

West Little Pimmit Storm Sewer & John Marshall Green Street Projects



July 7, 2015

Nottingham Elementary School

Project Timeline

February 2015: Archeological study of island, including historic spring location, completed.

2013-14: Intermittent communications regarding Park Enhancement Grant.

March 2013: Invasive plant removal begins on island

December 2012: Park Enhancement Grant awarded for John Marshall Island.

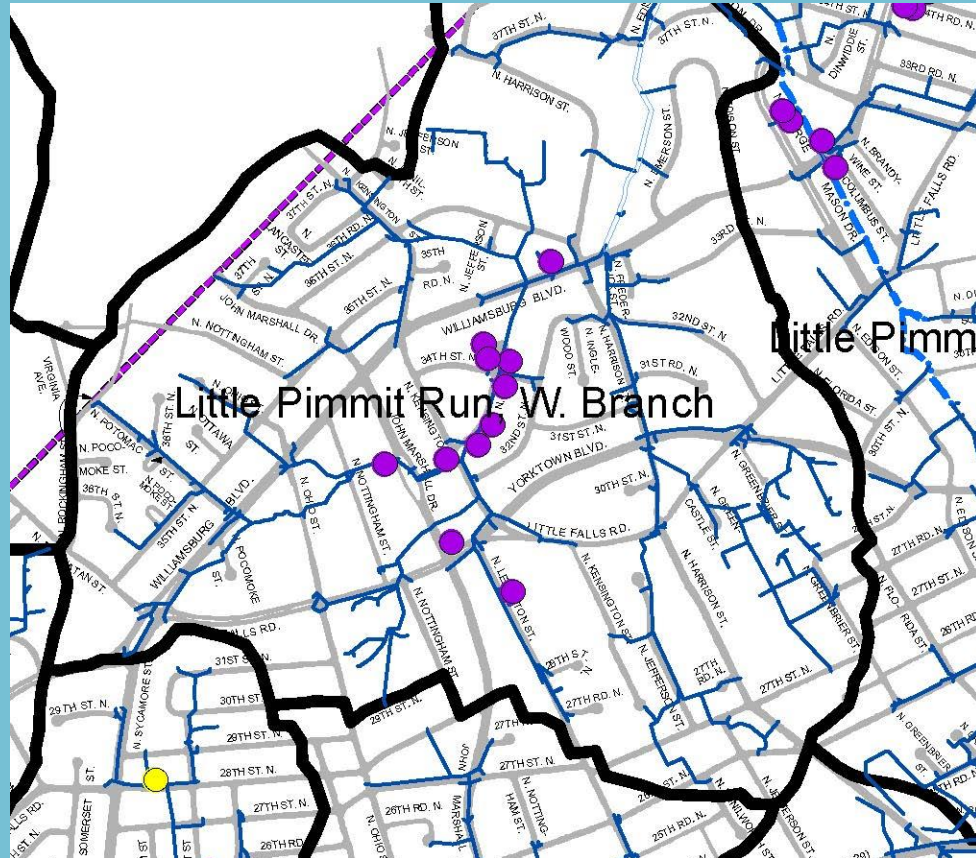
October 2, 2012: Public meeting at Williamsburg Middle School

- Green Street and storm sewer capacity projects discussed
- Williamsburg Civic Association invited
- County's presentation and response to resident questions posted online

Agenda

1. Storm Sewer Capacity Project
2. Brief background on Stormwater & Rain Gardens
3. John Marshall Green Street

Flooding from June 2006 Storm



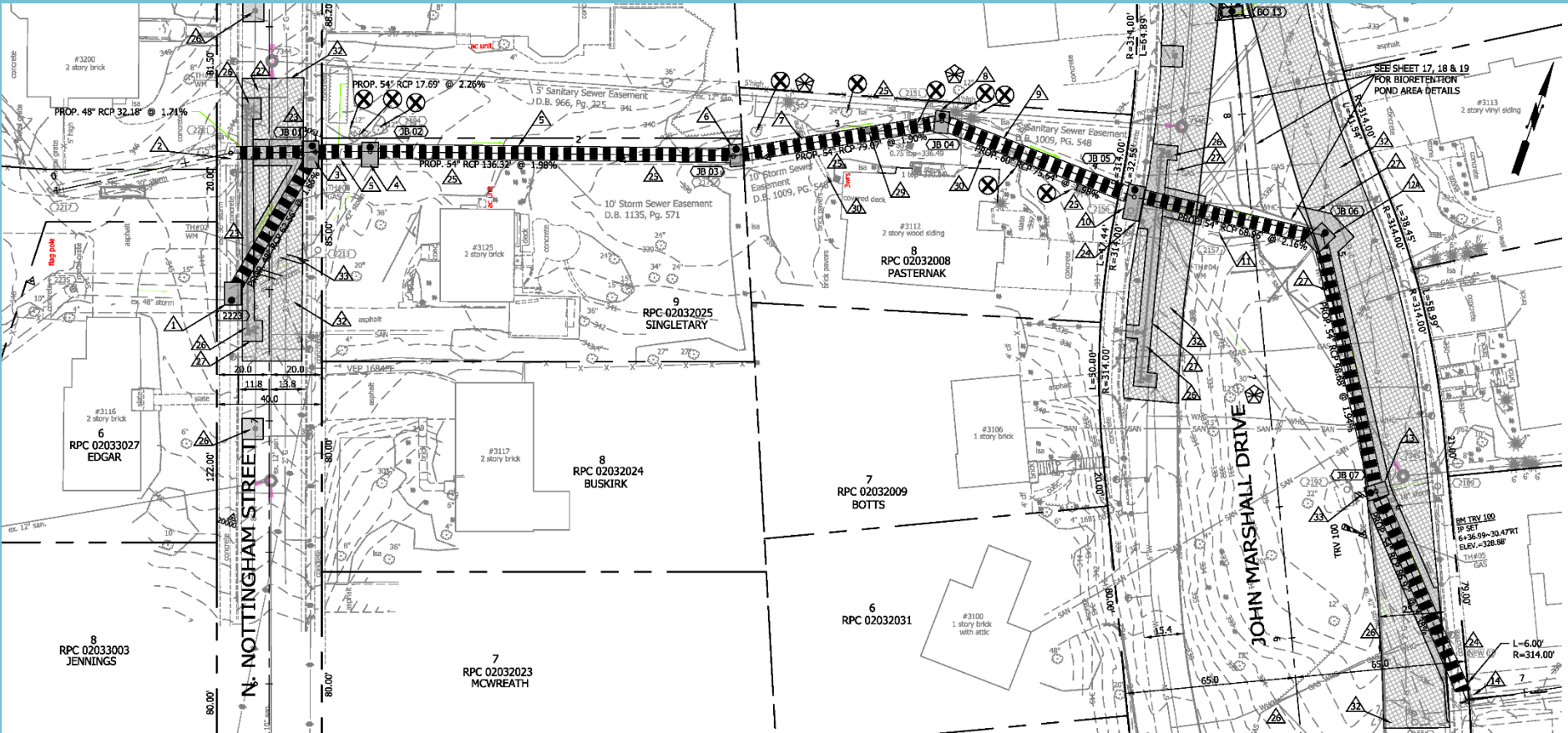
High Water Marks at
5510 N. 33RD St. after
June 2006 Storm



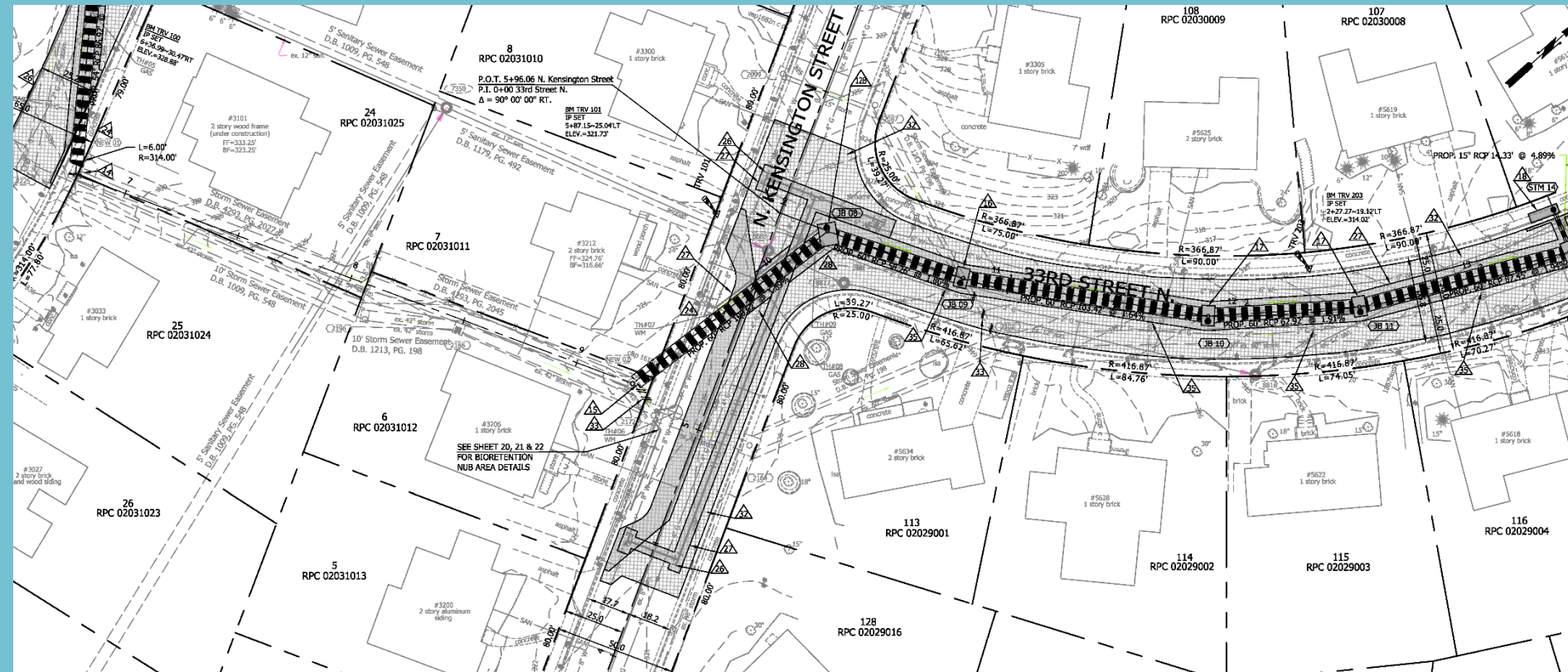
Google Earth Photo with Flood Level Marked



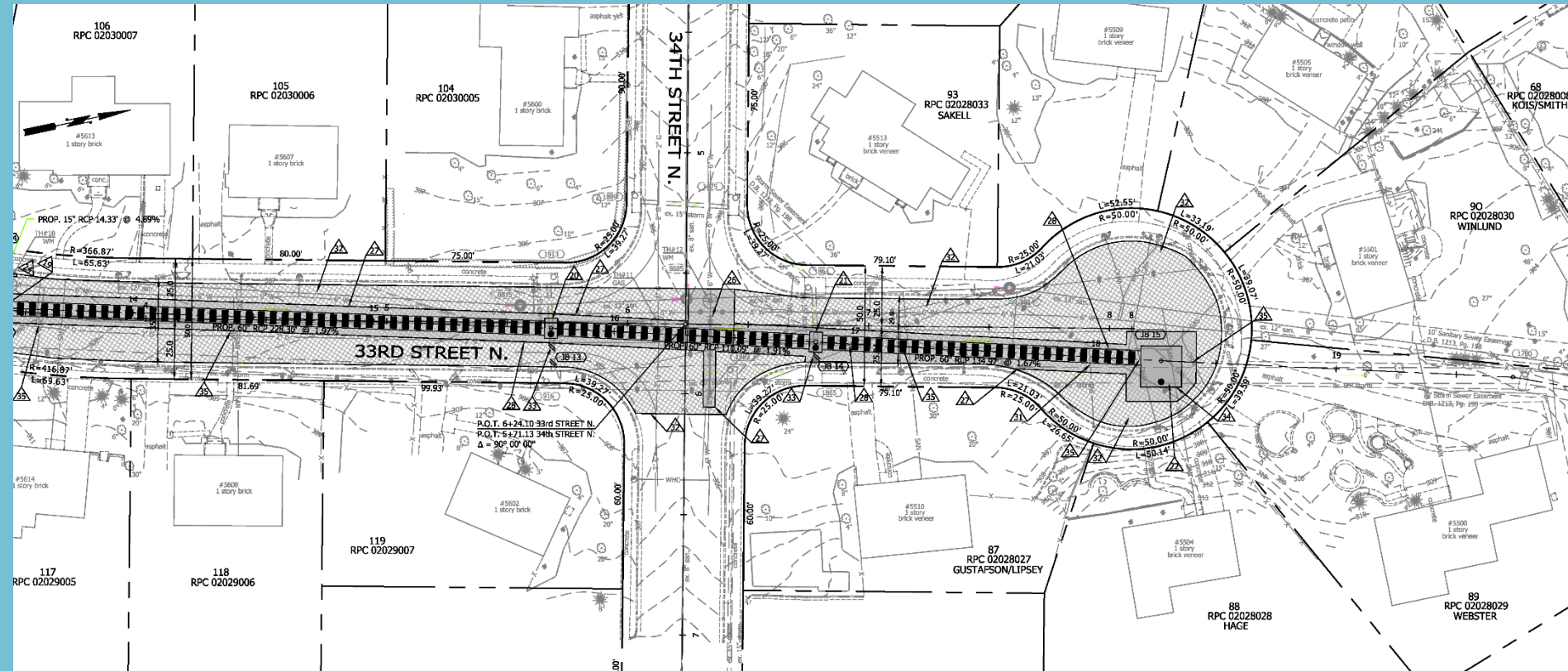
Plan View Showing Beginning of Project N. Nottingham to John Marshall Dr.



Plan View Showing Middle Section of Project John Marshall Dr. to N. Kensington St at intersection with 33rd St. N



Plan View Showing End of Project 33rd St. N, from N. Kensington St. to cul-de-sac





Stormwater Challenges

Volume: Significant quantities of stormwater enter Arlington's stream during storms, causing erosion that exposes our infrastructure and undermines trees along our streams.

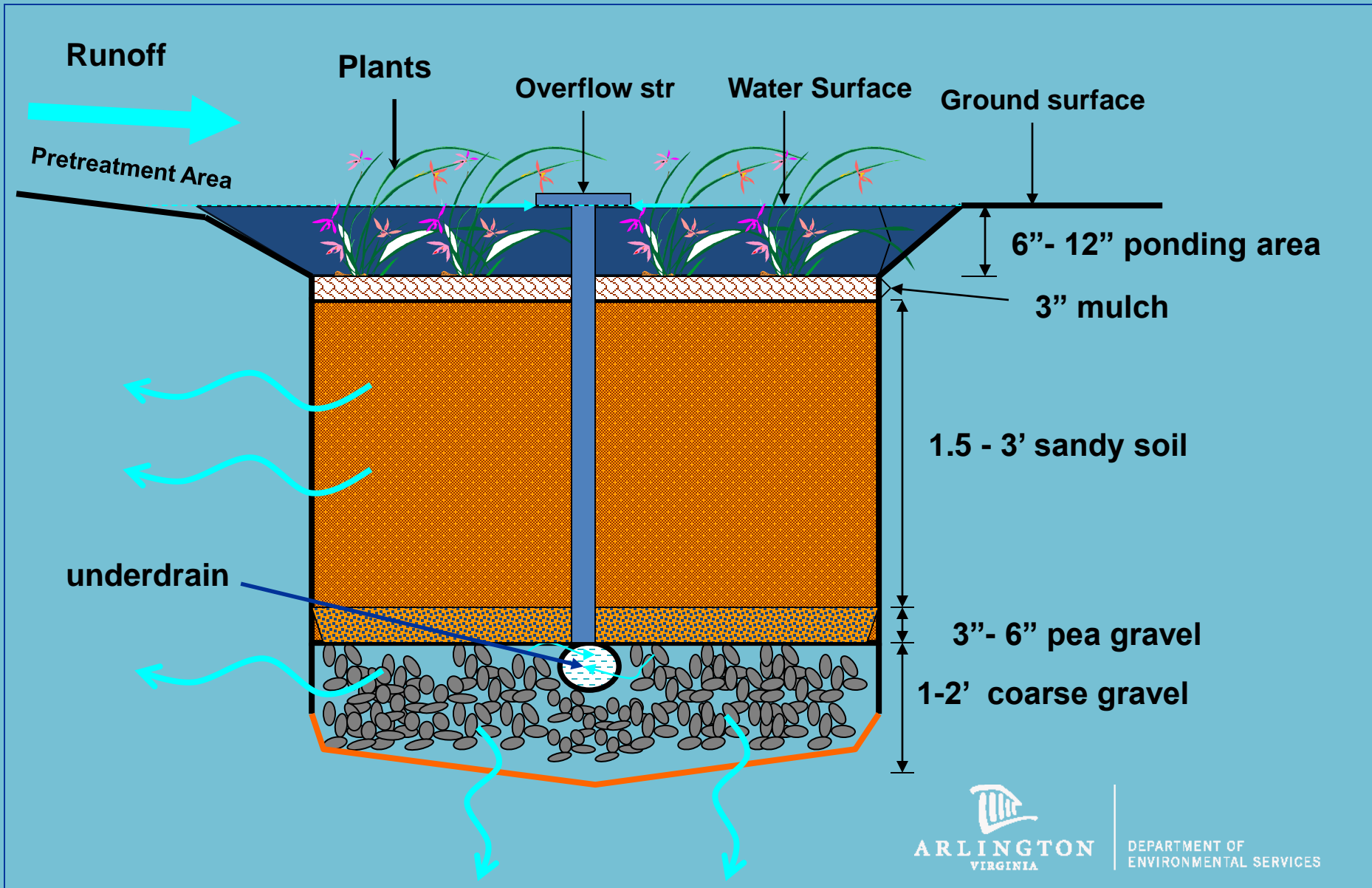
Pollutants: Stormwater washes pollutants like nutrients (nitrogen and phosphorus), sediment, bacteria, and litter into our streams. This causes poor water quality in our streams.

Regulations: Arlington's Municipal Separate Storm Sewer Permit (MS4 Permit) and the Chesapeake Bay Total Maximum Daily Load (TMDL) require Arlington to address the volume and pollutant loads in our stormwater.

A Green Street is a street with a vegetated area in the public right-of-way that reduces the volume of stormwater and stormwater pollutants that enter our local streams, the Potomac River, and the Chesapeake Bay.



Green Street Rain Garden





John Marshall Drive Green Street



- Two rain gardens
- One located partially in existing roadway

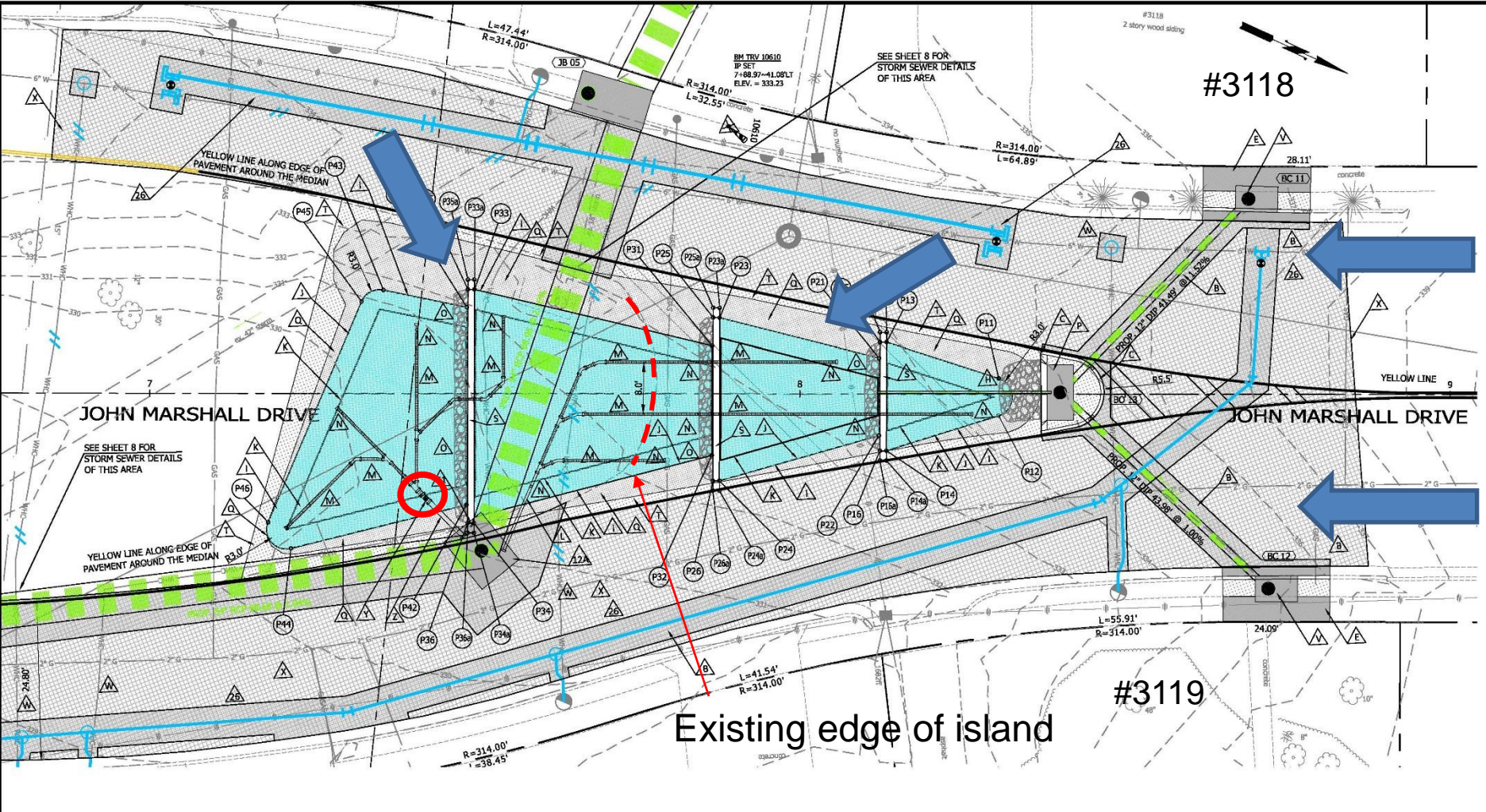
- Storm sewer and rain gardens avoid oak trees
- Retain some open space



Trees

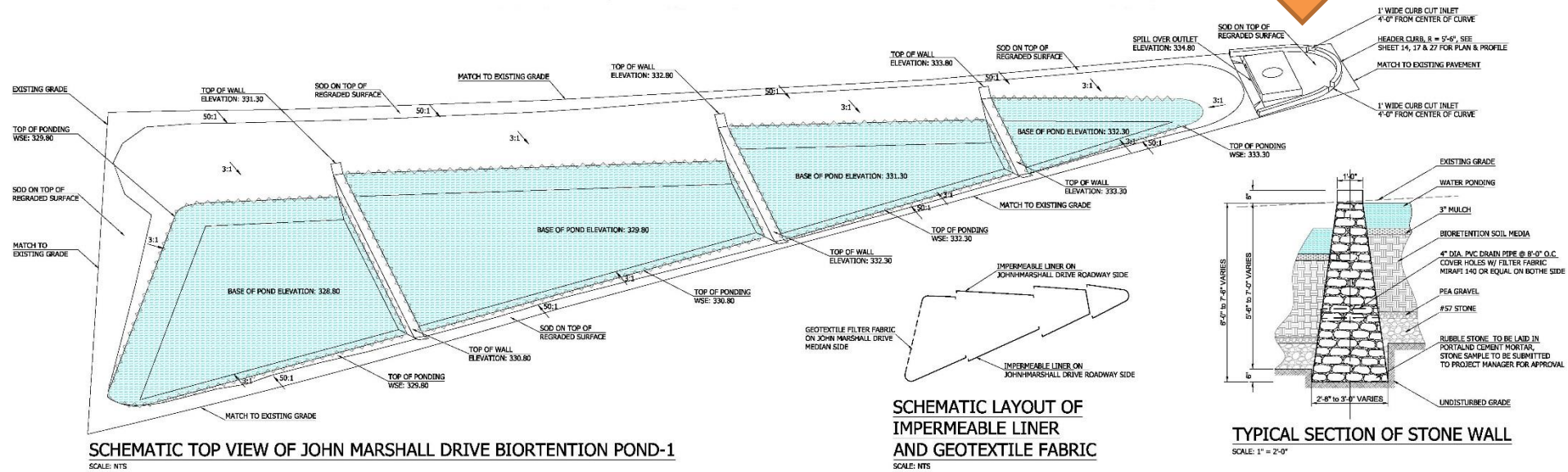
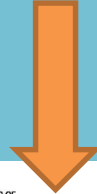
- April 2015 condition assessment by County's Urban Forester
- Removal of 1 tree (12" black locust in poor condition) will occur on John Marshall Island. Transplant of small tulip poplar.
- Several additional tree removals on private property associated with storm sewer work
- Intrusions into Critical Root Zones of large oaks and maple will be minimized
- Root pruning and protection for trees during construction.
- Two canopy trees and one understory tree will be planted.

Rain Garden 1

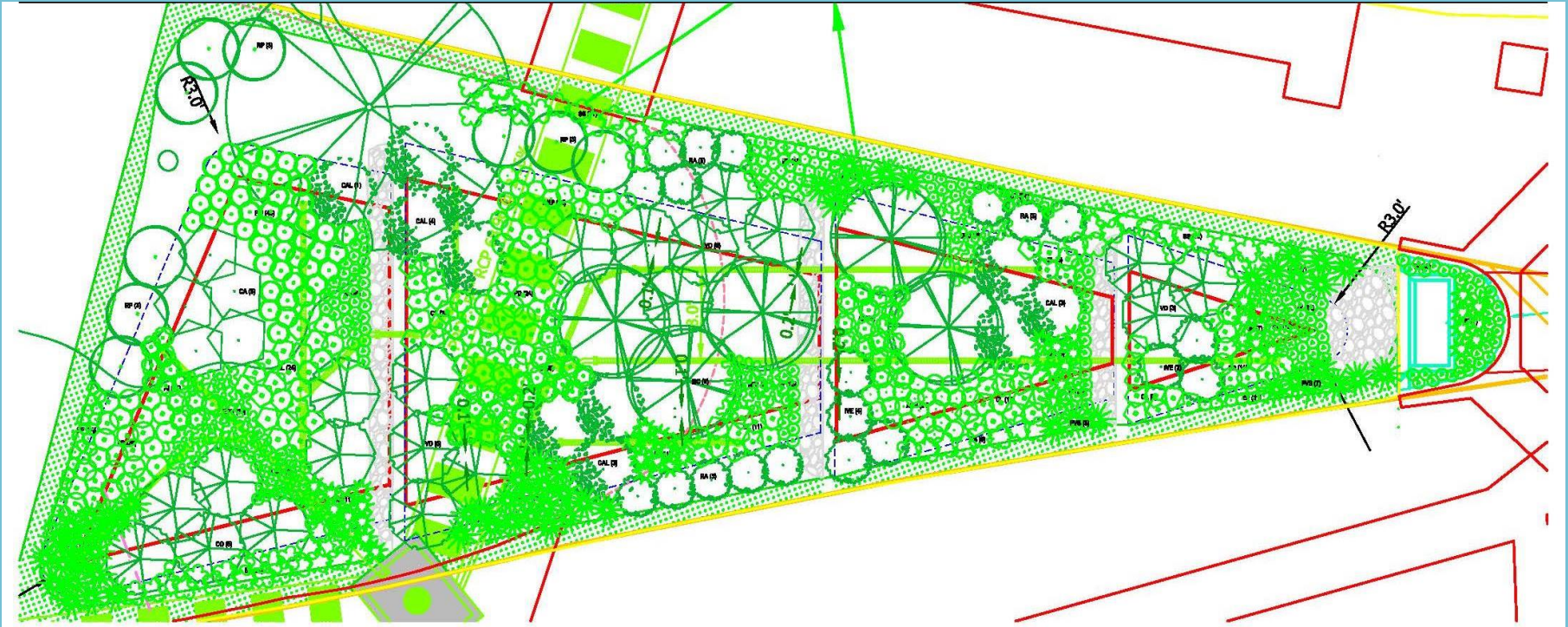


Rain Garden 1

5' 6" header curb



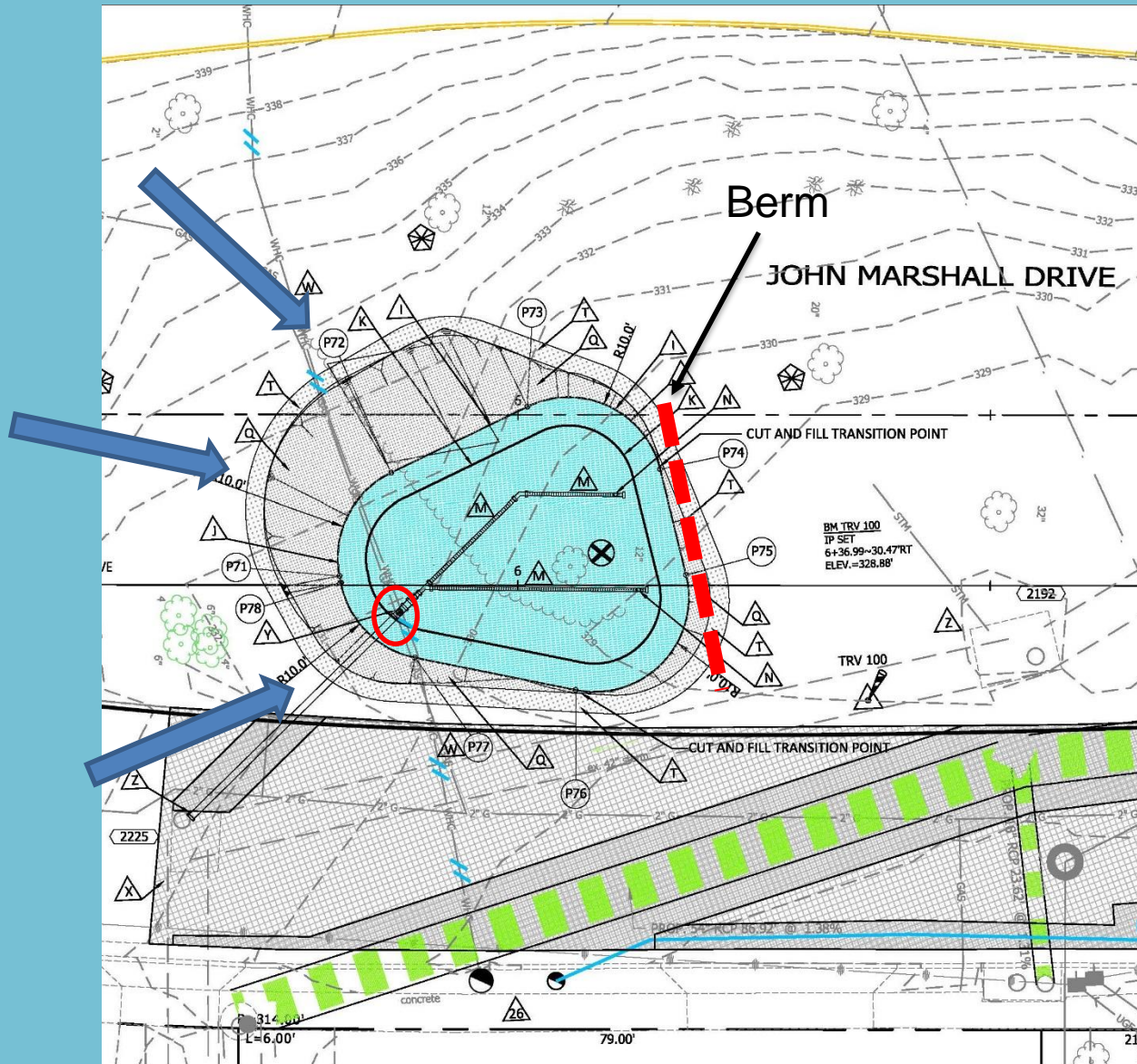
Planting Plan: Rain Garden 1



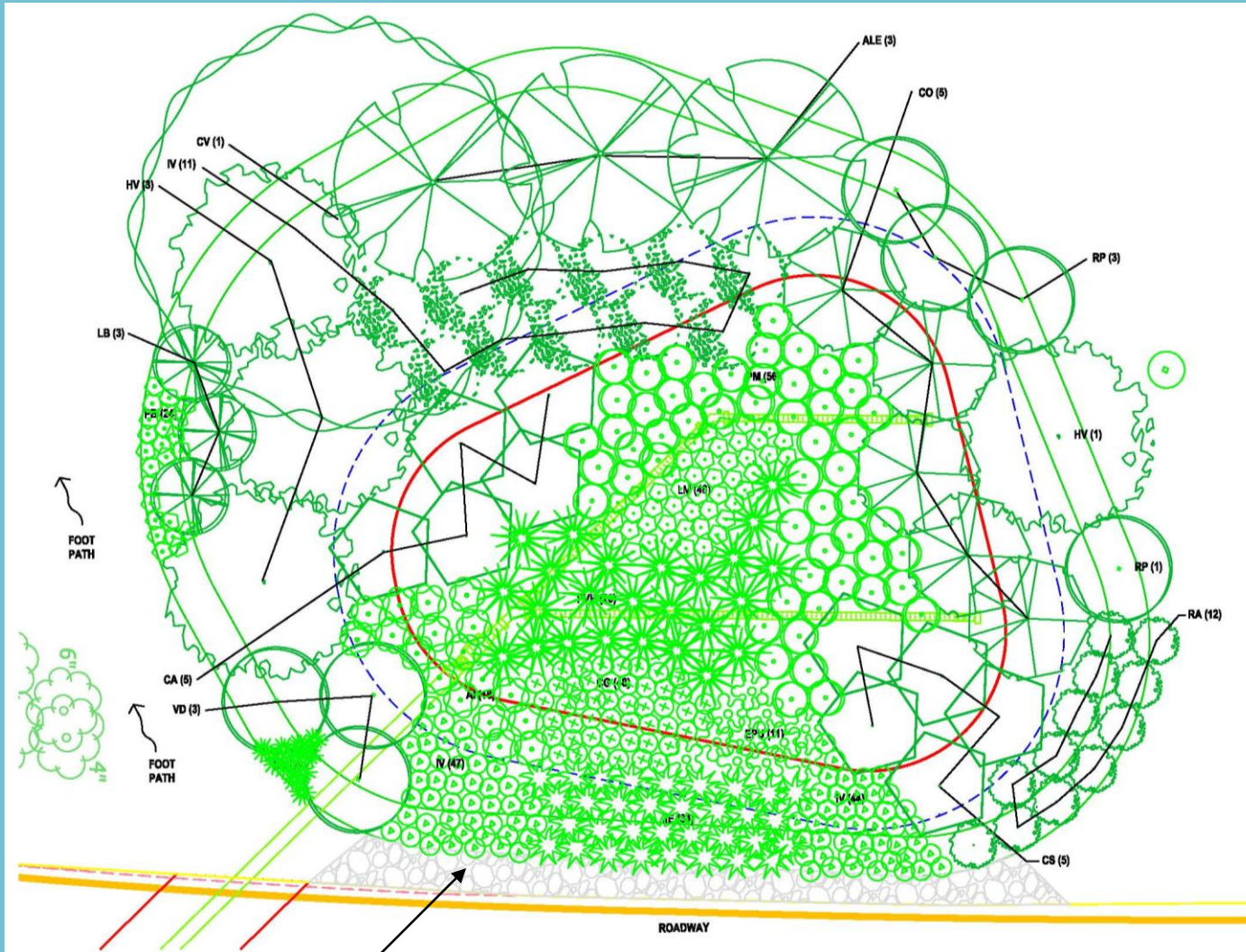
- Native plants
- Blooming shrubs – mid-spring through summer
- Evergreen shrubs
- Prevalent grasses and bright flowering perennials summer through fall
- Bright fall color
- Two canopy trees – scarlet oak and black gum
- Path?
- Community planting event?



Rain Garden 2



Planting Plan: Rain Garden 2



- Native plants
- Blooming shrubs – winter through late spring
- Early spring and summer flowering perennials
- Shade tolerant grasses and fall color
- Not many evergreens
- Majority of plants will tolerate shade

TURF (rather than river rock)

Albemarle Green Street
APRIL 2012



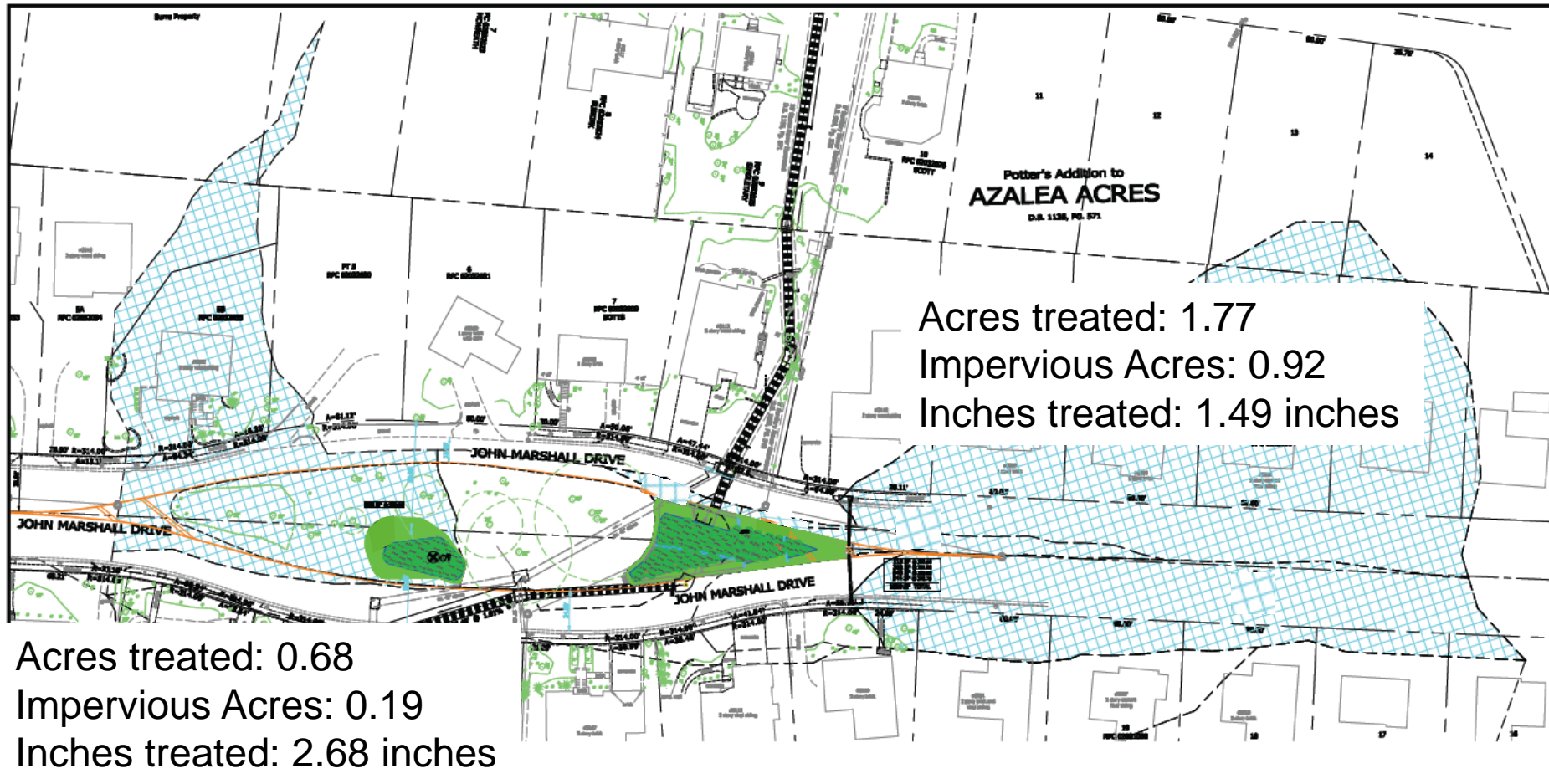
Albemarle Green Street
JUL 2013



Maintenance

- Monthly or bimonthly
- Also inspected after any large storms
- Remove sediment
- Weed, inspect, replant, prune plants
- Remove trash
- Make sure underdrain, overflow, all pipes and catch basins working correctly

Environmental Benefits

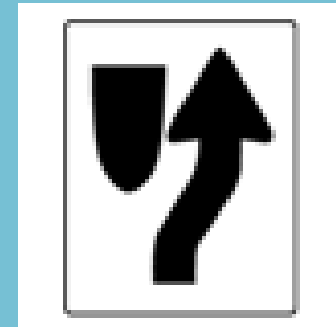
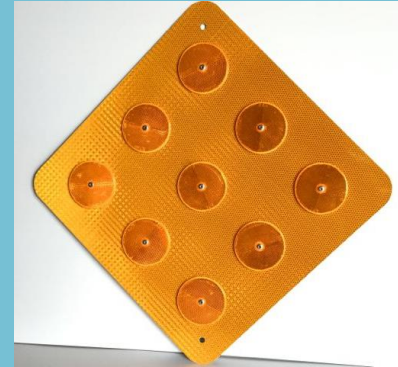


Historic Spring

- Archeological survey completed February 2015
- No artifacts of archeological or historic significance identified
- Springhead location potentially identified
- Historic marker to commemorate the location of the spring requested
- Installation to be completed following construction



06/29/2012



Next Steps

- Finalize plans taking into account tonight's feedback – 100% plans
- Obtain temporary construction easements
- Gas line & sewer lateral relocation will begin this fall
- Project will go to bid this summer/fall
- Construction begins spring 2016.
- Green Street construction will coordinate with storm sewer construction.
- Construction for all components will take approximately 16 months.

Questions??

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Resources

John Marshall Drive Green Street

<http://projects.arlingtonva.us/projects/john-marshall-drive-green-street/>

Green Streets

<http://projects.arlingtonva.us/programs/stormwater-management/green-streets/>

West Little Pimmit Phases I and 2 Storm Sewer Project

<http://projects.arlingtonva.us/projects/west-little-pimmit-run-storm-sewer-upgrade/>