

# HILL NEIGHBORHOOD GREEN INFRASTRUCTURE MASTER PLAN



**FUSS & O'NEILL**

# AGENDA

- **4:30 – 4:45 Snacks & Meet and Greet**
- **4:45 – 5:15 Project Introduction**
- **5:15 – 6:00 Open House**



**Andy Bohne**  
Senior Project Manager



**Emily Wright**  
Senior Project Manager

Landscape  
Architects

Scientists



**Julianne Busa**  
Senior Resilience Scientist



**Michael Soares**  
Senior Wetland Scientist



**Jeffrey Dawson**  
Landscape Designer



**Camilla Novo**  
Landscape Designer

# Who is FUSS & O'NEILL?



**Caitlin Strzegowski**  
Climate Resilience Engineer



**Sarah Frisby**  
Climate Resilience Engineer

Environmental  
Planners



**Chelsea Zakas**  
Environmental Planner



**Ian Concannon**  
Environmental Planner

Engineers &  
Analysts



**Jhon Escobar**  
Geotechnical Engineer  
& Project Manager



**Lauren Meiser**  
Environmental Analyst

# PROJECT APPROACH

- **Outreach & Engagement**
  - **Workshop**
  - **School Raingarden Design**
  - **School Rain Garden Implementation**
- **Green Infrastructure Assessment**
- **Geotechnical Assessment**
- **Hydrology Modeling**
- **Focus Area Concept Design**
- **Neighborhood Green Infrastructure Master Plan**

# WORKSHOP GOALS

## WORKSHOP MEETING 1

- **Why this project matters**
- **Review existing conditions**
- **What could green infrastructure look like in the Hill Neighborhood?**

# WORKSHOP GOALS

**Workshop Meeting 2: Thursday, April 16 from  
6-7:30 PM at the Shea Theater**

- **Refreshments**
- **Review and discussion of preliminary Green  
Infrastructure Master Plan**
- **Identify next steps**

# WHY THIS PROJECT MATTERS

The Hill Neighborhood sits on elevated terrain with sandy soils that naturally drain downhill toward the Connecticut River. As extreme rainfall events have become more frequent and intense due to climate change, the Town has experienced growing concerns about stormwater runoff, erosion, and infrastructure vulnerability. In recent years, heavy rain events have led to:

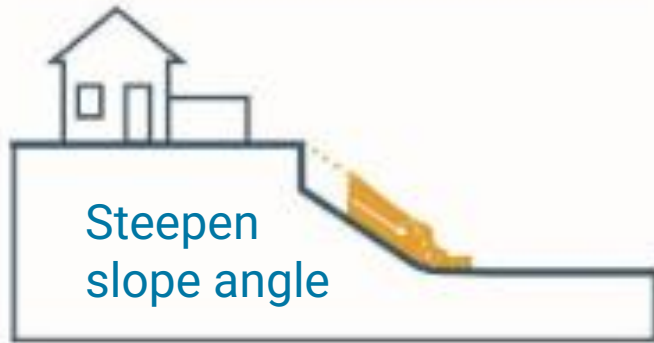
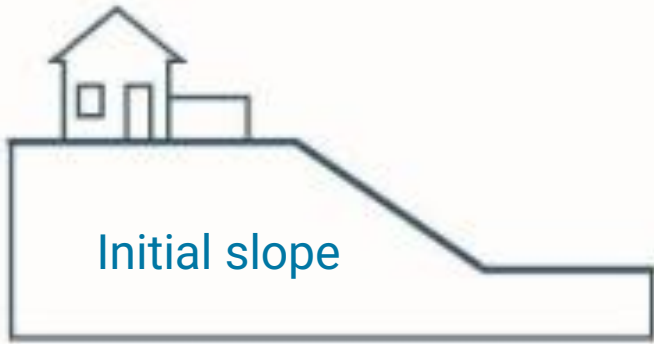
- Increased erosion along steep slopes
- Strain on local drainage systems
- Risk of roadway washouts
- Temporary road closures

## PROJECT GOALS:

Protecting public safety, maintaining reliable access to homes, and safeguarding infrastructure are top priorities of this project.



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# PROJECT CO-BENEFITS

## Improving water quality

- Capturing and filtering pollutants
- Absorbing water close to where it falls



## Reducing the amount of water that enters drains

- Reduce localized flooding
- Reduce the amount of piped water that enters streams & rivers
- Minimize erosion



## Introducing more green infrastructure

- Demonstrates a more sustainable way to manage stormwater
- Creates spaces to learn about this concept



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: PROJECT AREA



**PROJECT AREA**

CONNECTICUT RIVER



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: TOPOGRAPHY





# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: SOIL BORINGS

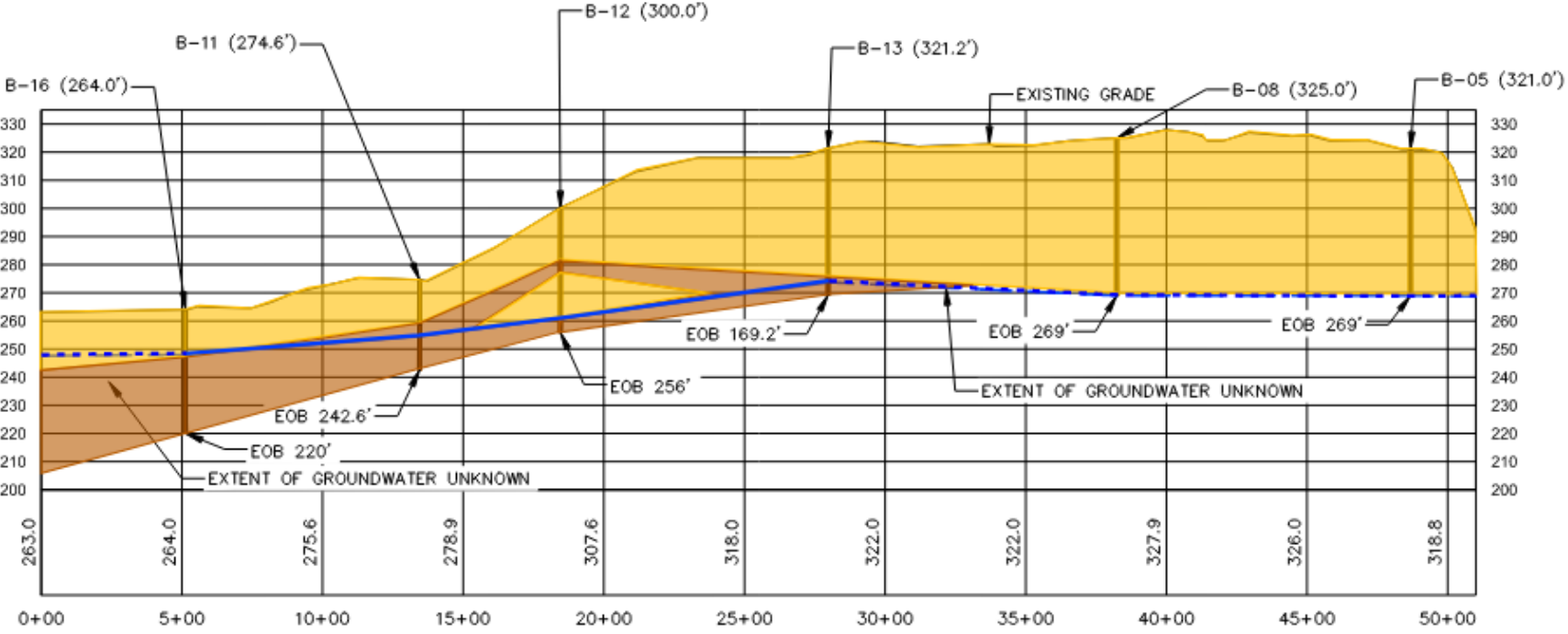


### Soil Borings

- Between 17 to 72 feet of granular soils, underlain by clayey silt material
- Groundwater table encountered at approximate depths between 15 and 55 feet
- Perched groundwater encountered at approximate depths between 4 and 60 feet

# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: SOIL BORINGS SECTION A



PROFILE STA 0+00 - 51+00  
 SCALE: H:1"=500'  
 V:1"=50'

- NOTES:**
1. THE HORIZONTAL DATUM IS NAD83 MASSACHUSETTS STATE PLANE (US SURVEY FOOT) AND THE VERTICAL DATUM IS NAVD 1988.
  2. EXISTING GROUND SURFACE LINES AND TRANSITIONS BETWEEN MATERIALS ARE AN APPROXIMATION AND IN SITU TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
  3. SOIL BORINGS WERE PERFORMED BY BRONSON DRILLING, CO. OF WINCHESTER MASSACHUSETTS, AND OBSERVED BY FUSS & O'NEILL BETWEEN JANUARY 20 TO JANUARY 29, 2026.
  4. INTERBEDDED LAYERS LESS THAN 5 FEET THICK WERE NEGLECTED IN THE GRAPHICAL DEPICTION OF THE CROSS SECTION.
  5. DETAILED SOIL PROFILES ARE INCLUDED IN THE BORING LOGS.

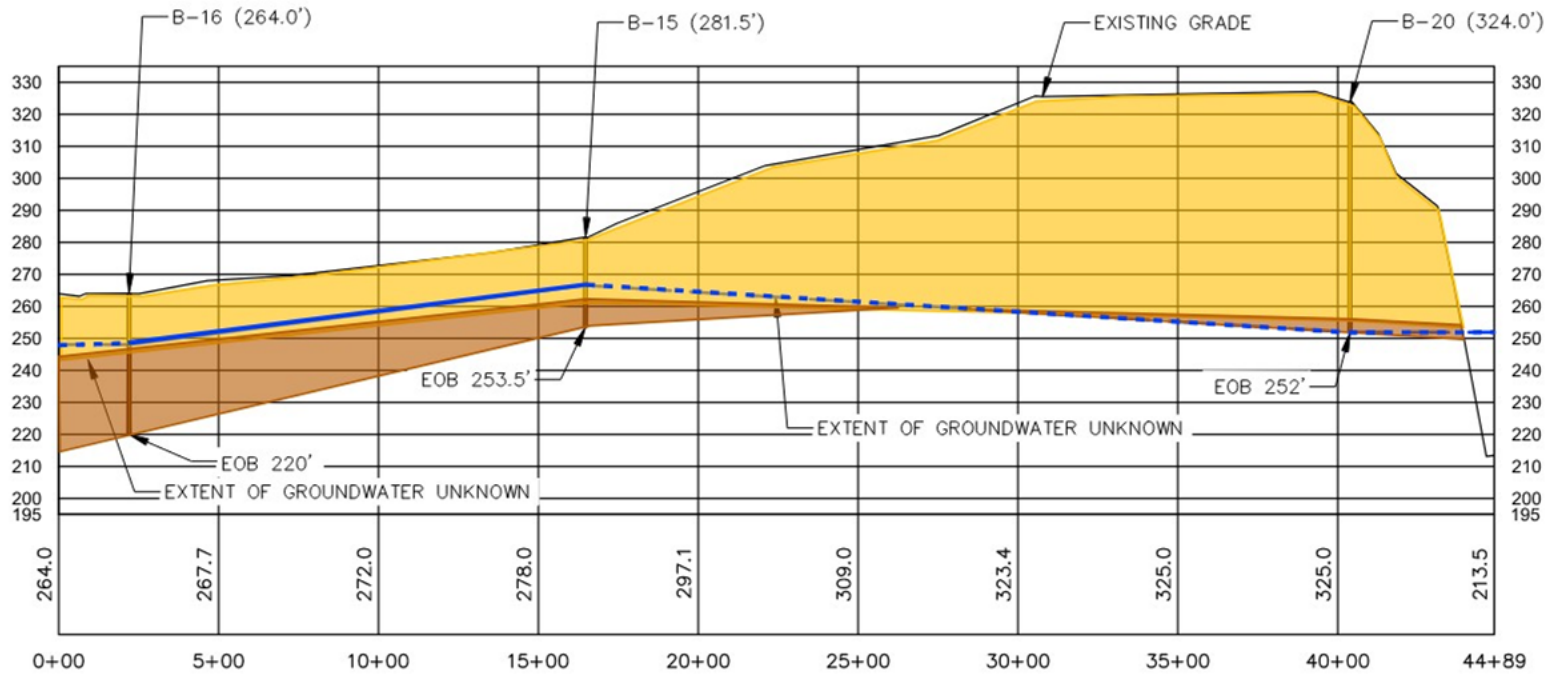
**LEGEND**

- GRANULAR SOILS
- FINE-GRAINED SOILS

- EOB = END OF BORING ELEVATION
- OBSERVED GROUNDWATER (GV)
- EXTENT OF GW UNKNOWN

# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: SOIL BORINGS SECTION B



PROFILE STA 0+00 - 44+89  
 SCALE: H:1"=500'  
 V:1"=50'

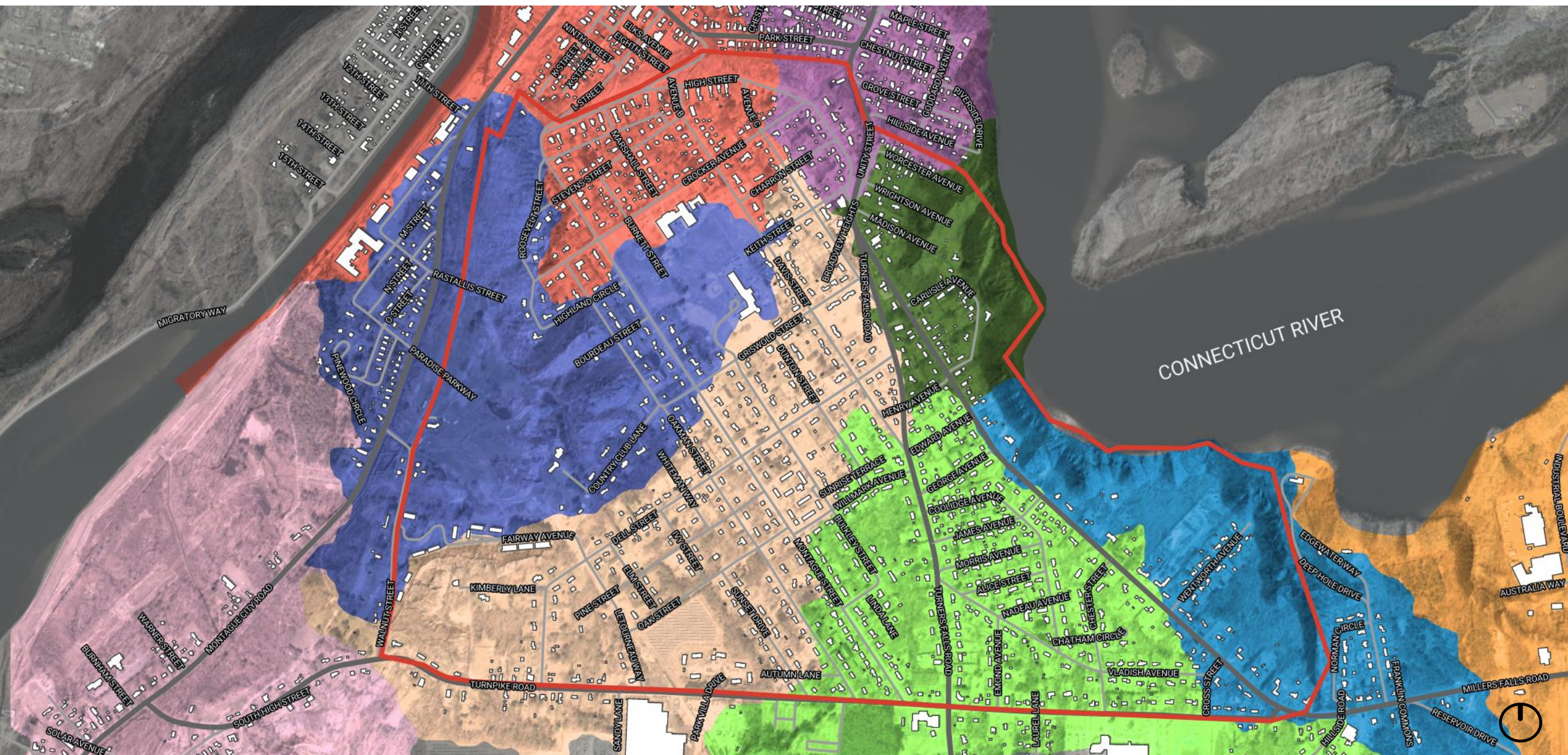
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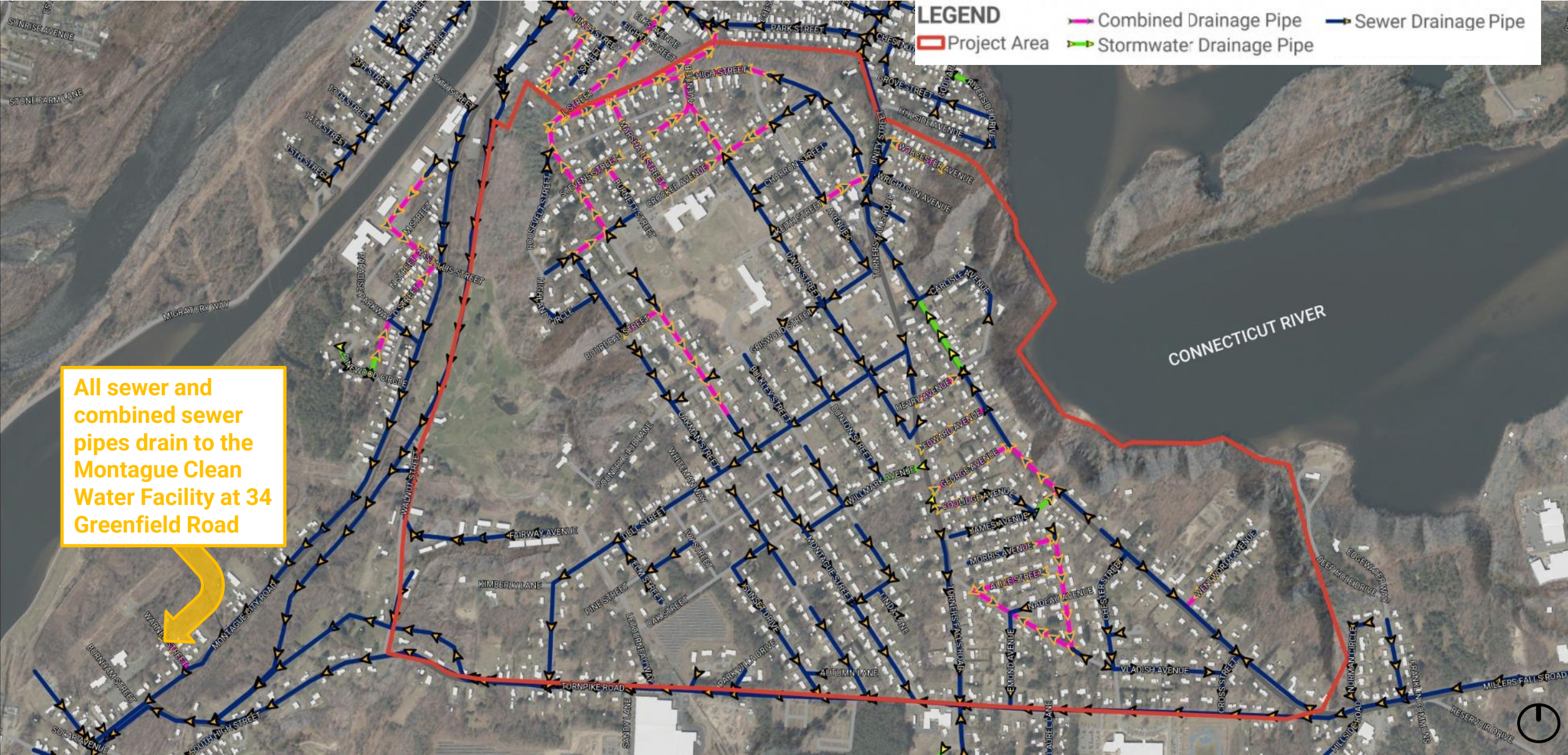
# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: SUB WATERSHEDS



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: STORMWATER INFRASTRUCTURE



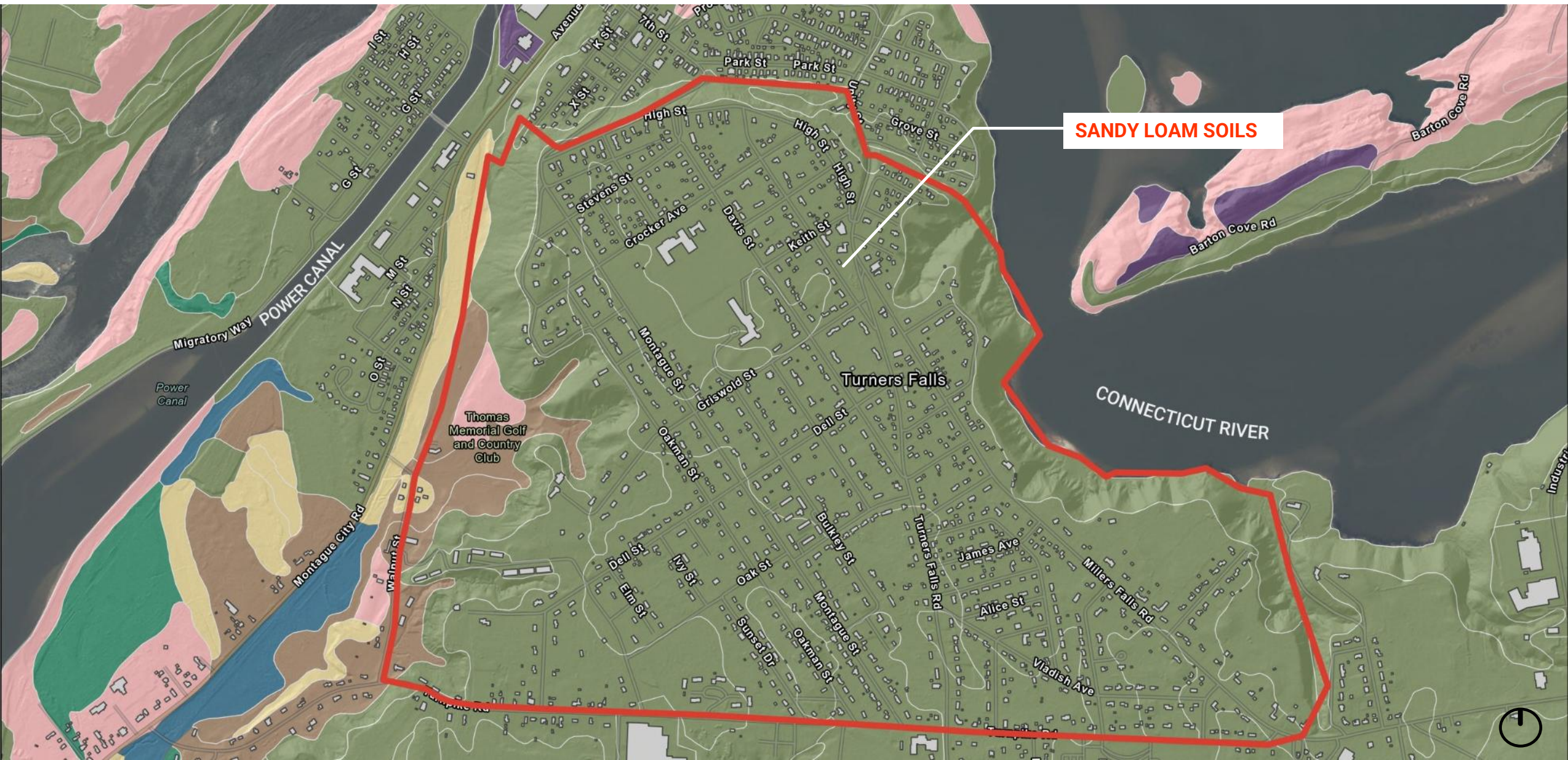
# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: TREE CANOPY & IMPERVIOUS COVER



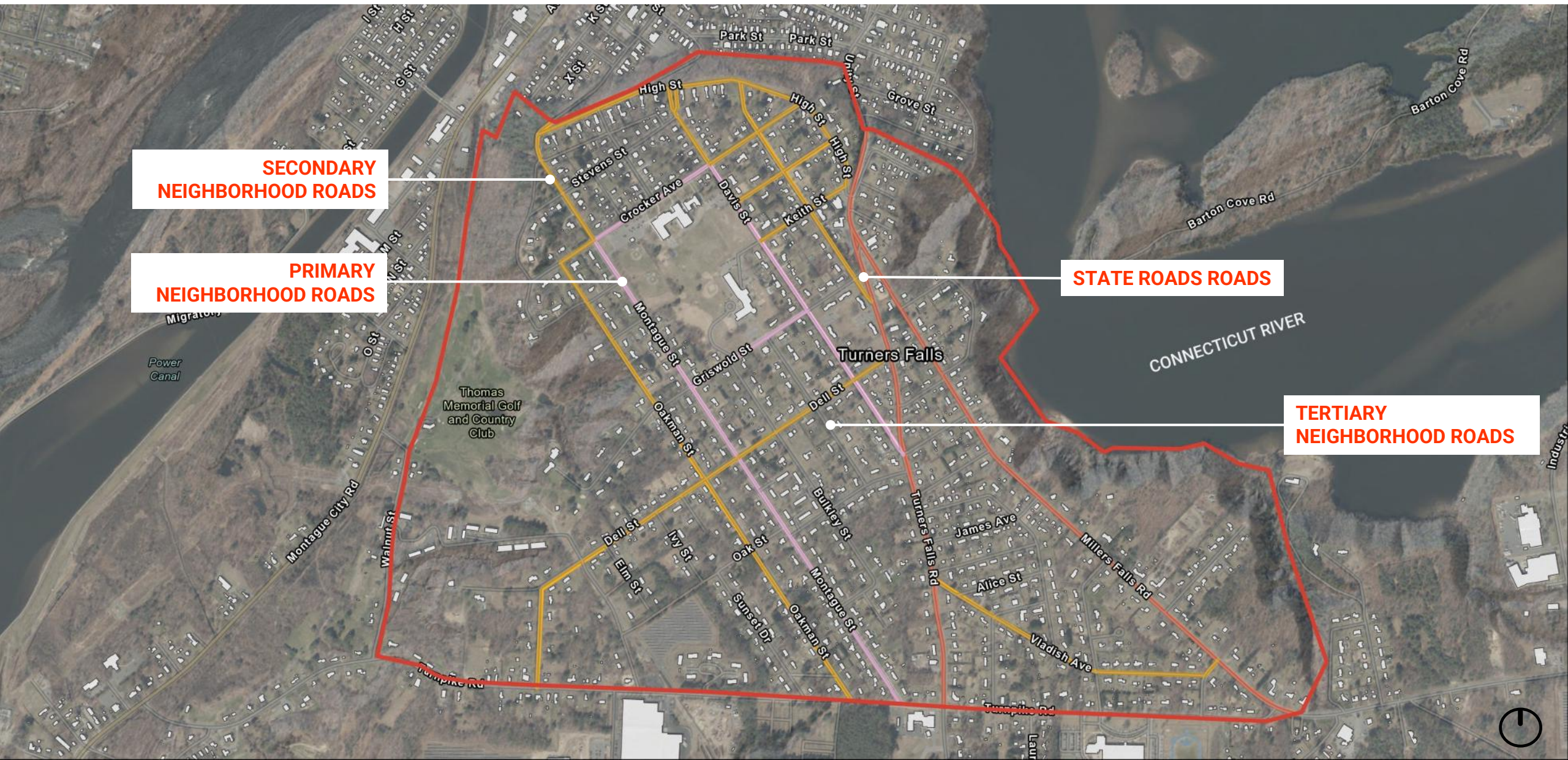
# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: HYDROLIC SOILS



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: ROADS



**SECONDARY  
NEIGHBORHOOD ROADS**

**PRIMARY  
NEIGHBORHOOD ROADS**

**STATE ROADS**

**TERTIARY  
NEIGHBORHOOD ROADS**





# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: PRIORITY AREAS



**DEMONSTRATION RAIN GARDEN AT ELEMENTARY SCHOOL**

**EROSION AT OUTFALL AT OAKMAN STREET**

**EROSION AT OUTFALL AT COUNTRY CLUB LANE**

**EROSION AT OUTFALL AT DELL STREET**

**EROSION AT MILLERS FALLS ROAD**

CONNECTICUT RIVER



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: ELEMENTARY SCHOOL RAIN GARDEN



KEY PLAN



STREET VIEW

# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: OAKMAN STREET



KEY PLAN

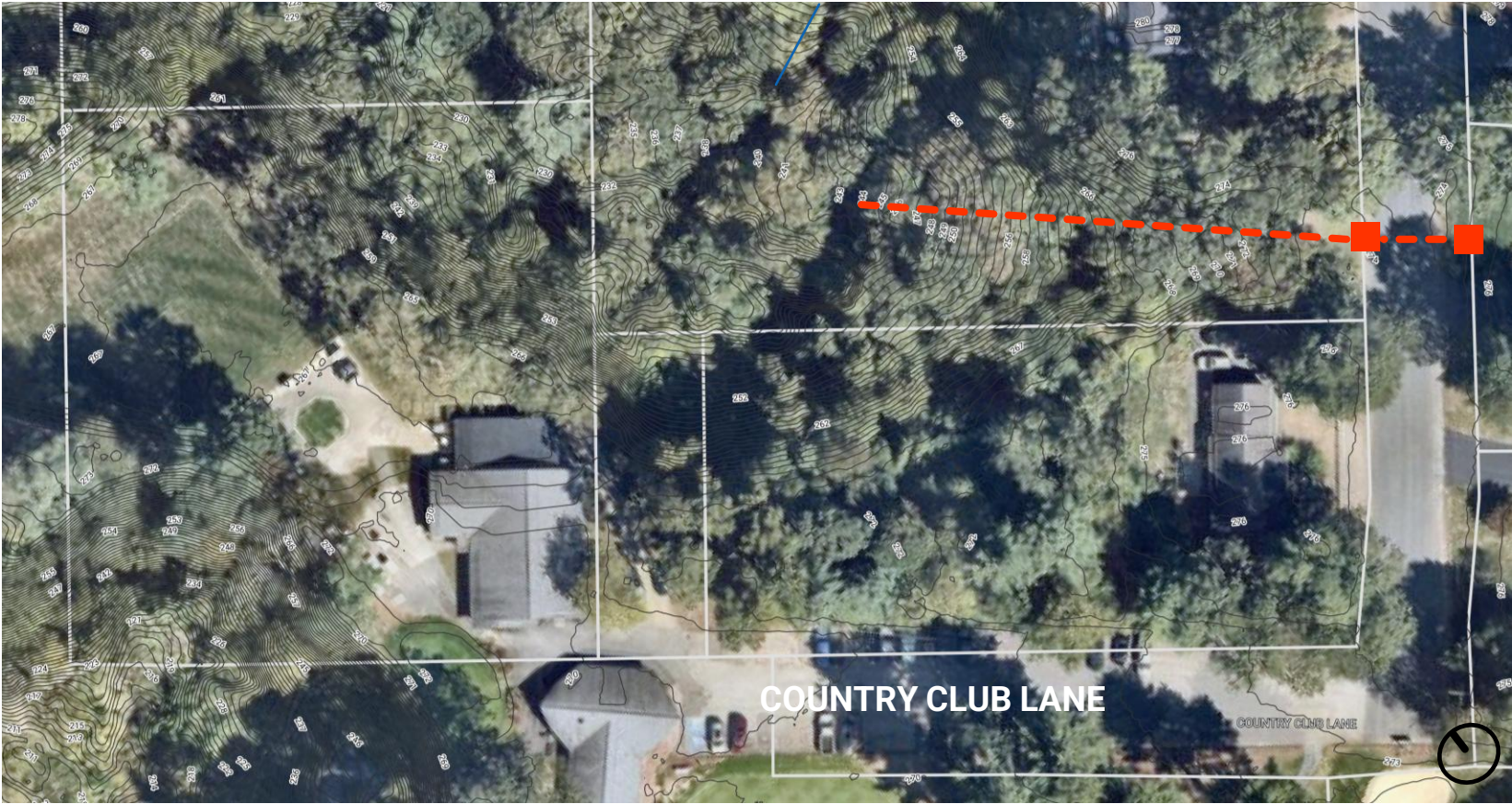
# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: OAKMAN STREET



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: COUNTRY CLUB LANE



KEY PLAN

# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: COUNTRY CLUB LANE



# HILL NEIGHBORHOOD GREEN INFRASTRUCTURE MASTER PLAN: DELL STREET



KEY PLAN

# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: DELL STREET



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: MILLERS FALLS ROAD



KEY PLAN

# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: MILLERS FALLS ROAD



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: MILLERS FALLS ROAD



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: TOOLS TO REDUCE EROSION



STREET TREES



RAIN GARDENS



VEGETATED SWALE



# HILL NEIGHBORHOOD

## GREEN INFRASTRUCTURE MASTER PLAN: NEXT STEPS

Upcoming Community Design  
Workshop at Shea Theater

- Monday, April 13 4:30-6pm
- Thursday, April 16 6-7:30pm

Please Visit the Project for Updates

