Mendota-Grassman Greenway Conceptual Design

Public Information Meeting #1
by City of Madison Engineering Division
May 25, 2021

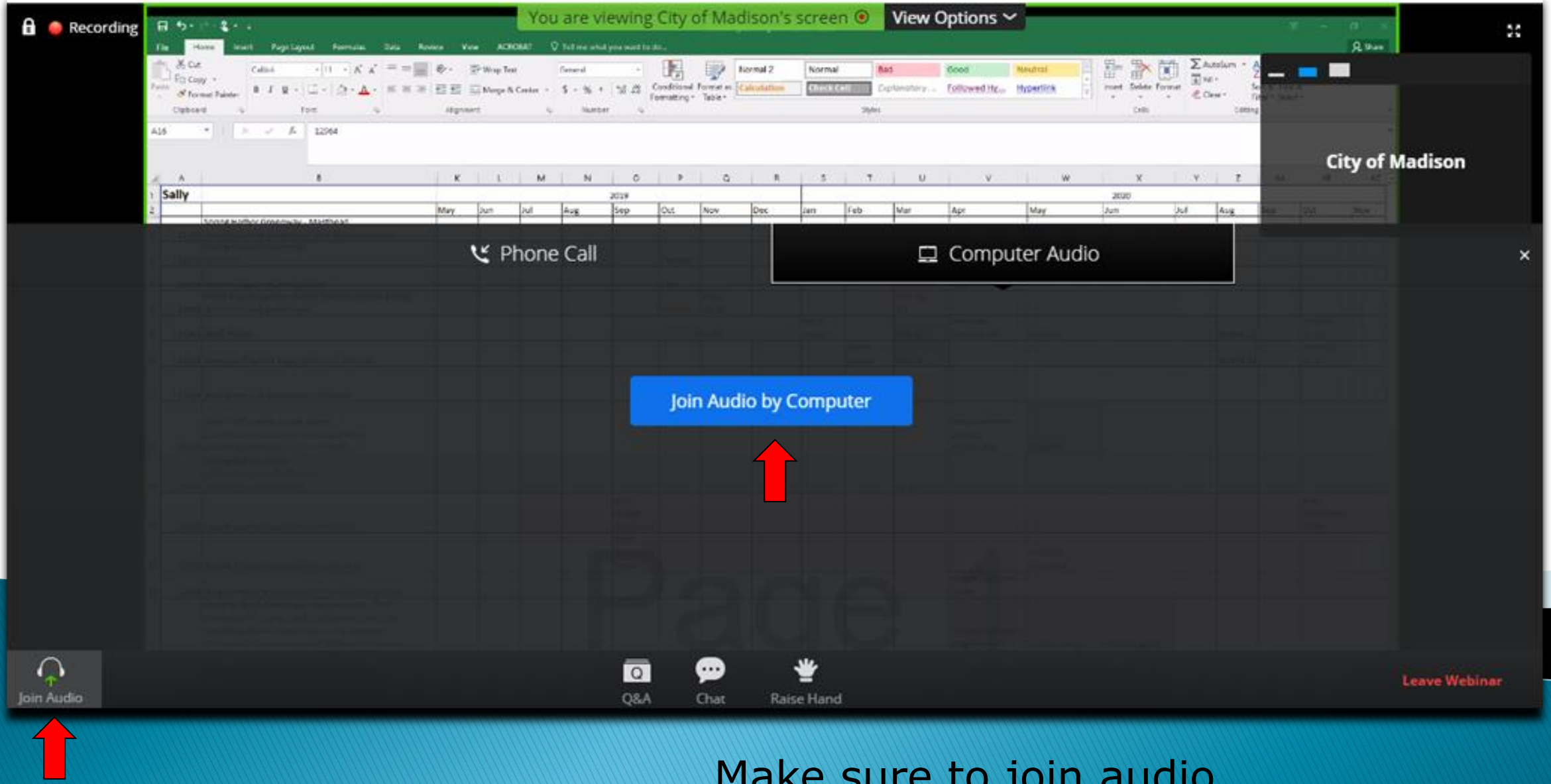
- ✓ This meeting will be **recorded** and posted to the City's project page.
- ✓ All attendees should stay be **muted** to keep background noise to a minimum.
- ✓ You may use the **"raise hand"** option at the bottom if you have something that required immediate clarification.
- ✓ Use **"chat"** option 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.

This meeting is being recorded.

It is a public record subject to disclosure.

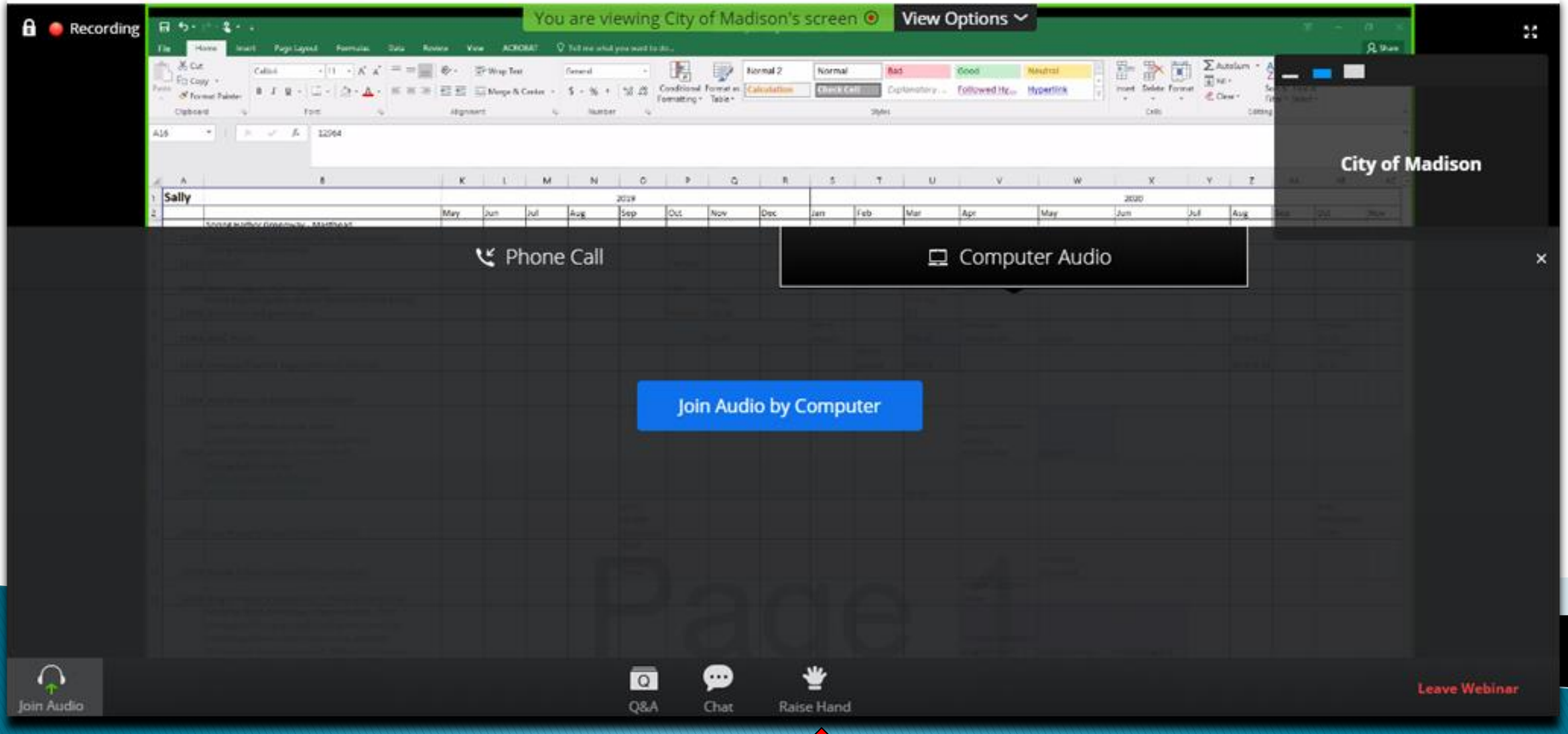
By continuing to be in the meeting, you are consenting to being recorded and consenting to this record being released to public record requestors.

How to Participate



Make sure to join audio

How to Participate



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

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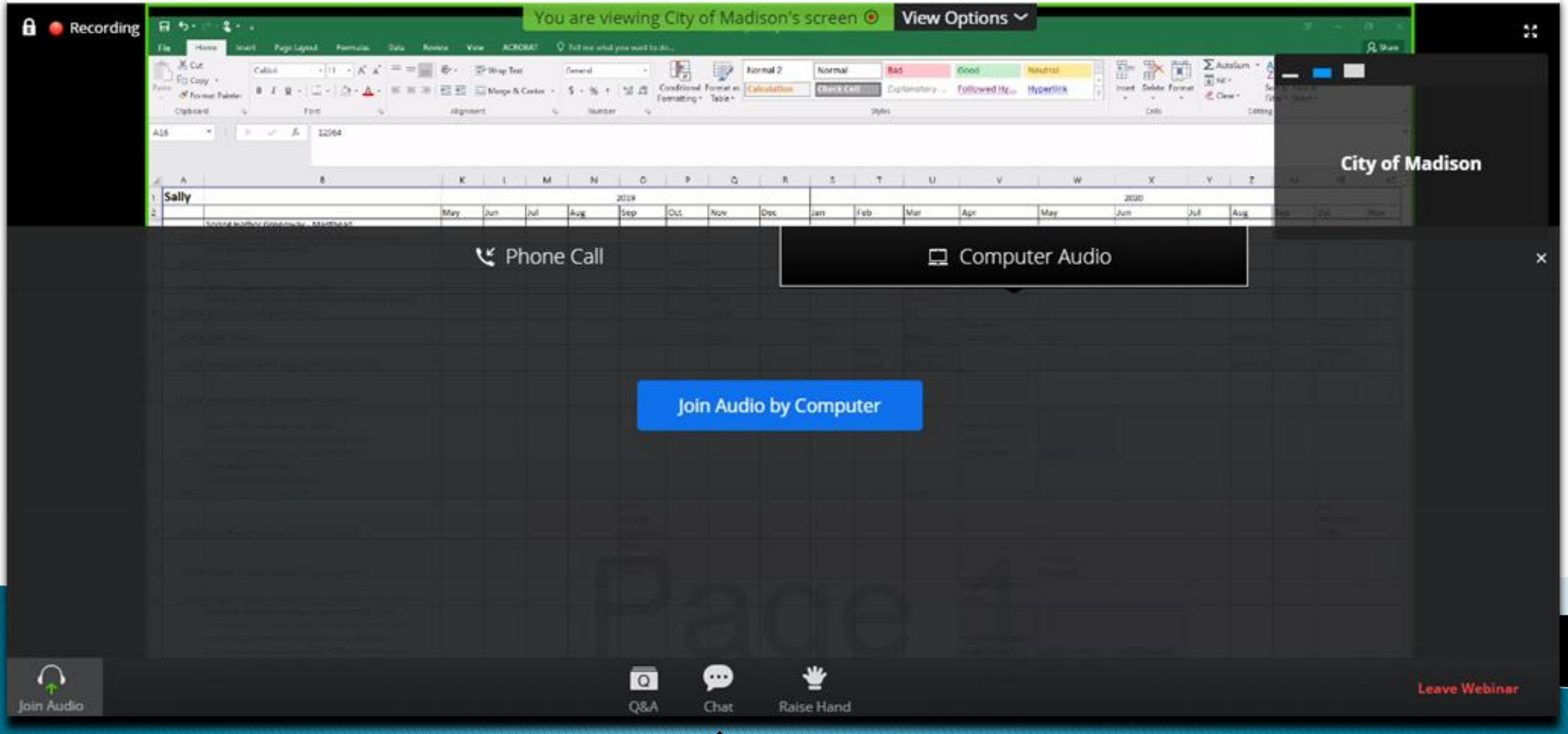

Use chat if you have technical issues or a question for the panelists

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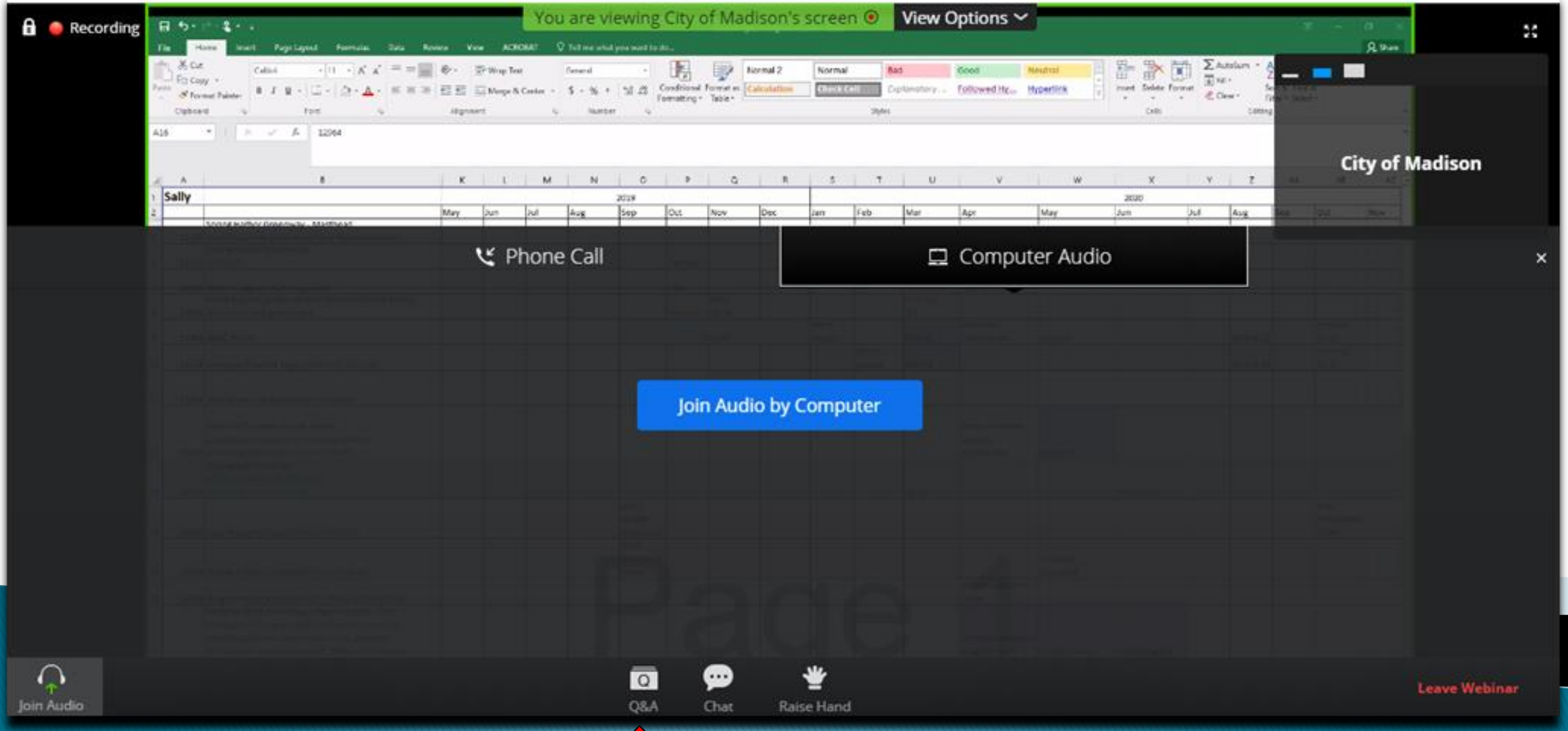

Use Q/A if you have questions.
We will answer after the presentation

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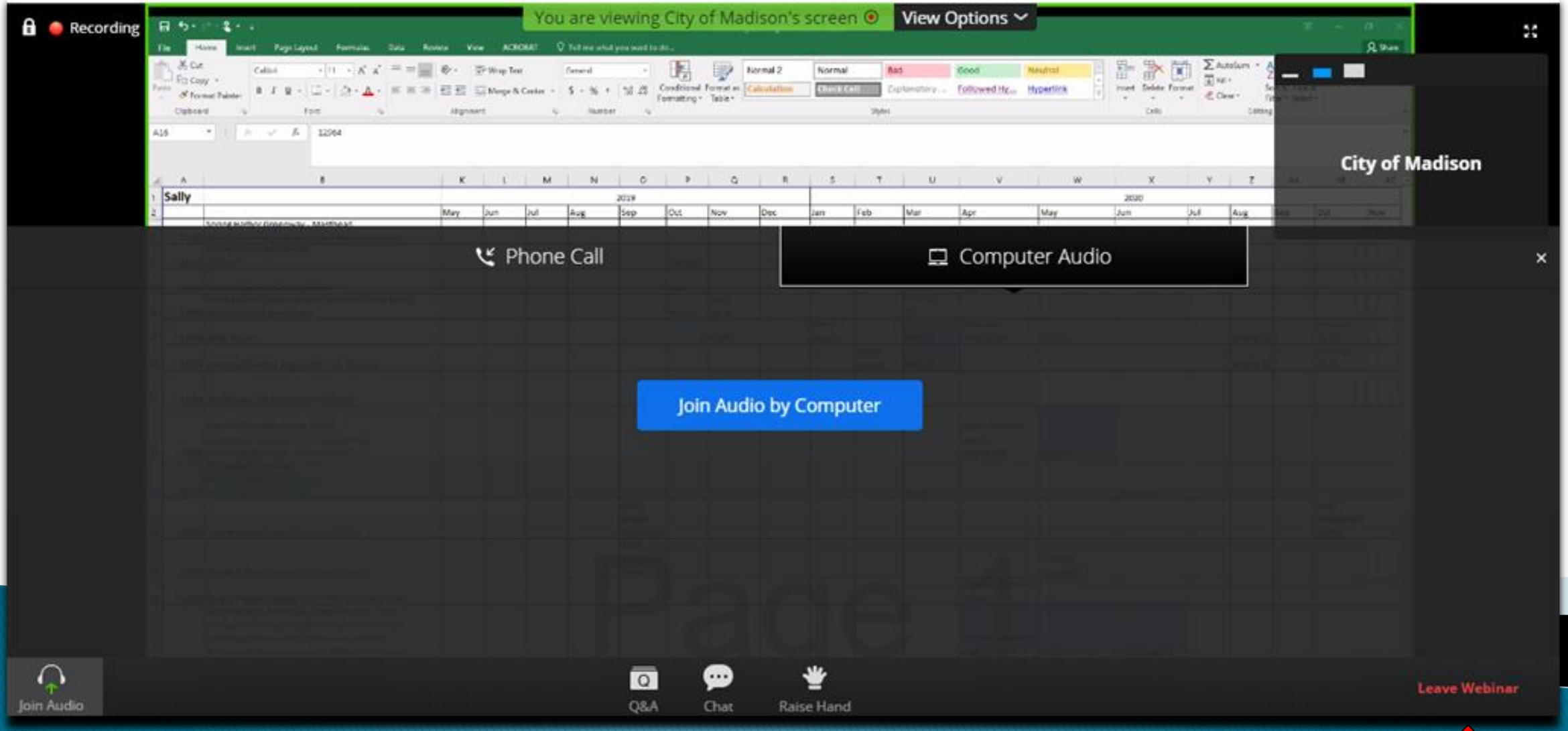
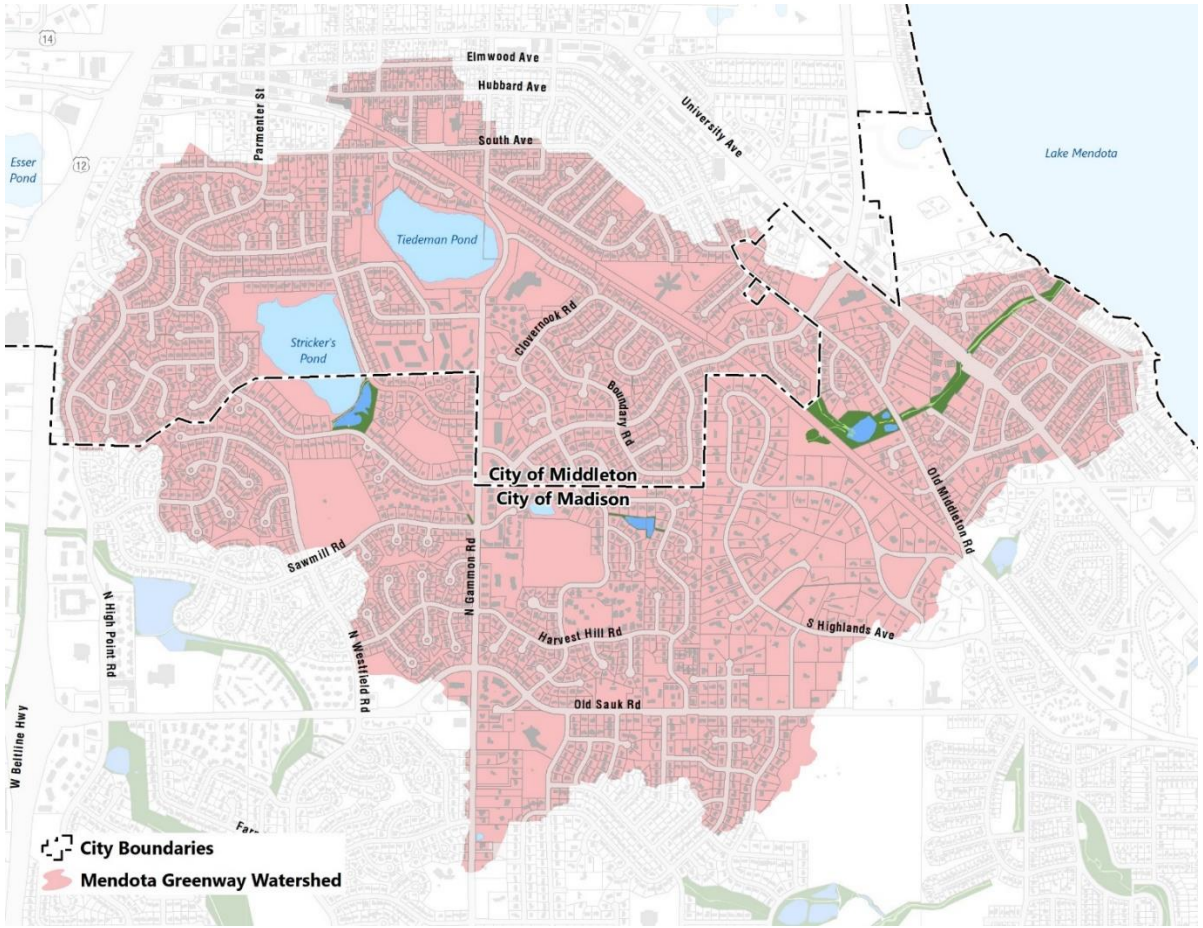


To leave the meeting click here

Presentation Agenda

- Project Background
- Project Scope
  - City Flood Reduction Targets
  - Flood Reduction Targets & This Project Scope
- Existing 100-yr (1% AEP) Flood Conditions
- Preliminary Design
  - Project Segments
  - Segment Components
  - Tree Preservation
- Preliminary Design Performance
- Additional Design Details

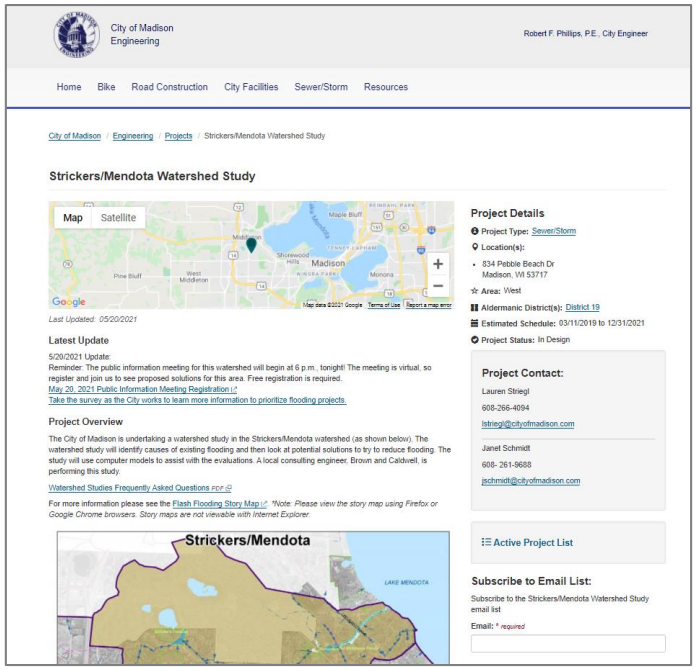
Project Background



Stricker's/Mendota Watershed

Began – February 2019

PIM#3 – May 20, 2021



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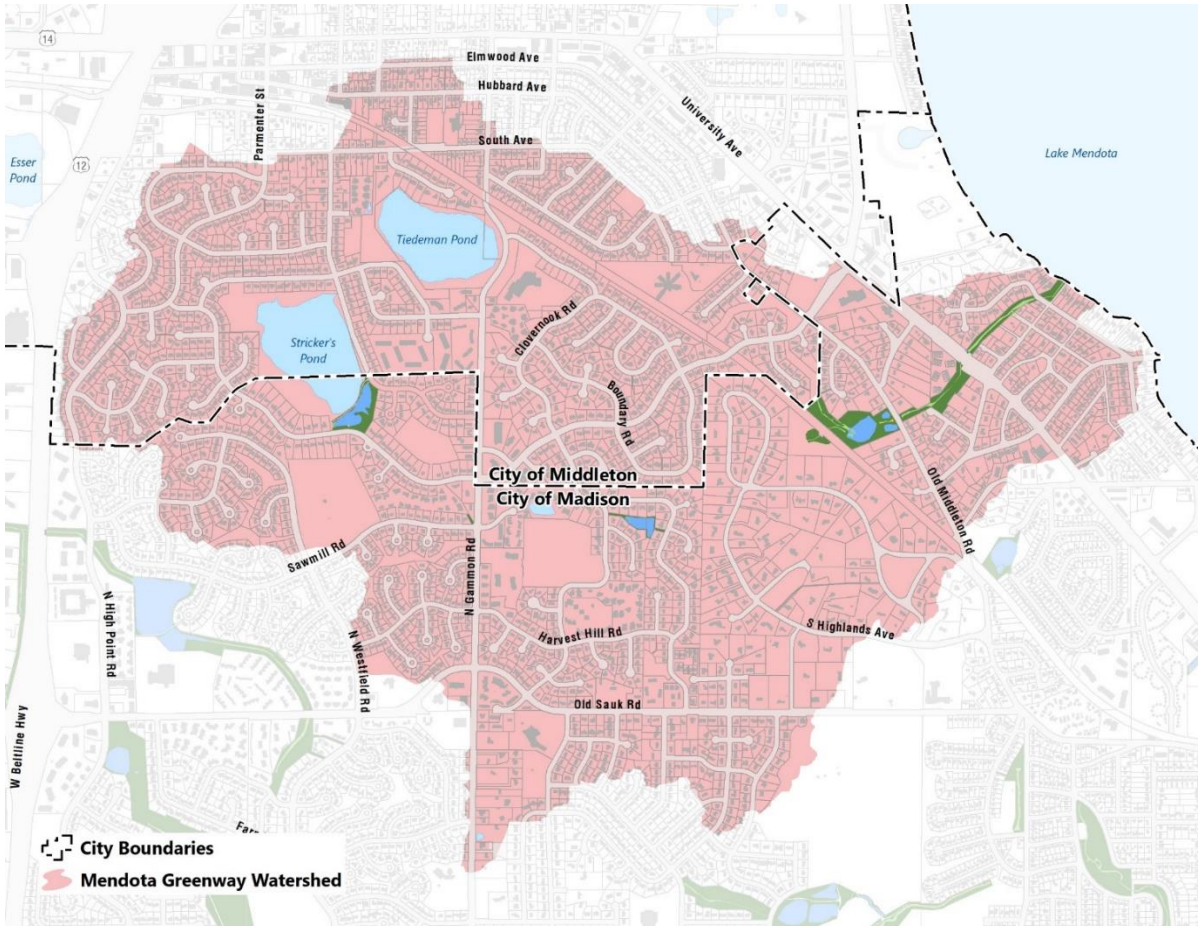
Project Background



Stricker's/Mendota Watershed

1,452 acres total

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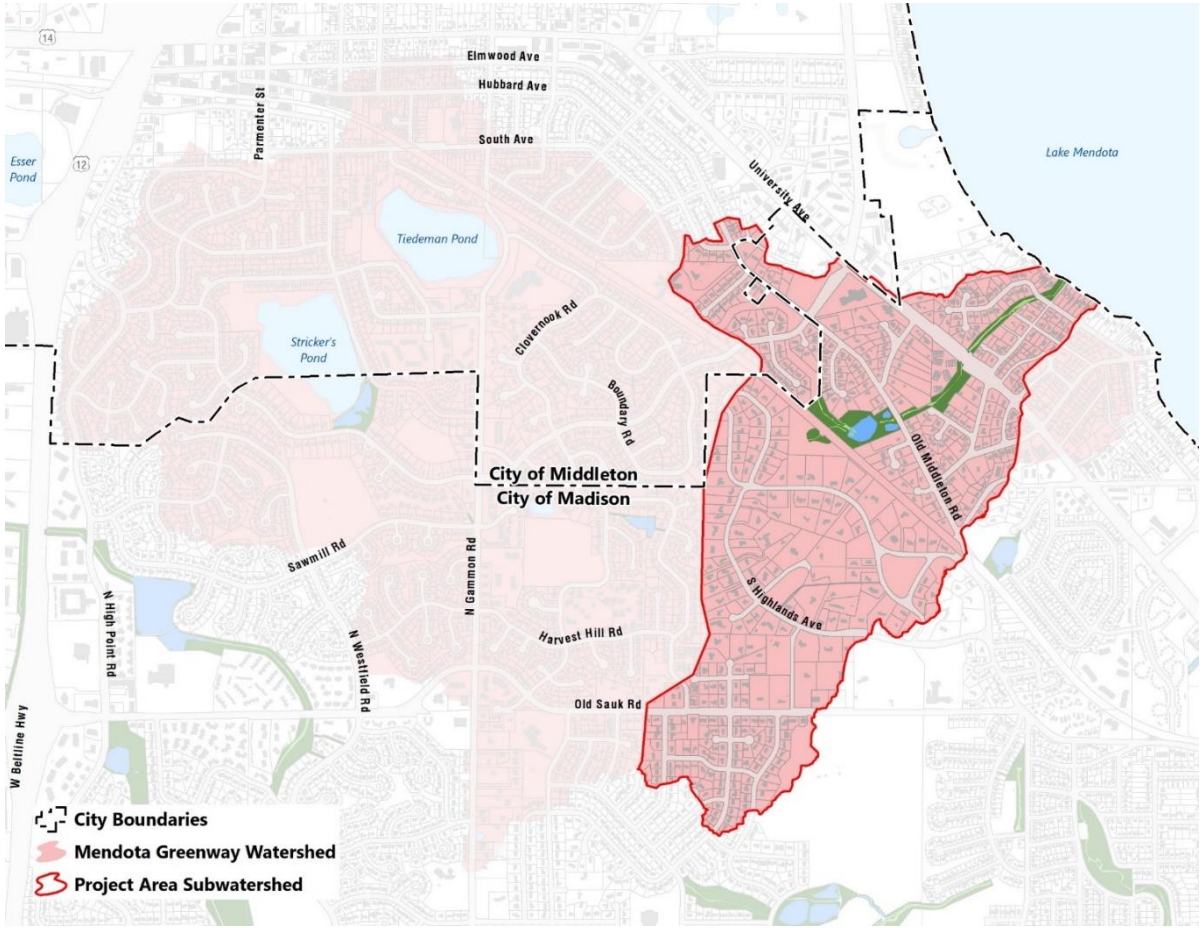

Stricker's/Mendota Watershed

1,452 acres total

Mendota-Grassman Greenway Watershed

430 acres

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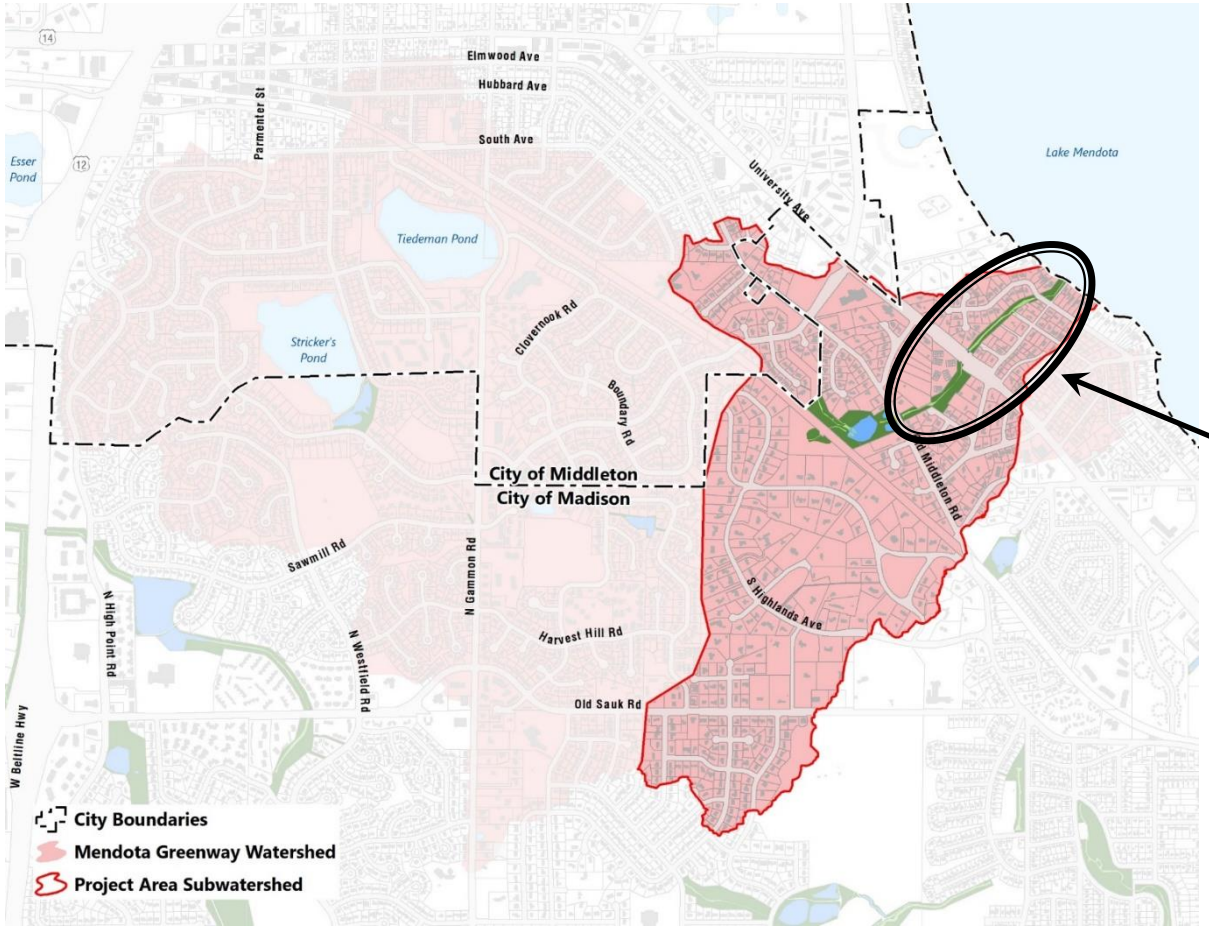

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Mendota-Grassman Greenway

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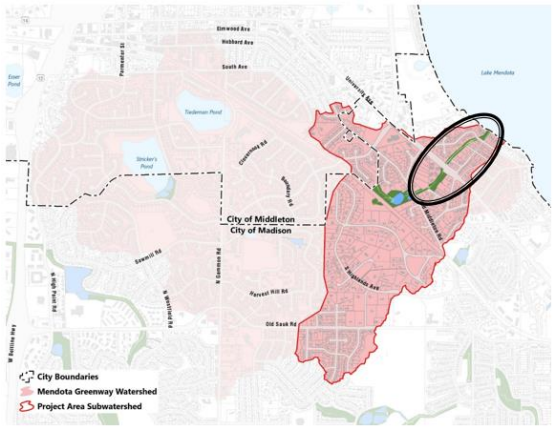
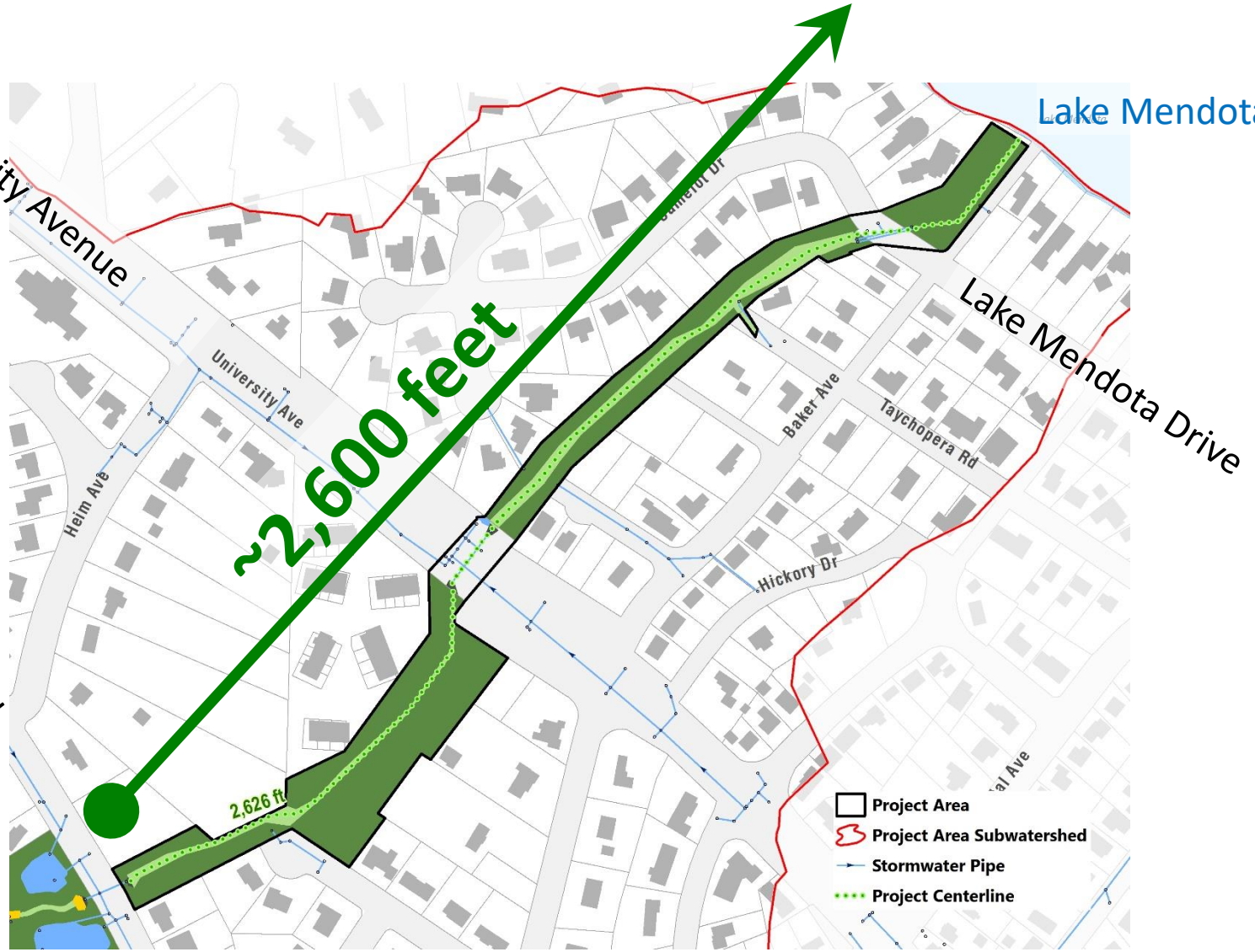
Project Scope

Project Corridor



University Avenue

Old Middleton Road



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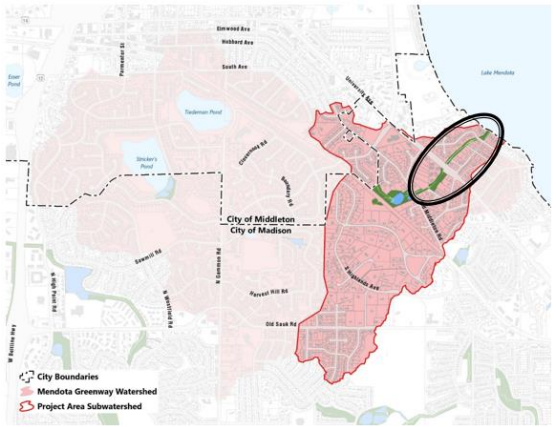
Project Scope

Existing 100-yr Inundation Map
(1% Annual Chance Event)

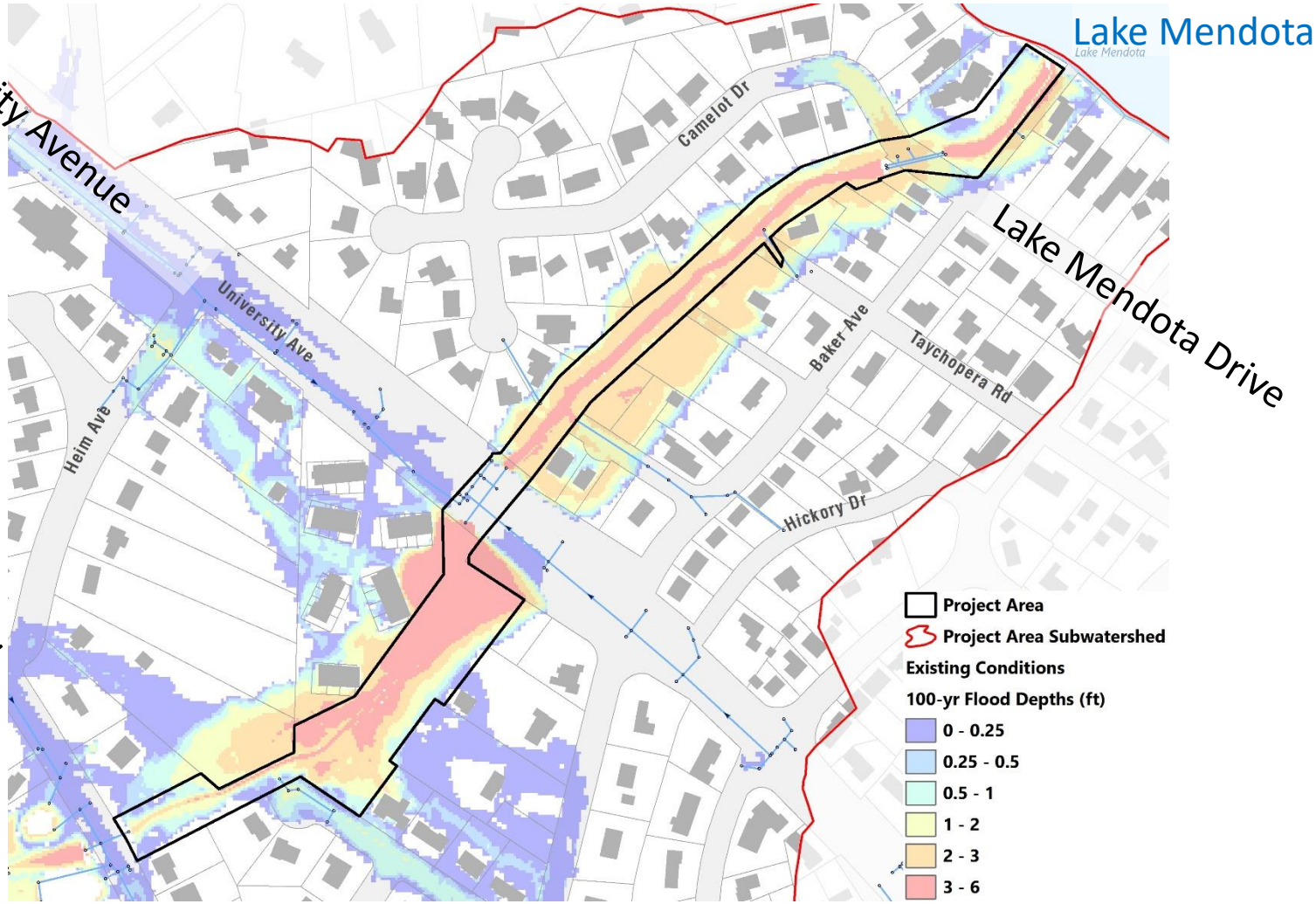


University Avenue

Old Middleton Road

Lake Mendota

Lake Mendota Drive



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Flood Mitigation Targets for Stricker's/Mendota Watershed

- 10% Chance Event (4.09" rain/24 hours)
  - No surcharging of storm sewer onto roadway (storm sewer pipes are sized to carry storm)
- 4% Chance Event (5.01" rain/24 hours)
  - 0.2' at Centerline of Road (roads passable for emergency vehicles)
- **1% Chance Event (6.66" rain/24 hours)**
  - **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 (8.81" rain/24 hours)
  - Safe conveyance of overflow

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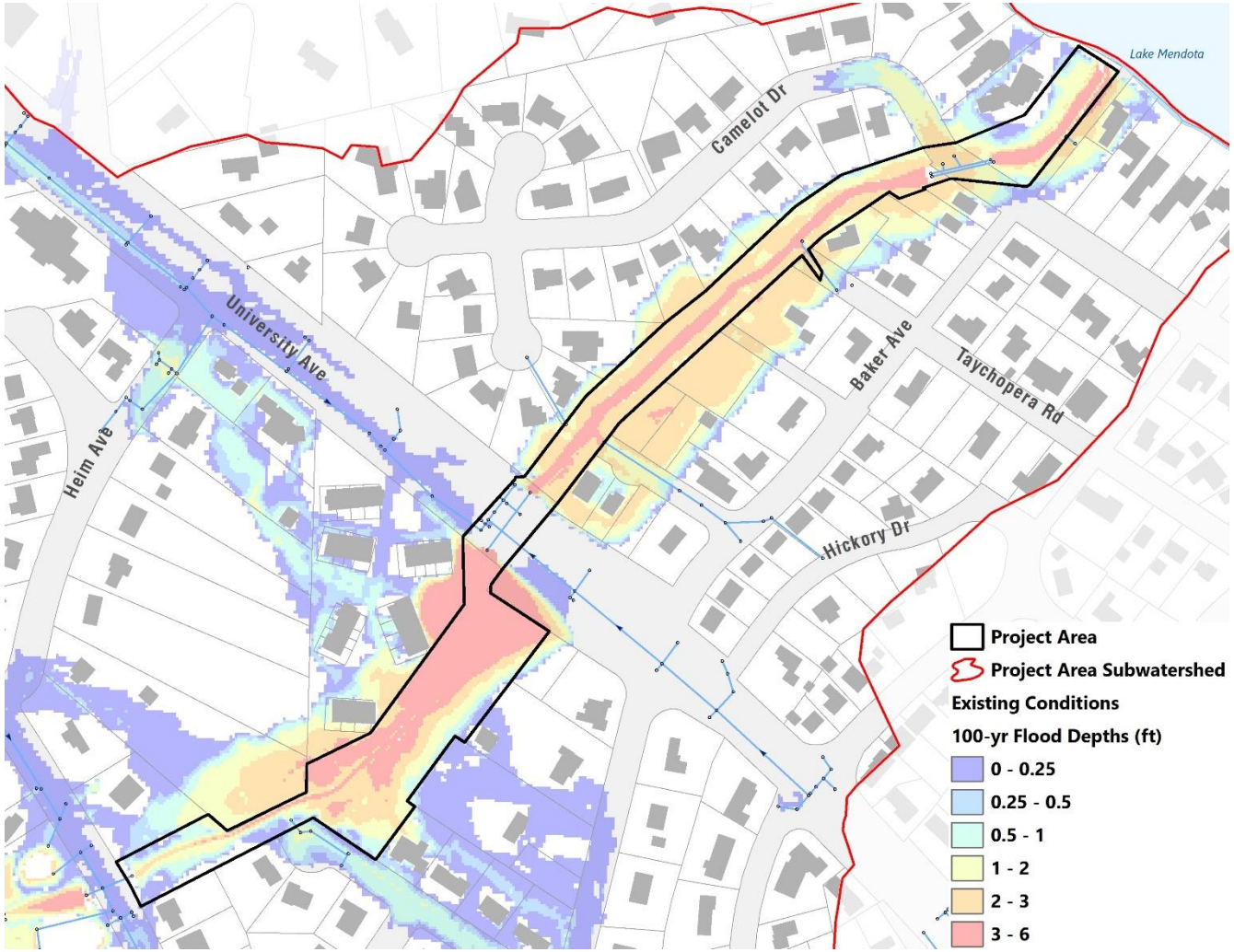
Compromising Factors:

- ***Preservation of Trees***
- ***Limited Corridor Width***
- ***Project Cost***
- ***Maintenance Requirements***

Existing Conditions 100-yr Inundation & Scope of this Project



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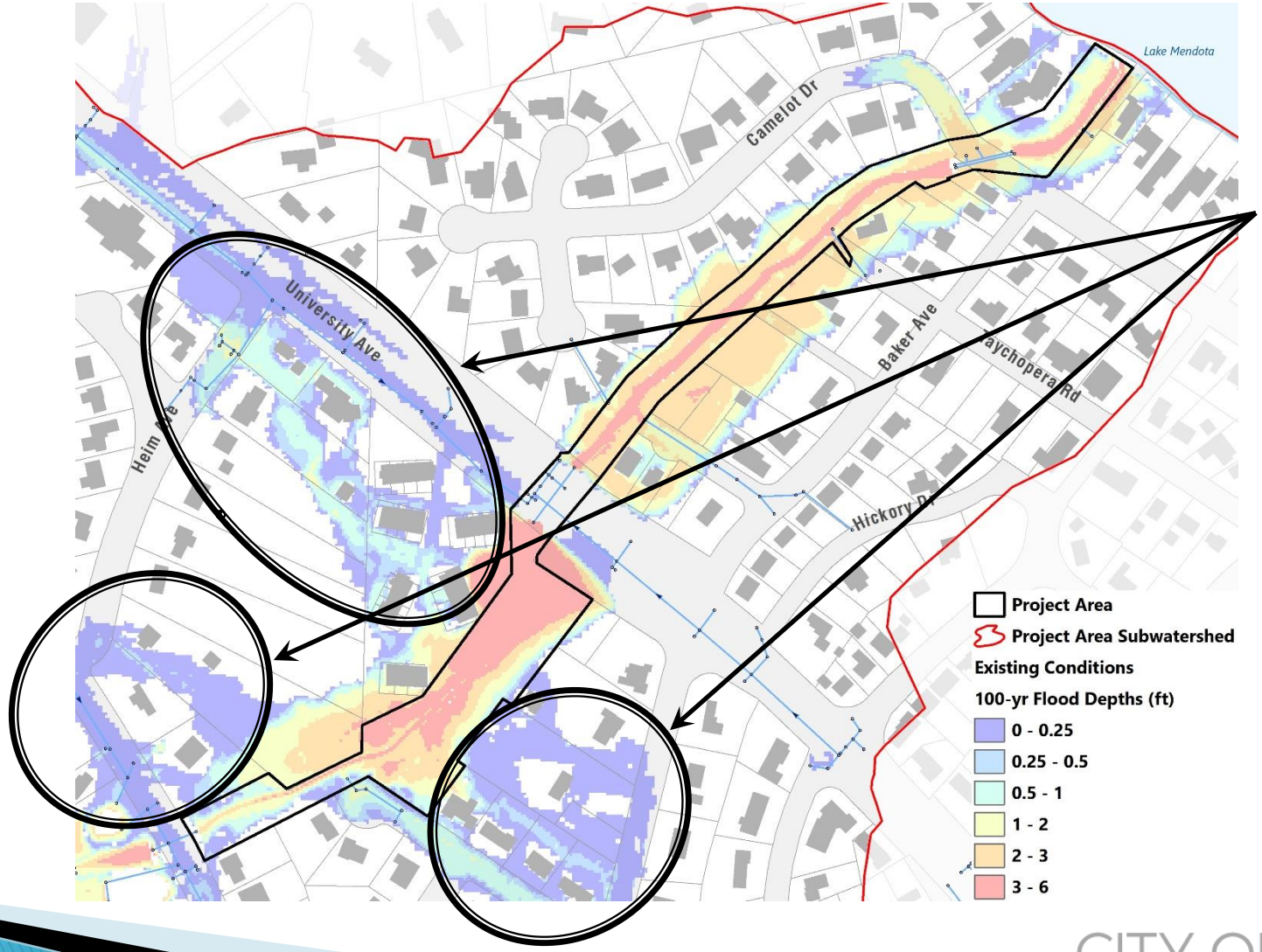
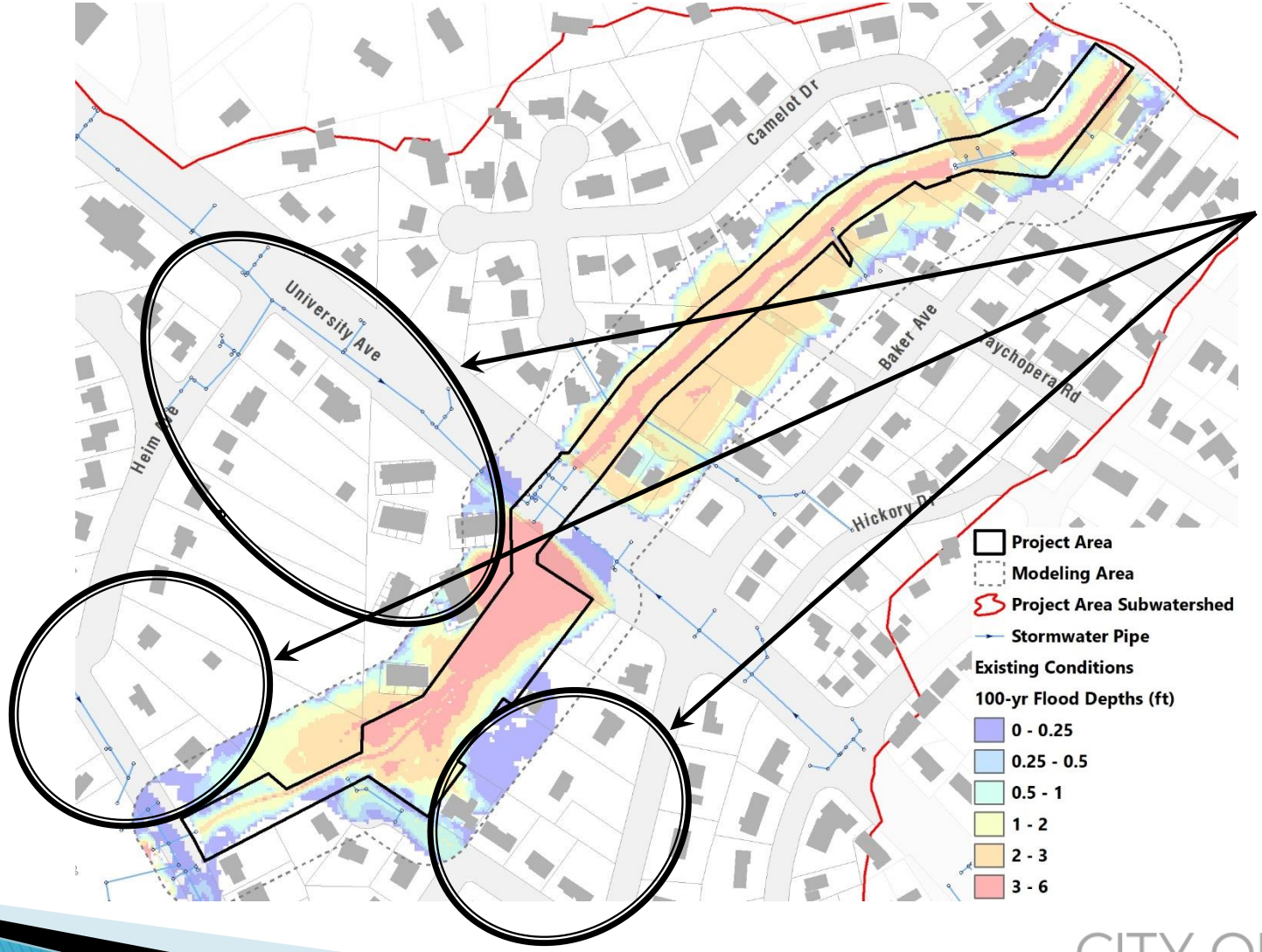


Future Projects

Existing Conditions 100-yr Inundation & Scope of this Project



Future Projects

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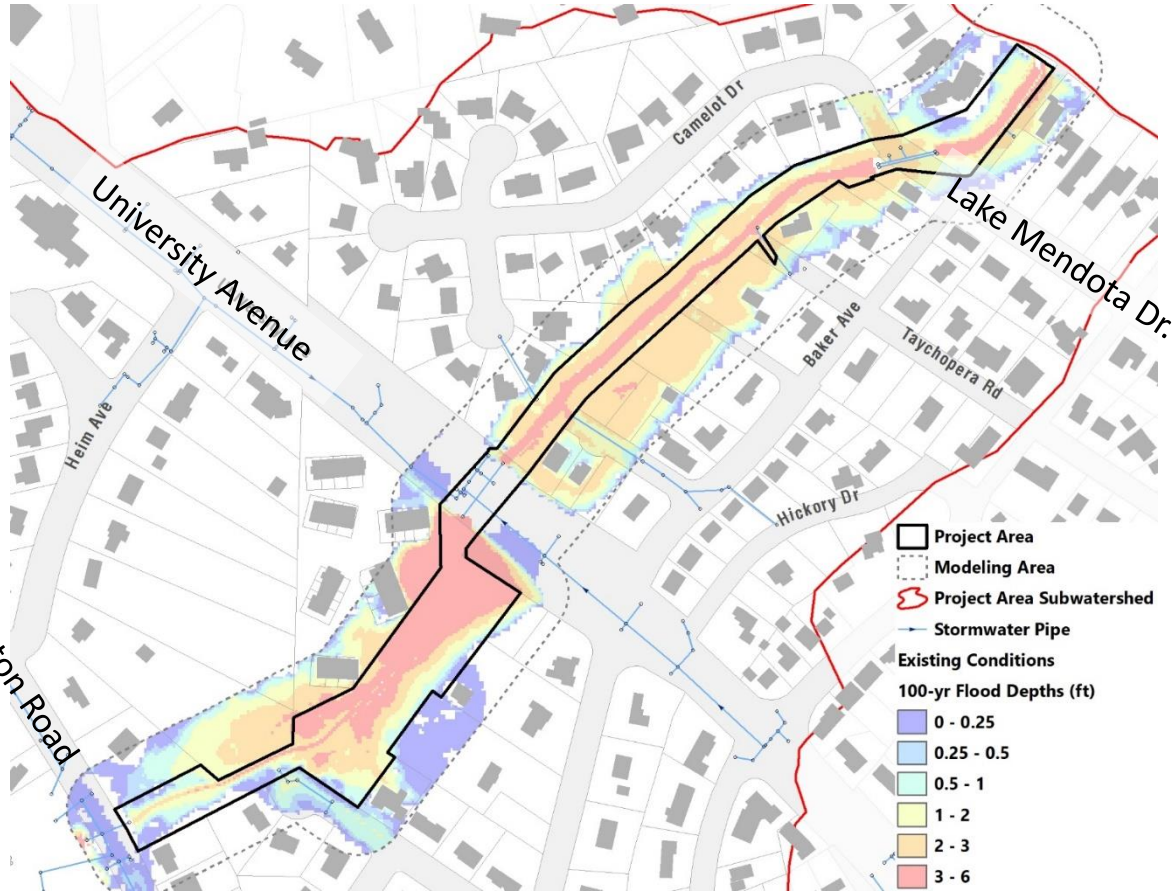
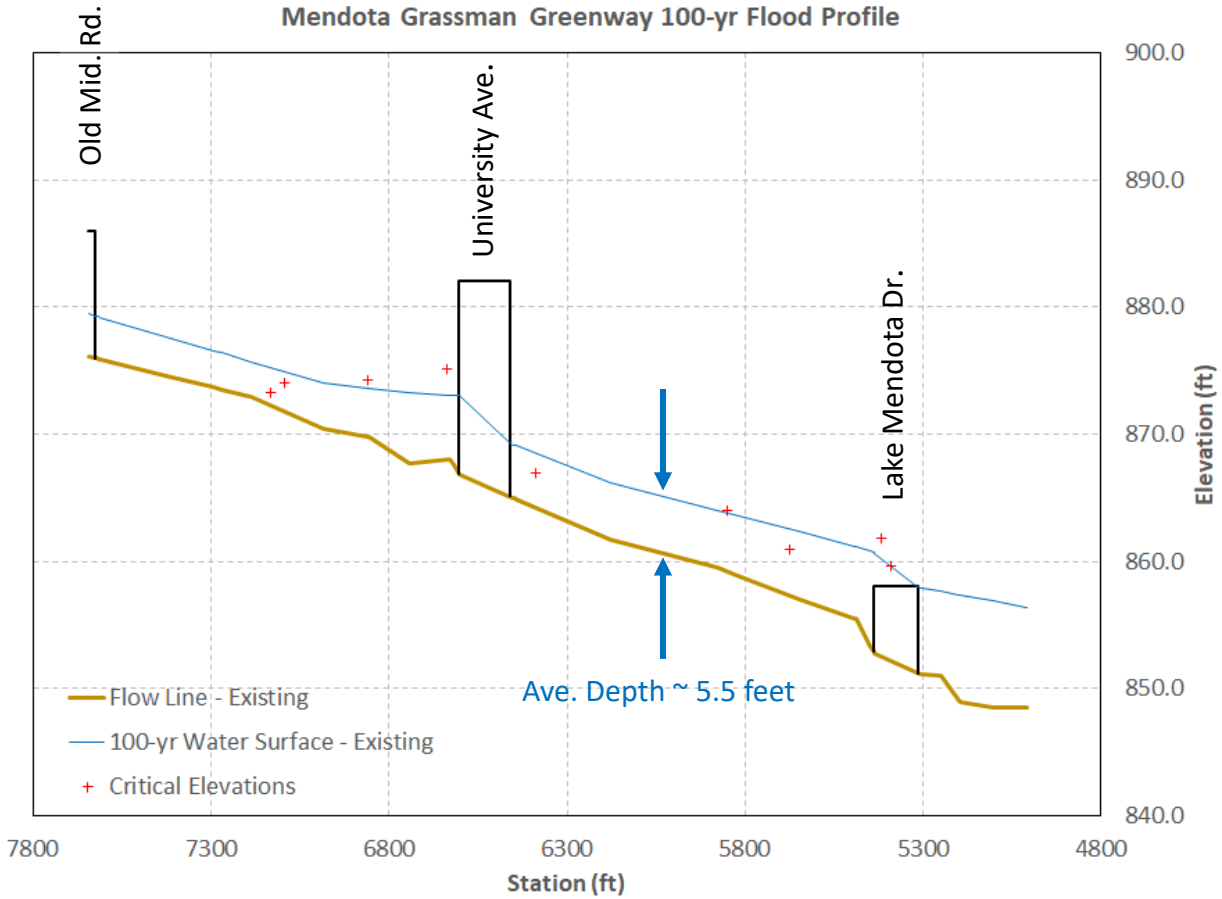
Targeted Flood Reduction





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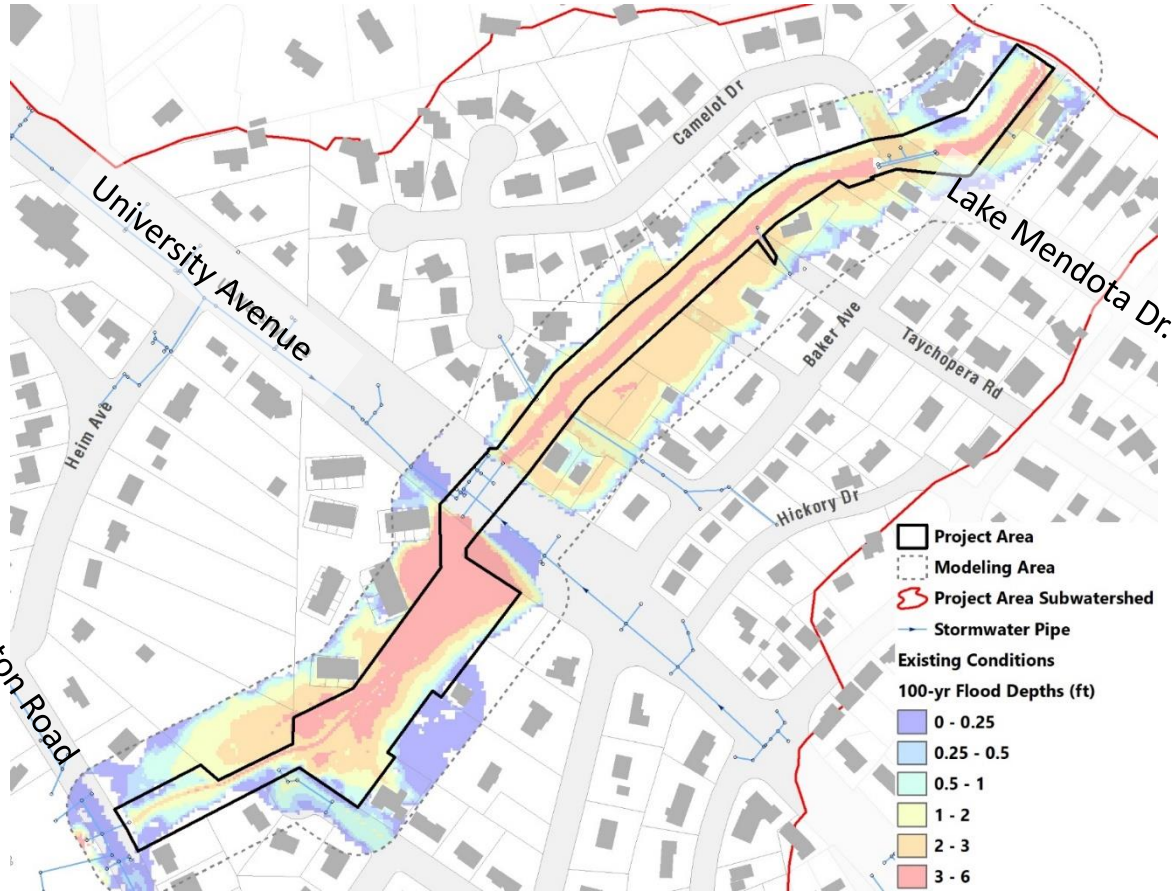

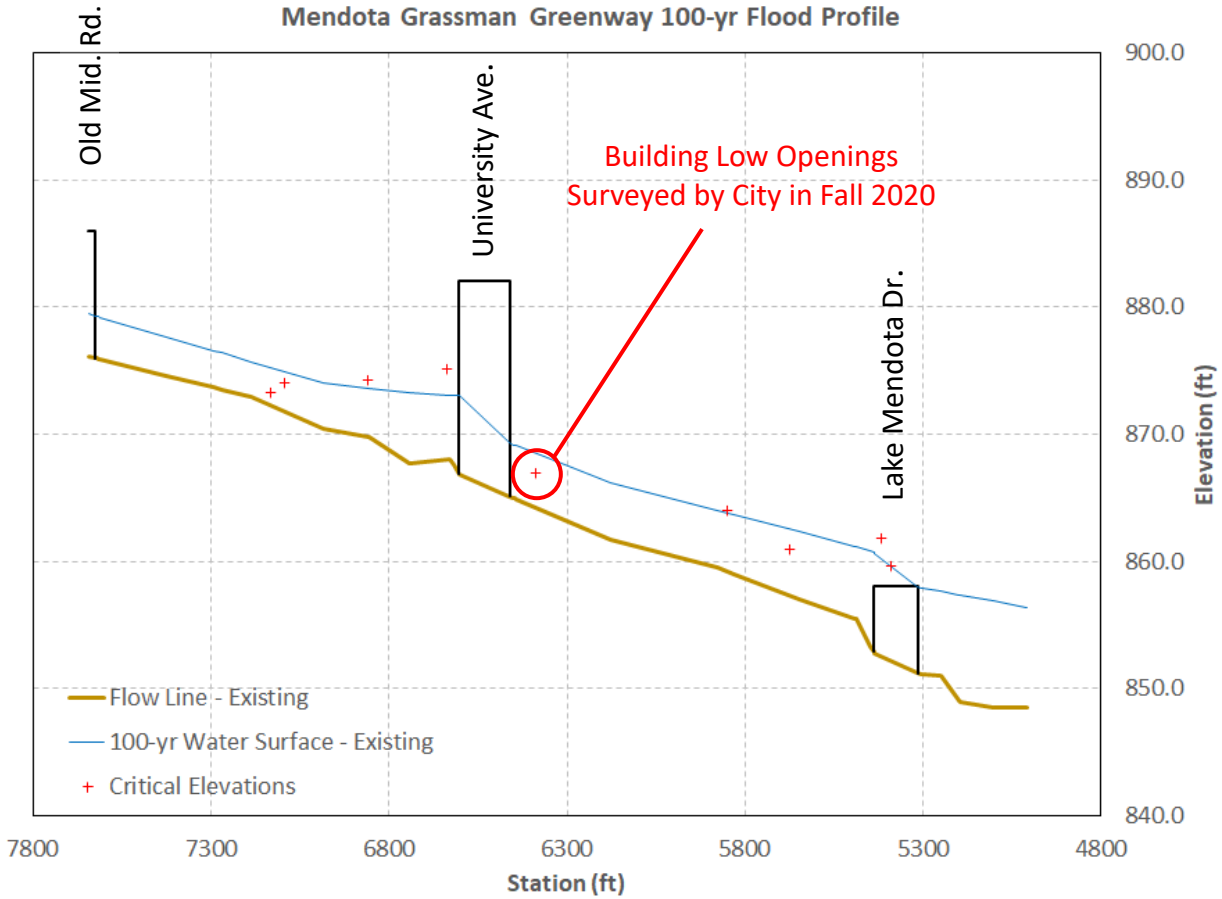

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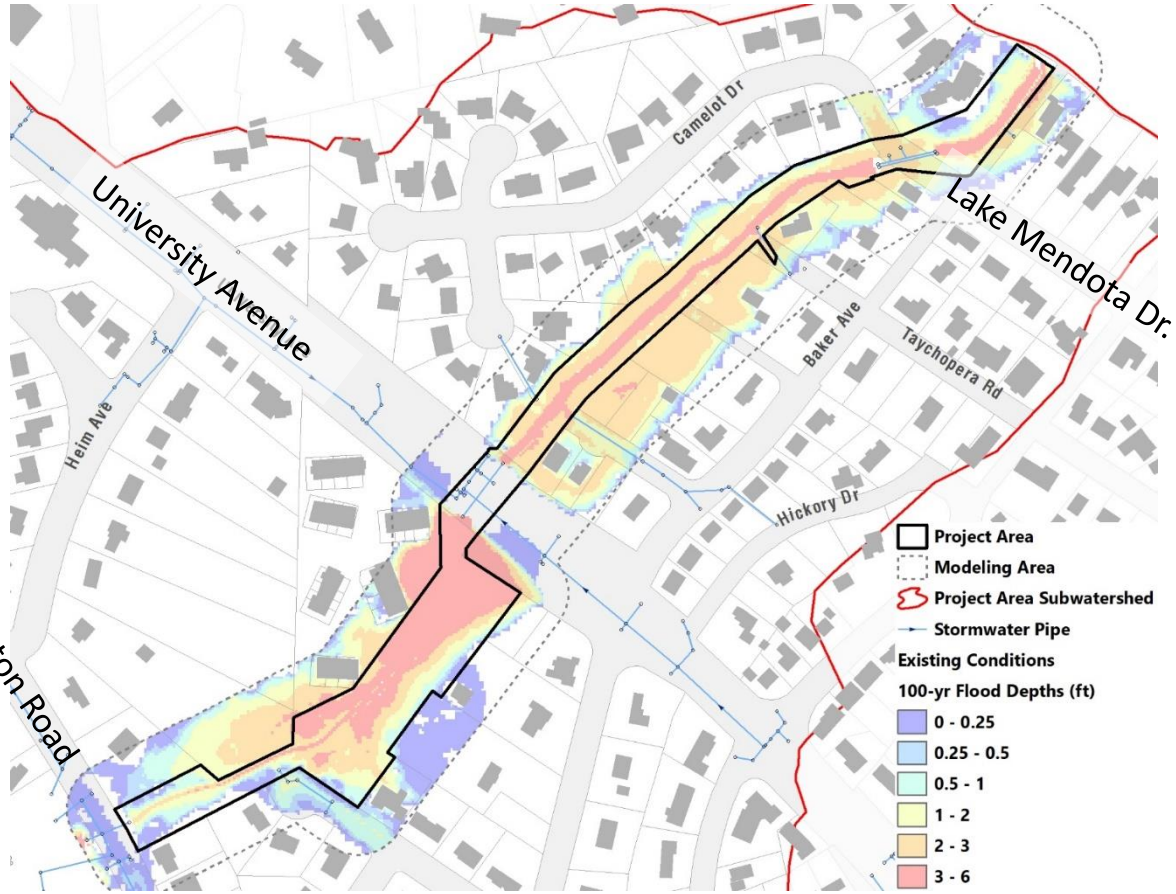

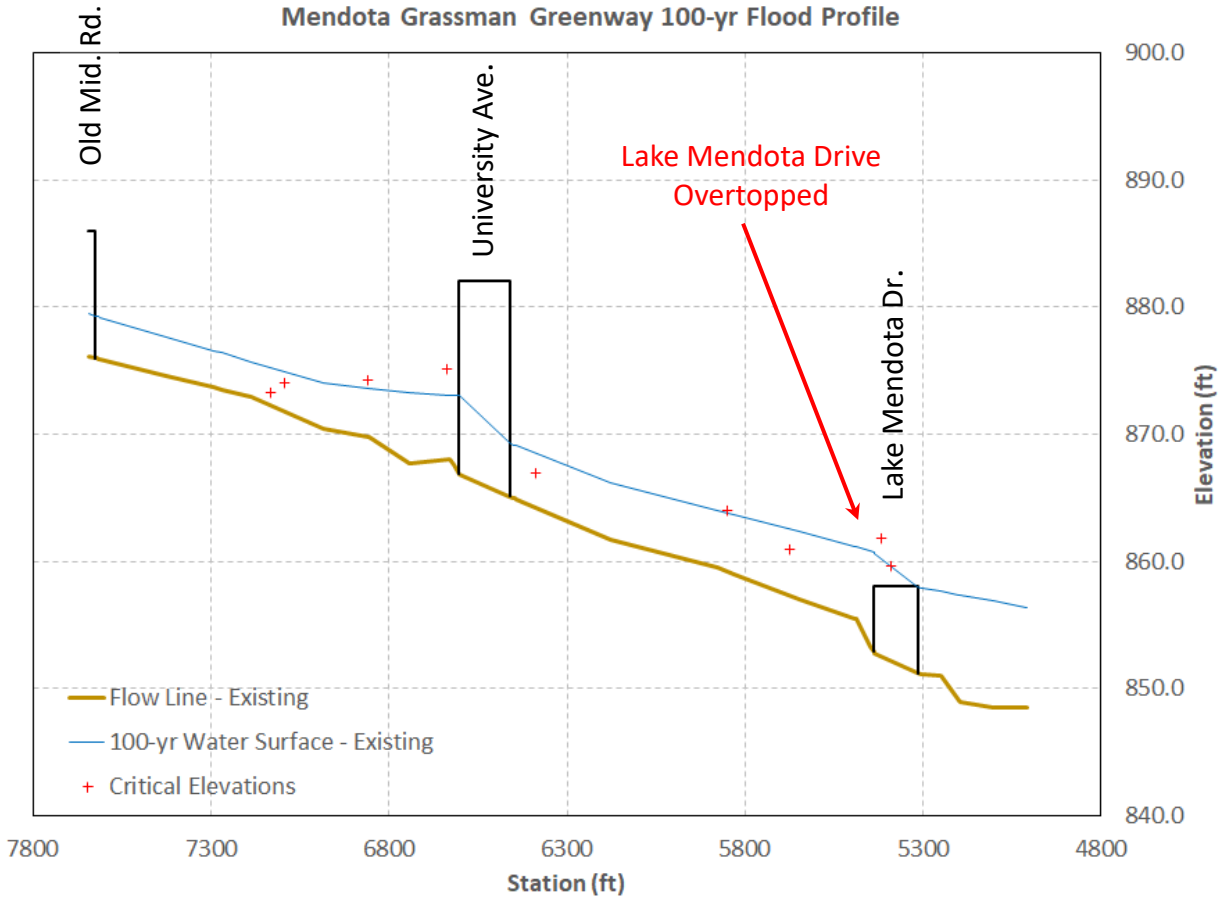

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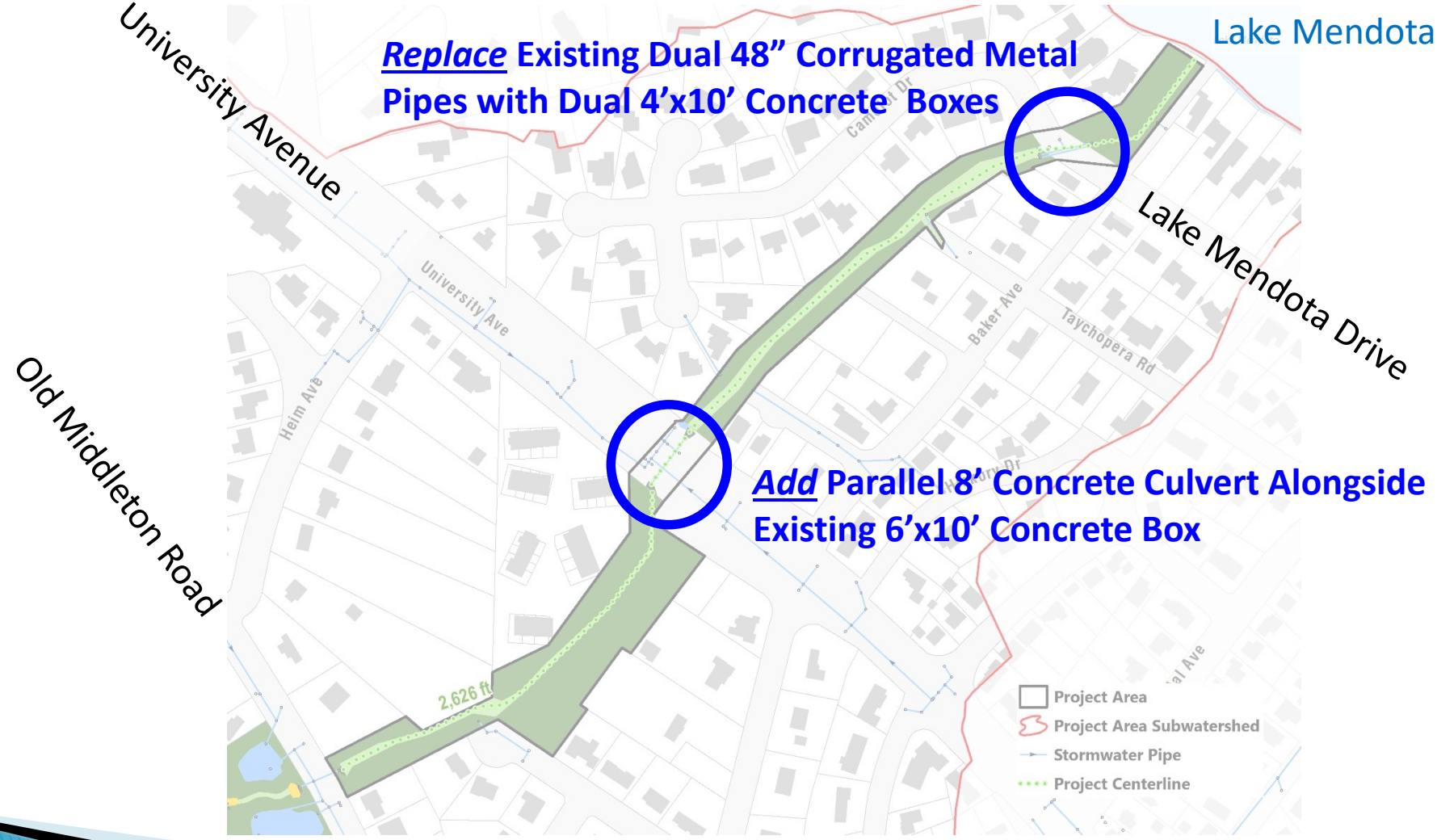
Project Segments – Pipe Work



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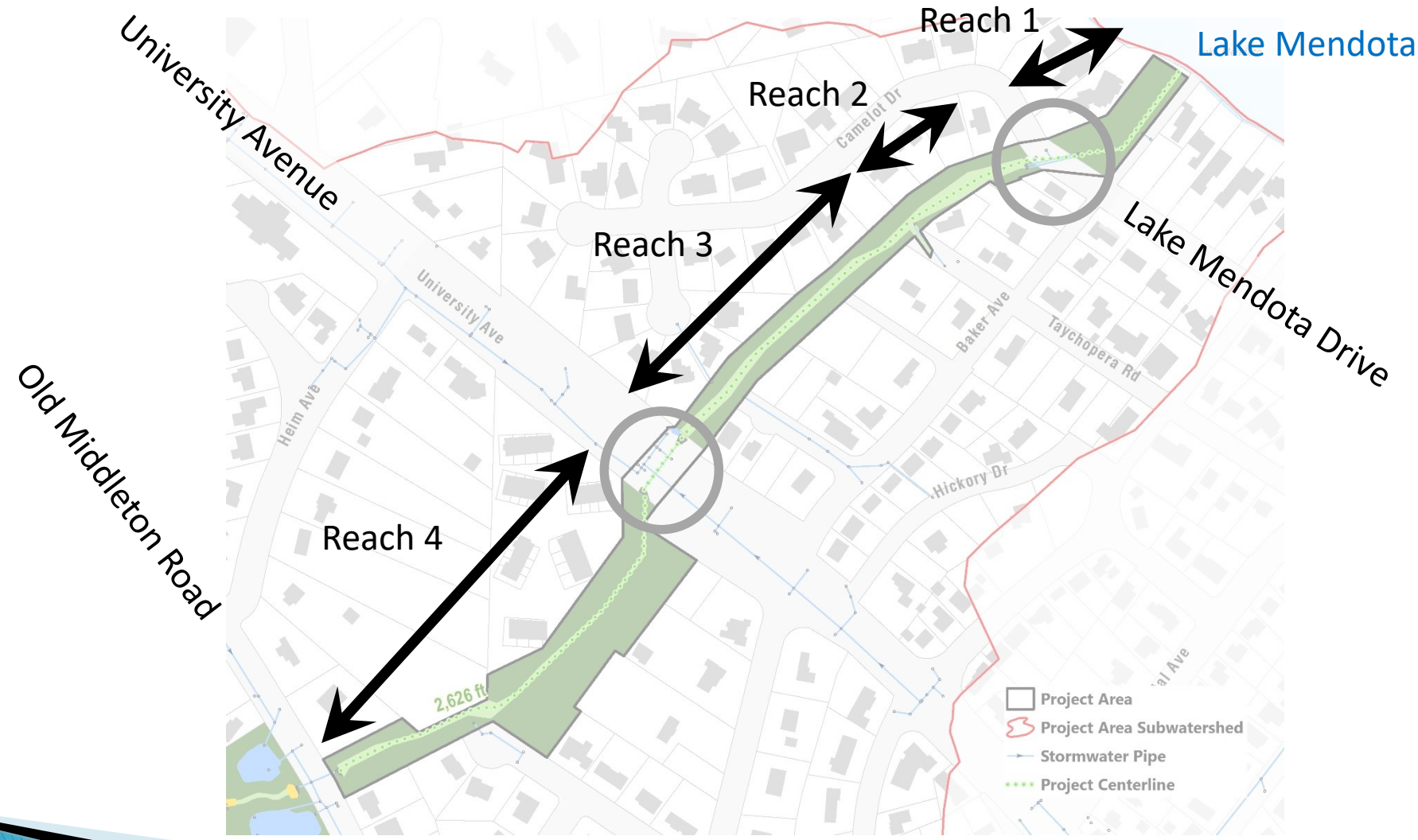
Project Segments – Channel Work



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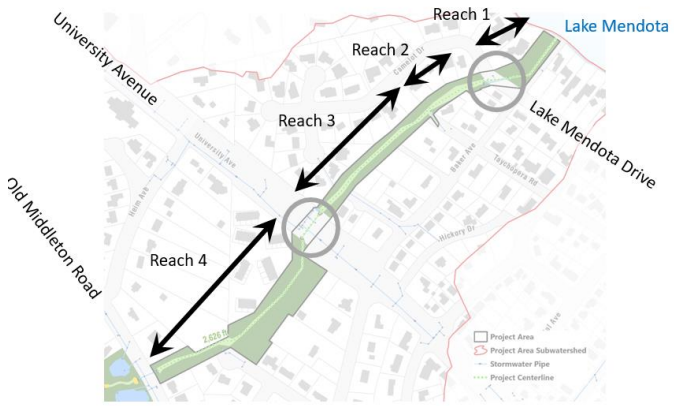
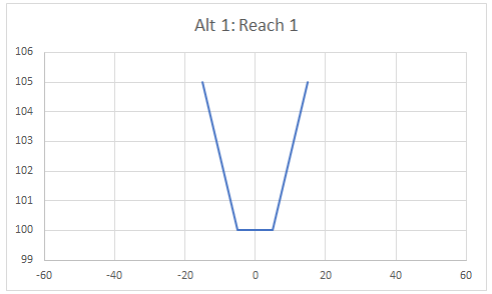
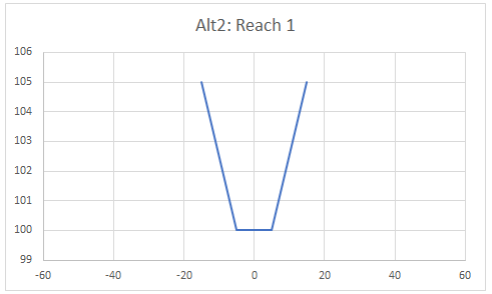
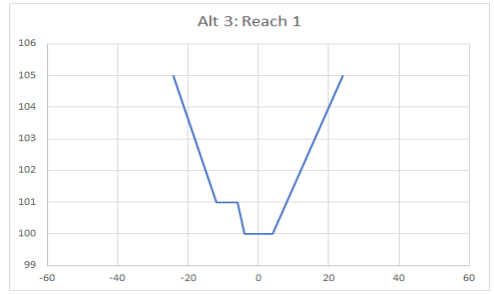
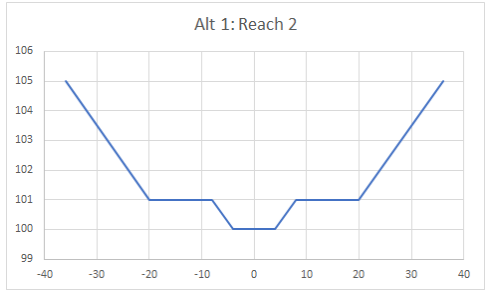
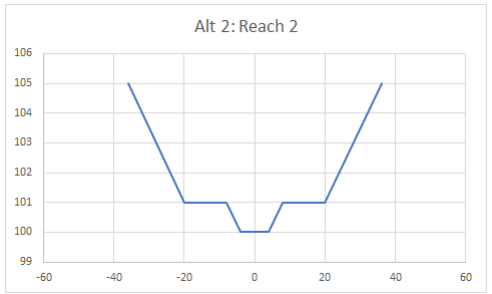
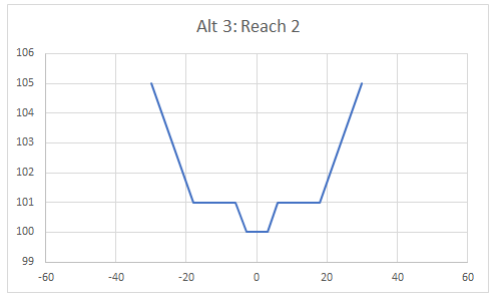
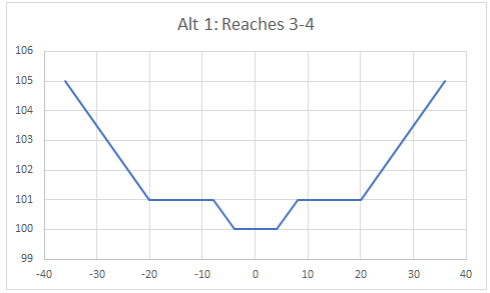
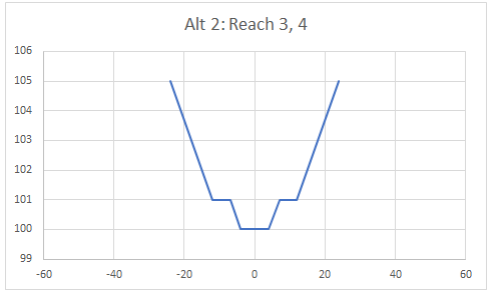
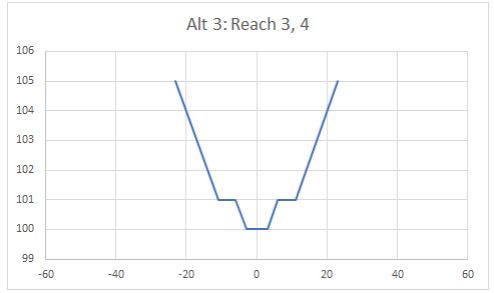


Evaluated three alternatives consisting of different widths and side-slopes with intent to minimize impacts to desirable trees

Recommendation is to implement alternative #3

Alternative 1 *Wtd. Ave. Width = 62 ft*	Alternative 2 *Wtd. Ave. Width = 45 ft*	Alternative 3 *Wtd. Ave. Width = 39 ft*
		
		
		

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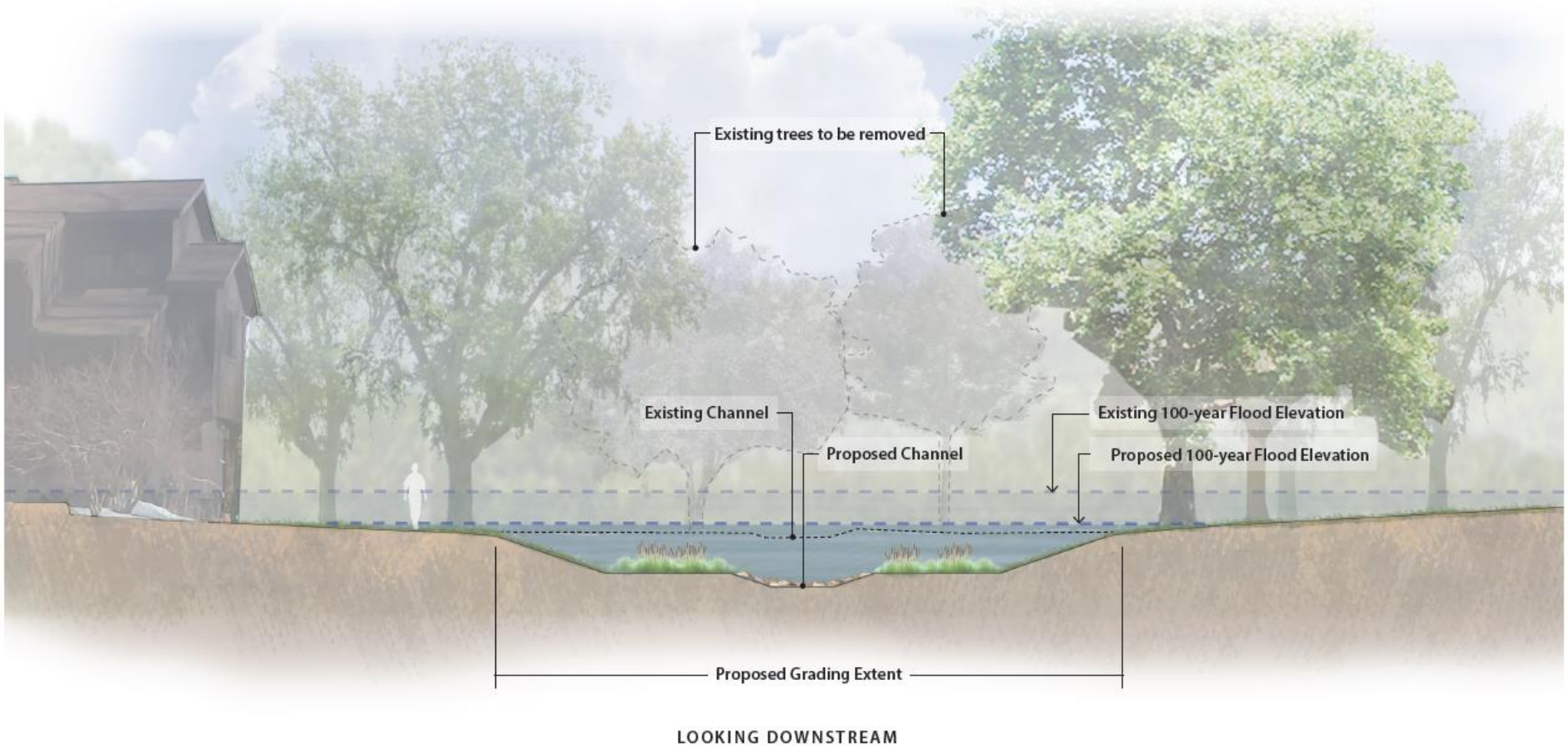
Channel Work – Typical Section



Tree Inventory

Method

TREE HEALTH MANAGEMENT
ARBORICULTURE CONSULTING DIAGNOSIS

Tree Inventory Completed Feb 2020

Survey of Inventoried Trees completed in Late Spring 2021

Rating	Health	Structure	Form	% 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%

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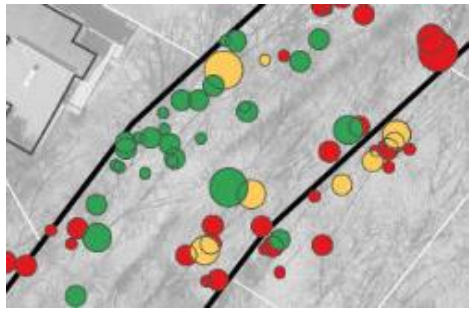
Tree Inventory

TREE HEALTH MANAGEMENT
ARBORICULTURE CONSULTING DIAGNOSIS



Standard Removals: Invasive, aggressive, or problematic tree species that outcompete native plant species, harm wildlife, spread disease, create hazards for people or property, exacerbate erosion or conveyance issues or otherwise compromise the ecological health of a site.

DNR NR 40 Invasive Regulated (restricted or prohibited) trees and shrubs list and other aggressive or potentially problematic species.

Site Dependent: Tree species may be kept based on a review of tree diameter, health, adjacent trees, safety, access or mowing needs.

Generally healthy trees (60% quality rating or above for species other than red oak, river birch, shagbark hickory, and white oak) of a larger diameter for their species and the site.

Keep Whenever Possible: Healthy, desirable native tree species that support native wildlife and are well-suited for land used for stormwater management.

Generally healthy trees (60% or above for species other than red oak, river birch, shagbark hickory, and white oak).

Note that shrubs were not surveyed, but will be removed per the same methodology as trees. Neighbors should assume that the majority of shrubs will be removed within the project as the City finds most shrubs in wooded greenways to be invasive.

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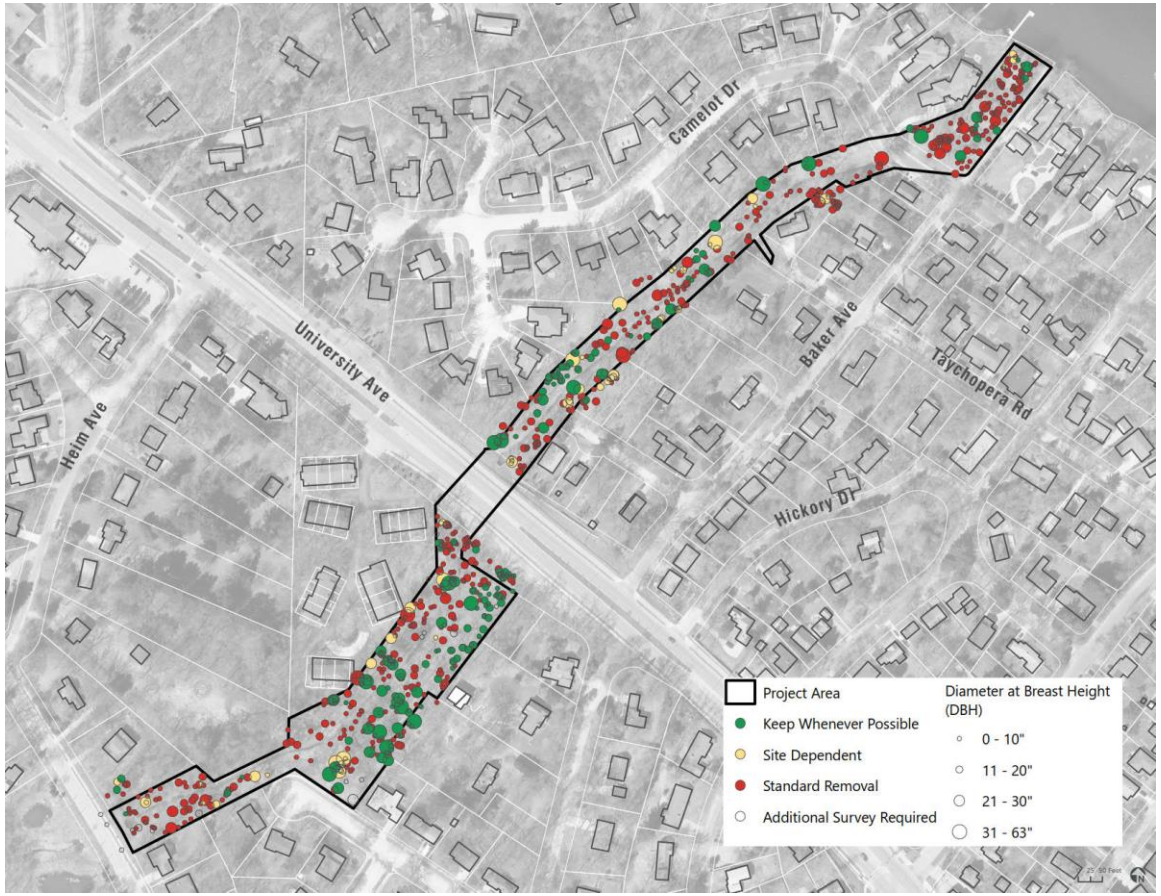
Tree Inventory



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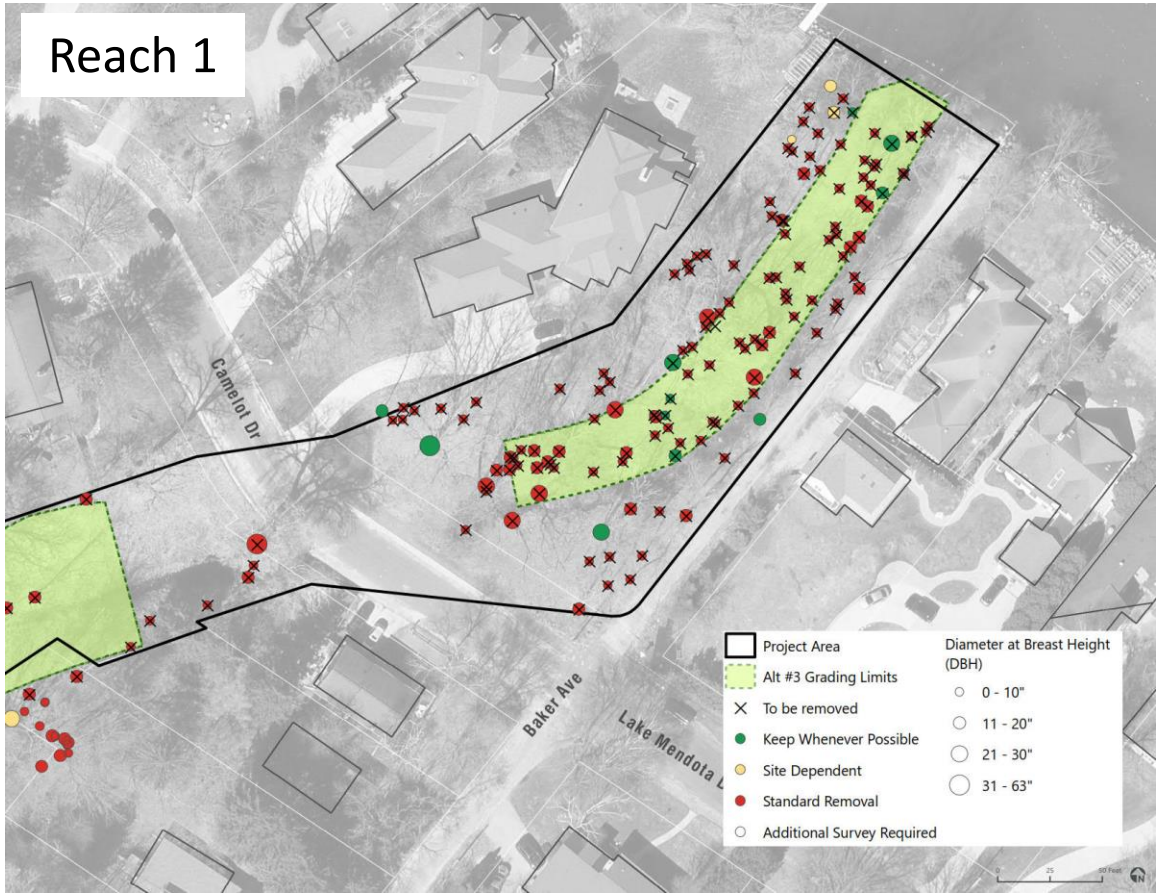

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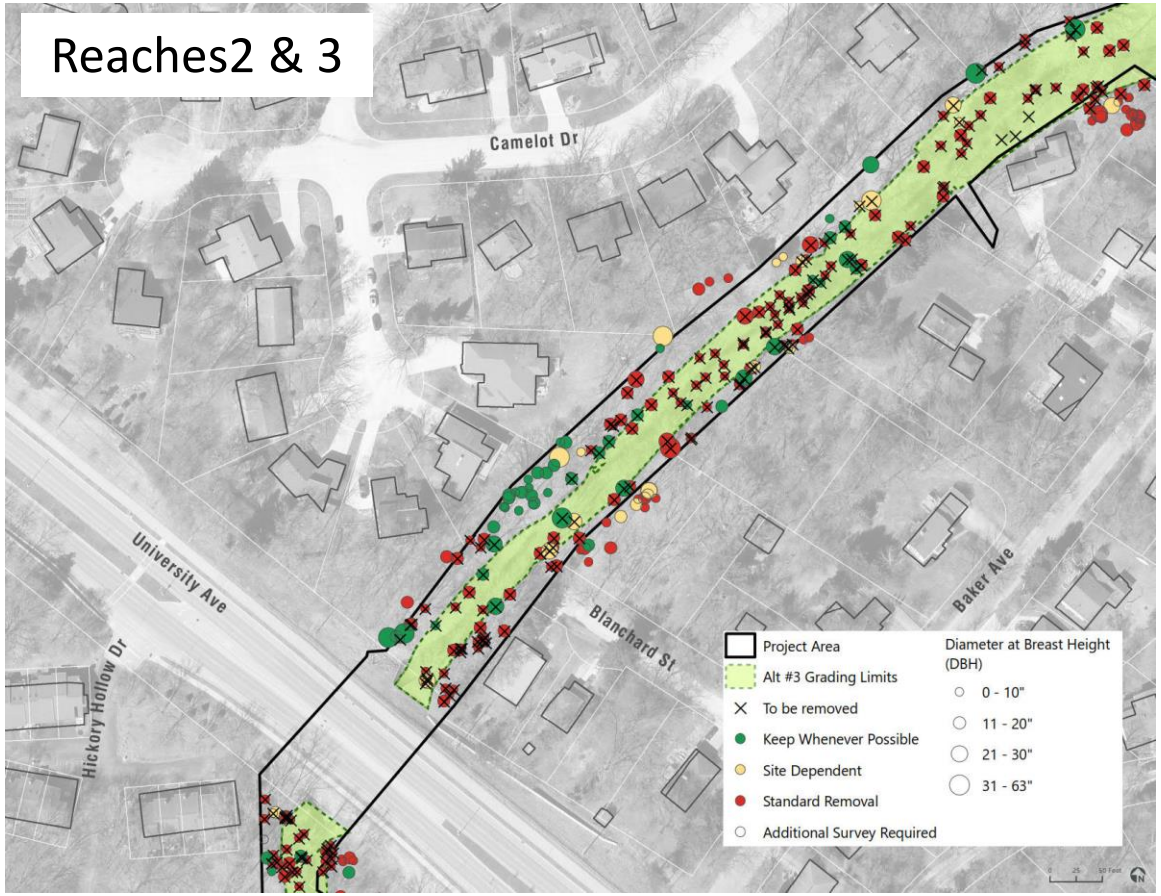

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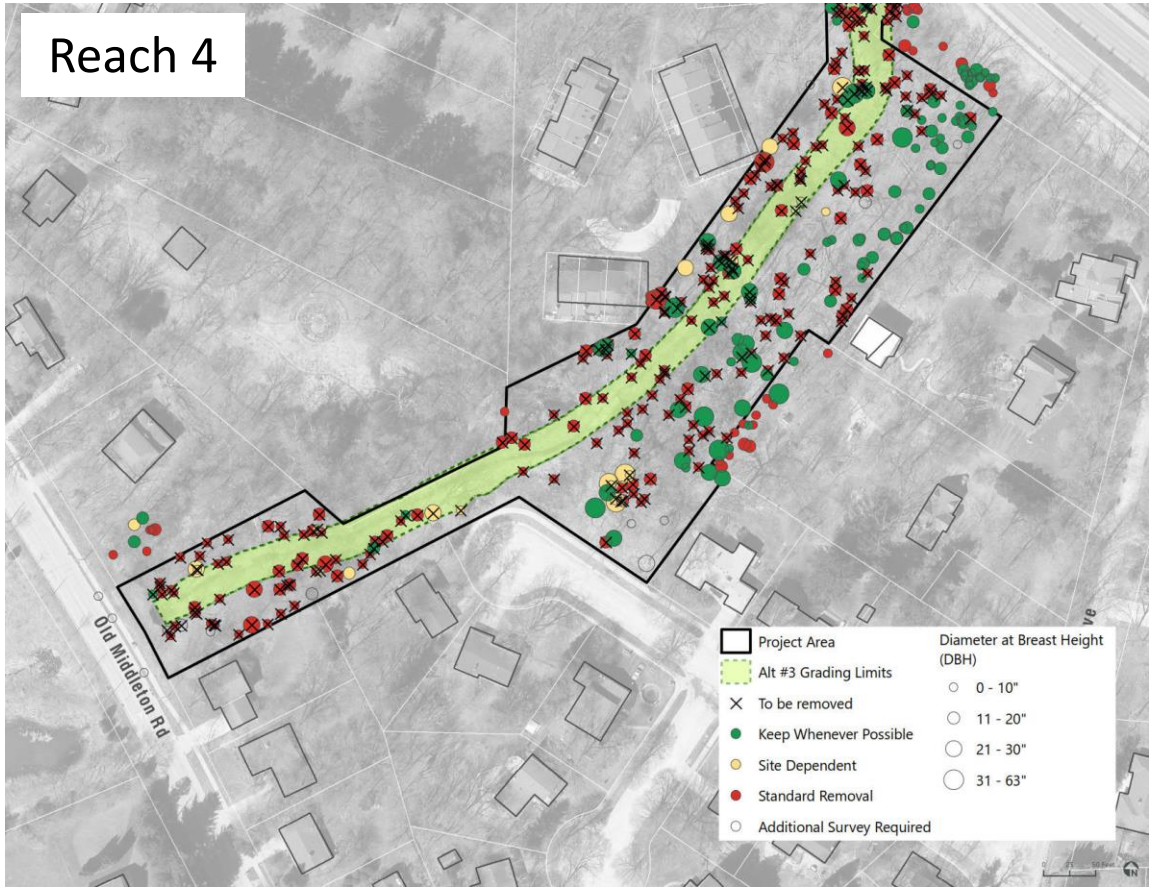

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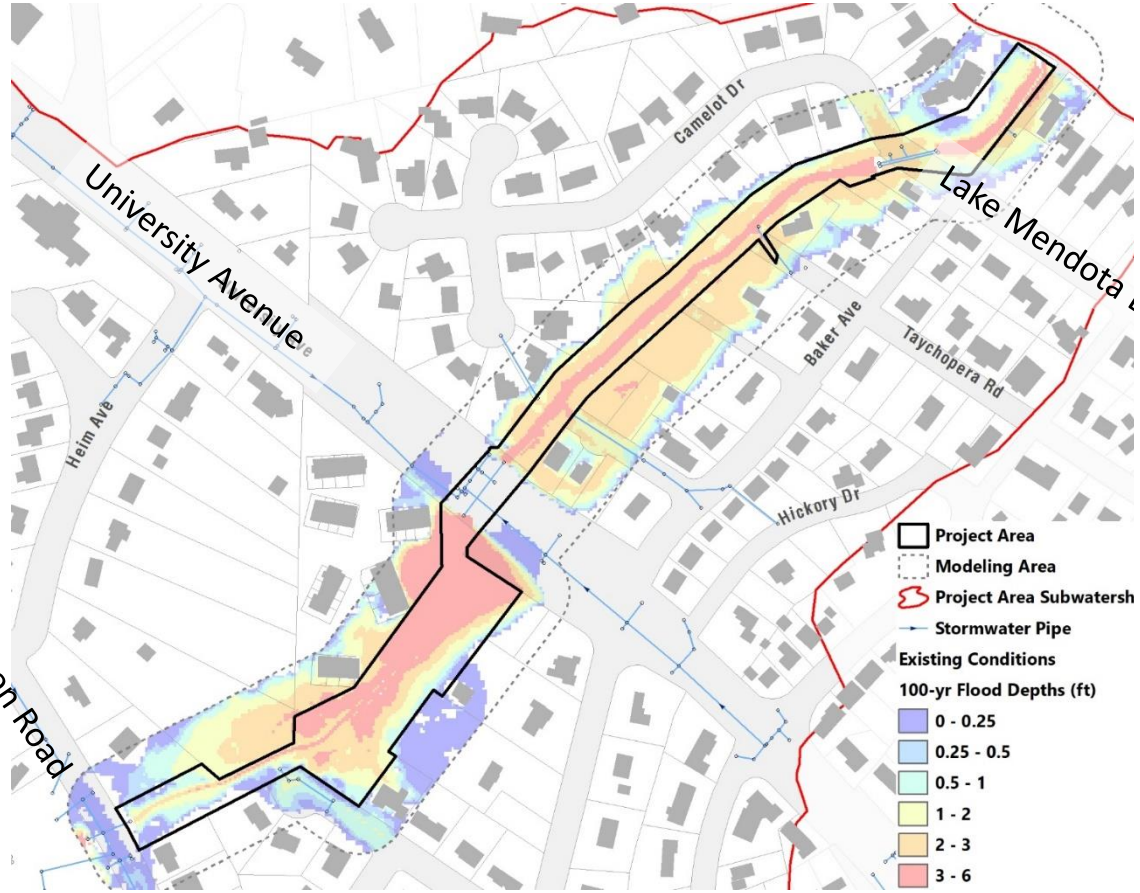
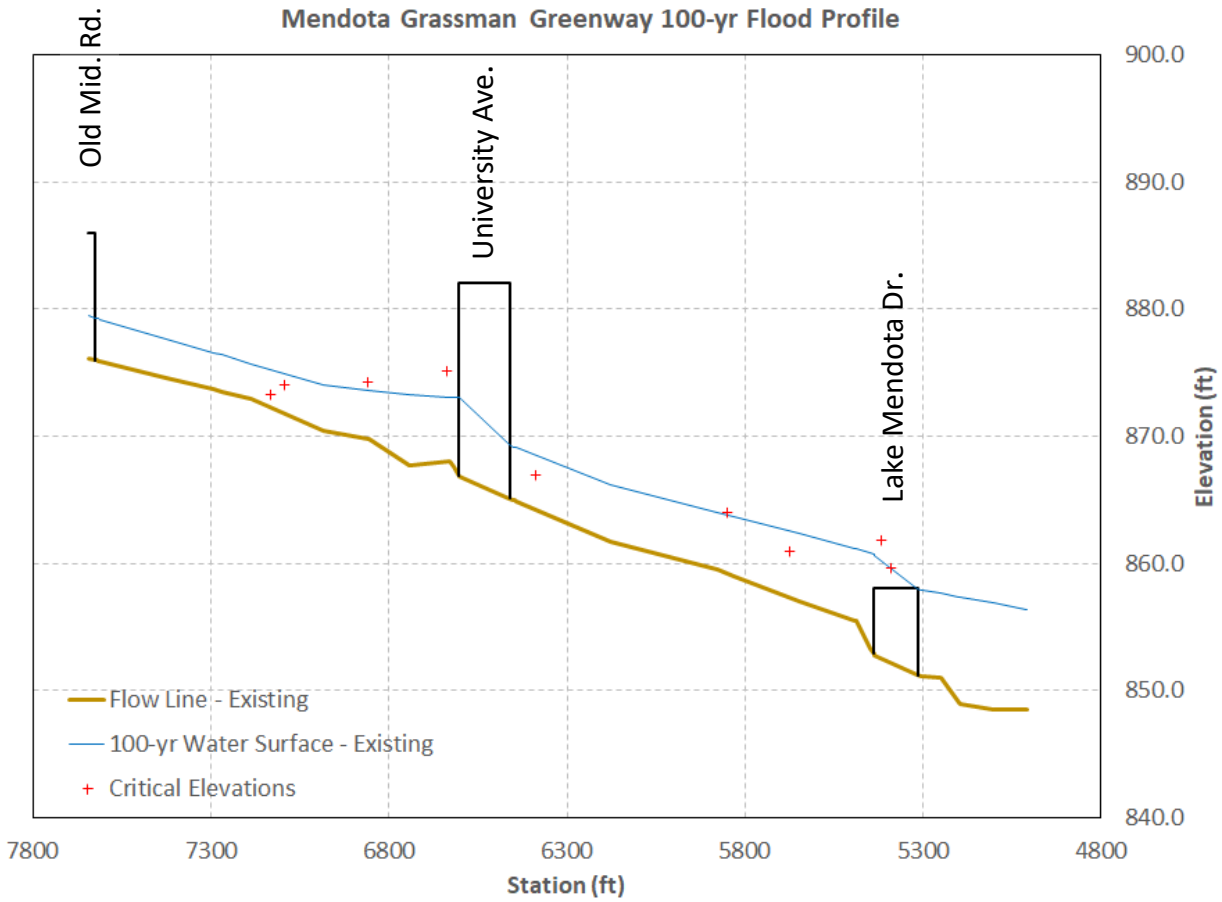
- Existing 100-yr (1% AEP) Flood Conditions
- Preliminary Design
  - Project Segments
  - Segment Components
  - Tree Preservation
- Preliminary Design Performance
- Additional Design Details

Existing Conditions 100-yr Inundation

Existing 100-yr Flood Conditions





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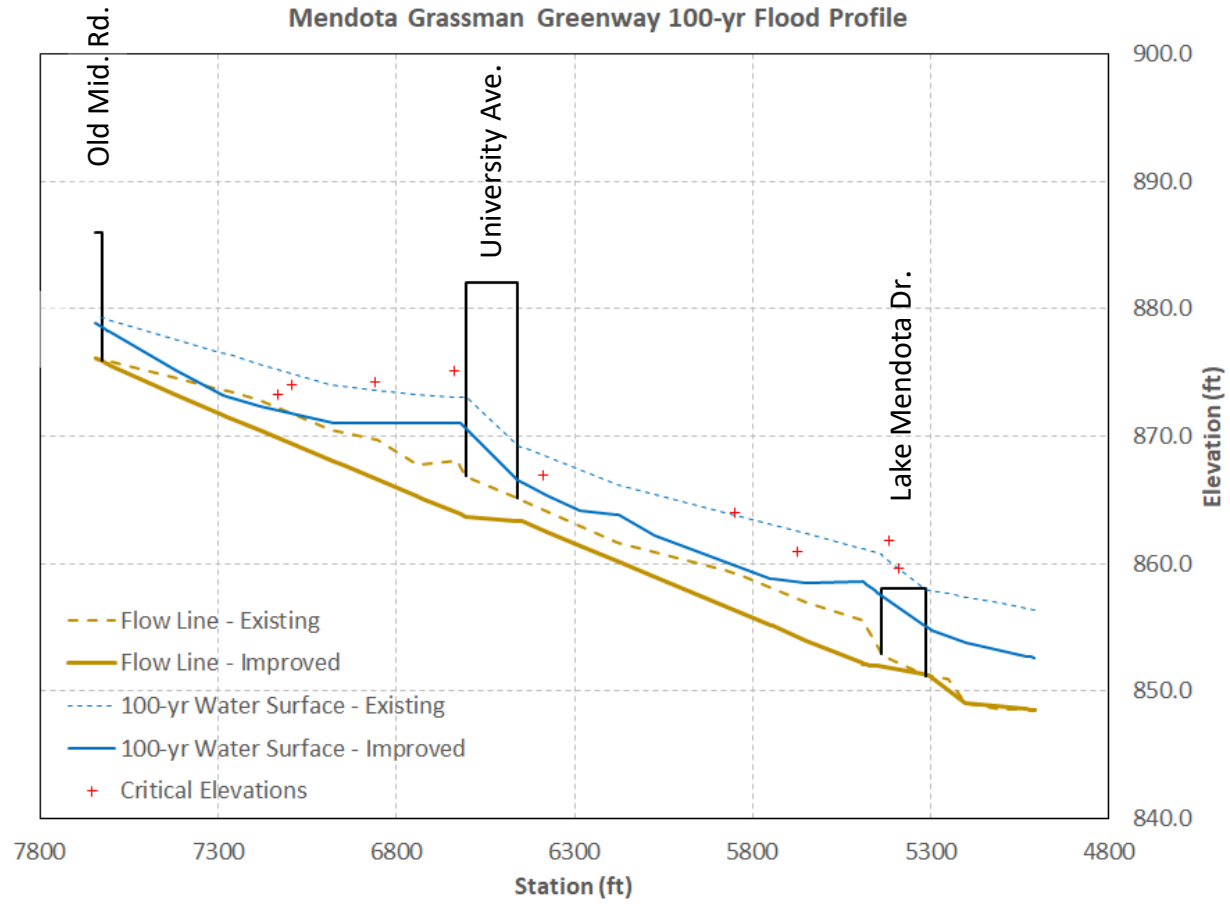
Current Design 100-yr Inundation



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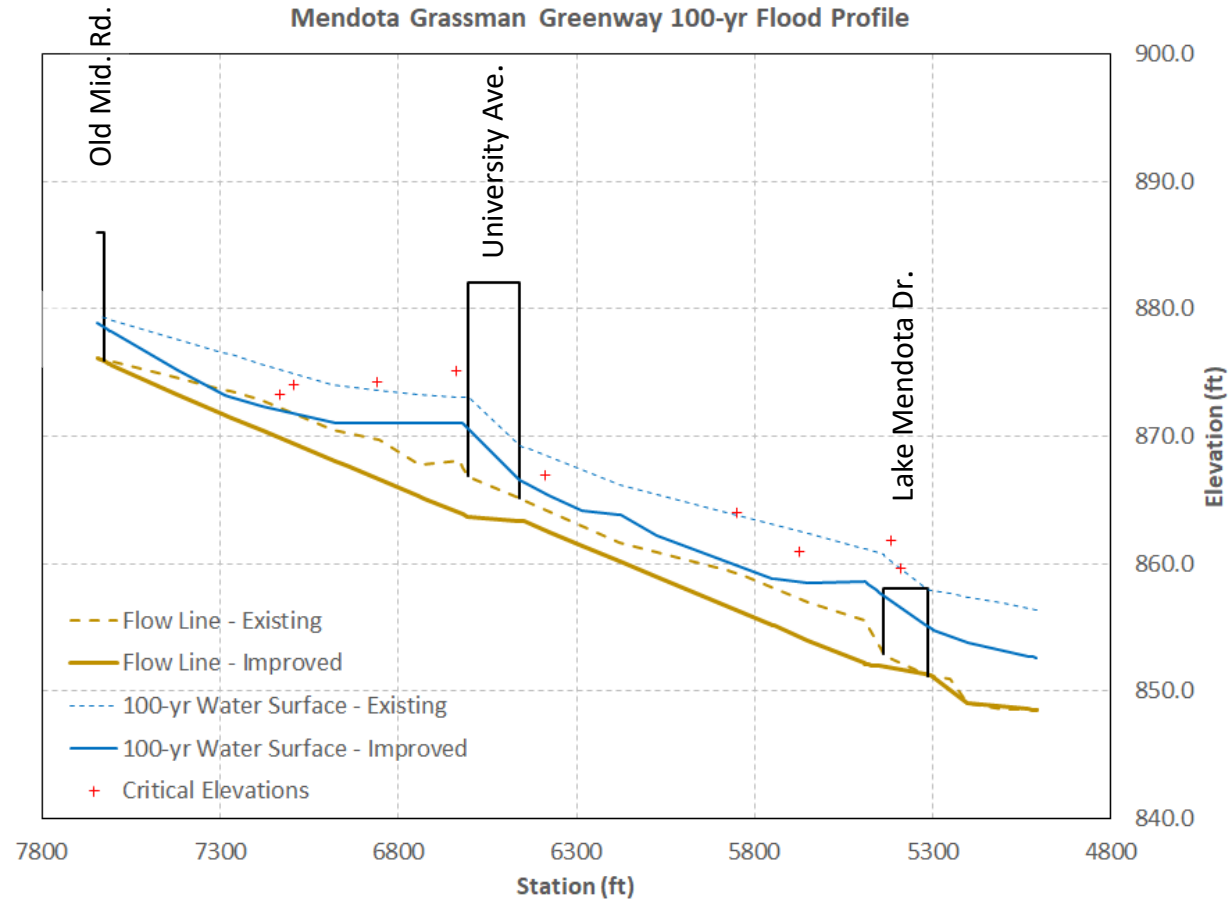
Current Design 100-yr Inundation



Average Inundation Elevation Reduction = 2.8 feet

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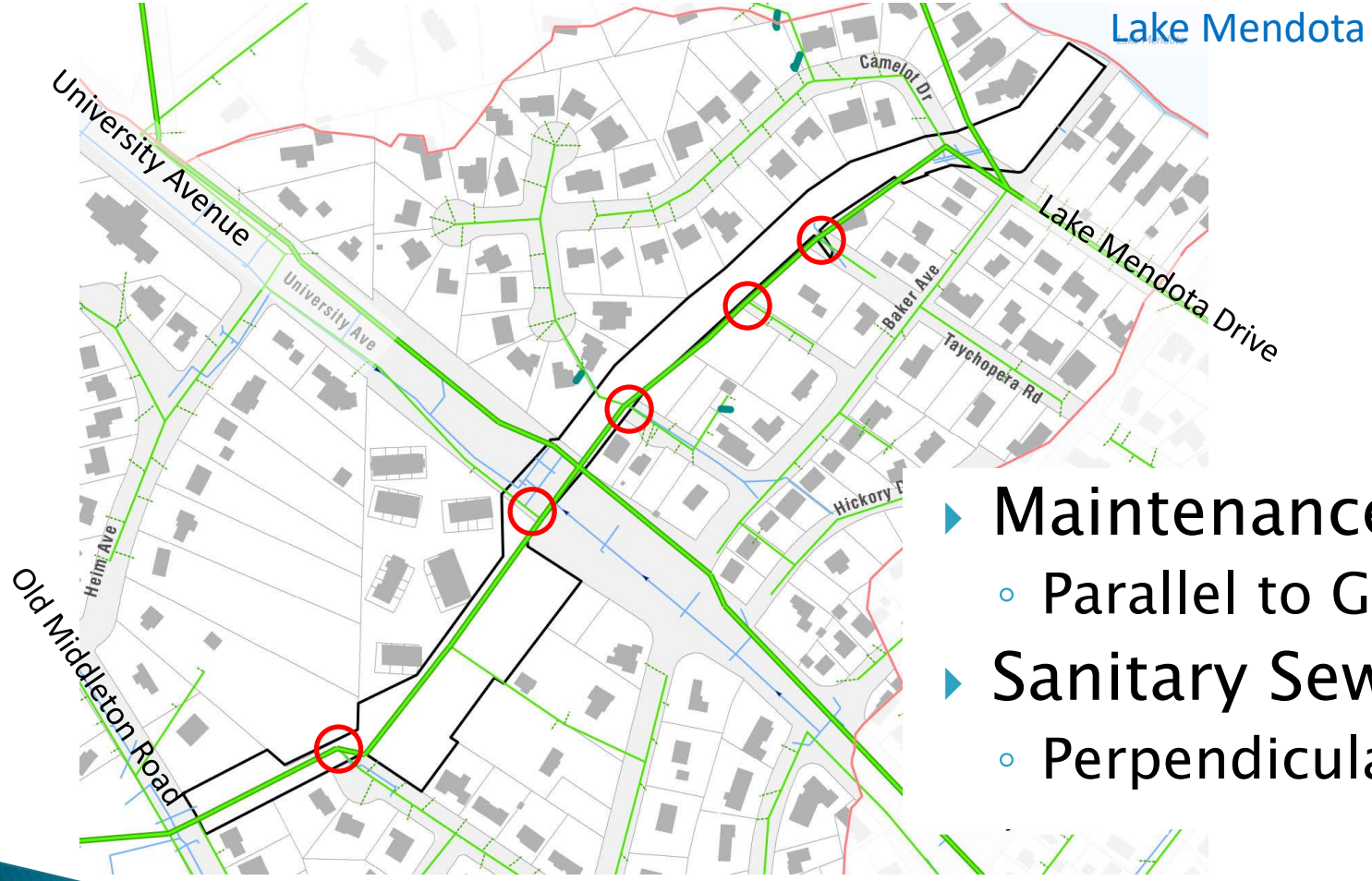
Presentation Agenda

- Project Background
- Project Scope
  - City Flood Reduction Targets
  - Flood Reduction Targets & This Project Scope
- Existing 100-yr (1% AEP) Flood Conditions
- Preliminary Design
  - Project Segments
  - Segment Components
  - Tree Preservation
- Preliminary Design Performance
- Additional Design Details

Additional Design Details



- Maintenance Access Path
  - Parallel to Greenway
- Sanitary Sewer Access Structure Path(s)
  - Perpendicular to Greenway

More details to be provided at PIM #2

CITY OF MADISON

Contact Information & Resources

- Engineering
  - Project Manager, Jojo O'Brien, (608) 266-9721, jobrien@cityofmadison.com

- Project Website:

cityofmadison.com/engineering/projects/mendota-grassman-greenway-flood-mitigation-and-restoration-design

  - Sign-up for project email updates on the website
  - Updates on work progress will be posted to the project website

- Facebook – City of Madison Engineering
- Twitter – @MadisonEngr
- Engineering Podcast: Everyday Engineering on iTunes, GooglePlay