

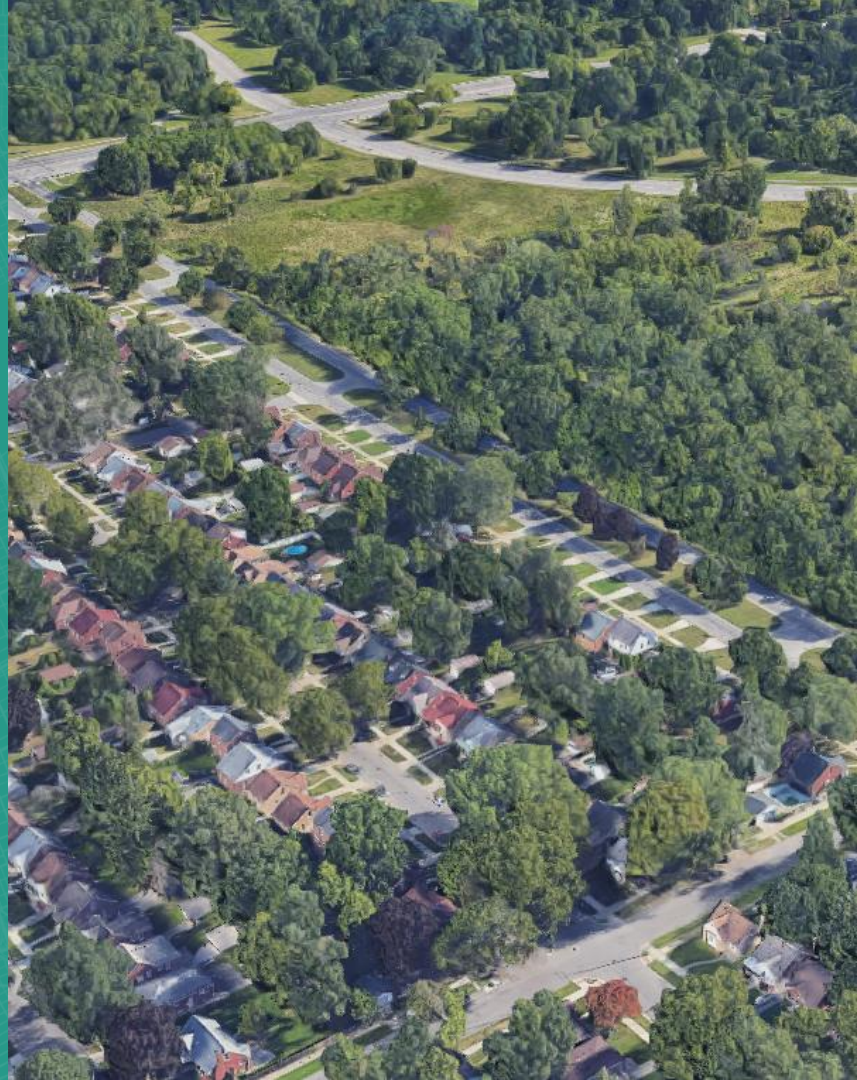
West Outer Drive Civic Association

West Chicago Stormwater Improvement Project

September 9, 2024



Water & Sewerage
Department



Presentation Outline

- Introductions
- DWSD Sewer System Overview
- Project Overview
- Green Stormwater Infrastructure
- Timeline and Communication
- Questions



Key Points

- DWSD received \$21.3M in federal and state grants to install a dedicated storm sewer network.
- Construction is planned to begin this fall and should be completed late 2026.



Sewer System Overview



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What is stormwater?

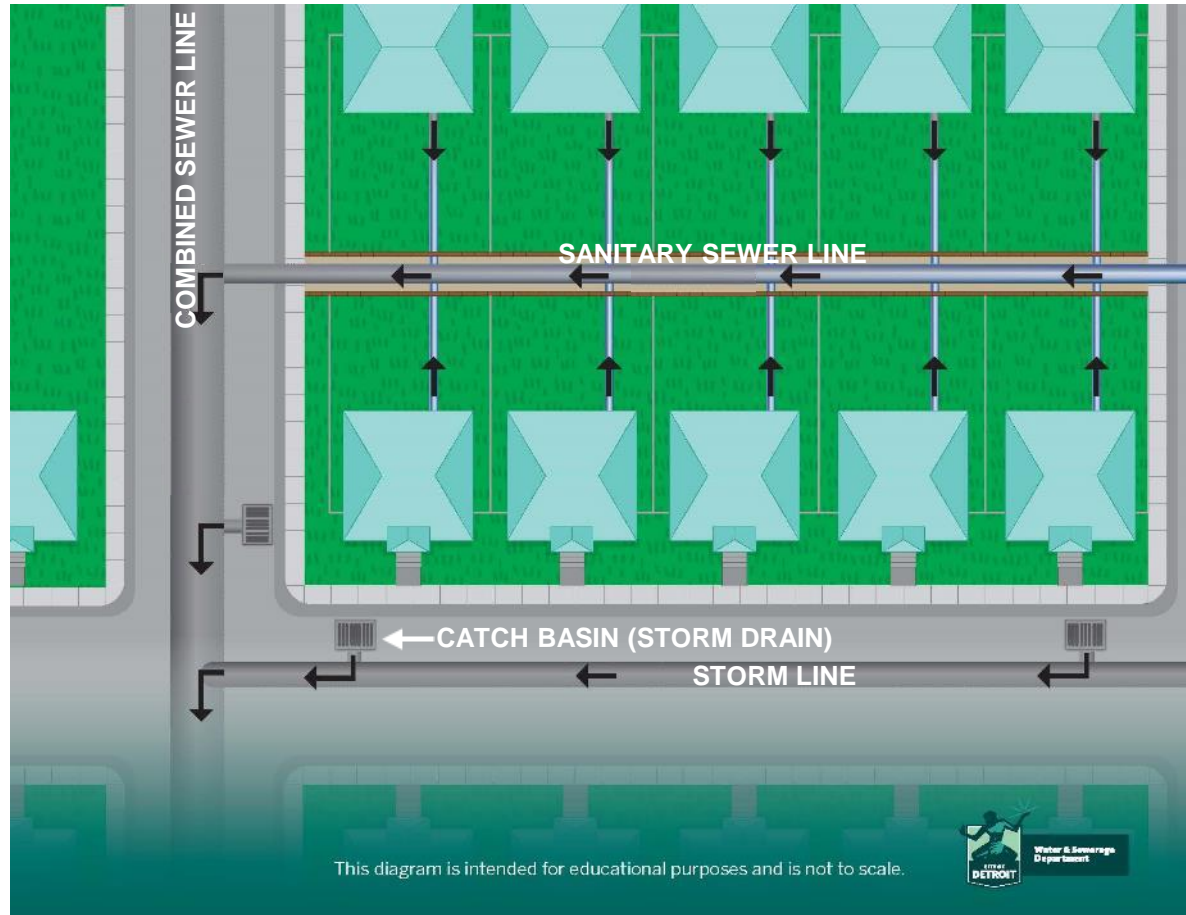
Rainfall and snowmelt that flows from impervious/hard surfaces into the combined sewer system. Impervious surfaces include:

- Roofs
- Streets
- Sidewalks
- Driveways
- Parking lots



Combined Sewer System

The combined sewer system is separate from the drinking water system – untreated sewage and stormwater are collected in pipes, pumped and treated at nine wet weather facilities, and fully treated at the GLWA Water Resource Recovery Facility.



Combined Sewer System

What happens during intense rain events?

The combined sewers can reach capacity and get overwhelmed, resulting in:



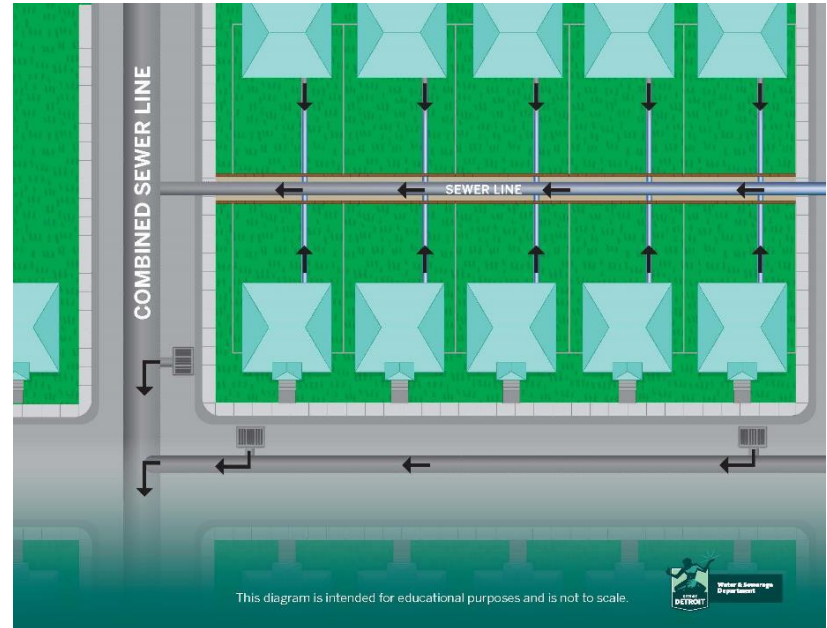
Basement backups



Street flooding



Combined sewer overflows



This diagram is intended for educational purposes and is not to scale.



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Combined Sewer Outfall (CSO)

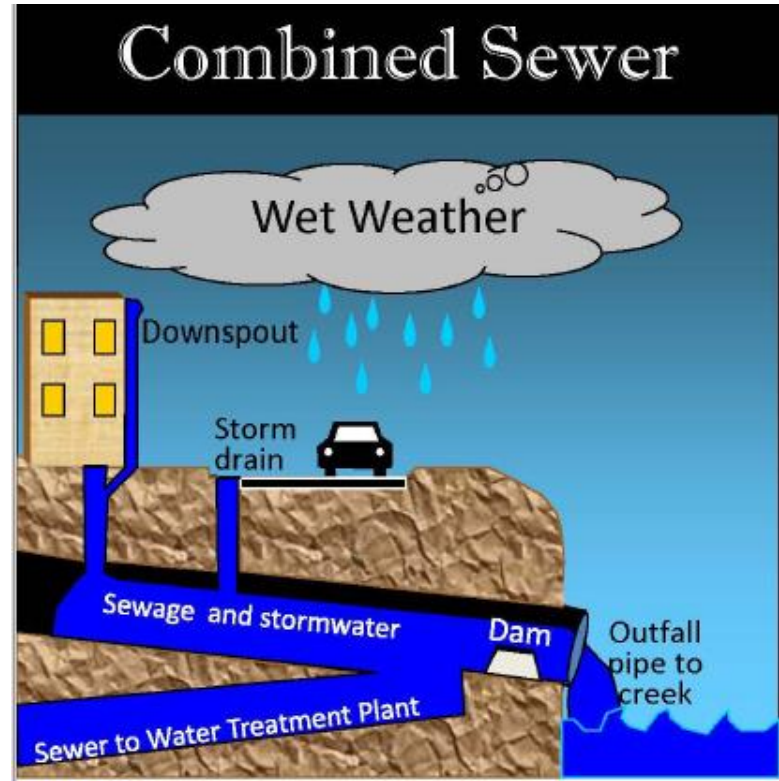
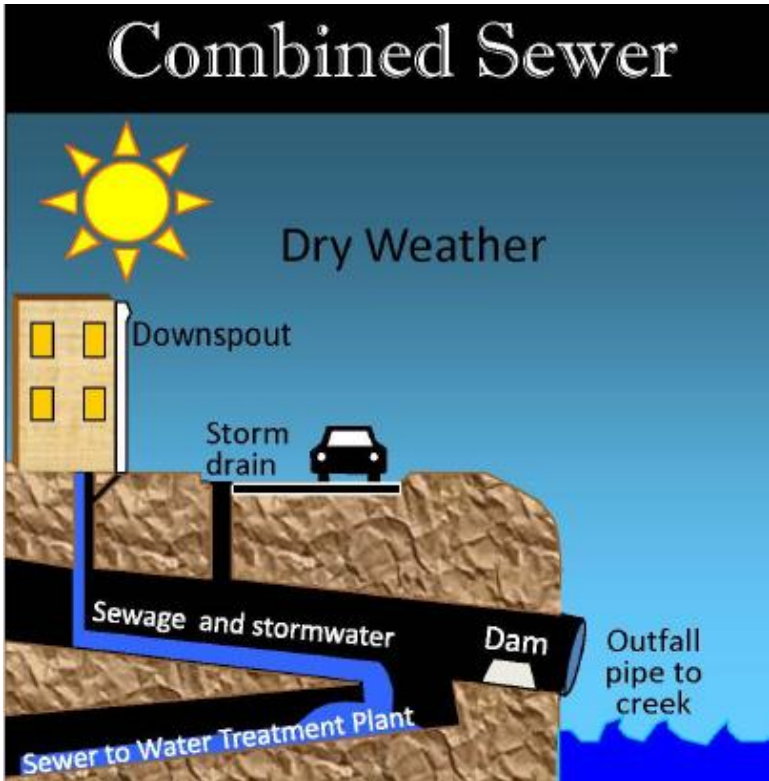
A combined sewer overflow (CSO) is a location where the sewer will discharge into a body of water when the existing system is unable to maintain the storm water from a large rain event.

This results in the introduction of an untreated discharge into the water way.



CSO at Plymouth Road and the Rouge River

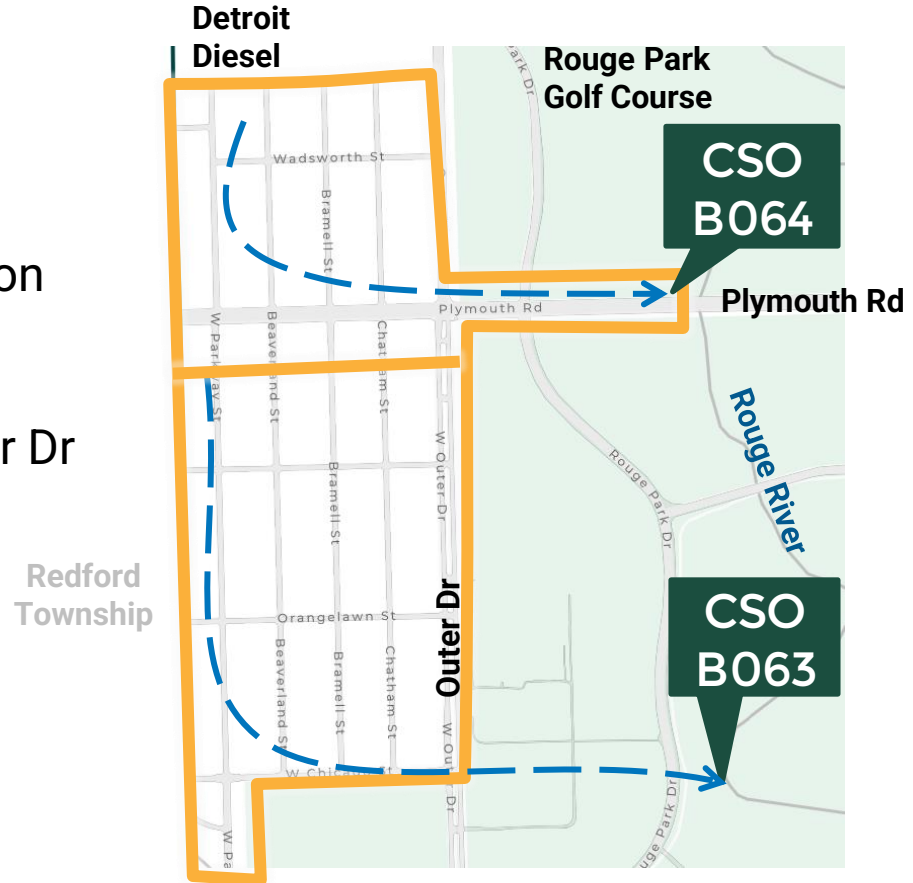
Combined Sewer Overflow



West Chicago Project Area

There are 17 Combined Sewer Overflow (CSO) outfall locations on Detroit's west side.

- 2 CSO's tributary to West Outer Dr neighborhood



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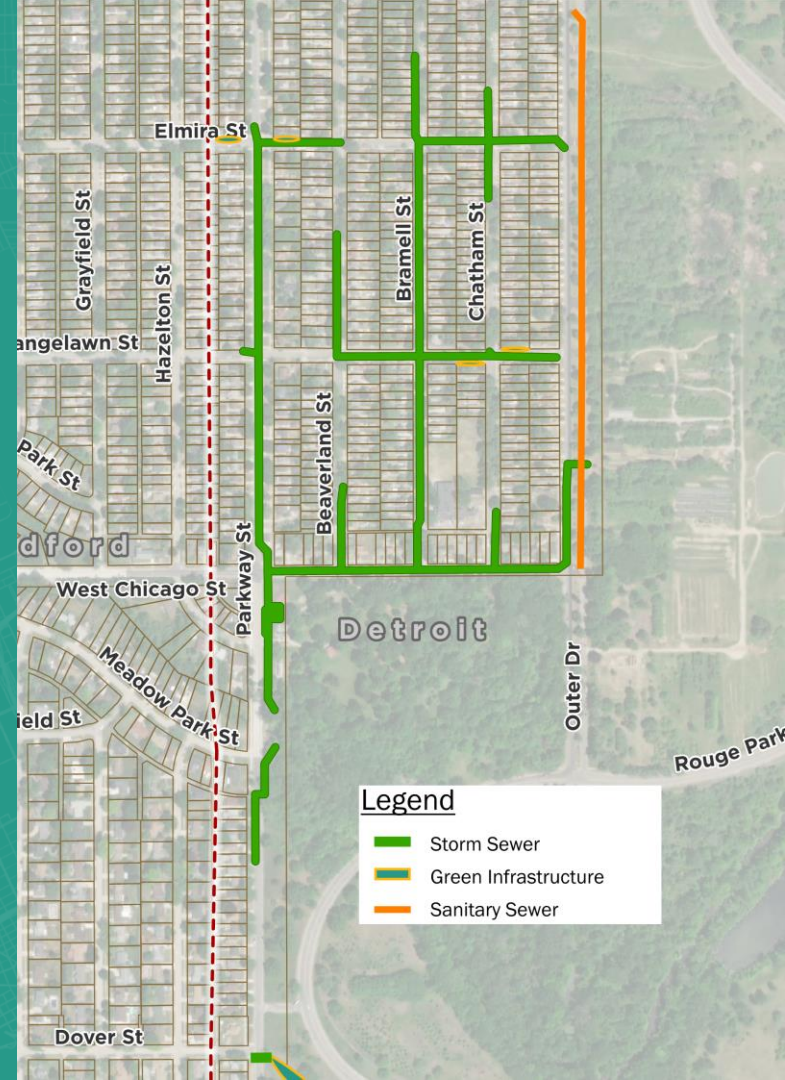


Project Scope

- Construction of **new storm sewer system** within neighborhood streets.
- **Stormwater quality practices** where possible throughout the project.
 - Use of green stormwater infrastructure (GSI) where possible within right of way areas.
 - Special underground treatment devices to clean runoff prior to discharge to the rivers.
- **Full restoration of impacted areas**
 - Existing roadways will be reconstructed with new concrete and asphalt.
 - Impacted lawns, driveways and sidewalks will be reconstructed.
 - Street trees impacted by sewer construction will be replaced.

Project Scope

- Two stormwater outfalls will be constructed at the Ashcroft/Sherwood Drain.
- Large diameter sewers will be constructed, along W Parkway, West Chicago and Bramell.
- Minor stormwater work will occur near Dover/W Parkway Street.
- 5 small green infrastructure improvements.
- New combined sewer will be installed along W Outer Drive from West Chicago to just south of Plymouth Road.

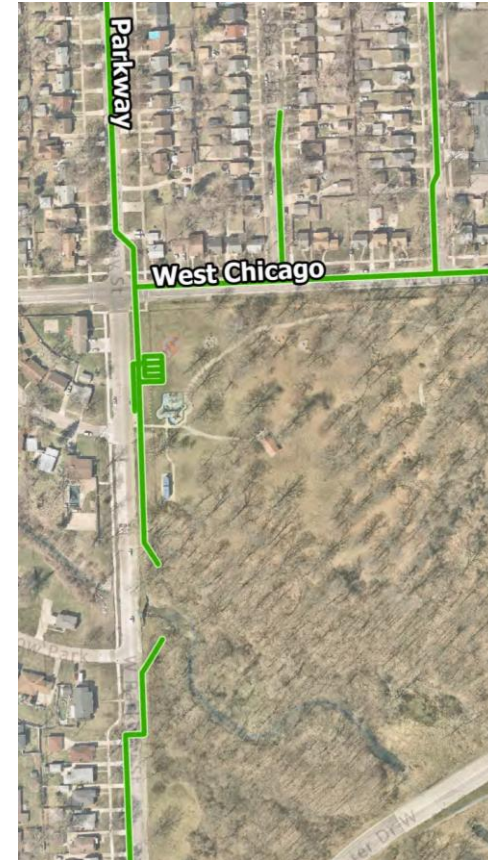


Joe Prance Park

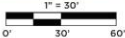
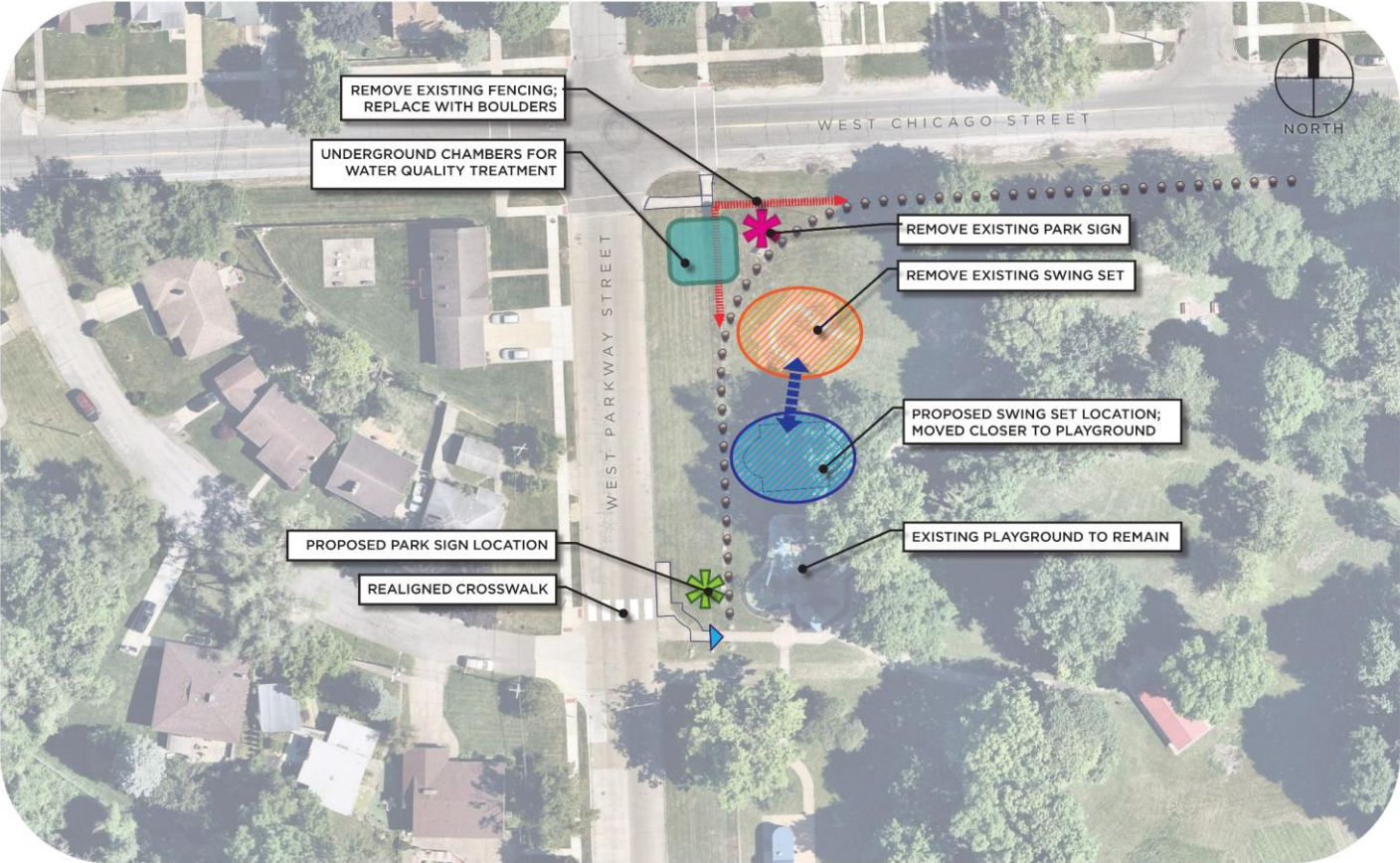
Work in the park includes:

- Underground filtration system installation in the park near the corner of West Chicago and W Parkway.
- Storm sewer installation from West Chicago to the Ashcroft/Sherwood Drain.
- Tree removal and replacement of the swing set.
- Upgrades to park signage and buffers along West Chicago and W Parkway.

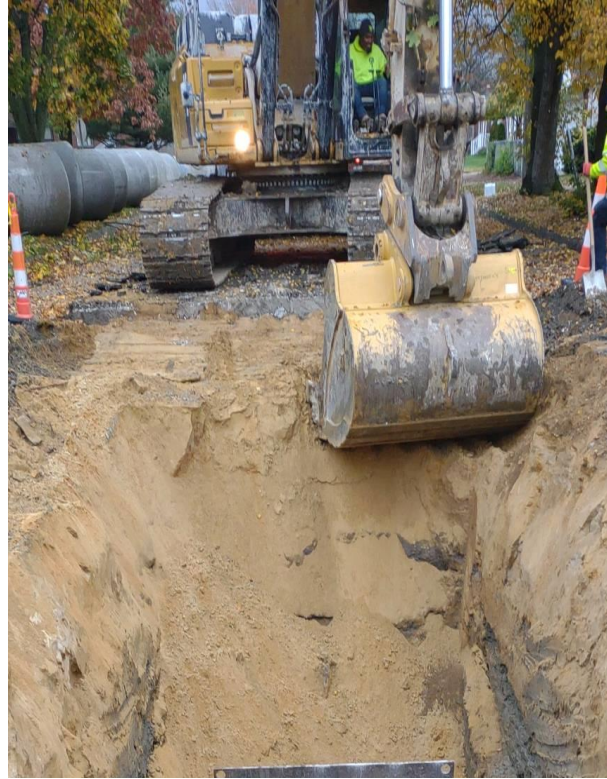
DWSD is coordinating park impacts and restoration with the City of Detroit General Services Department (GSD).



Joe Prance Park Work



Project Scope



- Sewer installation
- Road and sidewalk reconstruction
- Tree removal and replacements

Benefits of the Project

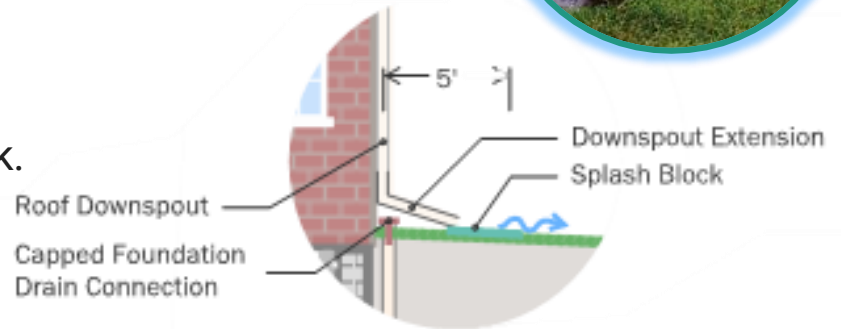
- Creates capacity within the combined sewer system
- Helps reduce basement backups and street flooding
- Reduces the potential for combined untreated sewage to enter the Rouge River
- Improves water quality of the Rouge River
- Surface infrastructure will be reconstructed (improved pavements and sidewalks)



Activity on Residential Property

Downspout Disconnections

- Each home in the neighborhood will have an inspection scheduled to review downspout connections.
- Any downspouts that can easily be directed to lawn and garden areas will be disconnected by contractors.
- Residents will receive door hangers and additional information in advance of the work.



Activity on Residential Property

Lead Service Line Replacement

Not all streets or homes will be eligible for replacements.

- The stop box will be excavated to confirm material type.
- If a lead service is identified, a DWSD inspector or contractor will contact you to schedule an appointment. A new copper line will be installed from the water main to the water meter in the basement.
- Informational packets will be distributed prior to construction beginning.



Green Stormwater Infrastructure (GSI)



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Green Infrastructure Installations

- DWSD has explored GSI where feasible within the neighborhood (side yard areas along Orangelawn and Elmira).
- Survey results have been received from 4 residents. DWSD has met with each and will be installing basins as part of the project.
- An additional bioswale will be installed just east of the Dover / West Parkway intersection.

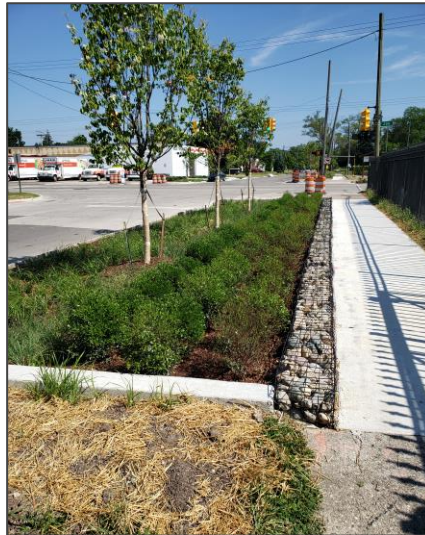


Green Stormwater Infrastructure

Green stormwater infrastructure (GSI) is an approach to managing stormwater using the natural processes of soils and plants to **soak up stormwater** where it falls **before it can enter and overwhelm** the combined sewer system.

Examples of GSI includes **bioretention/rain gardens**, bioswales, pervious pavers, and tree boxes.

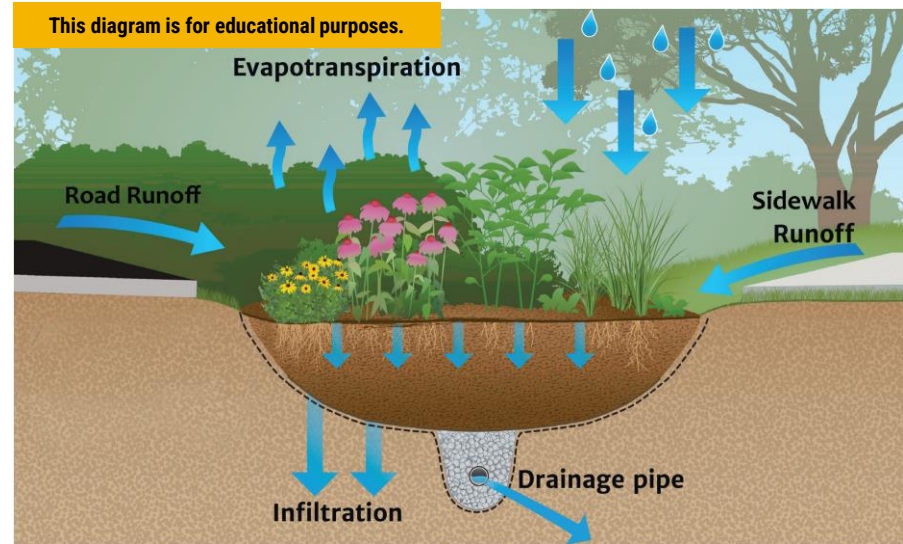
Example Images



Green Stormwater Infrastructure

How a bioretention works:

1. Stormwater runoff flows into the bioretention from the hard surfaces.
2. Water soaks into the grass and plants, preventing it from entering the combined sewer system.
3. Buried drain pipe carries excess water to the combined sewer in extreme conditions.



Schedule

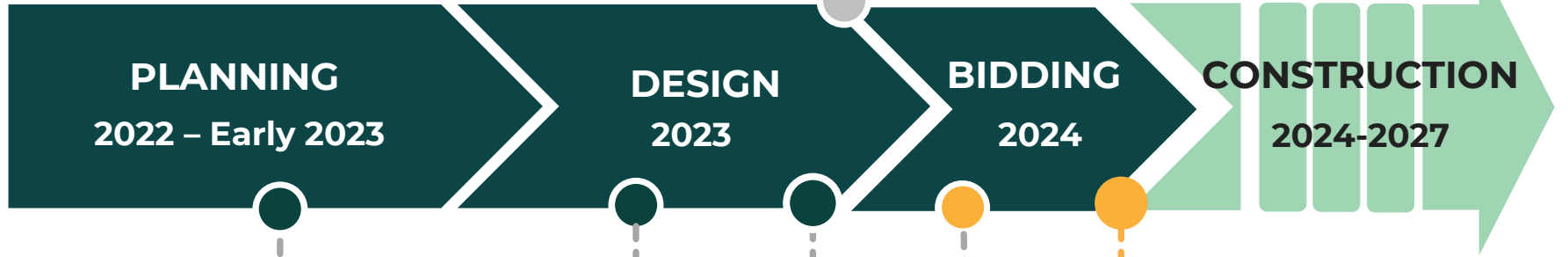


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Project Timeline

Notice of Funding from
State of Michigan
(September 2023)

We Are Here!



DWSD CWSRF Public Meeting
March 15, 2023

Community Meeting
August 30, 2023
November 13, 2023*
March 11, 2024*

Construction Kickoff Meeting
September 9, 2024

Schedule

Phase	Phase	2024				2025				2026			
		Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter
Outer Drive	Sewer												
	Roadwork												
	Restoration												
West Parkway	Tree Removal												
	Sewer												
	Roadwork												
	Restoration												
Remaining Phases (to be updated in spring 2025)													

Neighborhood Construction



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Initial Work

- **Sewer construction on Outer Drive**
late October 2024
- **Tree clearing near Joe Prance Park**
January to March 2025
- **Sewer construction on W. Parkway**
April to June 2025



Outer Drive Construction – Fall 2024 – Spring 2025

**LOOKING NORTH
TOWARDS PLYMOUTH RD**

**COMBINED SEWER
INSTALLATION**

1. All pavement removed
2. Combined sewer installed
3. Sewer trenches backfilled
4. Trenches will be restored with compacted gravel
5. Streets will be repaved with concrete curb and gutter

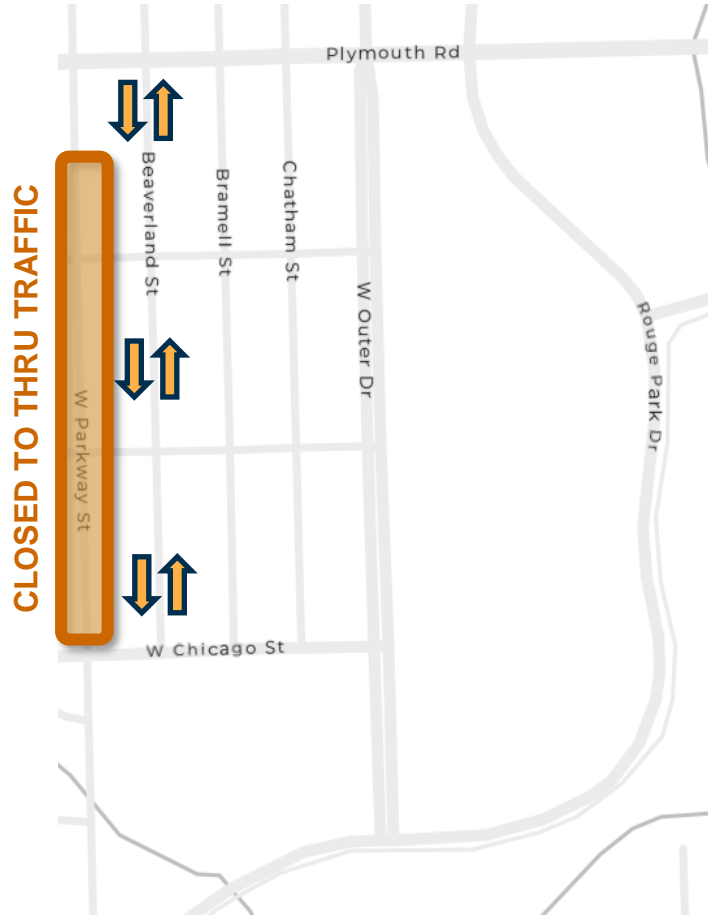
2 WAY TRAFFIC

**NORTHBOUND LANES
ROAD CLOSED TO ALL TRAFFIC**



West Parkway Construction

- **West Parkway Construction will require a road closure.**
- **Sewer work is proposed down the center of the roadway.**
- **Resident driveway access will be maintained for the majority of work.**
- **Prior to the start of work, residents will receive information packets detailing a schedule and procedures for parking and detours.**



Construction Communications



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Ways You Can Stay Informed

Project Updates

- Monthly e-mail messages to the community and posted on the project webpage
- Send name and email address to: dwsd-publicaffairs@detroitmi.gov
Subject line: **“West Chicago”**
- Monthly e-mail messages to the community

Fliers

- Individualized project flyers will be distributed in advance of work on your street. Construction staff from DWSD and consultant engineer (OHM) will also be available to discuss issues on-site.

Project Progress Meetings

- Quarterly neighborhood-wide meetings will be held throughout construction to discuss progress, answer questions and address construction issues.



Thank You

Questions?

 313-880-2812

 dwsd-publicaffairs@detroitmi.gov

 www.detroitmi.gov/DWSD



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