

Zoom Logistics, Discussion Guidelines

The image shows a Zoom Webinar interface with several callout boxes highlighting specific features:

- AUDIO CONTROLS** (Red box): Unmute when called on. Callout points to the **Audio Settings** button in the bottom left.
- PARTICIPATION** (Blue box): Menu & Commands. Callout points to the **Participants** button in the bottom center.
- CHAT** (Cyan box): Ask Questions. Callout points to the **Chat** button in the bottom center.
- CLOSED CAPTIONING** (Blue box): Choose "Show Subtitle". Callout points to the **Live Transcript** button in the bottom center, which has a dropdown menu open showing "Show Subtitle" selected.
- RAISE HAND FEATURE** (Green box): Callout points to the **Reactions** button in the bottom center.

The Zoom interface also includes a **Share Screen** button, a **Leave** button, and a **Participants** count of 2.

Markison Project Area

CIP 650790-122181 Inflow Redirection – Markison

CIP 650790-122182 Markison CSO Regulator Modifications

CIP 690236-100176 Wilson Avenue Waterline Improvements



THE CITY OF
COLUMBUS

ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC UTILITIES

Welcome / Presenters

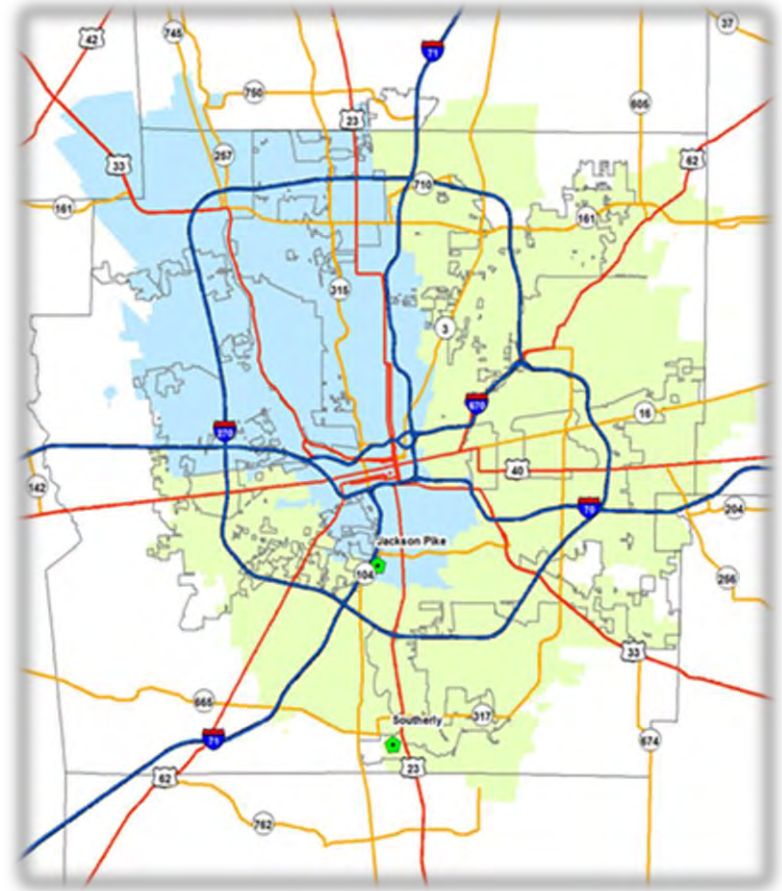
- Tiffany Conn, City of Columbus
- Gregory Barden, City of Columbus
- Brian Schmude, AECOM
- Jake Marzec, AECOM

Meeting Agenda

- DOSD Overview
- Project Overview
- Project Map
- Project Schedule
- Construction Impact
- Questions

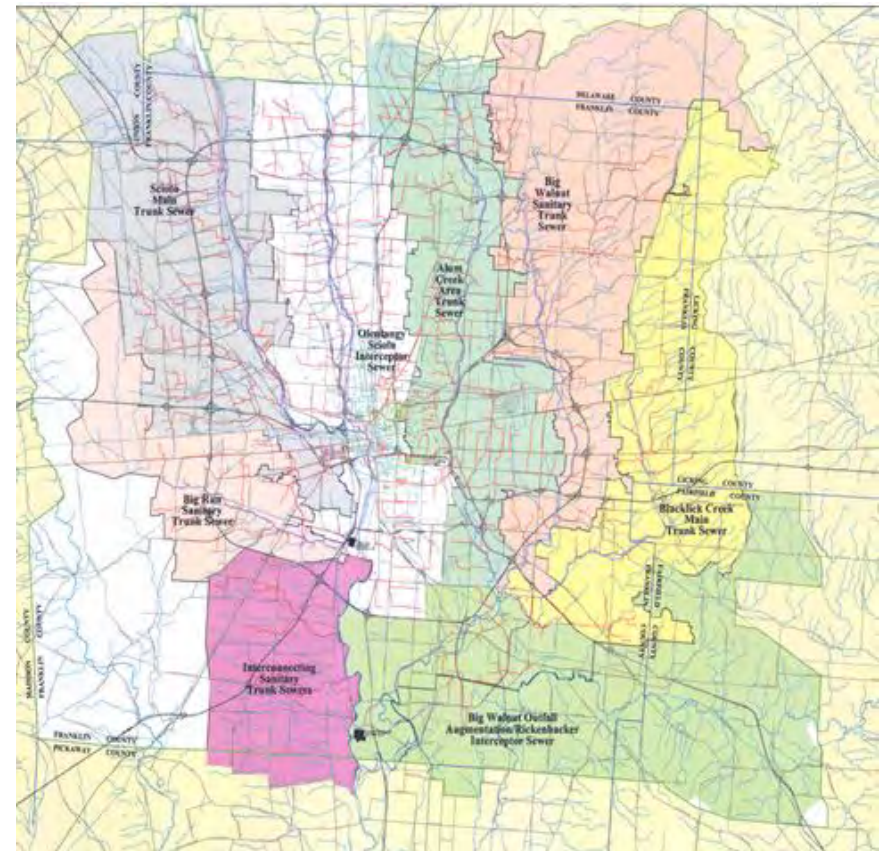
Division of Sewerage and Drainage

- 5-County Treatment Area
- Two Treatment Plants
 - Jackson Pike (150 MGD Peak)
 - Southerly (330 MGD Peak – 440 w/CEPT)
- Composting Facility



Division of Sewerage and Drainage

- 4900+ miles of sanitary, combined, and storm sewer
- 16 sanitary pump stations
- 15 storm pump stations
- 7 Air Quality Control facilities
- Franklinton Floodwall



Project Overview

- Why is this project happening?
 - 2004 Consent Order from Ohio EPA to control Combined Sewer Overflows (CSOs).
 - CSO Program to be completed by July 1, 2025.
 - This project is one of several projects
 - LOT Tunnel
 - OARS Tunnel
 - Moler St Overflow
 - Noble and 4th
 - Kerr and Russell
 - Misc. regulator modifications throughout system (weir raises, gate removal)
 - **Markison**

Project Overview

- What is a CSO?
 - A CSO is a discharge of wastewater and stormwater from the combined sewer system.
 - Most of the sewer system in the Markison project area is combined.
 - There is a structure at Markison and Wilson which is a “CSO” that discharges to the Scioto River

Project Overview

- What is a combined sewer?

Illustration of a Combined Sewer System

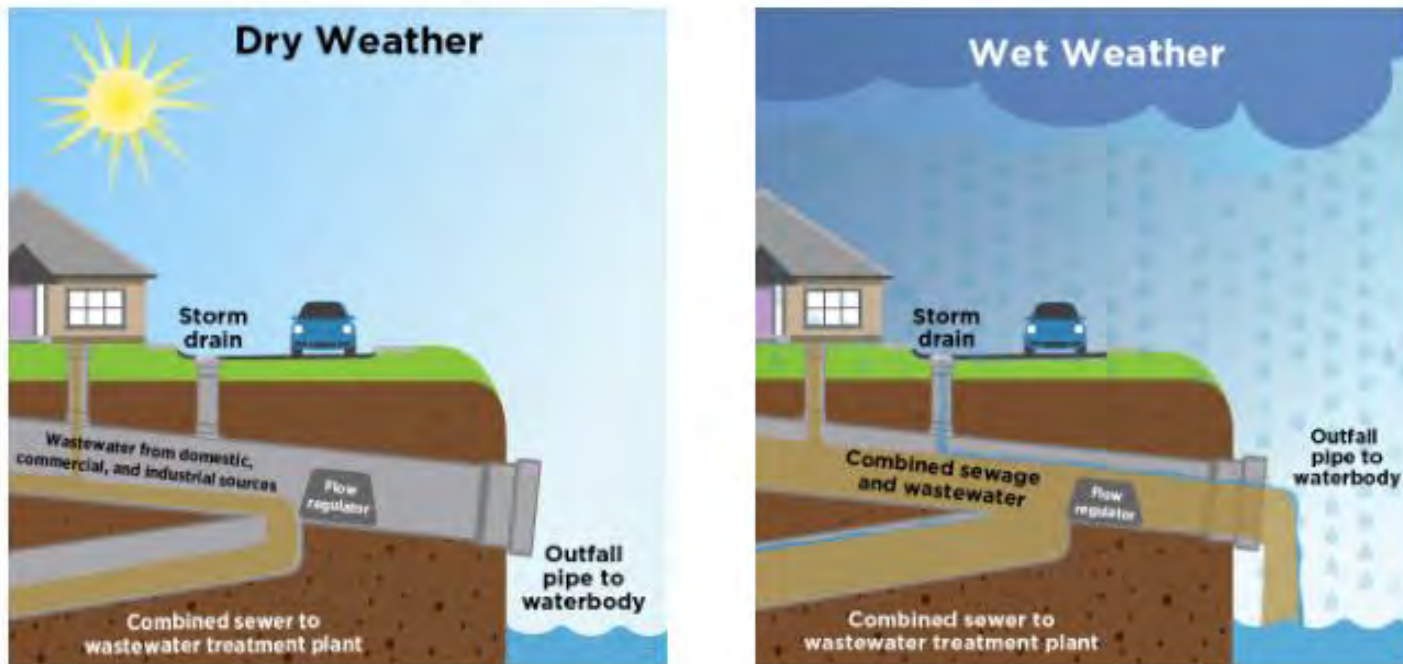


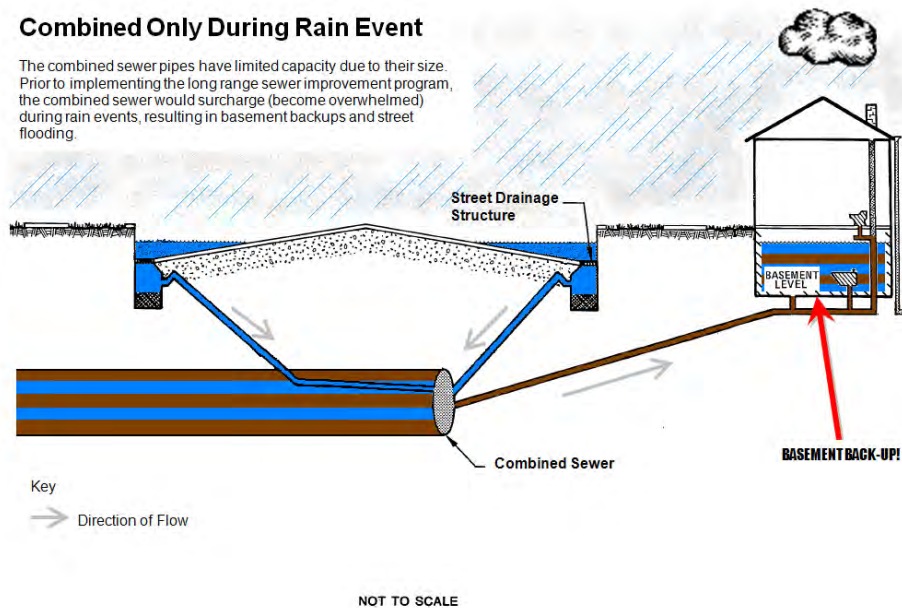
Figure borrowed from USEPA Website

What does this mean to me as a resident?

- Improved water quality for our rivers and streams
- Helps alleviate basement backups

Combined Only During Rain Event

The combined sewer pipes have limited capacity due to their size. Prior to implementing the long range sewer improvement program, the combined sewer would surcharge (become overwhelmed) during rain events, resulting in basement backups and street flooding.



Relief and Combined Sewer During a Rain Event

The relief sewer aids the combined sewer system by accepting the rain water. This prevents the combined sewer from becoming overwhelmed and backing-up into basements. Street flooding may still occur.

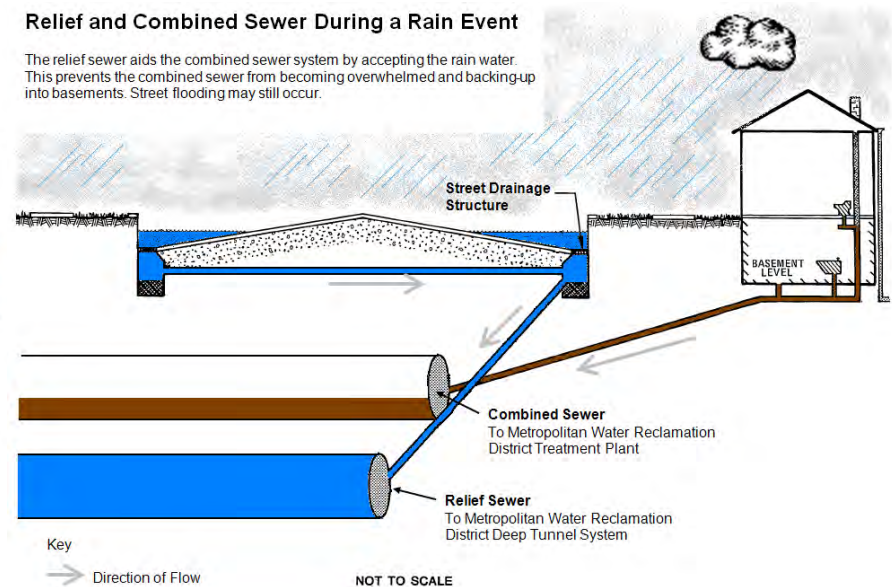


Figure borrowed from Evanston, IL Website

Project Overview

Dry Weather

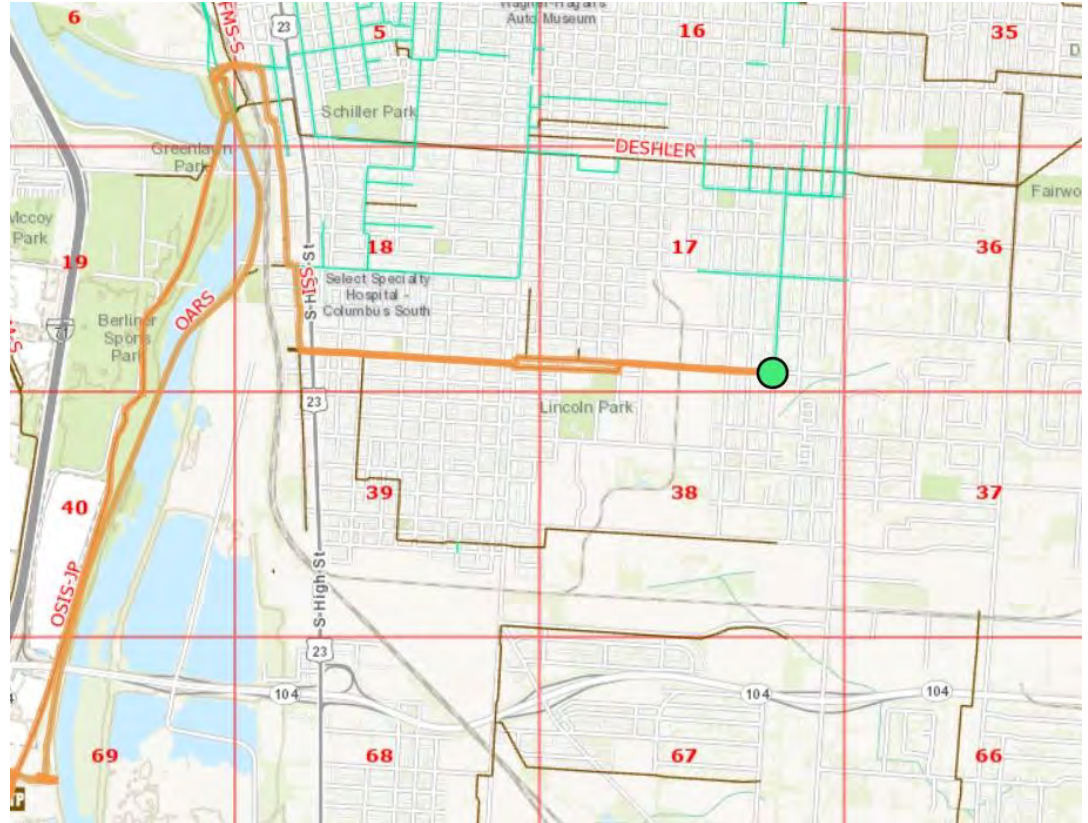
Normally...combined flow gets to the intersection of Markison and Wilson and flows east, to the Jackson Pike WWTP



Project Overview

Dry Weather

Normally...combined flow gets to the intersection of Markison and Wilson and flows east, to the Jackson Pike WWTP



Project Overview

Wet Weather

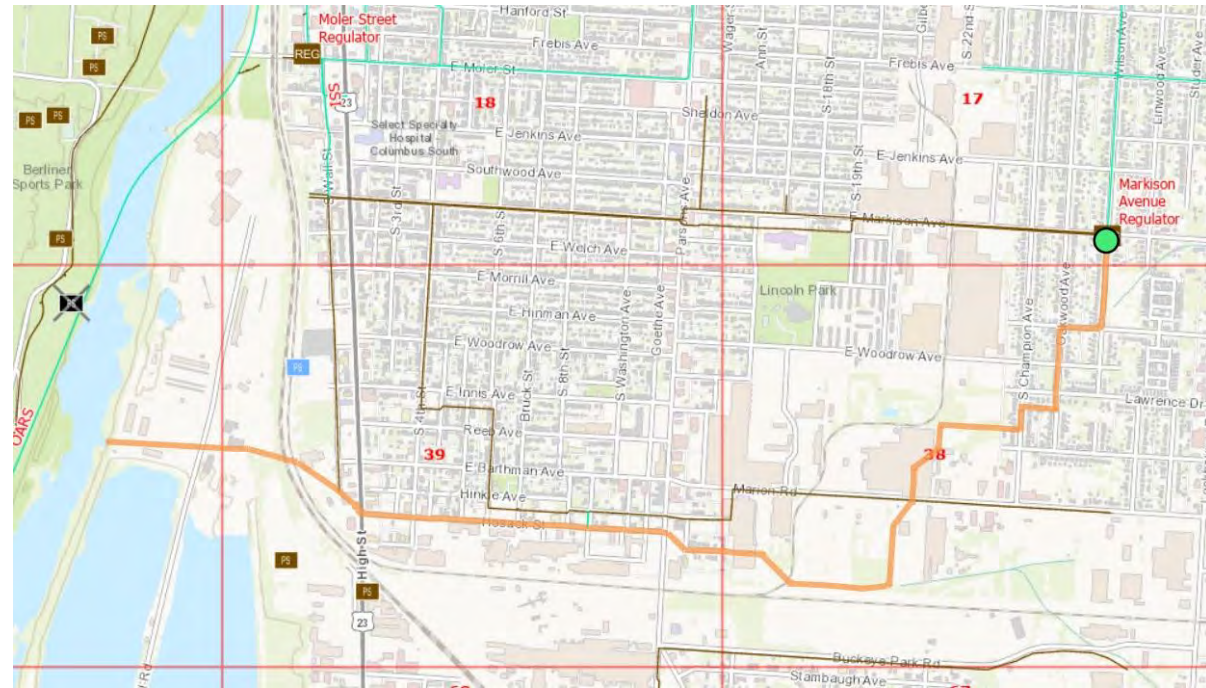
During rain events, flow will also overflow at the **Markison CSO Regulator** at the intersection of **Markison and Wilson**, sending flow south in the storm sewer, which discharges to the Scioto River.



Project Overview

Wet Weather

During rain events, flow will also overflow at the **Markison CSO Regulator** at the intersection of **Markison and Wilson**, sending flow south in the storm sewer, which discharges to the Scioto River.



Project Overview

Markison CSO Regulator

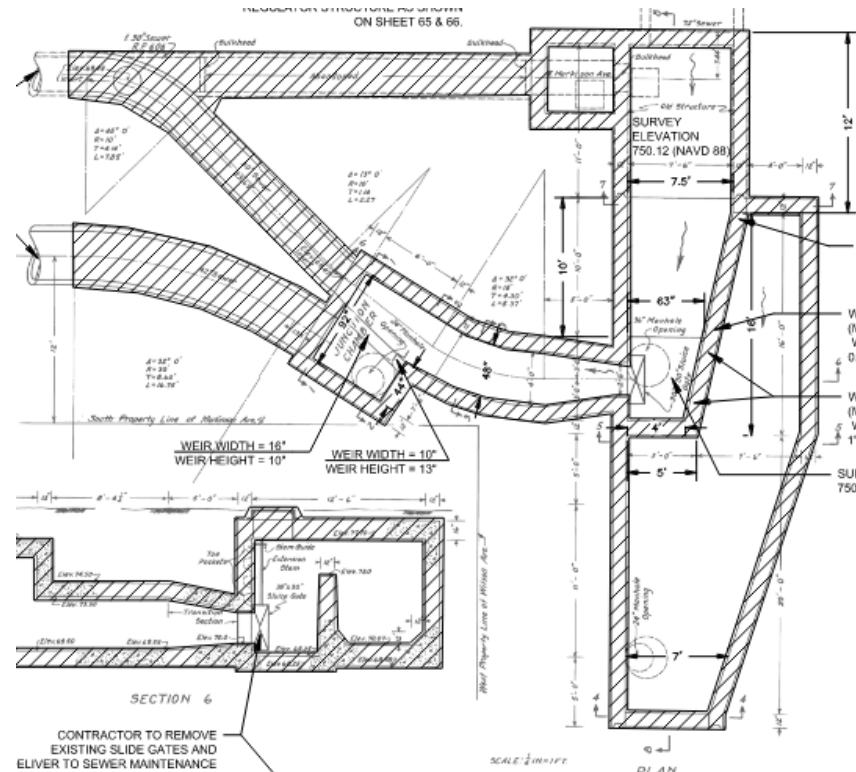
- Above ground....



Project Overview

Markison CSO Regulator

- But beneath the surface...



Constructed in 1923
Modified in 1936

Project Overview

Markison CSO Regulator

- The “Combined” side – Dry Weather



Project Overview

Markison CSO Regulator

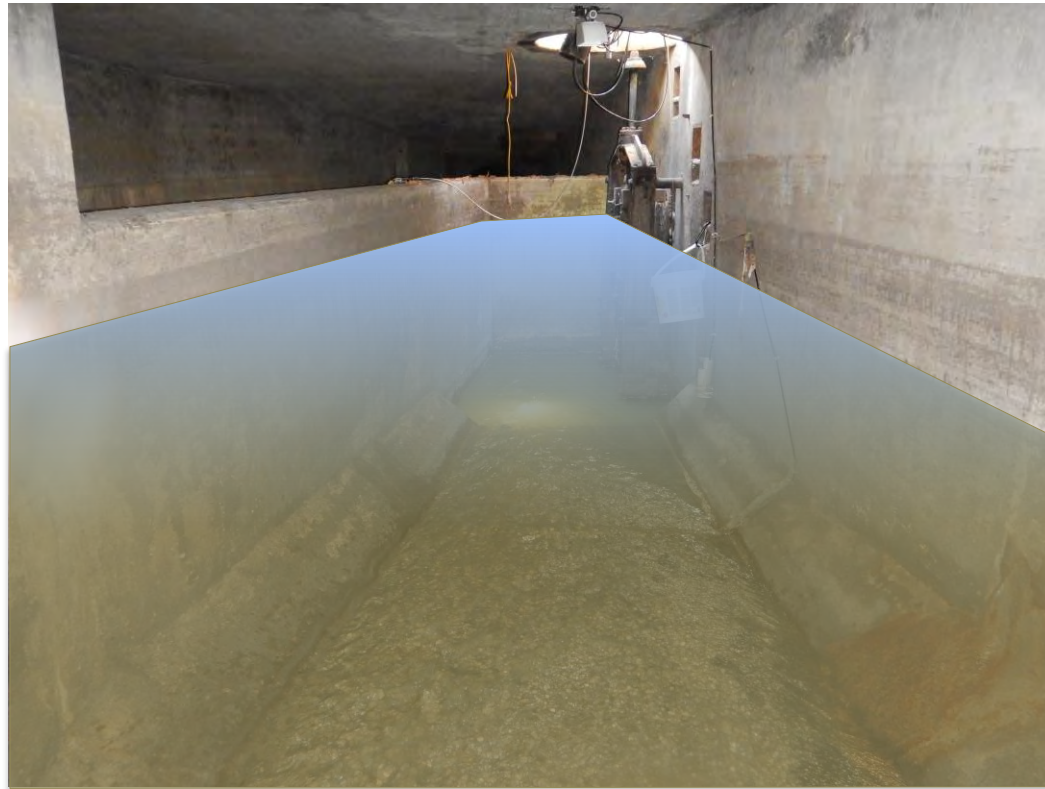
- The “Overflow” side – Dry Weather



Project Overview

Markison CSO Regulator

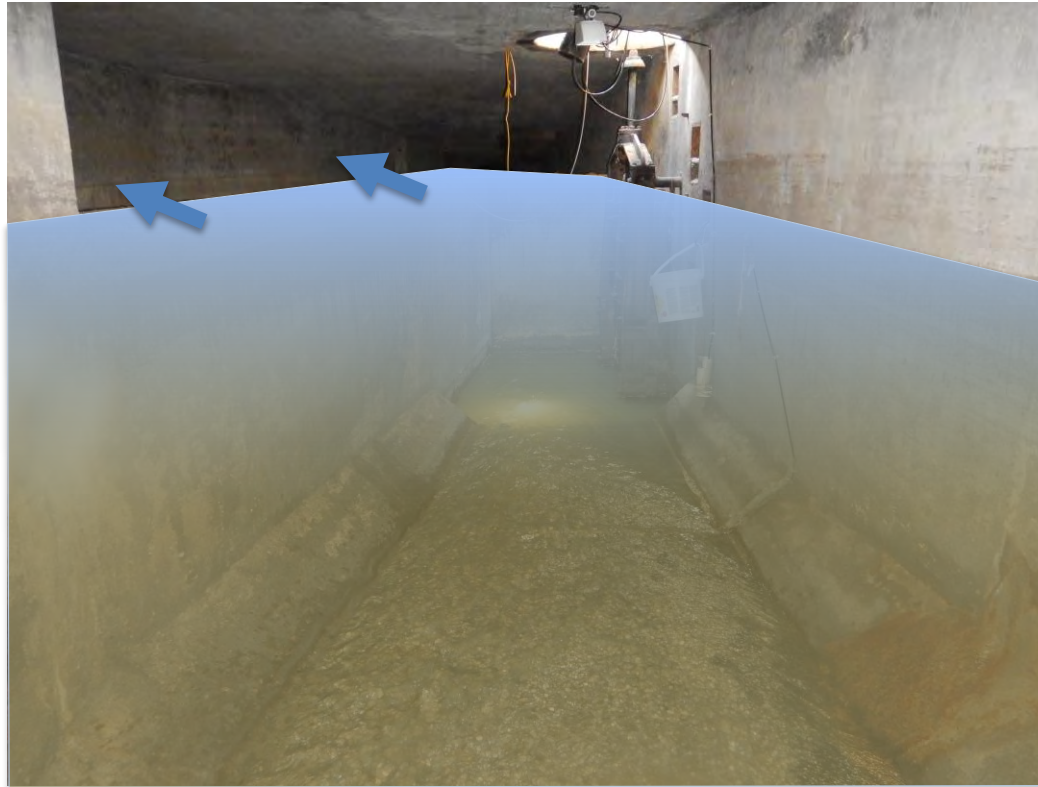
- The “Combined” side – Wet Weather



Project Overview

Markison CSO Regulator

- The “Combined” side – Overflow



Project Overview

Markison CSO Regulator

- The “Overflow” side – Overflow



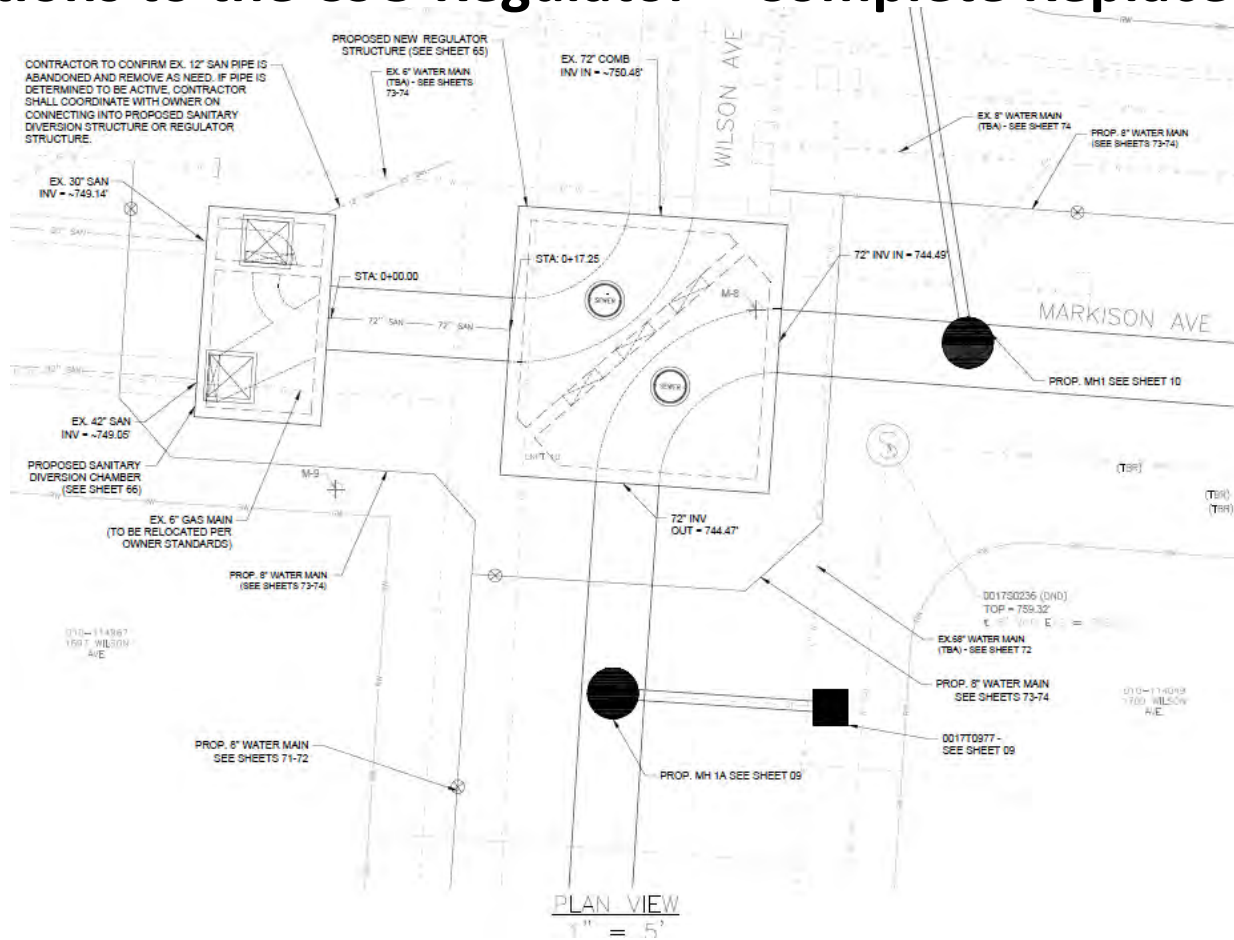
Project Overview

Project Goal

- Reduce the number of CSO events occurring at the Markison CSO Regulator during a “typical year”
- How?
 1. Modifications to the regulator structure at Markison and Wilson (intersection will be closed to traffic for a couple of months)
 2. Disconnecting all storm drainage structures from the combined sewer and collecting with a separate storm sewer. Nearly 20,000 feet of new pipe ranging from 12” to 72” in diameter!

Project Overview

Modifications to the CSO Regulator – Complete Replacement



Project Overview

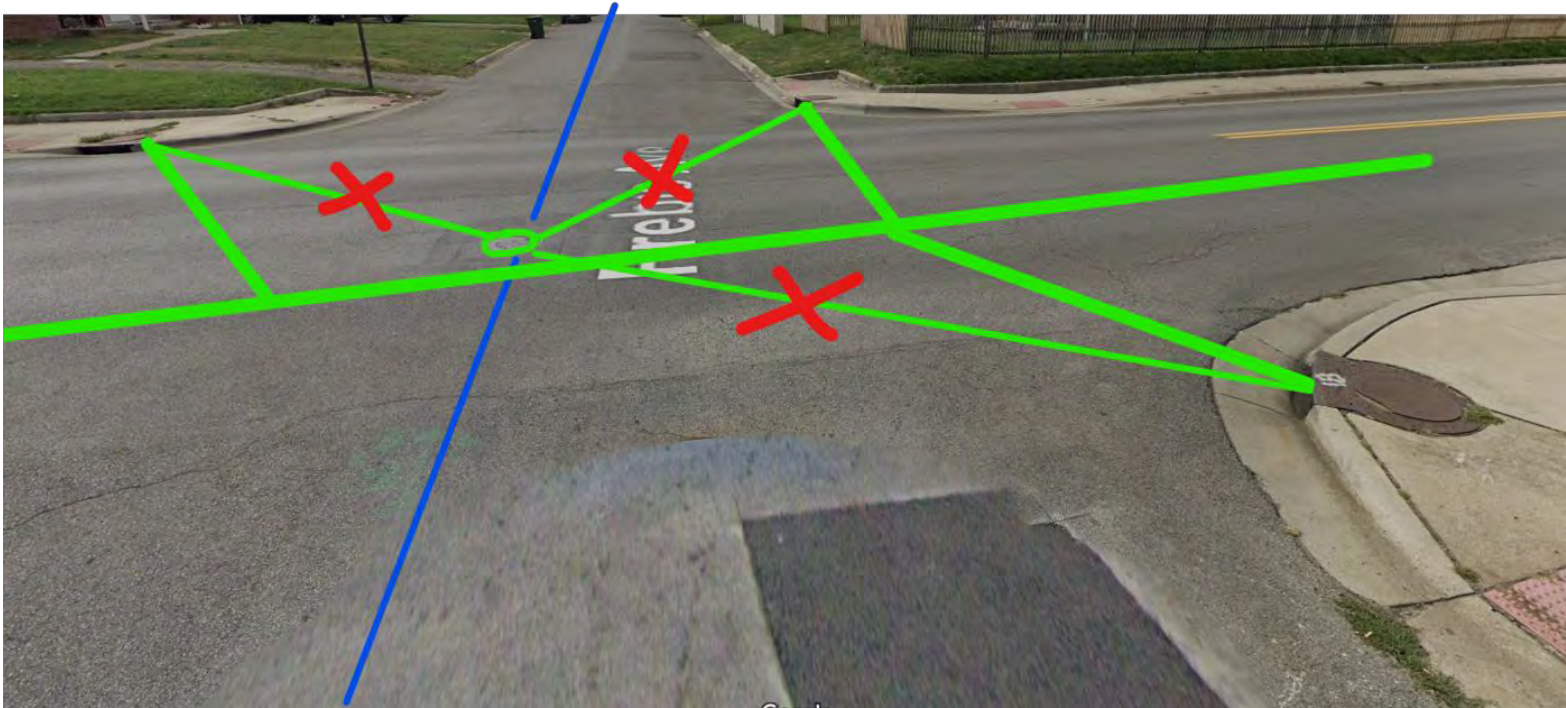
Inflow Redirection



Currently, storm drains (green) in the street connect to the combined sewer (blue), which is the same pipe that your house sanitary service connects to.

Project Overview

Inflow Redirection



Solution: Provide a new storm pipe to remove storm flow from the combined sewer

Project Overview

New Storm Sewer

- ~20,000 feet of pipe to disconnect over 100 storm inlets!!!
- Pipe as small as 12" and as large as 72" in diameter!
- Blue lines show the sewer locations (and impacted streets)



Project Overview

New Water Main

- Waterline replacement performed in areas where planned improvements were to occur – improved efficiency, reduced impact to area.



Project Schedule

- “Notice to Proceed” in January 2024. Contractor is under contract and can start construction.
- Excavation along Wilson (south of Markison) and at Wilson/Markison intersection expected to be first area impacted in Spring 2024
- **Residents will be notified a minimum of one week in advance of work near their property.**
- Substantial Completion is July 1, 2025.

Project Estimated Cost

- Total: \$22.7 Million
- Division of Sewerage and Drainage:
 - \$20.4 million
 - WPCLF Funding
- Division of Water:
 - \$2.3 million
 - Bond Funding

Project Financing

- Ohio EPA WPCLF Loan Fund
 - Below market interest rate loan
 - Additional discounts / incentives for qualifying projects
 - Loan payments spread over 20 years
 - Loan payments don't start until up to 12 months after construction

Construction Impacts

- Large equipment will be used for installing large diameter (66" to 72") pipes.
- Work will be within right-of-way only.
- Rolling closures along most of the roads in the project area (long-term closure at Markison/Wilson intersection)
- Goal will be to install short runs of pipe at a time to limit road closures.
- Waterline replacement on Linwood and Oakwood may involve brief interruption of water service



Construction Impacts



Construction Impacts



Questions and Answers

Contacts

Gregory R. Barden, PE
Project Manager
City of Columbus
Department of Public Utilities
GRBarden@columbus.gov

Brian Schmude, PE
Project Manager
AECOM
Brian.Schmude@aecom.com

For more information visit our website: <https://www.columbus.gov/Templates/Detail.aspx?id=2147529654>

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