

City of Alexandria, Virginia

Green Infrastructure Demonstration Project: Second Street

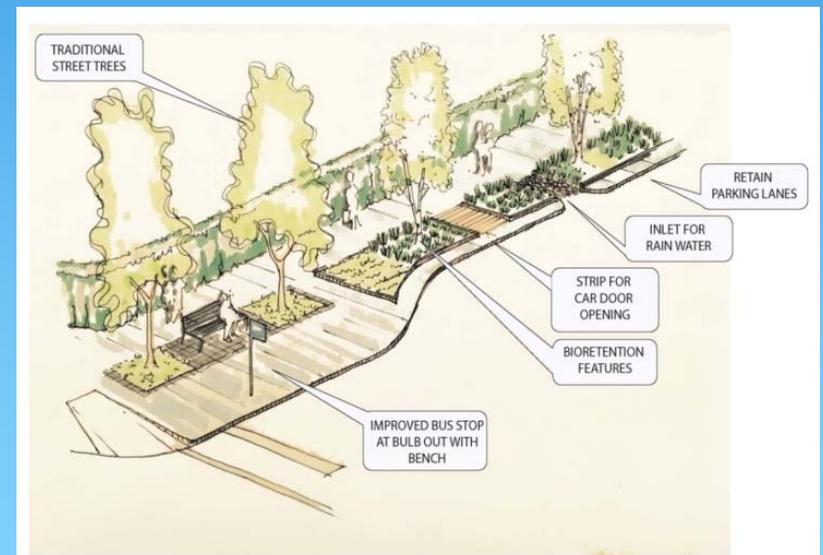
Brian Meli, PE
Dept. of Project Implementation (DPI)



City of Alexandria, Virginia

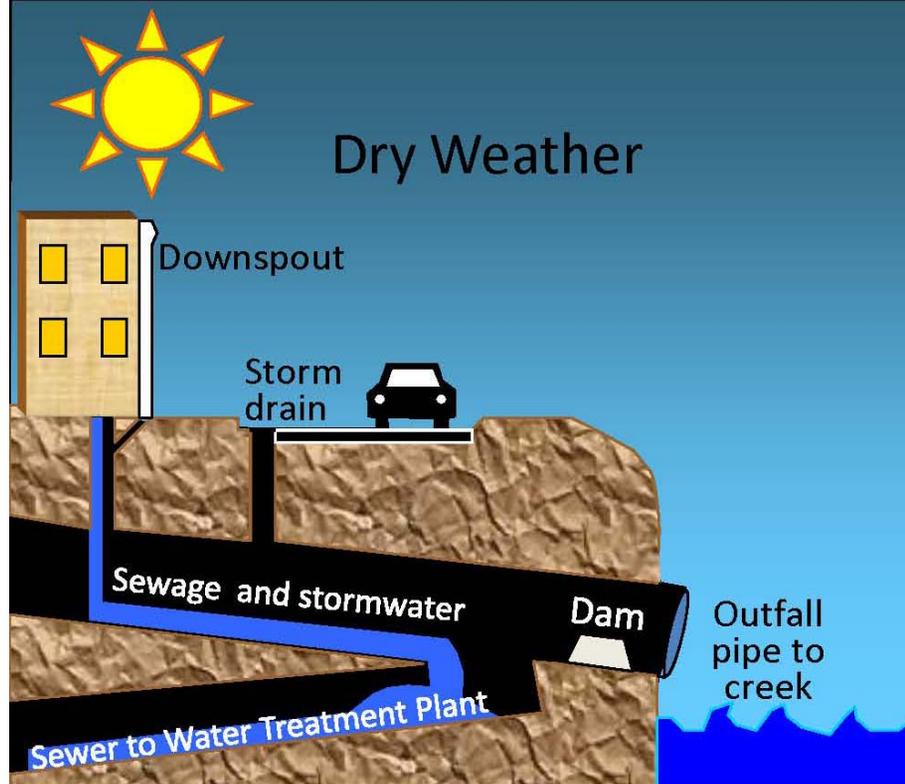
PRESENTATION OUTLINE

1. What is a Combined Sewer?
2. Green Infrastructure:
General Overview
3. Demonstration Project:
Second Street



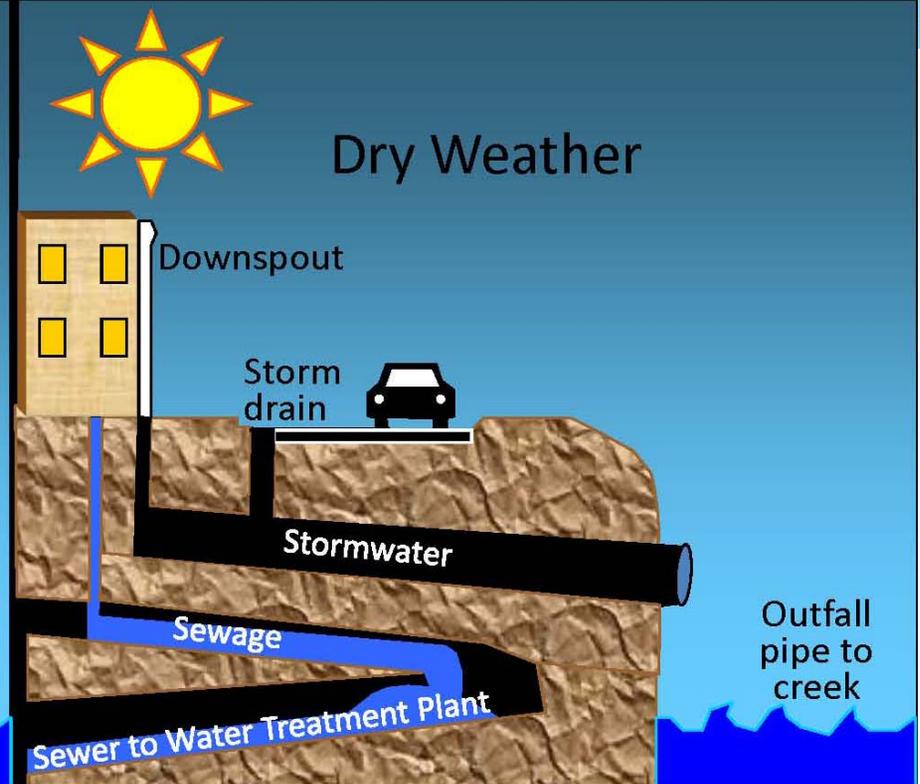
What is a Combined Sewer?

Combined Sewer



6.4% of Alexandria

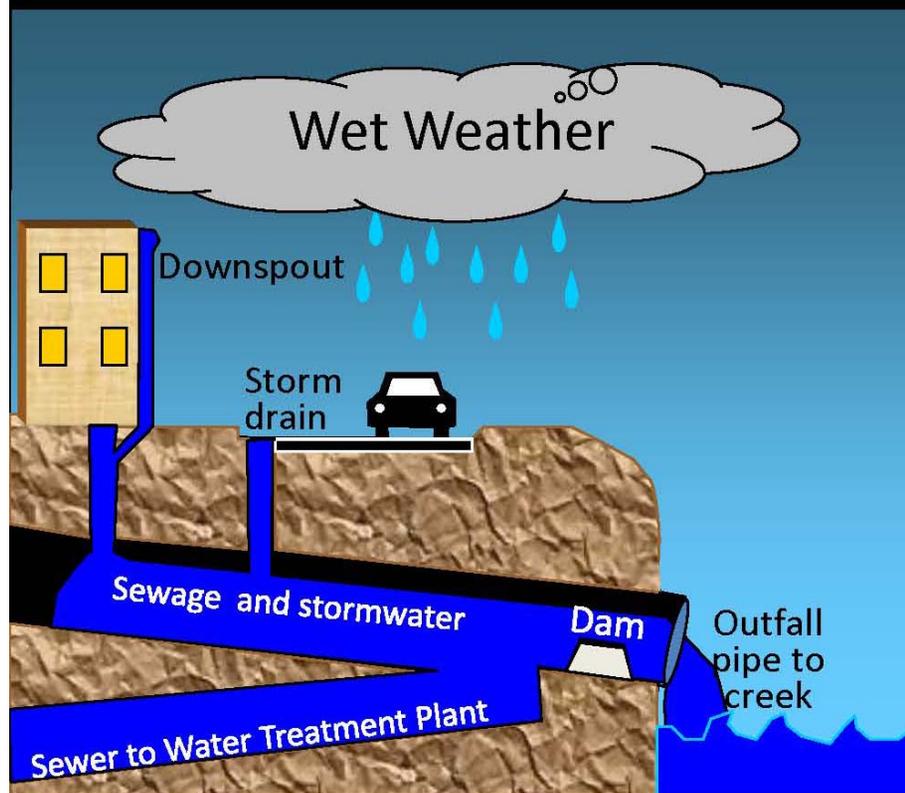
Separate Sewer



93.6% of Alexandria

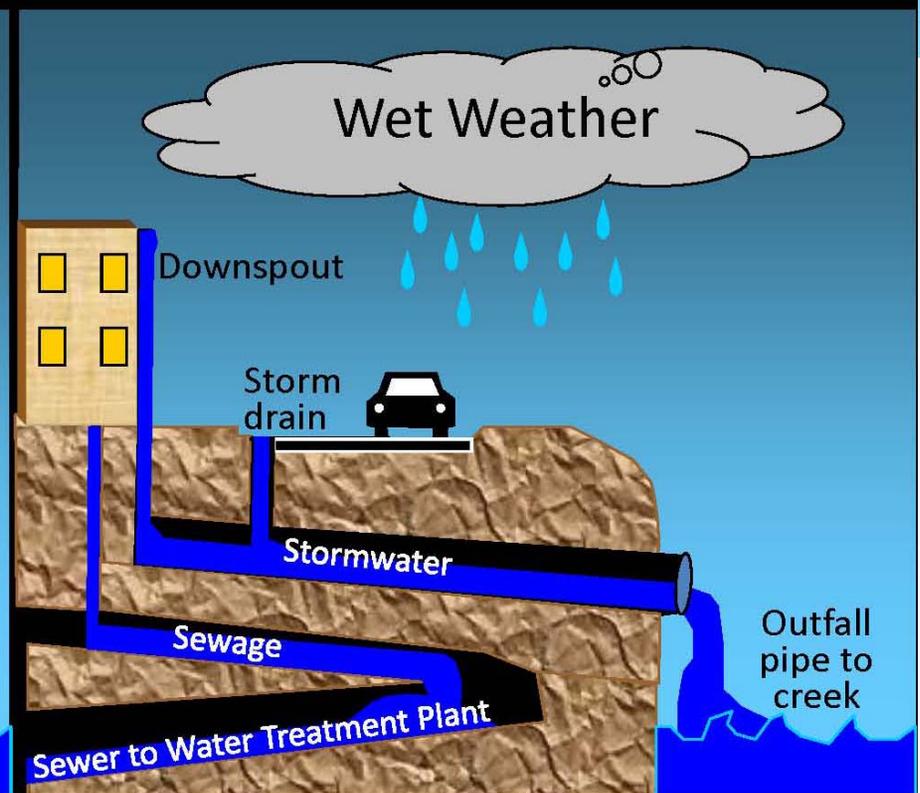
What is a Combined Sewer?

Combined Sewer



6.4% of Alexandria

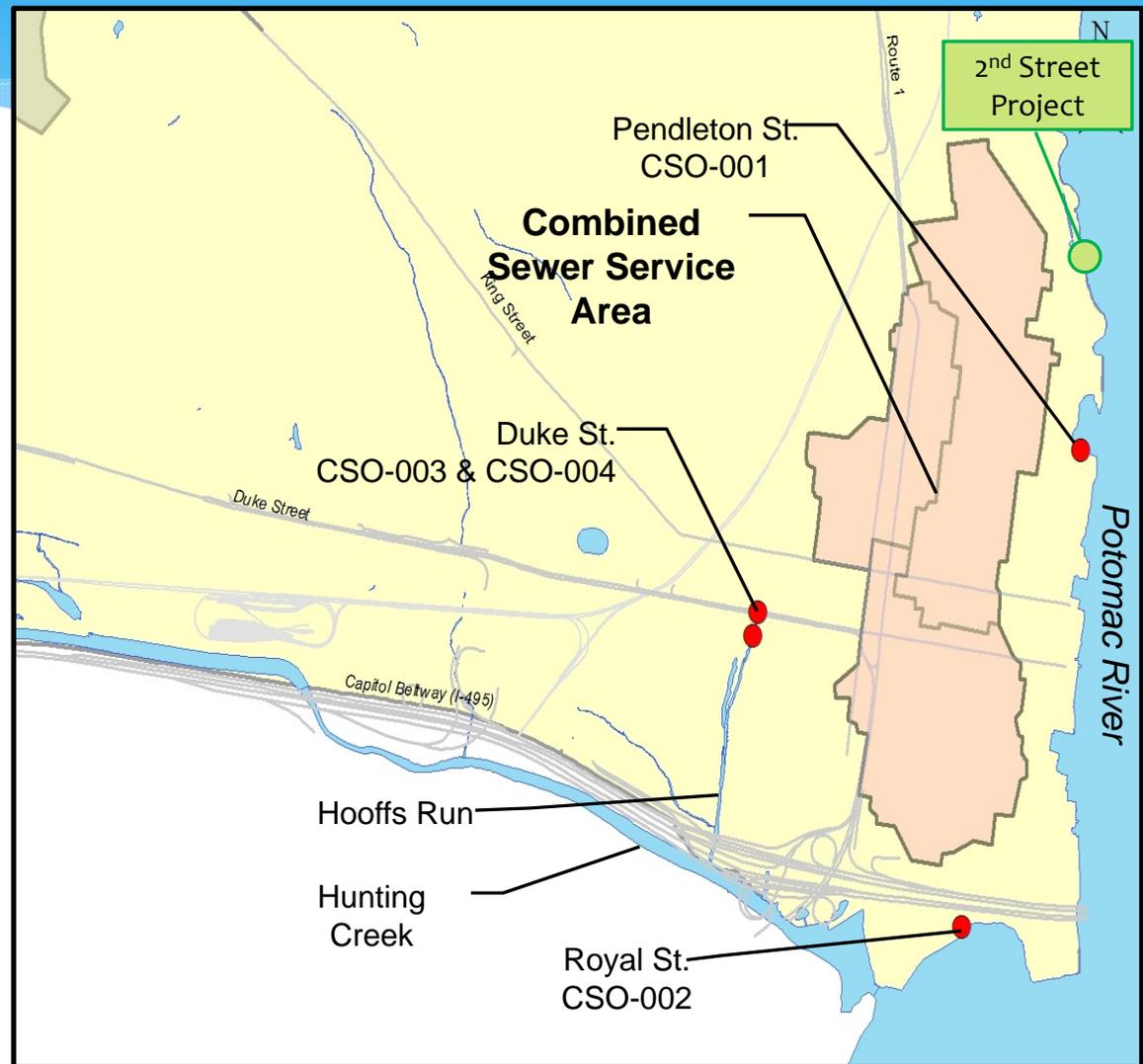
Separate Sewer



93.6% of Alexandria

Combined Sewer Service Mandate

- * City mandate to reduce combined sewer overflows (CSO's)



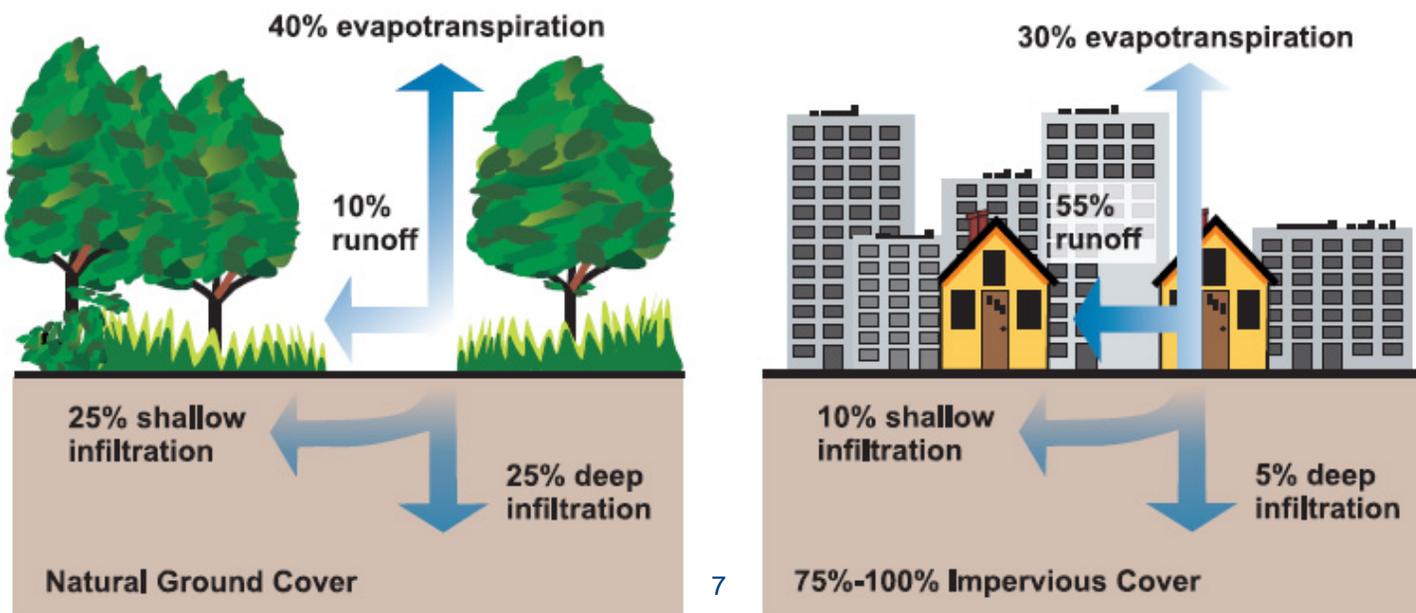
Green Infrastructure

- * Reduces and treats stormwater at its source
- * Promotes infiltration of runoff
- * Delivers environmental, social, and economic benefits
- * Treats rainwater as a resource



Green Infrastructure - Infiltration

- * Stormwater management strategy that uses natural features to manage water and provide environmental and community benefits



Green Infrastructure - Examples



Bioretention



Urban Bioretention



Permeable Pavements



Green Roofs



Tree Canopy



Rain Barrels



Tree Boxes

STREETSCAPE CONCEPT



OPEN SPACE

Ideas for Future Study



LEGEND			
	TRAIL CONNECTION		GREEN CONNECTIONS
	TRAIL WITH POTENTIAL TRANSPORT		ENHANCED WASHINGTON STREET STREETScape
	ENHANCED STREETScape		POTENTIAL OPEN SPACE OPPORTUNITIES

- OPEN SPACE AS A PRIORITY ON THE NRG SITE
- MAXIMIZE OPEN SPACE CORRIDOR ON THE WATERFRONT

Green Infrastructure Demonstration

- * 50 Sites Evaluated
 - Ranked using criteria
 - Held Strategy Meetings with City Stakeholders
 - Completed soil and utility evaluations
 - Selected 2 sites for GI demonstration projects
 - Project #1 - Second Street
 - Project #2 - Powhatan Street



Existing Second Street



Existing Powhatan Street

Why Second Street?



Existing Second Street (Looking East)

- * Pavement wider than needed
- * Public right-of-way available

Why Second Street?

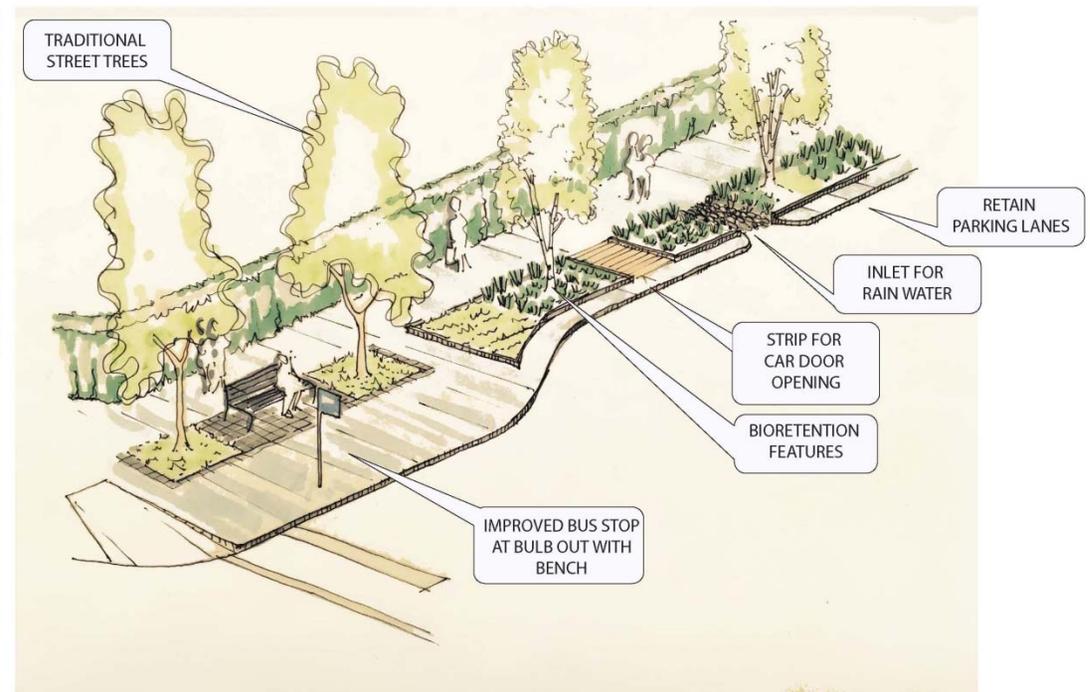
- * Minimal utility conflicts
- * Available downstream storm system
- * Minimal disruption to residents and traffic flow
- * Post-project parking will meet existing demand



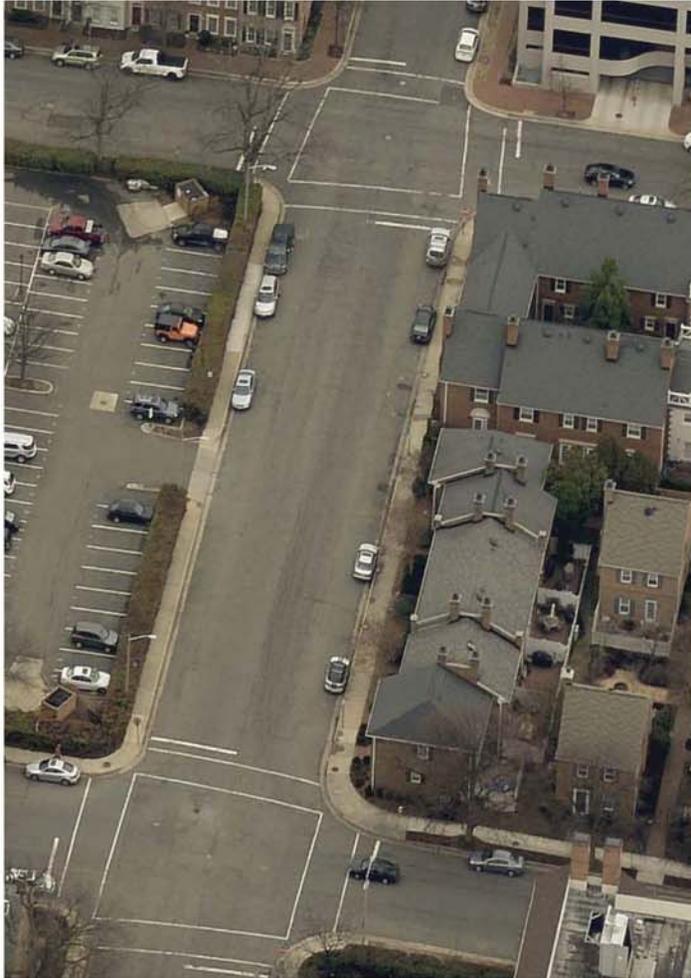
Existing Second Street (Looking West)

Why Second Street?

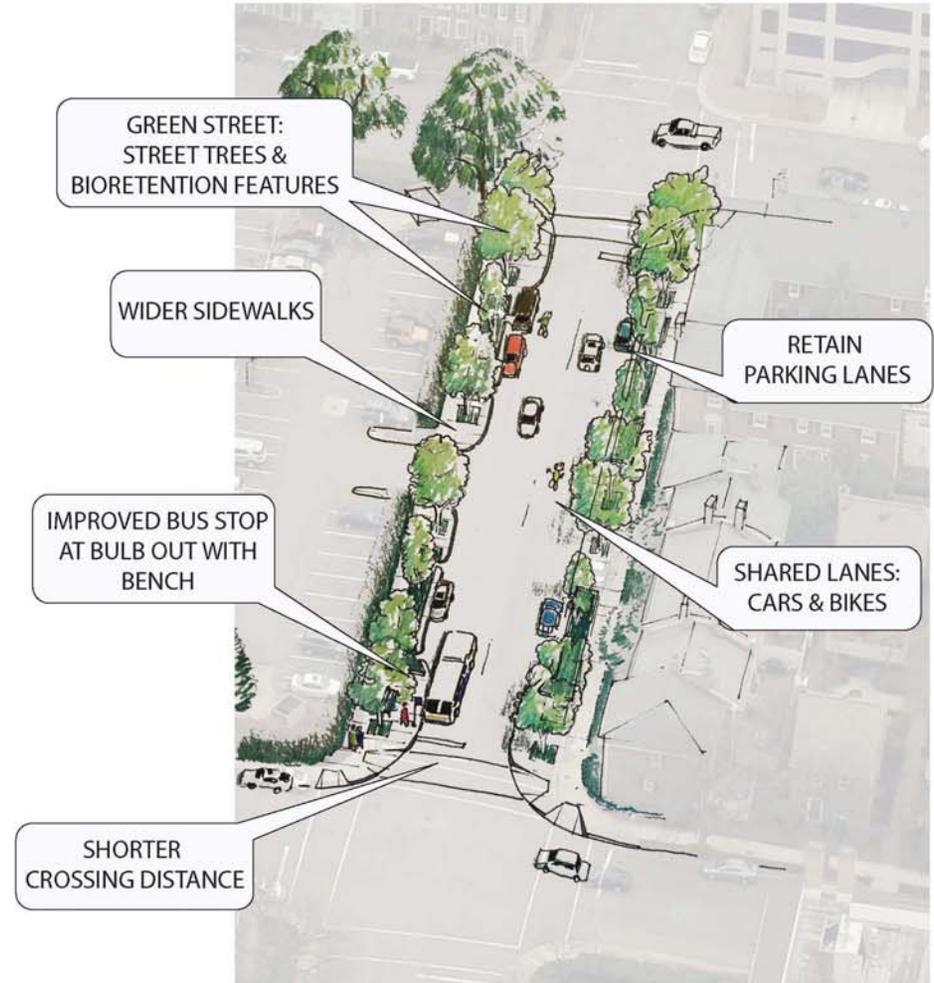
- * Opportunity to incorporate:
 - Street Trees
 - Traffic calming measures
 - Shorter crosswalks
 - ADA Improvements at Bus Stops



Second Street - Concept



EXISTING



PROPOSED

Second Street – Concept (Existing Condition)



Second Street – Concept (Proposed Condition)



Second Street – Concept (Proposed Condition)



Second Street – Concept (Existing Condition)



Second Street – Concept (Proposed Condition)



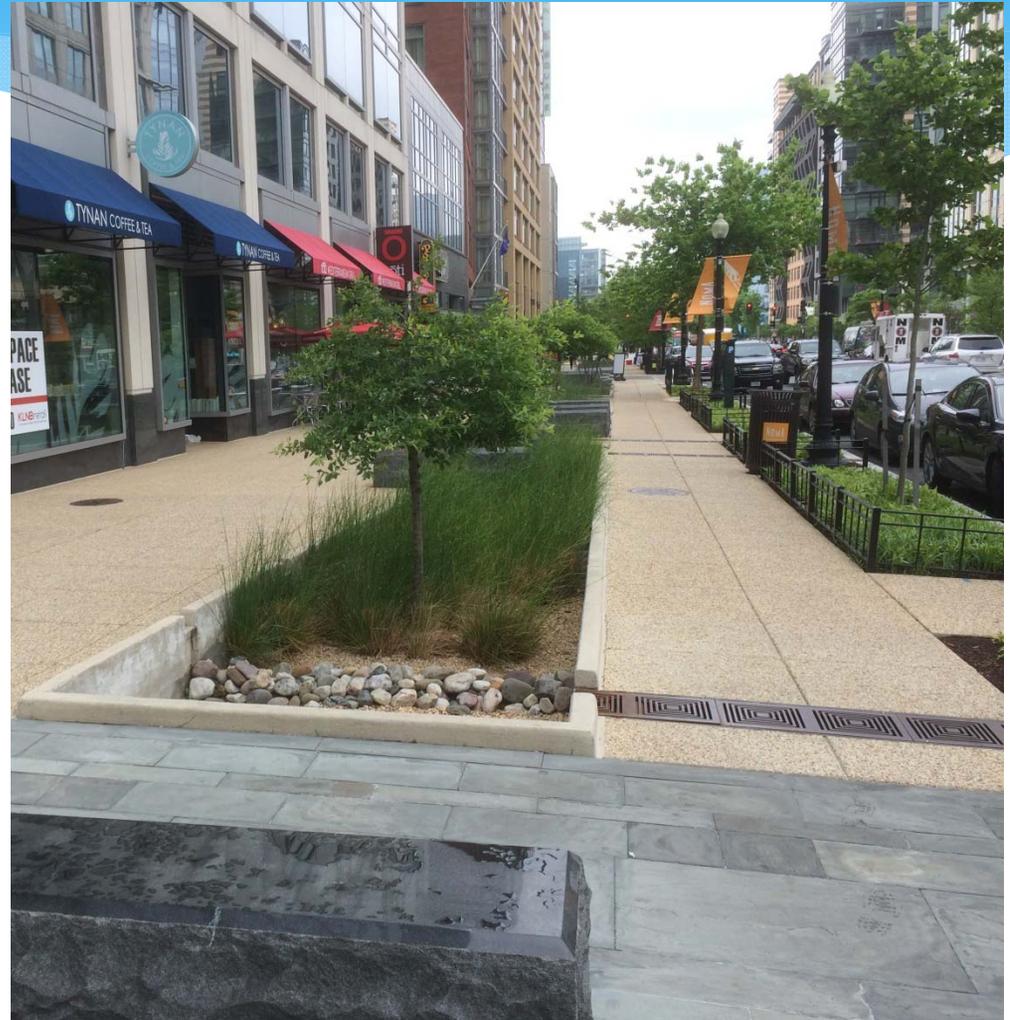
Second Street – Concept (Proposed Condition)



Second Street – Bioretention



Location: Washington DC - The Yards; Design by AECOM

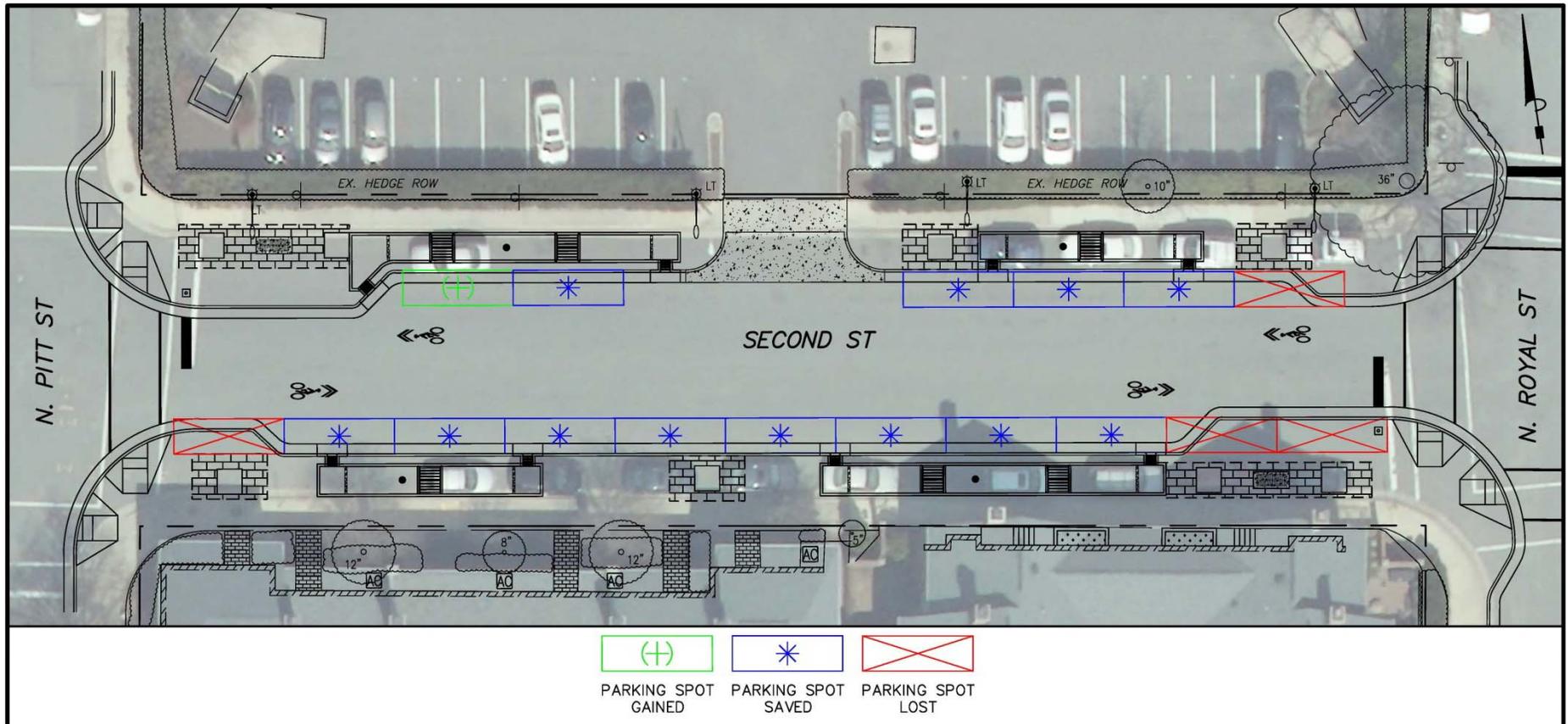


Location: Washington DC – NOMA District

Second Street – Bioretention



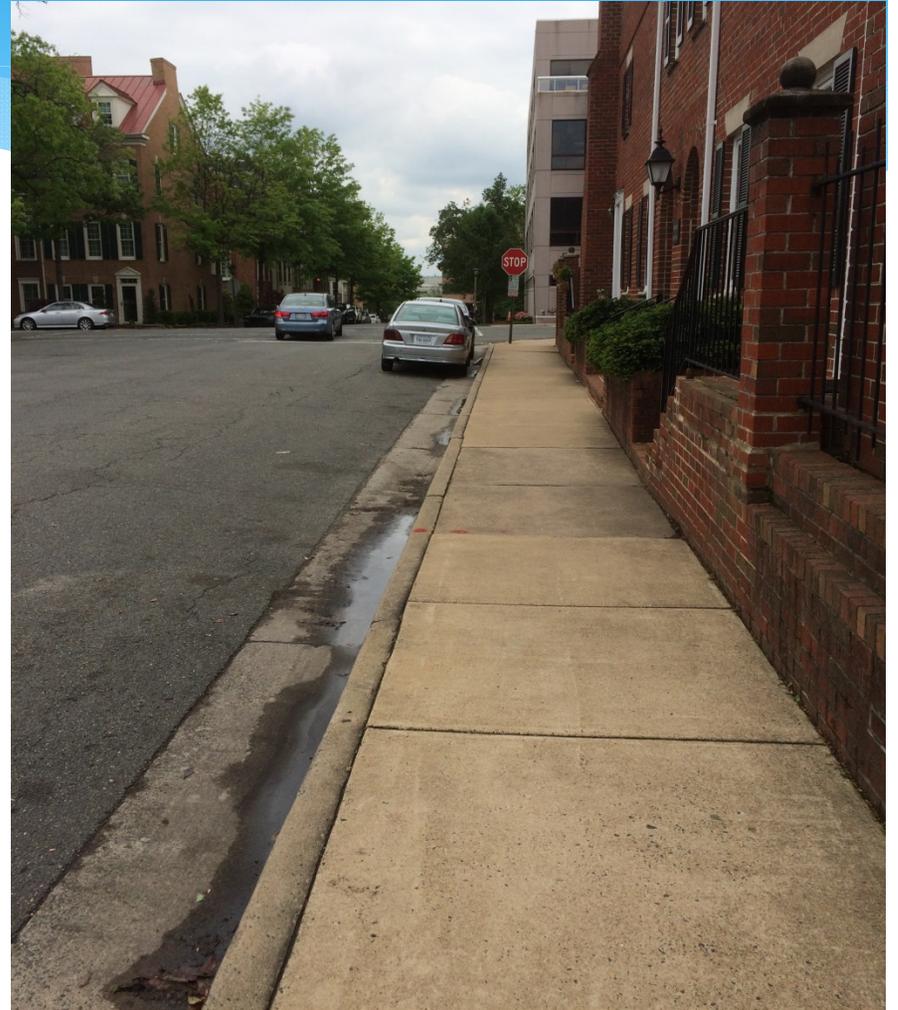
Second Street – Parking Impacts



Second Street – Property Impacts



Northside looking West (Canal Place)



Southside looking East (Watergate)

Second Street – Next Steps

- * Gather community input
 - October 17th, 2016 Public Meeting
 - October 27th, 2016 Old Town North SAP Advisory Group Meeting
- * Develop concepts based on input
 - November 2016
- * Confirm updates with the community
 - December 2016



Second Street – Timeline

- * Proceed with formal design
 - January 2017 thru October 2017
- * Construction Procurement
 - October 2017 thru March 2018
- * Construction
 - March 2018 thru October 2018



Contact Information

- * Old Town North – Small Area Plan, Point of Contact:
 - **Nancy J. Williams; Assistant Director**
Department of Planning and Zoning,
703.746.3858, Nancy.Williams@alexandriava.gov
 - OTN SAP Webpage - www.alexandriava.gov/86032

- * Combined Sewer – Long Term Control Plan, Point of Contact:
 - **Erin Bevis-Carver, PE; Civil Engineer IV**
T&ES/Sanitary Infrastructure Division,
703.746.4154, Erin.BevisCarver@alexandriava.gov
 - Combined Sewer Webpage - <https://www.alexandriava.gov/Sewers>

- * Second Street Project, Point of Contact:
 - **Brian Meli, PE; Civil Engineer III**
Department of Project Implementation
703.746.4110, Brian.Meli@alexandriava.gov
 - Second Street Project Updates: <https://www.alexandriava.gov/85470>