

Grosvenor Stream Restoration

Virtual Public Meeting

June 14, 2021

Timberlawn & Penbrooke



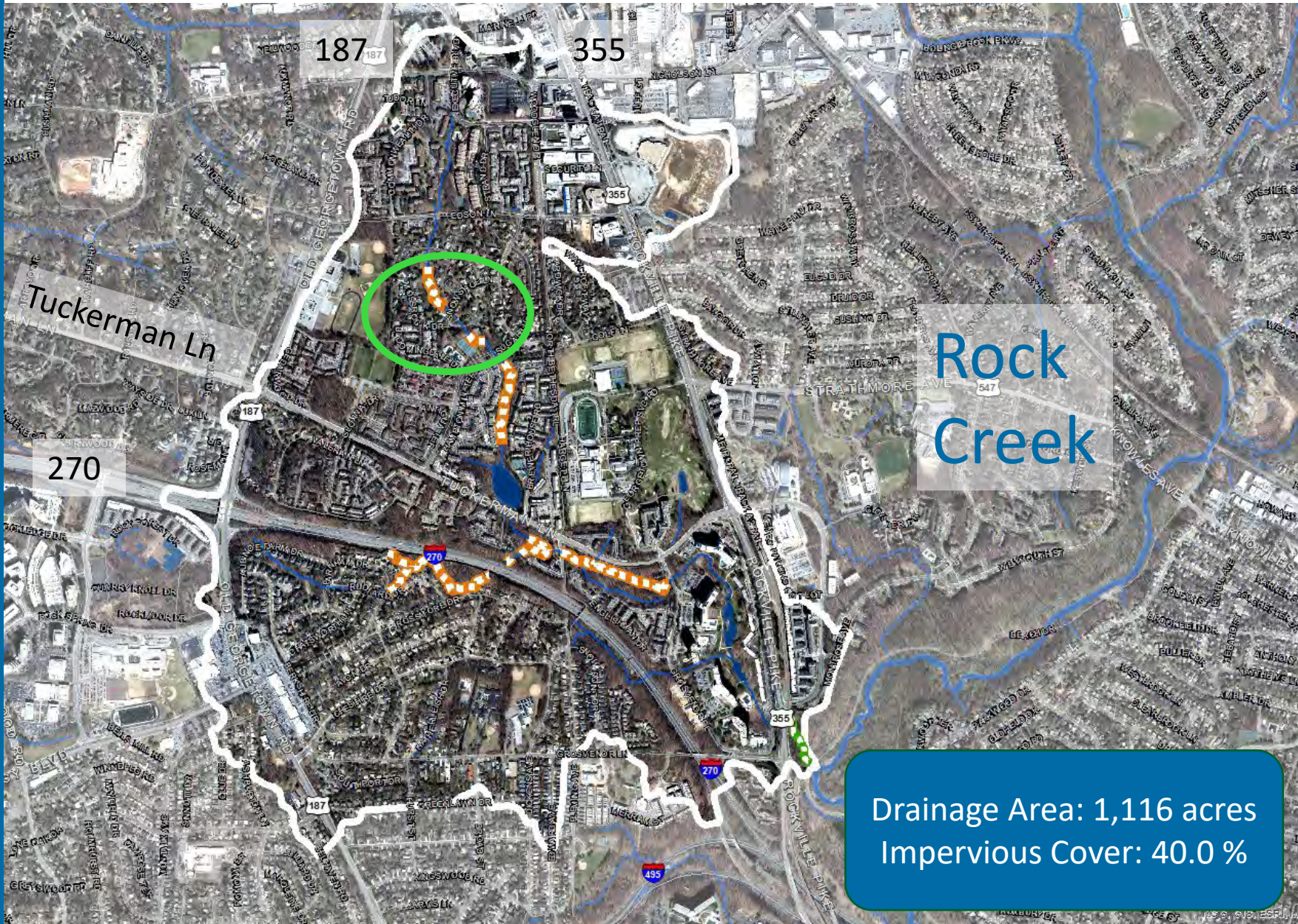
**DEPARTMENT OF
ENVIRONMENTAL
PROTECTION**
MONTGOMERY COUNTY • MARYLAND

Agenda

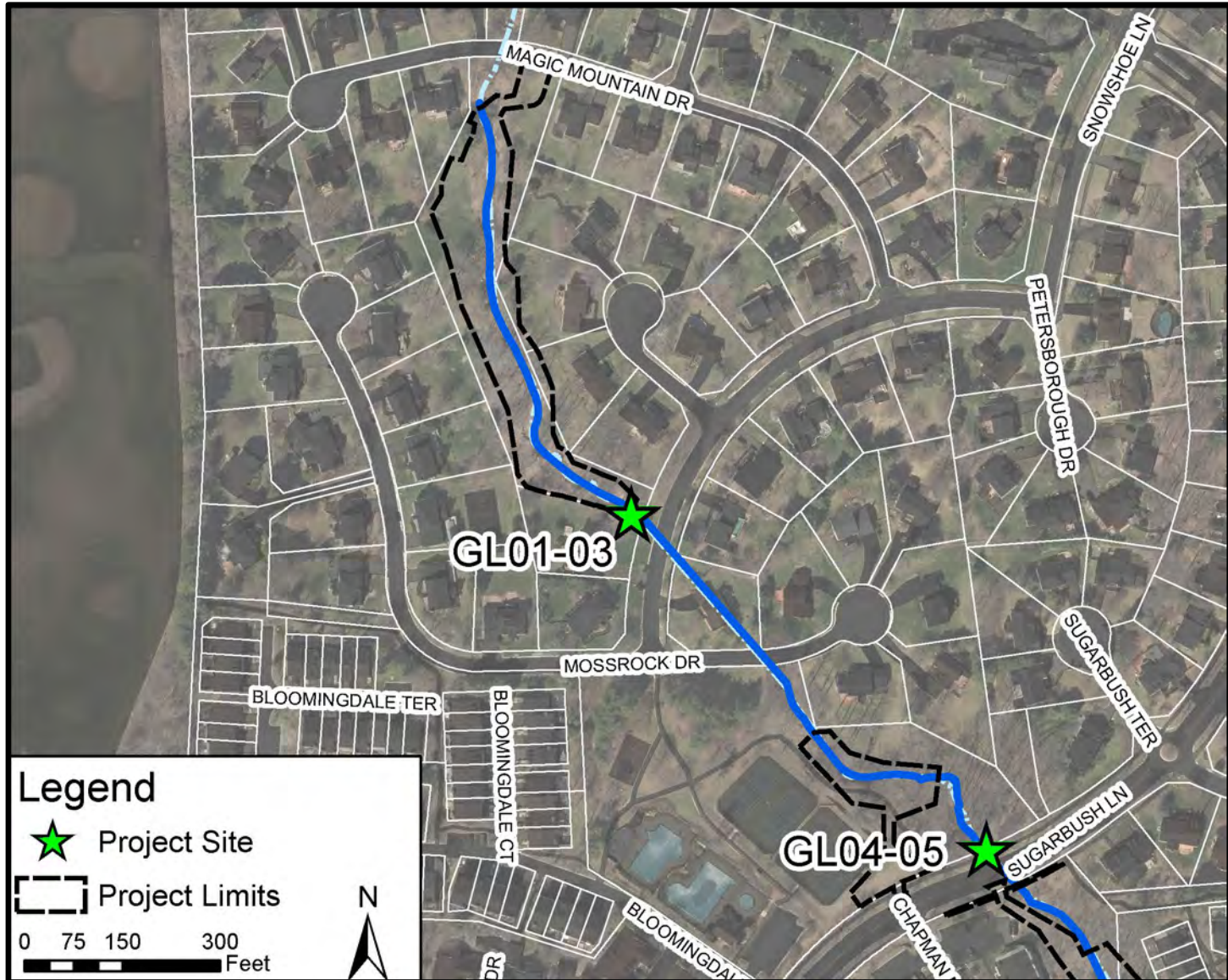
- Project Background
- New Stream Design
- What to Expect
- Questions



Grosvenor Tributary – Rock Creek



Project Location



Recognize This?



Recognize Now?



Watershed Changes – 70 years



Why is stream restoration being done?

Because increased impervious and uncontrolled/under-controlled stormwater is impacting our streams



Stream in a Watershed with 8% impervious cover.



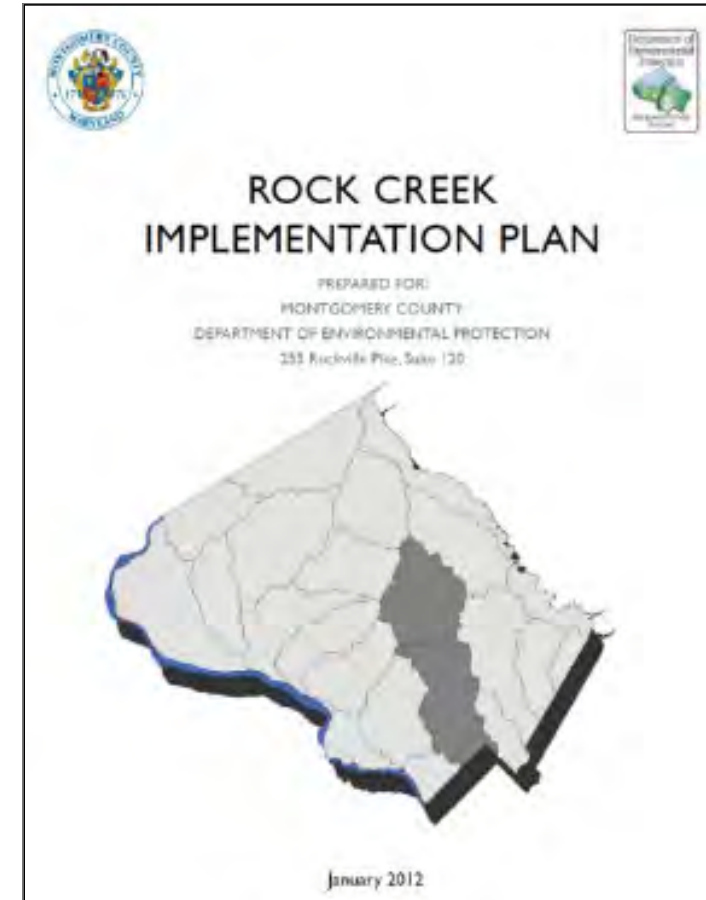
Stream in a Watershed with 20% Impervious Cover



Stream in a Watershed with 30% impervious Cover

Project Selection

- Constructed in the 1960-1980s
- Located in a key watershed (Rock Creek) for restoration
- Erosion of banks threatening utilities and natural resources
- Opportunity for water quality and ecological improvements



Watershed Restoration



Current Stream Condition (Timberlawn)



Current Stream Condition (Timberlawn)



Current Stream Condition (Timberlawn)



Current Stream Condition (Timberlawn)



Current Stream Condition (Timberlawn)

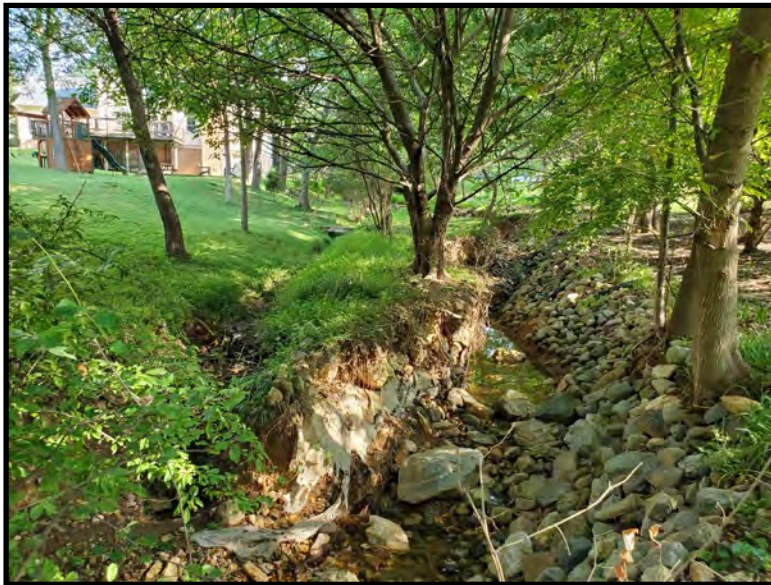


Current Stream Condition (Penbrooke)



Project Objectives

- Improve water quality
- Improve riparian buffer between stream and properties
- Stabilize stream banks to lessen future erosion



Stream Restoration Approach

- In-Stream Structures (Cross Vane, Step Pool, etc.)
- Habitat enhancement
 - Riffle/pool system for aquatic habitat and fish passage
 - Diverse and native plant communities, forested wetlands
- Pollutant Reduction
 - Erosion prevention & Sediment trapping



Riffle/ Pool Sequence



Step Pool System



Cross Vane



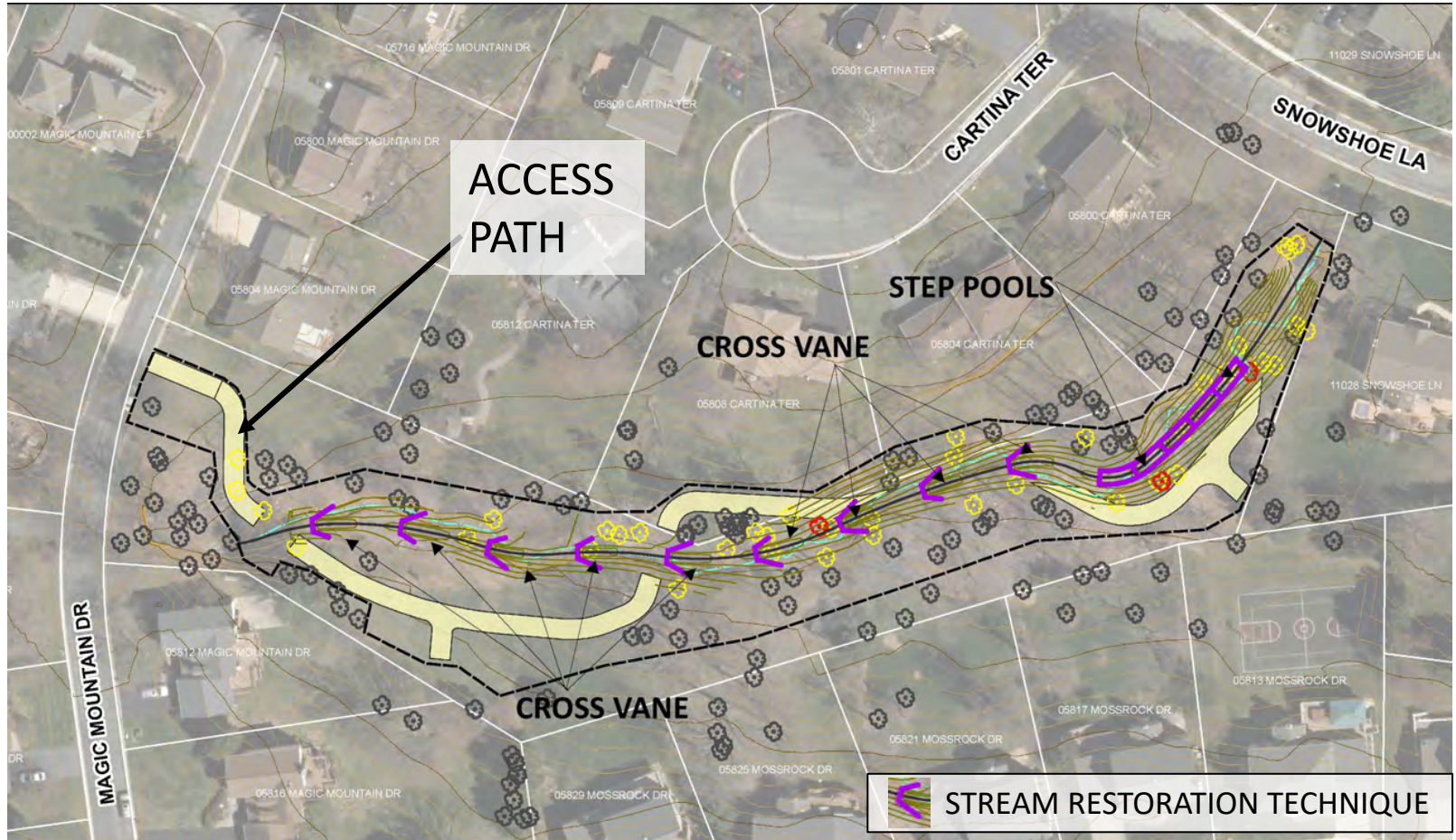
Rock Sill






Constructed Riffle



Stream Restoration Design

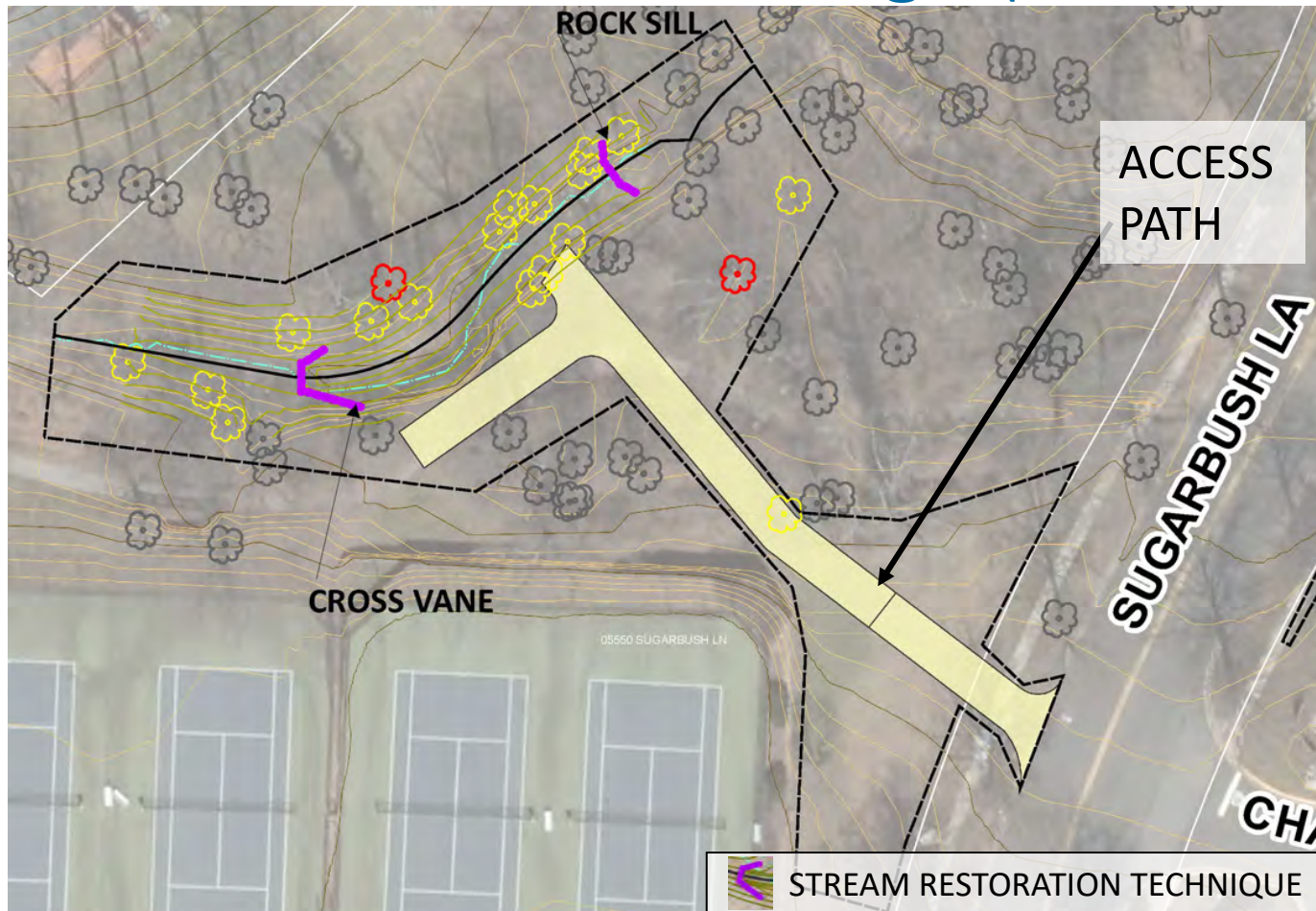


- 0.13 miles of stream restored on this reach
- 1.13 miles of stream restored on this project
- Staging Areas will be located within the project limits




	Tree
	Tree to be Removed
	Tree to be Removed (diameter > 24")

Design Board Website Link: <https://www.montgomerycountymd.gov/water/restoration/grosvenor-luxmanor-stream.html>

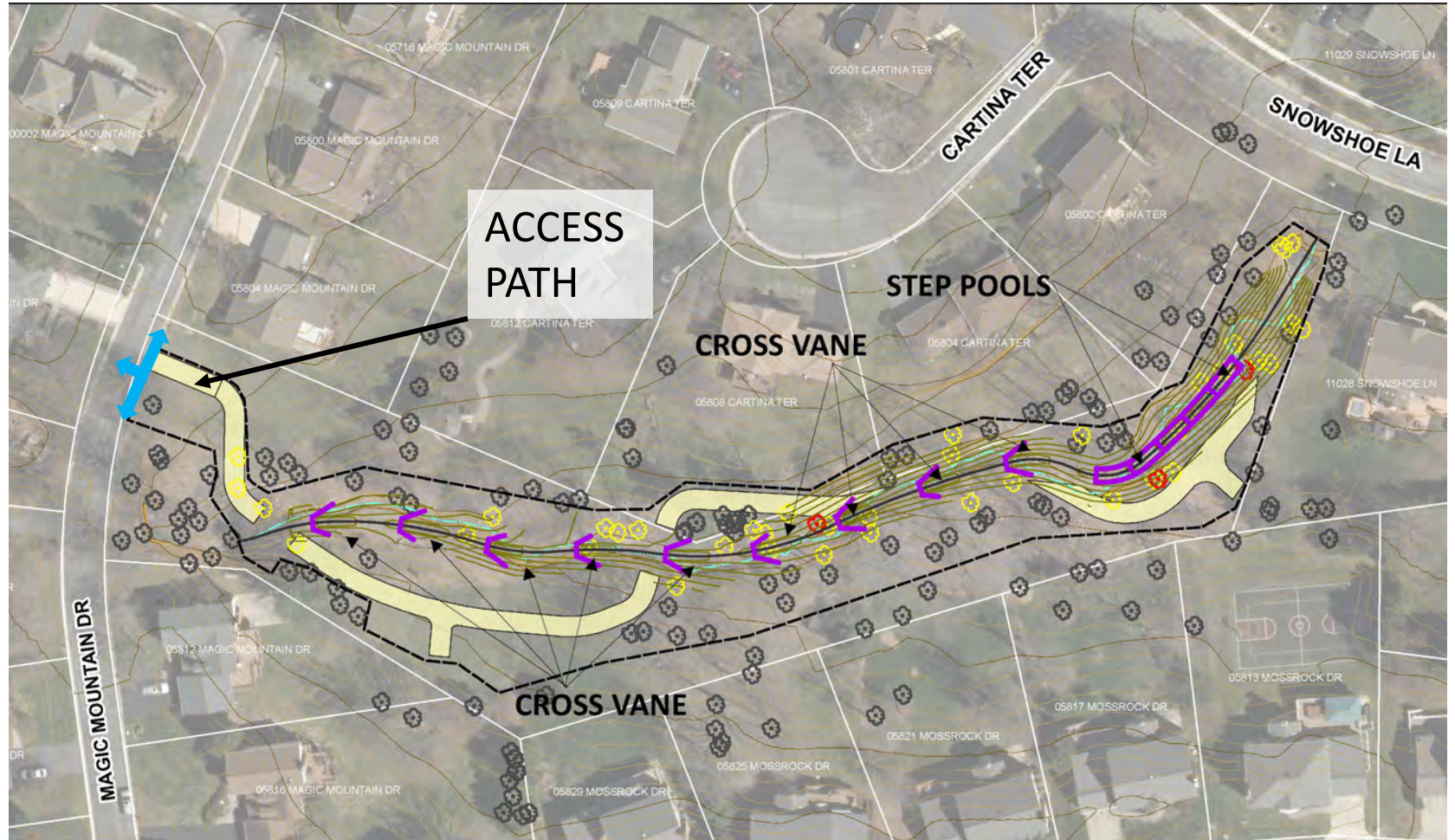
Stream Restoration Design (Penbrooke)



- 0.03 miles of stream restored on this reach
- 1.13 miles of stream restored on this project
- Staging Areas will be located within the project limits

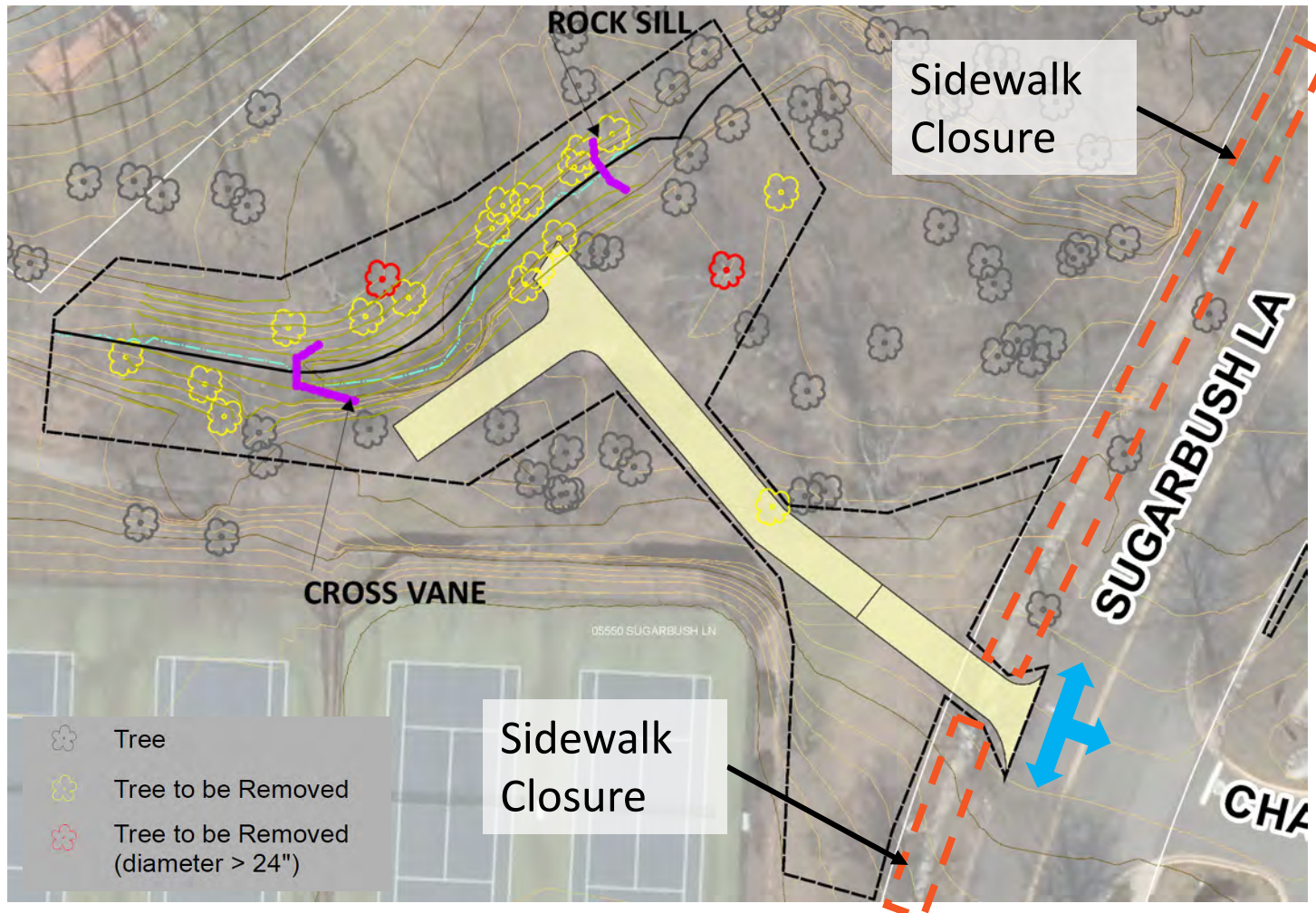
	Tree
	Tree to be Removed
	Tree to be Removed (diameter > 24")

Construction Access (GL01-03)

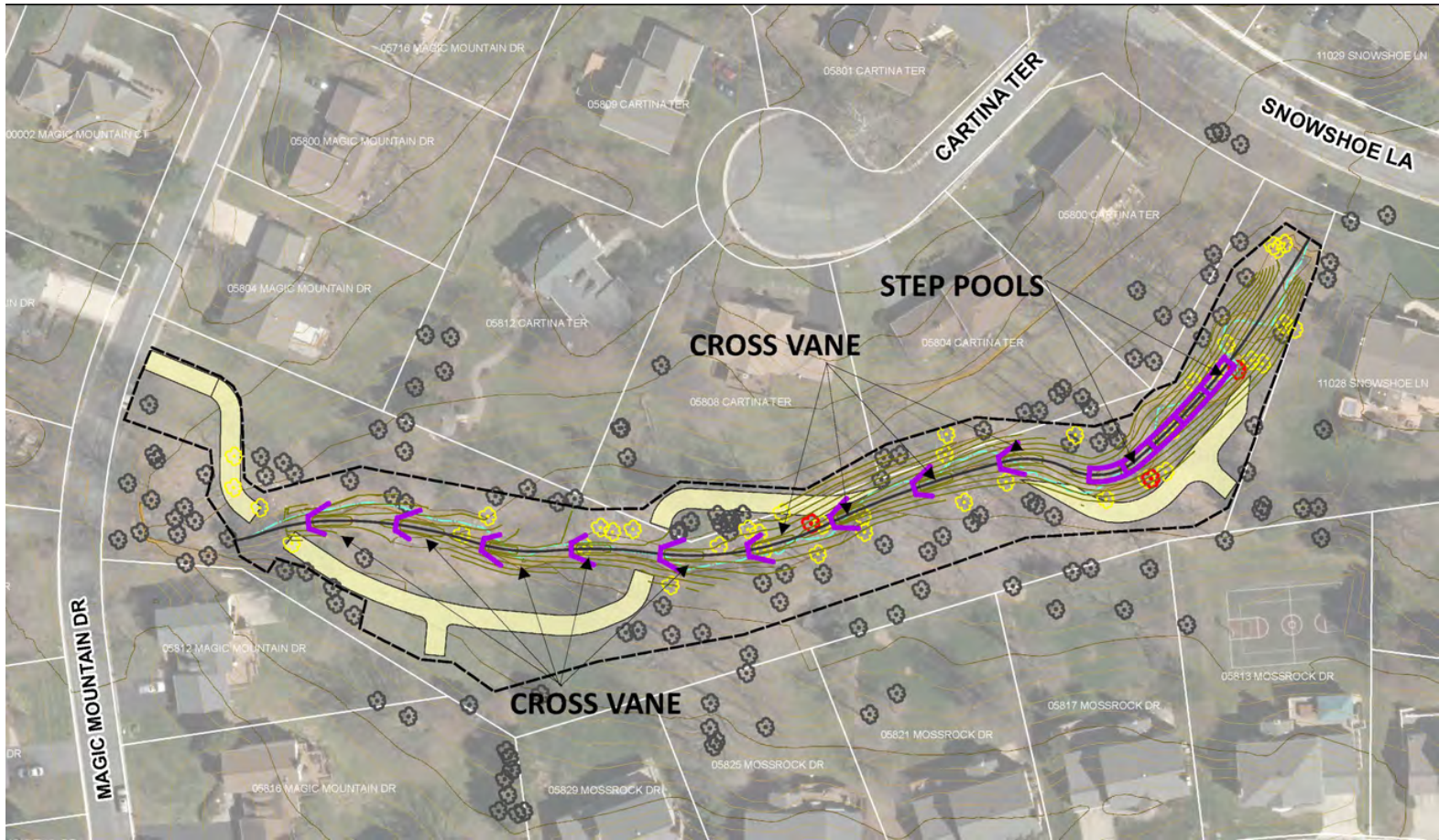


Construction Access (Penbrooke)




- Pedestrian sidewalk access will be closed in this construction area but will be safely routed across the road at existing crossings with signage.



Tree Impacts (GL01-03)

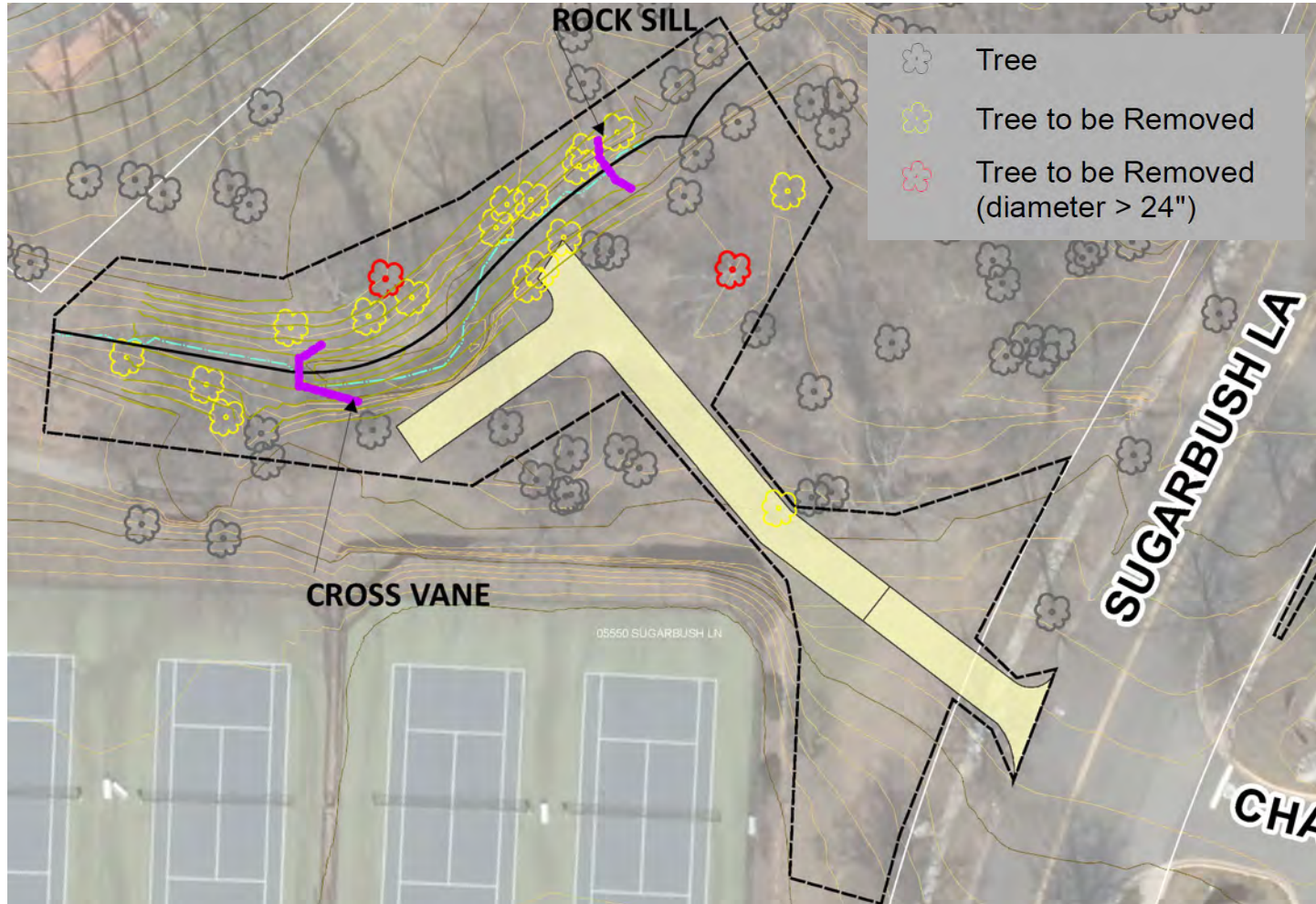


GL01-03 TREE REMOVAL TABLE (Diameter >= 24")	
COMMON NAME	CONDITION
24.5" Eastern Cottonwood	Fair, dying trunk, some trunk removed
27" Tuliptree	Fair, trunk rot, dead limbs
26" Tuliptree	Fair, trunk rot

-  Tree
-  Tree to be Removed
-  Tree to be Removed (diameter > 24")

Additional Bankside Trees (Yellow) To Be Removed – majority eroded at roots

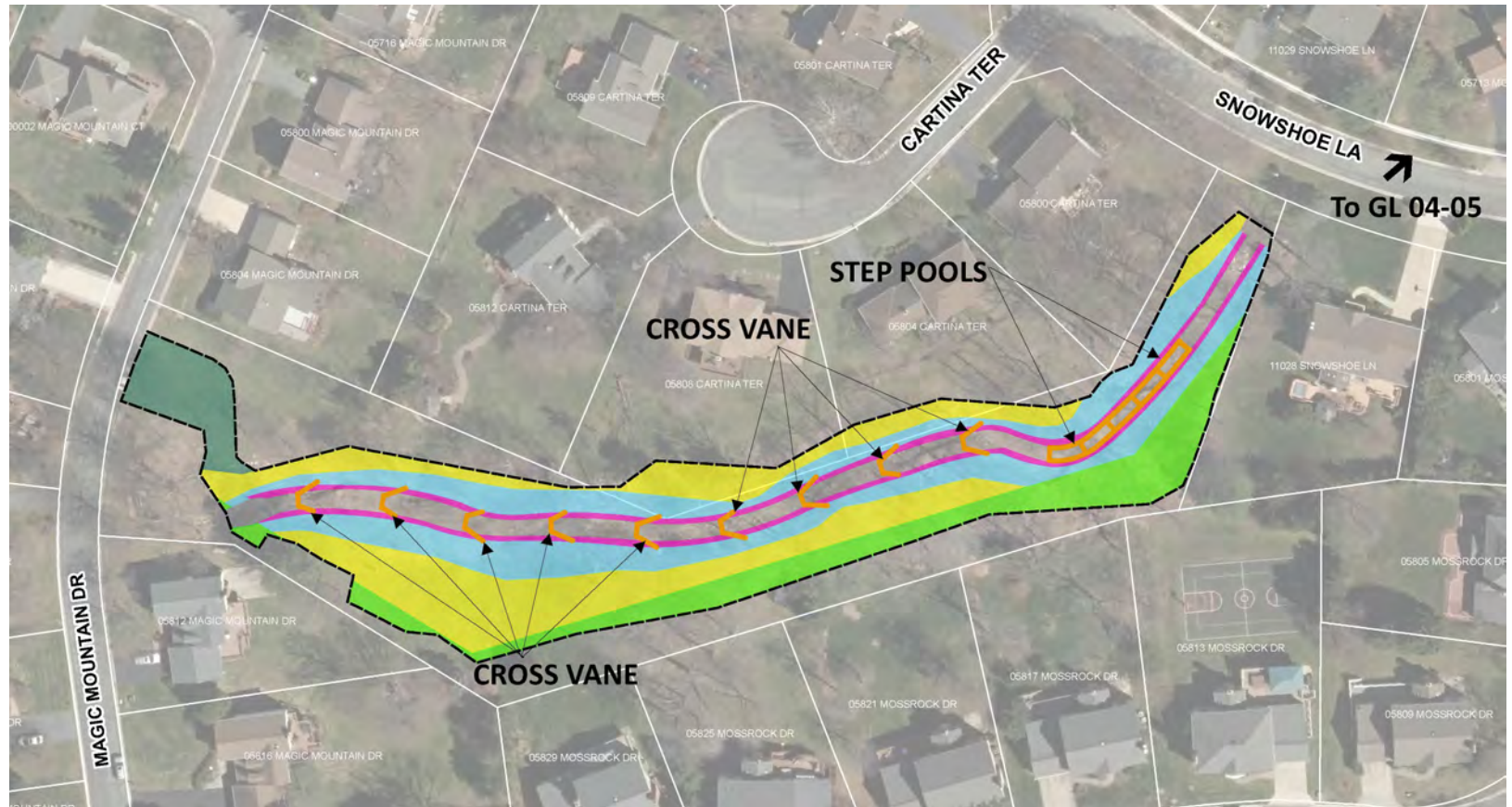
Tree Impacts (Penbrooke)



GL04-05 TREES TO BE REMOVED (Diameter >= 24")	
COMMON NAME	CONDITION
28.5" Green Ash	Hazard Tree - Poor, dead
25" Green Ash	Dead

Additional Bankside Trees (Yellow) To Be Removed – majority eroded at roots

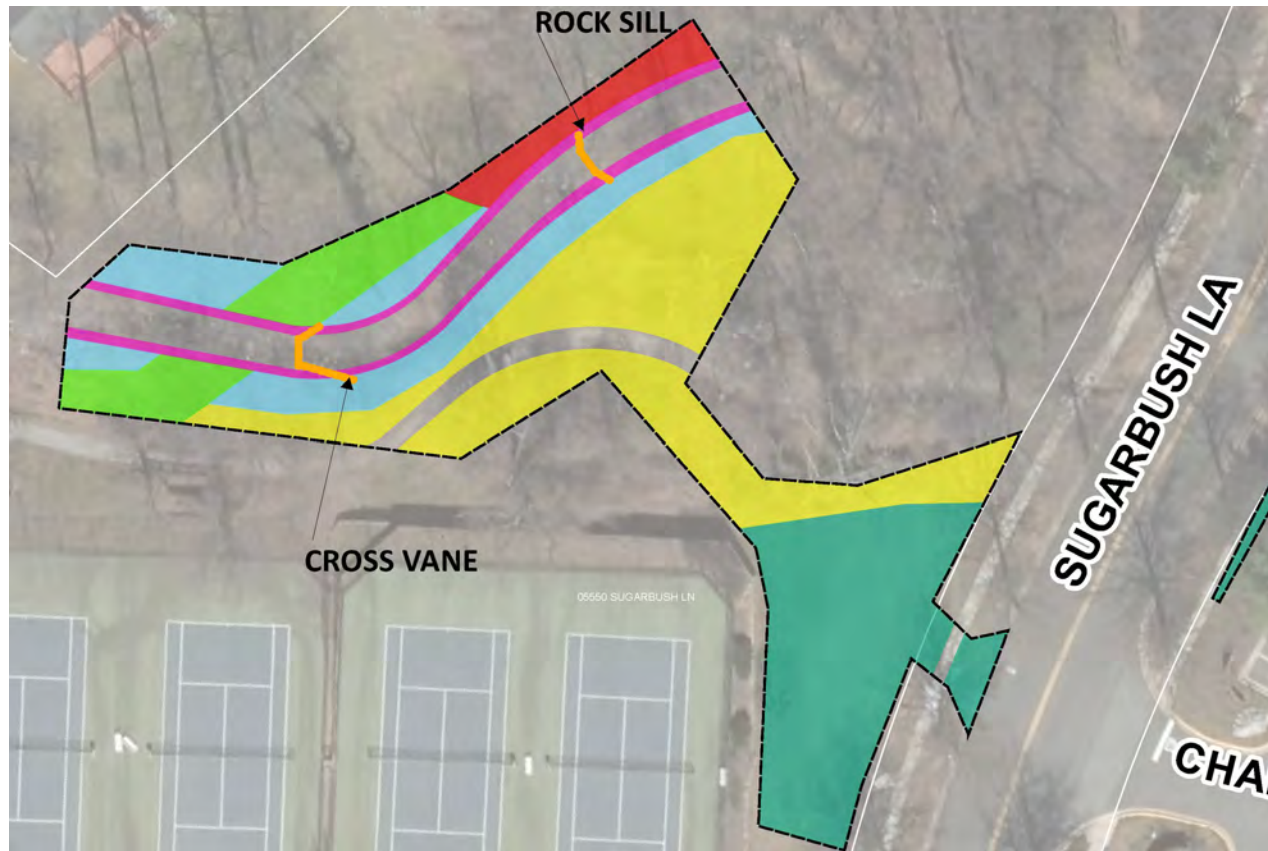
Landscape Planting









Legend

- Live Staking Planting
- Streamside Planting
- Riparian Planting
- Riparian Planting over WSSC Sewer
- Wetland Planting
- Turf Sod

Landscape Planting (Penbrooke)



Legend	
	Live Staking Planting
	Streamside Planting
	Riparian Planting
	Riparian Planting over WSSC Sewer
	Wetland Planting
	Turf Sod

Proposed Plantings

Live Staking



Silky dogwood



Spice Bush



Red Maple



Sycamore



Streamside/ Riparian Planting

- Streamside Planting: Steeper slopes right against the stream banks
- Riparian Planting: Flatter slopes further away from the stream (larger overstory trees/ shrubs)



Live Stake Planting

- Live Stake Planting: These plants are placed along the toe of the new stream edge and will remain wet from base-flow.



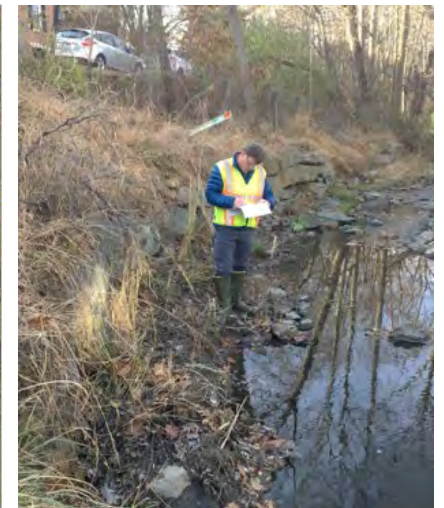
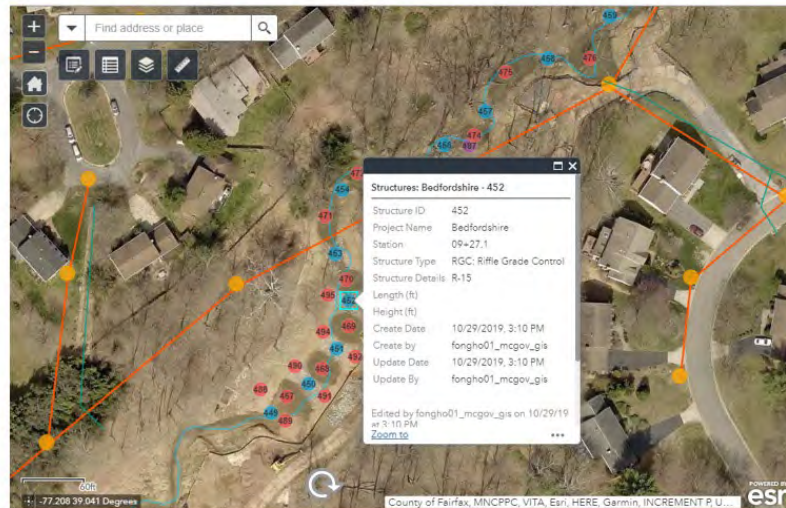
Monitoring

- After proposed planting, invasive species will be monitored and managed by Montgomery County for 5 years to support forest establishment.



Restoration Monitoring

- Biological Monitoring
- Stream Cross Sections
- Stream Restoration Structures



Hollywood Stream Restoration



Stream Before



Stream After

Woodlawn Stream Restoration

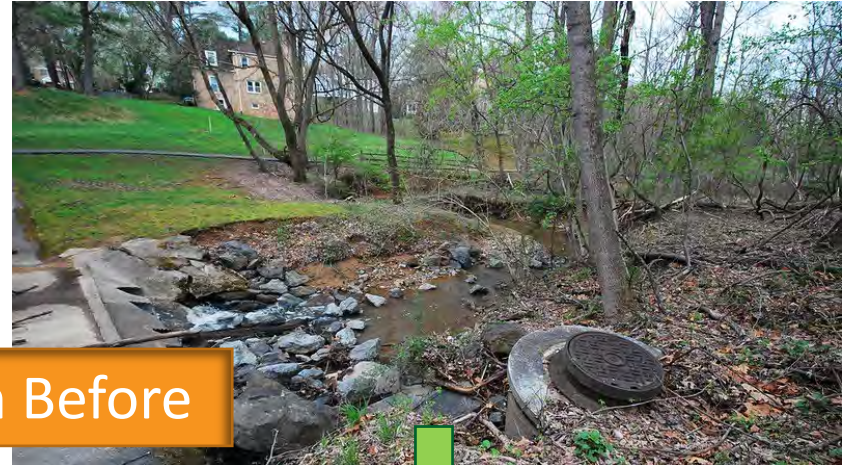


Stream Before



Stream After

Falls Reach Stream Restoration

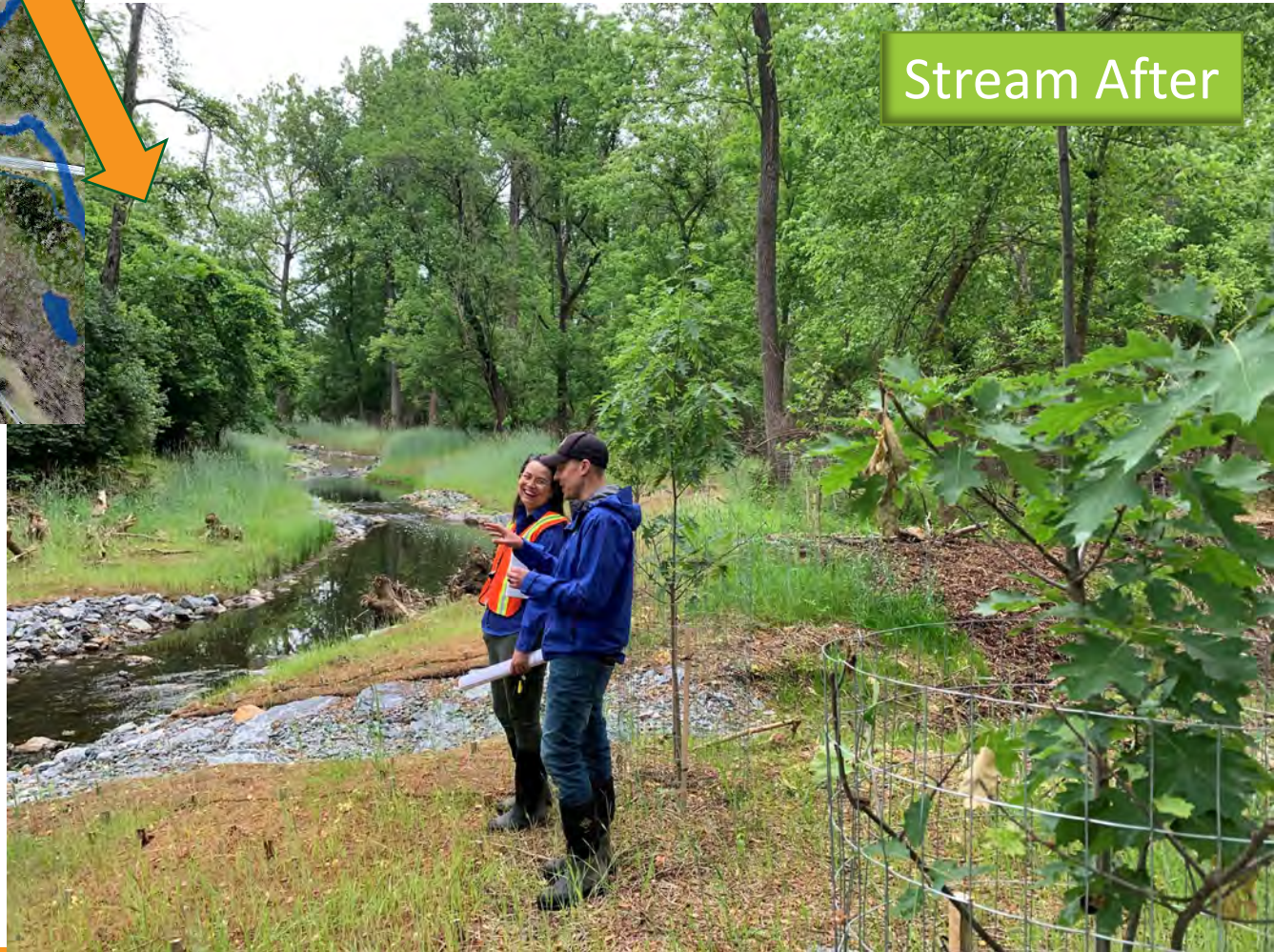


Stream Before



Stream After

Grosvenor - Parks Stream Restoration



Stream After

Stream Restoration Easements

Montgomery County Department of Environmental Protection 2425 Reedie Drive, 4 th Floor Wheaton, MD 20902	GRANT OF STREAM RESTORATION EASEMENT	Parcel ID # _____
TO		
Montgomery County, Maryland		
THIS GRANT OF STREAM RESTORATION EASEMENT (the "Easement"), made this day of _____, 20____, is by and between _____, its successors and assigns (the "Grantor") and MONTGOMERY COUNTY, MARYLAND, its successors and assigns (the "County"), (the Grantor and the County together "the Parties").		

- Grants County legal access to construct and maintain project
- **Temporary, Permanent, or Both**
- No Change to Property Ownership
- Permanent Easements are in Land Records
- Required Prior to Construction

Retrofit Schedule

- Easement Signatures Summer 2021
- Design and Permitting Ongoing - Fall 2021
- Permits Secured Fall 2021
- Construction Bidding Winter – Early 2022
- Construction Begins Spring 2022 (6-8 months)
for Part of Project Area

What to Expect During Construction

- **Resident Notification**

- Project Website
- Project Sign

- **Duration**

- About 6-8 months

- **Construction Hours**

- Monday through Friday, 7AM – 4PM

- **Safety**

- Fencing around construction
- Follow applicable COVID-19 precautions at time

- **Traffic**

- Minor from entering and exiting construction traffic and contractor parking during the day
- Sidewalk Detour (Penbrooke at Sugarbush Ln)



Project Completion



Donnybrook – 2015 Celebration

Other DEP Programs for Residents

- RainScapes – rainscapes.org



- Tree Montgomery – treemontgomery.org



- Organic Lawn Care

- www.montgomerycountymd.gov/lawns

- Residential Energy Program

- www.montgomerycountymd.gov/green/energy/home

- Volunteer

- www.montgomerycountymd.gov/water/volunteer



Questions?

Contact: Christy Ciarametaro

Watershed Project Planner

Christy.Ciarametaro@montgomerycountymd.gov

240-777-7720

Project Website:

<https://www.montgomerycountymd.gov/water/restoration/grosvenor-luxmanor-stream.html>

OR

Google “Grosvenor Stream Restoration”



DEPARTMENT OF
**ENVIRONMENTAL
PROTECTION**
MONTGOMERY COUNTY • MARYLAND

Working together for a cleaner, greener,
economically vibrant community