

HILL NEIGHBORHOOD GREEN INFRASTRUCTURE MASTER PLAN



FUSS & O'NEILL



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

WORKSHOP Night 2 - GOALS

Workshop Meeting 2:

- **Review and discussion of preliminary Green Infrastructure Master Plan Concepts**
- **Open House Discussion**

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**

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.



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



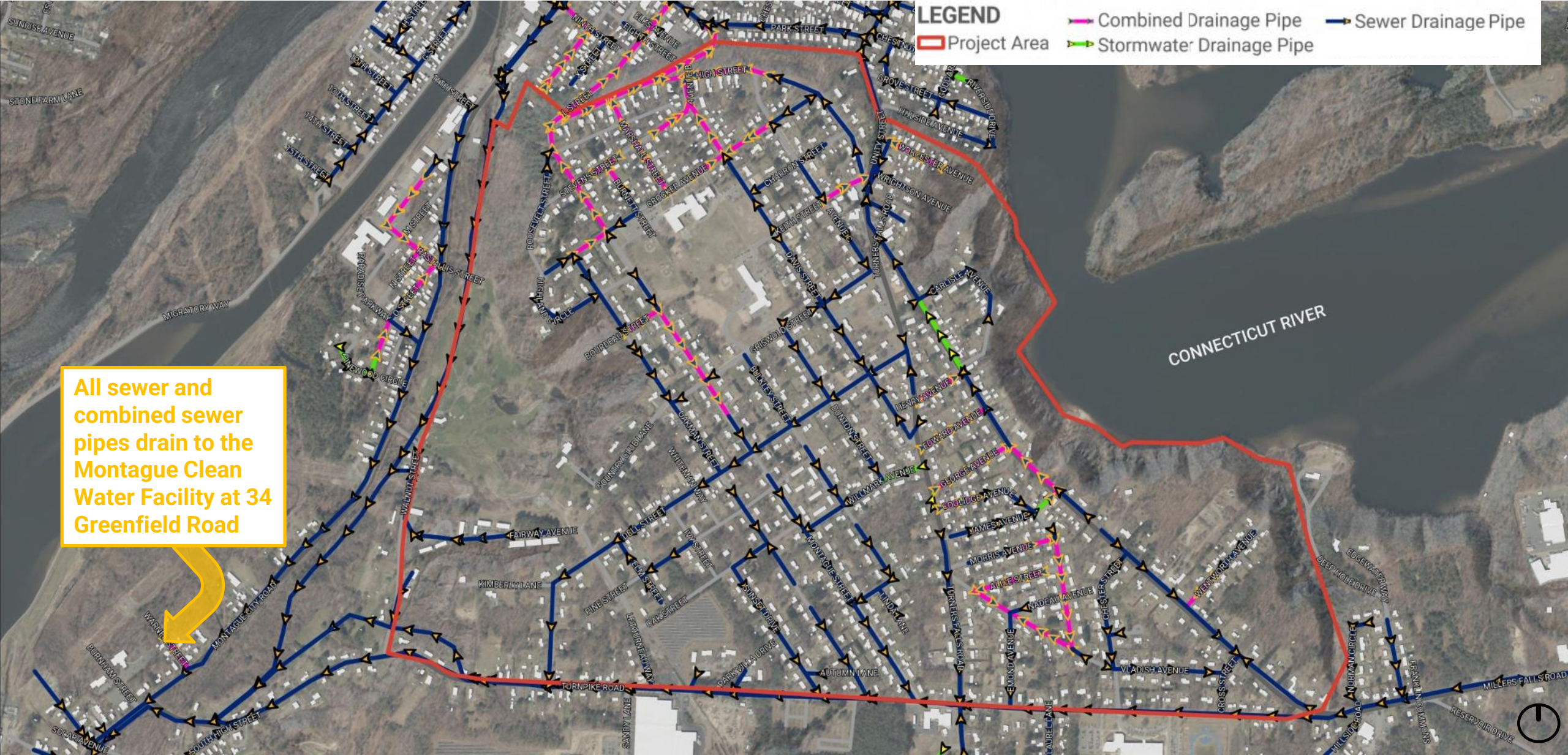
Introducing more green infrastructure

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



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: STORMWATER INFRASTRUCTURE



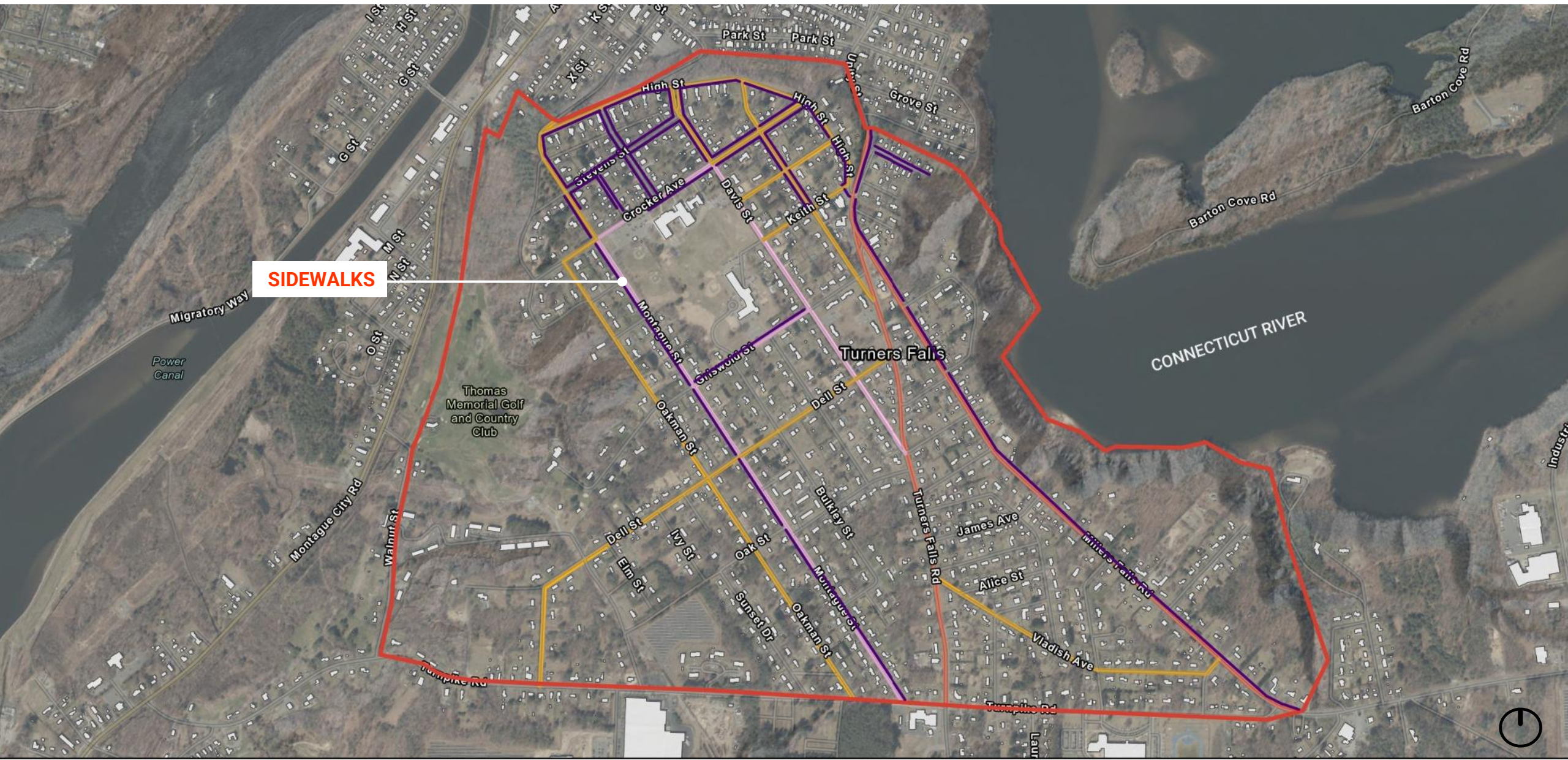
HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: TREE CANOPY & IMPERVIOUS COVER



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: SIDEWALKS



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: WHAT WE'VE HEARD

WHAT DO YOU LOVE ABOUT YOUR NEIGHBORHOOD?



A word cloud of neighborhood preferences. The words are arranged in a roughly circular shape, with 'trees' being the largest and most central word. Other prominent words include 'sidewalks', 'gardens', 'walkability', 'wildlife', 'outdoor', 'river', 'recreation', and 'view'. The colors range from dark green to light yellow-green.

sidewalks
our gardens
walkability
wildlife
outdoor
river
trees
kids
pretty
recreation
view
neighborhoods

HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: WHAT WE'VE HEARD

WHAT ARE SOME IMPROVEMENTS YOU WOULD LIKE TO SEE IN YOUR NEIGHBORHOOD?

- **Pleasant Street**
 - **Improved drainage**
 - **Usable sidewalk**
 - **Road is falling apart**
- **Rain gardens**
- **Stop parking on High Street greenbelt**
- **Snow mobiles and golf carts don't mix with walkers**
- **More walkability, bikeability, and public transportation in and out of neighborhood**
- **Hiking trails with interpretive signage in environmentally challenged area and private areas – work with DCR**
- **Accessible sidewalks**
- **Sidewalks all the way on Crocker Ave.**
- **More trees on embankment of Oakman and Highland Circle**
- **More sidewalks**
- **Crumbling 'new' street surfaces**
- **Trash trucks tear up the street**
- **More walkable sidewalks**
- **Invest in water storage for reuse**

HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: WHAT WE'VE HEARD

WHAT ARE SOME IMPROVEMENTS YOU WOULD LIKE TO SEE IN YOUR NEIGHBORHOOD?

- **Interest in narrowing Stevens Street**
- **Davis Street is very wide and needs sidewalks**
- **Major ponding on Stevens and Roosevelt and along street + mosquitos**
- **Slope below High Street is just grass, needs trees**
- **Active neighbor groups, very walk-centric**
- **Erosion all along Roosevelt Street**
- **Concerns about trees along High Street, are high winds and erosion a hazard?**
- **6, 8, 17 Stevens Street, lots of puddling at the end of driveways**
- **Permeable surface for alley?**
- **Permeable pavers for sidewalks?**
- **Side walks need to be designed to allow tree roots to go through or sidewalks next to street**
- **What's the best option to replace lawn?**
- **No rain gardens (maintenance/space) – like trees and swales**
- **Sheet flows off Highland right off slope**

HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: SHEFFIELD ELEMENTARY

Session 1 

Water's Journey

Session 2 

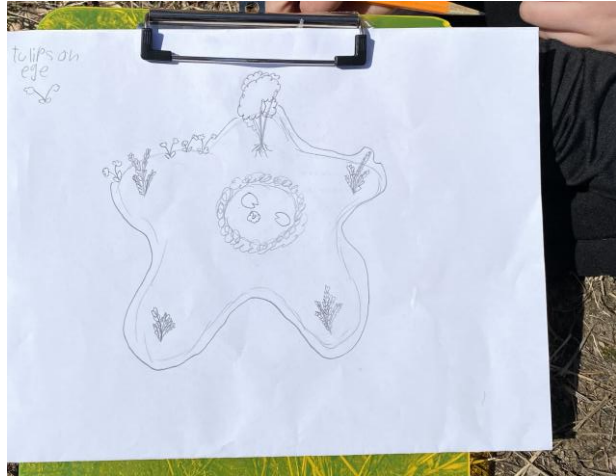
Green Infrastructure

Session 3 

Rain Garden Design & Planning

Session 4 

Rain Garden Planting Day



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: TOOLS TO REDUCE EROSION



STREET TREES



RAIN GARDENS



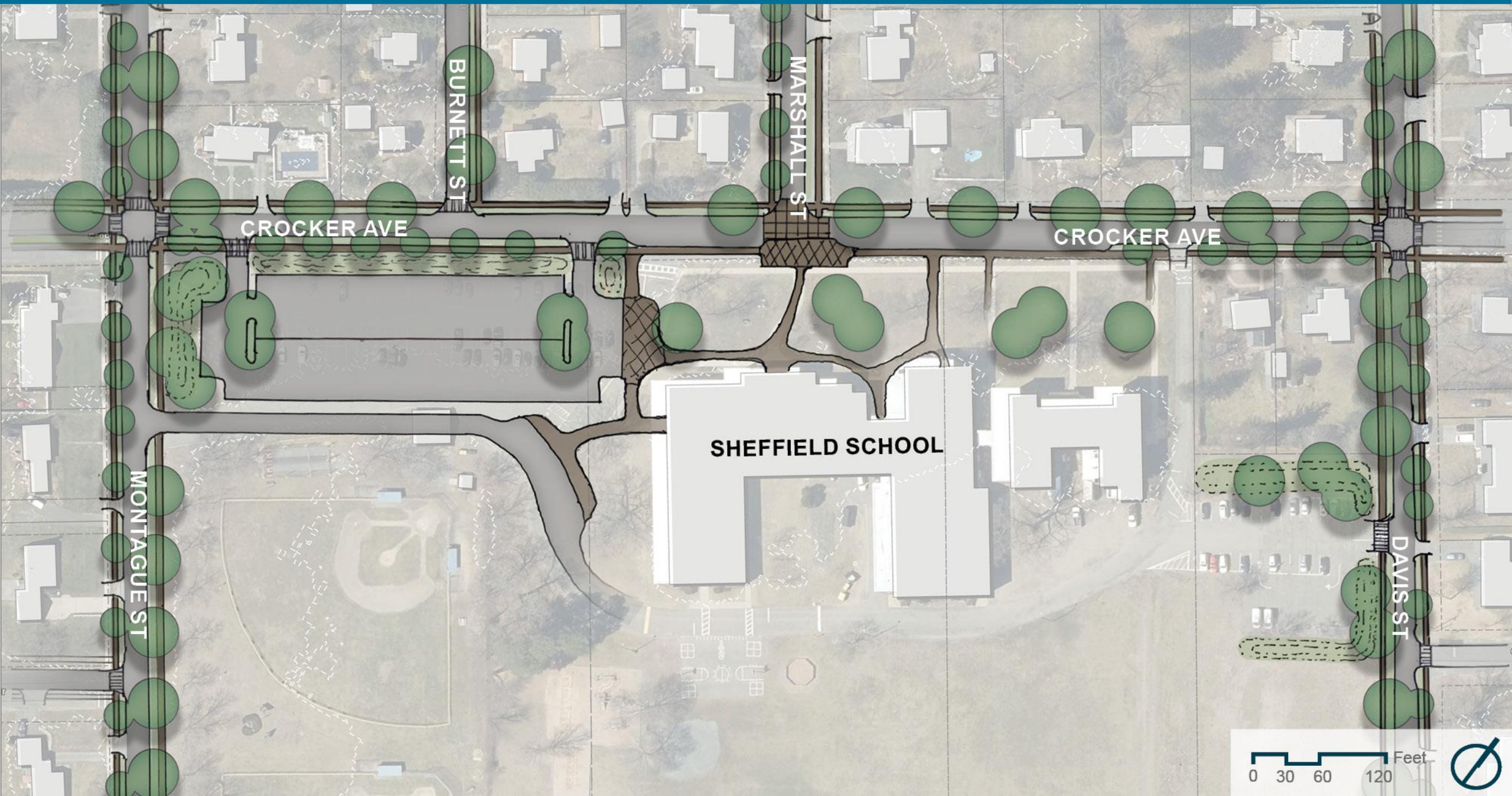
VEGETATED SWALE

HILL NEIGHBORHOOD

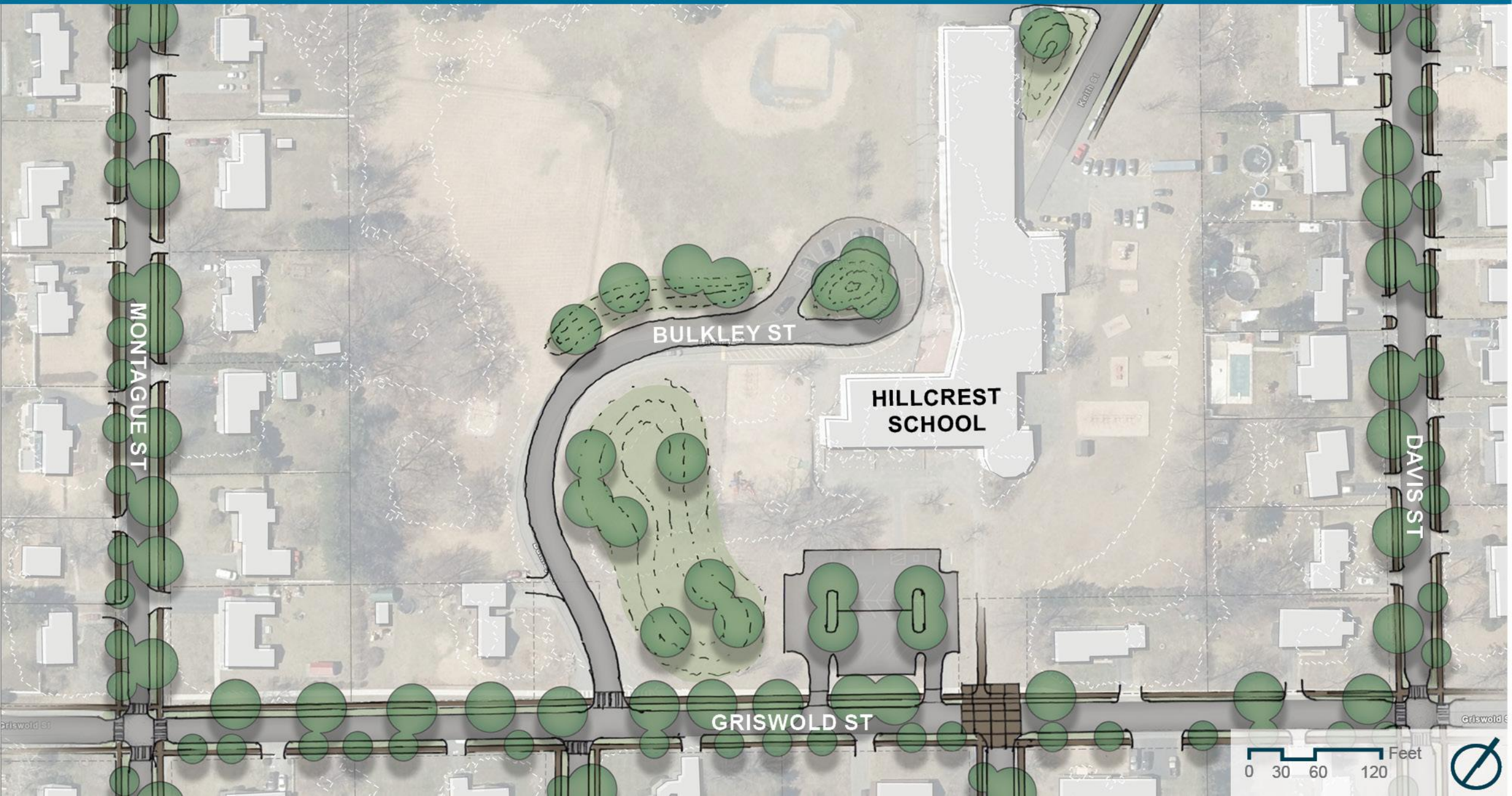
GREEN INFRASTRUCTURE MASTER PLAN: Designing for Co-Benefits



Green Infrastructure Improvements: Sheffield School



Green Infrastructure Improvements: Hillcrest School



Green Infrastructure Improvements: Country Club Lane



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: GRISWOLD STREET



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: PROJECT AREA



Green Infrastructure Improvements: Dell Street



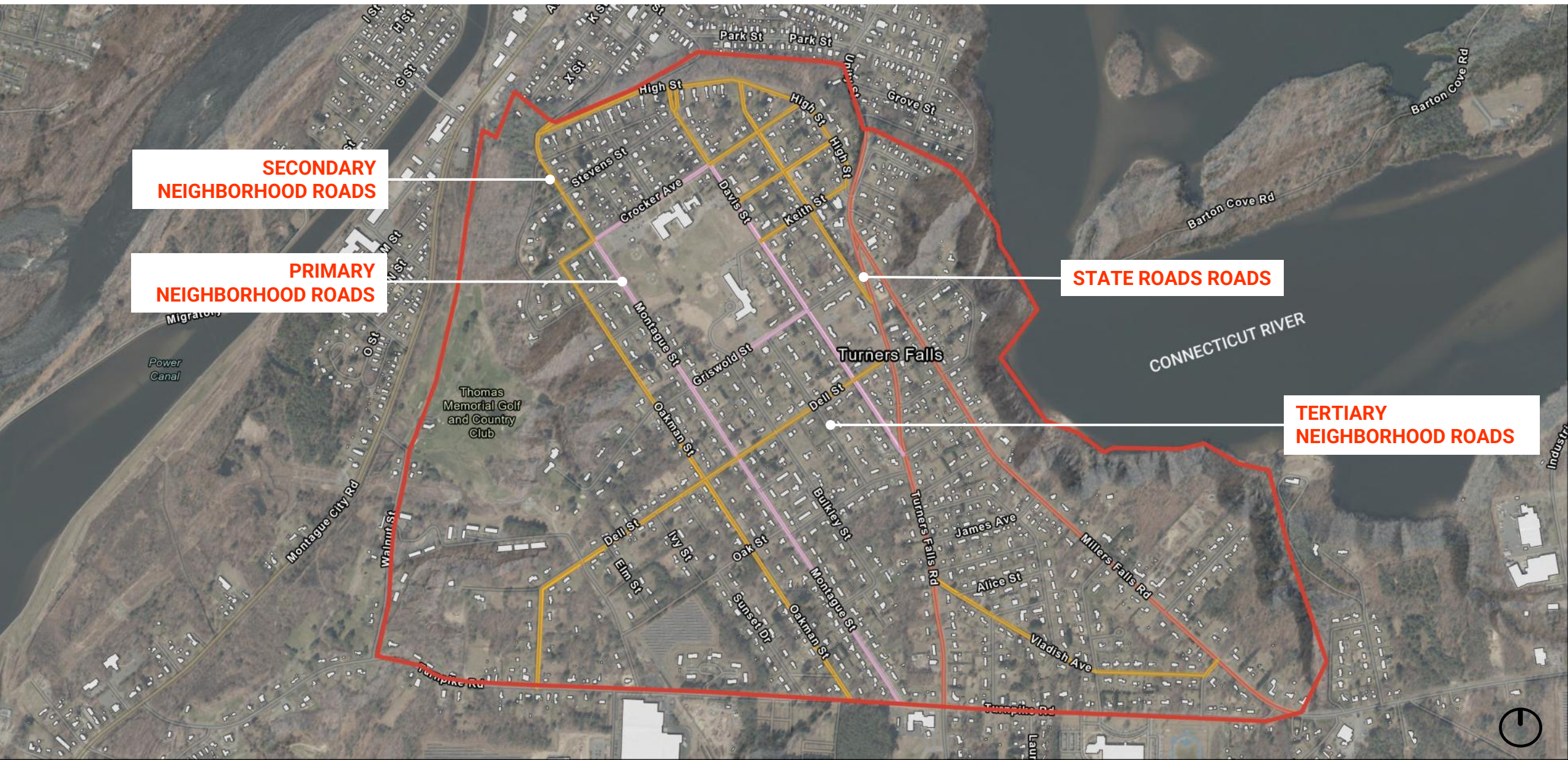
HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: DELL STREET



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: ROADS



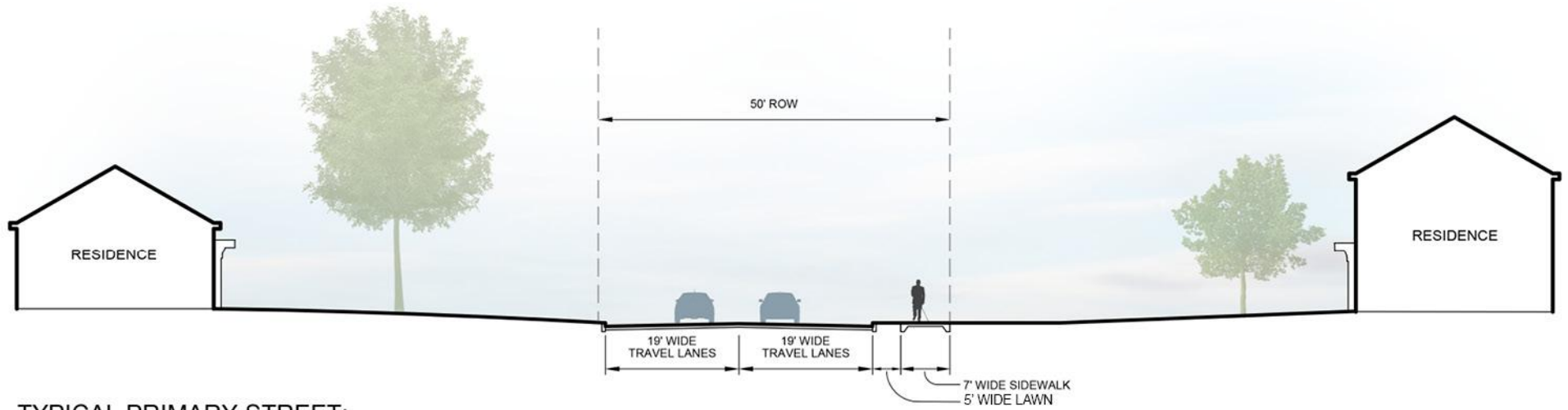
**SECONDARY
NEIGHBORHOOD ROADS**

**PRIMARY
NEIGHBORHOOD ROADS**

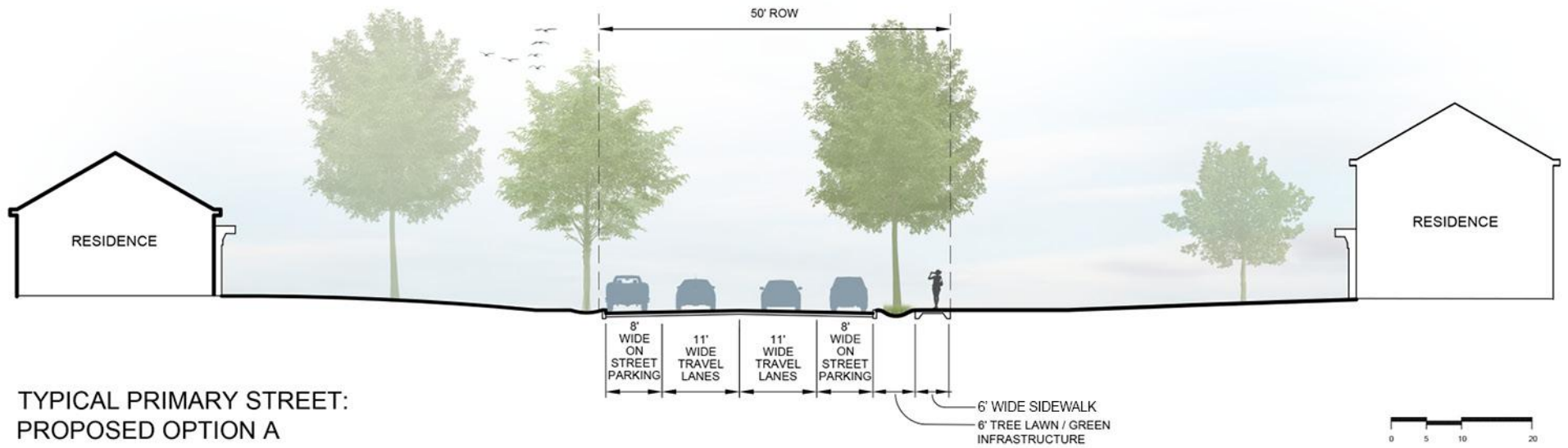
STATE ROADS

**TERTIARY
NEIGHBORHOOD ROADS**





TYPICAL PRIMARY STREET:
EXISTING CONDITIONS

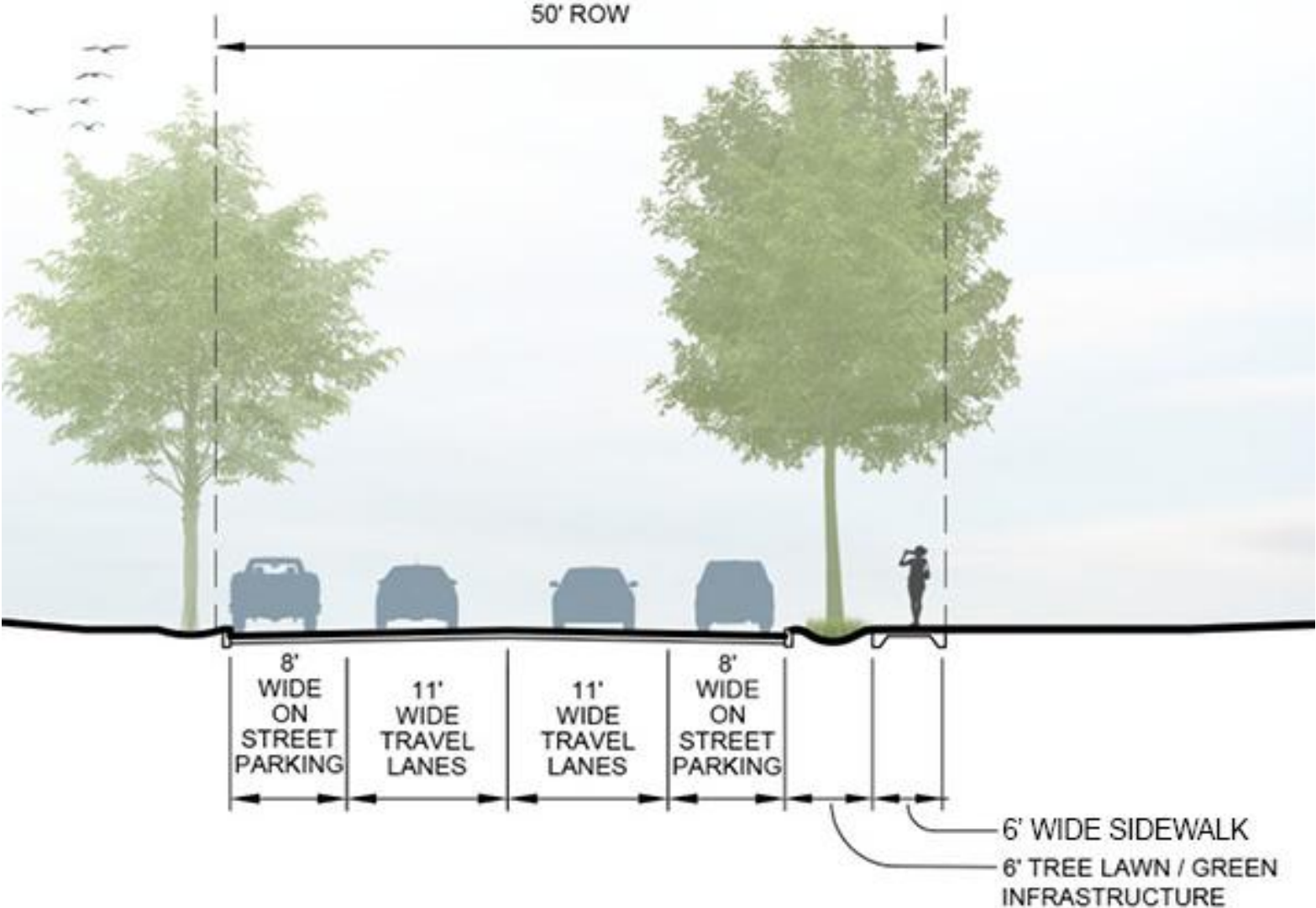


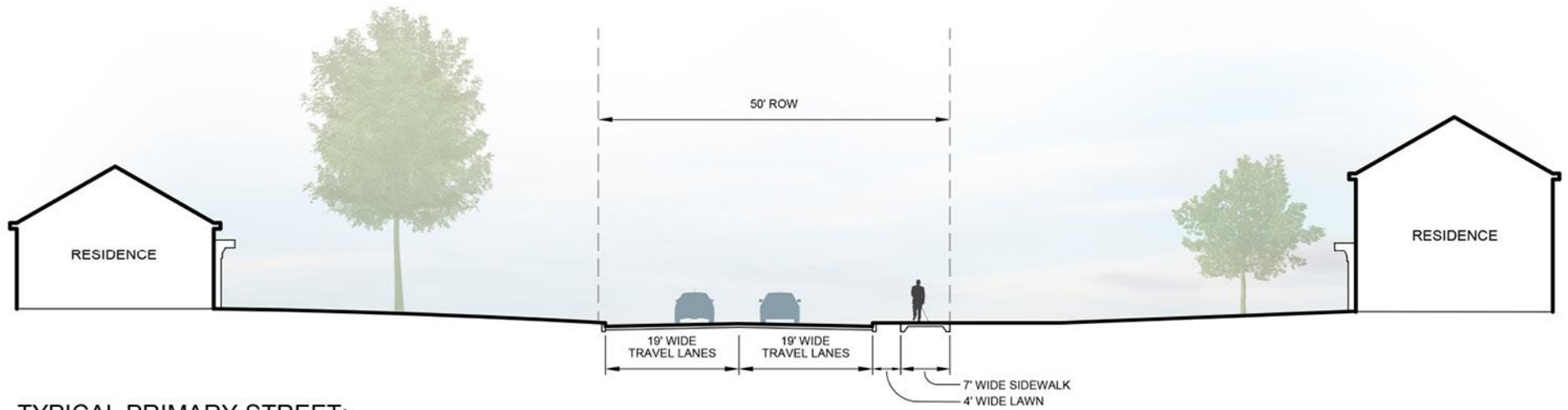
TYPICAL PRIMARY STREET:
PROPOSED OPTION A



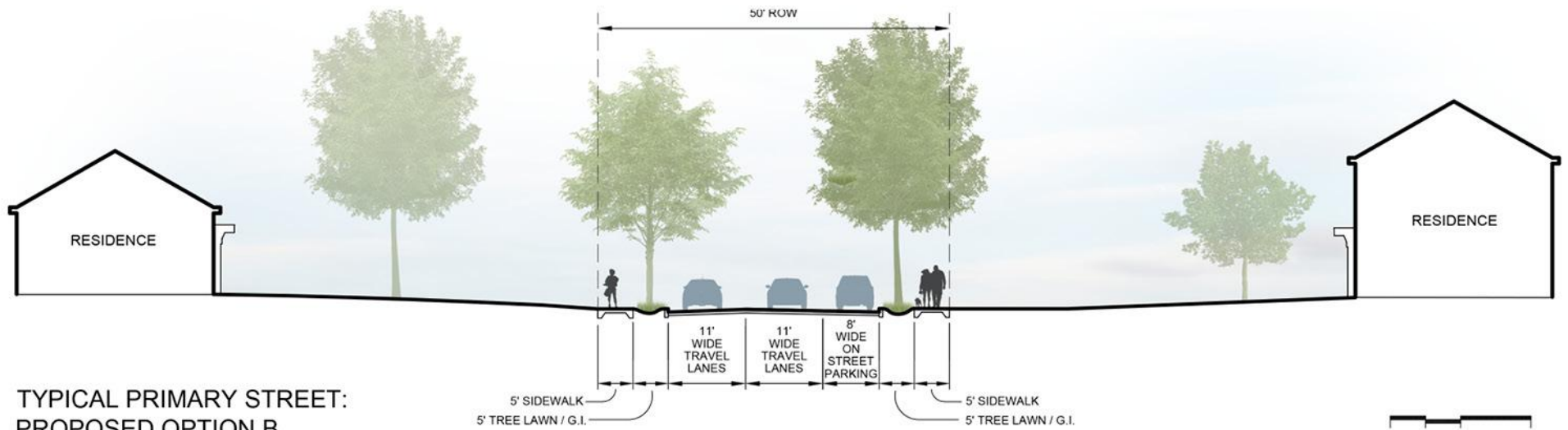
HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: PRIMARY STREETS





TYPICAL PRIMARY STREET:
EXISTING CONDITIONS

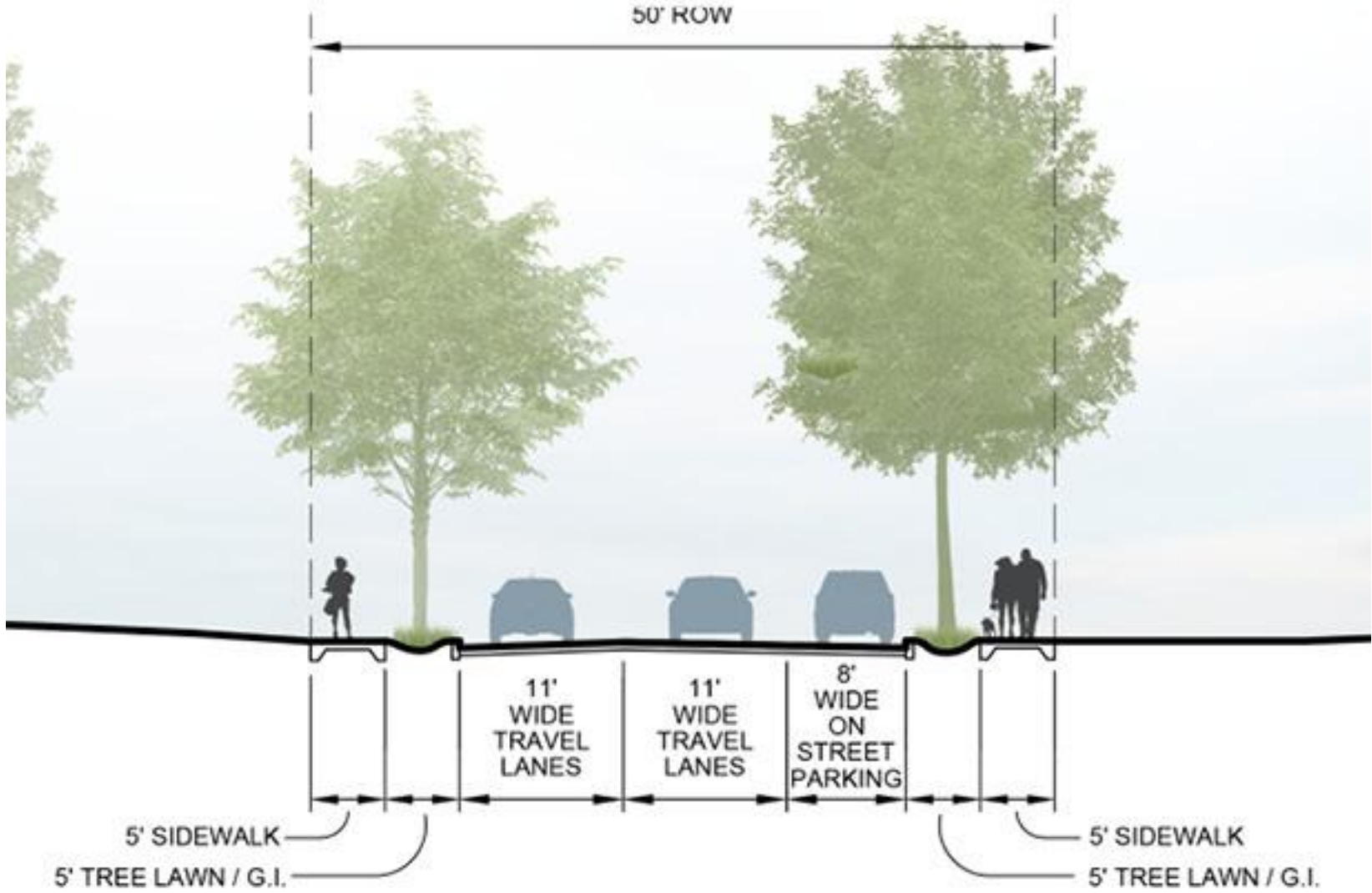


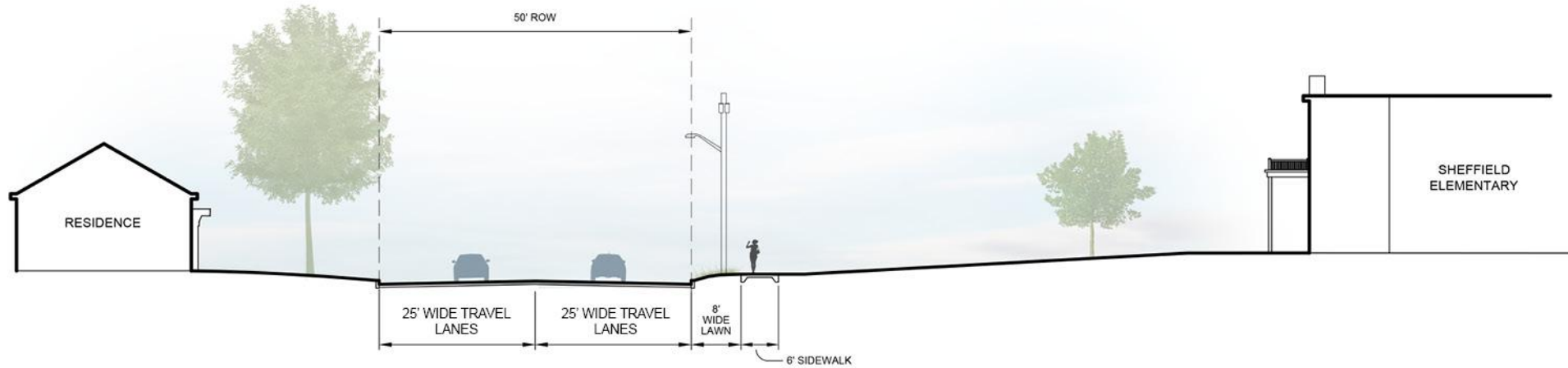
TYPICAL PRIMARY STREET:
PROPOSED OPTION B



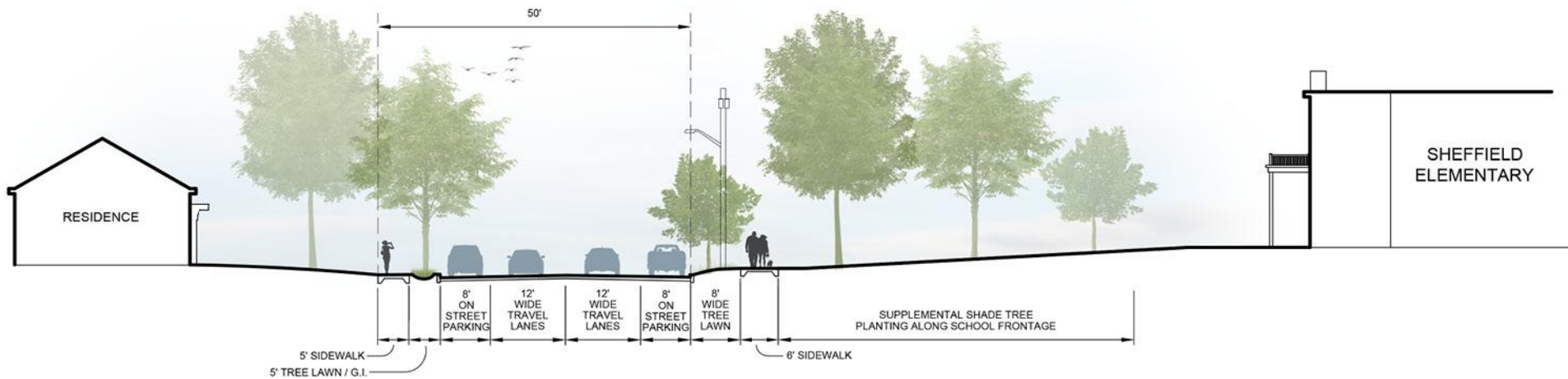
HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: PRIMARY STREETS





PRIMARY STREET:
CROCKER AVE EXISTING CONDITIONS

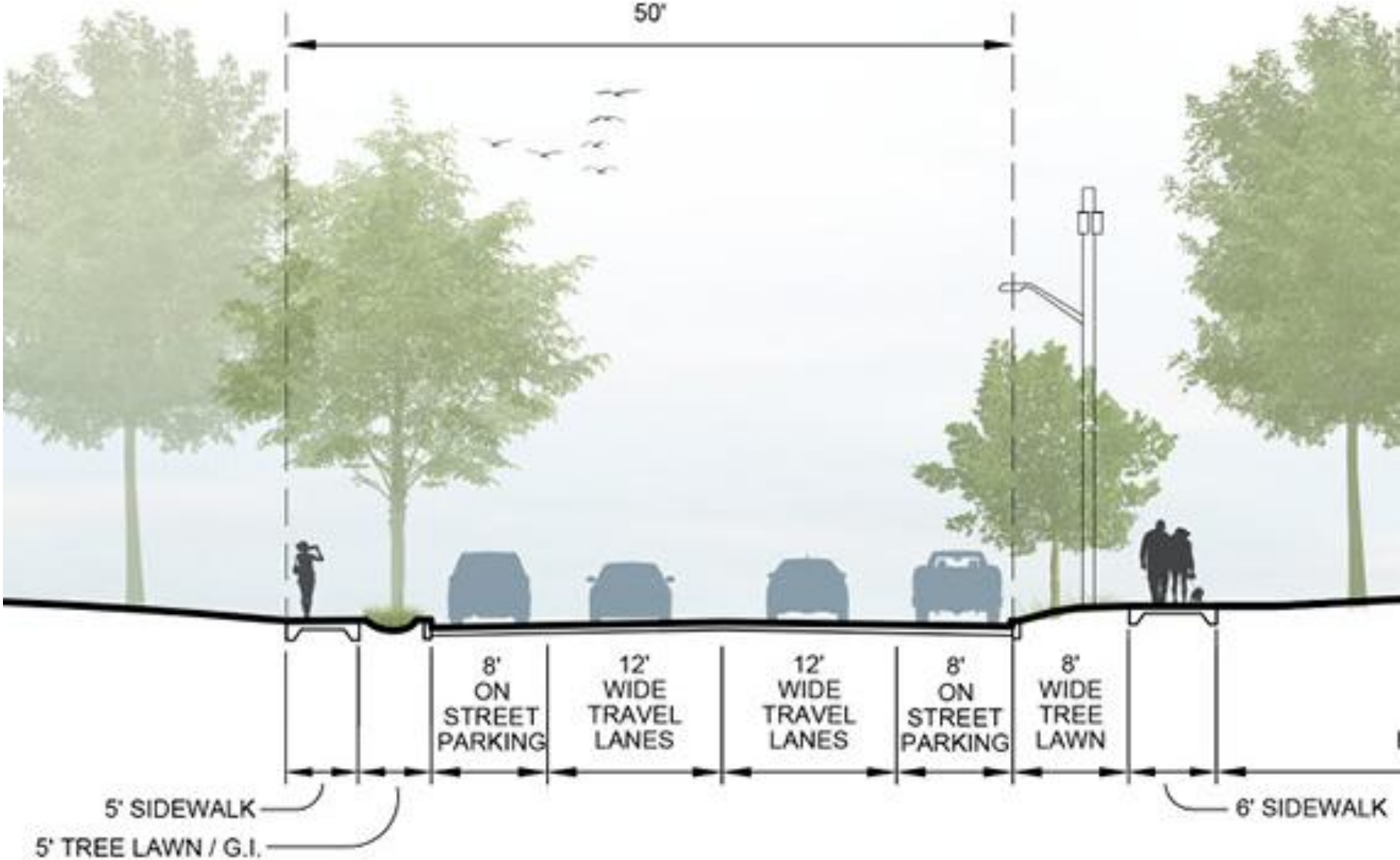


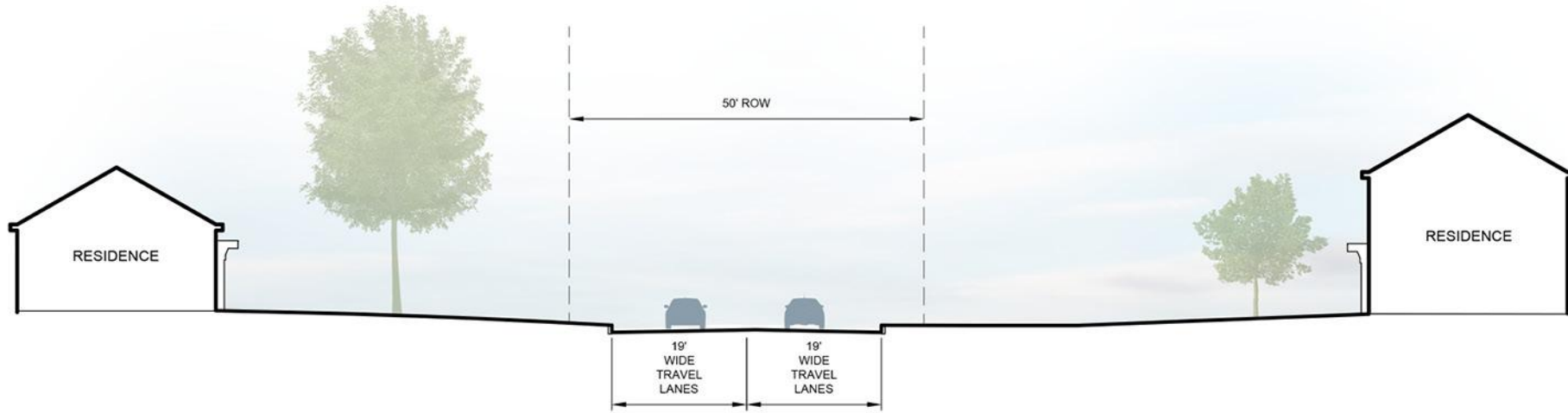
PRIMARY STREET:
CROCKER AVE PROPOSED CONDITIONS



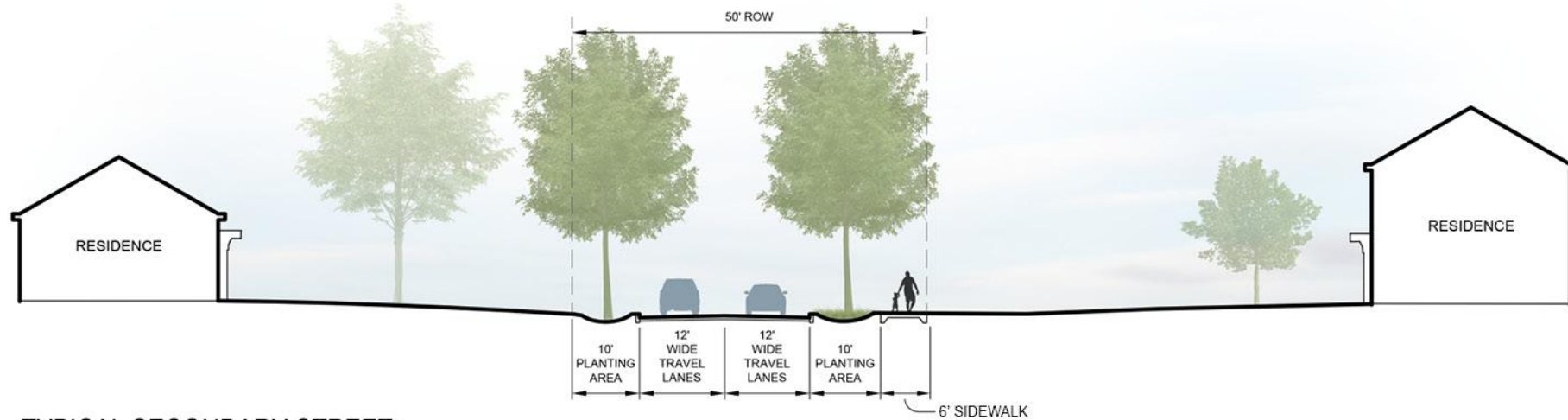
HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: PRIMARY STREETS





TYPICAL SECONDARY STREET:
EXISTING CONDITIONS

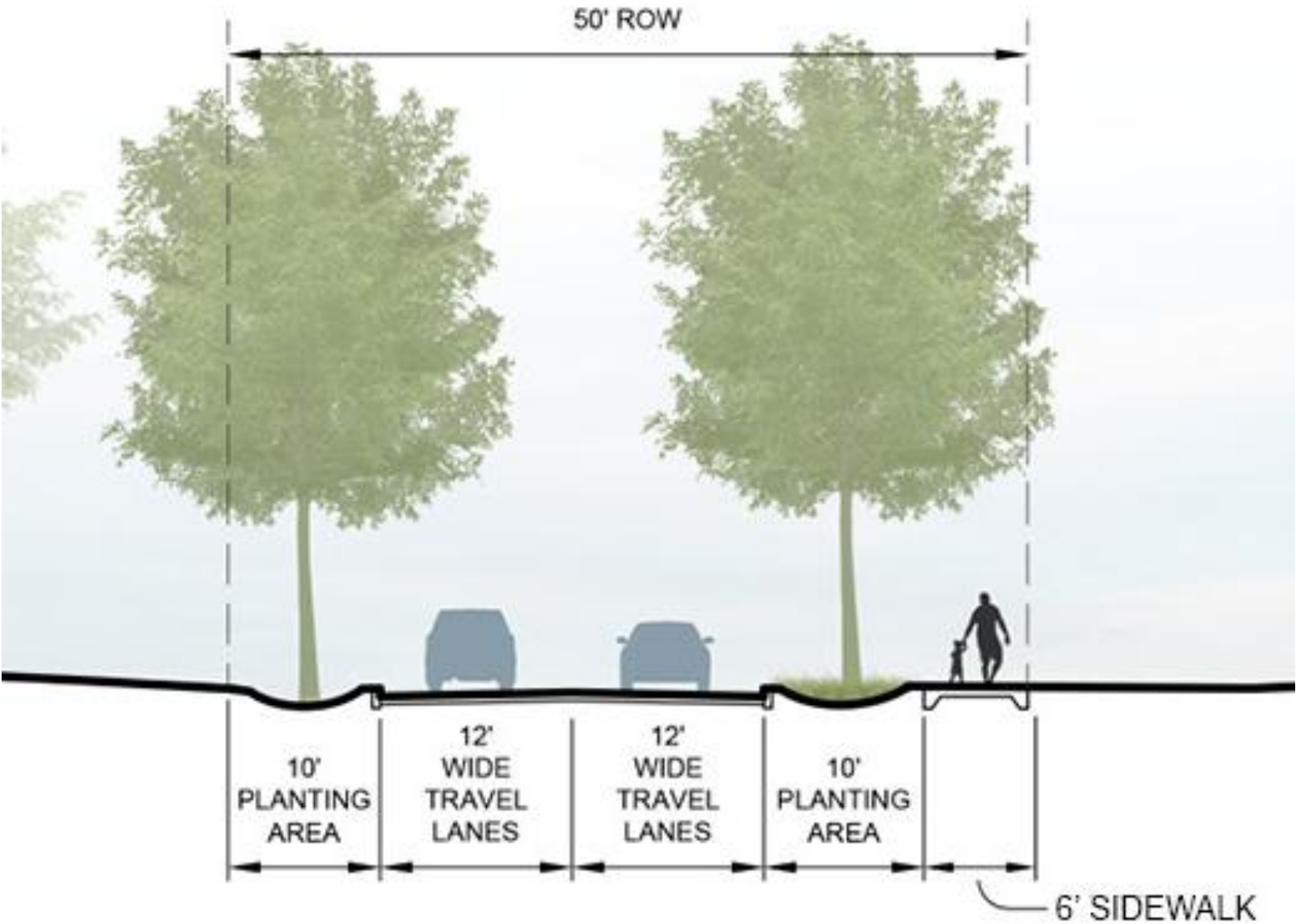


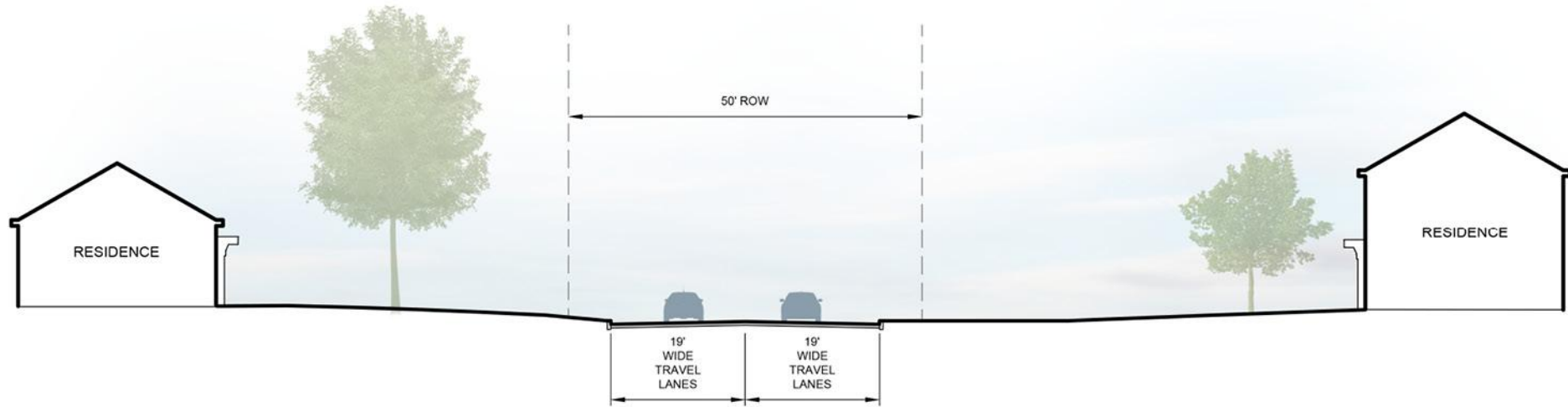
TYPICAL SECONDARY STREET:
PROPOSED CONDITIONS



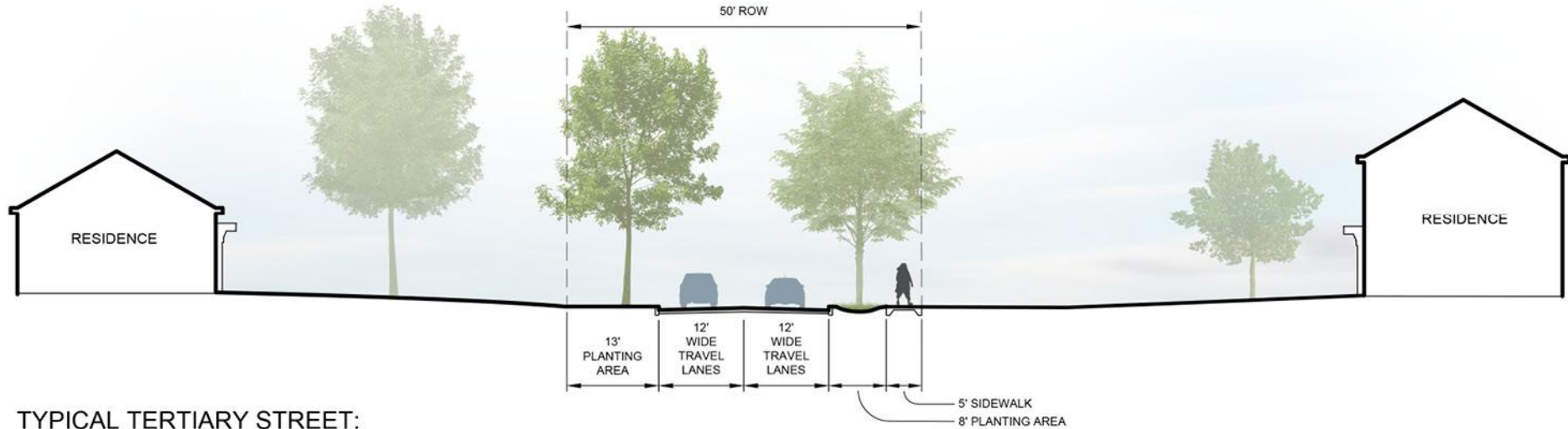
HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: SECONDARY STREETS





TYPICAL TERTIARY STREET:
EXISTING CONDITIONS

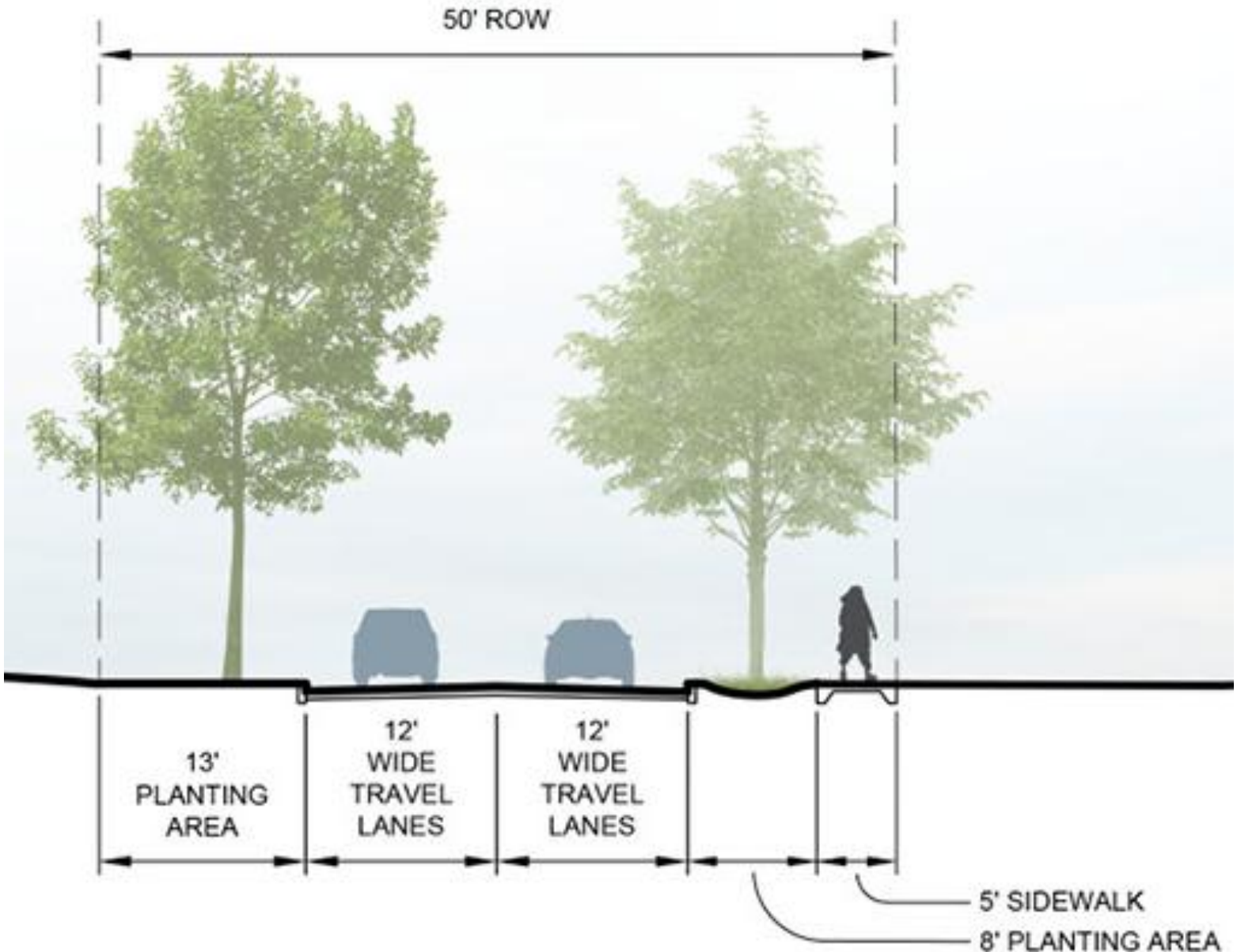


TYPICAL TERTIARY STREET:
PROPOSED CONDITIONS



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: TERTIARY STREETS



HILL NEIGHBORHOOD

GREEN INFRASTRUCTURE MASTER PLAN: NEXT STEPS

Open House Discussion

Please Visit the Project for Updates

