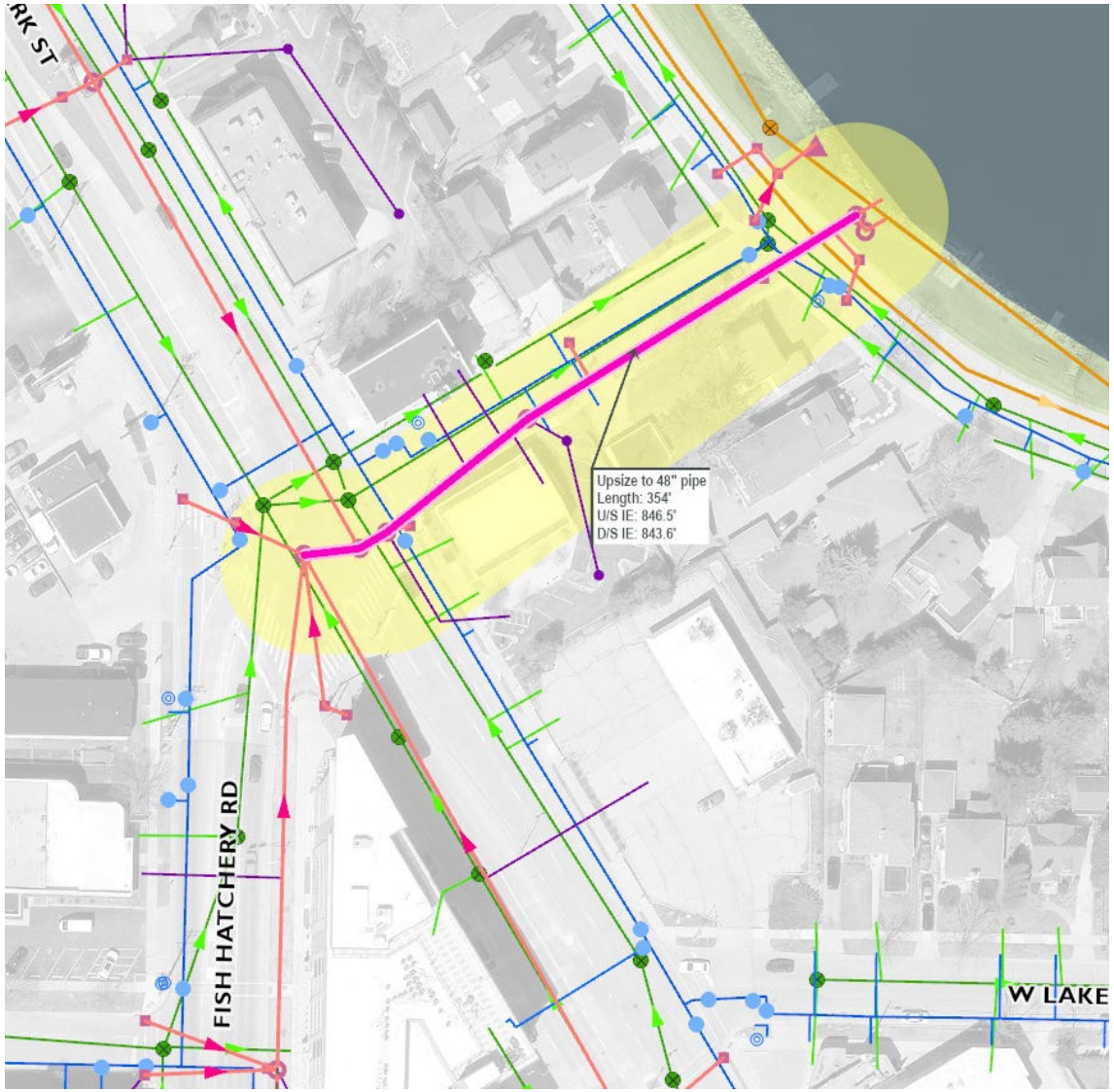
- Reduce flooding for 100-yr event
- Improves localized flood concerns
- Est. Cost - $0.7M



CITY OF MADISON

Parr St

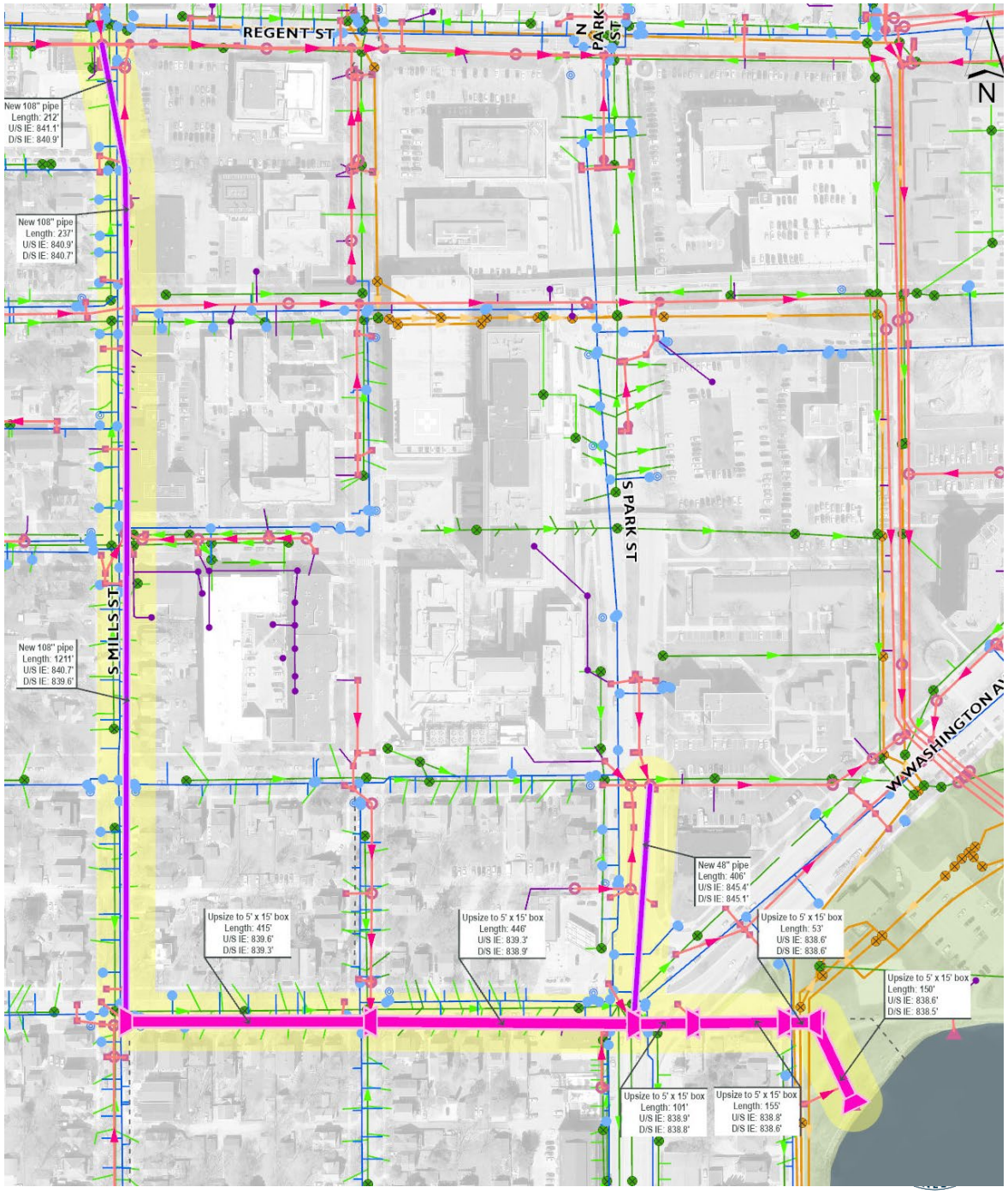
- Reduce flooding for 25-yr event
- Improves localized flood concerns
- Est. Cost - $0.2M



CITY OF MADISON

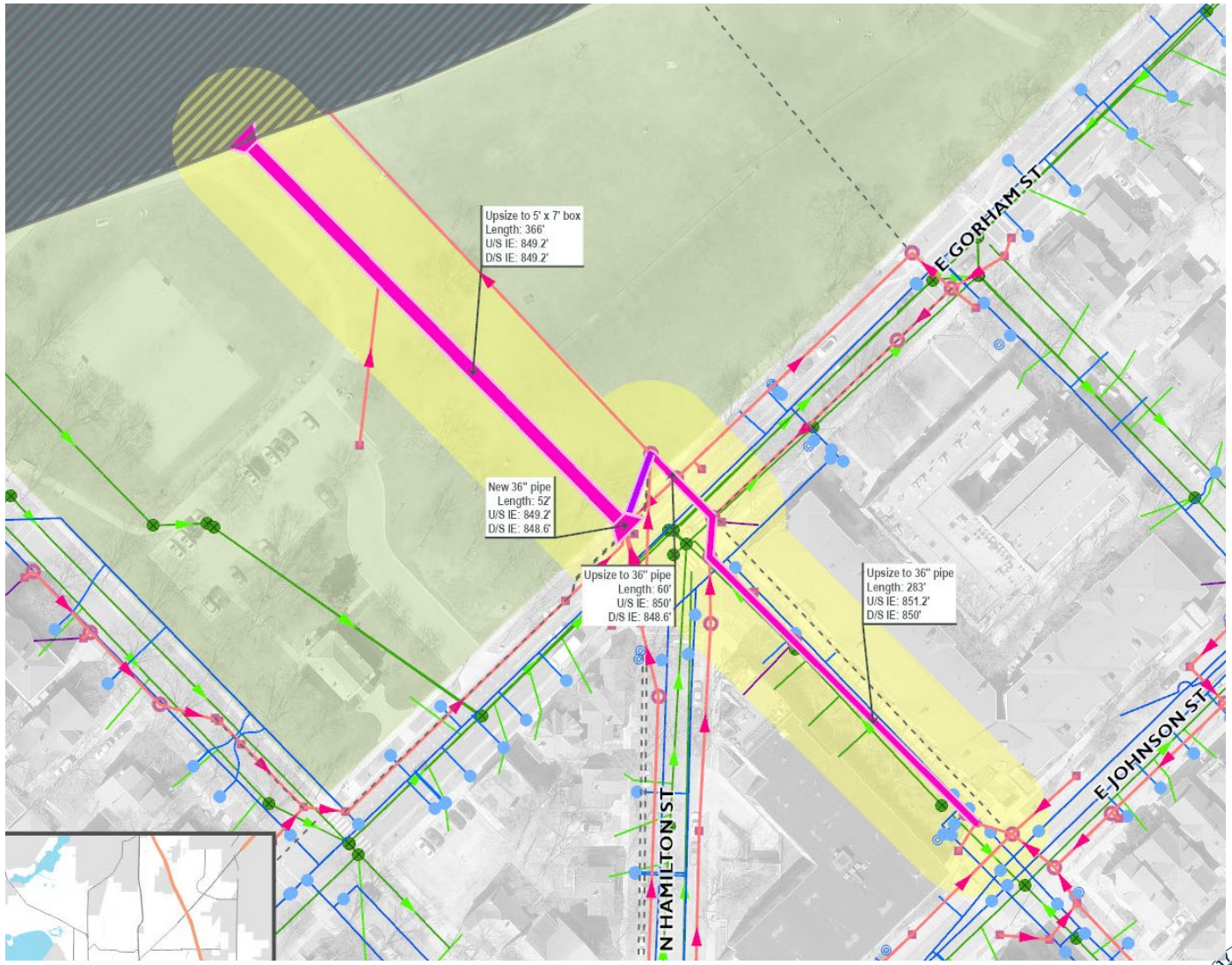
S Mills St Relief Sewer

- Reduce flooding for 100-yr event
- Provide a secondary outlet for the Regent St enclosed depression
- Est. Cost - $32.2M



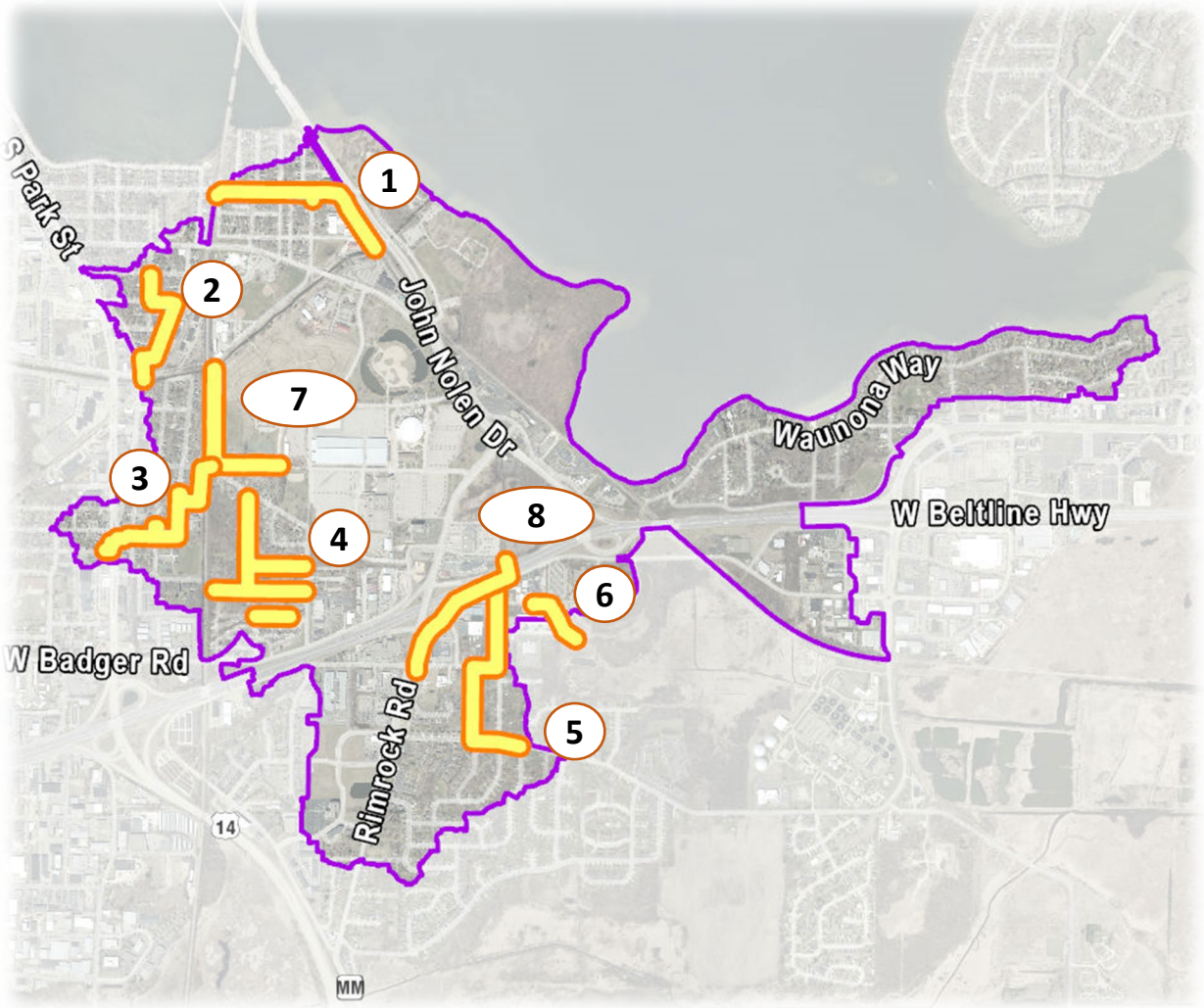
Hancock St and outfall in James Madison Park

- Reduce flooding for 100-yr event
- Replace aging pipe & increase storm sewer size
- Est. Cost - $1.43M



CITY OF MADISON

John Nolen: Local Storm Sewer Improvements



1. E Lakeside St/Sayle St
2. Gilson St
3. Brams Addition
4. Nygard and Sunstrom St
5. Badger Lane
6. Holtzman Rd

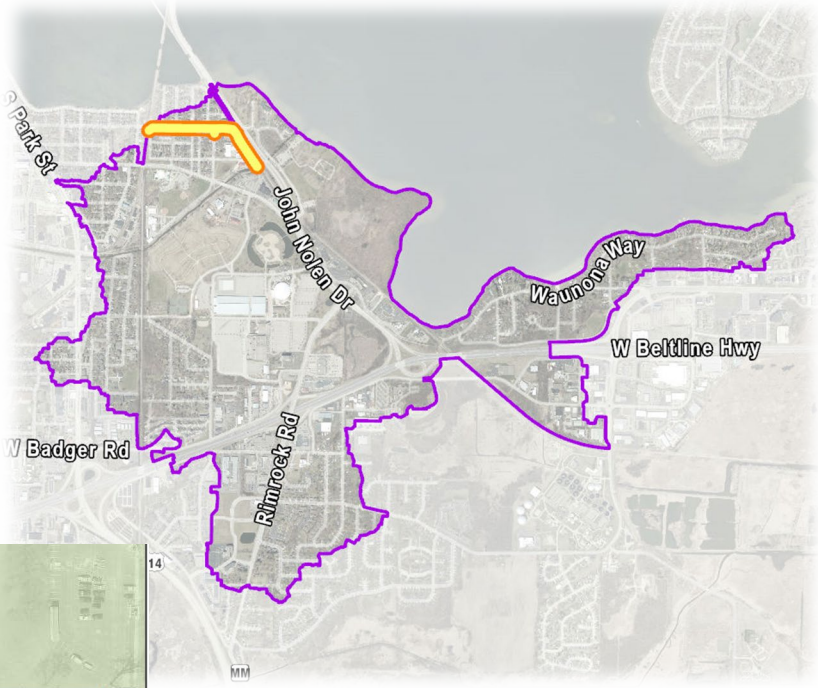
Stand-alone Projects

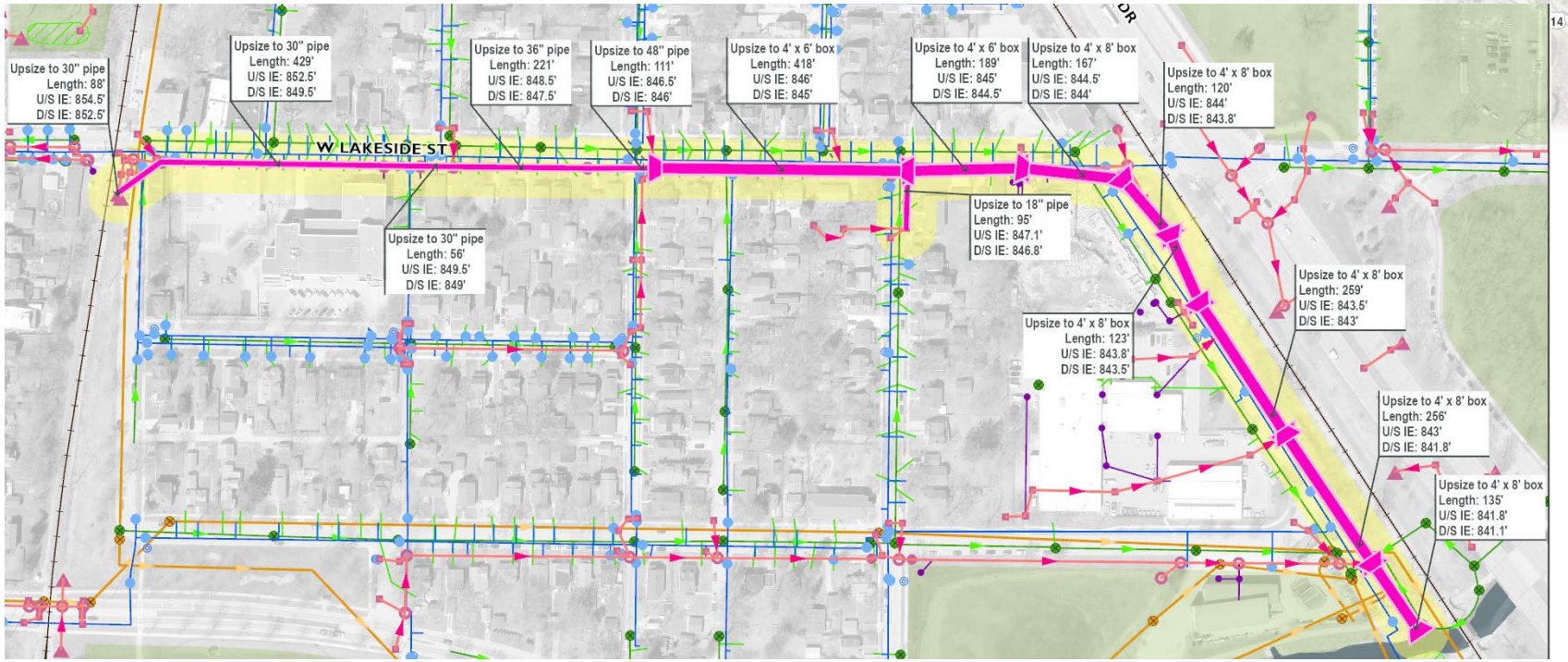
7. Bram to Wingra and Alliant Energy Outlet
8. Rimrock Pond Outlet

CITY OF MADISON

E Lakeside St/Sayle St

- Reduce flooding for 100-yr event
- Increase storm sewer size
- Est. Cost - $3.1M

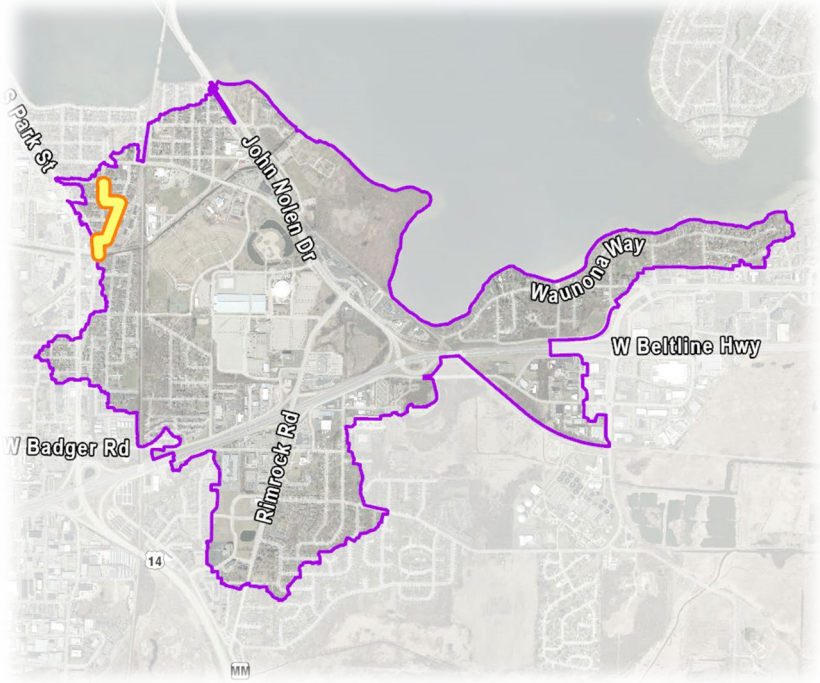


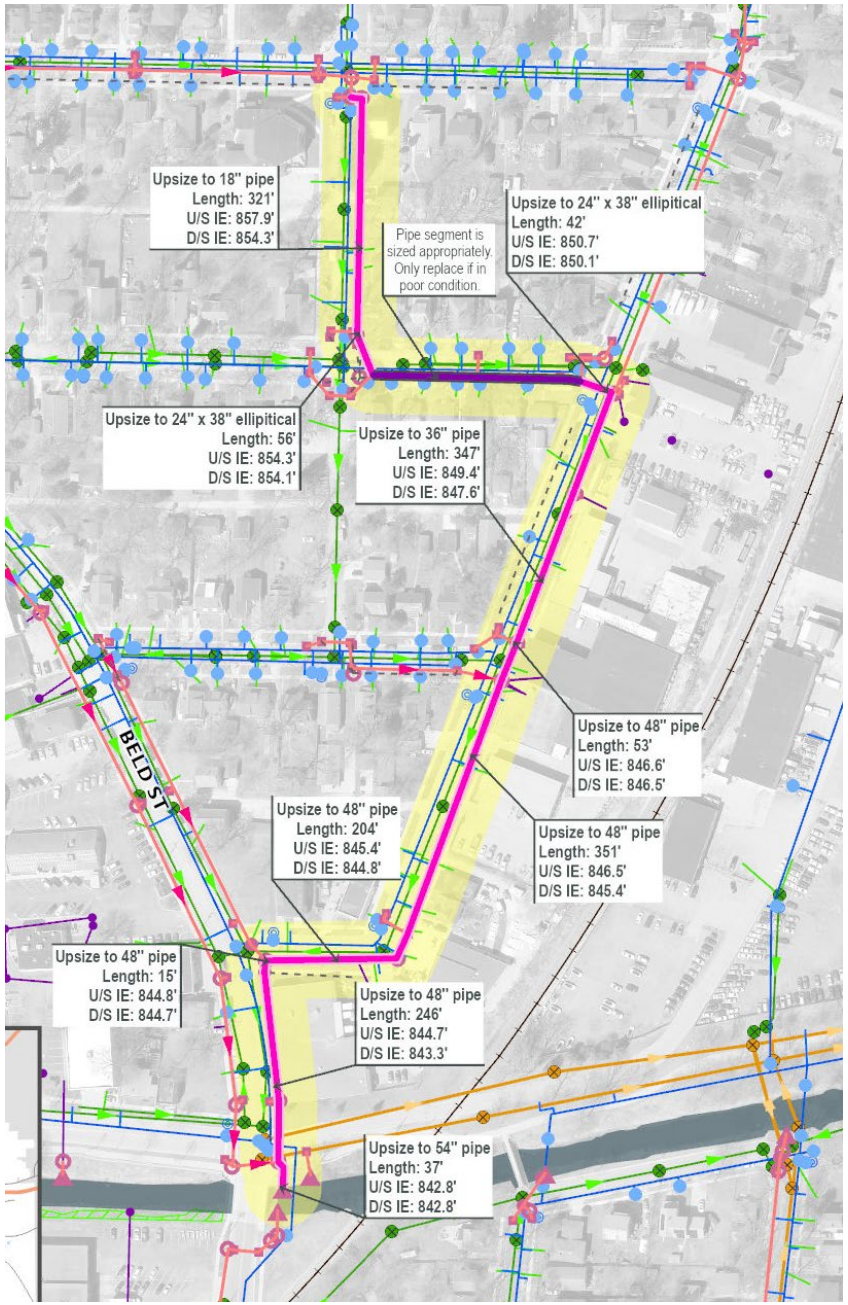


CITY OF MADISON

Gilson St

- Reduce flooding for 10-yr event
- Increase storm sewer size
- Est. Cost - $0.9M

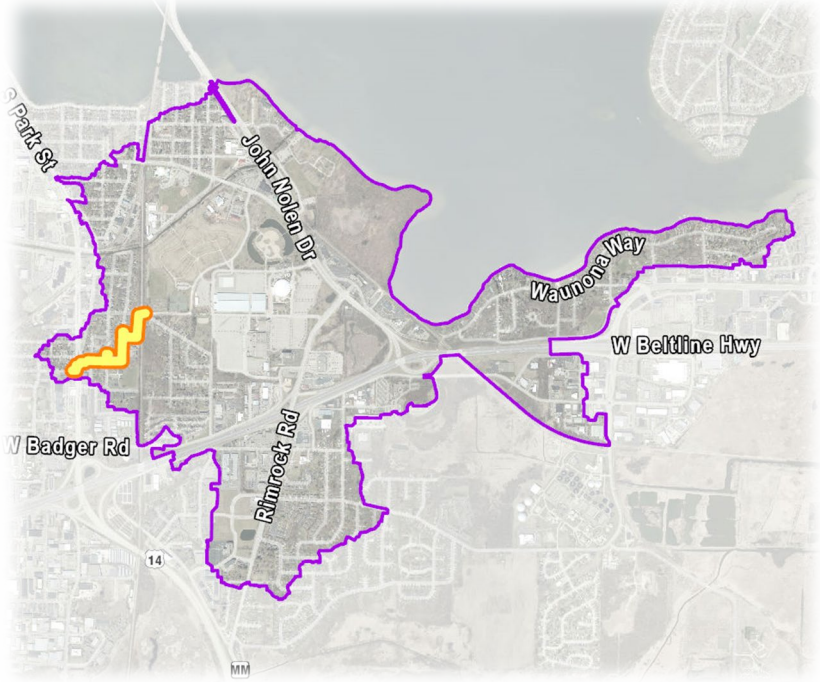


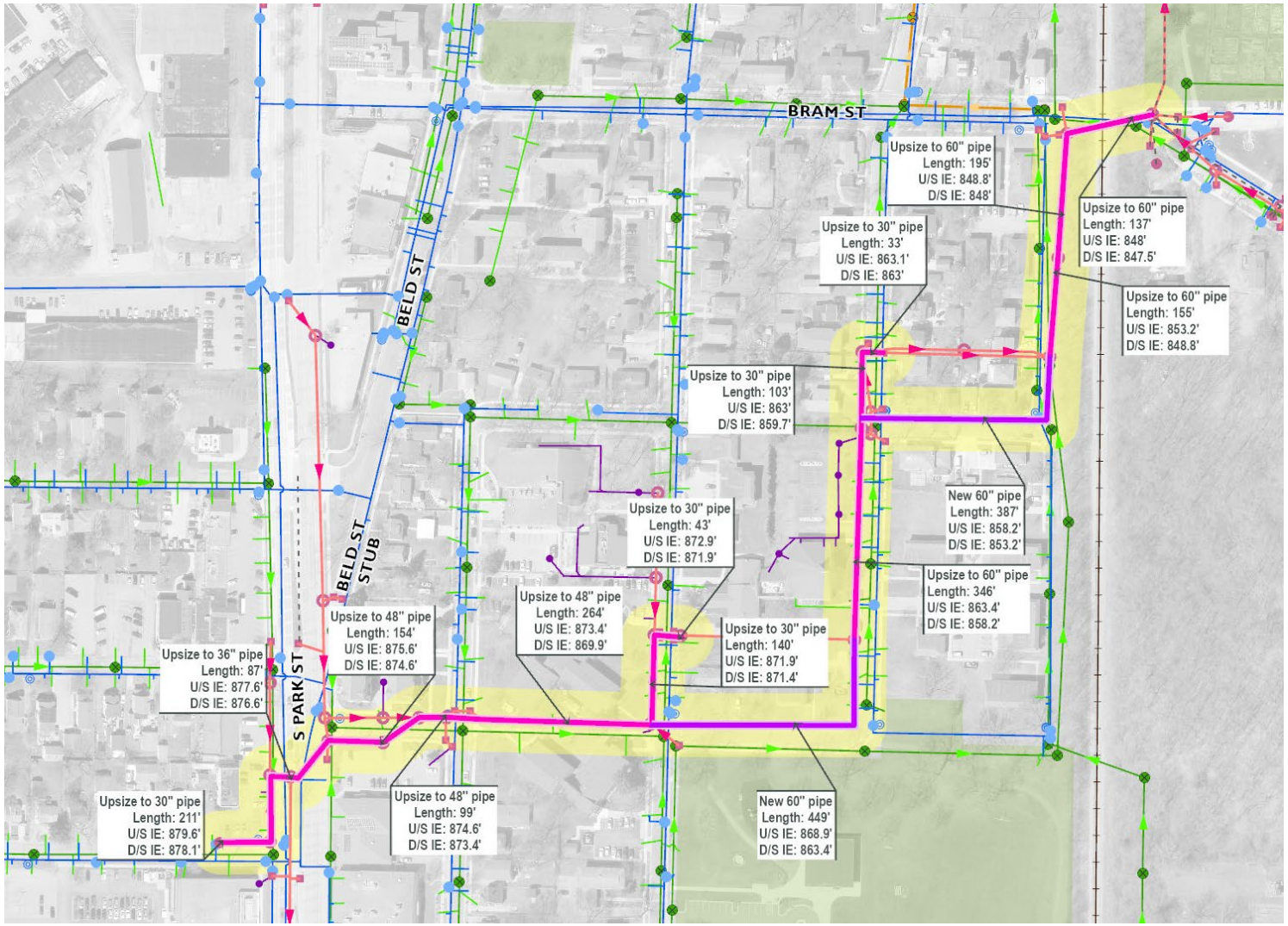


CITY OF MADISON

Brams Addition

- Reduce flooding for 100-yr event
- Increase storm sewer size
- Remove pipes between private structures and into right-of-way
- Est. Cost - $1.4M

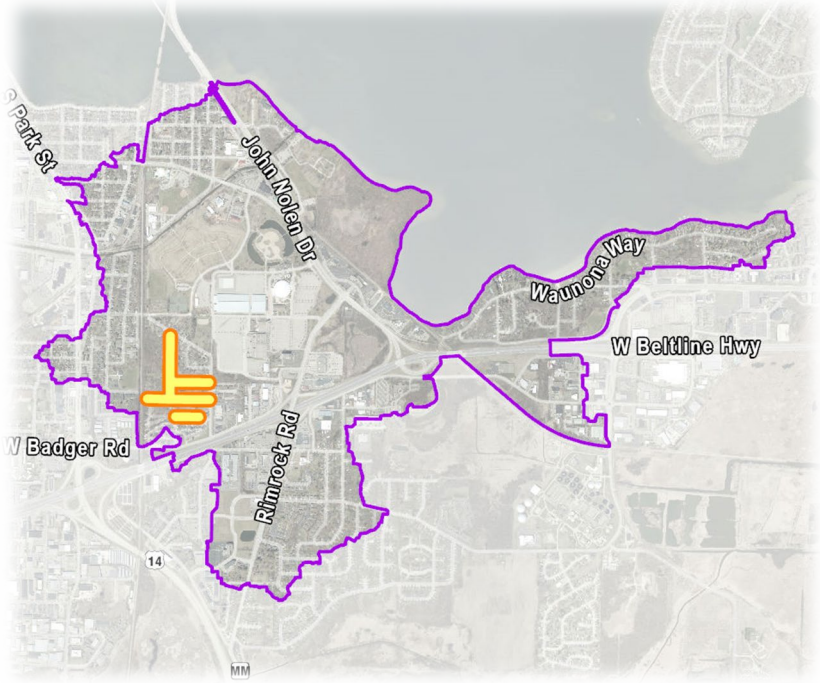


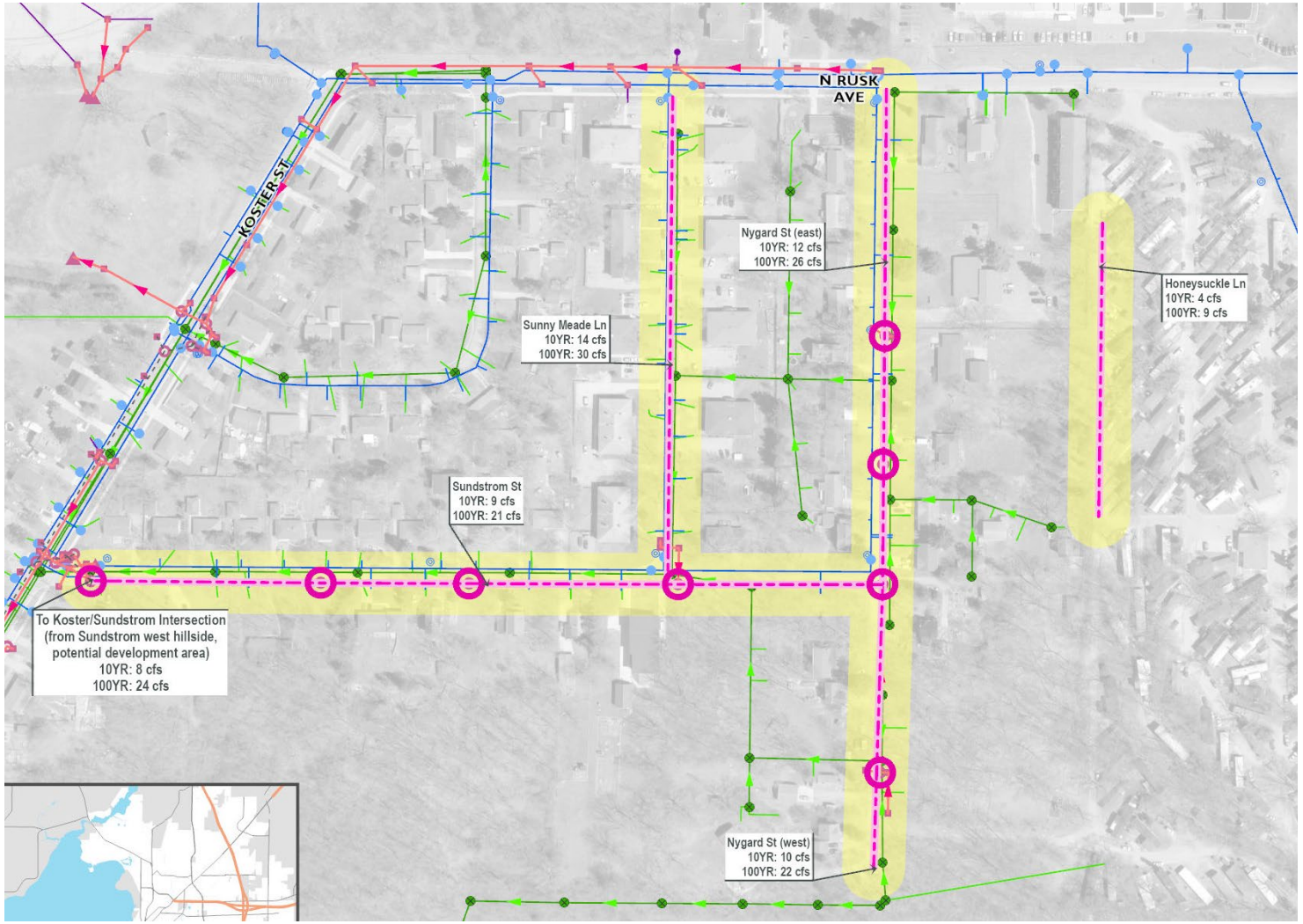


CITY OF MADISON

Nygard and Sunstrom St

- Neighborhood previously within Town of Madison
- Relocated inlets and provide more capacity
- Est. Cost - $0.2M

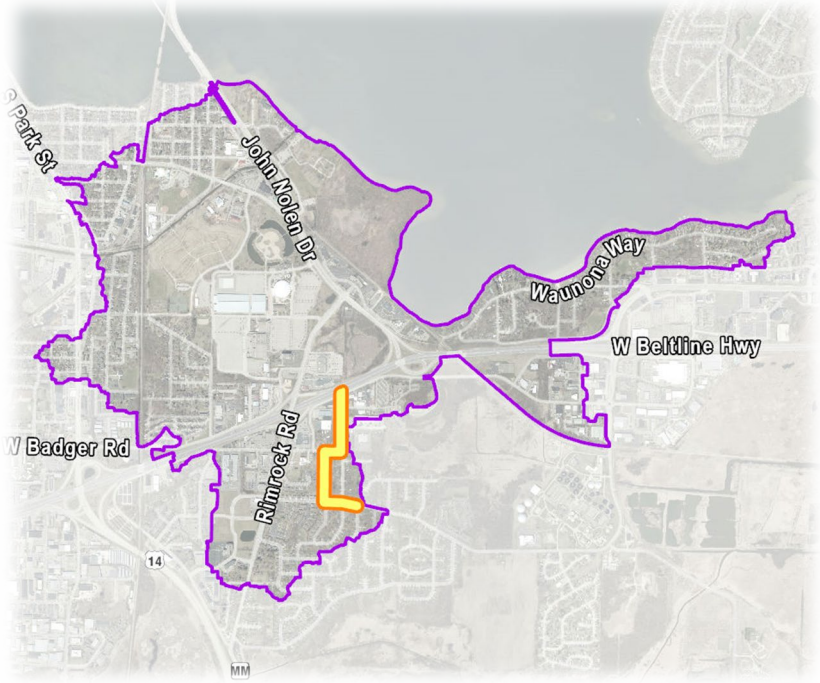


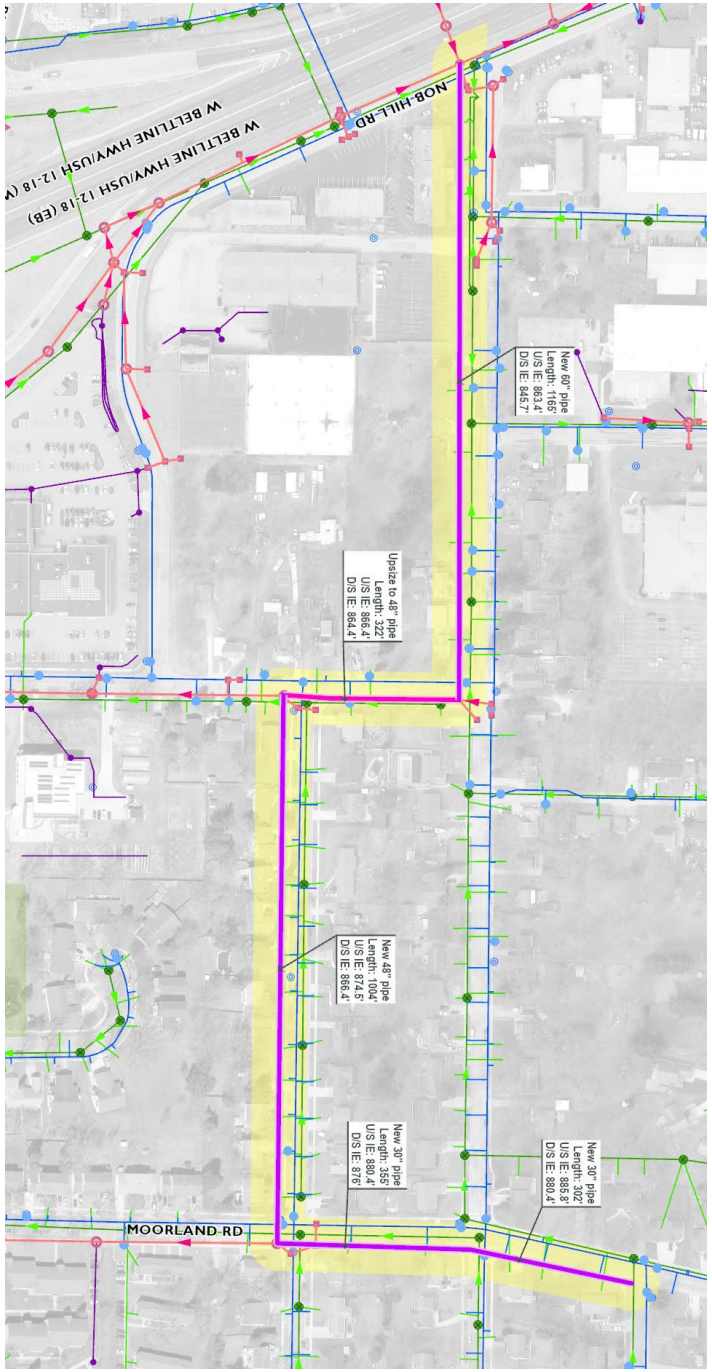


CITY OF MADISON

Badger Lane

- Reduce flooding for 100-yr event
- Install new storm sewer (currently unsewered)
- Est. Cost - $1.2M

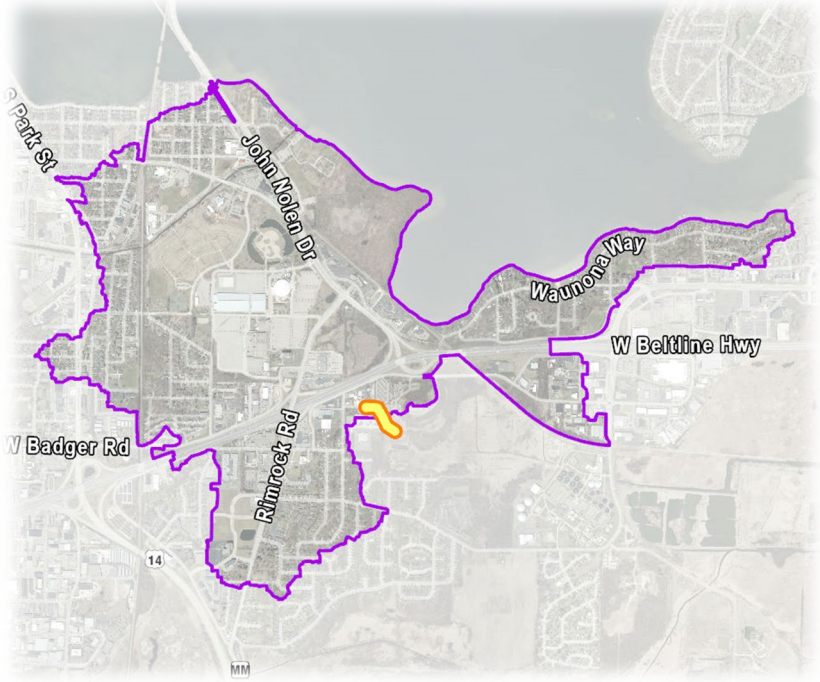


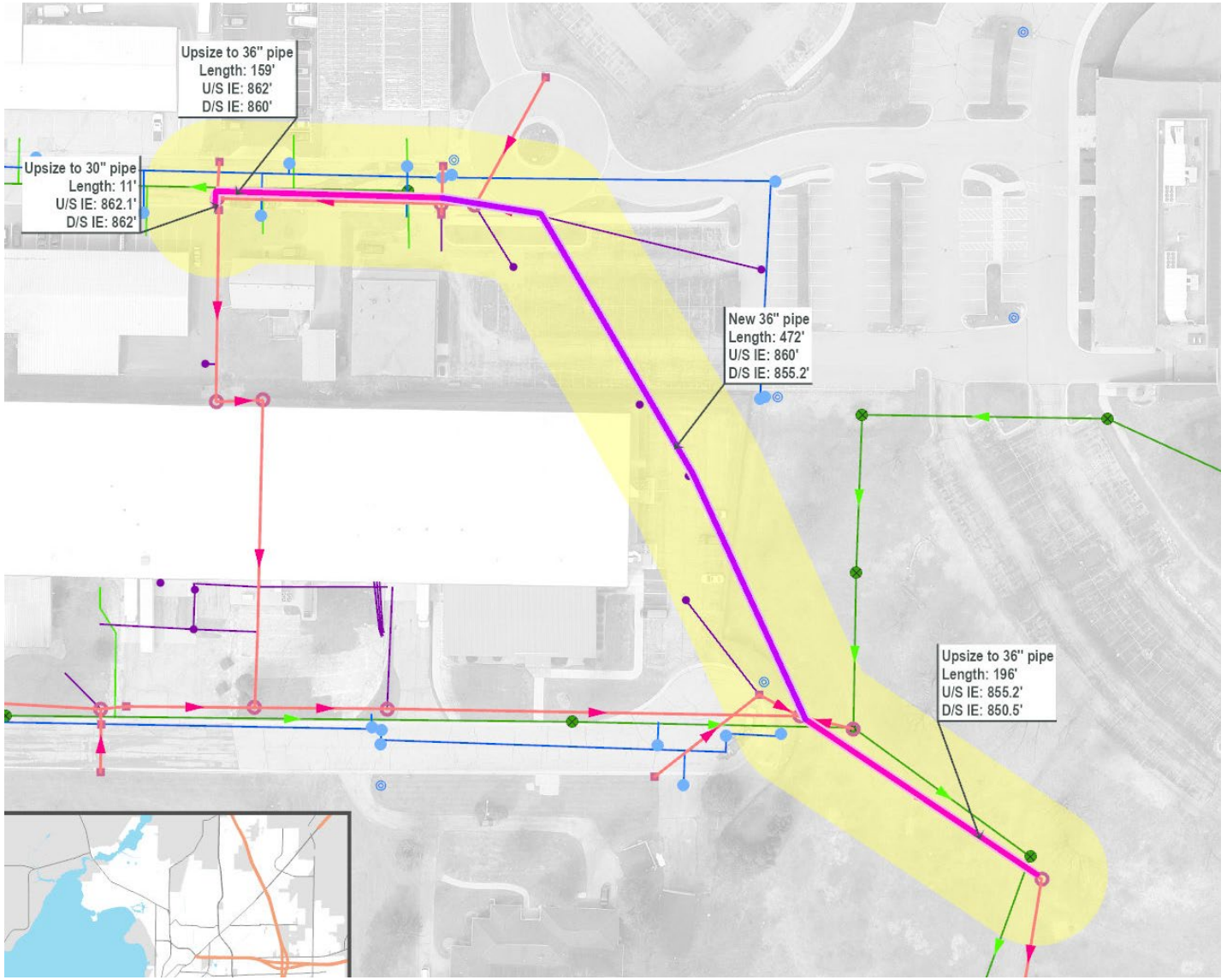


CITY OF MADISON

Holtzman Rd

- Reduce flooding for 10-yr event
- Storm sewer currently underneath a building
- Project will occur if region is redeveloped
- Est. Cost - $0.5M

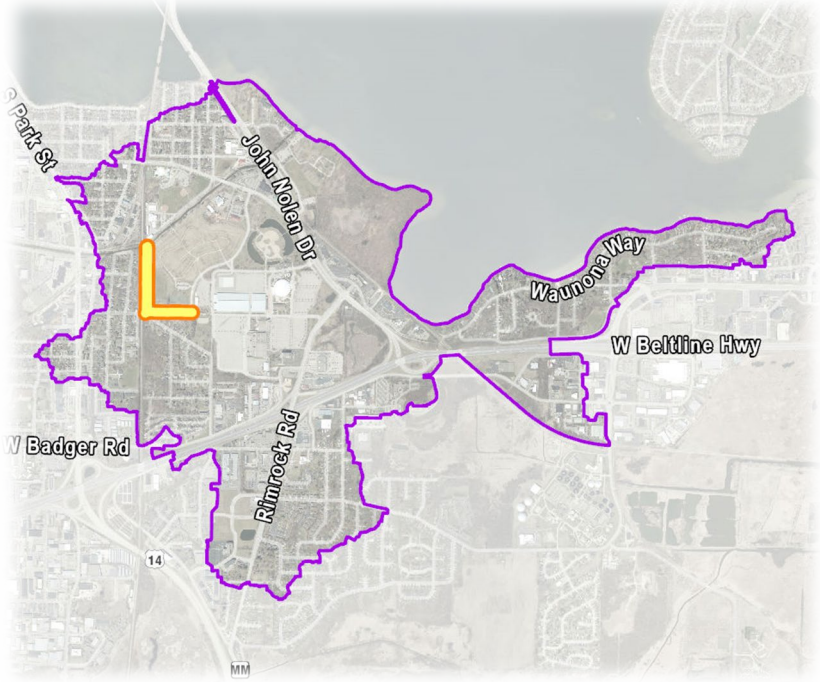


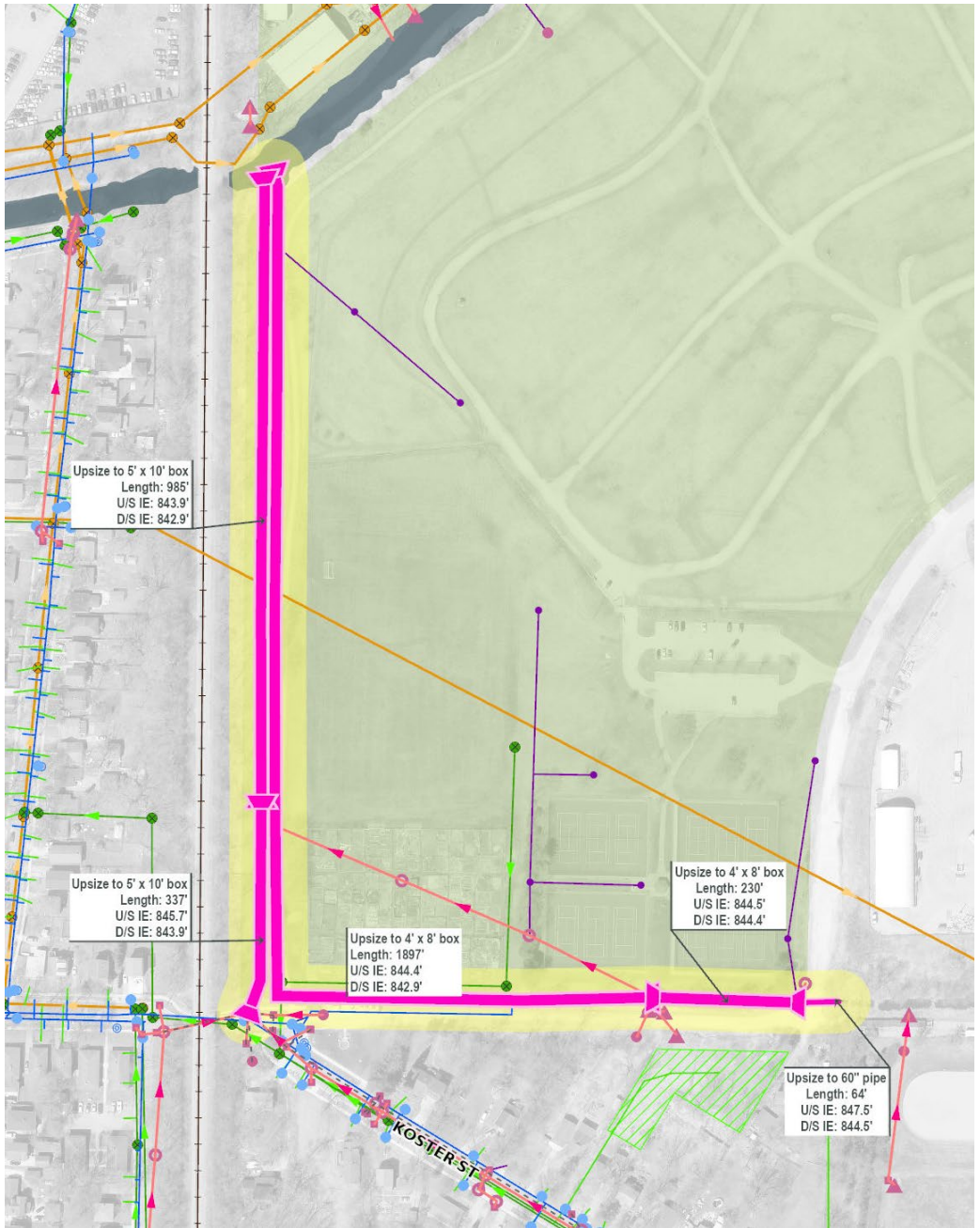


CITY OF MADISON

Bram to Wingra and Alliant Energy Outlet

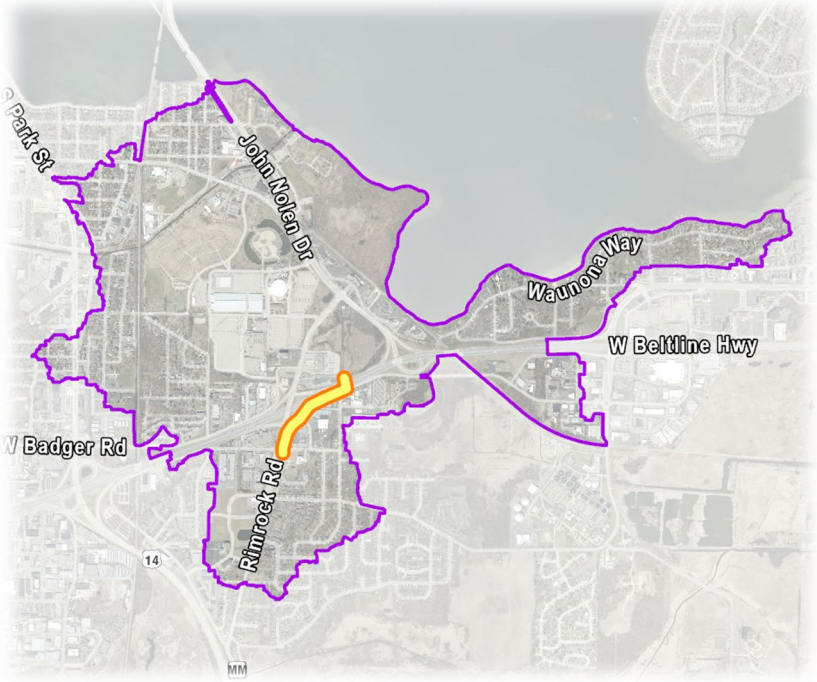
- Reduce flooding for 100-yr event
- Increase storm sewer size, realign Alliant pipe to street right-of-way
- Cross old landfill area
- Est. Cost - $7.5M+

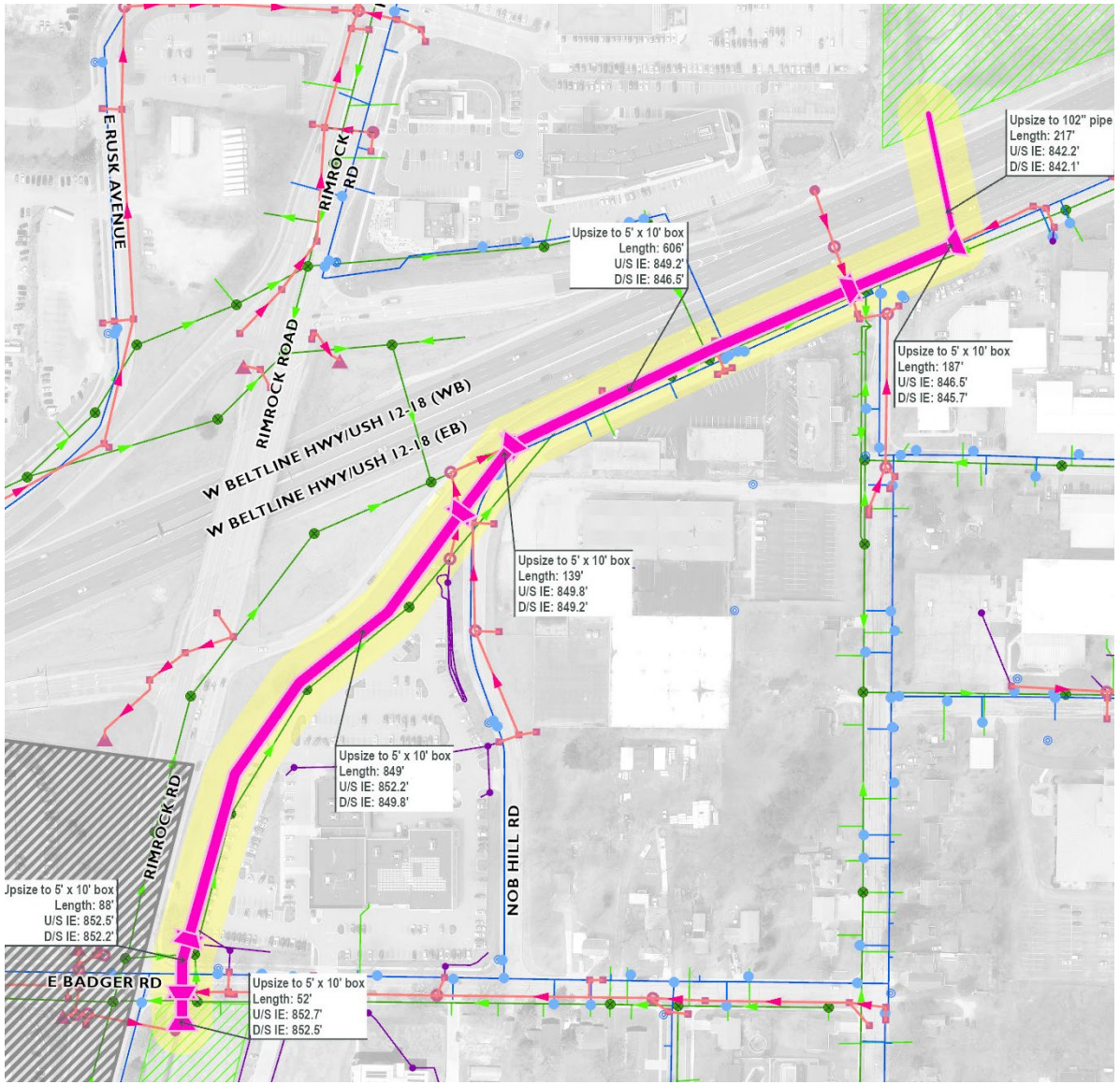




Rimrock Pond Outlet

- Reduce flooding for 100-yr event
- Improve conveyance from the pond to the lake
- Requires tunneling under the beltline
- Est. Cost - $5.8M





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