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Marley Creek Old Mill Phase 1 Stream Restoration Virtual Community Meeting

April 17, 2024



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Project Team

- **Larry Mathena**, Anne Arundel Co BWPR Project Manager
- **Andrew Parks**, Lead Engineer, Gannett Fleming
- **Sally Albright**, Anne Arundel Co BWPR Education & Outreach Coordinator



Agenda

1. Watershed Information
2. Old Mill Stream Restoration - Phases 1 & 2
3. Existing Stream Condition
4. Project Benefits & Goals
5. Stream Restoration Design
6. Permits & Easements
7. Construction Schedule & Costs
8. County OMMS Sidewalk Project
9. Project Updates & Contact Info
10. Questions

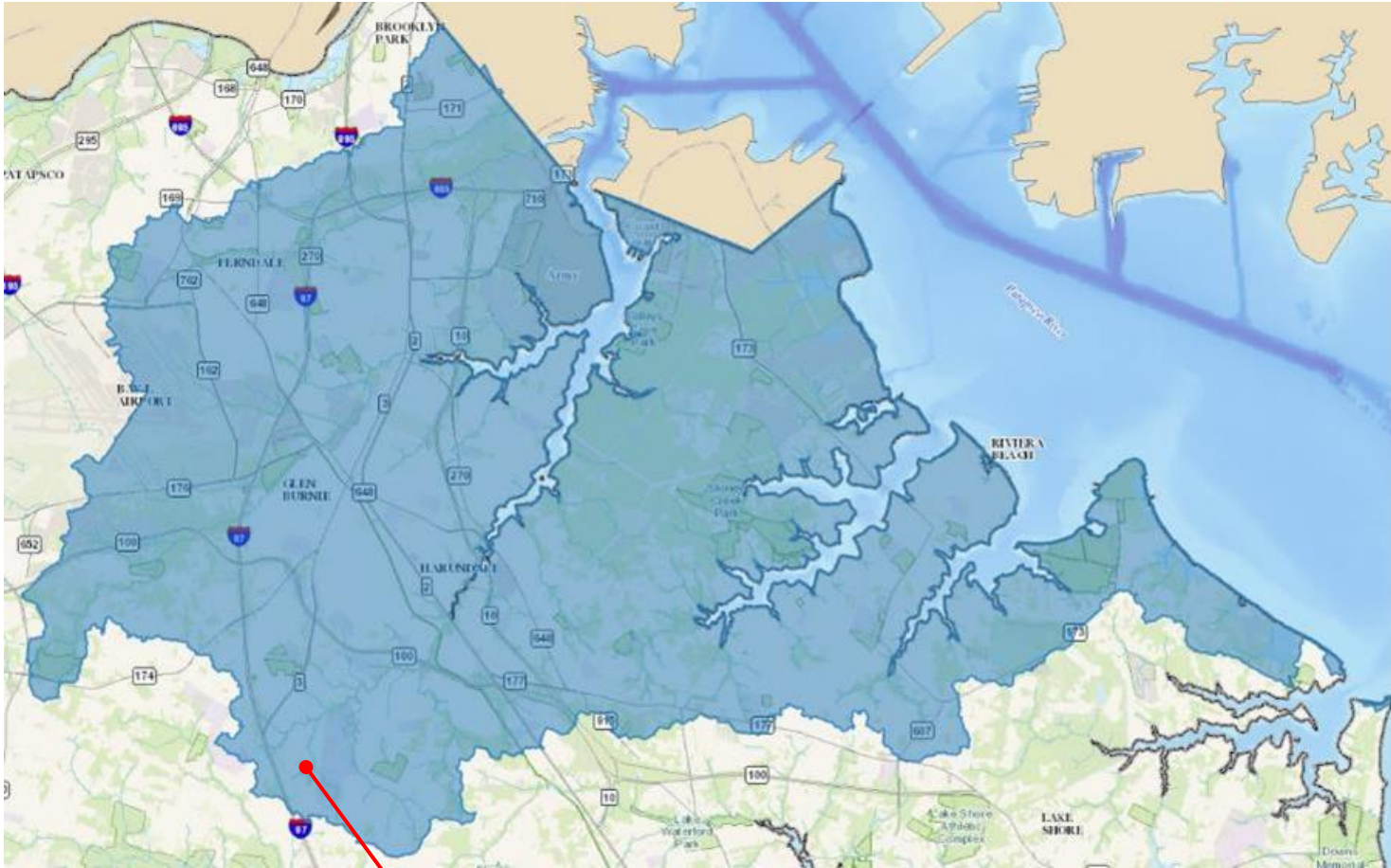


Bureau of Watershed Protection & Restoration

Anne Arundel County is responsible for implementing and supporting cost-effective projects that **offset pollution from stormwater runoff**, resulting in improved water quality our **12 major watersheds**, and ultimately the Chesapeake Bay watershed overall.



Watershed Information



PROJECT AREA



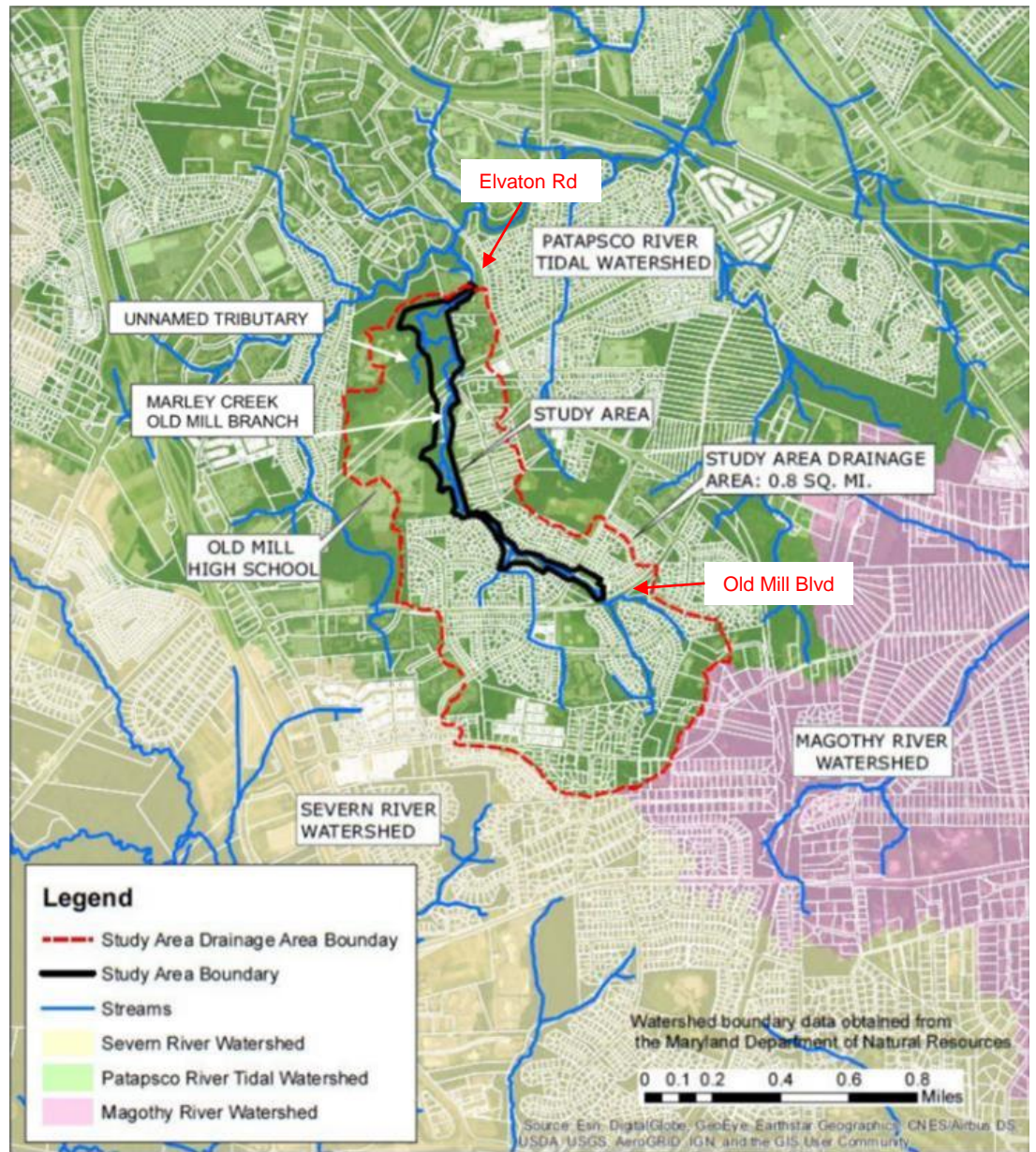
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Patapsco Tidal Basin

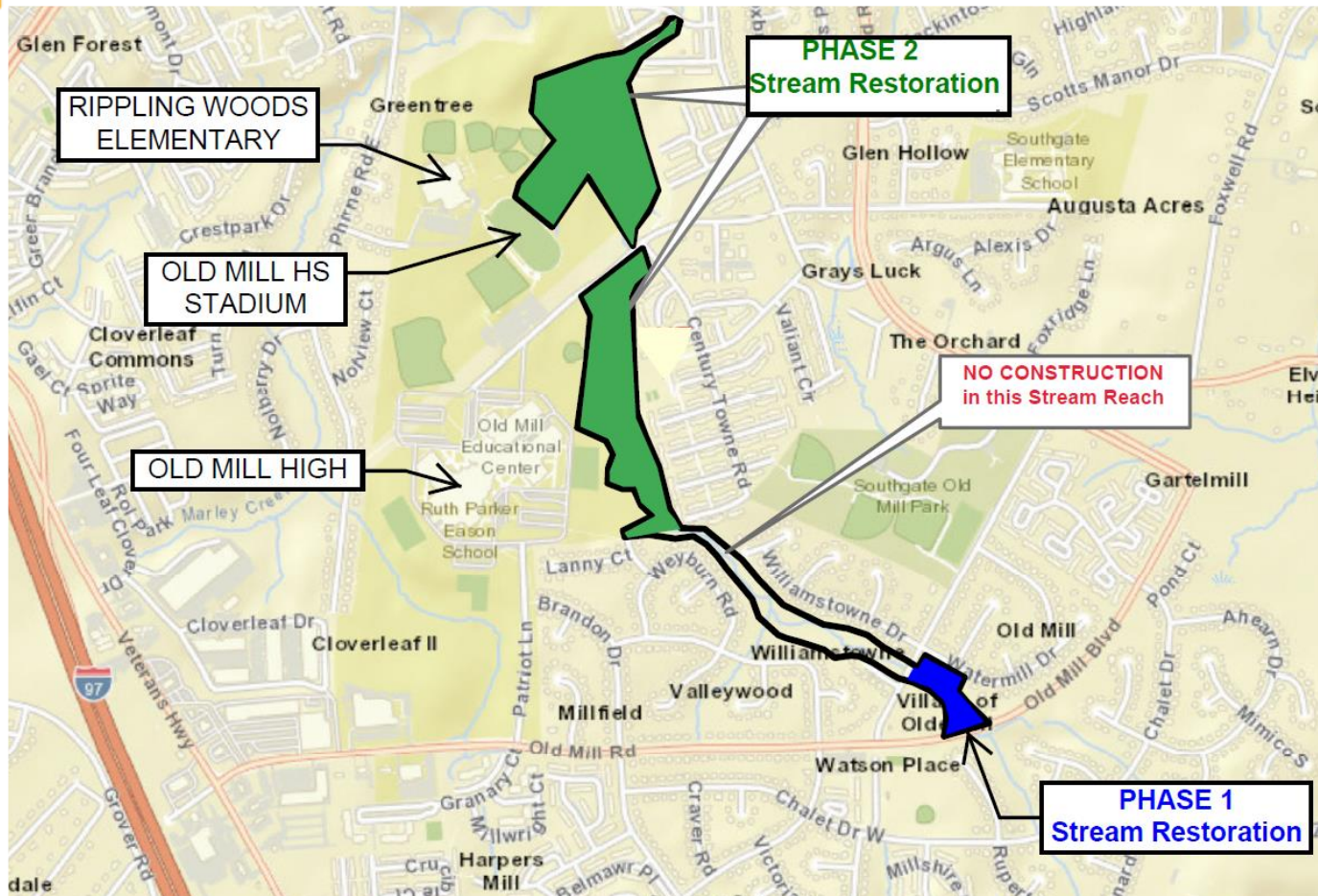
- Project on Old Mill Branch of Marley Creek: Drains into the Patapsco River & Chesapeake Bay
- Drainage Area = 48.2 mi²
- Mix of urban residential, commercial and forested land use
- 30% Impervious Cover

Old Mill Branch Project Area

- D/S Limit near Elvaton Rd & U/S Limit near Brightview Dr
- Drainage Area = 0.8 mi²
- Primarily urban (64.1%) and residential land use
- 34.6% Impervious Cover



Old Mill Stream Restoration Projects



Phase 1

- Old Mill Blvd (U/S Limit) to Old Mill Rd (D/S Limit)
- 500 LF of Stream Restoration
- 95% Design

Phase 2

- Norvelle Ct (U/S Limit) to Silverleaf Ct (D/S Limit)
- 5000 LF of Stream Restoration
- 40% Design



Old Mill Phase 1 - Aerial View



Old Mill Phase 2 - Aerial View



Existing Conditions - *Reach 1*



Culvert outfall into upstream end of Reach 1



Stream and floodplain view from pond embankment



Existing Conditions - *Reach 1*



SWM pond outfall into Reach 1 from embankment



View of SWM pond outfall from below



Existing Conditions - *Reach 1*



Culverts under Old Mill Road – upstream side



Culverts under Old Mill Road – downstream side



Benefits & Goals

- Provide valley restoration, reconnection with riparian wetlands & floodplain
- Promote denitrification during base flow.
- Provide significant reduction in sediment and nutrients.
- Enhance stream and riparian ecological functions.
- Provide an integrated stabilization approach to all storm drain and pond outfalls.
- Document TMDL credit towards Anne Arundel County's NPDES MS4 permit

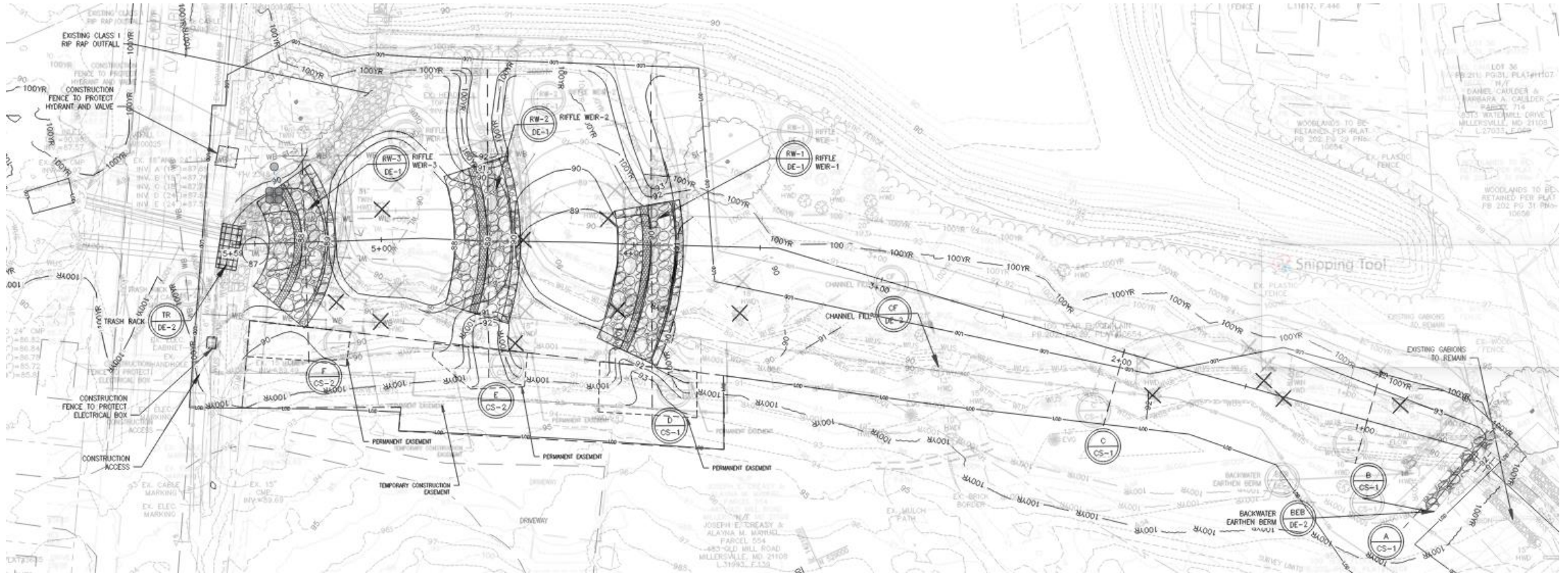


Proposed Restoration Design - Phase 1

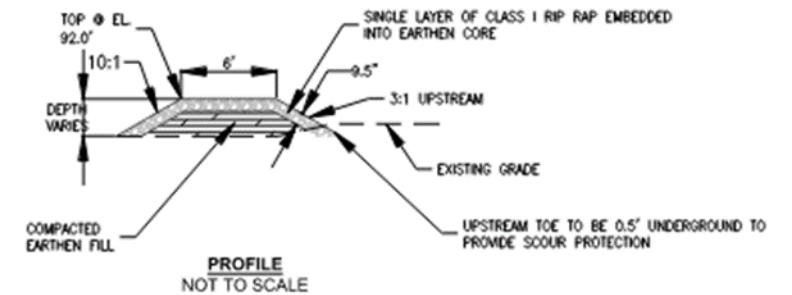
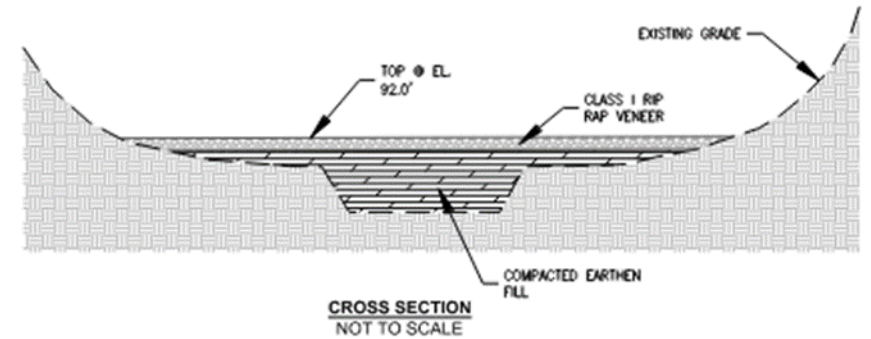
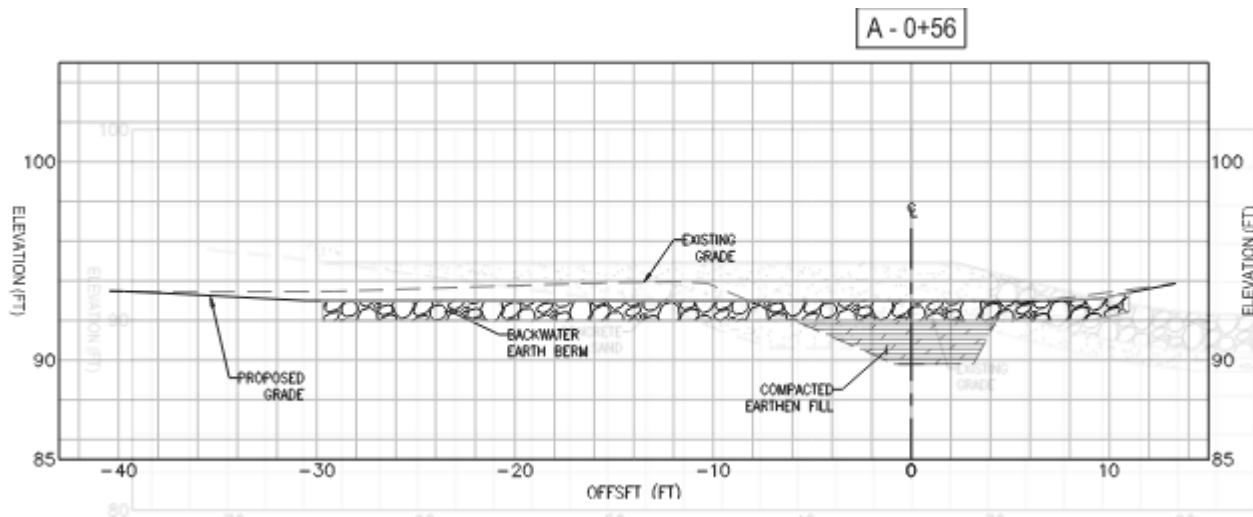
- Valley restoration with no constructed channel
- Raise existing base flow/reconnect floodplain
- Install floodplain and channel grade control (berms and stone weirs)
- Avoidance of unnecessary impacts to vegetation and jurisdictional wetlands
- Revegetation of disturbed floodplain areas (brush, plantings)
- Clean out Culverts under Old Mill Rd & Install Trash Rack



Reach 1 - Proposed Plan

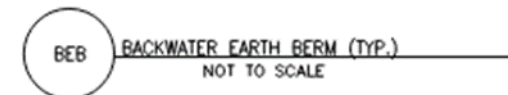


Reach 1 - Typical Sections

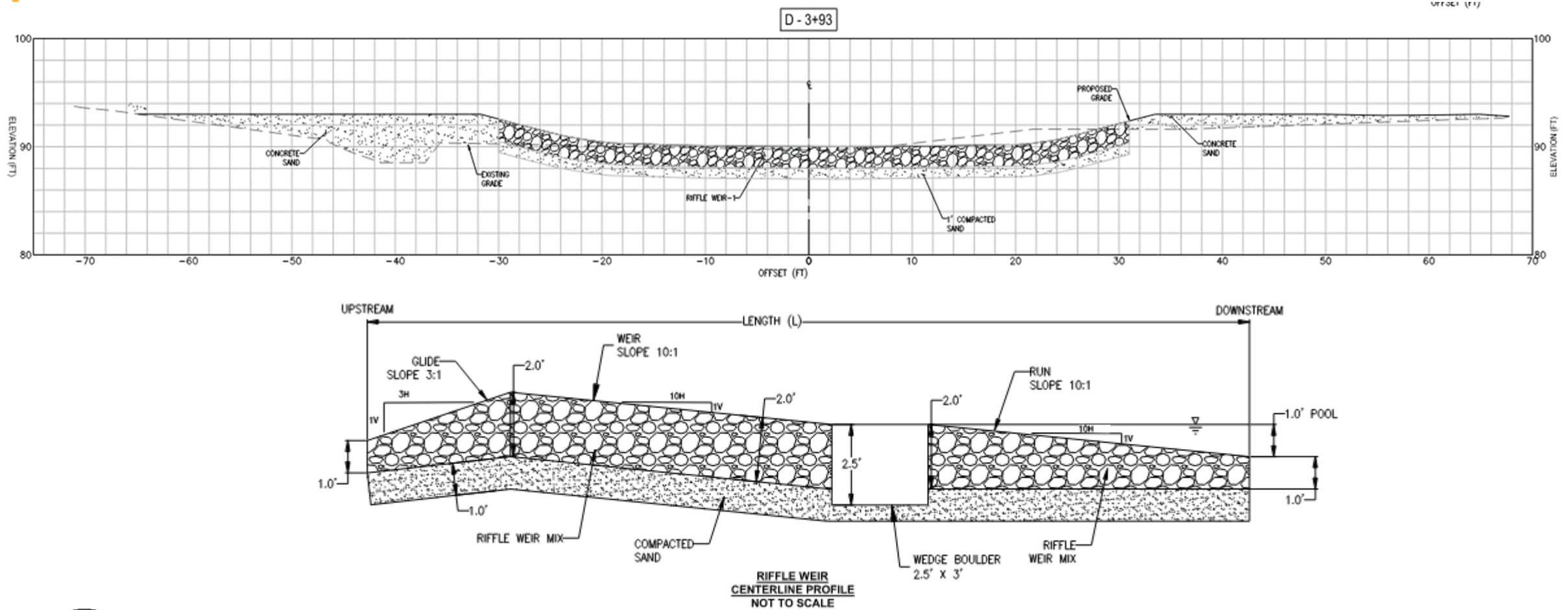


BACKWATER BERM CONSTRUCTION NOTES:

1. EARTHEN FILL: SHALL CONSIST OF WELL-GRADED SOIL CLASSIFIED AS GM, GC, SM, SC, SC-SM, ML, CL OR CL-ML UNDER THE SOIL CLASSIFICATION SYSTEM AS DEFINED IN ASTM D2487 COMPACTED TO 90% STANDARD PROCTOR.
2. CLASS 1 RIP RAP: AS SPECIFIED IN ANNE ARUNDEL COUNTY MANUAL FOR CONSTRUCTION AND MATERIALS.
3. EARTHEN FILL SHALL BE FREE OF UNSUITABLE MATERIALS WHICH INCLUDE ROOTS, STUMPS, WOOD, RUBBISH, ORGANICS, CINDERS, VEGETATION, MINE SPOIL, FROZEN OR OTHER OBJECTIONABLE MATERIALS.
4. EARTHEN FILL TO BE COMPACTED IN 8" LIFTS TO 95% MODIFIED STANDARD PROCTOR.



Reach 1 - Design Details



Tree Impacts & Proposed Planting Plan

- **Impacts:**
 - No specimen trees to be removed (diameter > 30")
Smaller trees removed
 - Use ex. stream channel for construction access
Minimize trees removed
- **Plantings:**
 - 52 Trees
 - 142 Small Trees & Shrubs
 - 240 Wetland Plant Plugs
 - Reseed disturbed areas



Step Pool Project - Similar to Old Mill Phase 1



End of construction



9 months after construction

Trees removed will remain on-site



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Permits for Construction

Local, State and Federal permits needed:

- Anne Arundel County Grading Permit
- Joint Permit for alteration of floodplain, water, non-tidal wetland from MDE & USACE
 - Joint Permit Requirement: To protect aquatic species, no in-stream work shall occur from February 15th - June 15th



Easements for Construction

- *Easement* - Property owner gives the County & their Contractor the right to use their land. Property owner still owns the land. Easements can be temporary or permanent.
- *Easements needed:*
 - Private Property south of stream
 - Gartelmill HOA Property north of stream



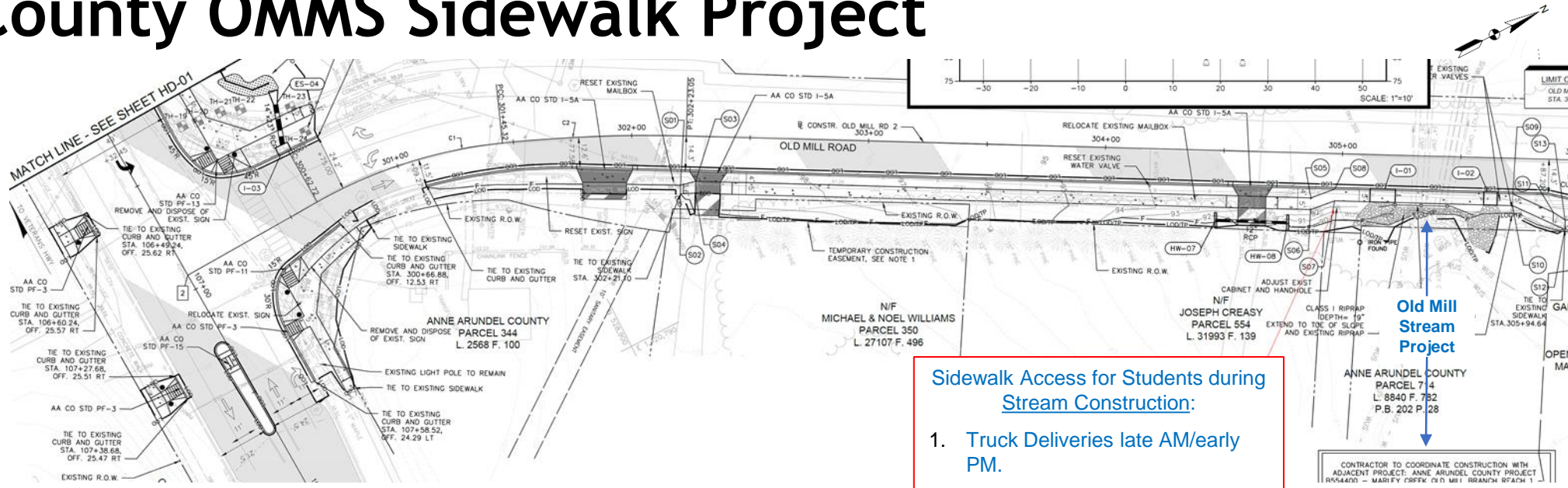
Construction Schedule & Cost

April 2024	Complete Design Plans
May 2024	Obtain Gartelmill HOA Easement + County Grading Permit
May 2024	Construction Contract w/ Paydirt
Mid-June 2024	Construction Start
September 2024	Construction Complete

Construction Cost = \$500,000



County OMMS Sidewalk Project



- New Sidewalk along Old Mill Rd from SWM Pond south to Old Mill Blvd
- Also includes: Curb & Gutter, Road Resurfacing, Drainage Structures, Driveway Aprons, Crosswalks
- Construction start this summer & completed by end August
- Community Meeting for Sidewalk Project in late May
- County PM: Charles Cotterman



Project Updates

- Check Project Website listed on Meeting Flyer:
https://bit.ly/B554401_OldMillBranch
- Project Updates will be emailed to interested parties. To receive these updates, include your email address on Meeting sign-in sheet or send an email to:
pwmath00@aacounty.org.



Contact Information

- Old Mill Stream Restoration Project:

Project Manager Larry Mathena

Anne Arundel County, Department of Public Works

Bureau of Watershed Protection and Restoration

Phone: (410) 222-7908

Email: pwmath00@aacounty.org

- Old Mill Middle School Sidewalk Project:

Charles Cotterman

Anne Arundel County, Department of Public Works

Heery Group

Phone: (443) 336-3083

Email: pwcott22@aacounty.org



Questions & Discussion





Bureau of Utility Operations

24-Hour Emergency

Water Service: (410) 222-8400

Billing Inquiries: (410) 222-1144



Bureau of Engineering

General Inquiries: (410) 222-7500



Bureau of Waste Management Services

Bulk Trash Service / Curbside Collections: (410) 222-6100



Bureau of Watershed Protection and Restoration

General Inquiries: (410) 222-4240



Bureau of Highways

General Inquiries: (410) 222-7321

Snow Line: (410) 222-4040

Email: hwyscustomercare@aacounty.org

Customer Relations:

(410) 222-7582



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