Valley Street:
Reducing Peak Flow Discharges to a Combined Sewer System

Presented By:

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Director

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LAFAYETTE RENEW
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Project Team

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Lafayette Water Department

Lafayette Engineering & Public Works

WESSLER ENGINEERING
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WILLIAMS CREEK CONSULTING
a V3 Company

RWS SOUTH, INC.

A&W

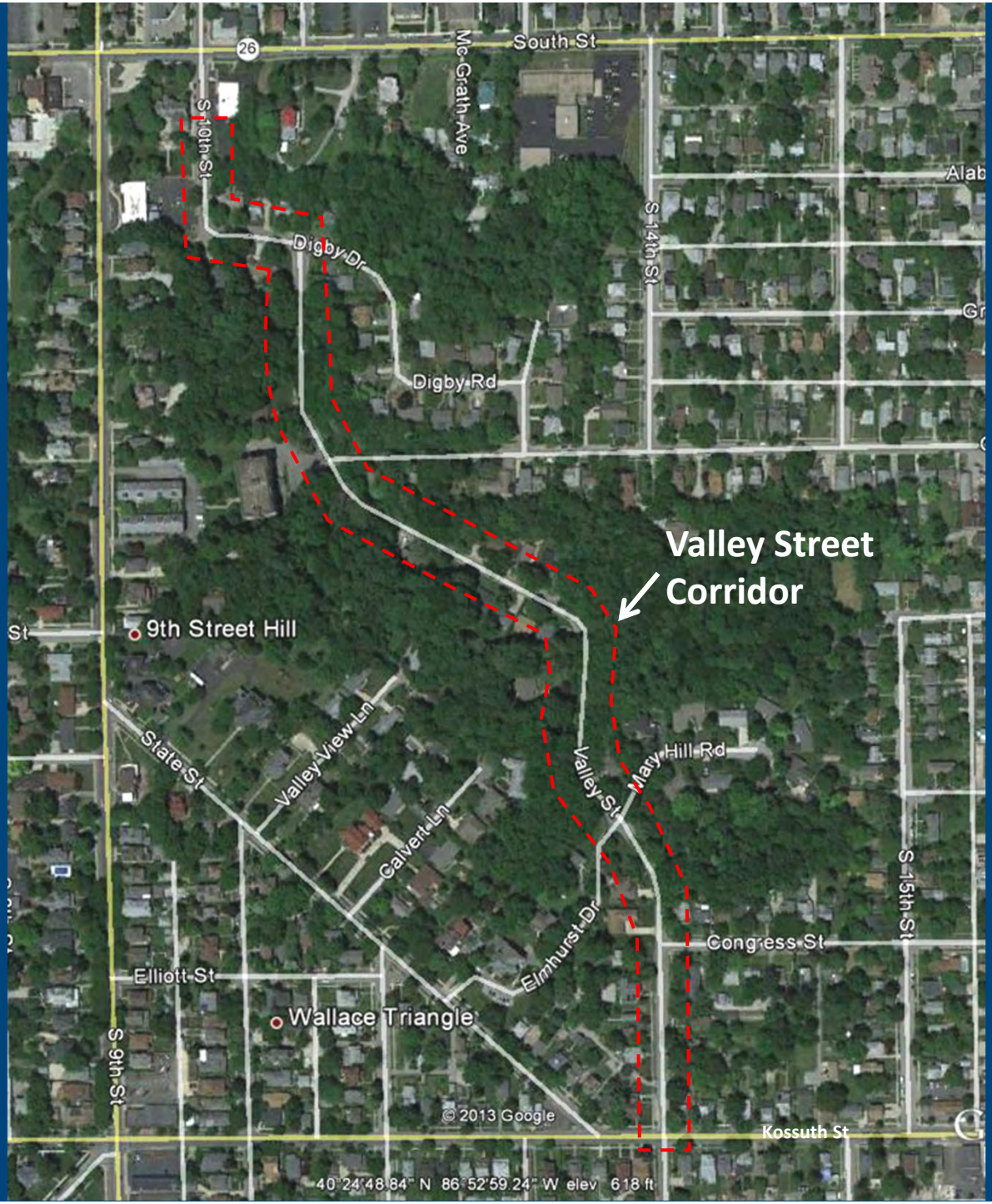
BOWEN

CBB

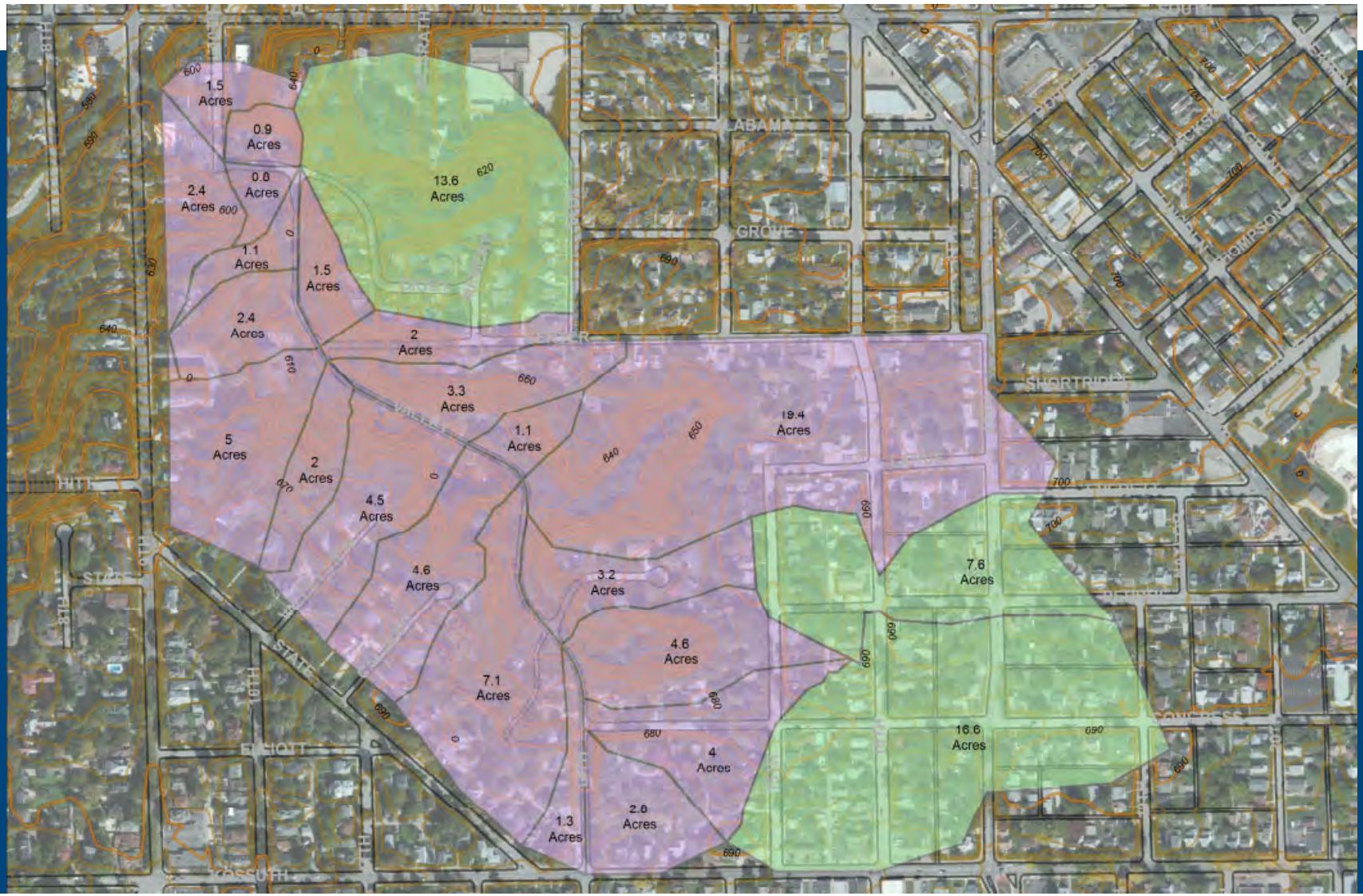
Project Timeline

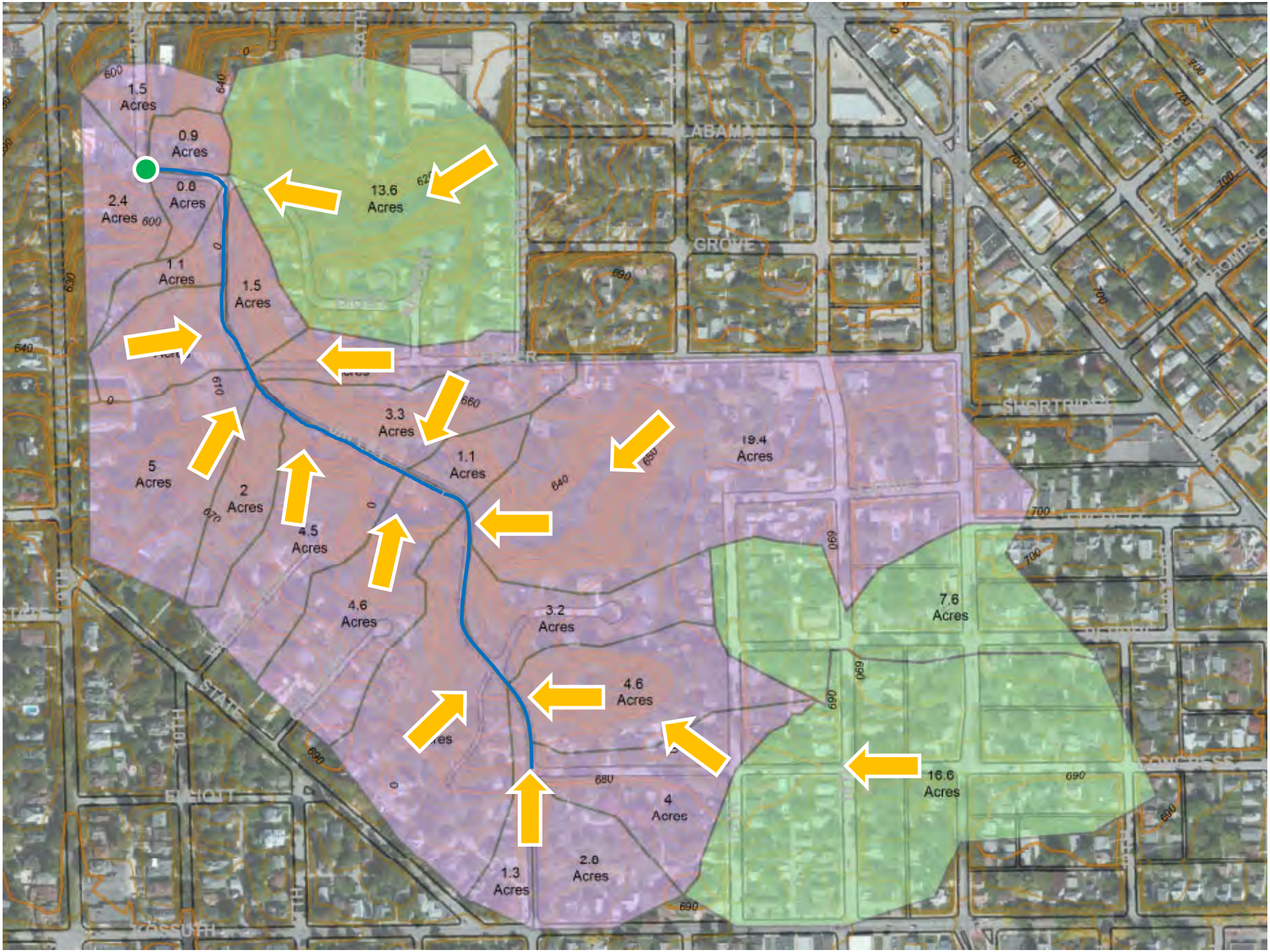
Project Location

Valley Street
Lafayette, Indiana



Contributing Drainage Area




1.5 Acres
0.9 Acres
0.6 Acres
2.4 Acres
1.1 Acres
1.5 Acres
13.6 Acres
3.3 Acres
1.1 Acres
5 Acres
2 Acres
4.5 Acres
4.6 Acres
3.2 Acres
19.4 Acres
7.6 Acres
4.6 Acres
16.6 Acres
4 Acres
2.0 Acres
1.3 Acres
ALABAMA
GROVE
SHORTRIDGE
STATE
18TH

Existing Situation

Existing Situation

Existing Situation

Existing Situation

Existing Situation

Existing Situation

Project Goals

1. Reduce peak flow discharges into combined sewer
2. Allow for smaller storm sewer pipe sizes
3. Redirect stormwater runoff off pavement surface
4. Plan for future sewer separation

Public Engagement

- Public meetings
- Coordination with residents
  - Design adjustments
  - Easement acquisition
  - Communication and adjustments during construction
  - Unique features

Infrastructure Options

Non-Stormwater Considerations

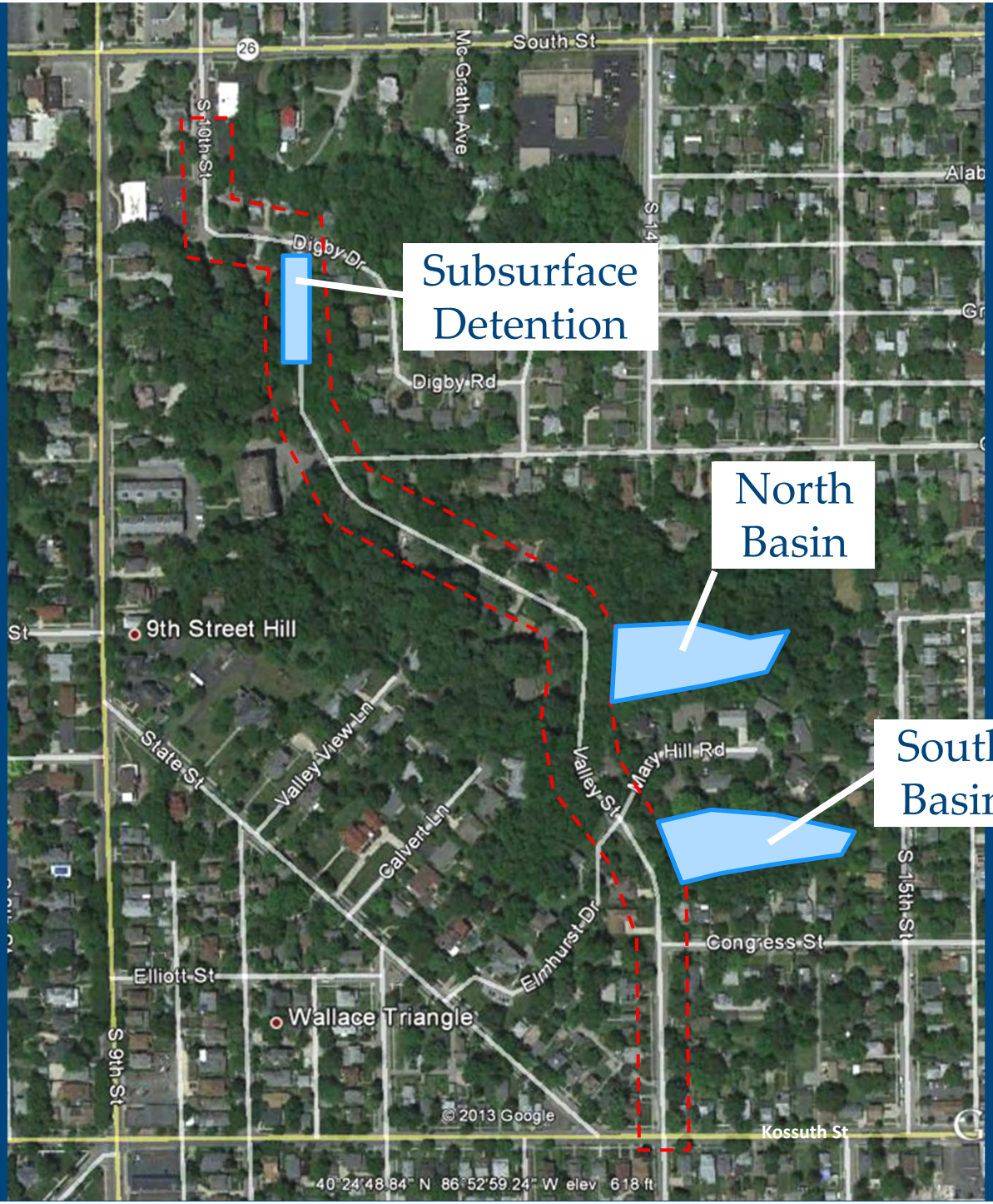
- Pedestrian access
- Pavement
- Other utilities
  - Water
  - Gas
  - Sanitary sewer

Infrastructure Options

Quantity/Peak Reduction

- Natural detention basins with underdrains
- Subsurface detention
- Inline detention
- Infiltration

Valley Street
Lafayette, Indiana



Valley Street
Lafayette, Indiana

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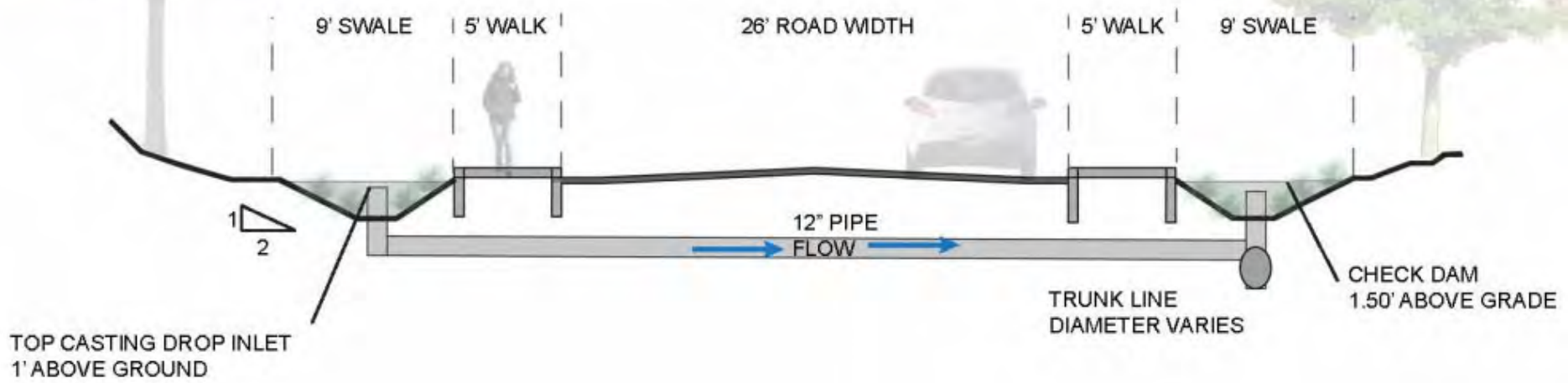
Infrastructure Options

Conveyances

- Storm sewers
- Roadside ditches
- Bioswales

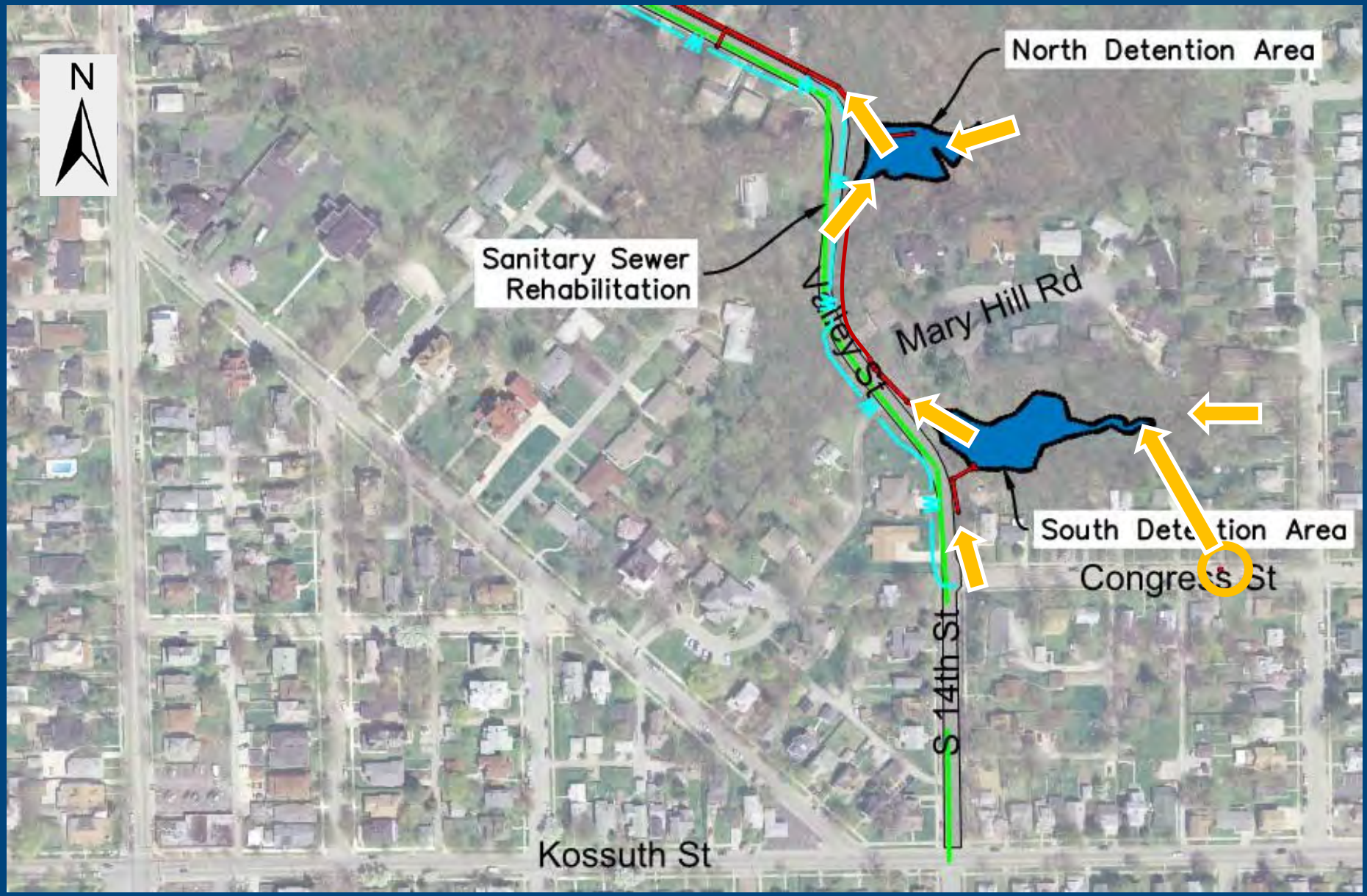


Infrastructure Options

Water Quality

- AquaSwirl
- Detention basins
- Bioswales

Valley Street
Lafayette, Indiana



Valley Street
Lafayette, Indiana

Infrastructure Options

VALLEY STREET AT 1400 CONGRESS STREET
LOOKING NORTH

EXISTING CONDITIONS

PROPOSED SOLUTION

EXISTING ROADWAY | 15' VEGETATED SWALE | EXISTING PROPERTY

Infrastructure Options

VALLEY STREET AT 20 MARY HILL ROAD
LOOKING SOUTH

EXISTING CONDITIONS

PROPOSED SOLUTION

EXISTING VEGETATION | 15' VEGETATED SWALE | EXISTING ROADWAY

Infrastructure Options

VALLEY STREET AT 20 MARY HILL ROAD
NEAR BMX TRAIL LOOKING NORTH

EXISTING CONDITIONS

PROPOSED SOLUTION

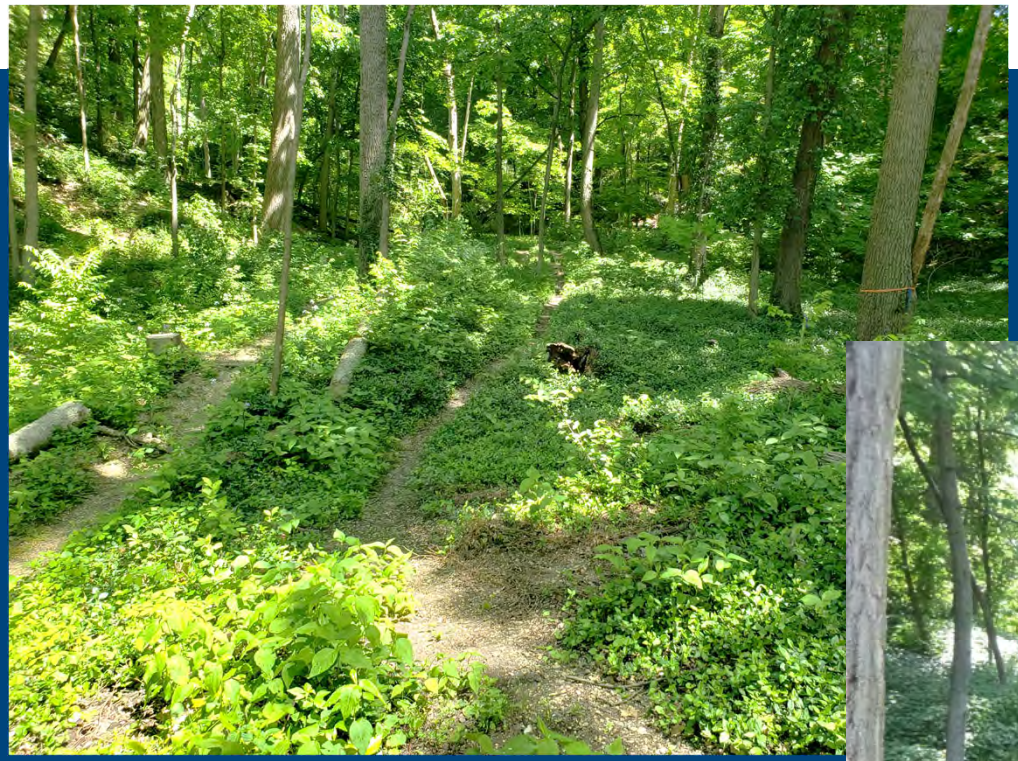
EXISTING ROADWAY | 15' VEGETATED SWALE

Valley Street
Lafayette, Indiana

Project Performance

Valley Street
Lafayette, Indiana

Project Performance



Before

After

Valley Street
Lafayette, Indiana

Project Performance

Before

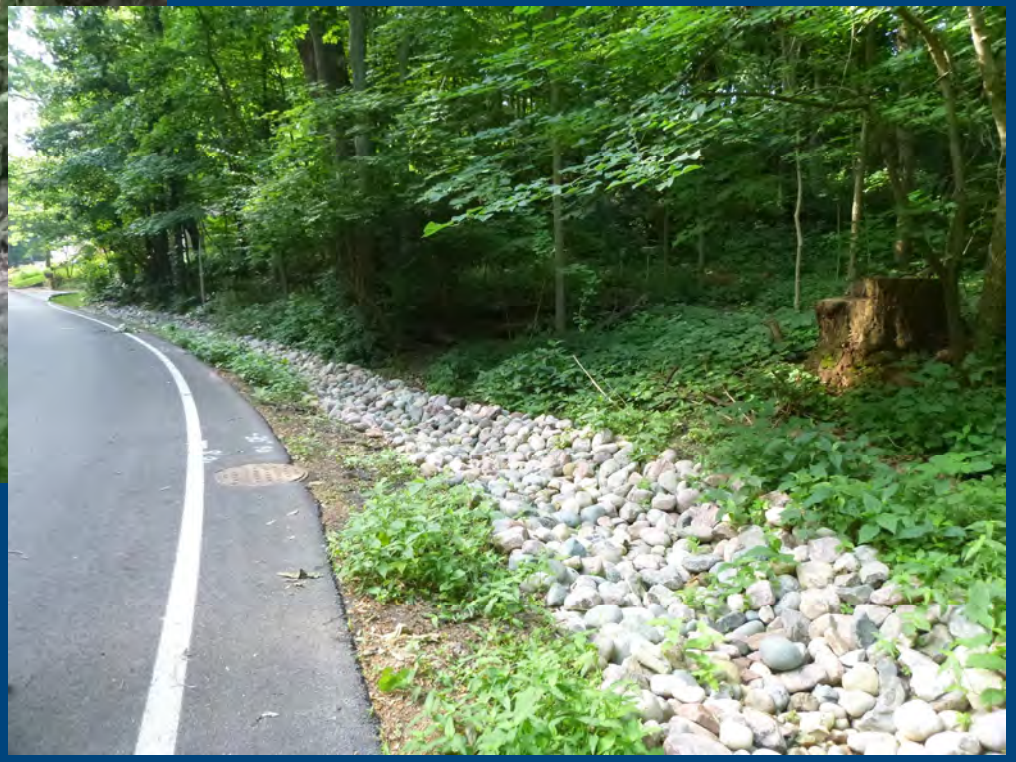
After

Valley Street
Lafayette, Indiana

Project Performance

Before

After



Lessons Learned

- Erosion control

Lessons Learned

- Erosion control

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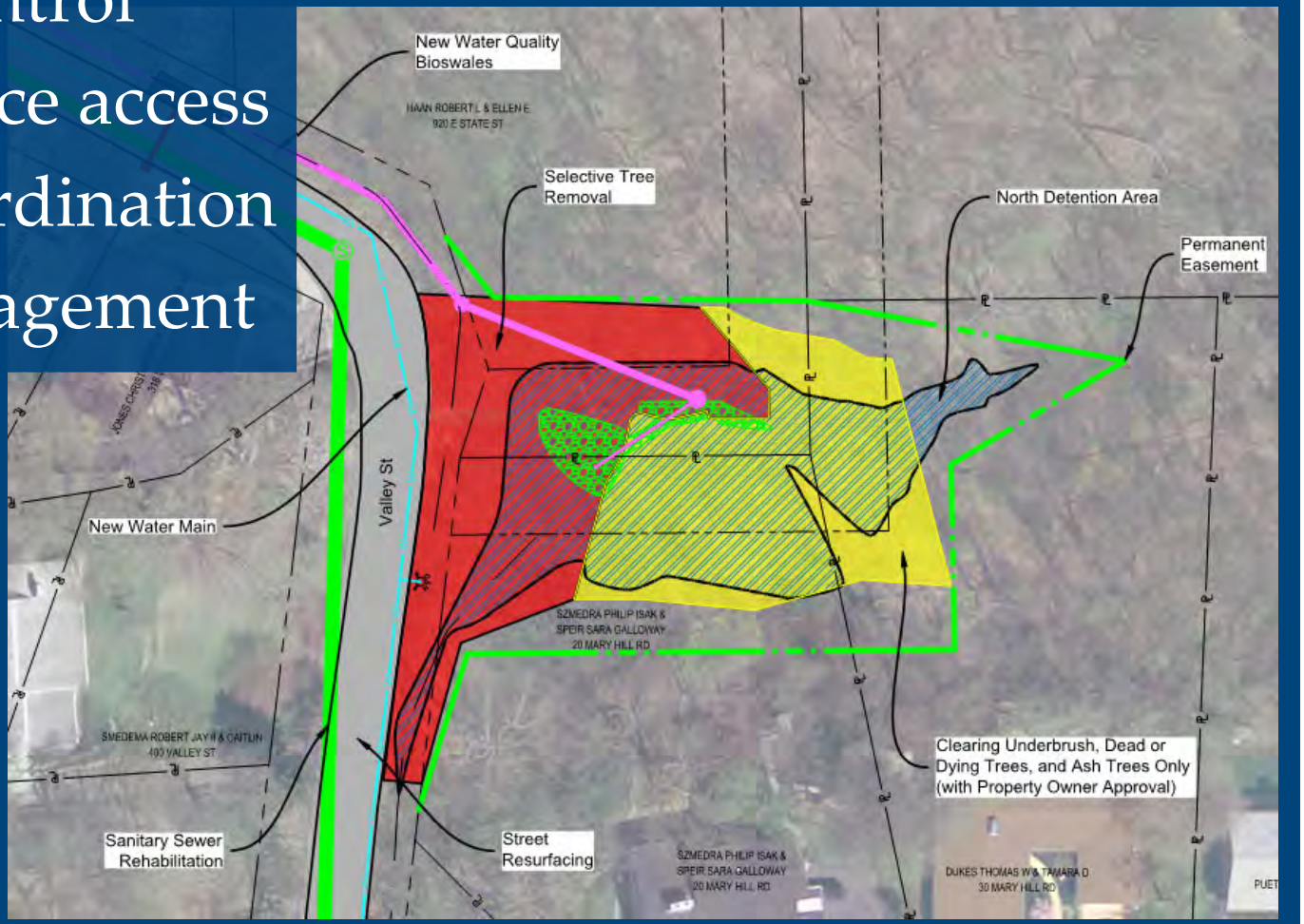
- Erosion control
- Maintenance access

Lessons Learned

- Erosion control
- Maintenance access
- Utility coordination

Lessons Learned

- Erosion control
- Maintenance access
- Utility coordination
- Public engagement



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