



Pittsburgh
Water & Sewer
Authority

**THOMAS AND MCPHERSON GREEN
INFRASTRUCTURE PROJECT**

Point Breeze North Neighborhood

June 25, 2020

AGENDA

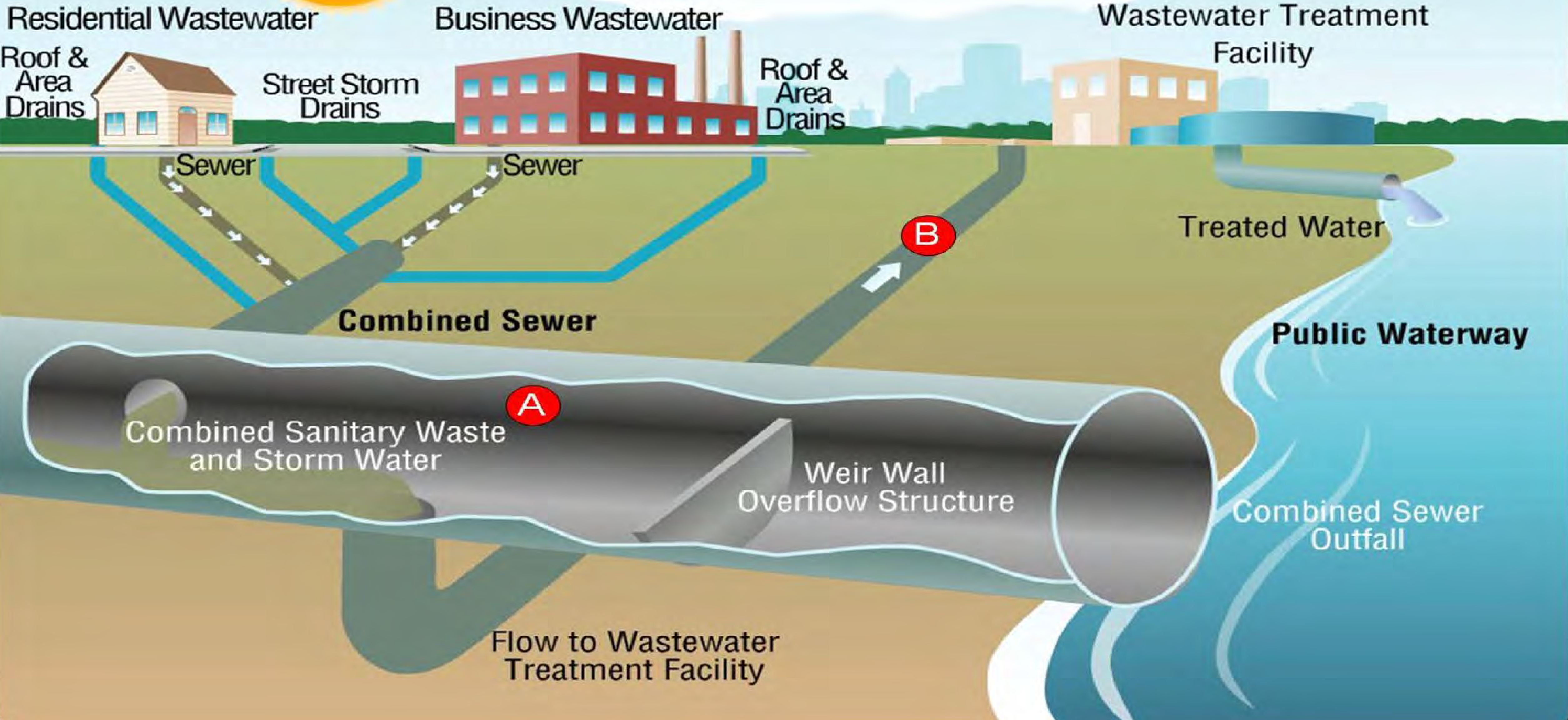
- Stormwater Management & Combined Sewer Overflow Background
- Green Stormwater Infrastructure
- Water Main Improvements
- Project Construction
- Questions and Answers

At the turn of the 20th century, Pittsburgh embarked on its biggest infrastructure improvement campaign, building sewers, water lines, roads, and power lines that created the city we know today.



COMBINED SEWER SYSTEM

Dry Weather



COMBINED SEWER SYSTEM

Wet Weather



PITTSBURGH HAS A STORMWATER MANAGEMENT PROBLEM

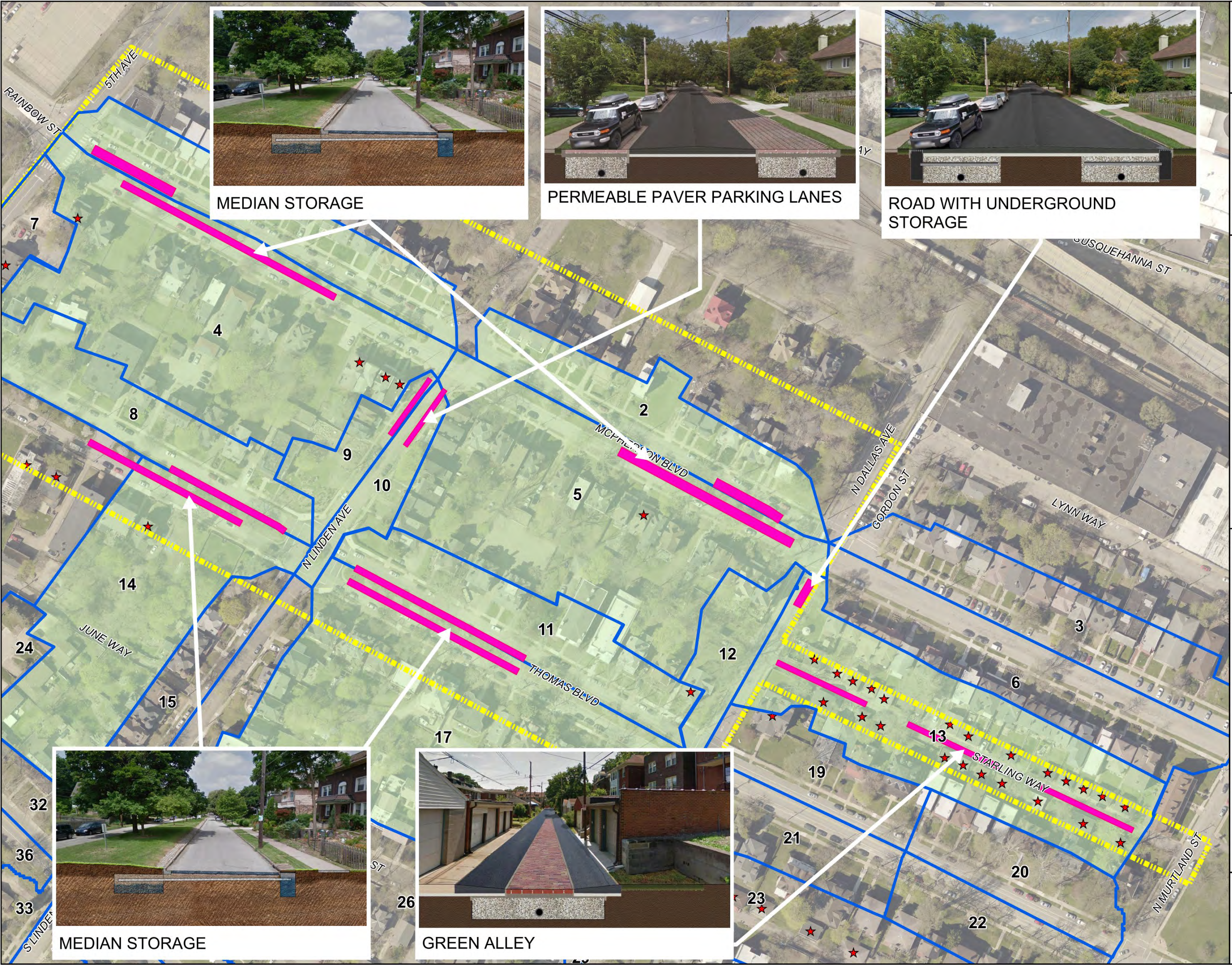
- Averages 38 inches of rain a year
 - Rainfall no longer falls evenly across the year
 - More severe storms dump more rain quicker
- Aging stormwater infrastructure was built for a different time, less population, and communities that had more green space and less pavement



“Heavy Rains Cause Flash Flooding Across Western, PA Region,” CBS Pittsburgh, June 20, 2018 at 4:36 pm

GREEN STORMWATER INFRASTRUCTURE





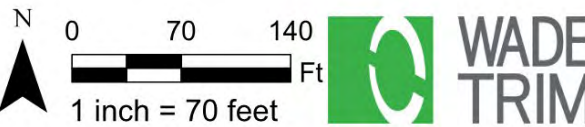
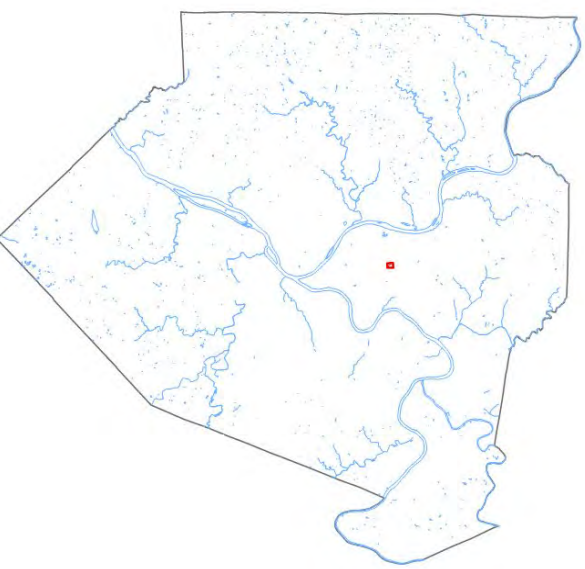
Thomas & McPherson
Green Infrastructure Project

**Phase I Project Area
Recommendations**

June 2020

- Legend**
- Phase I Project Area
 - Proposed GSI Feature
 - Disconnected Downspouts
 - Subcatchment Drainage Area
 - Phase I Project Drainage Areas

Locator Map

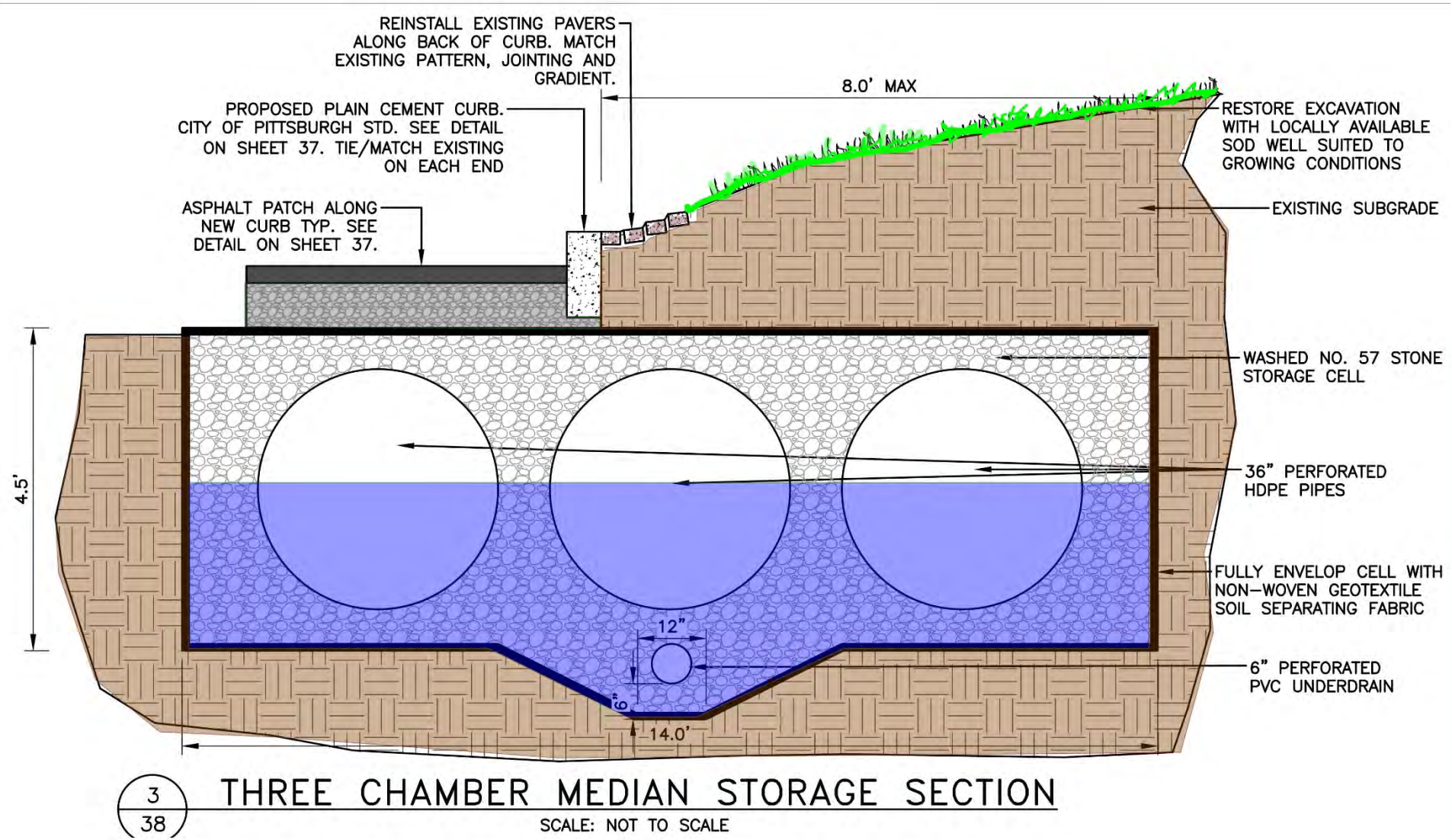


- GSI Practices Applied:
- Median Underground Storage
 - Permeable Pavement Storage
 - Roadway Underground Storage Cells
 - Green Alley Underground Storage Cell

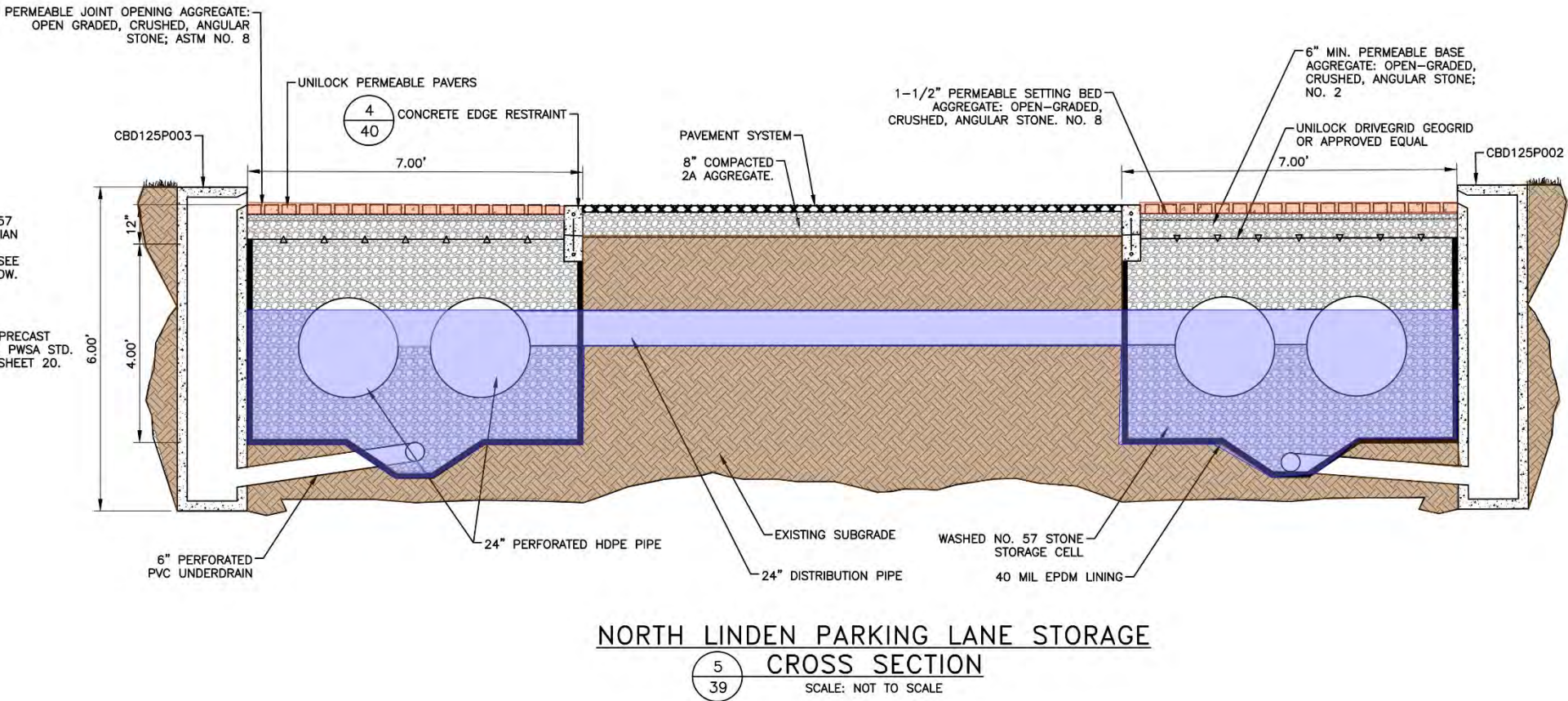
- Acreage Managed: 17.7
- Impervious Acreage Managed: 11.6
- GSI Management Strategy: Detention
- Runoff Managed: 470,000 Gallons

GREEN STORMWATER INFRASTRUCTURE PROJECT AREA

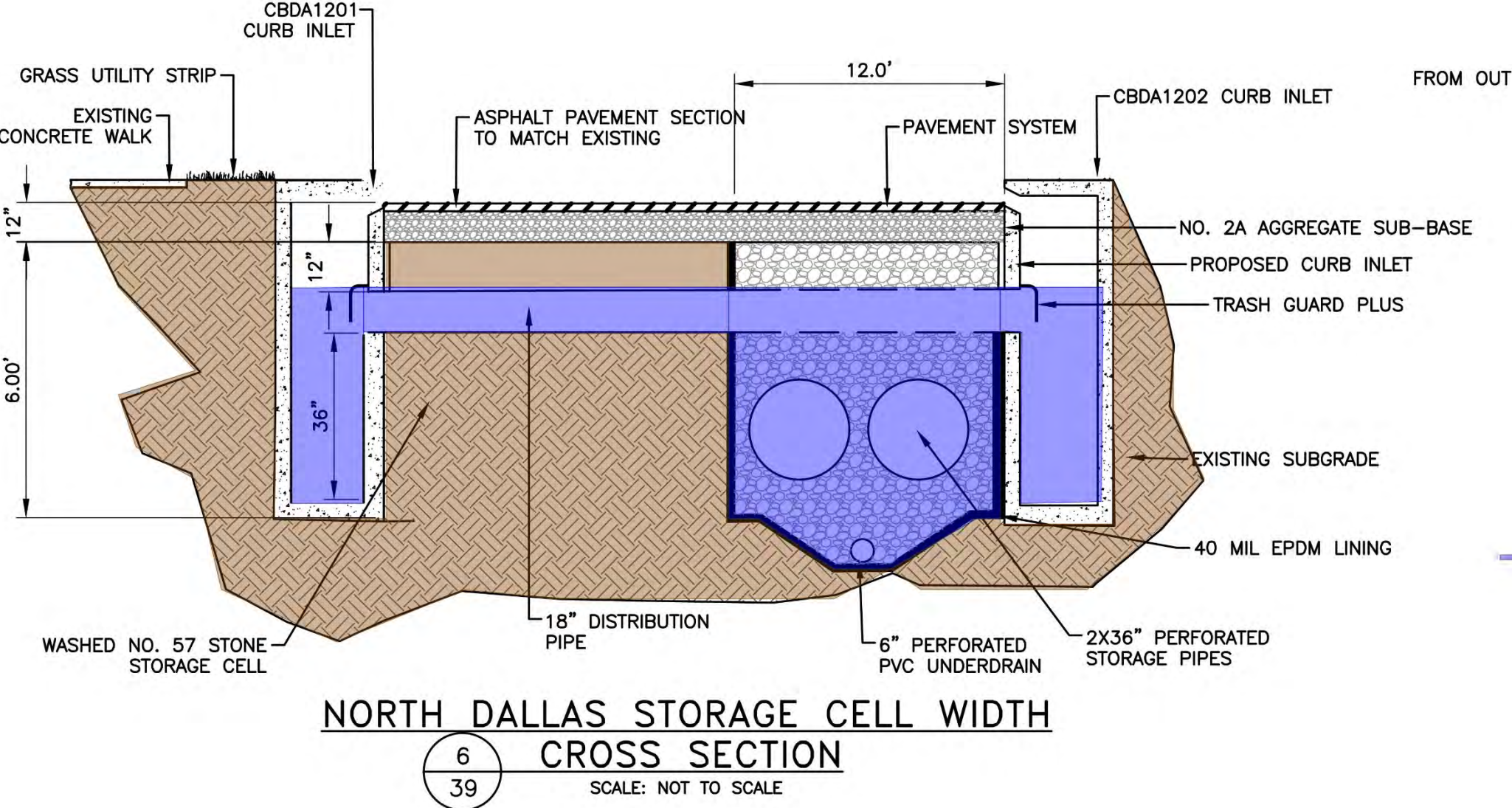
MEDIAN STORAGE



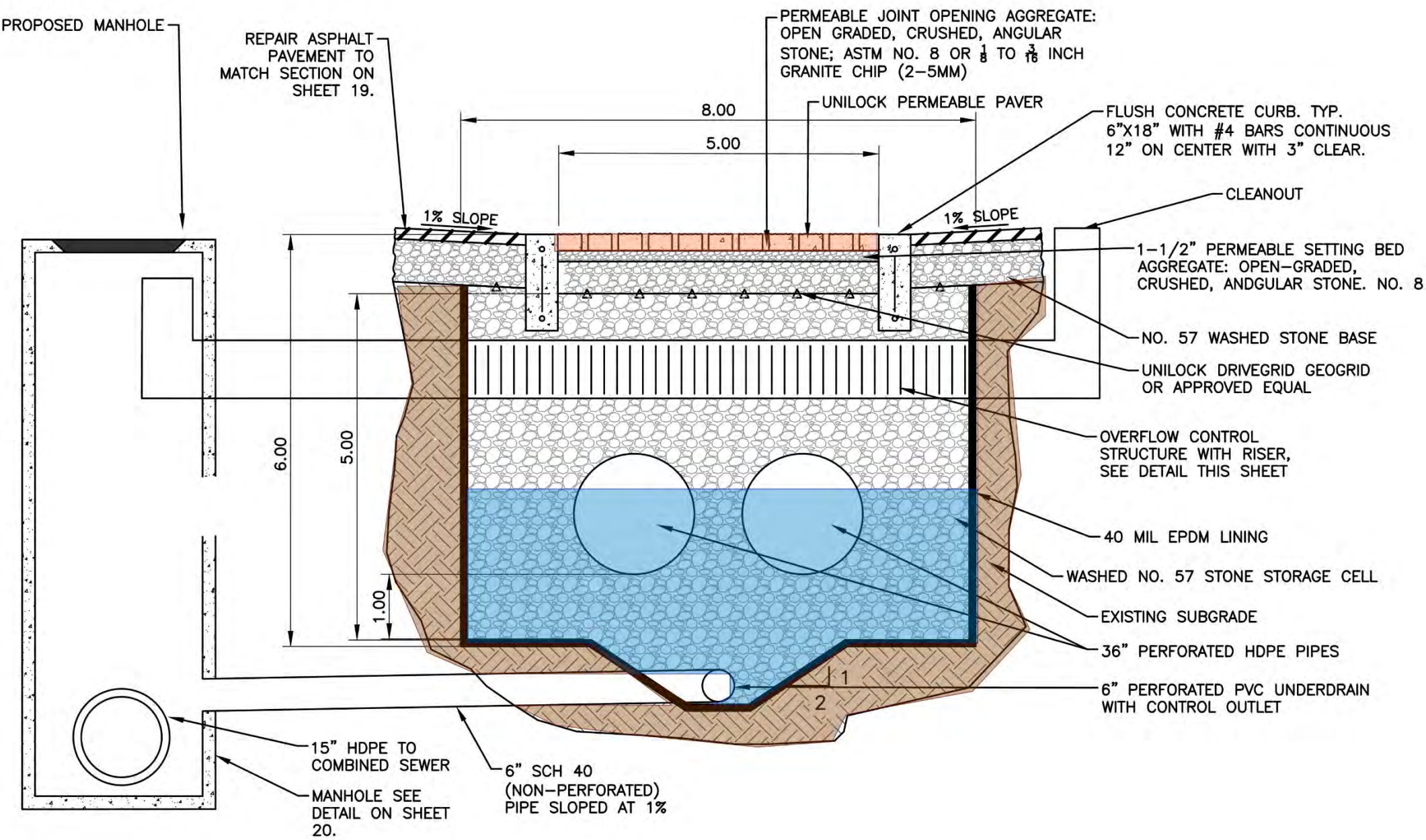
PERMEABLE PAVER PARKING LANES



UNDERGROUND STORAGE



GREEN ALLEYWAY: PERMEABLE PAVERS

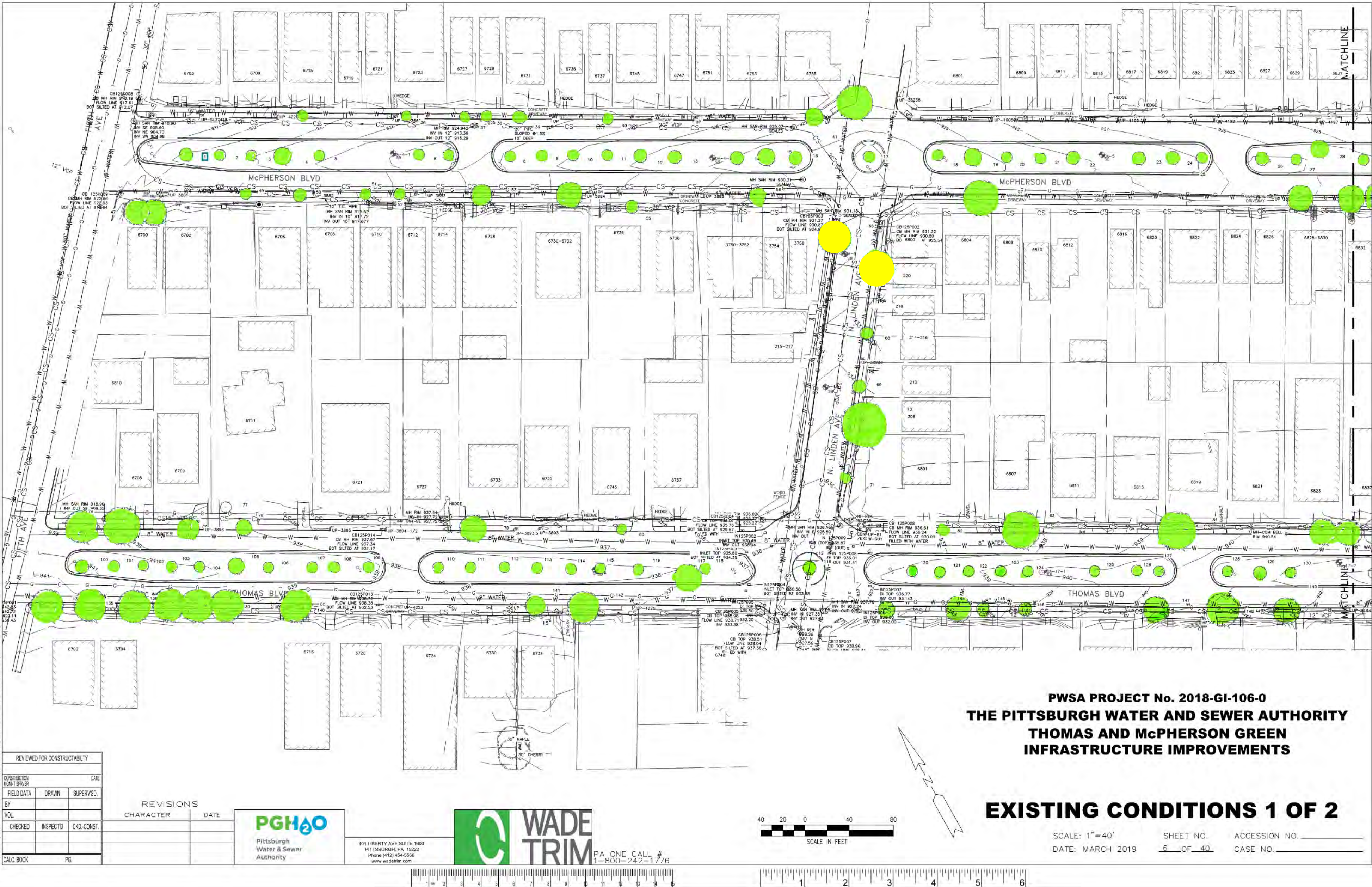


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STARLING WAY GREEN ALLEY CROSS SECTION

SCALE: NOT TO SCALE

condition of underground structures, and neither assumes any responsibility for any conditions or interpretations made on the basis of such information. The City and the PWSA assume no responsibility for any understanding or representations made by its agents or employees unless such understanding or representations are made by its agents or employees in writing and are included in the project documents. The City and the PWSA assume no responsibility for any conditions or interpretations made on the basis of such information. The City and the PWSA assume no responsibility for any understanding or representations made by its agents or employees unless such understanding or representations are made by its agents or employees in writing and are included in the project documents.



INVENTORY DATA:

- Diameter
- Species
- Condition

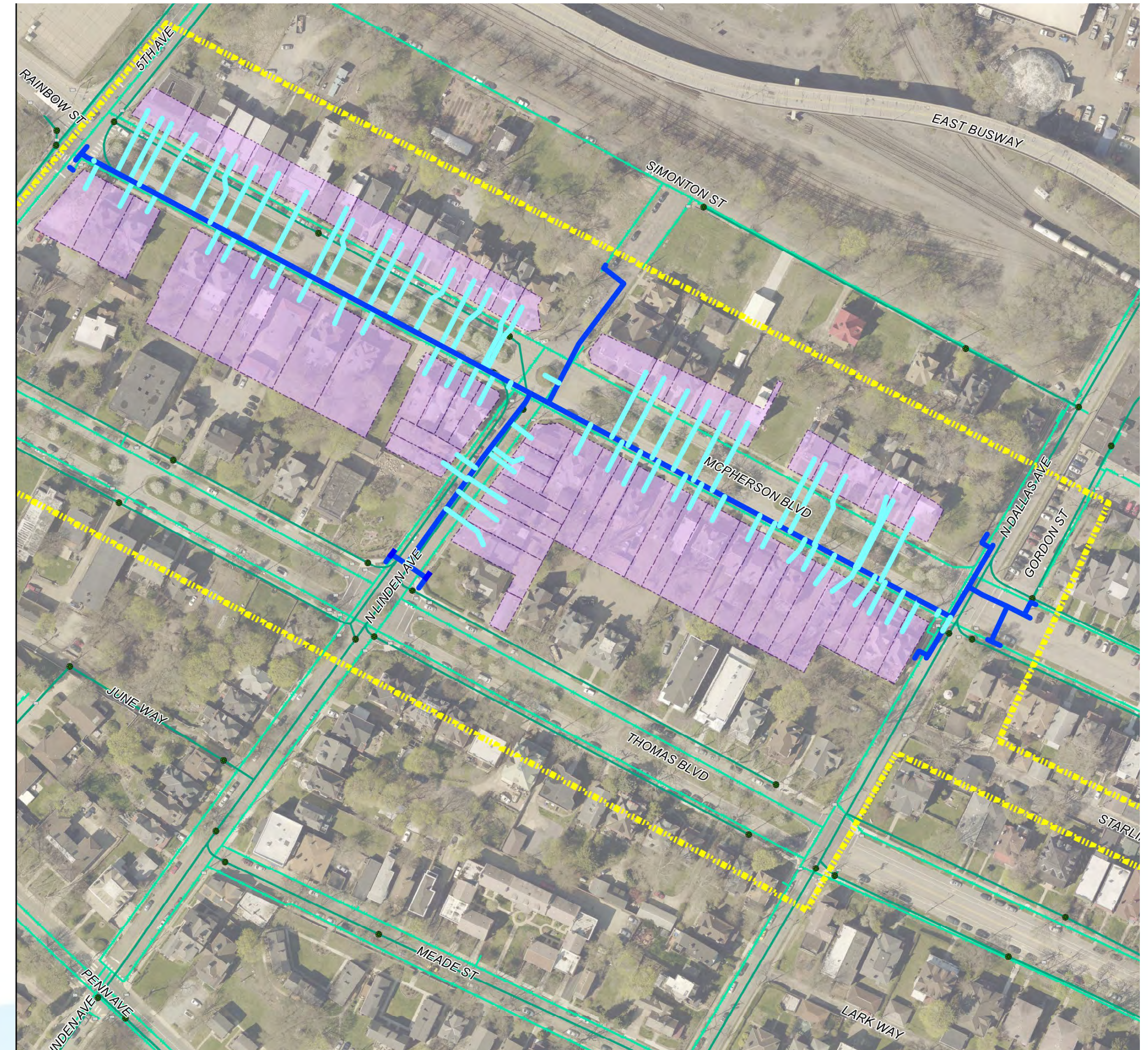
Street Tree Inventory

WATER MAIN IMPROVEMENTS

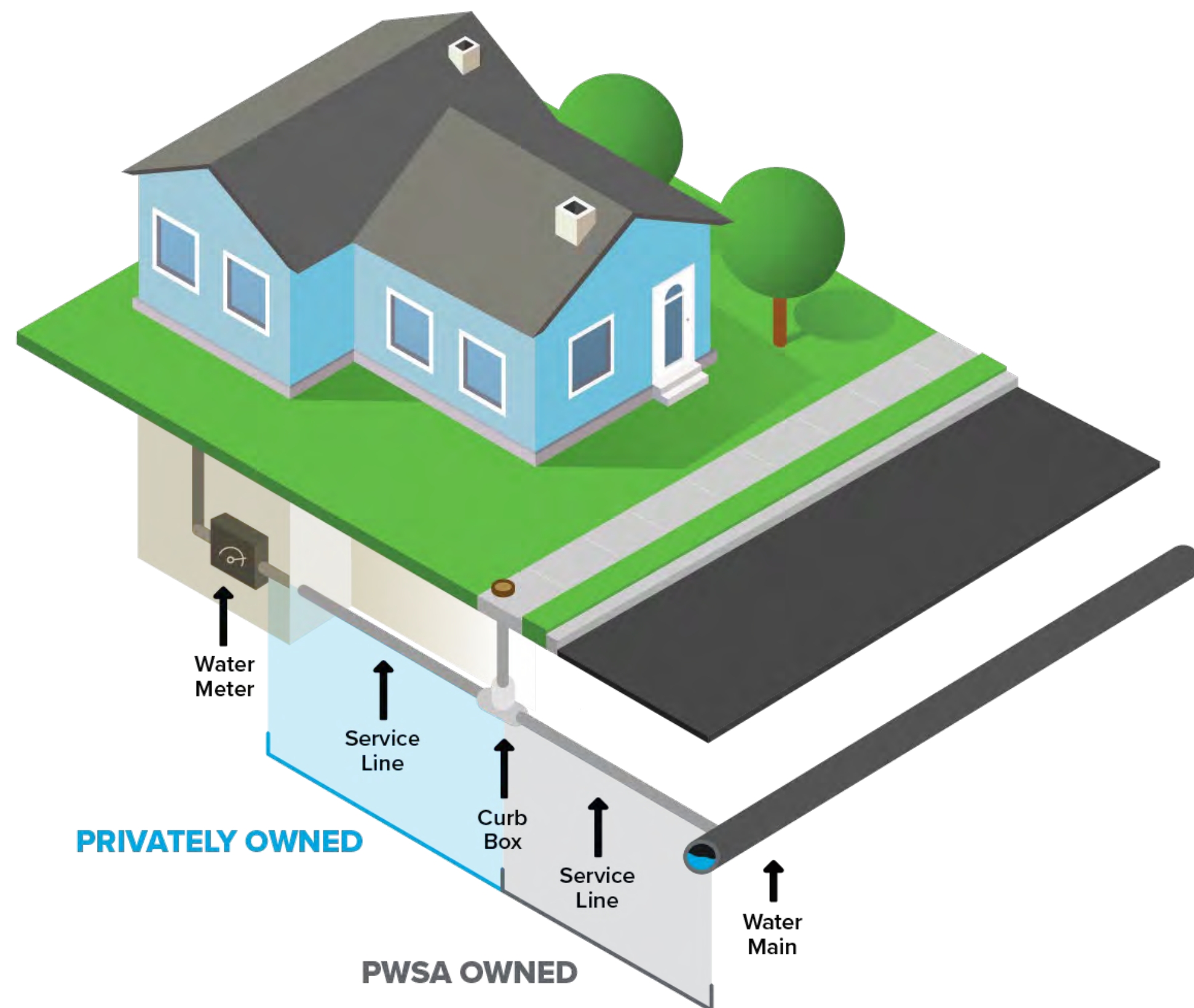


WATER MAIN IMPROVEMENTS

- 1,900 LF of waterline replacement
 - McPherson Blvd. and N. Linden Ave.
- Replacing 71 water service connections
 - All public service lines and any private lead service lines
- Replacing 3 fire hydrants



WATER SYSTEM SCHEMATIC



- Service line has joint ownership, both PWSA and the customer
- Each side of the service line can be different materials, typically lead, galvanized iron, copper or PEX (plastic)

- Started in 2016;
- Initial program just replaced the public side;
- Post-construction sampling indicated temporary lead increase since the private side lead pipes remained;
- State law changed in late 2017 to allow PWSA to also replace the private side;
- Starting in 2018, PWSA has been doing full service line replacements where homeowners give permission.

- If PWSA replaces the public side of a service line, we will offer to replace the private side at no cost (prevent partial replacements);
- Homeowner needs to sign agreement allowing work to proceed – if you are in an area scheduled for replacement you will receive an agreement package from PWSA;
- Homeowner responsible for any restoration or work to allow interior access to service line.

- Contractors incentivized to use least disruptive methods;
- Homeowner or their rep must be present during replacement;
- PWSA will backfill, but not restore;
- Stairs, retaining walls, decorative landscaping could be disrupted;
- Owners can opt out of replacement due to potential disruption;
- Over 98% of replacements are using less disruptive trenchless methods

PROJECT CONSTRUCTION



Proposed Construction Phasing

LEGEND



Construction Phase Sequence



TEMPORARY ROAD CLOSURES

- Project will require temporary road closure during construction hours (9 AM – 3 PM, M-F).
- Impacted roadways will allow for passage of traffic outside of construction hours.
- Roadways will be fully restored at completion of construction.



PARKING AND ACCESS DURING CONSTRUCTION

- Contractor will work to localize parking and pedestrian access impacts during construction.
- Duration of parking and pedestrian access disruption will be minimized.
- “No Parking” signs will be posted in impacted areas at least 24 hours prior to construction.



CURRENT PROJECT DESIGN AND CONSTRUCTION SCHEDULE

- 90% Final Design Plans Complete June 2020
- 100% Final Design Plans Complete Late Fall/Winter 2020*

** Final design date will be dependent upon receipt of permits*

Construction for Phase 1 Estimated to Begin Fall 2020

Completion of Phase 1 Construction Estimated for Fall 2021

SHARED STORMWATER RESPONSIBILITIES

We are all in this together. There are civic and private responsibilities for managing stormwater. Collectively we can create flood prepared communities that are safer, healthier places to live.





Pittsburgh
Water & Sewer
Authority

Should you have any questions, do not hesitate to contact:

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To receive project updates, leave your email on the sign-in sheet.