

Welcome!

We will begin shortly...

Virtual Meeting Schedule	
6:00 – 6:10	Welcome
6:10 – 7:00	Presentation
7:00 – 7:20	Q & A
7:20 – 7:30	Wrap-Up



Door Creek Watershed Study Public Information Meeting #3

City of Madison Engineering Division
August 25, 2026



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.

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

Make sure to join audio →

zoom
Workplace

Sign in

Choose one of the audio conference options

Phone call

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Call Me

Join with computer audio

Test speaker and microphone

☐ Automatically join audio by computer when joining a webinar

City of Madison

Audio

Raise hand

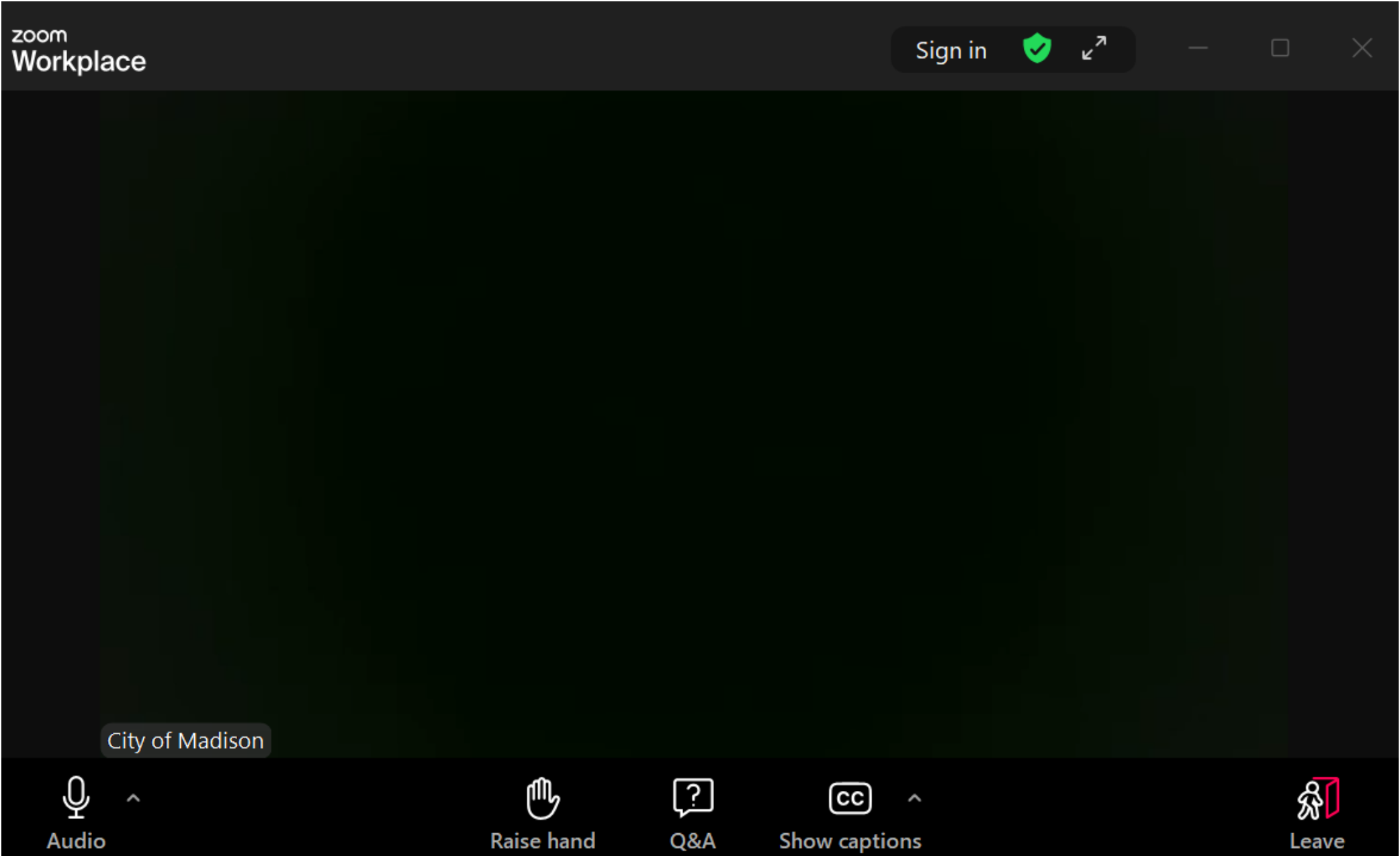
Q&A

Show captions

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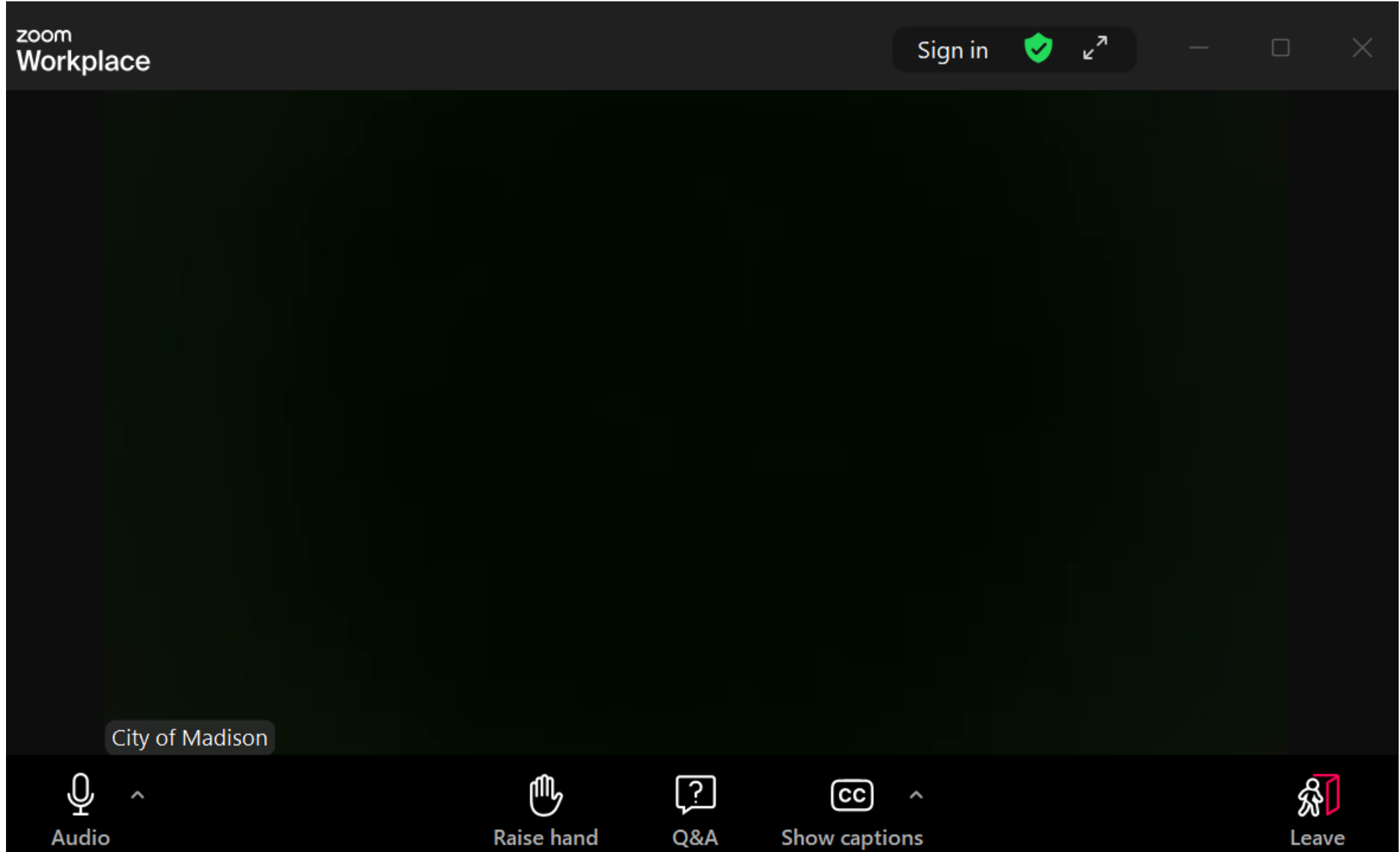
How to Participate



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



How to Participate

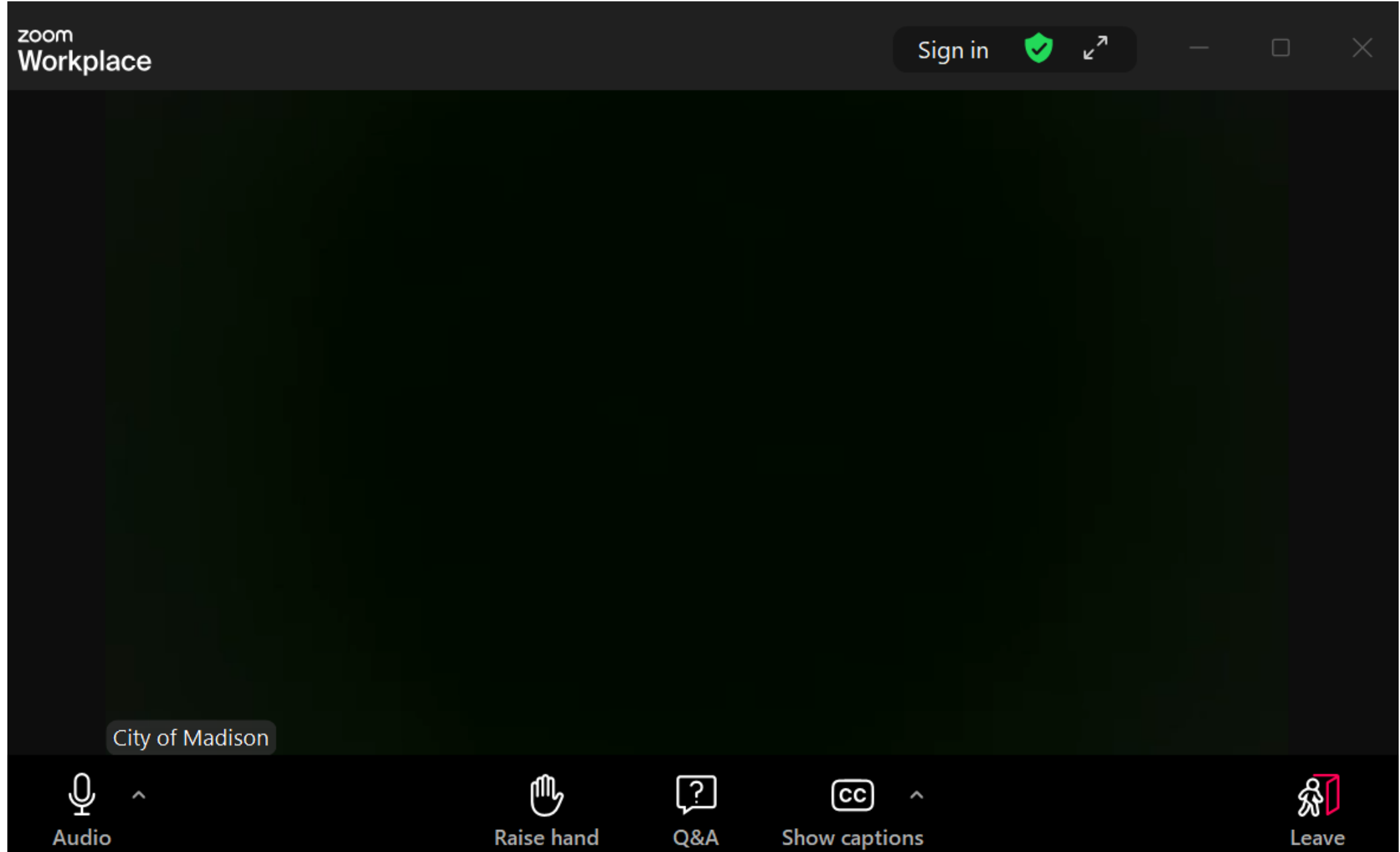


Use **Q&A button** if you have technical issues or a question for the panelists.

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How to Participate

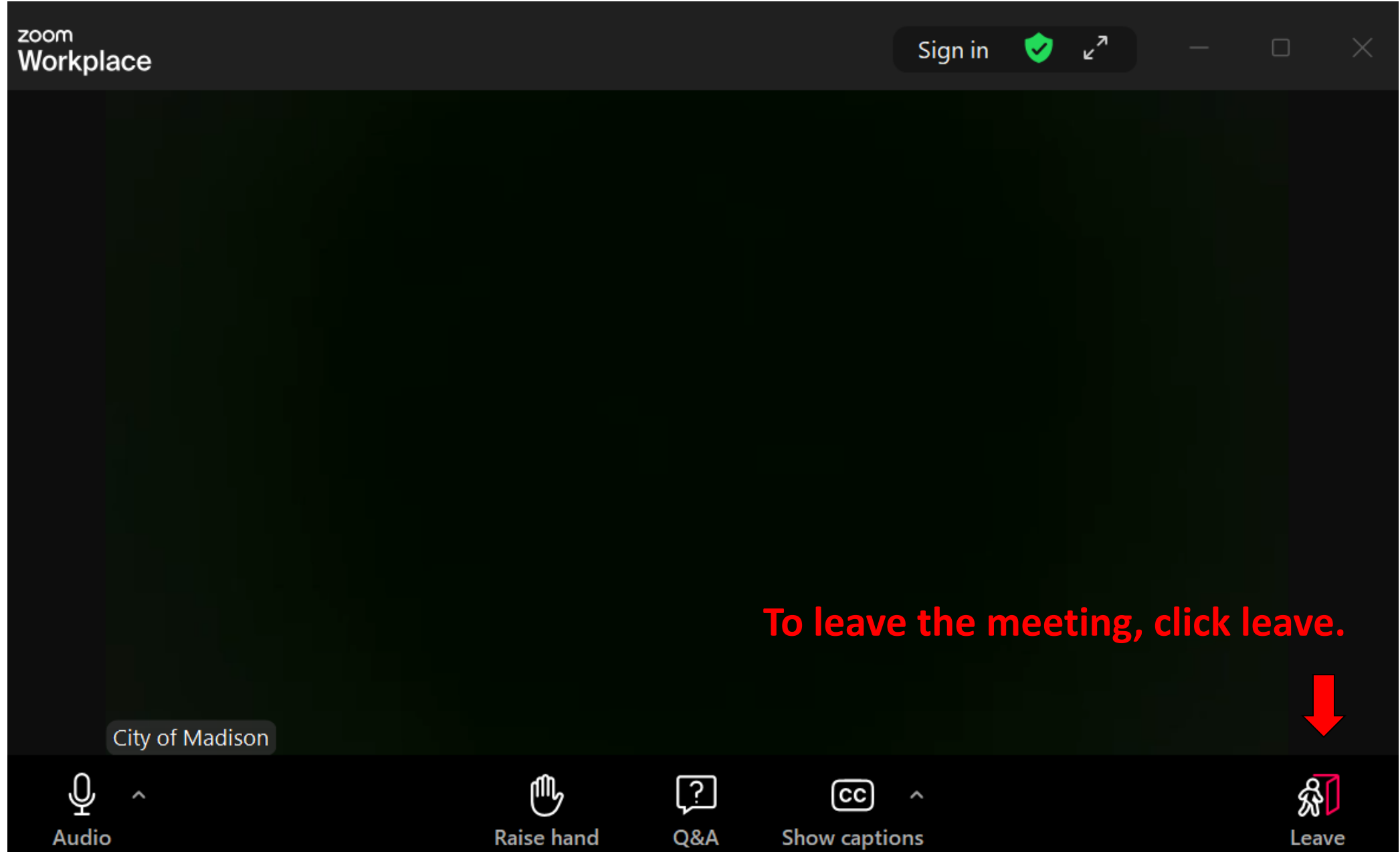


Use **Q&A button** for all other questions.
We will answer after the presentation.

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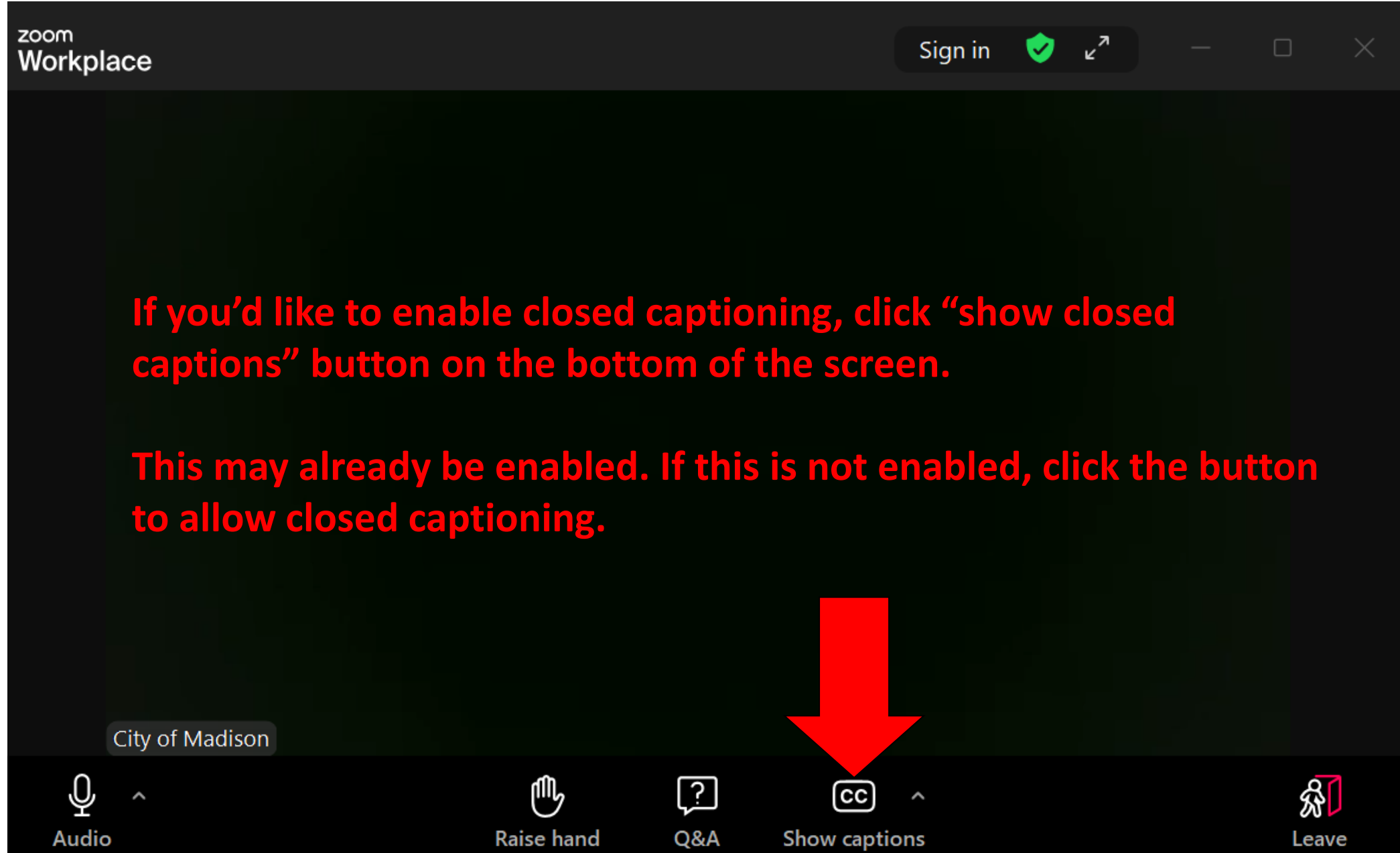
How to Participate



How to Participate

If you'd like to enable closed captioning, click "show closed captions" button on the bottom of the screen.

This may already be enabled. If this is not enabled, click the button to allow closed captioning.



Project Contact Introductions

- Brown and Caldwell Staff
 - Mike Wegner – Project Manager
- City of Madison Engineering Staff
 - Jojo O'Brien – Project Manager
 - Janet Schmidt – Stormwater Section Manager
 - Greg Fries – Deputy City Engineer – Sanitary, Stormwater, Landfill
- Alder Information
 - Alder Derek Field – District 3
 - Alder Sean O'Brien – District 16

Evening Overview

- Welcome (Hannah Mohelnitzky, City of Madison)
- Presentation (Mike Wegner, Brown and Caldwell)
- 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 (Hannah Mohelnitzky, City of Madison)

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

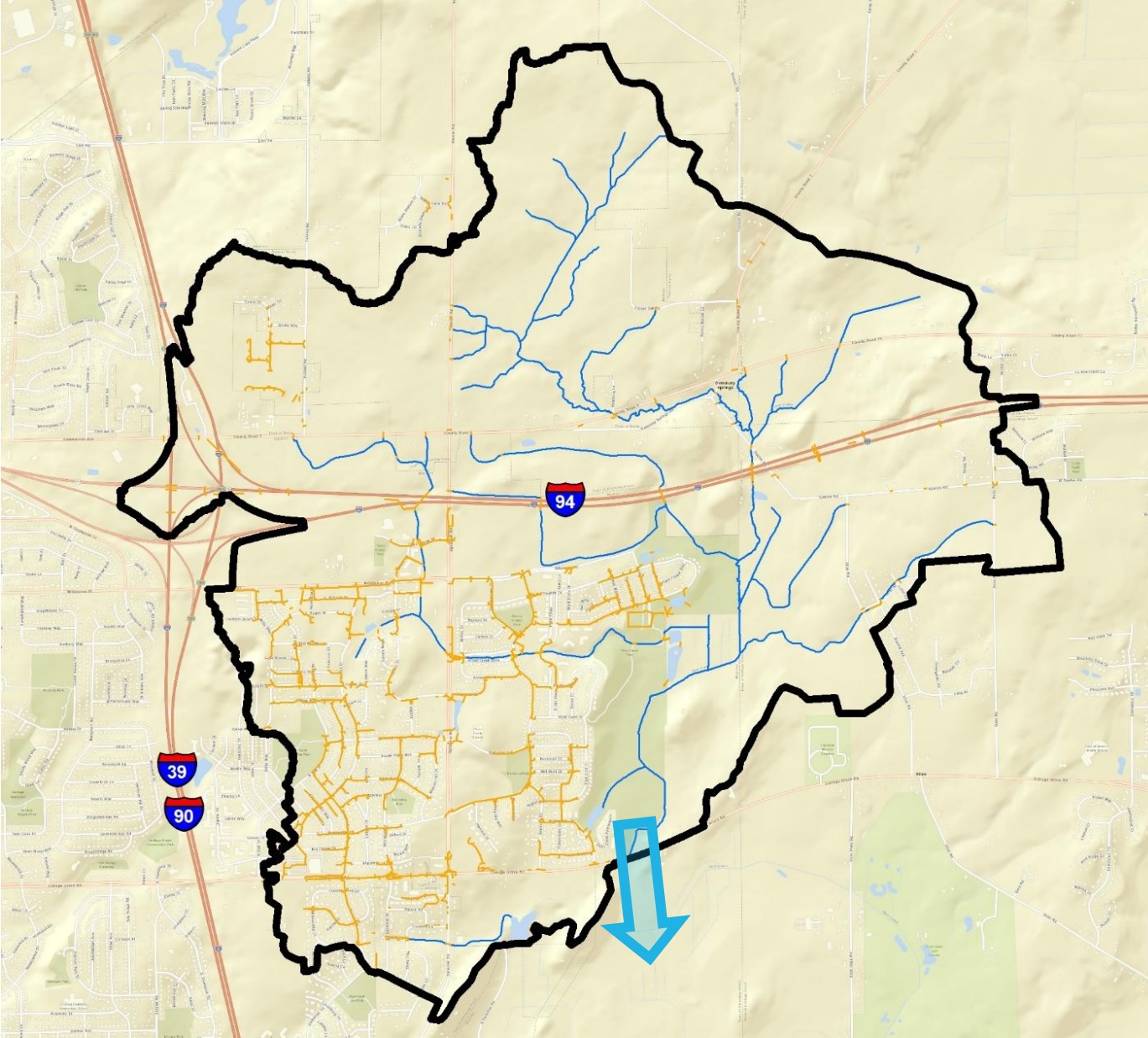
Watershed Study Limitations

- 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
- **Greenway:** drainage-way designed to convey stormwater runoff
- **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

Project Location



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

This is the Door Creek Watershed in the City of Madison.

Watershed Study Process

Model Existing Conditions & Predict Future Flood Risk

Analyze Solutions on Watershed Scale, Rank & Budget

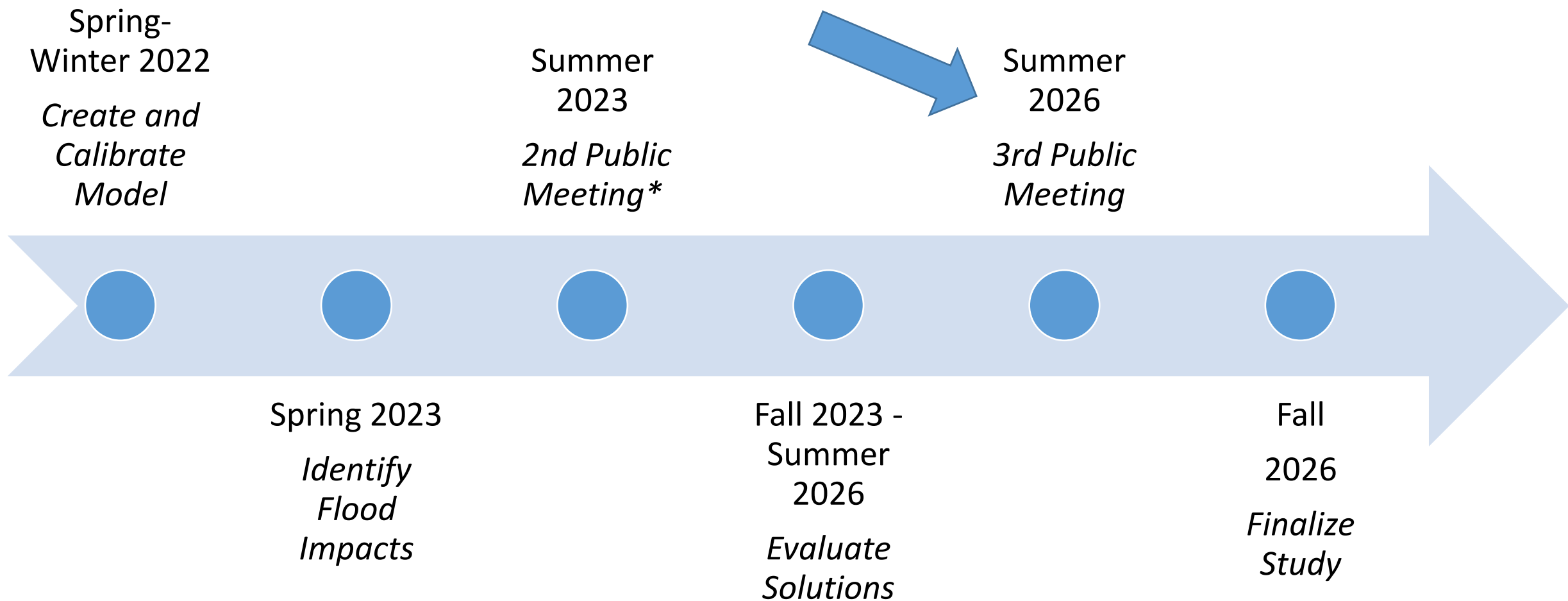
**Create
Watershed
Model**

**Identify
Flooding
Impacts**

**Develop
Engineering
Solutions**

**Prioritize
& Budget**

Schedule



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



Progress To Date

PUBLIC INFORMATION

- Public Information Meeting #1 – November 7, 2022
- Public Information Meeting #2 – August 16, 2023
- Project website

Project Details



Location

6606 Hopewell Drive
madison, WI 53718



Project Type

[Flood Mitigation](#)
[Sewer / Storm](#)
[Watershed Studies](#)



Status

Planning



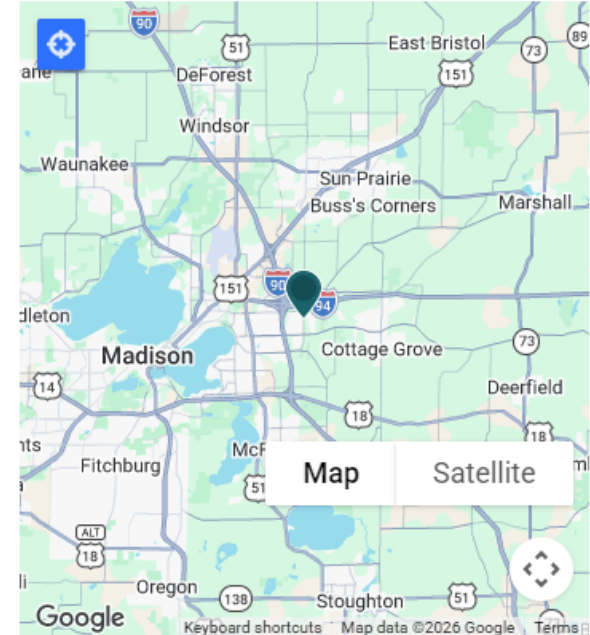
Estimated Schedule

April 6, 2022 – December 31, 2024



Alder District

District 3
District 16



<http://www.cityofmadison.com/DoorCreekWatershed>

1% Annual Chance Event

- The “100-Year” Storm
- 1/100 or 1% Annual Chance Event
 - 6.7 inches of rain in 24 hours
 - Does NOT mean that a storm will only occur once in 100 years.
 - During a 30-year mortgage, there’s a 26% chance of experiencing a 100-year (1% chance) event.

% Annual Chance	Chance of occurring in 1 Year	Return Period or Average Recurrence Interval
100%	1 in 1	1-year
50%	1 in 2	2-year
10%	1 in 10	10-year
4%	1 in 25	25-year
1%	1 in 100	100-year
0.10%	1 in 1000	1000-year

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

Flood Mapping Disclaimer

The flood map exists to help you quickly get information about general flood risks. The maps do not identify all areas that may flood or predict future flooding.

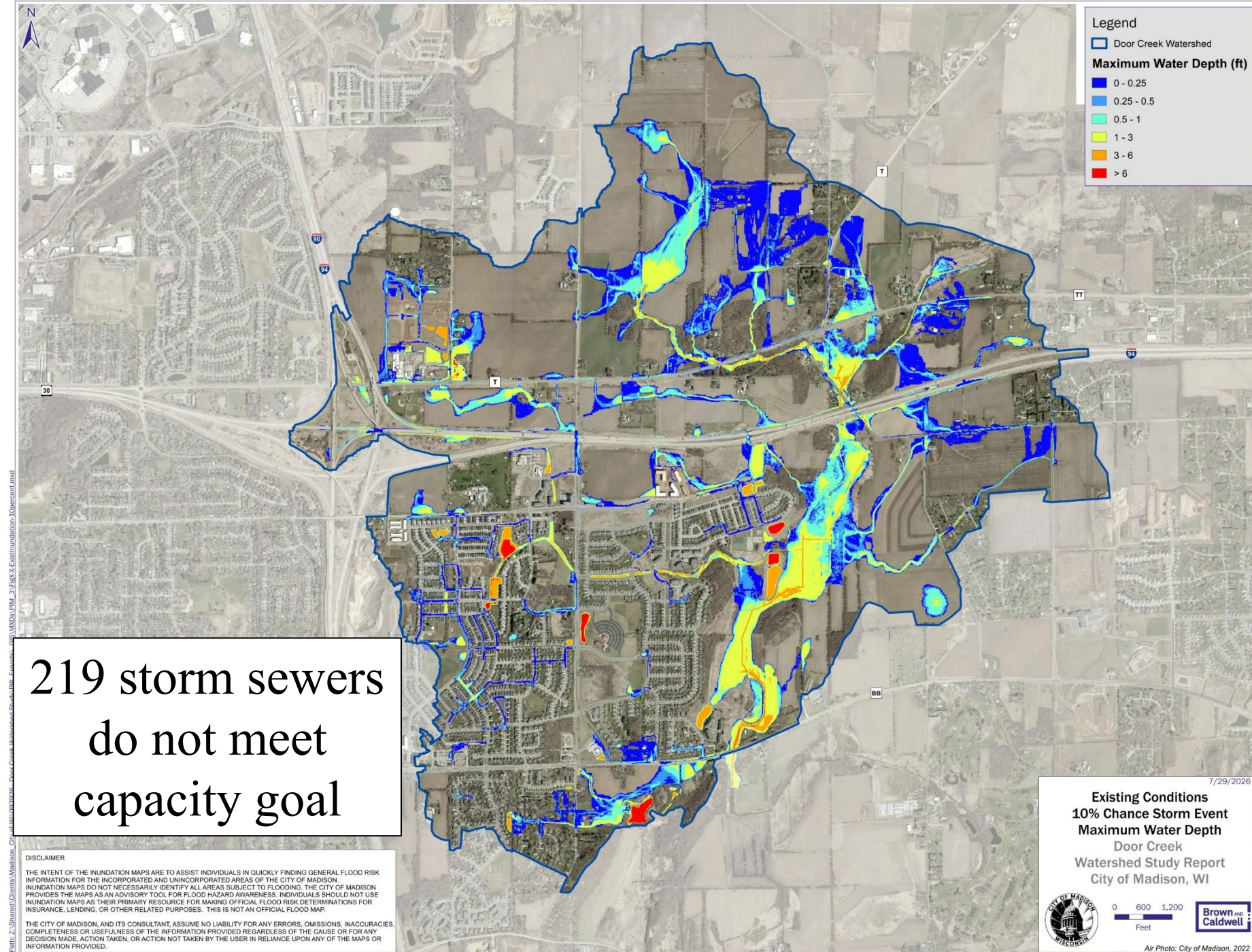
Do not use these maps to make official flood risk determinations for insurance, lending, or other purposes. These are not official FEMA federal Flood Insurance Rate Map or the state or local equivalent.

The City of Madison assumes no liability for any errors, omissions, or inaccuracies. The City also assumes no liability for any decisions or actions a user might take based on these maps.

10% Chance (10-year) Existing Inundation Mapping

10% Chance Event
(4.09 inches in 24 hours)

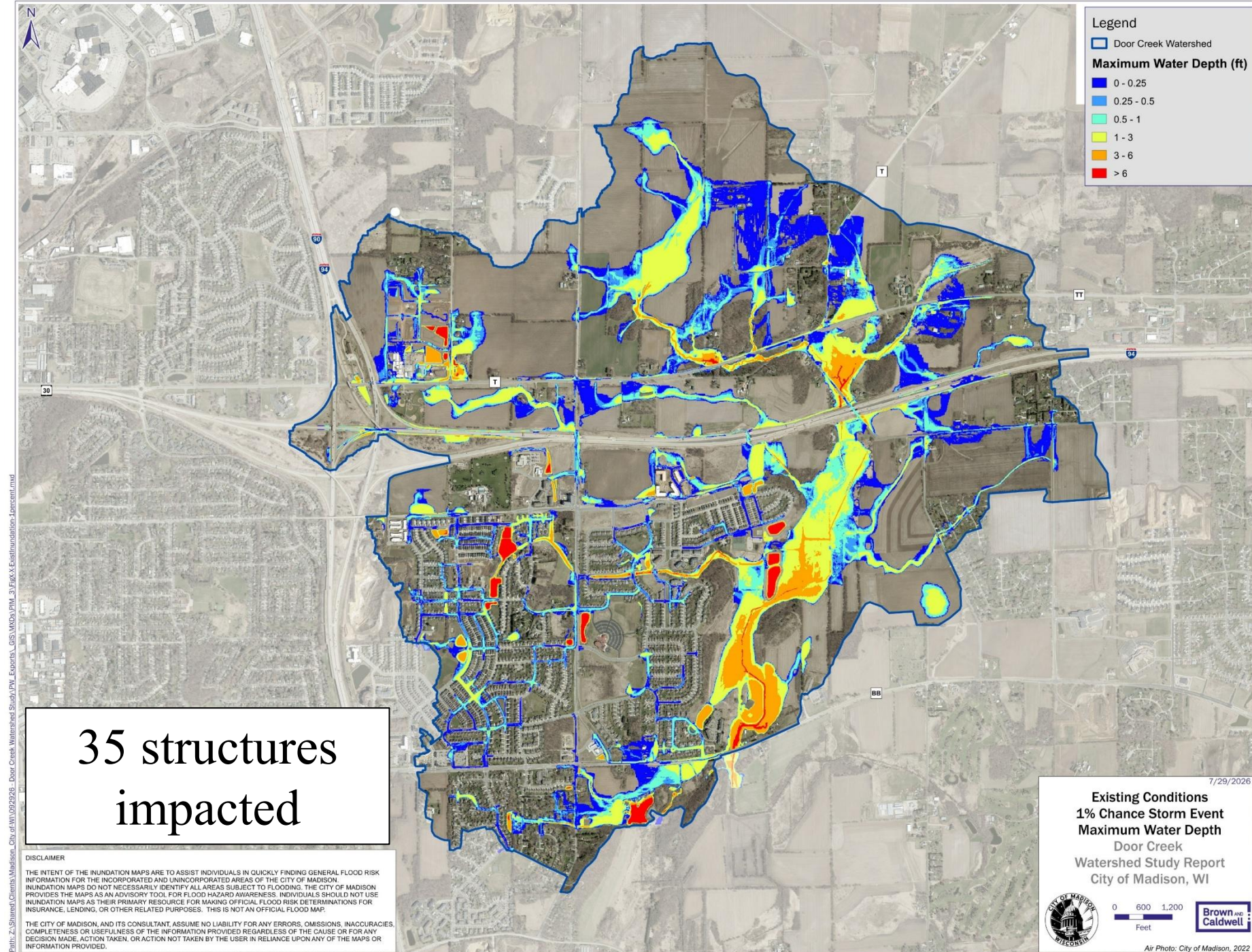
219 storm sewers
do not meet
capacity goal



1% Chance (100-year) Existing Inundation Mapping

1% Chance Event
(6.66 inches in 24 hours)

35 structures
impacted

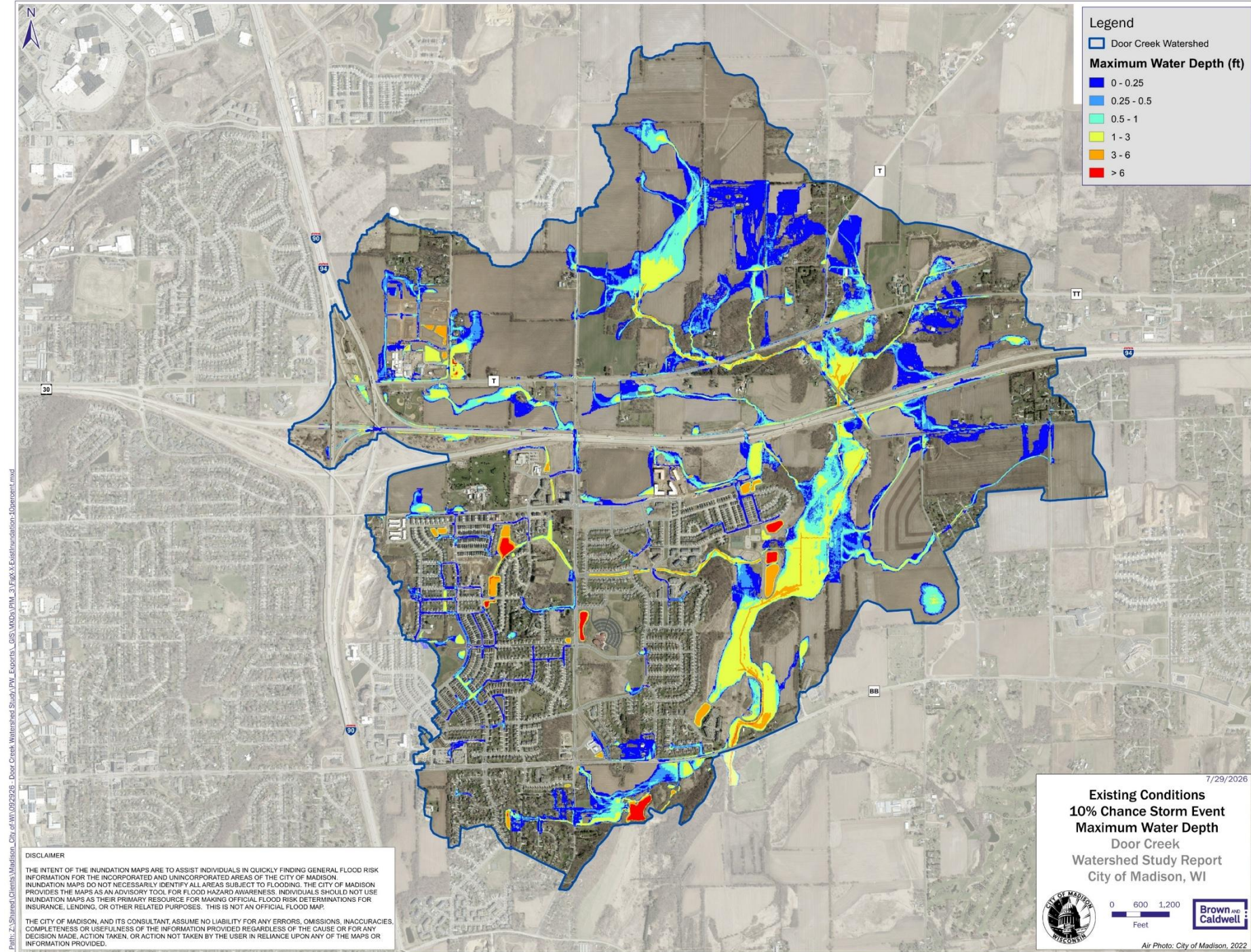


Watershed Study Recommendations

- Iterative process to develop conceptual solutions
 - Evaluated for:
 - Constructability
 - Permitting difficulty
 - Identify utility conflicts
 - Costs
- Final suite of recommendations
 - Implementation of each project will include full detailed design and public engagement efforts
- Cost Estimates
 - Planning level
 - 25% Contingency
 - 10% Design
- Project Types
 - “Stand Alone” Mitigation
 - Initiated by Stormwater Utility
 - Local Sewer Upgrades
 - Likely timed with Street Reconstructions

10% Chance (10-year) Existing Inundation Mapping

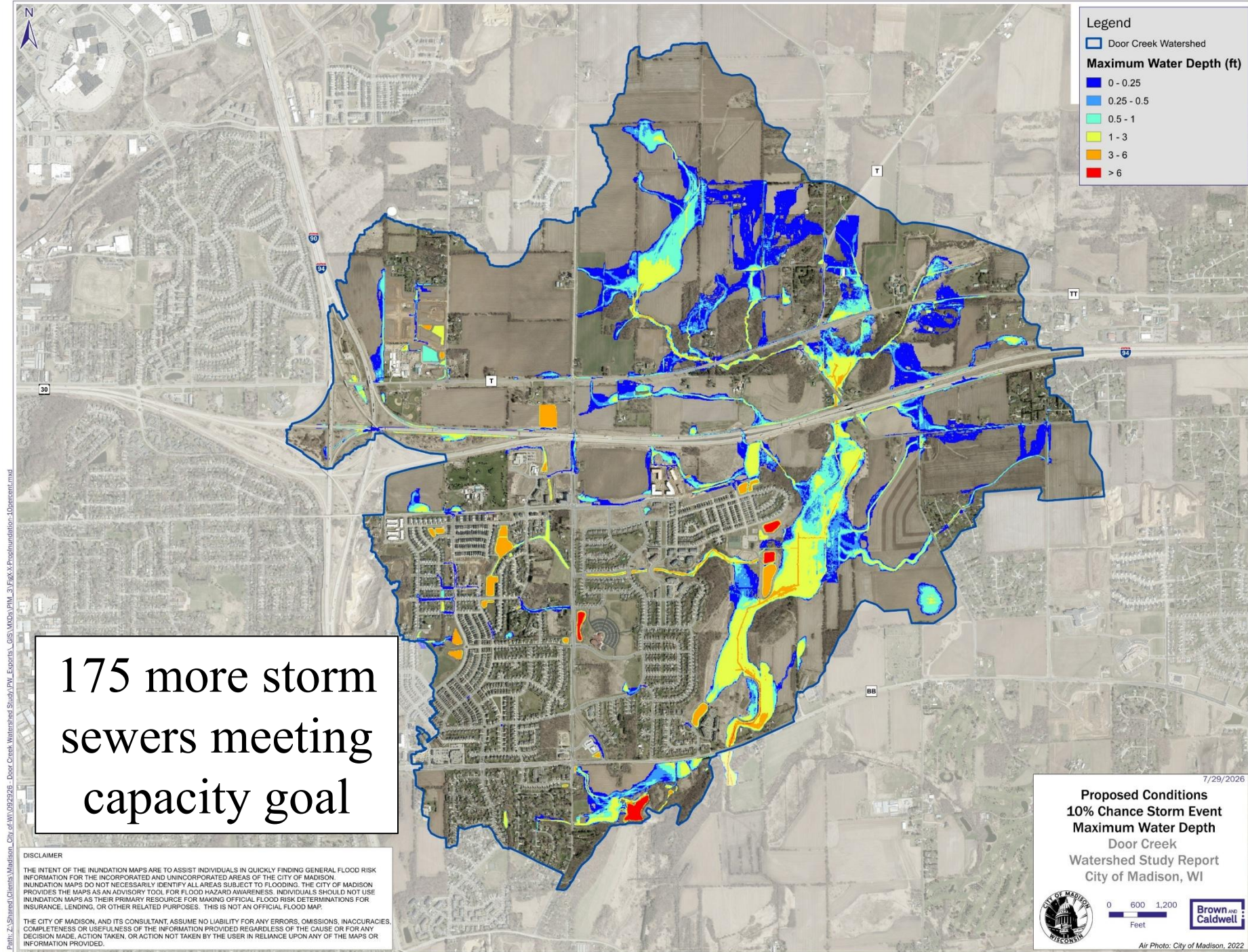
10% Chance Event
(4.09 inches in 24 hours)



10% Chance (10-year) Proposed Inundation Mapping

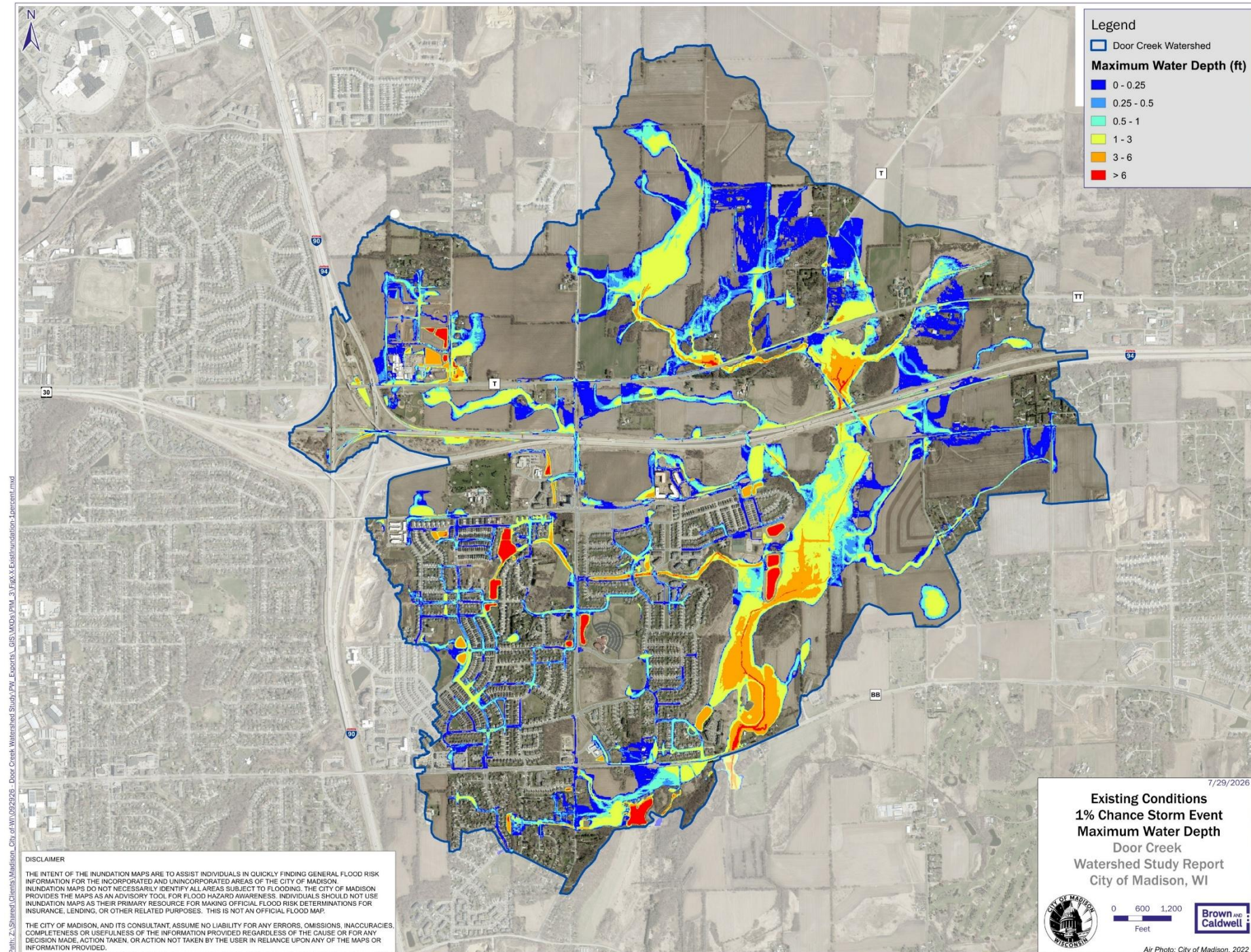
10% Chance Event
(4.09 inches in 24 hours)

175 more storm
sewers meeting
capacity goal



1% Chance (100-year) Existing Inundation Mapping

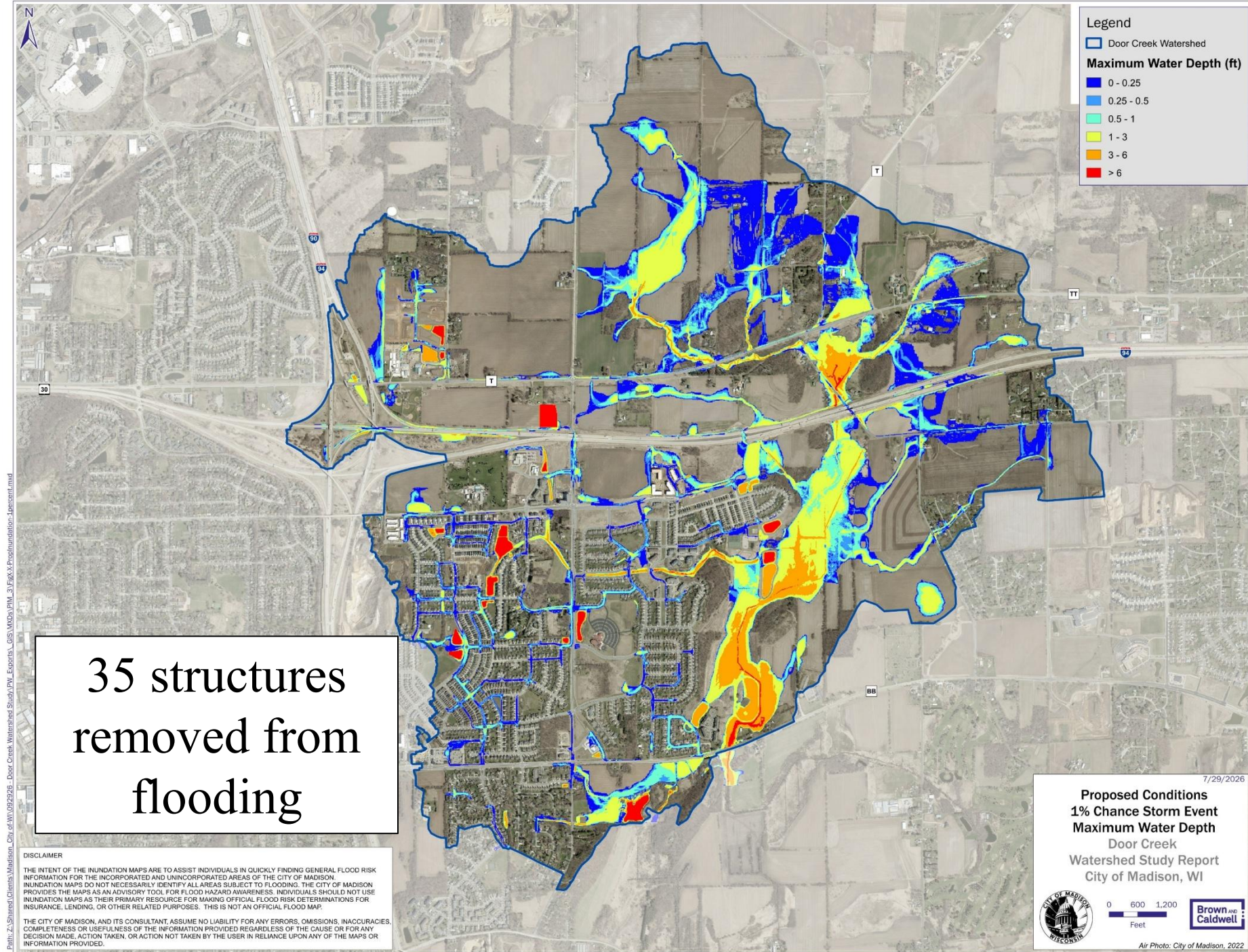
1% Chance Event
(6.66 inches in 24 hours)



1% Chance (100-year) Proposed Inundation Mapping

1% Chance Event
(6.66 inches in 24 hours)

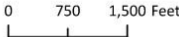
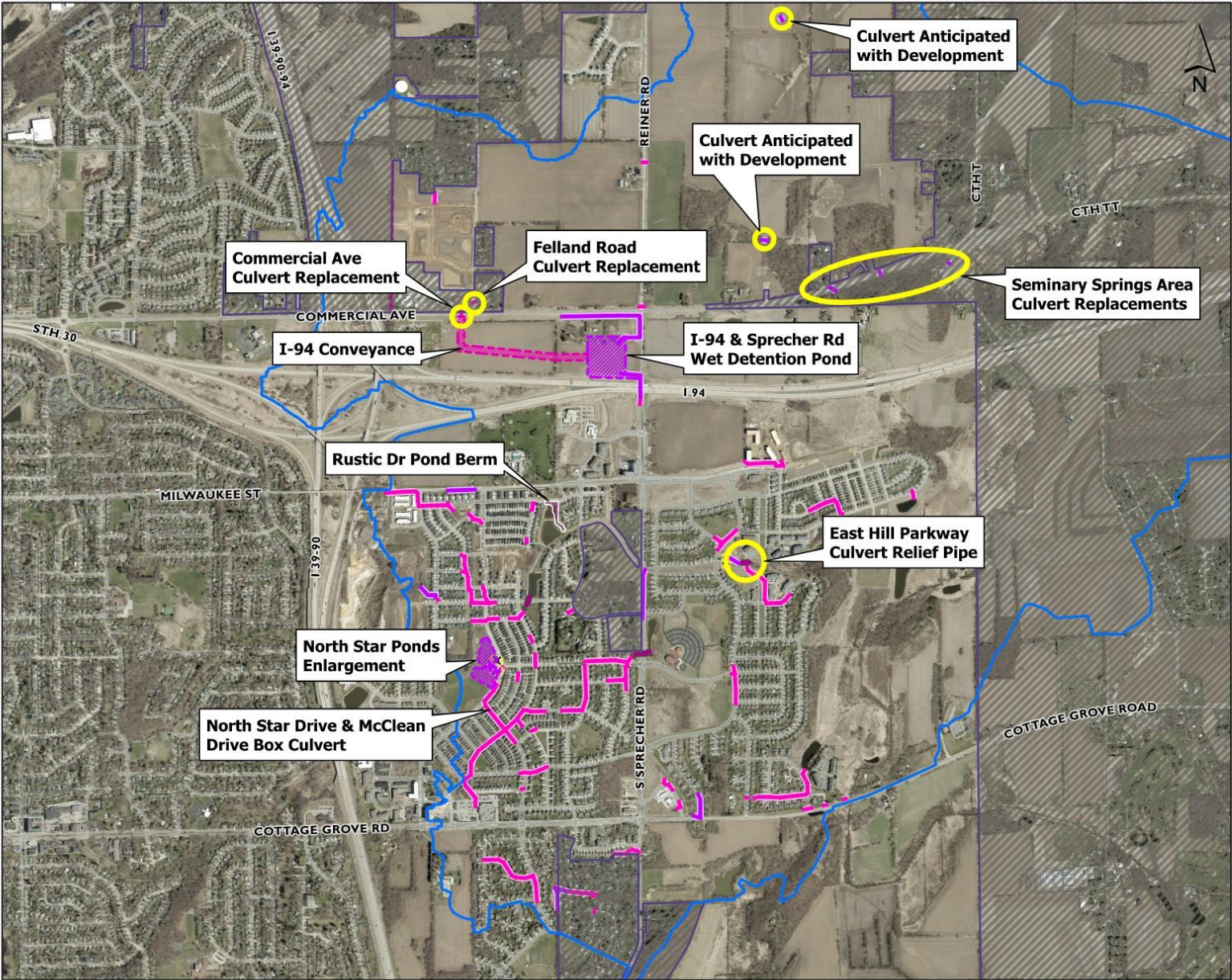
35 structures
removed from
flooding



Proposed Solutions

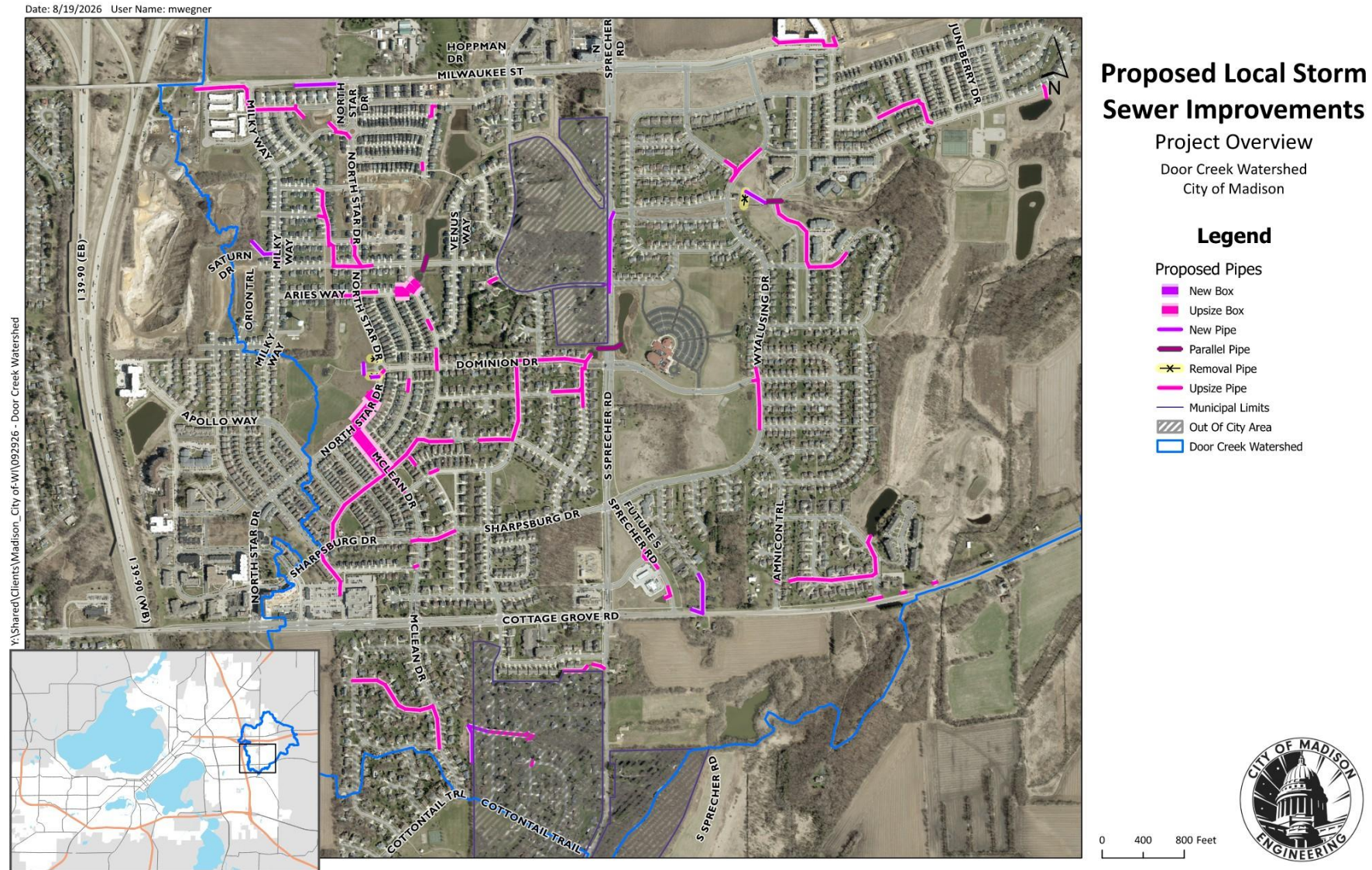
- Local storm sewer improvements
- East Hill Parkway Culvert Relief Pipe
- Rustic Drive Pond Berm
- North Star Park Pond & North Star / McLean Box Culvert
- New Conveyance & Pond – Commercial Avenue to I94
- Commercial Avenue Culvert Improvements
- Felland Road Culvert Improvements
- Seminary Springs Area Culvert Improvements

Proposed Solutions



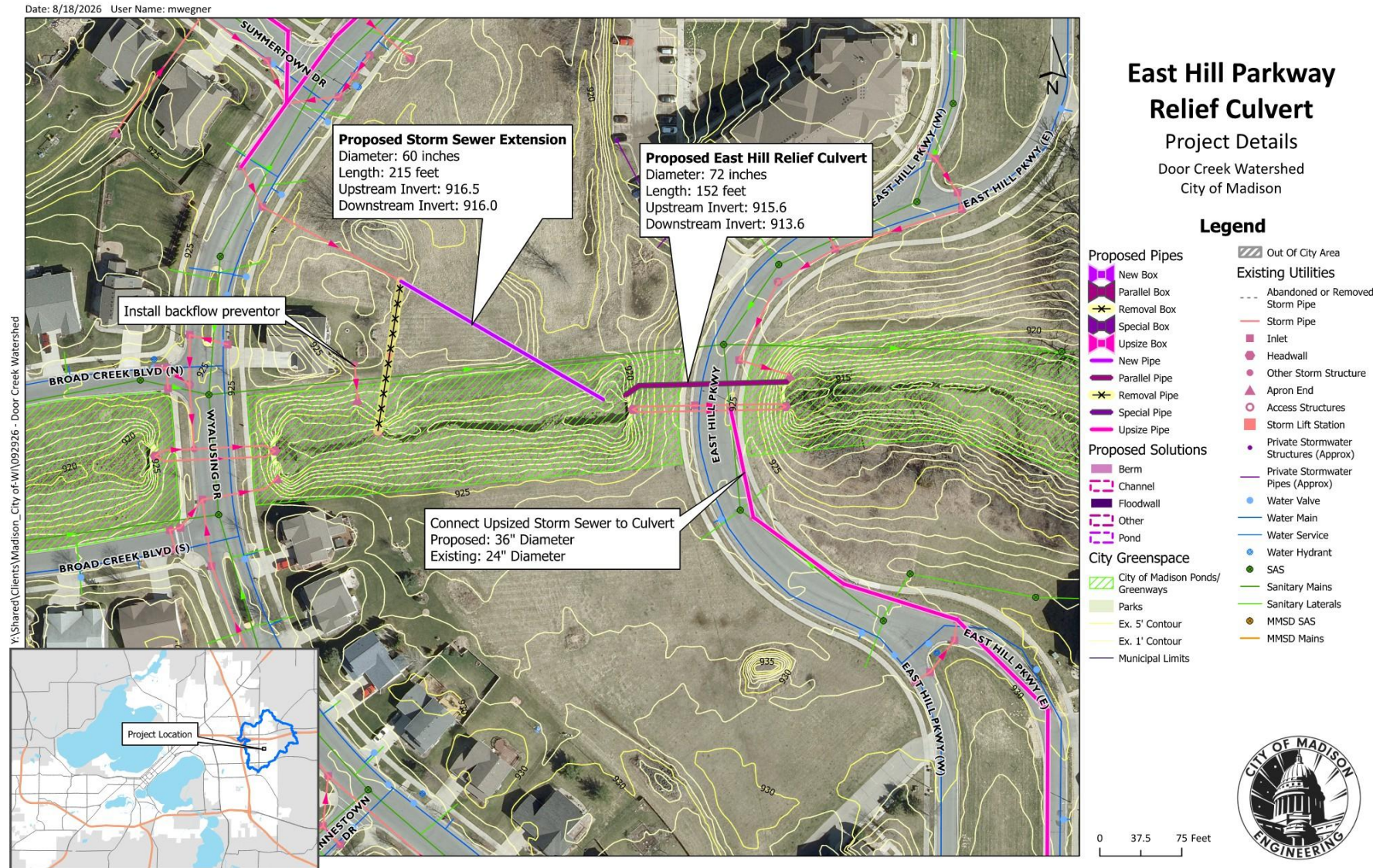
Local Storm Sewer Improvements

- Various improvements throughout developed areas
- Will primarily be implemented as part of street reconstruction projects



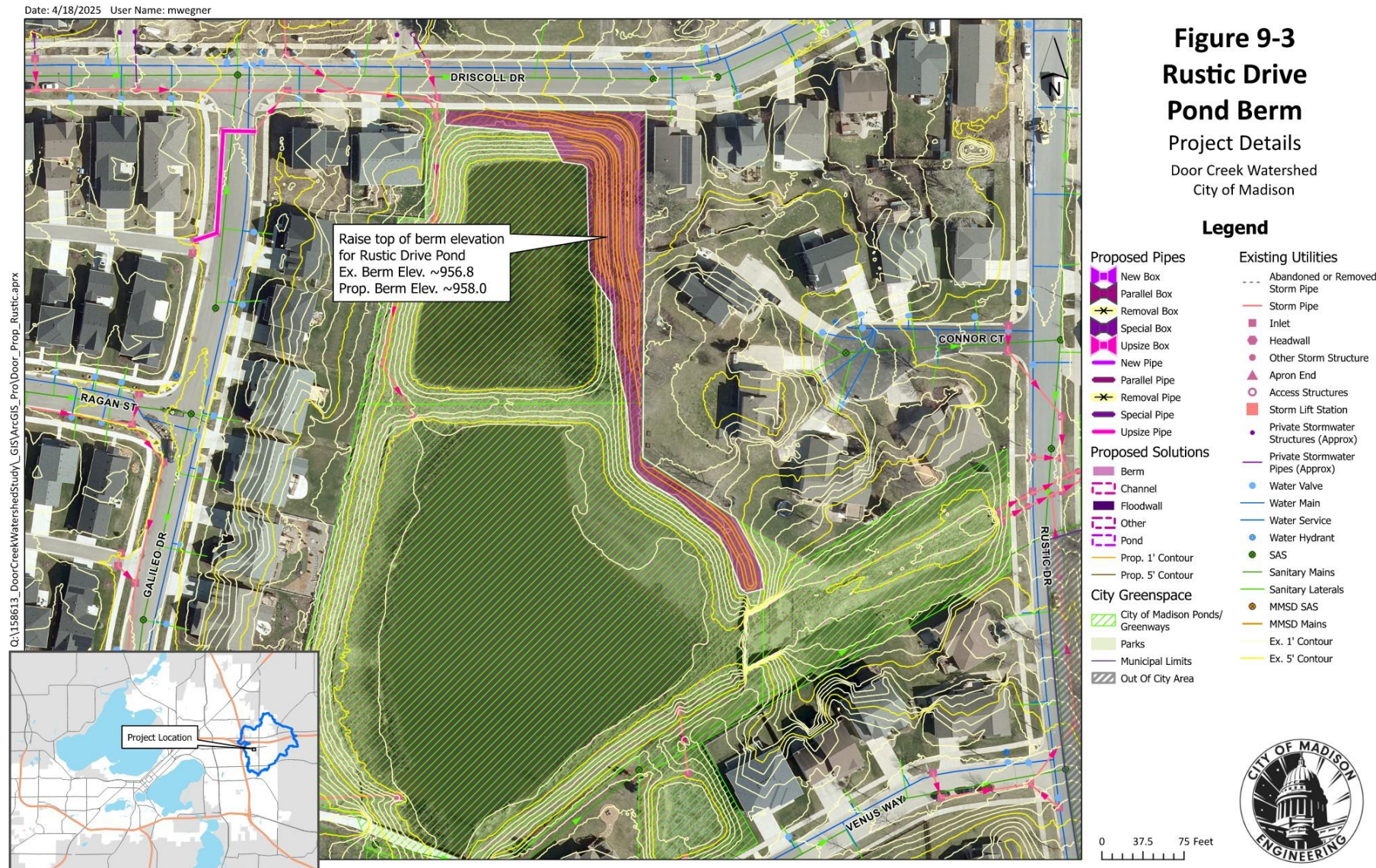
East Hill Parkway Culvert Relief Pipe

- Add 3rd culvert
- Adjust local storm sewer upstream
- Meets flood target for greenway crossing – does not overtop road in 1% annual chance storm



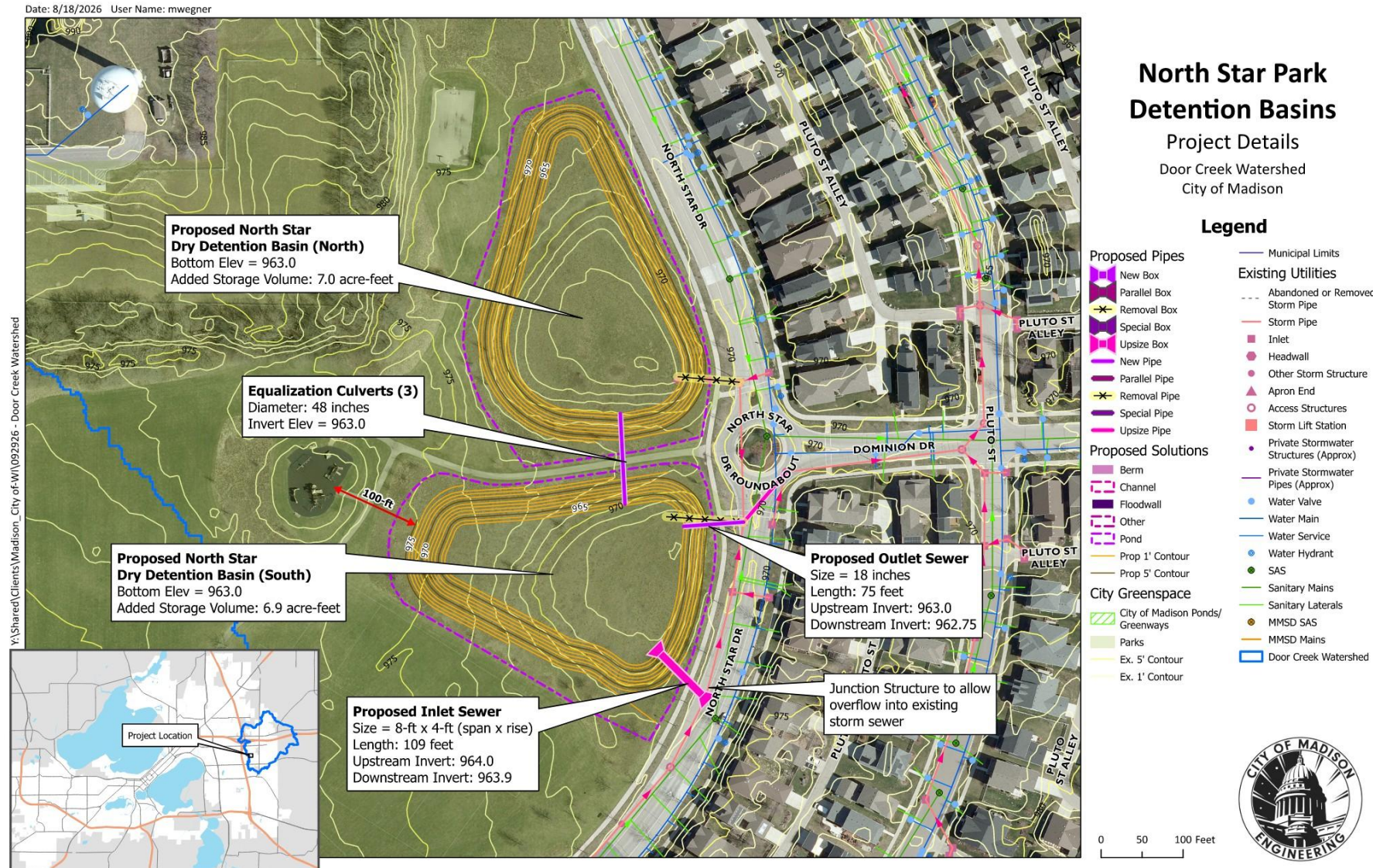
Rustic Drive Pond Berm

- Raise existing berm to prevent overtopping
- Direct runoff to designed outlet structure



North Star Park Ponds

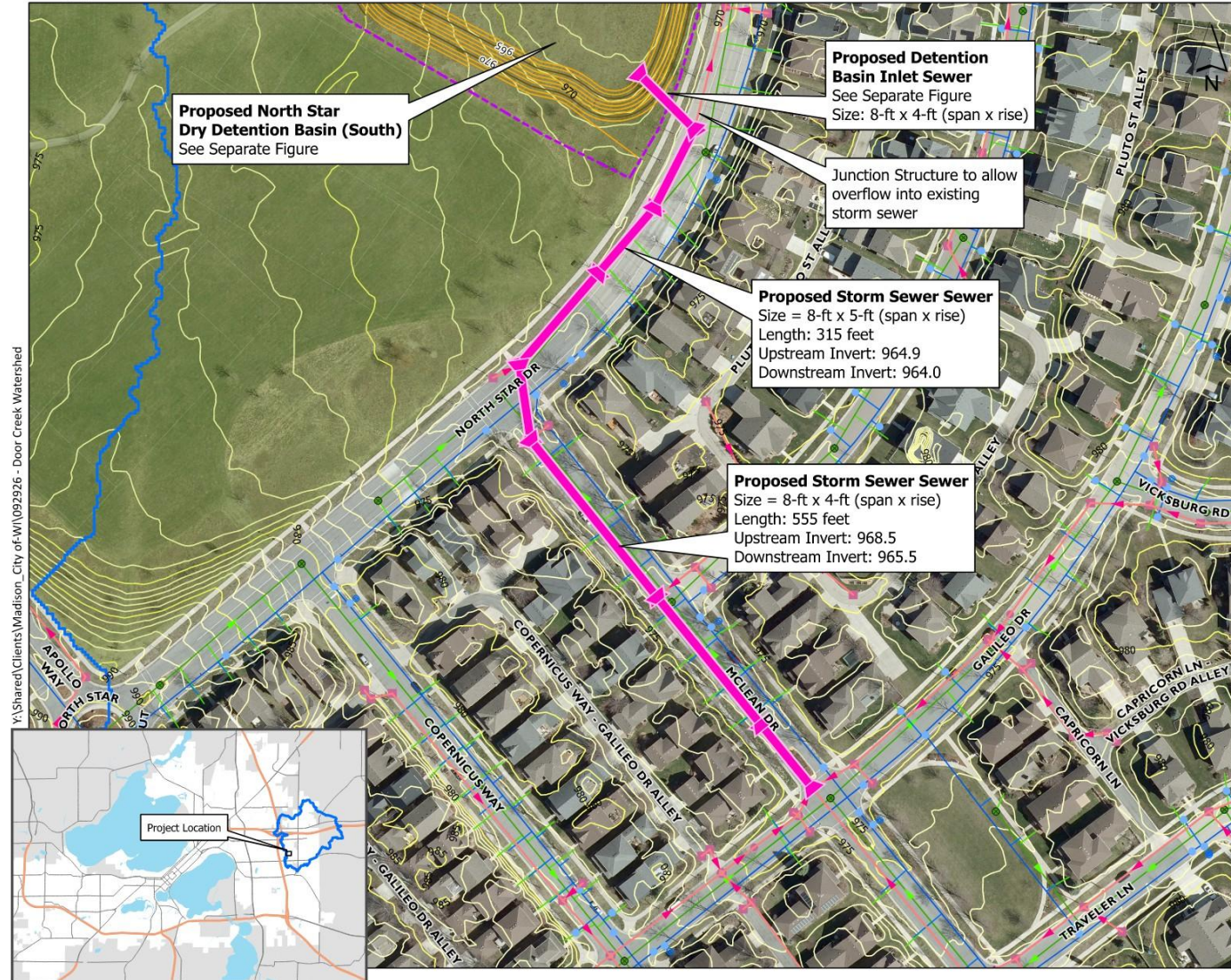
- Expand existing detention areas
 - New footprint outside of active (mowed) park space
- Reduce street flooding and downstream flow rates
- Ponds will drain completely in-between storms



North Star & McLean Drive Box Culvert

- Upstream of North Star Park Pond
- Reduce street & structure flooding
- Convey runoff to ponds, which will store it to be released downstream

Date: 8/18/2026 User Name: mwagner



North Star Drive & McLean Drive Box Culvert Project Details

Door Creek Watershed
City of Madison

Legend

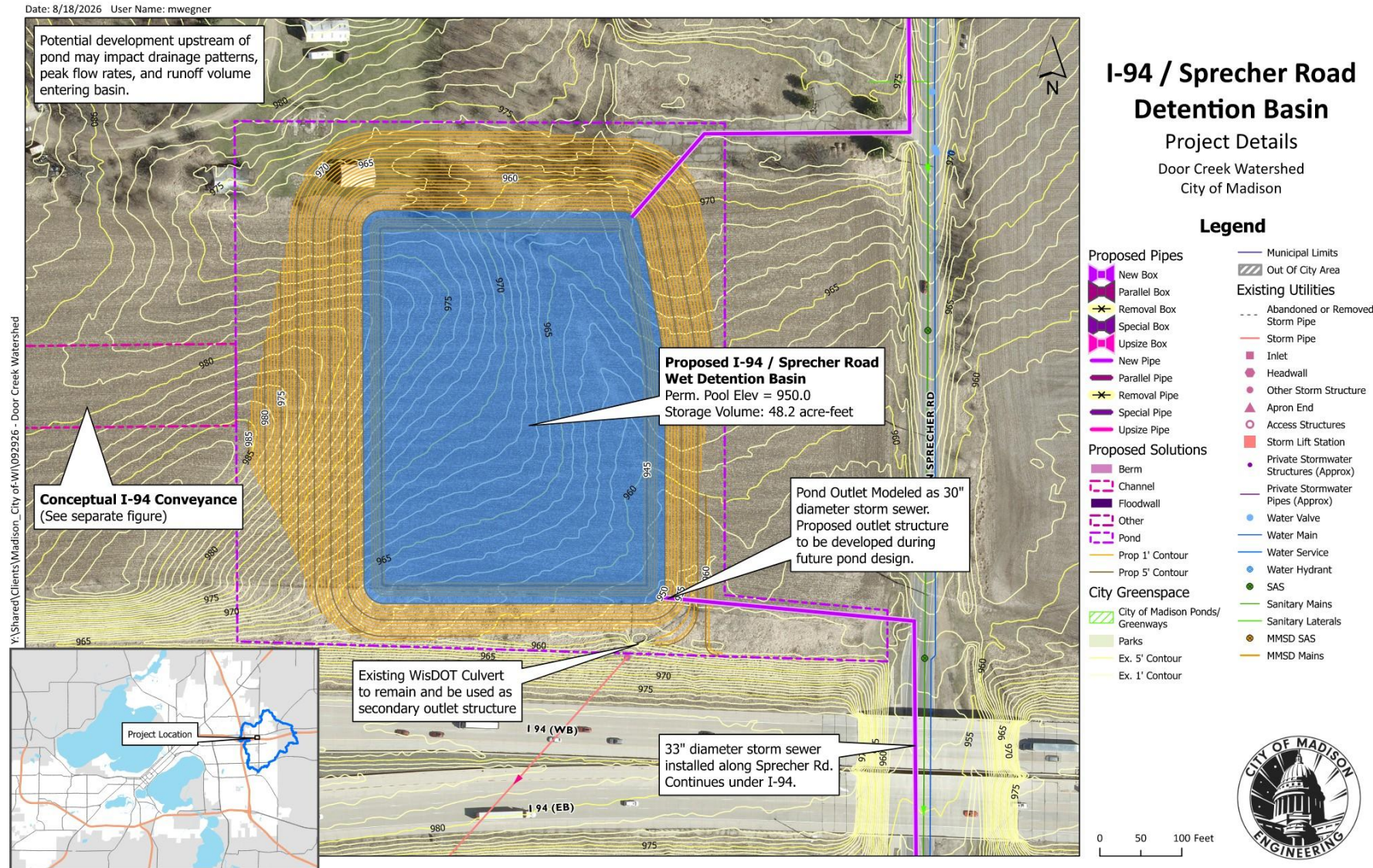
Proposed Pipes	Existing Utilities
New Box	Municipal Limits
Parallel Box	Abandoned or Removed Storm Pipe
Removal Box	Storm Pipe
Special Box	Inlet
Upsize Box	Headwall
New Pipe	Other Storm Structure
Parallel Pipe	Apron End
Removal Pipe	Access Structures
Special Pipe	Storm Lift Station
Upsize Pipe	Private Stormwater Structures (Approx)
Berm	Private Stormwater Pipes (Approx)
Channel	Water Valve
Floodwall	Water Main
Other	Water Service
Pond	Water Hydrant
Prop 1' Contour	SAS
Prop 5' Contour	Sanitary Mains
City Greenspace	Sanitary Laterals
City of Madison Ponds/Greenways	MMSD SAS
Parks	MMSD Mains
Ex. 5' Contour	Door Creek Watershed
Ex. 1' Contour	

0 50 100 Feet



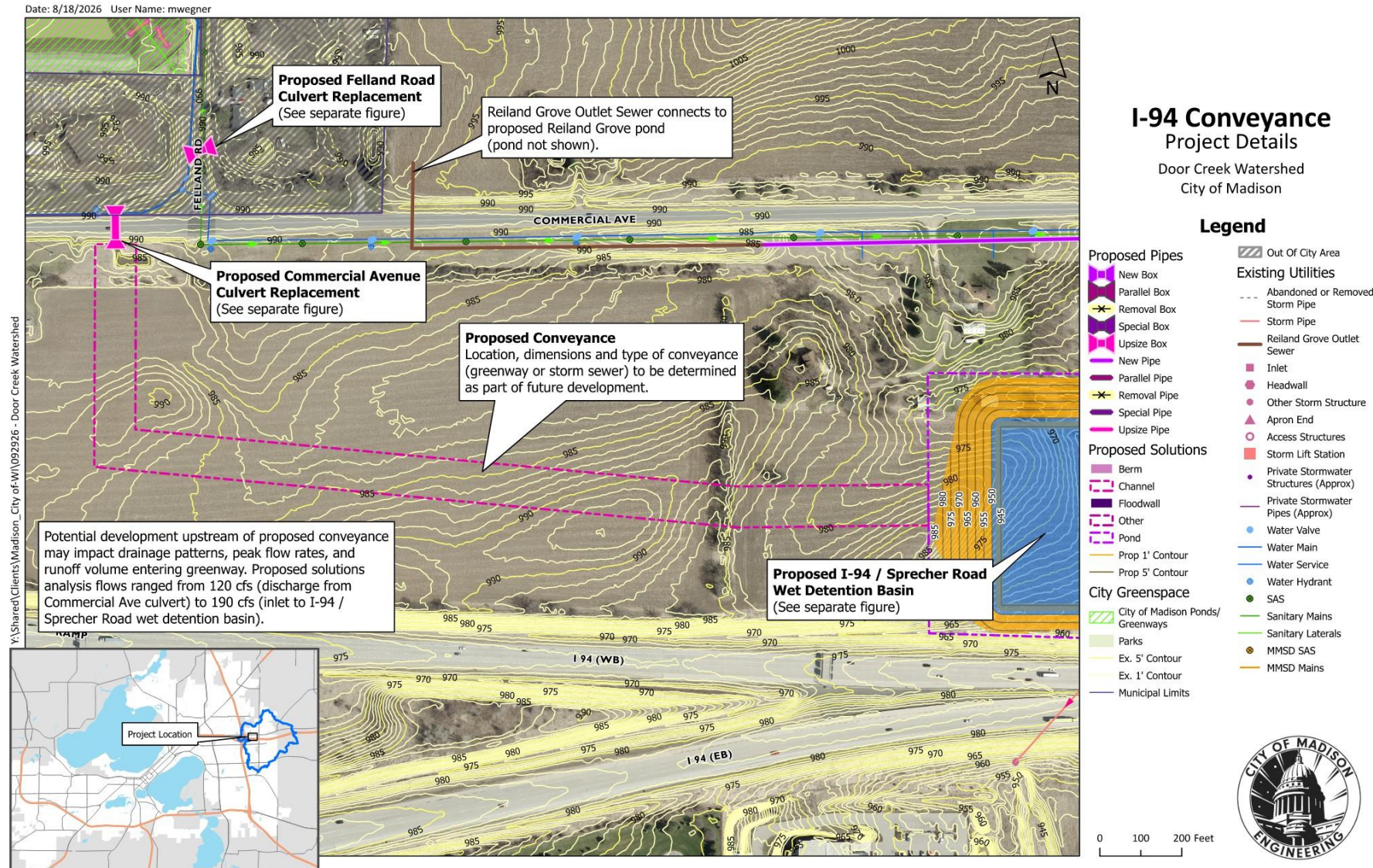
I-94 / Sprecher Rd Pond

- Create pond at corner of I-94 and Sprecher Rd
- Prevent overland flow onto Sprecher Rd
- Need to coordinate with future development



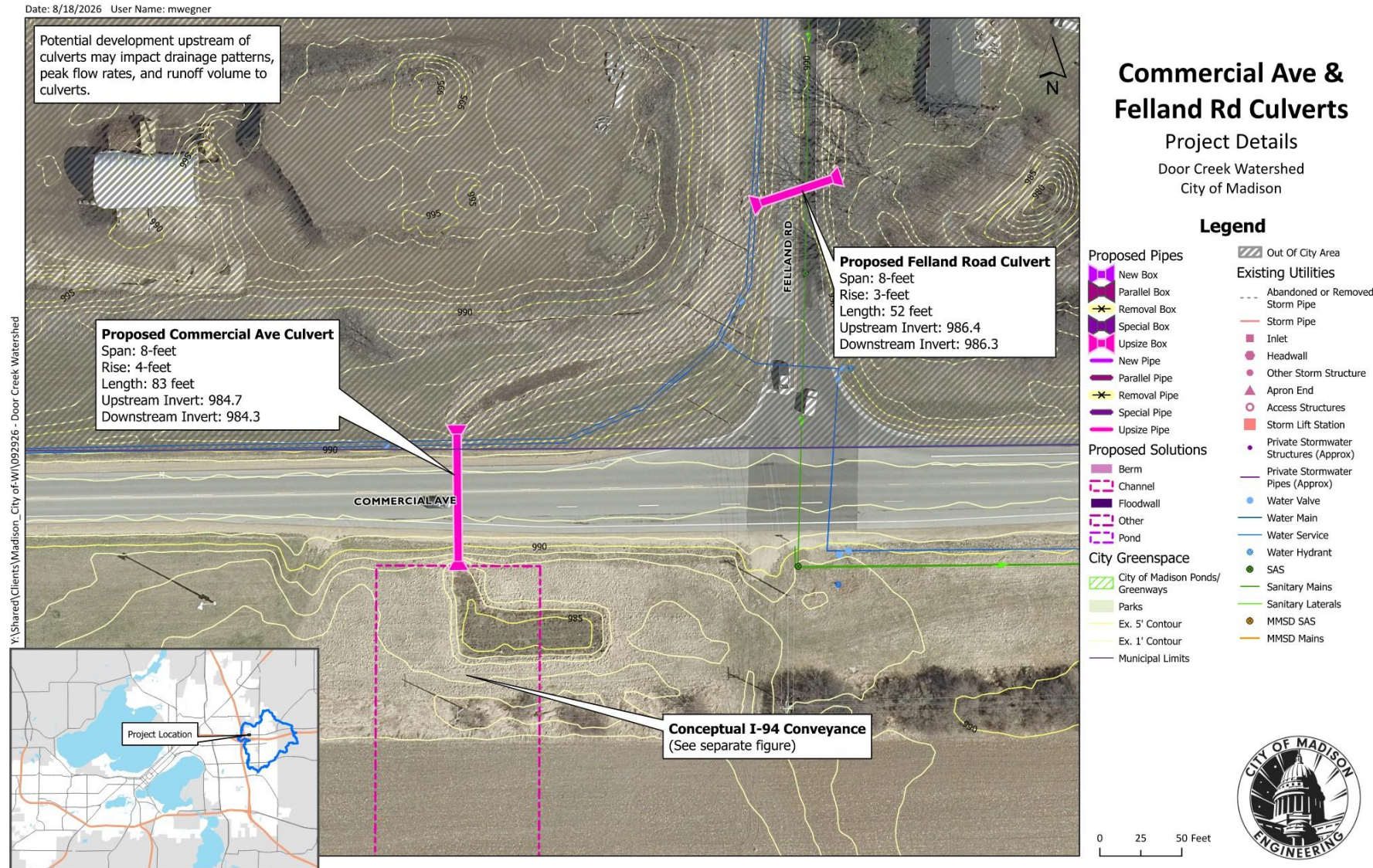
I-94 Conveyance

- Create conveyance (greenway or pipe – location TBD) from Commercial Ave to I-94 / Sprecher Rd Pond
- Enable positive flow from Commercial Avenue Culvert
- Need to coordinate with future development



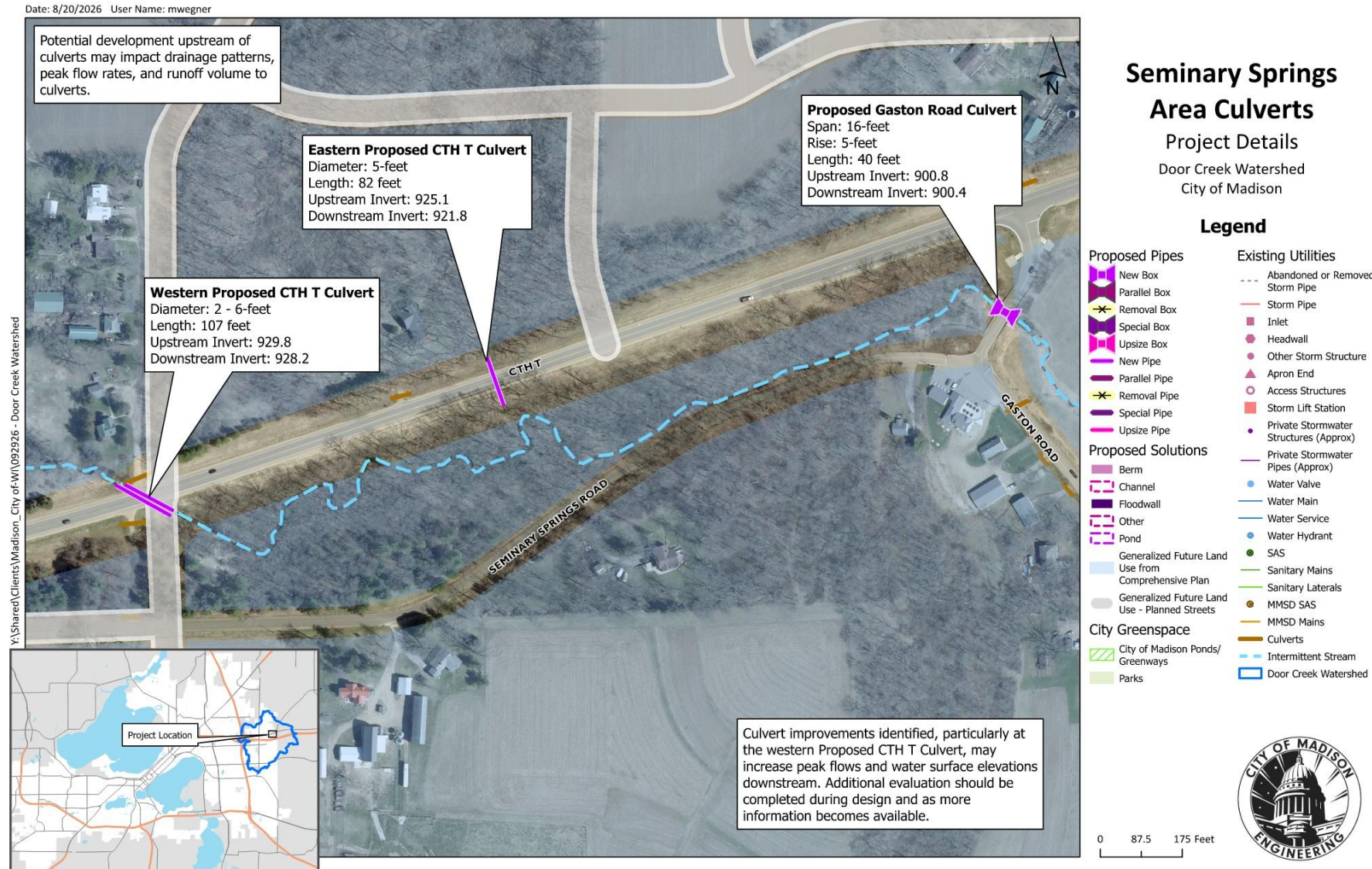
Commercial Ave & Felland Rd Culvert

- Replace and enlarge culverts at Commercial Ave and Felland Rd
- Meets flood target for greenway crossing – does not overtop road in 1% annual chance storm



Seminary Springs Culvert Improvements

- Culvert improvements at Commercial Ave and Gaston Road
- Additional improvements may be needed downstream – future evaluation as development progresses



Recommended Implementation Order and Cost

- Considerations

- Rustic Drive Pond berm prior to upstream local storm sewer improvements
- North Star Park Ponds prior to upstream conveyance
- I-94 & Sprecher Rd Pond prior to I-94 Conveyance
- I-94 Conveyance prior to Commercial Ave Culvert

Project	Estimated Cost
Rustic Drive Pond Berm	\$165,000
East Hill Parkway Culvert	\$505,000
North Star Park Ponds	\$2,600,000
North Star & McLean Drive Box Culvert	\$2,300,000
I-94 & Sprecher Rd Pond	\$8,600,000
I-94 Conveyance	Unknown
Commercial Avenue Culvert	\$485,000
Felland Road Culvert	\$390,000
Gaston Road Culvert	\$610,000
CTH T Culverts (East and West)	\$575,000

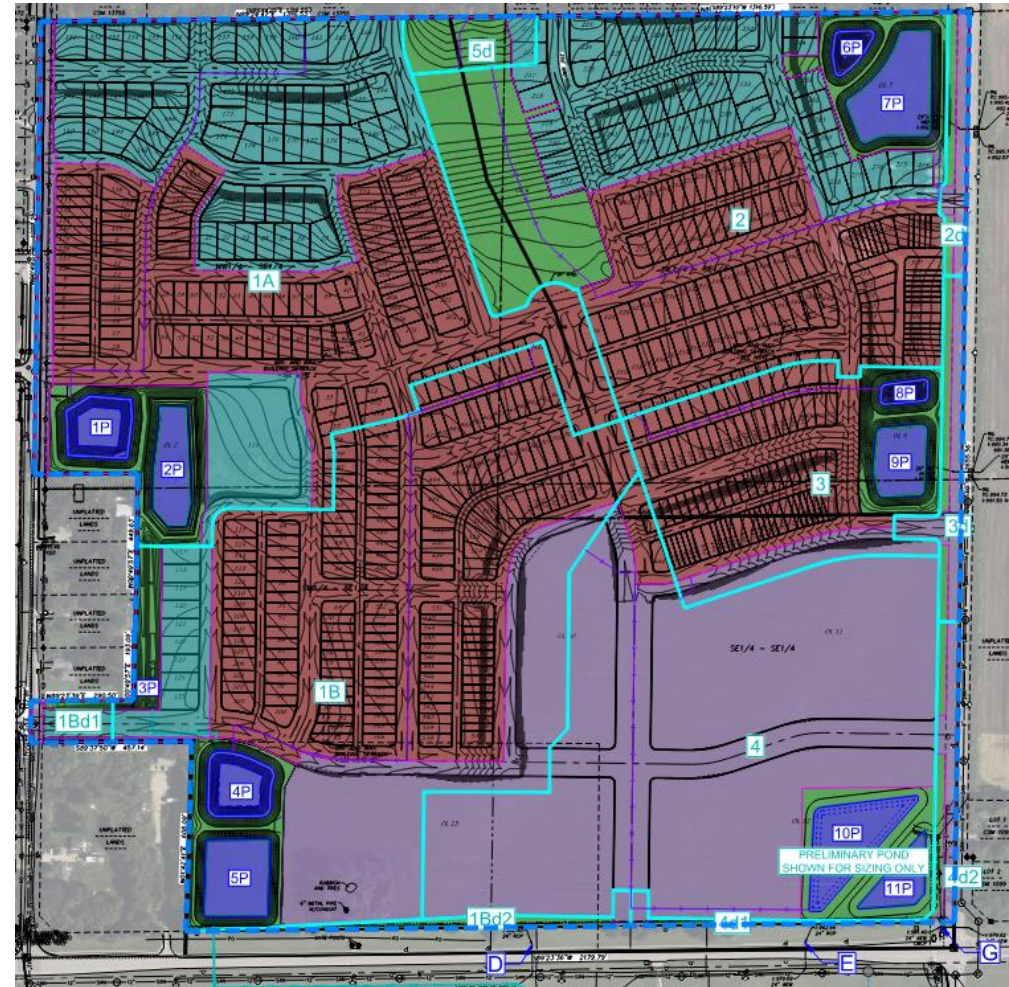
Undeveloped Area / Future Development

- Flood mapping will be used to inform future development and assist in guiding that development. Including:
 - Applying the City's Stormwater Code
 - Identifying unintended detention volumes
 - Verifying pipe and culvert sizing
 - Model can be updated to understand how entire system functions.
- State, county, and town culverts are included in the analysis.
 - City does not have jurisdiction over these culverts
 - Need to consider unintended impacts to changes
- For more information:

www.cityofmadison.com/flooding/city-initiatives/watershed-studies/watershed-study-learning-hub/undeveloped-areas-future

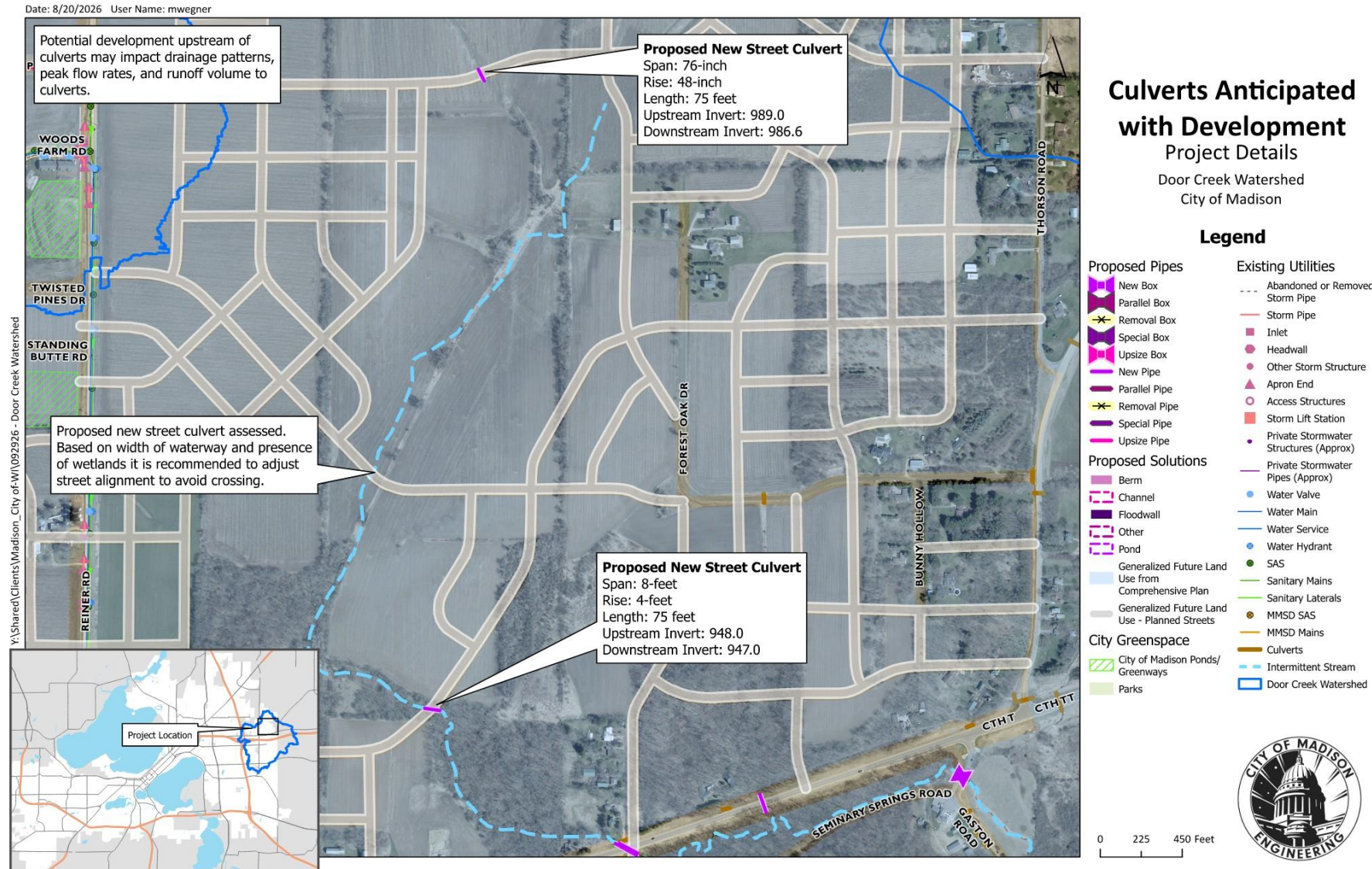
Reiland Grove Development

- Area is actively being developed
- Added information about planned stormwater management into model
 - Ponds
 - Conveyance offsite
- Checked impact on downstream improvements



Culverts Anticipated with Development

- Sized culverts for future road crossings east of Reiner Rd and North of Commercial Avenue
- Cost estimates not developed as part of study – too many unknowns



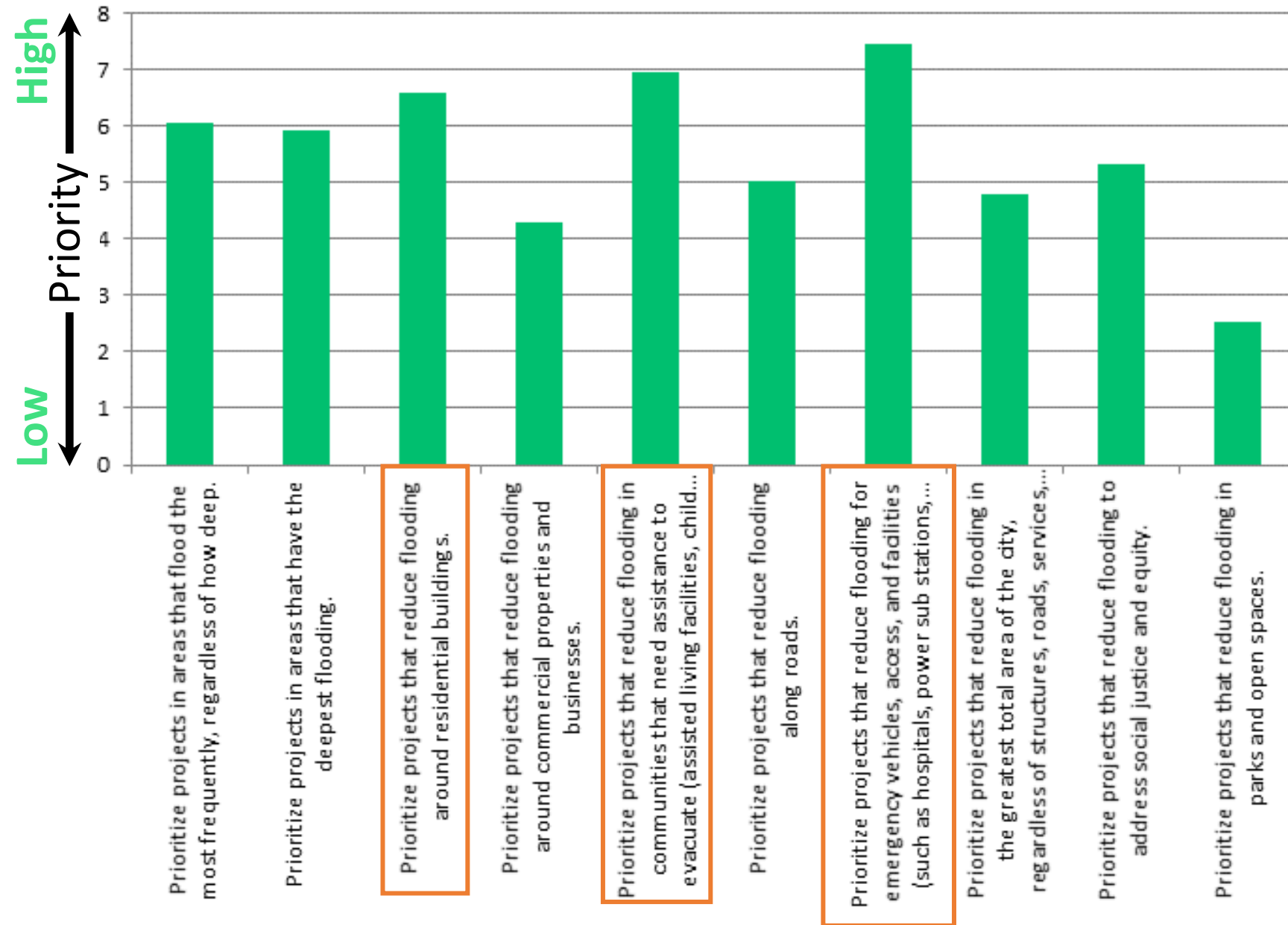
Budgeting Considerations

- Not all projects are yet identified
 - Currently 95 stand-alone projects in 14 study areas (21 watersheds will be studied)
 - \$369M (2026 dollars) + \$16 M for Door Creek projects
- Stormwater Utilities fees fund projects
 - Frequent 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 (21 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

Why Aren't all Targets Met?

- In other watersheds space constraints can limit capability of solutions
- Door Creek Watershed largely meets flood targets
- Try to optimize as part of design to meet all goals
 - 1% Chance Storm: Buildings within City removed from flooding
 - 4% Chance Storm: 2 locations with exceptions
 - 10% Chance Storm: Limited areas with minor street flooding

Flood Safety

- **Turn Around, Don't Drown!**

- Just **six inches** of moving water can knock you down and **one foot** can sweep a vehicle away!

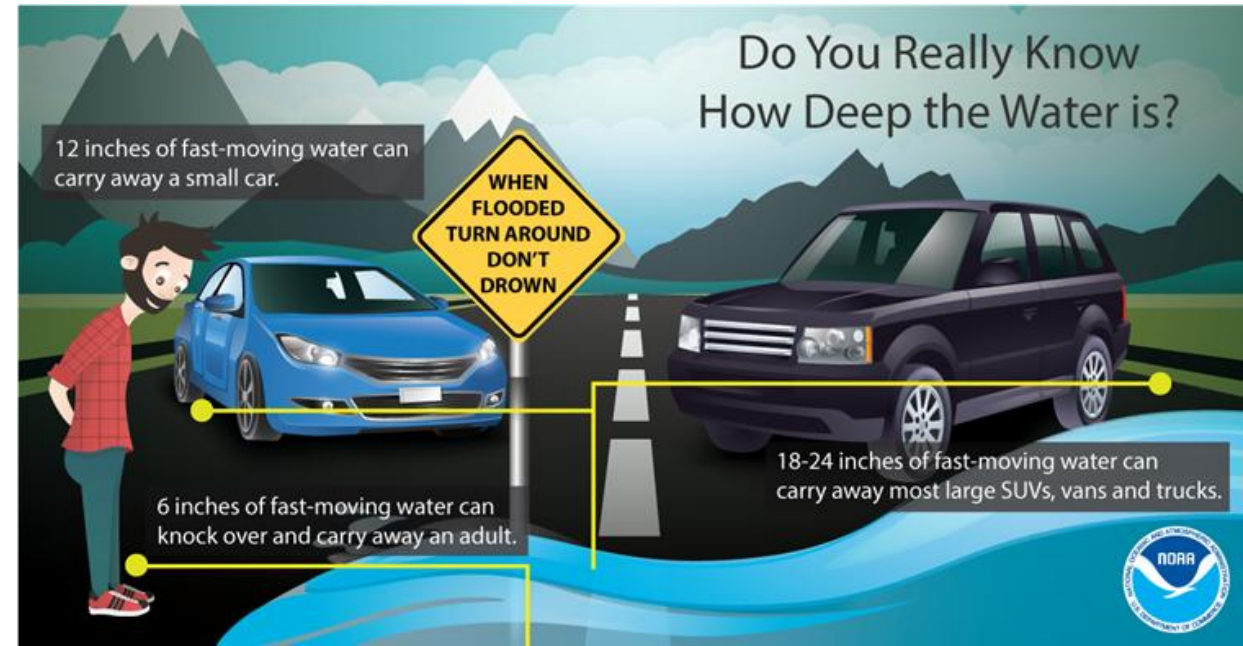
- If caught in floodwaters, act quickly. Save yourself, not your belongings.

- **Do Not Enter Flood Waters!**

- Water can be deeper than it appears, and can hide hazards such as contamination, downed powerlines, sharp debris, and access structures, for underground utilities, with missing lids.

- Treat flooding and stormwater features with respect; keep a safe distance and teach children to do the same.

- Find additional information on the City's webpage:
<https://www.cityofmadison.com/flooding/during-a-flood>



Flood preparedness

- Understand flood risks:
 - [City of Madison Flood Risk Map](#)
 - [City of Madison Historical Street Flooding Map](#)
 - Visit the [watershed study project webpage](#)
- If you live or work in a flood prone area, avoid storing valuable or important items on the floor of your basement or first floor.
- When traveling through flood-prone areas. Avoid walking or driving through floodwaters.
 - Plan alternate routes and allow additional time
- Avoid parking on streets or in parking lots at risk of flooding when a storms are forecasted.
- Avoid parking in underground parking structures of buildings that are at risk of flooding when a large storm is forecasted.

What is Green Infrastructure (GI)

- GI is smaller infrastructure that **filters and absorbs stormwater where it falls.**
- GI uses plant or soil systems, permeable pavement or other permeable surfaces to **store, infiltrate, or evapotranspire stormwater** and **reduce flows** to sewer systems or to surface waters.
- The City encourages GI use through the stormwater ordinance, the rain garden program, and a GI Pilot Study.



A rain garden on private property treats and infiltrates stormwater on-site and provides wildlife habitat



Terrace Rain Garden



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 (federal research agency) to study the impacts of implementing significant amounts of GI
 - Installed rain gardens, pervious pavement, pervious sidewalk and driveway impervious treatment
- [Roger Bannerman Rain Garden Initiative](#) (Terrace Rain Garden Program)
 - The City is well on its way to the 1000 Rain Garden Goal! As of 2025, there are 749 private and public rain gardens!
- [Stormwater Ordinance Revision](#) – resulted in an increase in GI with private development. >24 green roofs have been built since the ordinance revision in 2020.
- Provides [online Educational Resources](#)
- Partners with Dane County to host an annual 1 on 1 rain garden workshop in Feb.
 - <https://www.ripple-effects.com/>



Permeable Pavement
installed with GI Study



Rain Garden installed at
O'Keefe Middle School

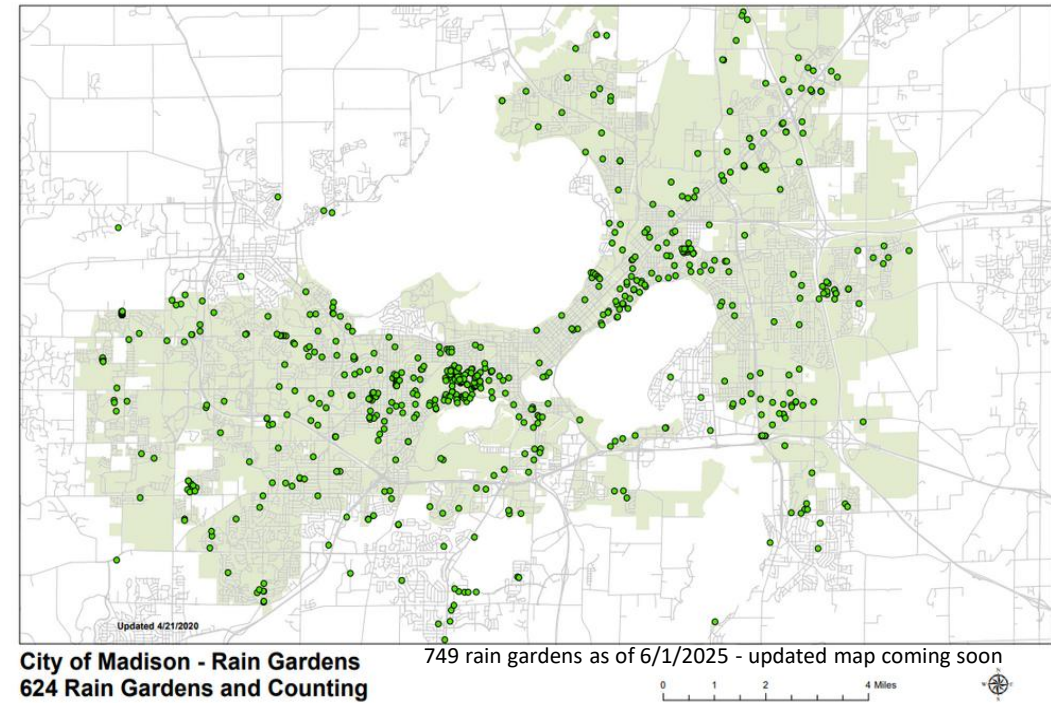


Green Roof on Regent Street -
Photo Credit: CRG, Chapter at Madison

What Residents Can Do

- Be a Watershed Steward

- Talk about impacts of stormwater runoff with neighbors
- Reduce the stormwater leaving your property
 - Install a rain barrel
 - Direct roof drains to your grass or garden
 - Install a private rain garden, apply for a construction rebate and get credit on your stormwater bill
 - If you have a rain garden that isn't on the map, let us know!
- 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
 - Adopt A Storm Drain
- See Illegal Dumping to Storm Drains or Waterways – [Report it!](#)



What Interested Residents Can Do To Reduce Runoff

- Rain Barrels
 - Captures a small amount of water for reuse in a garden or lawn
 - Can purchase at a reduced price from [Ripple Effects](#)
- Rain Gardens
 - Reduce stormwater entering our stormwater system
 - City launched grant program in 2026 for residential properties to receive up to \$500 to subsidize the cost of building a rain garden on their property
 - Email Phil Gaebler for more info: pgaebler@cityofmadison.com
 - Find resources here: [Roger Bannerman Rain Garden Initiative | Engineering | City of Madison, WI](#)
- Direct roof drains to grass
 - Directing your roof drain away from an impervious surface decreases the runoff leaving your property
 - Find more information at: [Ripple Effects – Downspout Gardens](#)



Native plantings at downspout
Photo Credit: Ripple Effects

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Next Steps

- Finalize Report
 - 30-day Public Comment Period
 - BPW, BPC, Other committees
- Finalize Prioritization Process
- Begin Implementing Solutions



Contact Information & Resources

- Project Manager: Jojo O'Brien, jobrien@cityofmadison.com
- Public Information Officer: Hannah Mohelnitzky, hmoelnitzky@cityofmadison.com
- Project Webpage: <http://www.cityofmadison.com/DoorCreekWatershed>
 - 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
- Flooding Website: www.cityofmadison.com/flooding
- Everyday Engineering Podcast
- Instagram: @MadisonEngr
- Facebook – City of Madison Engineering
- X – @MadisonEngr



Questions?

➤ Project Webpage:

<http://www.cityofmadison.com/DoorCreekWatershed>

- 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
- During the Q&A, please ask generalized questions first, and once we've answered general questions, we can answer property-specific questions

