



---

# Hamilton Drain East System Storm Sewer Improvements

# Some attendee instructions

During the meeting, please "raise your hand" through Zoom computer app if you wish to speak.

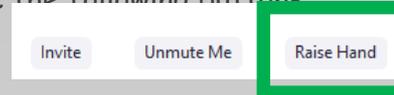
The chat feature is not enabled for this meeting

Click the **Participants** button, which will open box showing all of the participants.

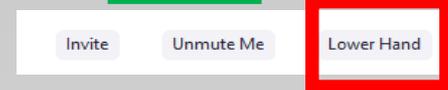


At the bottom of the Participants box, you should see the following buttons

Click on RAISE HAND if you would like to speak.



If you decide to lower your hand, click on LOWER HAND.



If you are on a phone, please press  9 (star nine) to raise your hand

To unmute or mute yourself, just press  6 (star six)

This meeting will be recorded 

## If You Lose Audio/Video

- This presentation is being recorded and will be uploaded to the project website within a few days
- You can email your questions to the Engineer(s) and we will get back to you.
- All contact information is on the website:

[www.hamiltondrain.org](http://www.hamiltondrain.org)

# Agenda

Background

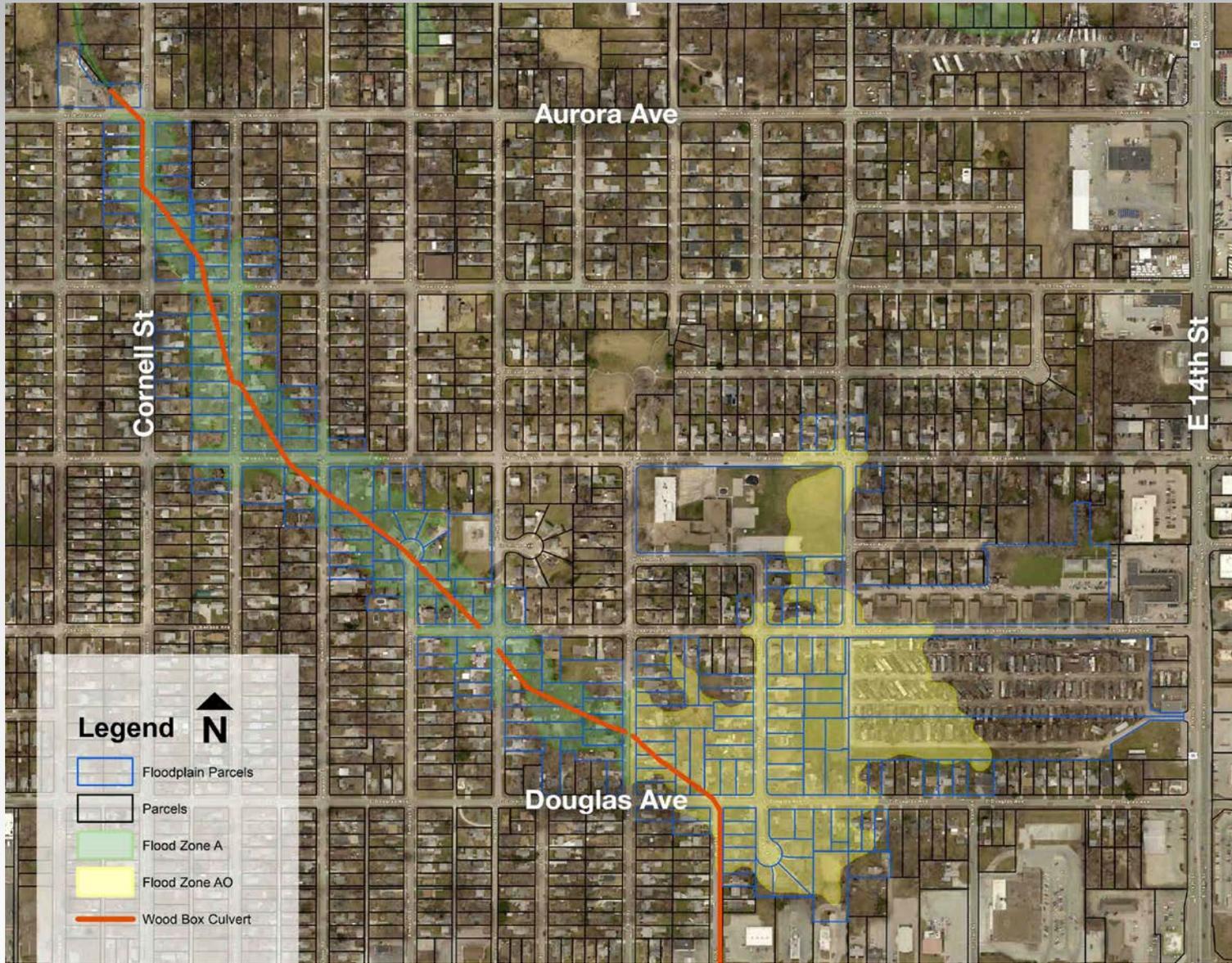
Proposed Improvements

Schedule

## Background

- Existing wooden box culvert built in 1930's runs underground though the Highland Park Neighborhood.
- Wooden box is undersized, resulting in a special flood hazard district





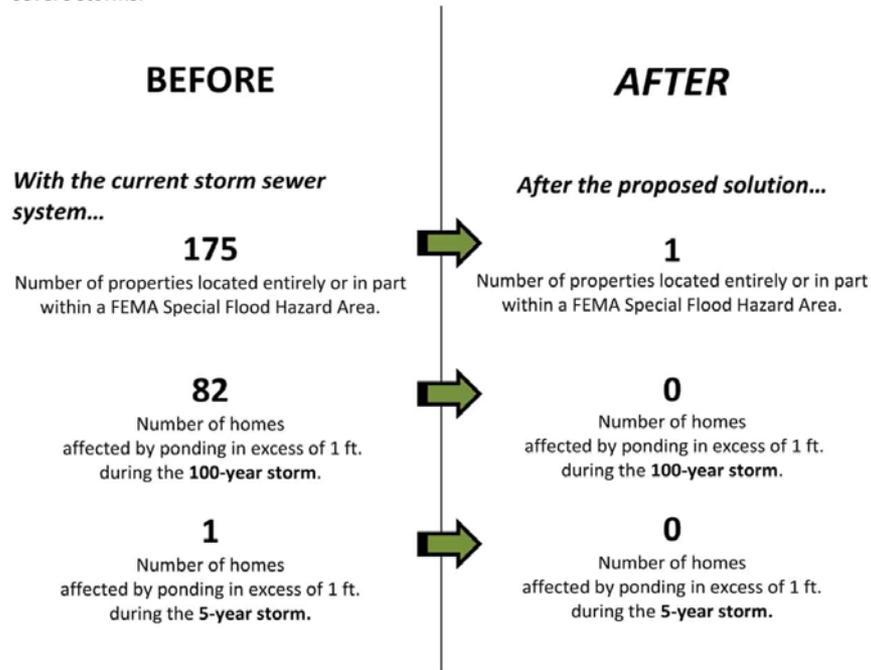
## Background

- Public kickoff meeting in October 2017 to gather input
- Conceptual design developed 2018-2019 to reduce flooding
- Public Meeting held in May 2019 to share results of the conceptual design
- Conceptual design study report completed in July 2019
- Conceptual design recommended a blend of larger storm sewers and detention basins to control the 100-year rain events.



## Anticipated results...

Due to the topography of the land in Highland Park, it is not feasible to completely eliminate all flooding within the neighborhood. However, the proposed solution will provide a dramatic improvement. It will reduce flooding to a non-damaging depth for nearly everyone, even in very severe storms.



*NOTE: Computerized predictions of flooding have limitations, just like a weather forecast. When a weather forecaster says it will be 78 degrees tomorrow, really she means it will be somewhere between 75 and 80. It is similar with predictions of flooding. When the predicted flooding is less than 1 foot, FEMA considers the flooding to be insignificant.*

# Background

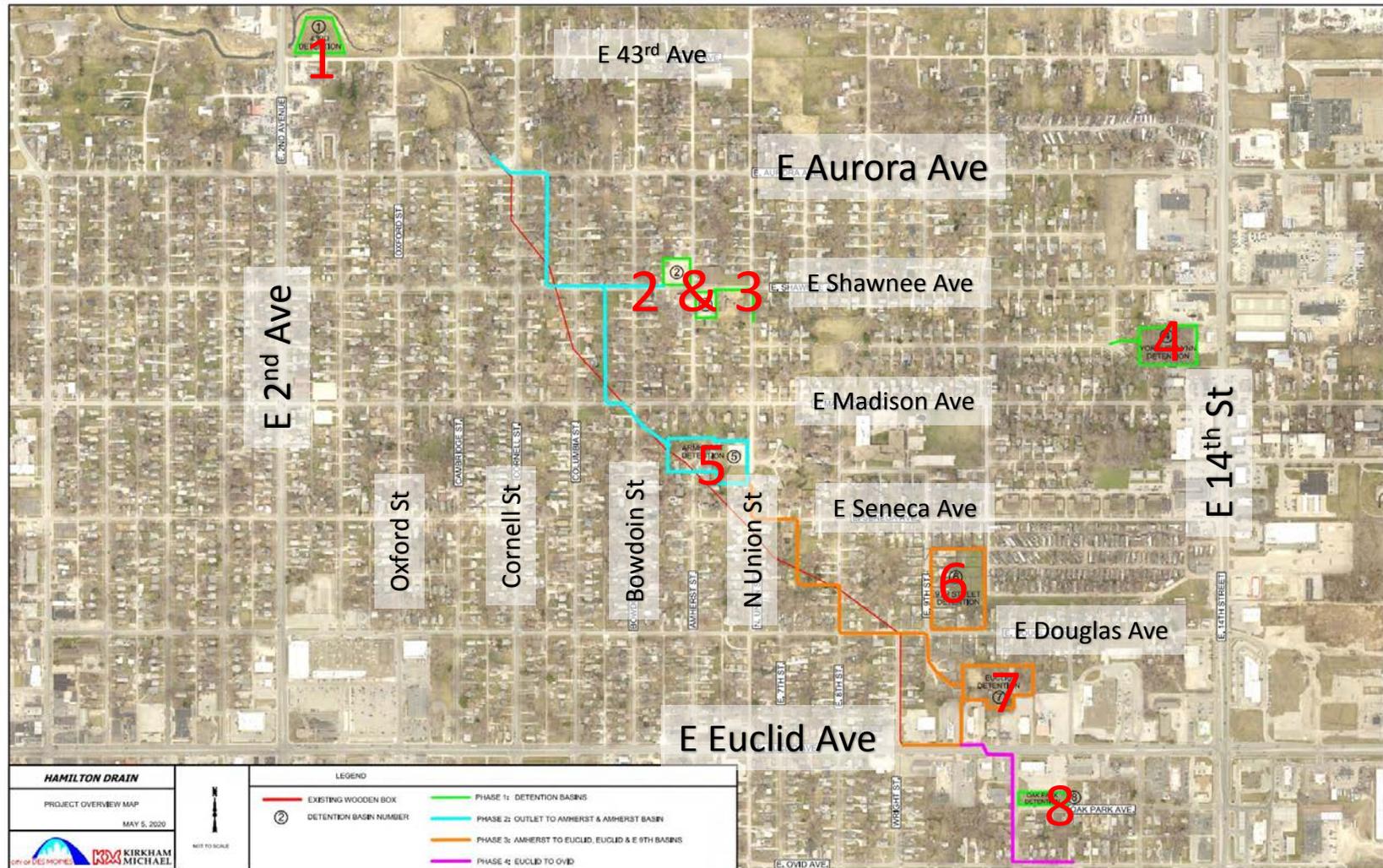


- Final design started in late 2019 by consulting firm Kirkham Michael
- Topographic survey information was collected, and existing box culvert was televised. The wooden box's deteriorated condition requires replacement.
- Existing wooden box culvert is proposed to be removed, where possible, otherwise filled with sand and mortar.
- New storm sewer system and detention basins are required for conveyance of 100-year storm.

## Proposed Improvements

- Final design utilizes a blend of larger storm sewer for conveyance and detention basins to temporarily hold and slowly release stormwater downstream
- Enhanced locations of detention basins to better serve the storm water collection system.
- Improved alignment for the new larger storm sewer utilizing vacated alley between homes to reduce disruption to resident's driveway access

# Proposed Improvements - Basins



# Proposed Improvements - Basins



## Basin No. 1 – 43<sup>rd</sup> Street Basin

- Downstream Basin as storm water exits the City of Des Moines and enters Polk County
- Temporary holds increased amounts of storm water to prevent detrimental effects downstream
- Requires the removal of structures at 121 NW 43<sup>rd</sup> Ave
- Anticipated to be constructed in 2021/2022

# Proposed Improvements - Basins

## Basin No. 1 – 43<sup>rd</sup> Street Basin



43RD AVENUE BASIN

04/20/2020

NOT TO SCALE  
CONFLUENCE 

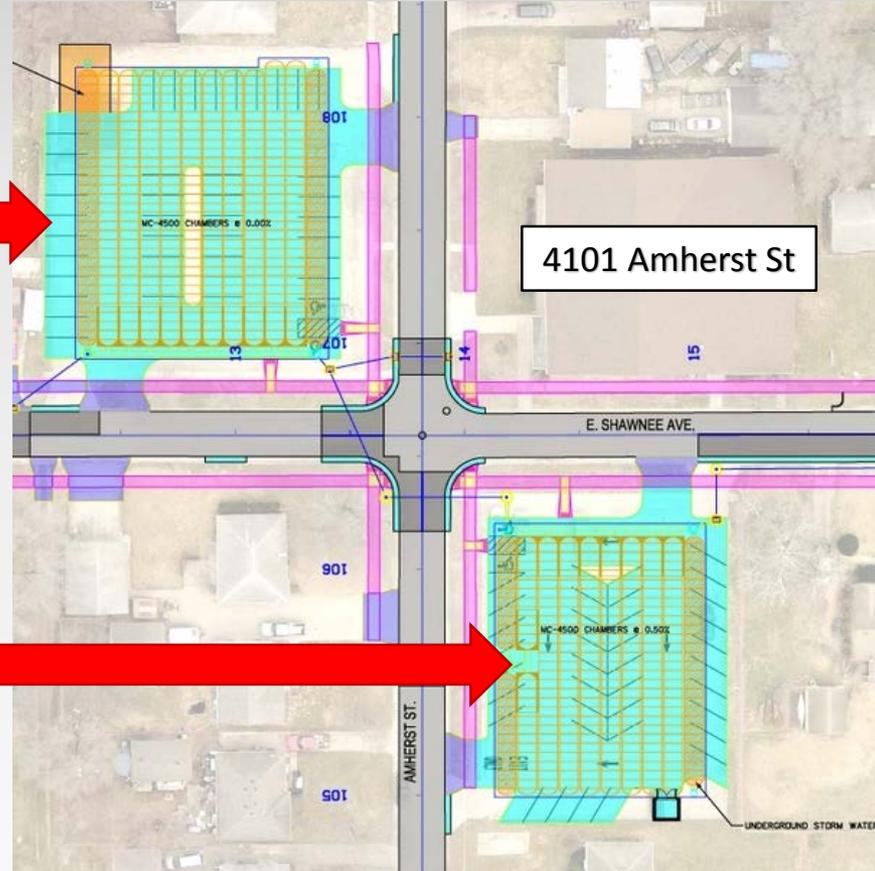
# Proposed Improvements - Basins



## Basin No. 2 & 3 – Underground Detention

- To be located under the parking lots of True Bible Baptist Church located at 4101 Amherst St
- Captures and temporary holds 18 Acres of runoff area that would otherwise flow straight into and overwhelm the Hamilton Drain East sewer system
- Construction anticipated to start in Spring 2021

# Proposed Improvements - Basins



# Proposed Improvements - Basins



## Basin No. 4 – York/Jerlynn Detention

- Provides a place for stormwater that would otherwise flood the area near the intersection of York St & Jerlynn Ave
- Located between residential & commercial properties
- Requires the clearing of wooded area east of the intersection of York St and Jerlynn Ave
- Anticipated to be constructed in Winter 2021/Spring 2022

# Proposed Improvements - Basins

## Basin No. 4 – York/Jerlynn Detention



# Proposed Improvements - Basins

## Basin No. 5 – Amherst Detention

- Provides a place for stormwater that would otherwise flood the low-lying Amherst Cul-de-sac
- Utilizes area of decommissioned MidAmerican property at 3926 North Union St
- Utilizes property at 3930 that was previously demolished due to flooding
- Requires the removal of structures at 3934, 3940, 3933, and 3929 Amherst St
- Anticipated to be constructed in Winter 2021/Spring 2022

# Proposed Improvements - Basins

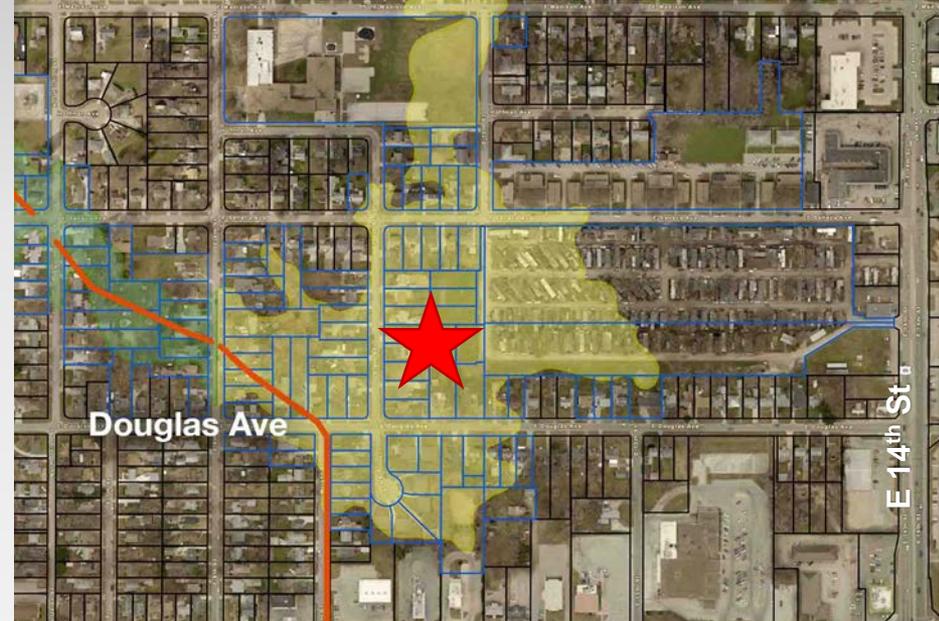
## Basin No. 5 – Amherst Detention



# Proposed Improvements - Basins

## Basin No. 6 – E 9<sup>th</sup> St Detention

- Located in the middle of the worst flood zone area
- Utilizes and expands open green space for walking loop and prospective park amenities
- Requires the removal of 9 structures along E Douglas Ave and E 9<sup>th</sup> Street
- Anticipated to be constructed in 2022/2023



# Proposed Improvements - Basins

## Basin No. 6 – E 9<sup>th</sup> St Detention



# Proposed Improvements - Basins



## Basin No. 7 – Euclid Ave Detention

- Captures and temporarily holds 63 Acres of runoff area that would otherwise flow straight into and overwhelm the Hamilton Drain East sewer system
- Located between commercial & residential properties
- Anticipated to be constructed in 2022/2023

# Proposed Improvements - Basins

## Basin No. 7 – Euclid Ave Detention



# Proposed Improvements - Basins

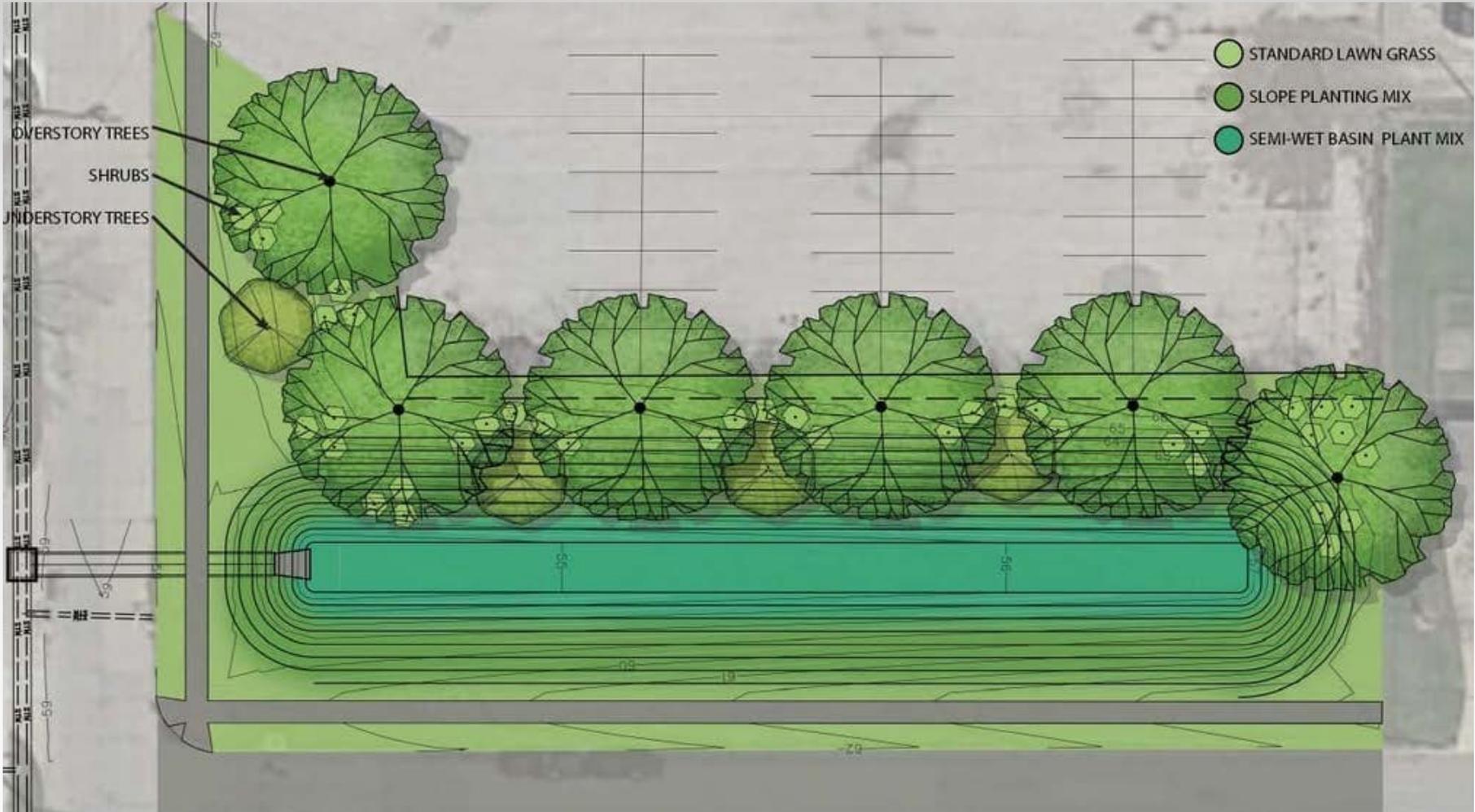


## Basin No. 8 – Oak Park Detention

- Utilizes existing green space prone to flooding
- Located between commercial & residential properties
- Aids in capturing upstream stormwater before it enters and overwhelms the Hamilton Drain storm sewer system.
- Constructed anticipated to begin Spring 2021

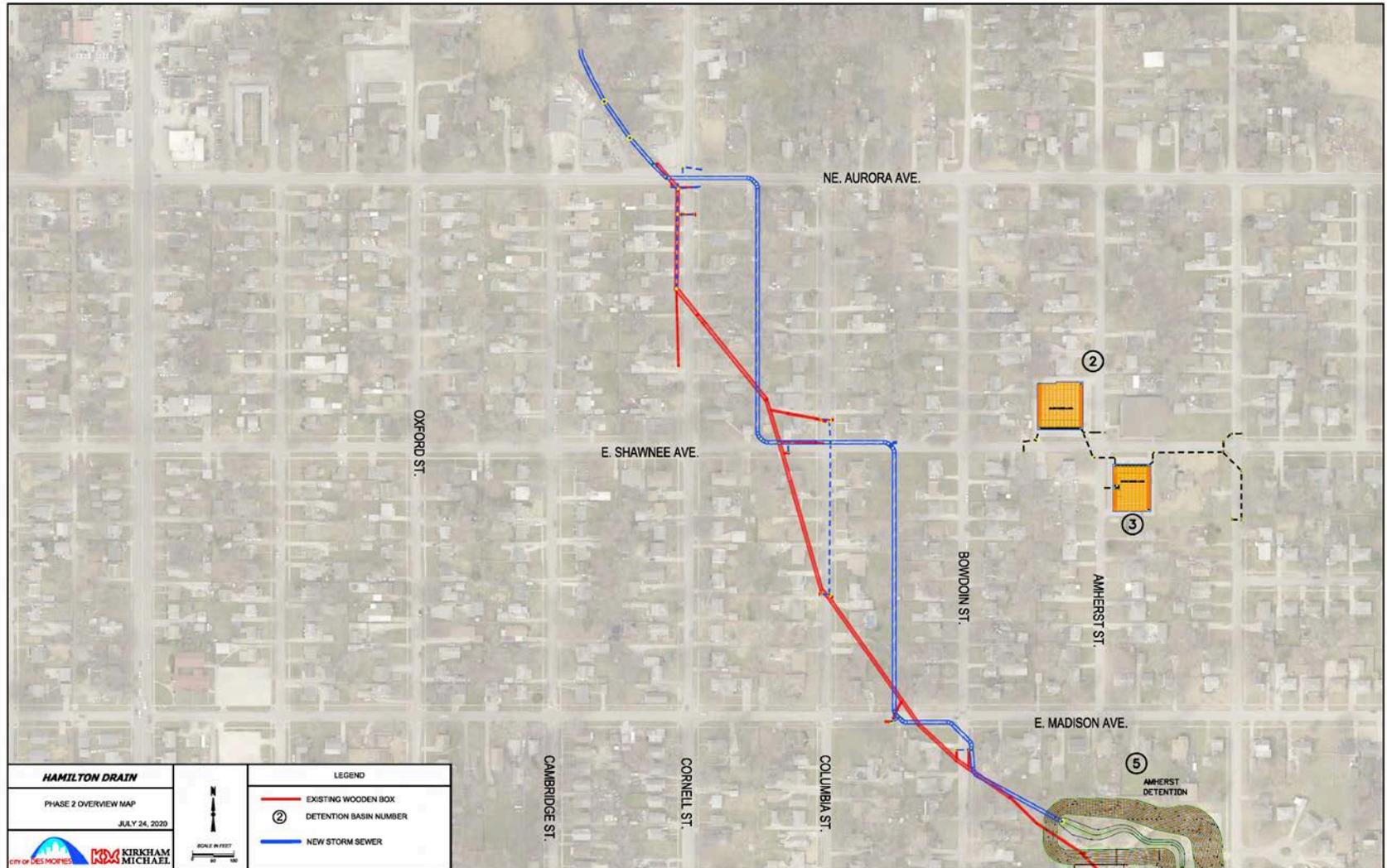
# Proposed Improvements - Basins

## Basin No. 8 – Oak Park Detention



# Proposed Improvements – Storm Sewer

- Phase 2 (Outlet to Amherst) – 2021/2022



# Proposed Improvements – Storm Sewer

- Phase 3 (Amherst to Euclid)-2022/2023

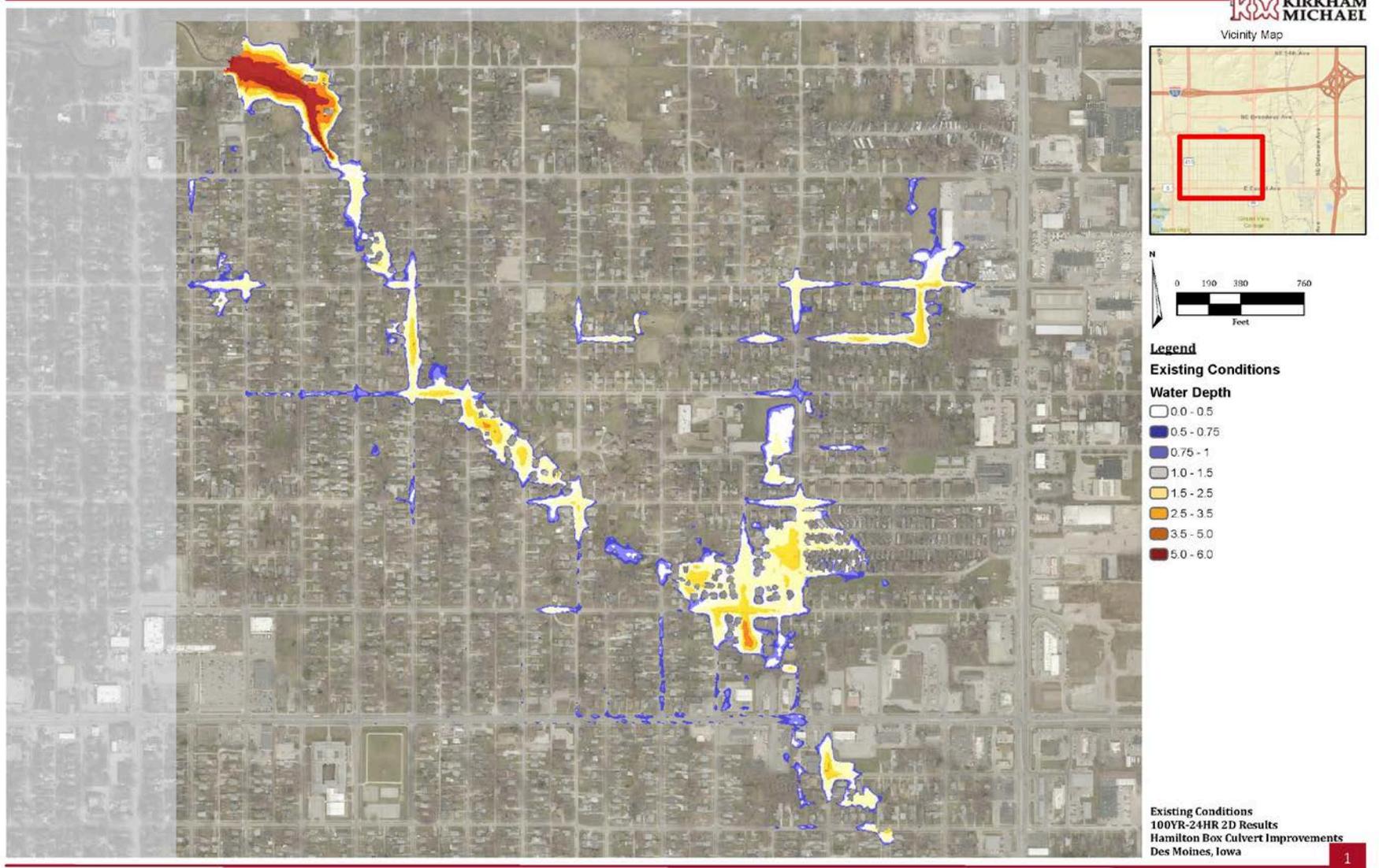


# Proposed Improvements – Storm Sewer

- Phase 4 (Euclid to Ovid) – 2023/2024

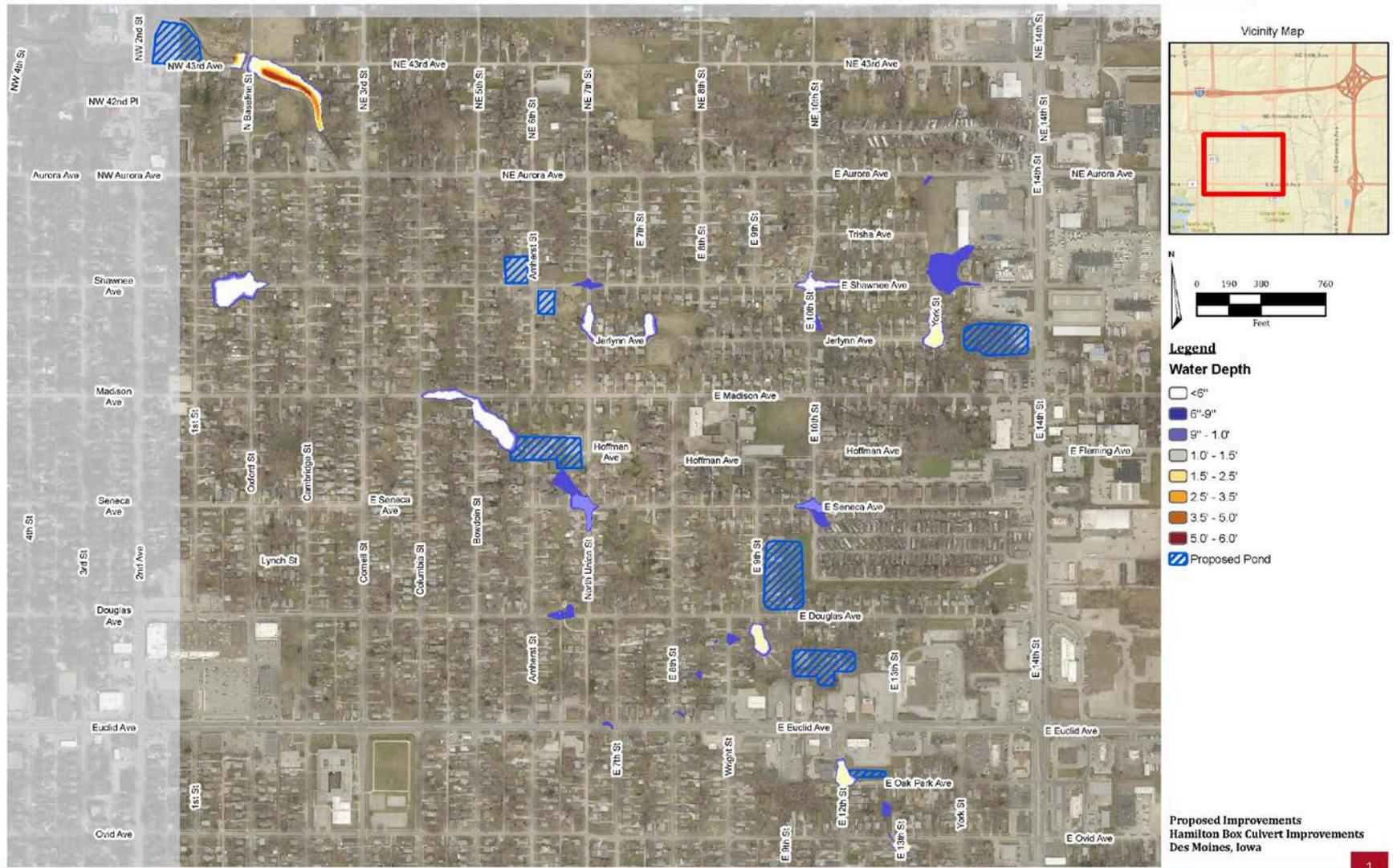


# Proposed Improvements



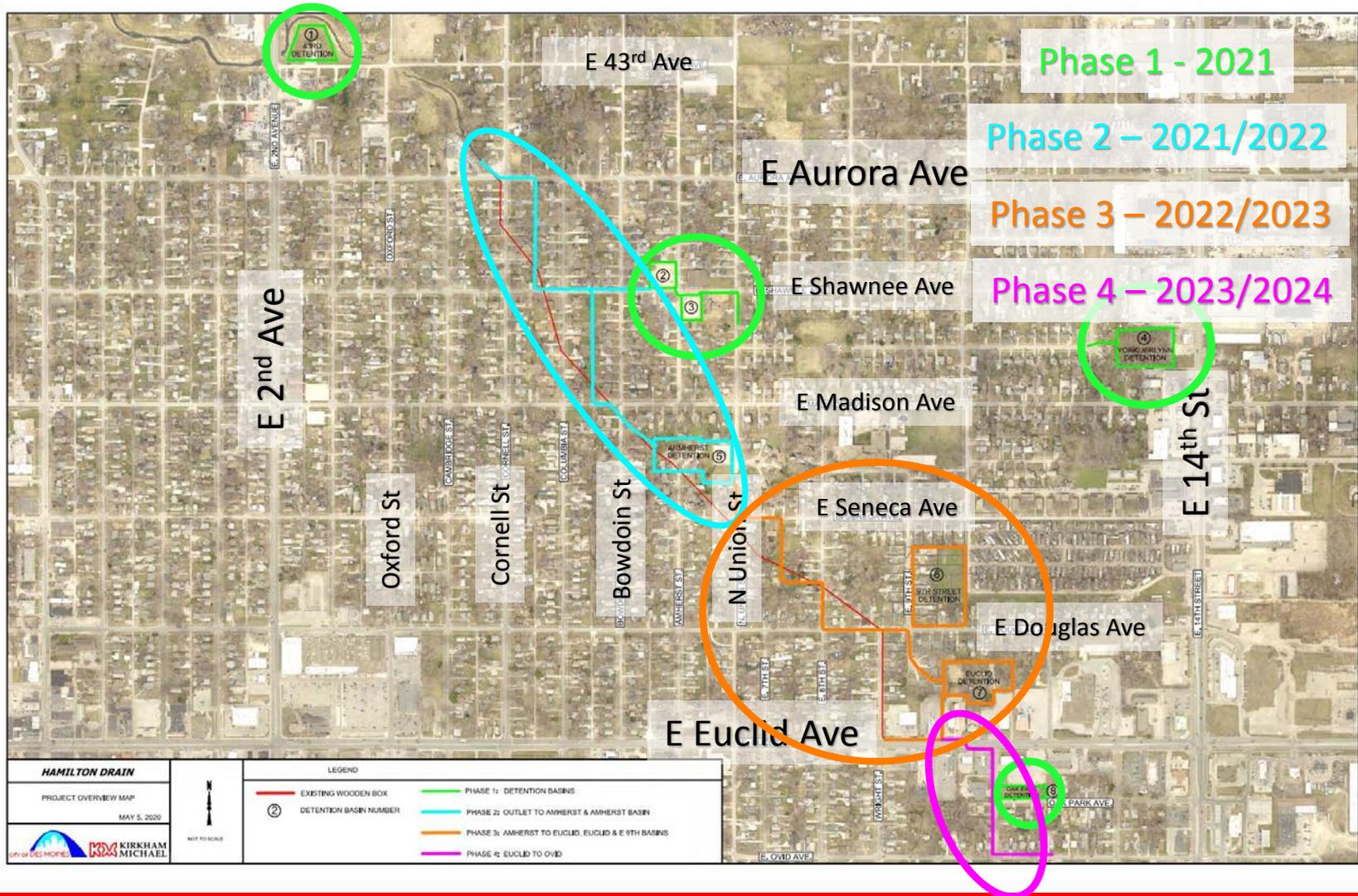
## Existing Stormwater Inundation Conditions

# Proposed Improvements



Anticipated Inundation Conditions After Project Improvements

# Anticipated Schedule



## Project Website

- Contains the information presented today
- Contains recent updates and maps
- Has contact information for Engineering staff

[www.hamiltondrain.org](http://www.hamiltondrain.org)

## What's Next?

- The project team has begun the property acquisition process for Phase 1 and Phase 2. Contact will be made soon with impacted parcels if not already done so.
- The project team will be contacting Phase 2 impacted parcels for right-of-entry for survey and documentation of impacts (garages/sheds/trees, misc.)
- The project team will utilize drone video and ground photographs to document existing conditions for future use

A black and white photograph of a grand, classical building facade. The image shows a series of tall, fluted columns supporting a row of large, arched windows. Below the columns, there are two sets of glass double doors flanking a central stone door. The central door has a small plaque with the number '400' above it. The architecture is highly detailed with decorative moldings and cornices. The lighting is dramatic, highlighting the textures of the stone and the verticality of the columns.

**Questions?**