

- AA 745-07 Evergreen Road Stream -  
Consistency ~~Site Plan~~ Valley Restoration  
Report

See also  
AA 7

S1829-6389

Martin C'Malley  
Governor

Anthony G. Brown  
Lt. Governor



Margaret G. McHale  
Chair

Ren Serey  
Executive Director

STATE OF MARYLAND  
CRITICAL AREA COMMISSION  
CHESAPEAKE AND ATLANTIC COASTAL BAYS

1804 West Street, Suite 100, Annapolis, Maryland 21401  
(410) 260-3460 Fax: (410) 974-5338  
[www.dnr.state.md.us/criticalarea/](http://www.dnr.state.md.us/criticalarea/)

January 13, 2012

Mr. Tom Burke  
Anne Arundel County  
Office of Planning and Zoning  
2664 Riva Road  
Annapolis, Maryland 21401

Re: North Cypress Branch Stream Valley Restoration and Outfall Repair  
Anne Arundel County Department of Public Works  
Consistency Report

Dear Mr. Burke:

I have received revised plans and a consistency report for the above-referenced project per the requirements of COMAR 27.02.02 - State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. The County Department of Public Works is proposing the restoration of the North Cypress Branch Stream Valley by way of reconstruction of a severely eroding outfall, phragmites removal and reestablishment of the Atlantic White Cedar forest within the stream valley's wetland system. A total of 1.87 acres of the 2.19 acre project site are within the Critical Area and the Buffer, with 1.26 acres designated as a Limited Development Area (LDA) and 0.55 acres designated as a Resource Conservation Area (RCA).

Because the proposed disturbance within the Buffer is for the purpose of restoring the environmental condition of the stream and its riparian forest, and because the applicant indicates that tree clearing will only be done to the extent that is necessary for reconstruction of the outfall and survival of the proposed Atlantic White Cedar plantings, the project is consistent with the habitat and water quality goals of the County's Critical Area Program.

This office concurs with the County's determination that the project is consistent with the County's Critical Area program and no further review is required.

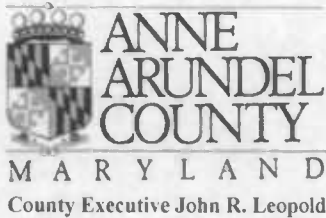
We appreciate the opportunity to provide comments on this project. If you have any questions, please contact me at 410-260-3481.

Sincerely,

A handwritten signature in black ink, appearing to read "Amber Widmayer".

Amber Widmayer  
Natural Resources Planner

cc: AA 745-07  
Dennis McMonigle, AA DPW



745-07

Heritage Complex  
2662 Riva Road, 3<sup>RD</sup> Floor  
Annapolis, MD 21401

Ronald E. Bowen, P.E.  
Director, Department of Public Works

December 12, 2007

Ms. Lisa Hoerger  
Critical Area Commission  
1804 West Street, Suite 100  
Annapolis, Maryland 21401

Dear Ms. Hoerger,

The Anne Arundel County Department of Public Works is proposing a stream valley restoration for Cypress Branch, a tributary to the Severn River, and wishes to begin coordination with your agency. The project is located in Arden on the Severn between Evergreen Road and Severnview Road. The site was historically an Atlantic White Cedar bog, but it has suffered significant damage from sedimentation and a loss of hydrology that has led to a drastic change in topography and vegetation.

The restoration project includes regrading of the stream valley to remove deposited sediment, placement of sand berms to encourage infiltration and groundwater recharge, and the installation of sandstone weirs to create shallow pools to restore the historic hydrology at this site. These steps will be coupled with a significant effort to revegetate the site with native Atlantic White Cedar and other native bog vegetation. This project will create 12 acres of Atlantic White Cedar bog. In addition, invasive vegetation and excess sediment will be removed from the downstream shallow tidal area, and the area will be revegetated with native tidal marsh plants and submerged aquatic vegetation.

Though after review of the Critical Area Commission Project Application Checklist it seems the project is in too preliminary of a stage to schedule a Project Subcommittee review, it does not seem premature to coordinate with you.

Enclosed you will find a project location map, an aerial map of the site, a preliminary Project Application Checklist, general project information, and selected preliminary draft construction plan sheets that show the proposed work. As the project continues to evolve, we will forward you the latest information as it becomes available.

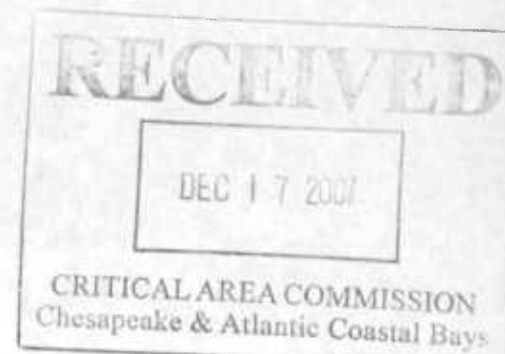
We look forward to working with you on this exciting restoration project. If you have any questions or comments, please contact the project manager Jean Kapusnick at 410-222-7536 or [pwkapu01@aacounty.org](mailto:pwkapu01@aacounty.org).

Sincerely,

Jean Kapusnick, PE  
Project Manager

Enclosures

Phone: 410-222-7536 Mailstop: 7301 Fax: 410-222-7589  
"Recycled Paper"  
Web Site: [www.aacounty.org/DPW](http://www.aacounty.org/DPW)

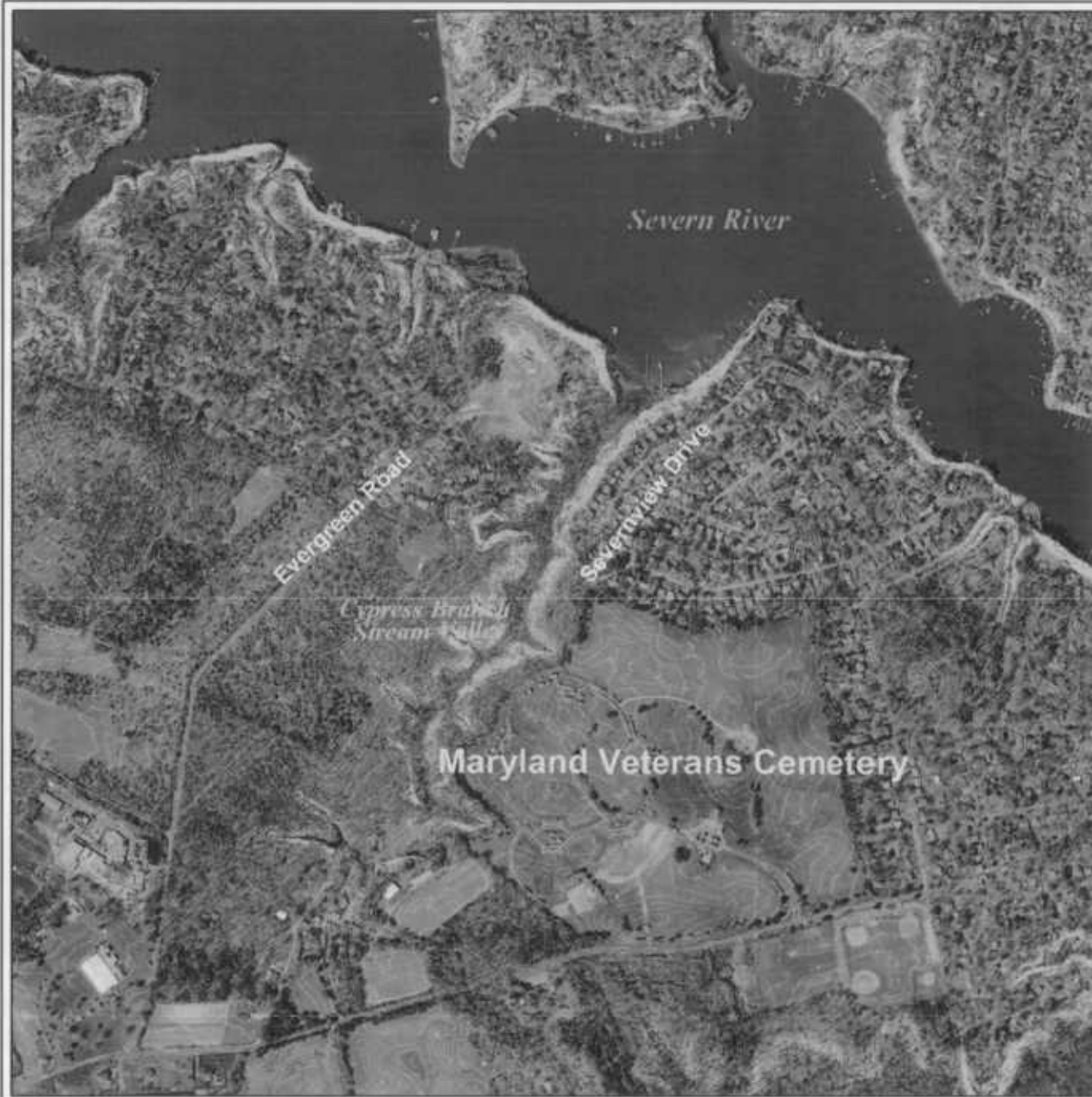


# Cypress Branch Stream Valley Restoration



Map created with CountyView

09/11/2007



**Project name and location**

*Cypress Branch Stream Valley Restoration Project*

**Agency sponsoring project**

*Anne Arundel County Department of Public Works*

**Project description**

*The purpose of the project is to provide water quality treatment to 9 acres of impervious roadway surface in a 275 acre watershed by restoring approximately 12 acres of Atlantic White Cedar wetland and tidal shallow areas along Cypress Branch. There are a number of ways to improve water quality in a watershed, but many alternatives are artificial or engineered. In this case, alternatives, such as stormwater management, were considered and the most effective way to meet the goals of the project was to construct a naturally functioning and geographically appropriate wetland system at the outlet of the watershed that provides water quality treatment to the entire watershed. The goals of the project are multifold. First, restoring this wetland provides water quality treatment by encouraging water filtration through sandy soil and removal of nitrogen and other pollutants through uptake and sequestration that occurs in a wetland environment. There are several dominant types of pollutants in a watershed such as this. First sediment is directly dislodged and deposited in the stream valley by excessive runoff caused by the increase in impervious surface area in the watershed. In this watershed there are both localized "point sources" of sediment such as the outfalls found in this valley and "non-point sources" of sediment such as unstabilized land and construction sites. One significant "point source" will be addressed in this project. Pollutants on roadways include oils and solids that are washed off roadways and into receiving waters such as the Cypress Branch stream valley. The last main category of pollutants would be nutrients from the Veteran's Cemetery and other fertilized and mowed lawns in the watershed that run off into the valley. Under historic conditions these nutrients would have been used by wetland vegetation present in the valley and their impact on receiving waters would have been limited. Today, these nutrients, and sediments mentioned previously, reach the Severn River and the Bay where they can contribute to excessive nitrification and the promotion of algal growth that threaten submerged aquatic vegetation. A second, but no less important goal of the project is to restore a once vibrant and successful Atlantic White Cedar wetland system and that habitat that it supports.*

*The project incorporates the construction of sand berms and shallow pools to provide filtering and water quality improvement for the length of the stream valley. This pool system promotes the conversion of surface water to groundwater which both filters the water and abates the effects of it by reducing its velocity. Pools provide storage for surface water further reducing the volume of runoff. The project includes the repair of one point source, a severely eroded outfall, that contributes sediment to the valley. This outfall is not only eroded, but also discharges runoff from 12 acres of the watershed, including roadway surface from several county roads. The proposed coastal plain outfall at this location will pre-treat the runoff before it is discharged to the valley floor, not simply convey it to the valley floor. The outfall allows water to move through sandy layers that act as a filter. The outfall is constructed of a step pool system which safely conveys the surface water to the valley floor eliminating this eroded outfall as a "point source" of sediment, The*

*project also includes habitat restoration through the removal of deposited sediment, planting of Atlantic White Cedars and other native wetland plants and planting of tidal marsh plants and submerged aquatic vegetation.*

**Anticipated timeline**

*The County is aiming to advertise the project for construction in April 2008, though that may be delayed.*

**Total acreage in Critical Area**

*This will be determined as the plans gain detail.*

**Whether project is on State-owned land, locally-owned land or privately – owned land**

*The project is located a on a combination of state and privately owned land. Permanent easements will sought where work is planned on private land.*

**Total forest area cleared**

*A few select trees may be removed but no measurable area will be cleared.*

**Method of stormwater control**

*The project provides stormwater treatment by promoting groundwater conversion and the presence of vegetation. No engineered stormwater control is required as this is a restoration project.*

**10% calculations or impervious surface information**

*There is no existing or proposed impervious surface present in the project site*

**Soil erosion and sediment or impervious surface information control measures and implementation strategy**

*The project restores a severely eroded outfall and prevents further erosion of the outfall into the valley. During construction, appropriate erosion and sediment control measures will be utilized to prevent erosion from the construction site and protect water quality.*

**Mitigation required for clearing of forest area**

*Significant planting is proposed that will most likely restore any lost trees. As design progresses an exact calculation of lost and replaced trees will be provided to the CAC.*

**Afforested area**

*The entire site will be forested.*

## Consistency Report for Local Government Projects

Project Name: Cypress Branch Stream Valley Restoration	Jurisdiction: Anne Arundel County
<p>Project Description: The project is intended to eliminate a significant sediment source by repairing a severely eroded outfall, recreate an Atlantic White Cedar forest in the Cypress Branch Stream Valley, and establish a diverse tidal wetland and eradicate the existing <i>Phragmites Australis</i> on the shores of the South River. The work at the outfall includes the construction of a stormdrain system with three manholes designed to carry stormwater from the top of the slope to the bottom and discharge it with minimal energy into the wetland in the valley. The work in the valley includes a forebay-like facility to catch and filter contaminant from the stormdrain before they enter the wetland as well as strategic grading to enhance the conditions favorable to Atlantic White Cedar. The work on the shoreline includes grading to create a better connection between the wetland and the river and the creation of tidal wetland habitat.</p>	
Local Agency proposing project: Anne Arundel County	
Contact Name and Phone Number: Jean Kapusnick, 410.222.7536	
Project Location (include street address, tax map and parcel number):	
Addresses: 1124, 1126, 1128, 1130, 1132, 1134, and 1136 Severnview Drive Map 31, Parcel 144, Lots: 354, 355, 356, 357, 358, 359 and 360	
Critical Area acreage and designation: 1.26 ac LDA and 0.55 ac RCA	

Project Data	
Existing forest/woodland/trees:	53% of site or approximately 1.15 acres
Proposed clearing:	90% of existing forest (1.04 acres) or approximately 400-hardwood trees to be removed completely including stumps.
Mitigation to be provided:	80% of cleared area (0.83 acres) to be re-planted with native Atlantic White Cedars at 3-ft on-center for a density of approximately 4840 trees per acres or a total of approximately 4025 AWC. Natural survivability rate is anticipated to be 50%, resulting in a long-term mitigation ratio of approximately 5:1 ((4025x50%)/400).
Planting location & species (also show on site plan):	7000 Atlantic White Cedars throughout the project footprint in designated zones that have the right conditions to support Atlantic White Cedars.
Existing impervious surface: 0 ac	% of site: 0%
Proposed new impervious: 0 ac	
Total impervious surface: 0 ac	% of site: 0%
<b>If the % of impervious cover exceeds the permitted amount in the LDA or RCA, the project may need a Conditional Approval from the Critical Area Commission. Please contact your Commission planner for assistance.</b>	
Total Area Disturbed: 2.19 ac	
Stormwater Management: (If site is in the IDA, the 10% worksheets must be attached. Otherwise, local stormwater requirements must be addressed.)	
No stormwater management is proposed	
Has project received local approval of SWM and sediment and erosion control plans? MDE and the Corps of Engineers have reviewed the project and approval is pending. AASCD review will begin shortly.	
Buffer impacts?	Is project water dependent? No

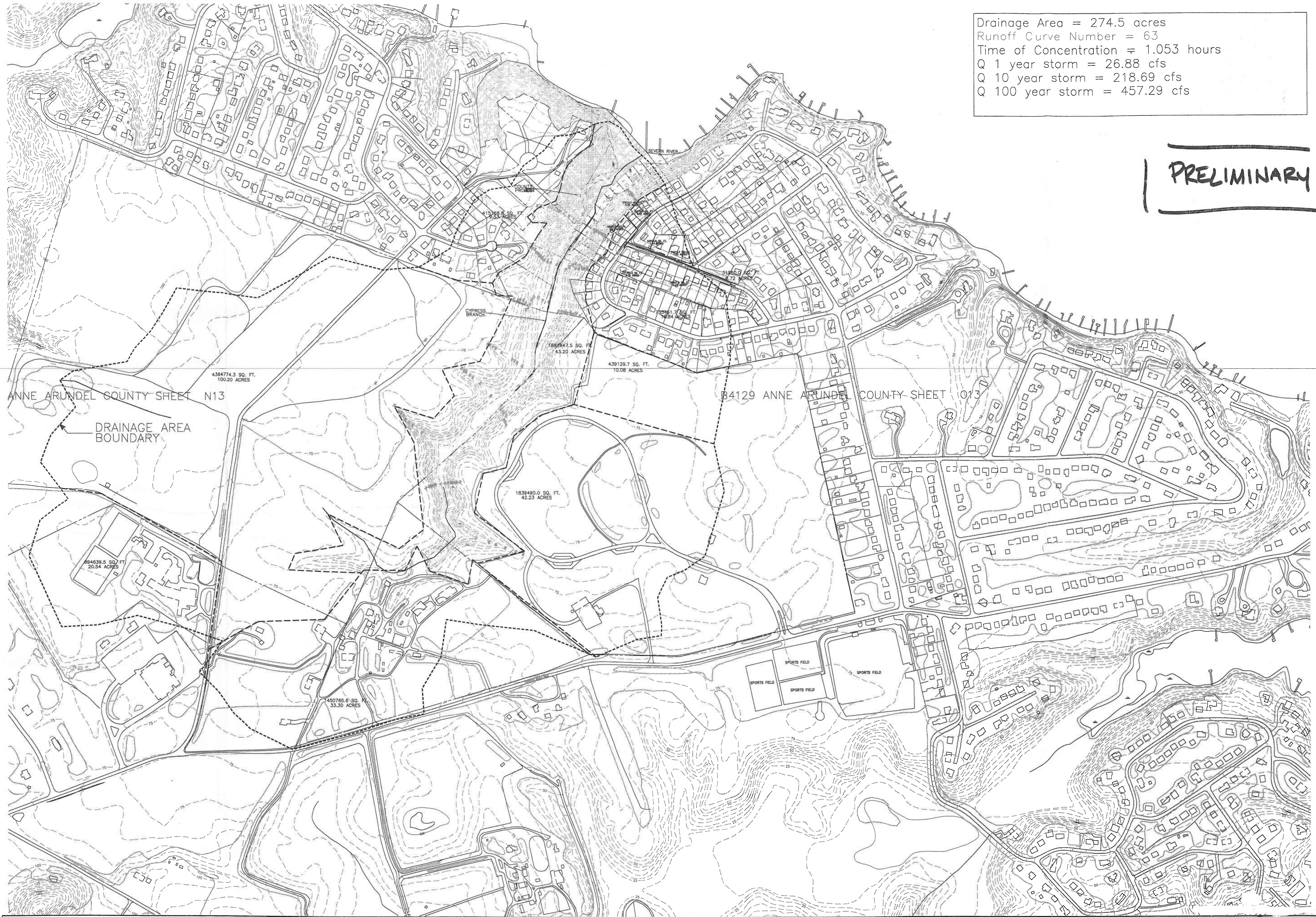






Drainage Area = 274.5 acres  
 Runoff Curve Number = 63  
 Time of Concentration = 1.053 hours  
 Q 1 year storm = 26.88 cfs  
 Q 10 year storm = 218.69 cfs  
 Q 100 year storm = 457.29 cfs

**PRELIMINARY**



**UNDERWOOD & ASSOCIATES**  
 LANDSCAPE ARCHITECTURE • DESIGN/BUILD • ECOLOGICAL RESTORATION  
 1753 EBLING TRAIL  
 ANNAPOLIS, MARYLAND 21401  
 Telephone: 410) 849-3211 Fax: 410) 849-2136

ENGINEER  
 DAVID J. WALLACE, P.E.  
 701 CHESAPEAKE AVENUE  
 ANNAPOLIS, MARYLAND 21403  
 Telephone: 410) 544-1225

**FEBRUARY**  
**2007**  
**- DRAFT -**

REVISIONS			APPROVED	DATE	APPROVED	DATE	SCALE: 1:200'
NO.	DATE	BY					
			CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: KU
			APPROVED	DATE	APPROVED	DATE	SHEET NO. 5 OF 28
			ASSISTANT CHIEF ENGINEER		CHIEF RIGHT-OF-WAY		PROJECT NO.: XXXXX
							CONTRACT NO.: XXXXX

ANNE ARUNDEL COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
**PRELIMINARY - 2/07**  
**DRAINAGE AREA MAP**  
 EVERGREEN ROAD/CYPRESS BRANCH  
 STORMWATER RETROFIT &  
 STREAM VALLEY RESTORATION PROJECT  
 4TH ELECTION DISTRICT ANNE ARUNDEL COUNTY

DEC 11 2007  
 METCAL AREA COMMISSION  
 Legislative & Atlantic Coastal Bays



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ANNE ARUNDEL COUNTY  
 DEPARTMENT OF PUBLIC WORKS

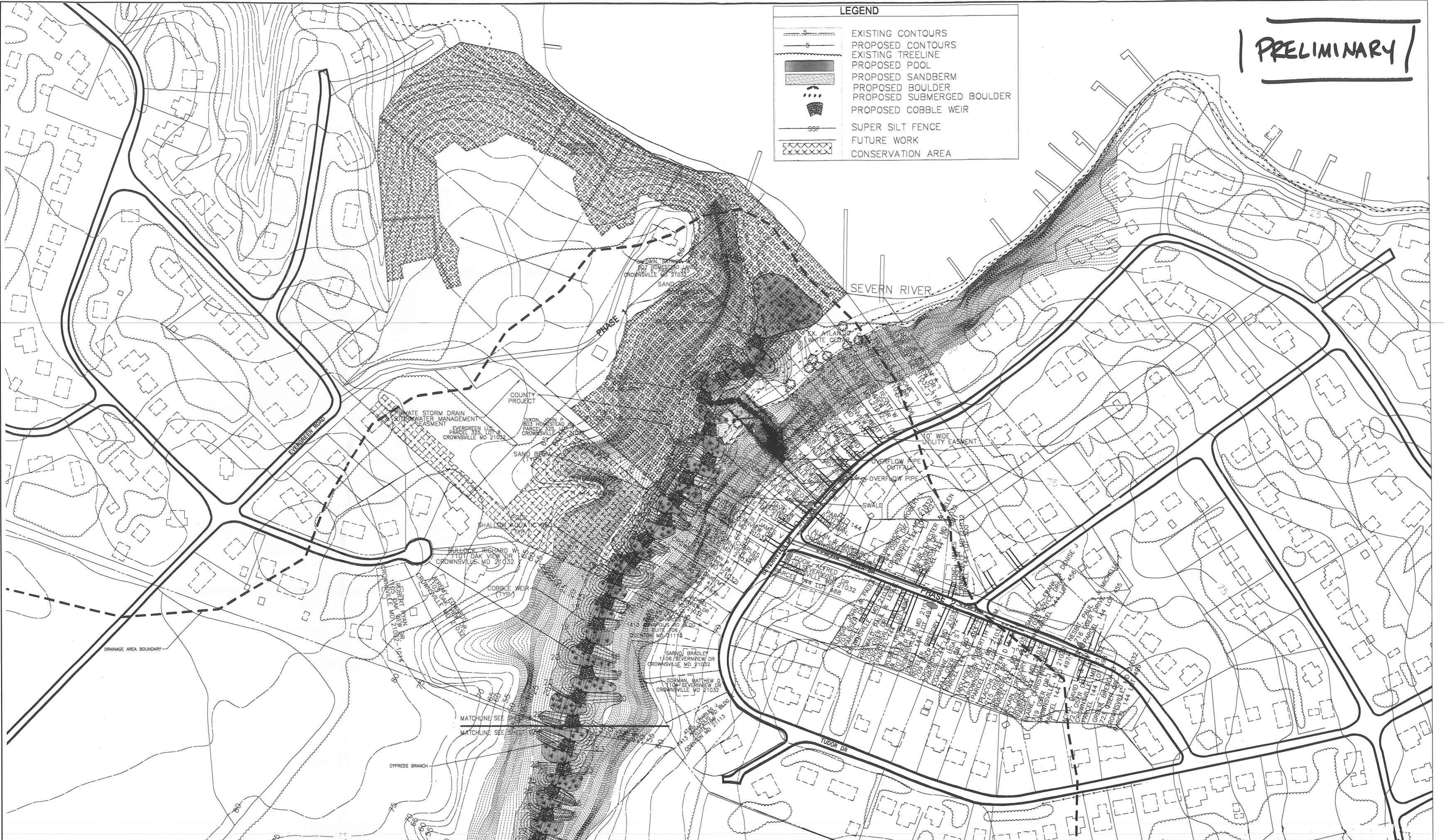
**PRELIMINARY - 2/07**

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NO.	DATE	BY					1:200'
			CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JMP
			APPROVED	DATE	APPROVED	DATE	CHECKED BY: KU
			ASSISTANT CHIEF ENGINEER		CHIEF RIGHT-OF-WAY		SHEET NO. 8 OF 28
							PROJECT NO.: XXXXX
							CONTRACT NO.: XXXXX

**SITE PLAN/  
 SEDIMENT & EROSION CONTROL**  
 EVERGREEN ROAD/CYPRESS BRANCH  
 STORMWATER RETROFIT &  
 STREAM VALLEY RESTORATION PROJECT  
 4TH ELECTION DISTRICT ANNE ARUNDEL COUNTY

**PRELIMINARY**

LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	EXISTING TREELINE
	PROPOSED POOL
	PROPOSED SANDBERM
	PROPOSED BOULDER
	PROPOSED SUBMERGED BOULDER
	PROPOSED COBBLE WEIR
	SUPER SILT FENCE
	FUTURE WORK
	CONSERVATION AREA



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NO.	DATE	BY	CHIEF ENGINEER	PROJECT MANAGER	APPROVED	DATE

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