



Castle Creek Channel Improvements At Warner Park

Public Information Meeting
City of Madison Engineering Division
August 5, 2026

Thank you for attending. We will begin shortly...

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Rules and Housekeeping Items for this Meeting

- 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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Audio

Raise hand

Q&A

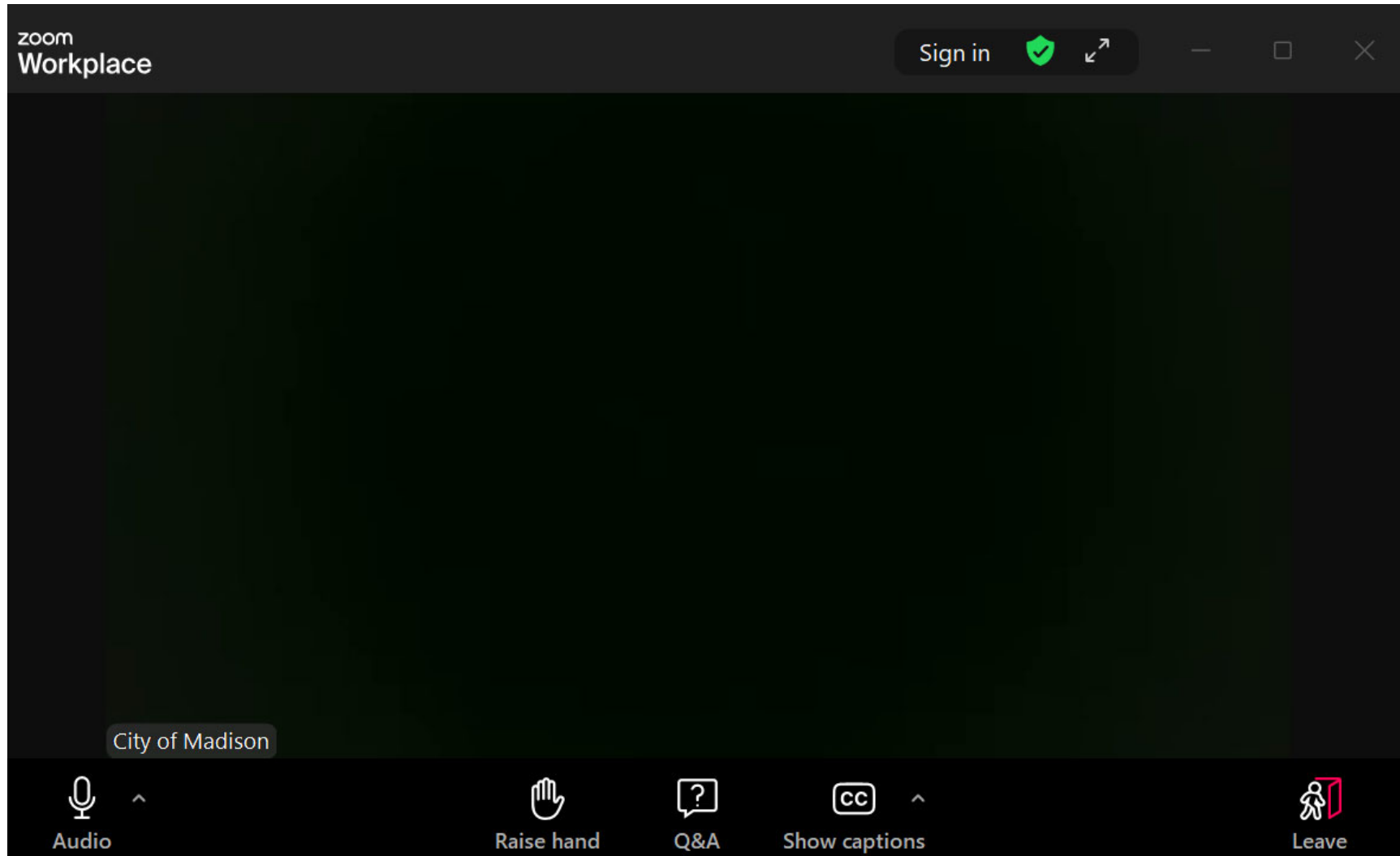
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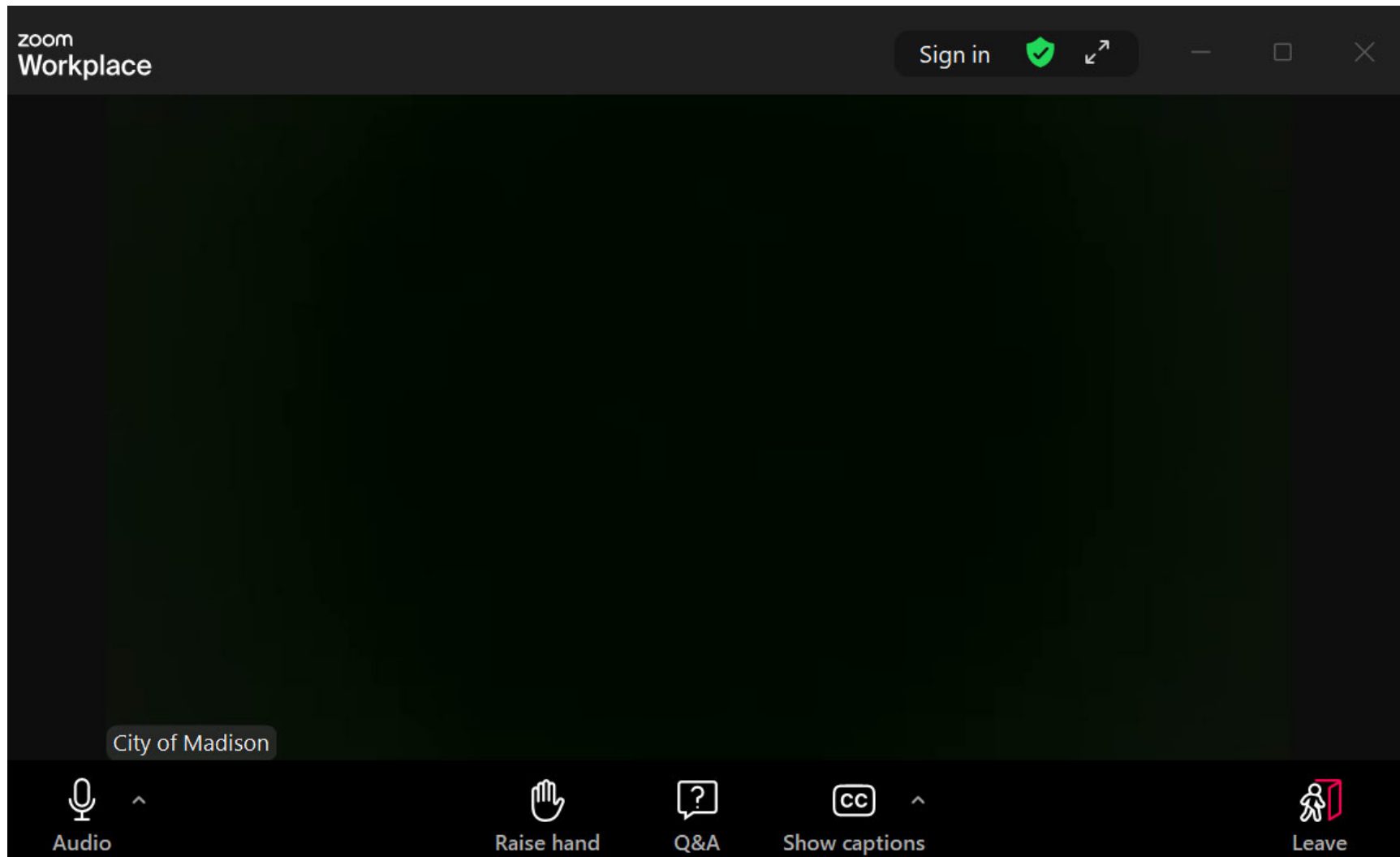
Raise your hand to be unmuted
For comments or ask additional questions.



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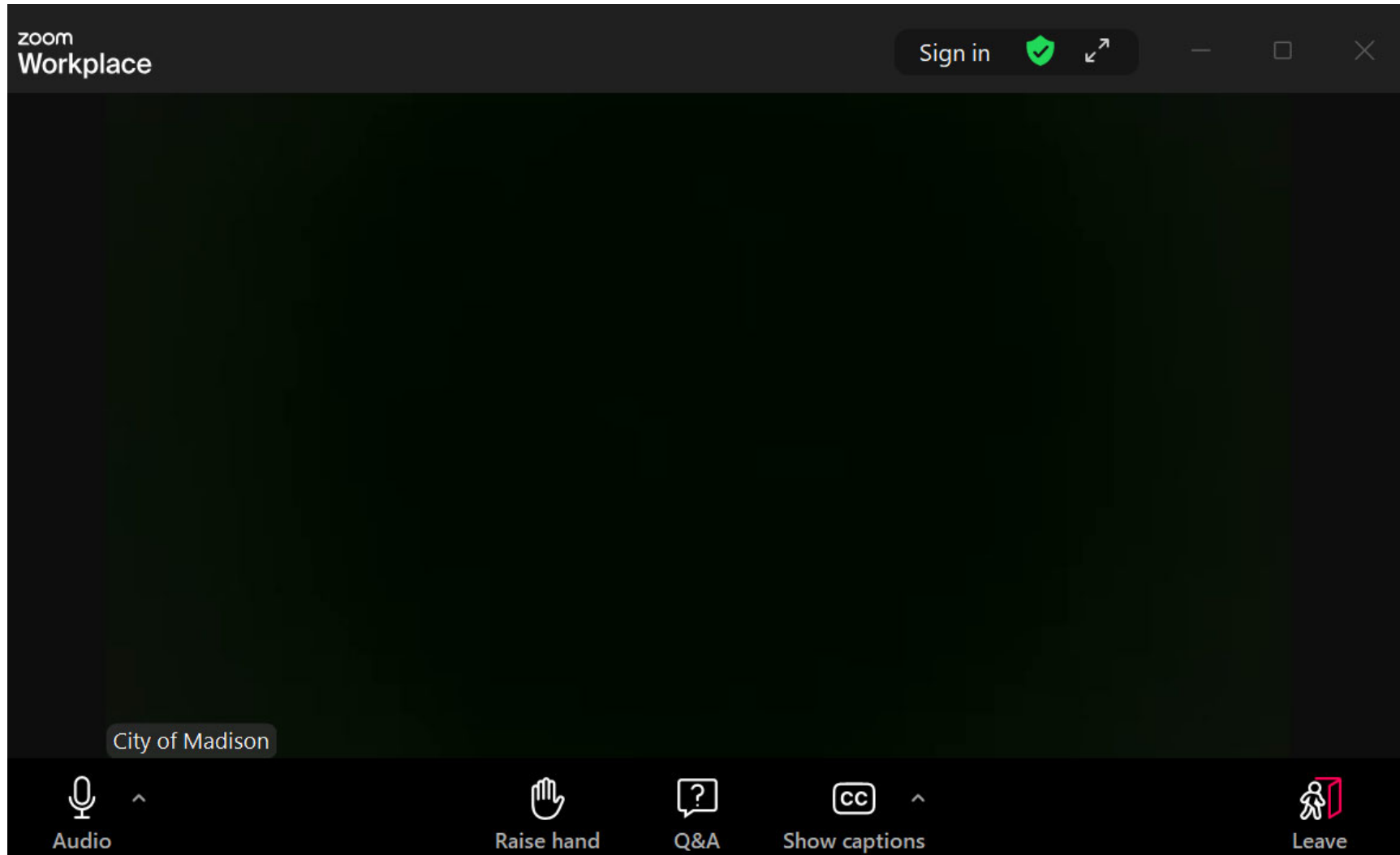
How to Participate



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



How to Participate



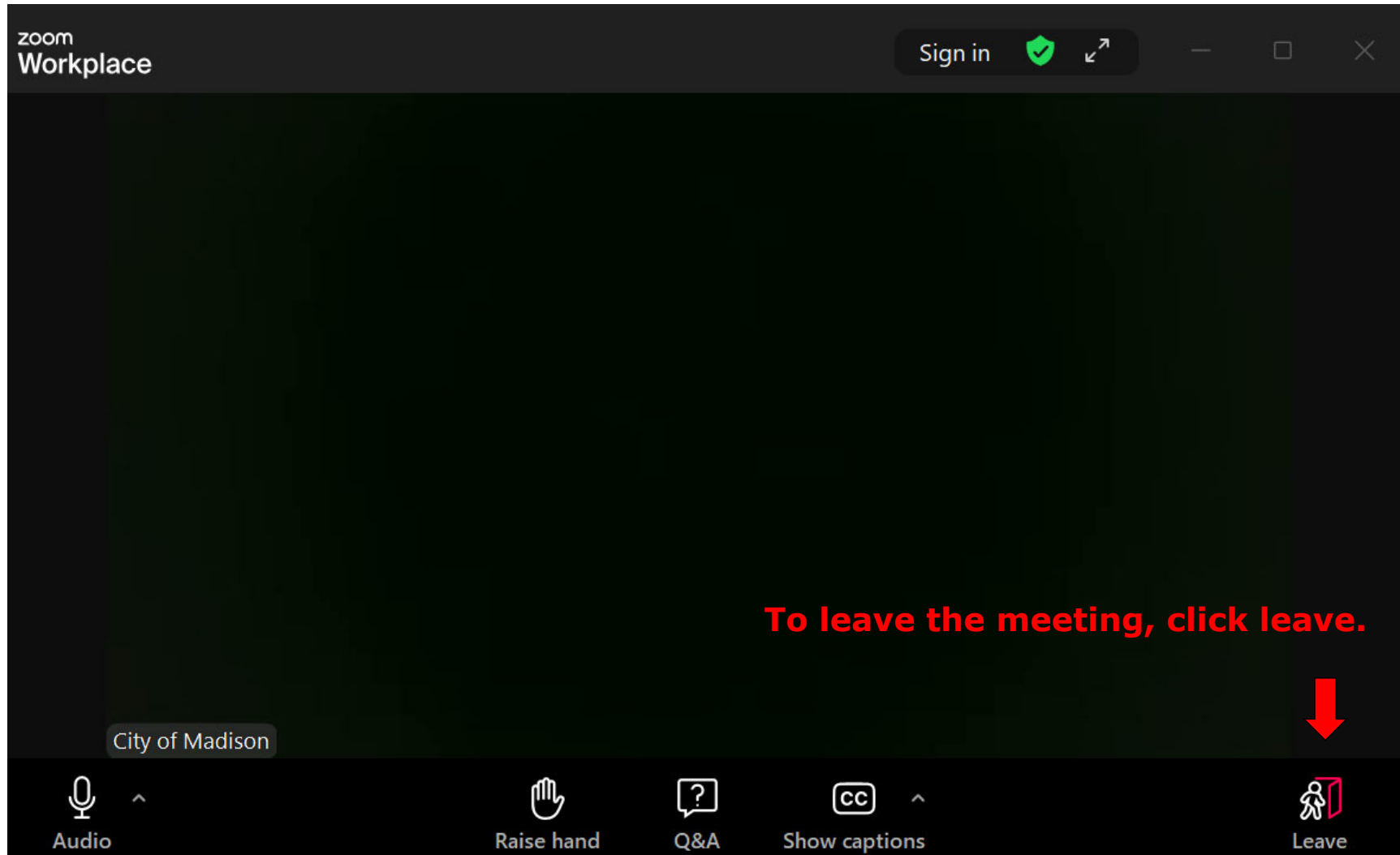
Use **Q&A button for all other questions.**
We will answer after the presentation.



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How to Participate



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How to Participate

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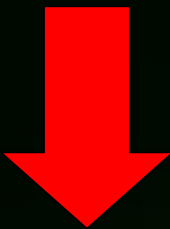
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Audio


Raise hand


Q&A

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Presentation Overview

Thank You for participating!

- Welcome (Hannah Mohelnitzky, Public Information Officer, City of Madison)
- Introduction
- Presentation (*Ryan Stenjem, PE*)
- Q&A (facilitated by Hannah Mohelnitzky)
 - Assisted by:
 - *Ryan Stenjem*
 - *Janet Schmidt*
 - *Greg Fries*
- Presentation available on the website
 - www.cityofmadison.com/CastleCreek



Project Contact Introductions

➤ Ryan Stenjem PE, Project Manager, City of Madison Engineering

- Civil/Water Resource Engineer with the City of Madison Engineering.
- Over 15 years of experience in site/stormwater design and stormwater modeling projects both in public and private sector.
- Watershed Study Program Manager with the City of Madison since 2023
- Completed design of stormwater projects, including infiltration basins, bioretention, wet ponds, and greenways; as well as floodplain analysis projects, throughout Wisconsin and the Upper Midwest.

➤ Alder Julia Matthews, District 12



Presentation Overview

- **Background**
- Project Scope
- Design
- Schedule and Next Steps
- Contact Information & Resources
- Q&A



Project Location

Madison, Wisconsin

Legend

- Castle Creek Greenway Project Area
- Castle Creek Greenway Drainage Area
- City Ponds and Greenways
- Abandoned; Removed Storm Pipe
- Accepted; As-Built; As-Designed Storm Pipe

Castle Creek Greenway

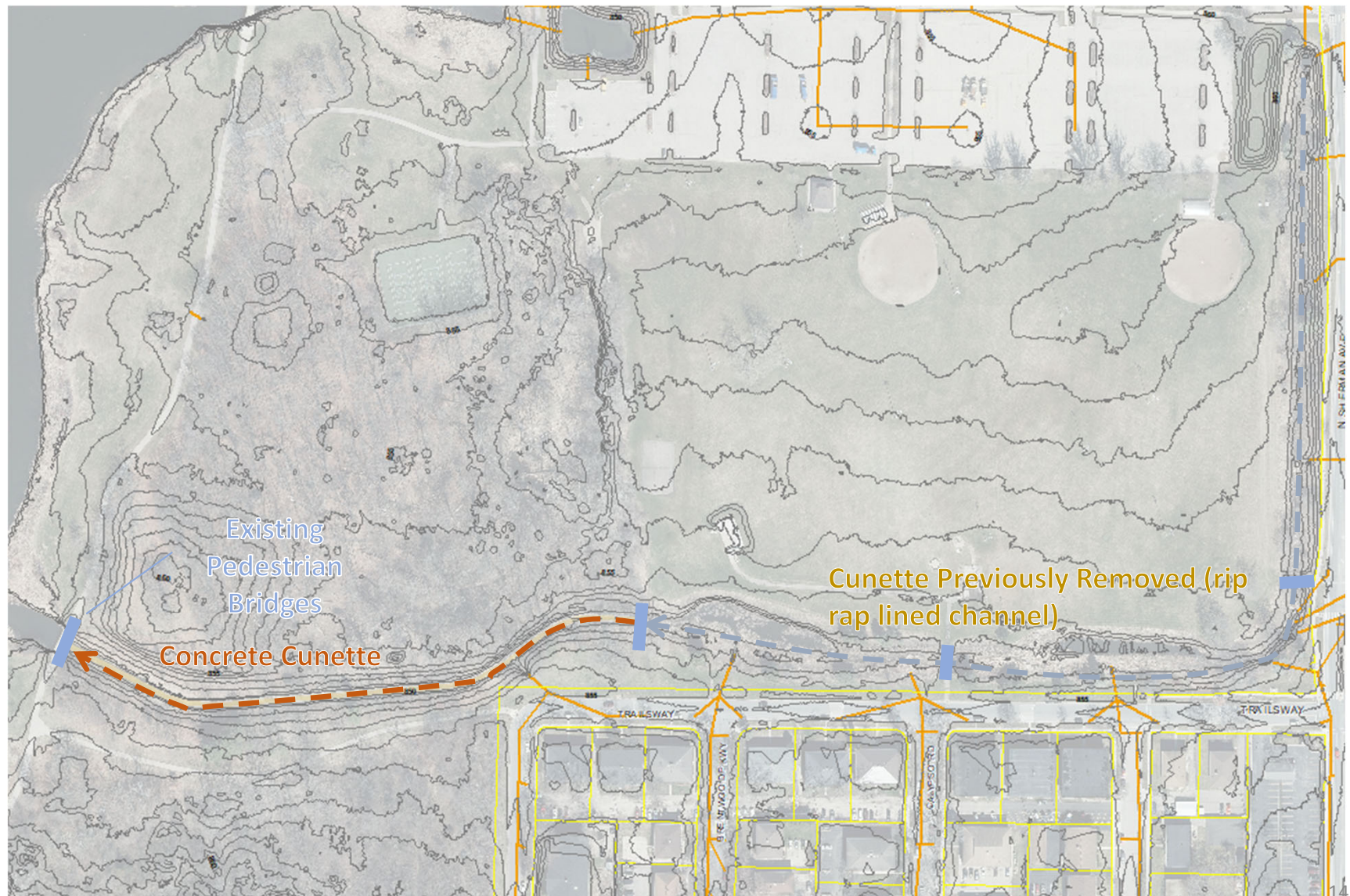
Project Area

Warner Park Lagoon

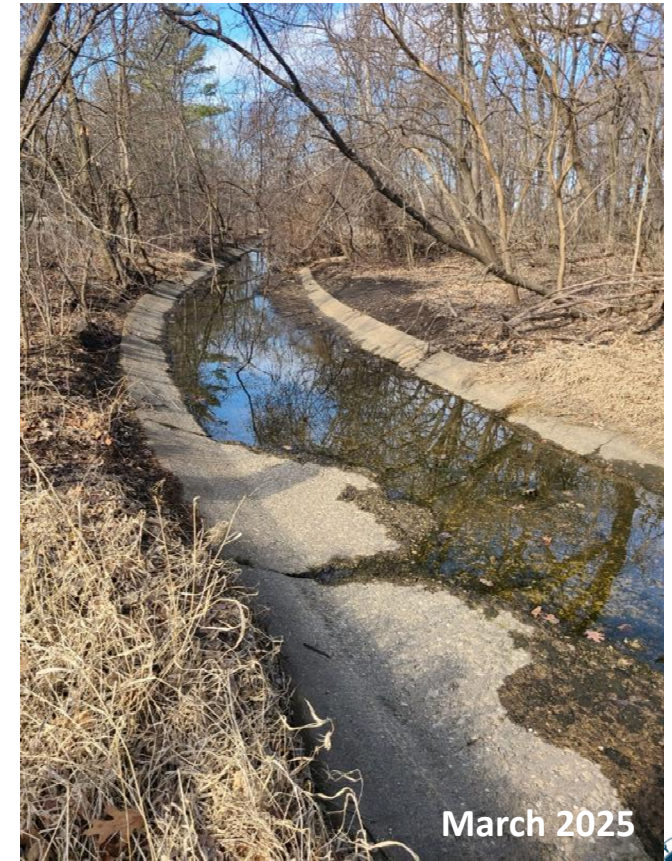
Warner Park Boat Launch

Warner Park

Castle Creek Greenway



Castle Creek Current Conditions - Cunette



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Castle Creek – Post 2014 Construction



Looking west near downstream end of 2014 project



Looking west near intersection of Sherman Ave and Trailway

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Castle Creek Current Conditions

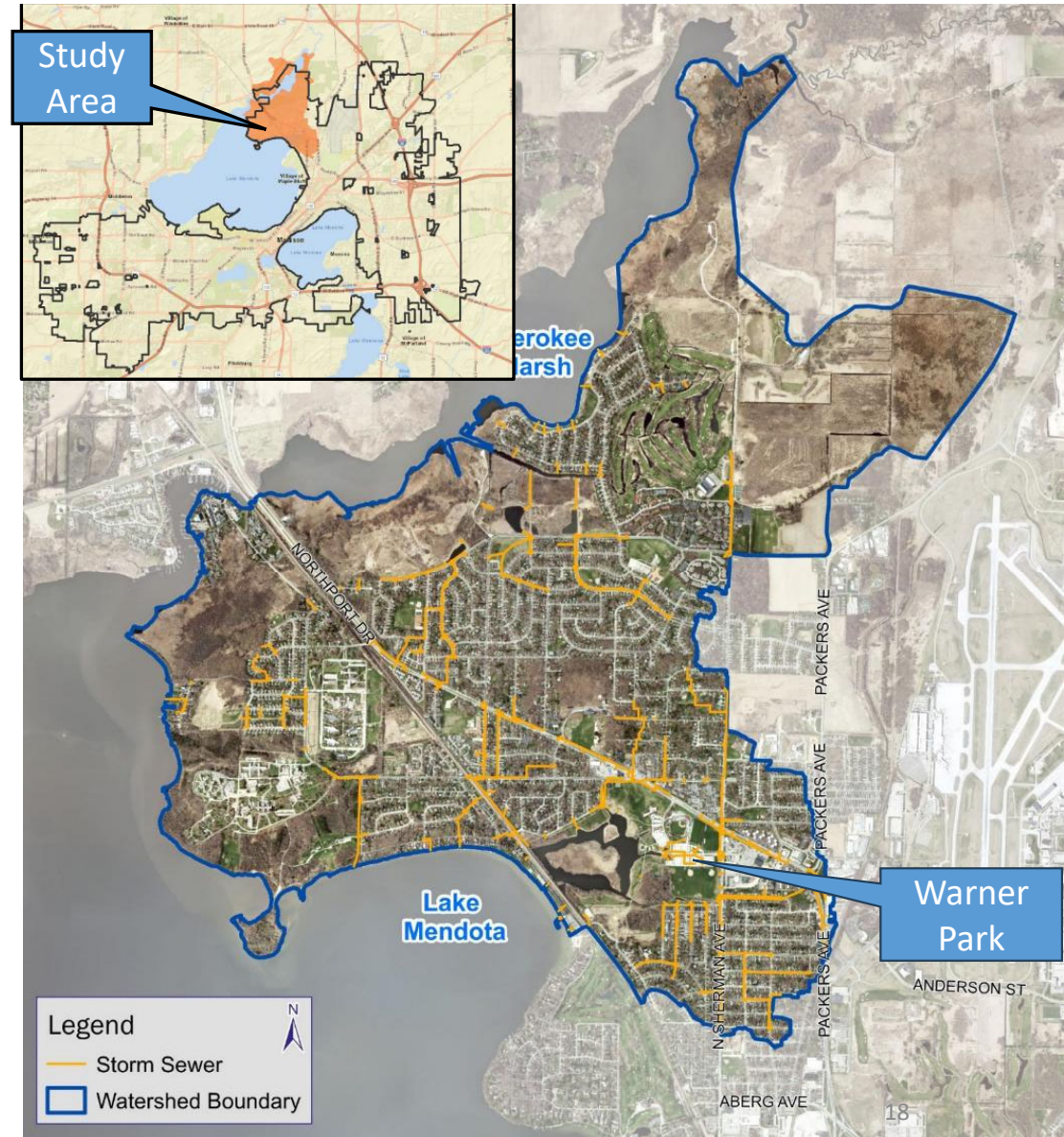


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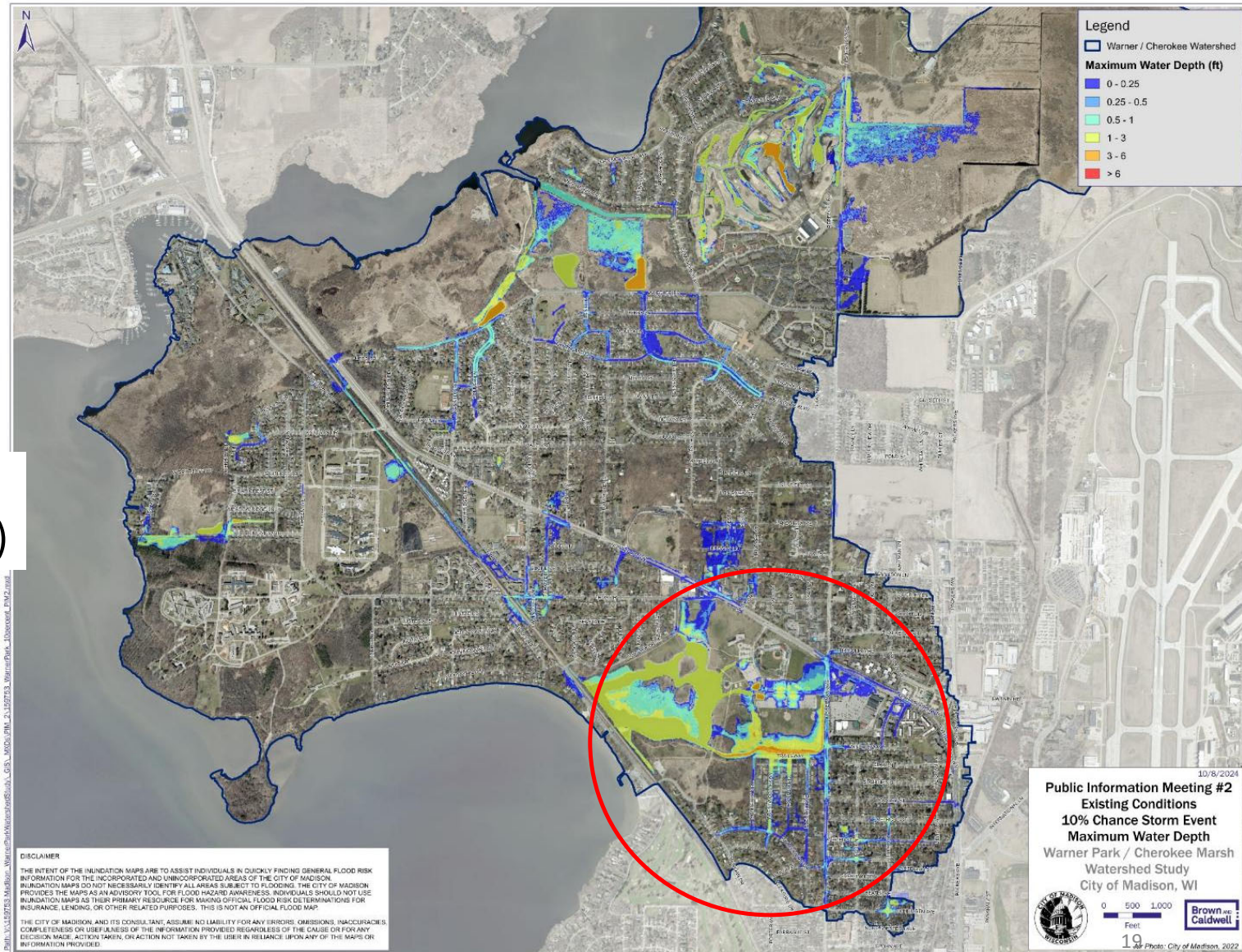
Warner Park and Cherokee Marsh Watershed Study (2023-2026)

- Identify areas of stormwater flooding and develop recommendations to mitigate
- Areas draining to:
 - Warner Lagoon
 - Cherokee Marsh
 - NE Lake Mendota
- 3 Public Information Meetings
 - PIM 1 (7/20/2023) – Background
 - PIM 2 (10/21/2024) – Existing Conditions Flooding
 - PIM 3 (9/23/2025) – Flood Mitigation Solutions
- Final Report
 - Accepted by Board of Parks Commissioners: 4/15/26
 - Accepted by Board of Public Works: 4/22/26
 - <https://www.cityofmadison.com/engineering/projects/warner-park-and-cherokee-marsh-watershed-study>



Existing Conditions Inundation Mapping

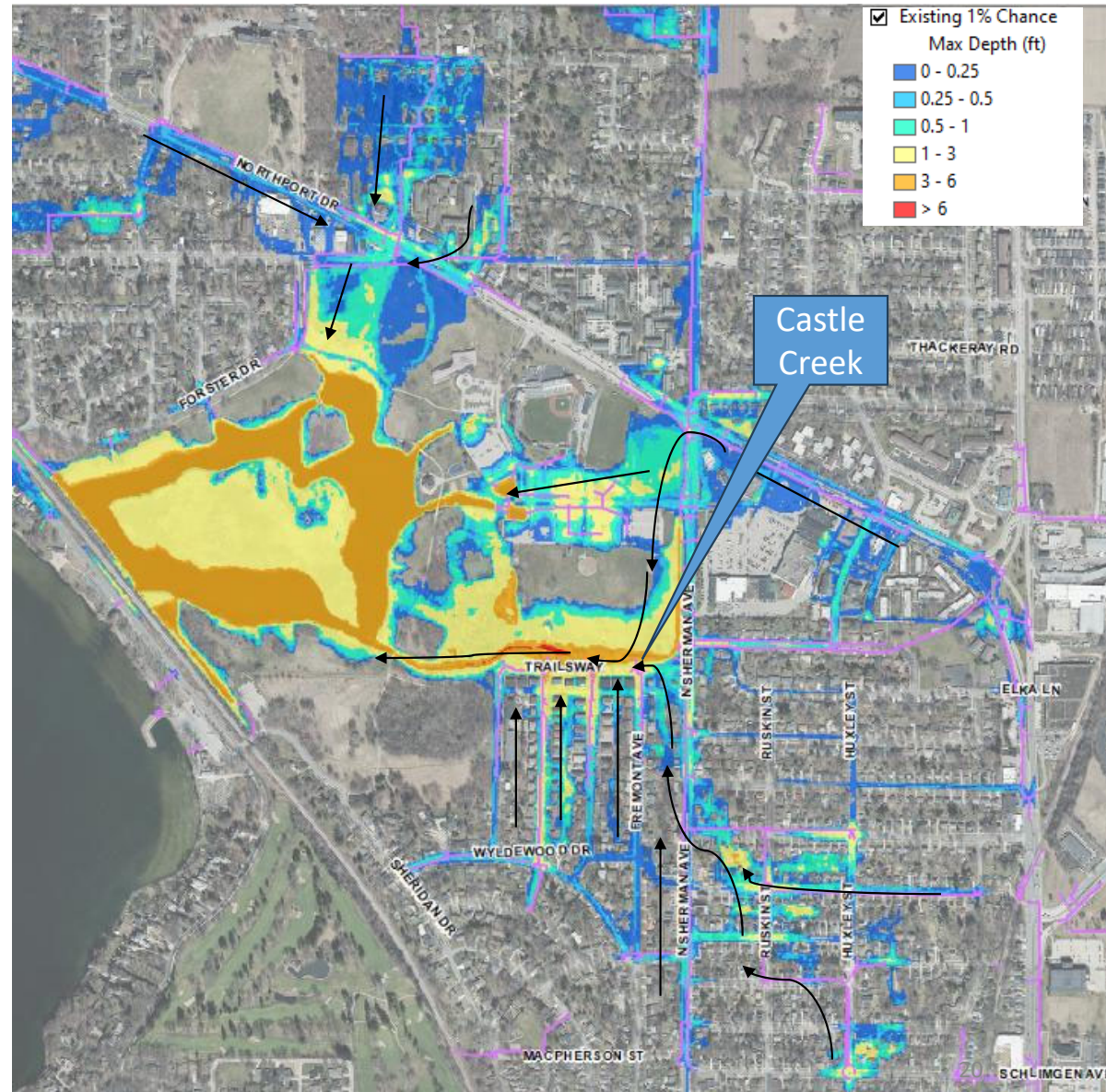
10% Chance Event
(4.09 inches in 24 hours)

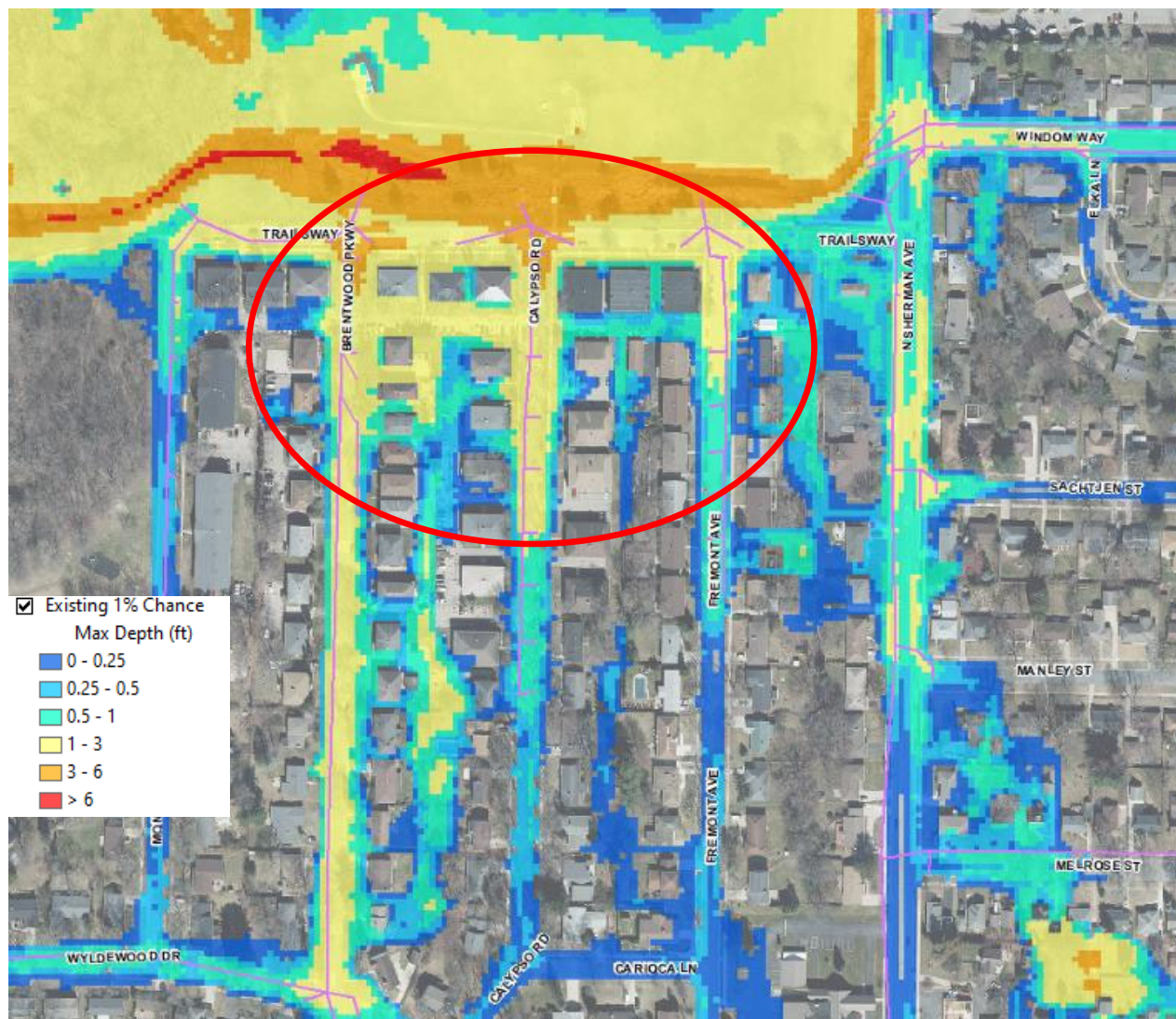


Warner Park and Castle Creek Drainage Area

Existing Conditions Maximum Flooding - 1% Chance Event (6.66" in 24 hr)

Castle Creek is a significant limitation in the drainage system. Several areas that flood drain to the Lagoon through Castle Creek and Warner Park





Brentwood Neighborhood

- Several multi family units flooding in 1% annual chance storm
- Extensive Street Flooding
 - Trailsway, Brentwood Pkwy, Calypso Rd
 - N Sherman Ave
- Reports of basement flooding from 7/10/25 storm (~10% chance storm)
- Frequent flooding confirmed by City Staff, residents, and alders

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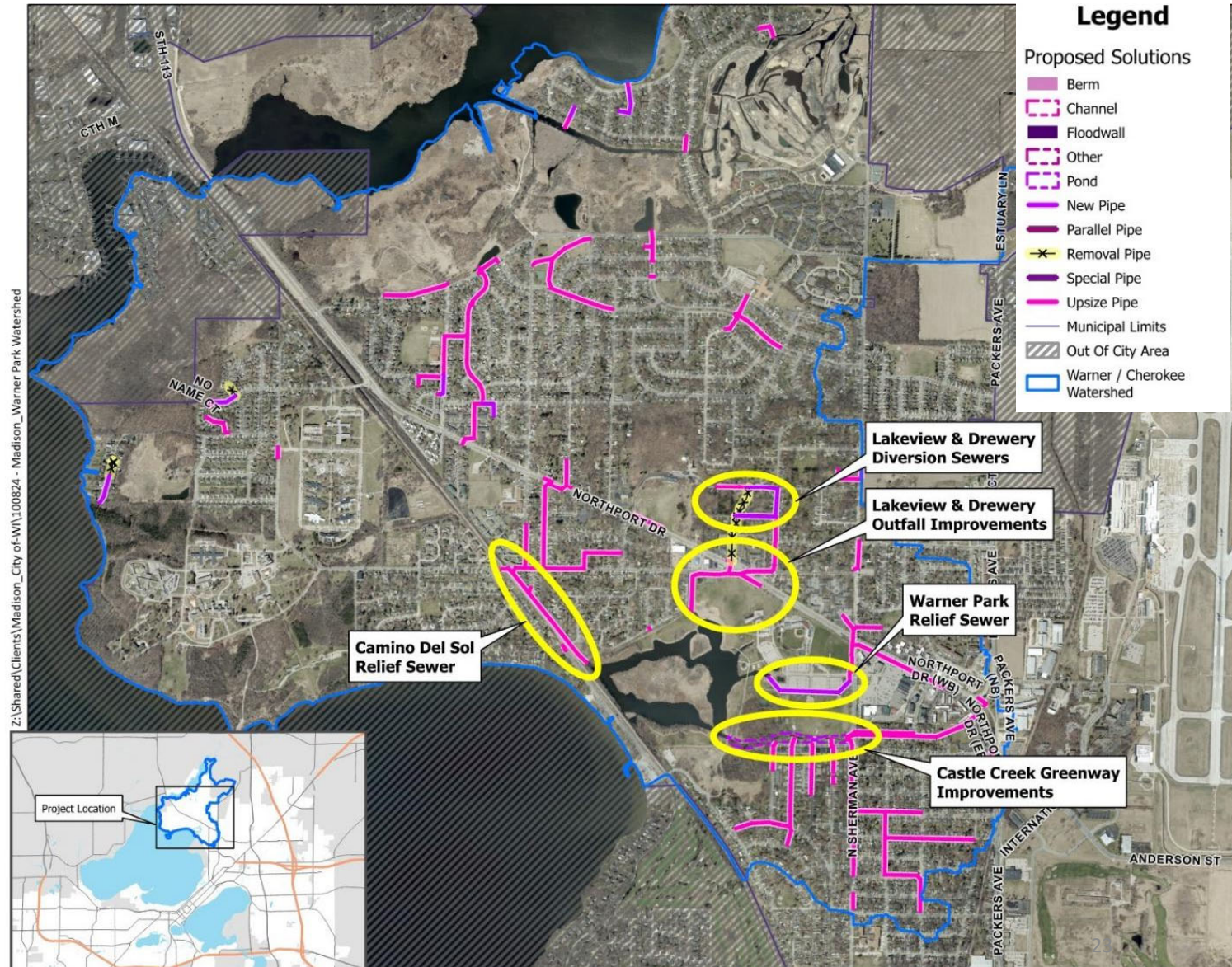




7/10/25 6:00PM

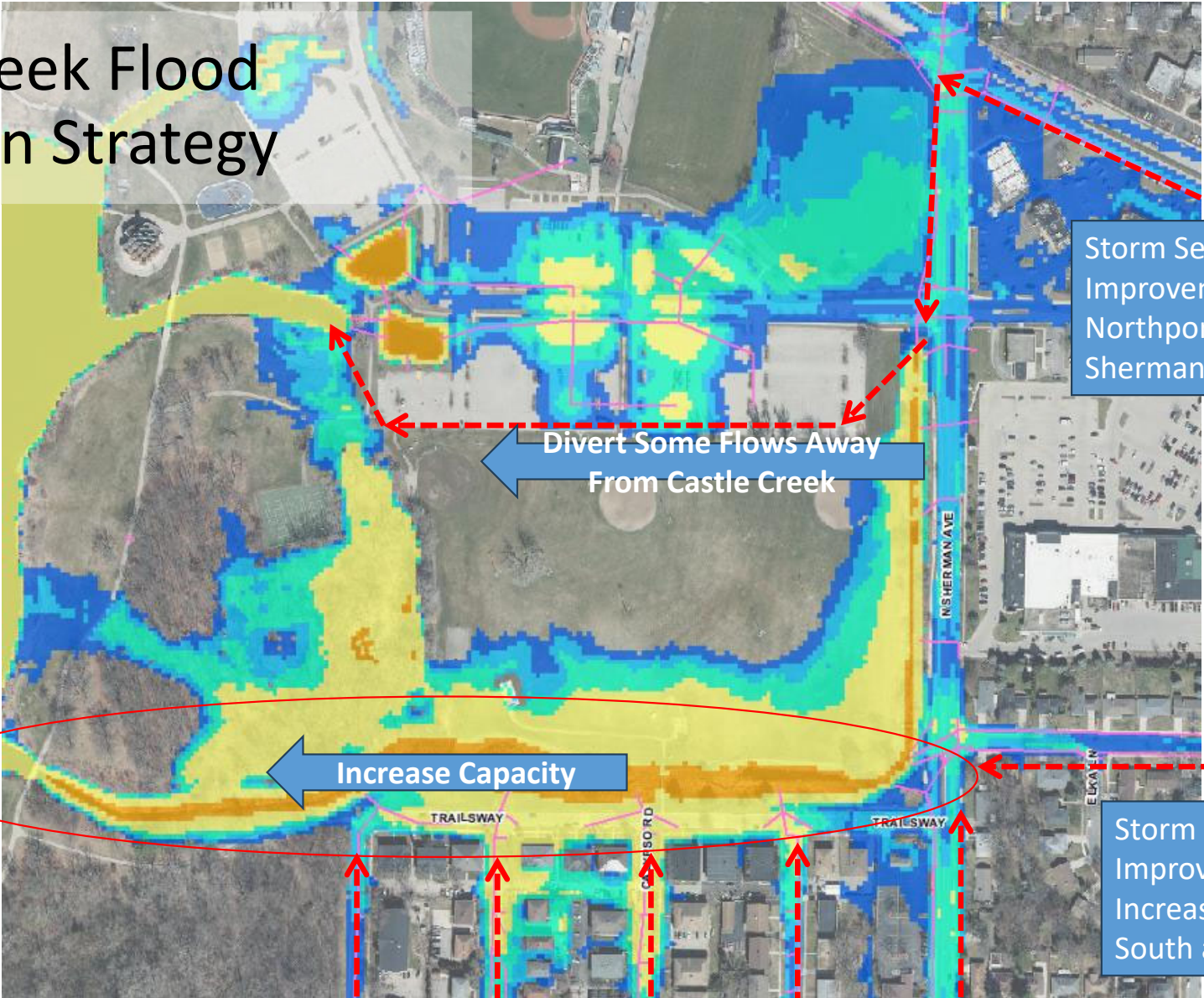
Watershed Study Proposed Solutions

- Local storm sewer improvements (pink)
- Castle Creek Greenway Improvements
- Warner Park Relief Sewer
- Camino Del Sol Relief Sewer
- Lakeview & Drewery Diversion Sewers and Outfall Improvements



Castle Creek Flood Mitigation Strategy

- ☒ 10% Chance Max Depth (ft)
- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 6
- > 6



Storm Sewer Improvements on Northport and N Sherman Ave

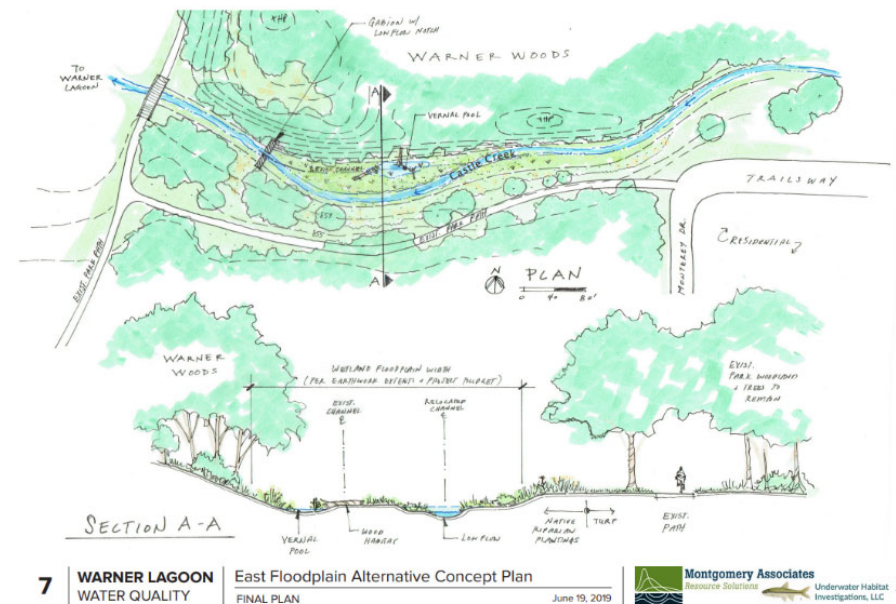
Divert Some Flows Away From Castle Creek

Increase Capacity

Storm Sewer Improvements Increasing Flows from South and East

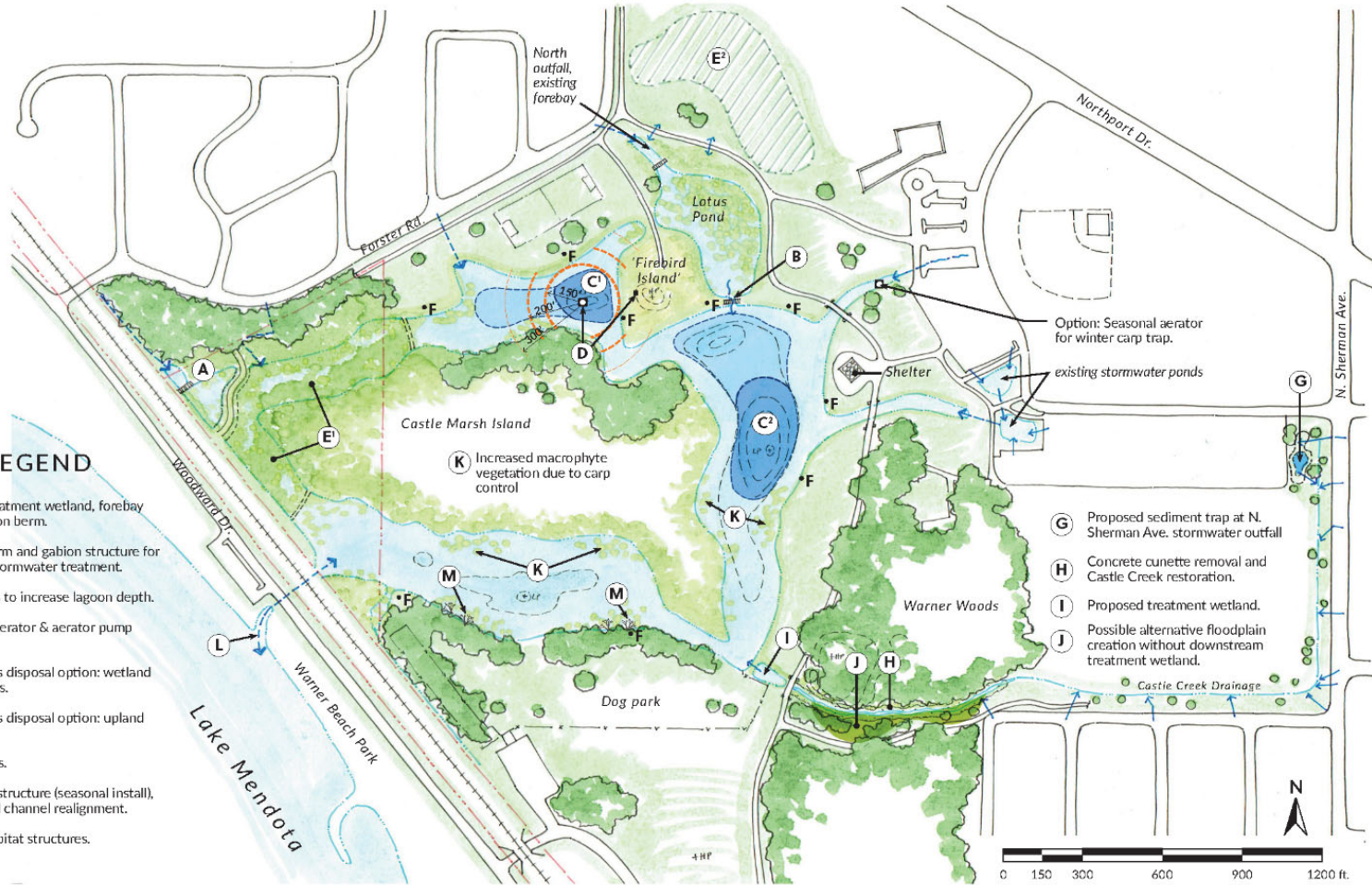
Warner Lagoon Water Quality Plan (2016-2021)

- Objectives:
 - Maintain or Improve Recreational Access
 - Improve Water Quality
 - Habitat Maintenance and Improvement
 - Increase Educational Opportunities
- Stakeholders
 - Wild Warner Park
 - Yahara Fishing Club
 - Dane County Conservation League
 - Clean Lakes Alliance
 - Alders from Districts 12 and 18
 - City of Madison Engineering Division
 - City of Madison Parks Division
 - WDNR
 - Individual Residents



NOTES LEGEND

- (A) Proposed treatment wetland, forebay and separation berm.
- (B) Proposed berm and gabion structure for lotus pond stormwater treatment.
- (C) Dredge areas to increase lagoon depth.
- (D) Submerged aerator & aerator pump house.
- (E) Dredge spoils disposal option: wetland creation areas.
- (E²) Dredge spoils disposal option: upland area.
- F Fishing nodes.
- (L) Carp barrier structure (seasonal install), and potential channel realignment.
- (M) Tree drop habitat structures.



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WARNER LAGOON WATER QUALITY

Water Improvement Alternatives Concept Diagram FINAL OVERVIEW PLAN

June 19, 2019

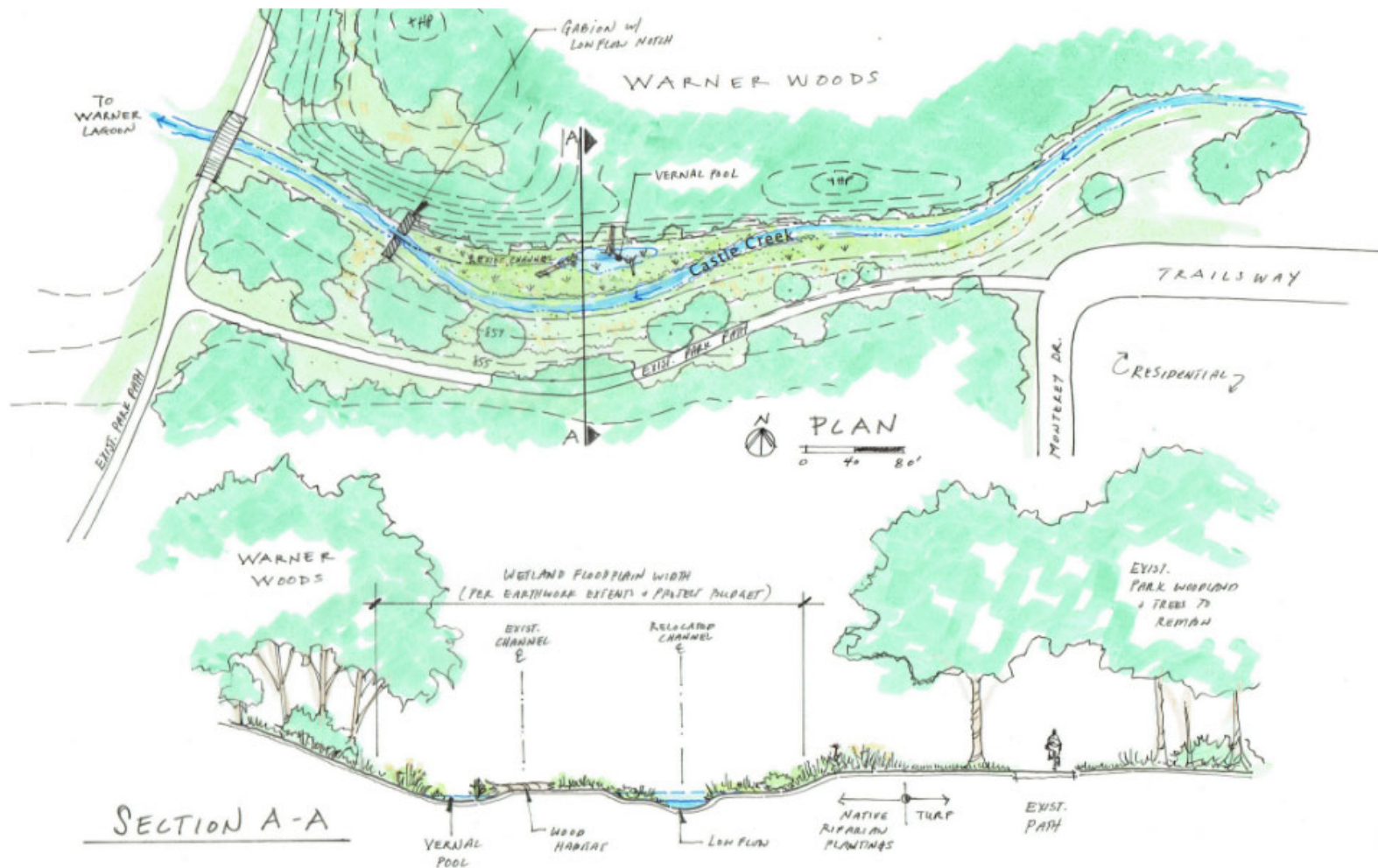


Montgomery Associates
Resource Solutions



Underwater Habitat
Investigations, LLC





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WARNER LAGOON
WATER QUALITY

East Floodplain Alternative Concept Plan
FINAL PLAN

June 19, 2019



Montgomery Associates
Resource Solutions



Underwater Habitat
Investigations, LLC



Presentation Overview AZ1

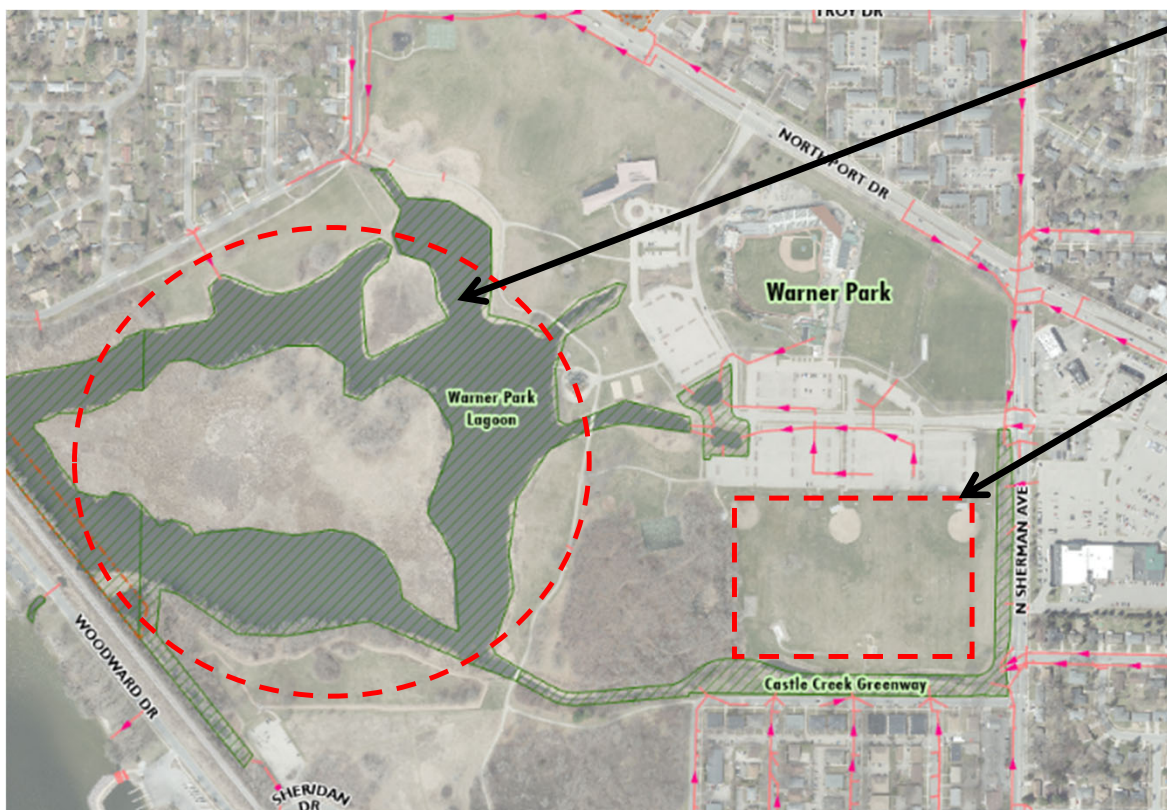
- Background
- **Project Scope**
- Design
- Schedule and Next Steps
- Contact Information & Resources
- Q&A



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AZ1 This list may change based on the type of project - this is the general list.
Zwieg, Andrew, 2026-07-01T11:43:39.370

Other Nearby Projects*



Warner Lagoon Dredging

- Led by Engineering/Stormwater Utility
- Project still in planning phase
- <https://www.cityofmadison.com/engineering/projects/warner-park-lagoon-dredging>

Warner Park - Southeast Recreation Area Development

- Led by Parks Division
- Scheduled to start work in early 2027
- <https://www.cityofmadison.com/parks/projects/warner-park-southeast-recreation-area-development>

*Not covered in tonight's discussions, but ongoing coordination with project teams

Castle Creek Improvements Project Scope

- *Project Objectives*

- *Reduce Flooding on Trailsway, Sherman Ave, and in the Brentwood Neighborhood*
 - *Move more stormwater through the channel to reduce street flooding*
- *Improve the quality of water entering Warner Lagoon.*
 - *Capture sediment in channel or storm sewer catch basins*
 - *Improve ability to maintain channel and remove accumulated sediment.*
- *Maintain or enhance habitat in and around the channel*
 - *Channel alignment and grading designed to limit impacts to as many healthy, mature, native trees as practical. Significant tree removal will still occur.*
 - *Restore channel with native wetland and prairie/upland vegetation*
- *Minimize any long-term access or use impacts to Warner Park/Play fields*
 - *Existing bridges will remain after project completion*



Castle Creek Improvements Project Scope

Data Collection and Analysis

- *Recommendations from Water Quality Plan and Watershed Study*
- *Topographic Survey (2023 and 2026)*
- *Wetland Delineation (2023 and 2026)*
- *Tree Condition Survey (2023 and 2026)*
- *Soil Borings*
- *Lagoon Water Level Monitoring*
- *Hydraulic Modeling*



Presentation Overview AZ1

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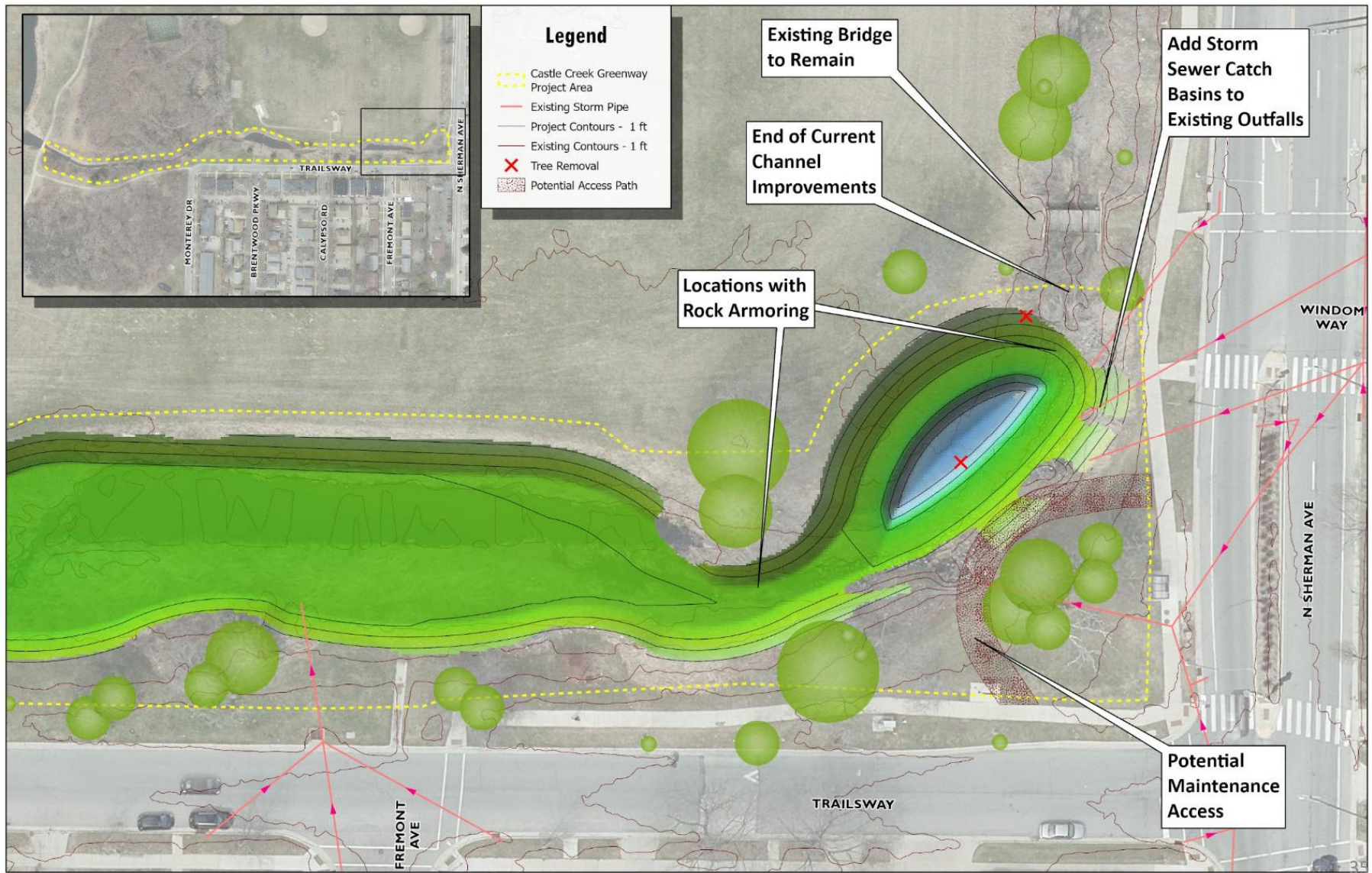


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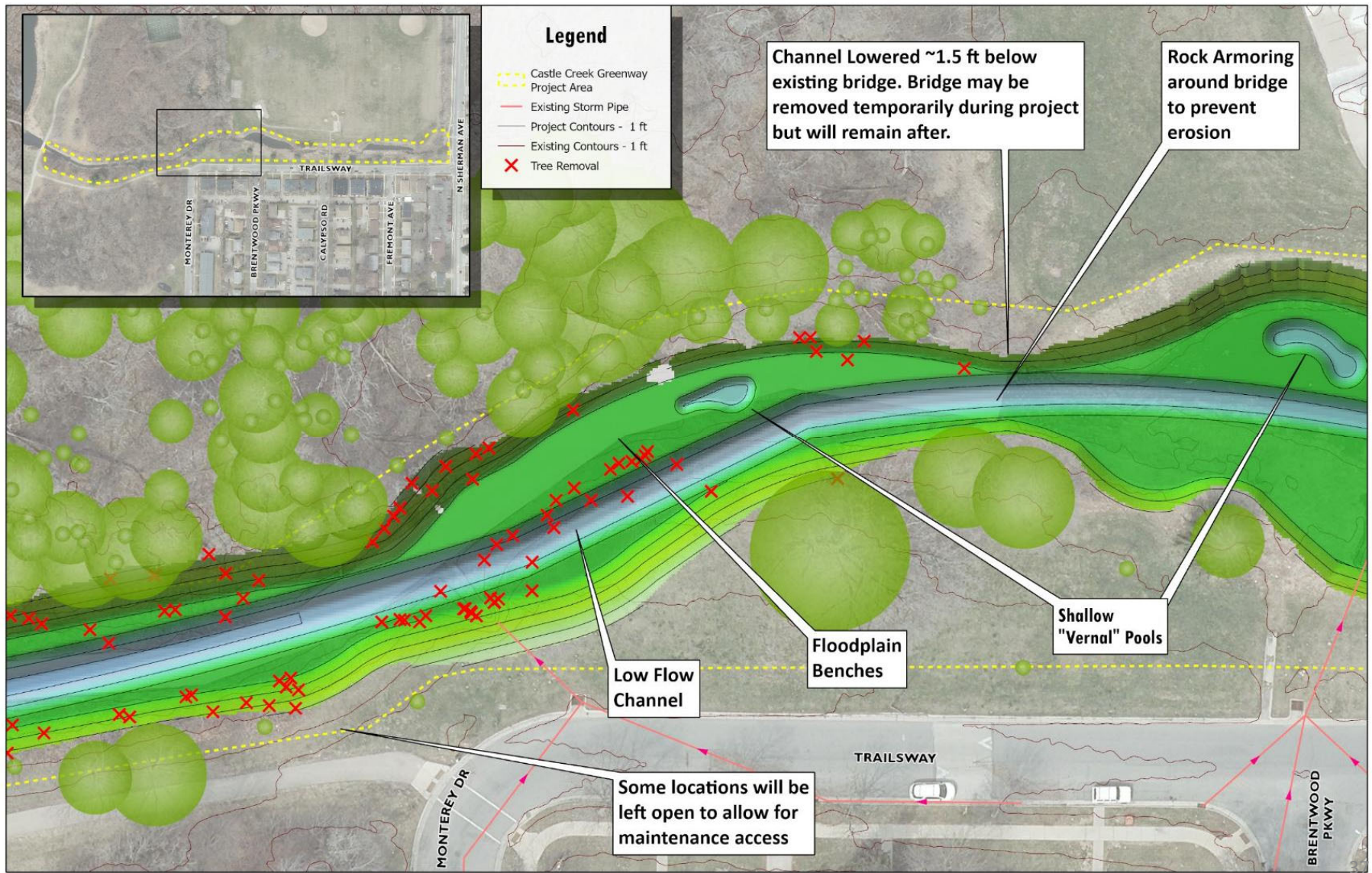
AZ1

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Legend

- Castle Creek Greenway Project Area
- Existing Storm Pipe
- Project Contours - 1 ft
- Existing Contours - 1 ft
- Tree Removal

Channel Lowered ~1.5 ft below existing bridge. Bridge may be removed temporarily during project but will remain after.

Rock Armoring around bridge to prevent erosion

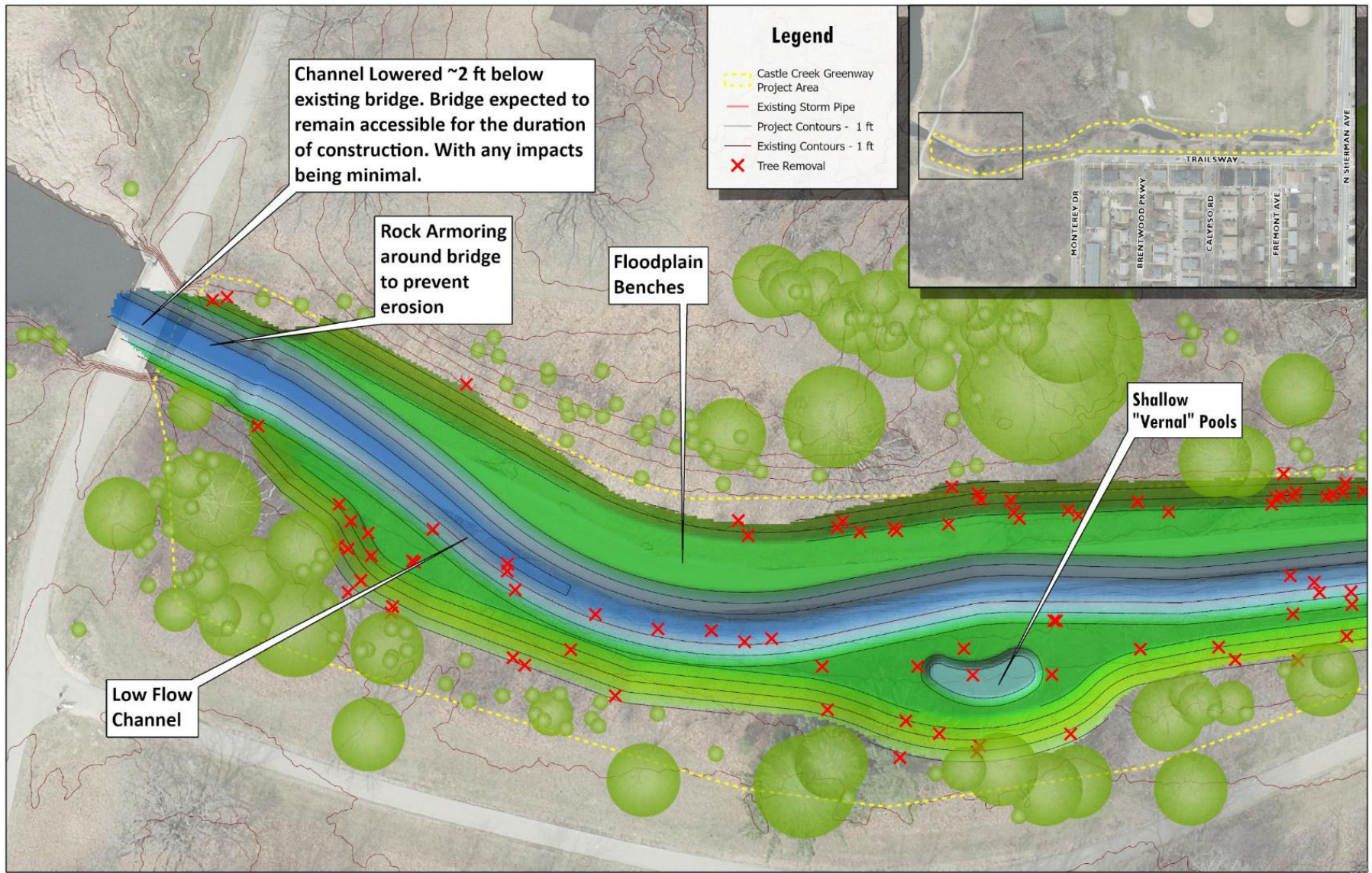
Shallow "Vernal" Pools

Floodplain Benches

Low Flow Channel

Some locations will be left open to allow for maintenance access





Tree Design Process

- Hire certified arborists to complete a tree inventory:
 - Tag each tree in project area
 - List size, species and health condition (see table)
- Large, healthy trees were designed around wherever possible
- Use Warner Lagoon Water Quality Plan as a starting point for grading limits
 - Balance tree impacts and flood mitigation efficacy

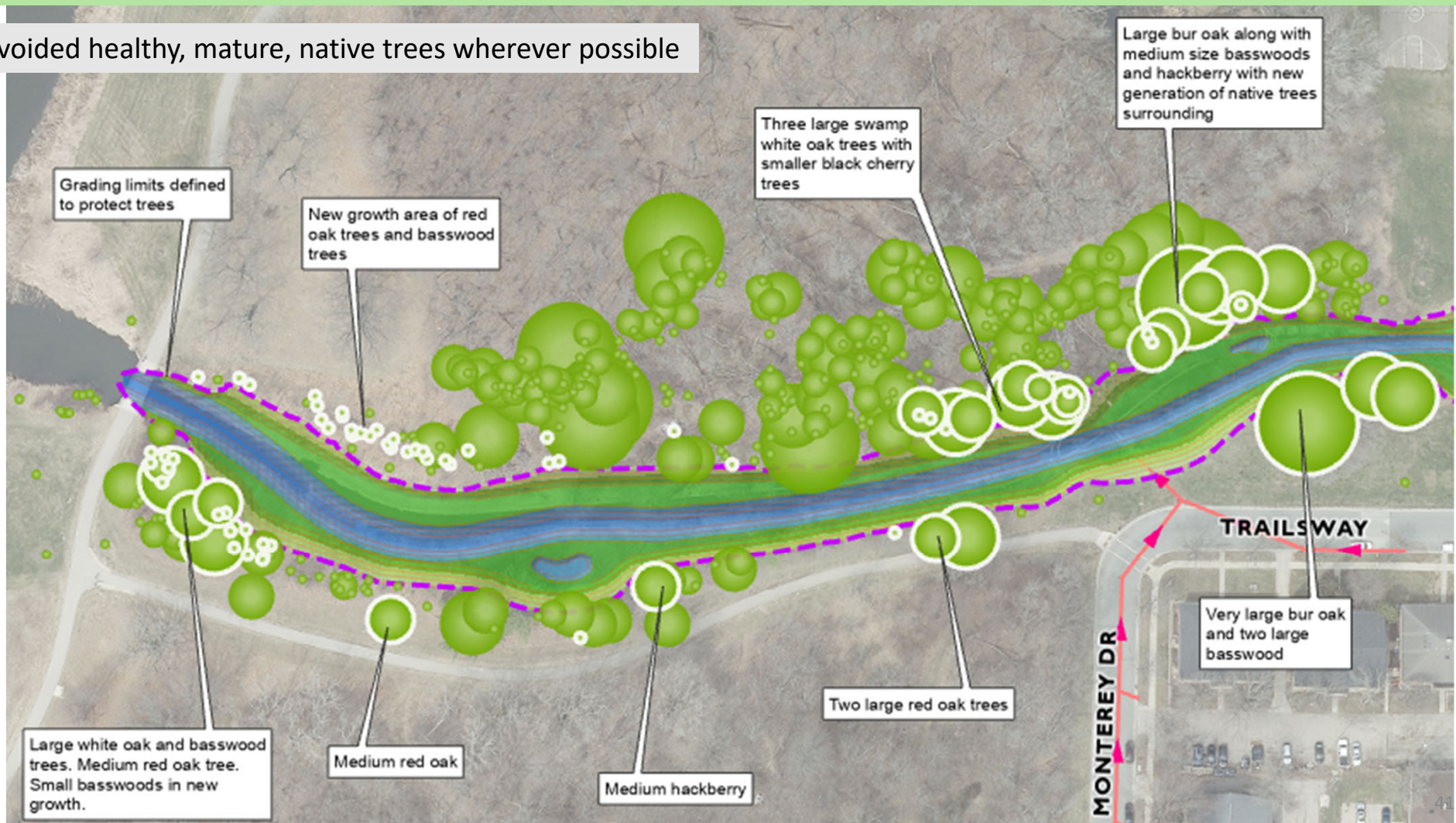
Rating	Health	Structure	Form	Condition Rating
Excellent	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
Good	Vigor is normal for the species. No significant damage due to disease or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
Fair	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration and/or dead branches may comprise up to 50% of the crown	A single defect of a significant nature or multiple moderate defects. Defects are not possible to correct or would require multiple treatments over several years.	Major asymmetries/ deviations from species norm and/or intended use. Function and/or aesthetics are compromised.	41% to 60%
Poor	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.	21% to 40%
Very poor	Poor vigor. Appears to be dying and in last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
Dead				0% to 5%

Tree Impacts

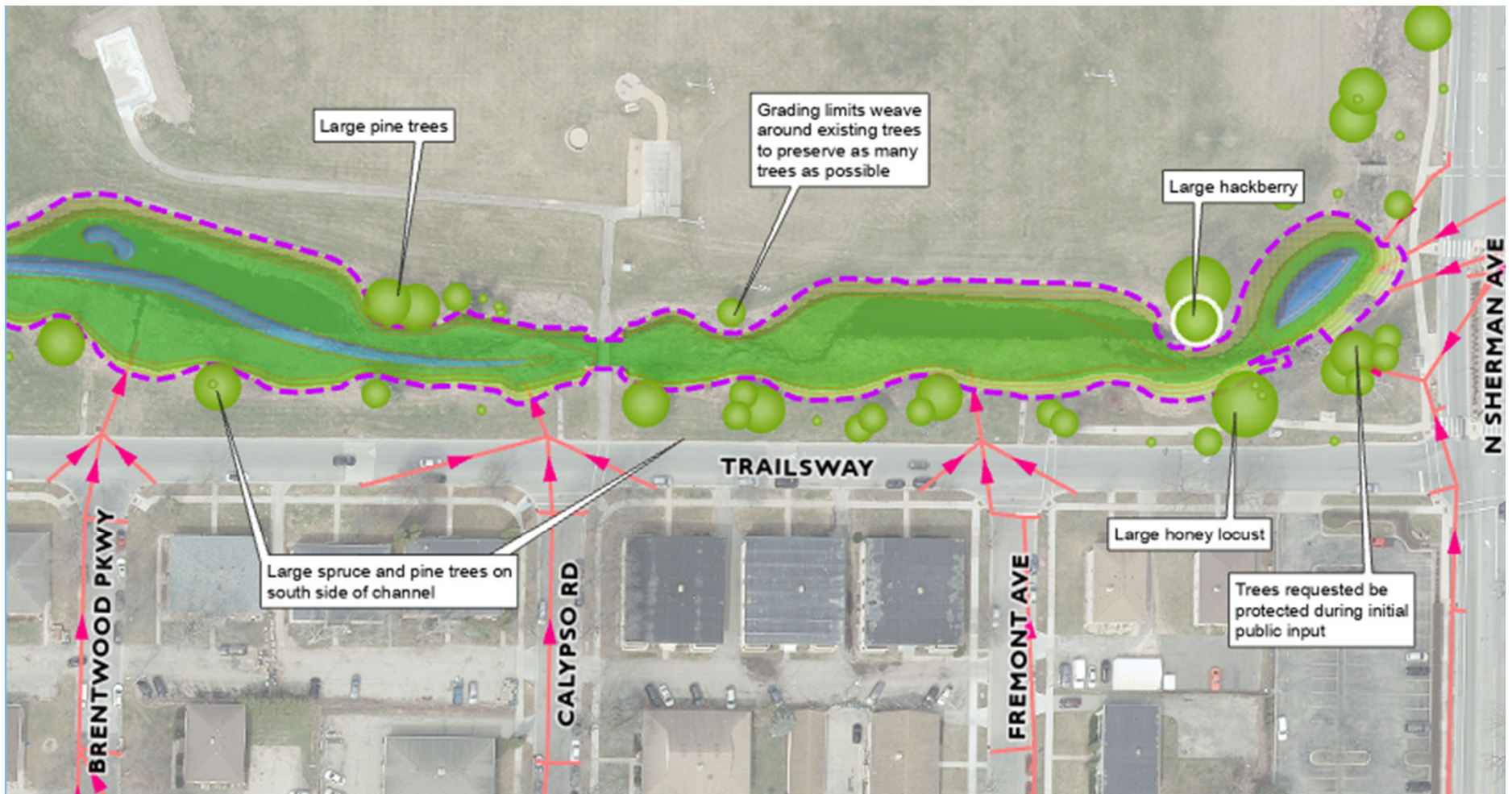


Tree Driven Design

Avoided healthy, mature, native trees wherever possible



Tree Driven Design



Ecological Goals

- Preserve as many mature canopy trees as possible
- Restore graded areas with deep rooted native plants to improve biodiversity, provide wildlife habitat and mitigate erosion
- Parks to plant trees adjacent to greenway in 2027



Wet mesic species



Floodplain species

WETLAND SEED MIX



Blue flag iris



Dark green bulrush



Monkey flower



Broadleaf arrowhead

Proposed Restoration

- Wetland Seed Mix
- Floodplain Species Seed Mix
- Wet Mesic Slopes Seed Mix
- Existing Storm Pipe
- Grading Limits

TRAILSWAY

MONTEREY DR

0 50 US Feet



FLOODPLAIN SEED MIX



Swamp milkweed



Cardinal flower



Brown fox sedge



Great blue lobelia



Mud plantain



Sweet flag



Southern blue flag iris

Proposed Restoration

- Wetland Seed Mix
- Floodplain Species Seed Mix
- Wet Mesic Slopes Seed Mix
- Existing Storm Pipe
- Grading Limits

TRAILSWAY

0 50 US Feet



WET MESIC SLOPES SEED MIX



Bee balm



Big blue stem



Brown fox sedge



Butterfly weed



Purple coneflower



White wild indigo



Whorled milkweed

Proposed Restoration

- Wetland Seed Mix
- Floodplain Species Seed Mix
- Wet Mesic Slopes Seed Mix
- Existing Storm Pipe
- Grading Limits

TRAILSWAY

0 50 US Feet



WETLAND SEED MIX

FLOODPLAIN SEED MIX

TRAILSWAY

WET MESIC SLOPES SEED MIX

Proposed Restoration

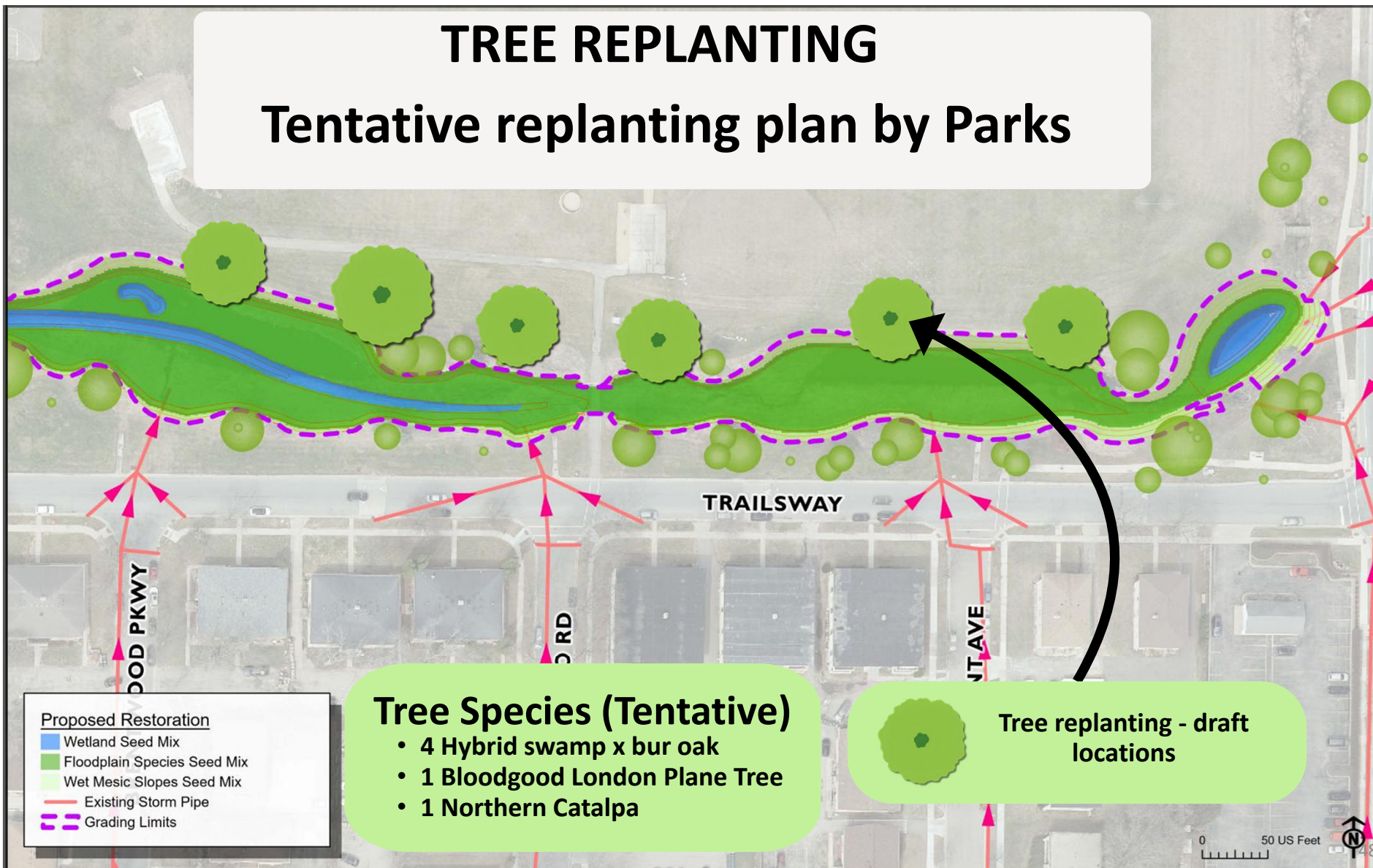
- Wetland Seed Mix
- Floodplain Species Seed Mix
- Wet Mesic Slopes Seed Mix
- Existing Storm Pipe
- Grading Limits

0 50 US Feet



TREE REPLANTING

Tentative replanting plan by Parks



Proposed Ecological Restoration Benefits

Ecological lift and benefits

- Increased biodiversity
- Decreased invasive species
- Increase in pollinators
- Increased wildlife habitat
- Increased ability to filter pollutants
- Bio-infiltration – higher permeability
- Decreased potential for washout/erosion



Swallowtail caterpillar at
Zeier Lein



Tracks at kenosha
greenway



Tree frog on cup plant at
Grassman Ponds



Monarch caterpillar at
Regent St median rain
gardens



Dragonfly at Lake
Mendota Drive



Bloodroot in Sauk
Creek Gwy



Sweat bee on aromatic
aster



Wild geranium in Sauk
Creek Gwy

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Habitat and Wildlife Considerations

Protect and Preserve

- Preserve mature trees - especially oak trees
 - Design around
 - Monitor during construction
- Preserve dead standing or felled trees where feasible for habitat
- Relocate herptiles prior to hibernation that may be impacted by winter construction

Enhance and Restore

- Restore trees, shrubs and herbaceous species to enhance diversity
- Control invasive species, esp. shrubs/saplings that outcompete keystone species
- Provide a variety of resources--wetland species along channel, upland plants on higher ground, plants blooming throughout growing season



Wild turkey nesting on stormwater pond



Tiger swallowtail butterfly on Joe Pye weed



Sandhill cranes utilizing an urban rain garden



Grasshopper utilizing native liatris



Endangered Rusty Patch Bumble Bee - South Point biobasin



Turtle at Ashworth Dr pond



Downy woodpecker utilizing native purple Angelica



Fox at Linda Vista rain garden



Ongoing Design Evaluation/Considerations

- Identifying trees in poor health or condition outside of current project limits that could be removed
- Maximizing sediment capture opportunities
 - Catch Basins Upstream
 - Near Storm Outfalls
 - Upstream of Lagoon
- Improving access to channel for maintenance operations
- Coordination with Parks Division
 - Temporary path or bridge closures
 - Final Tree Planting Plans
 - Construction timing, access, staging, etc.
- Response to permit authority comments

10% Chance Design Storm

Legend

Max Flood Depth (10% Storm)
ft

- 0
- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 6
- >6

TRAILSWAY

N SHERMAN AVE

MONTEREY DR

BRENTWOOD PKWY

CALYPSO RD

FREMONT AVE

Existing Conditions

TRAILSWAY

N SHERMAN AVE

MONTEREY DR

BRENTWOOD PKWY

CALYPSO RD

FREMONT AVE

Post Project Conditions

1% Chance Design Storm

Legend

Max Flood Depth (1% Storm)
ft

- 0
- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 6
- >6

TRAILSWAY

N SHERMAN AVE

MONTEREY DR

BRENTWOOD PKWY

CALYPSO RD

FREMONT AVE

Existing Conditions

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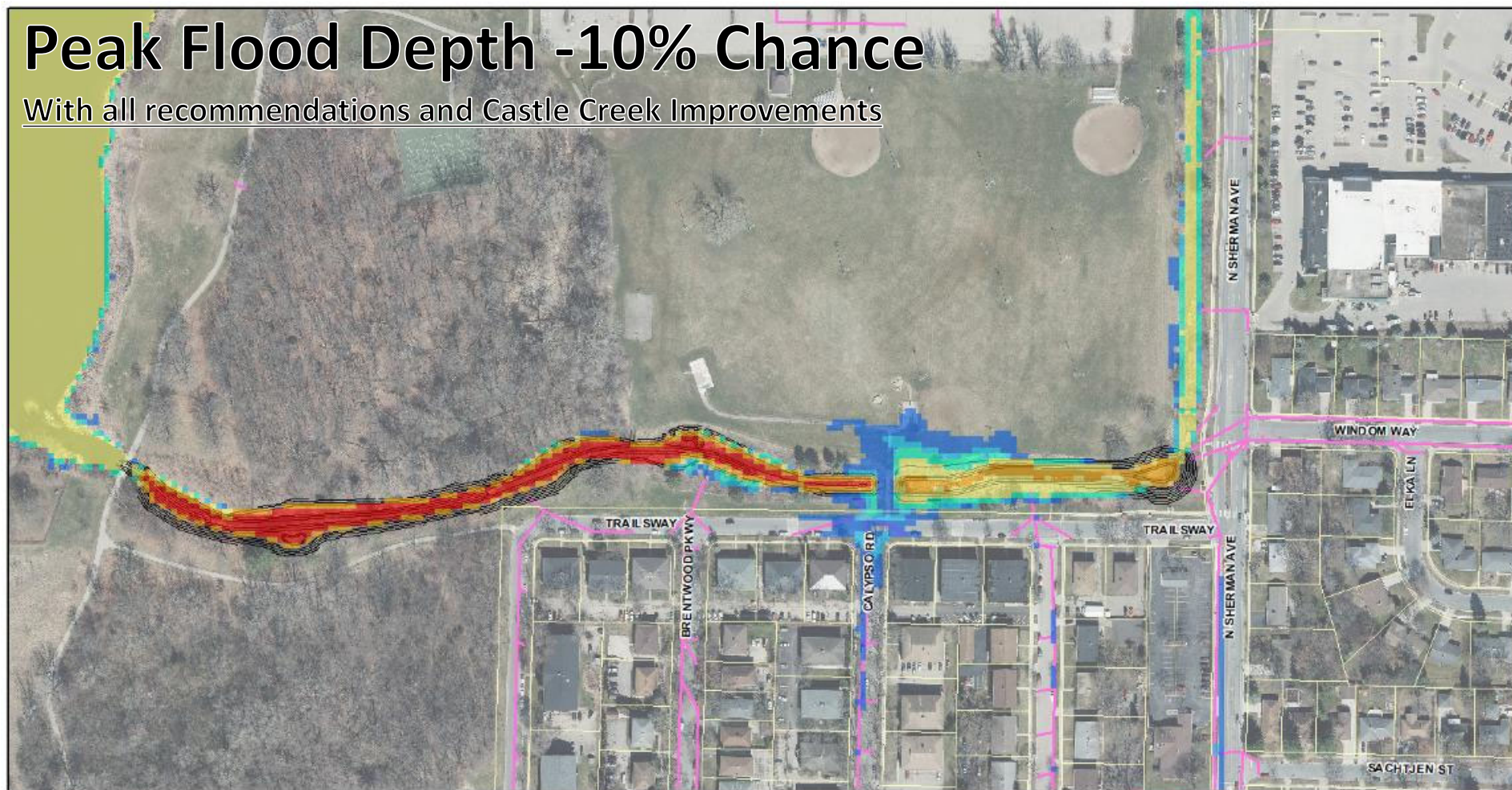
CALYPSO RD

FREMONT AVE

Post Project Conditions

Peak Flood Depth -10% Chance

With all recommendations and Castle Creek Improvements



0 100 200 400 Feet



10% Chance Storm - With Castle Creek Project

Max Depth (ft)

0 - 0.25
0.25 - 0.5

0.5 - 1
1 - 3
3 - 6
> 6

Parcels

Storm Sewers

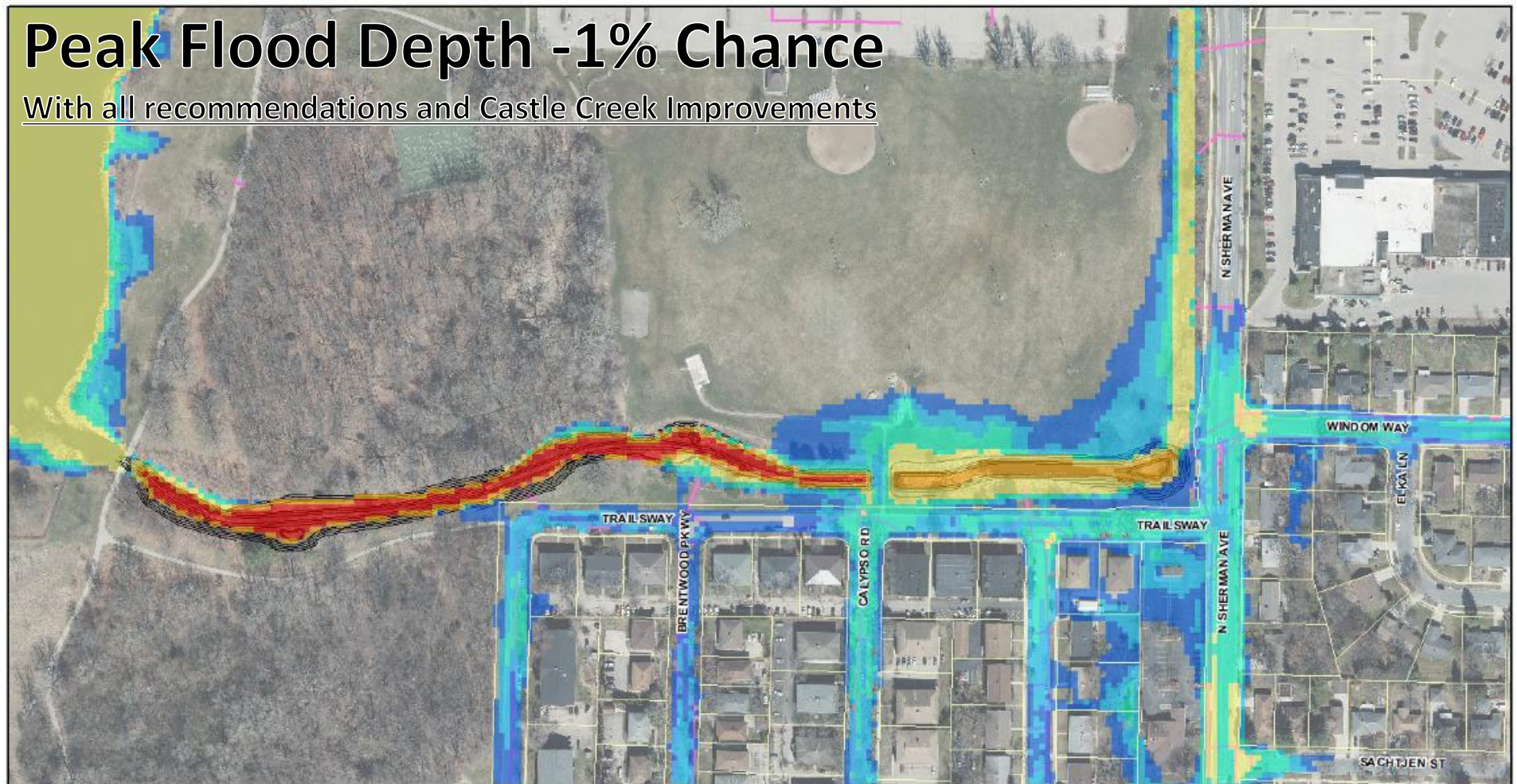
Conceptual Proposed Contours

54



Peak Flood Depth -1% Chance

With all recommendations and Castle Creek Improvements



0 100 200 400 Feet



1% Chance Storm - With Castle Creek Project

Max Depth (ft)

0 - 0.25
0.25 - 0.5

0.5 - 1
1 - 3
3 - 6
> 6

Parcels

Storm Sewers

Conceptual Proposed Contours

55



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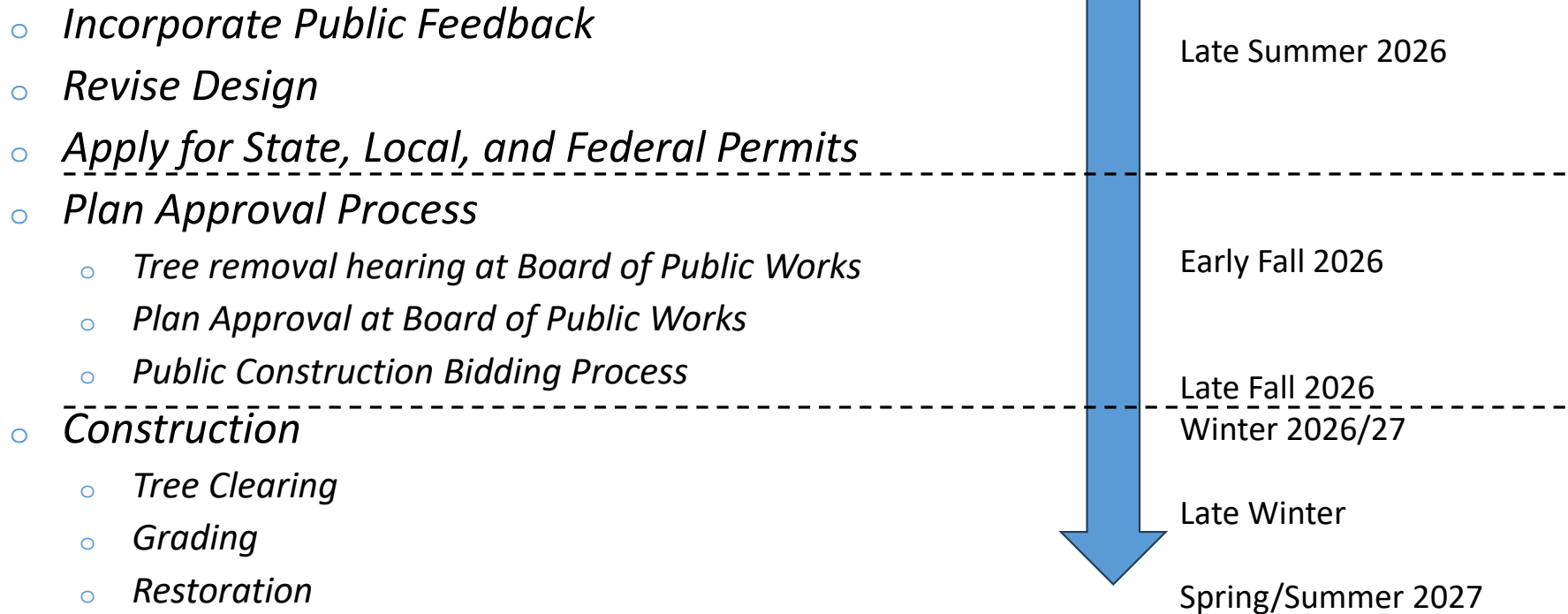
Slide 56

AZ1

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Project Schedule



Board of Public Works (BPW Meeting)

- Members of the public can watch, register support/opposition, speak (3 minutes), and/or submit written comments.
- Subscribe to the email list on project webpage to get notification when BPW meeting registration opens.
- If you register to speak, make sure the name you display in Zoom matches the name you registered under so staff know who to unmute when it's your turn.
- BPW meetings start at 4:30 PM but the public hearings for public works projects don't start until 5:30 PM (or when the item under discussion at 5:30 PM finishes). You can join at any time.
- If you have any questions about registering for the BPW meeting, email boardofpublicworks@cityofmadison.com.



Construction Schedule & Access

- Detailed schedule to be determined as project design is finalized and pending permit approvals
 - Tree Clearing – Winter 2027
 - Grading Work – Late Winter/Early Spring 2027
 - Restoration – Spring/Summer 2027
- Coordination will be ongoing with the Park Improvements project as well which could impact various stages of construction and contractor staging and mobilization.
- Access to the multiuse path likely be limited at various points throughout construction, play fields will be closed due to parks work and bridges crossing Castle Creek at Calypso and be inaccessible
- Potential sidewalk closures at times on the west side of Sherman Ave for storm sewer related work



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Next Steps

- Up coming opportunities for public involvement
 - Ask questions now, or reach out following the meeting
 - Follow the project website
 - Trailway Parks Alive on August 13
- The public is encouraged to attend the following three City committee meetings and provide written or verbal feedback:
 - Board of Public Works Meeting
 - Common Council Meeting
- Public notified via website updates and/or mailing
- www.cityofmadison.com/CastleCreek



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Slide 61

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Contact Information & Resources

- Engineering
 - Ryan Stenjem, 608-266-4913, rstenjem@cityofmadison.com
 - Public Information Officer, Hannah Mohelnitzky, 669-3560, hmohelnitzky@cityofmadison.com
- Project Website: www.cityofmadison.com/CastleCreek
 - Sign-up for project email updates on the website
 - A PDF of the presentation, design information, & construction progress will be posted to the project website
- Facebook – City of Madison Engineering
- Instagram -- @MadisonEngr
- X – @MadisonEngr
- Podcast: Search Everyday Engineering on Apple iTunes or your podcast provider



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Thank You for Attending!

- Questions
 - Please use the **“Q&A”** option at the bottom of the screen to type a question.
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- Engineering
 - *Ryan Stenjem*, 608-266-4913, rstenjem@cityofmadison.com
 - Public Information Officer, Hannah Mohelnitzky, 669-3560, hmohelnitzky@cityofmadison.com
- Project Website: www.cityofmadison.com/CastleCreek
- Sign-up for project email updates on the website
- A PDF of the presentation, design information, & construction progress will be posted to the project website

