

HC 130-06

Perryman Park Dredge

Consist. Report

Material

MSA. S. 1829-5810

Robert L. Ehrlich, Jr.
Governor

Michael S. Steele
Lt. Governor



Martin G. Madden
Chairman

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/

March 17, 2006

Mr. Nick Walls
Environmental Planner
Harford County Planning and Zoning
220 South Main Street
Bel Air, Maryland 21014

RE: Perryman Park Dredge Material Placement
Consistency Report

Dear Mr. Walls:

Thank you for providing "Notification of Certification" that the above project is consistent with Harford County's Program. This office understands that the County is proposing to create a Dredge Material Placement (DMP) containment facility, a paved walkway and a parking area in Perryman Park in Harford County.

The park is 51 acres, with 16.7 acres to be disturbed. A portion of the park is within the Resource Conservation Area and is an established agricultural area. 0.69 acres of impervious surface (30,031 square feet) will be added. Buffer disturbance will be limited to a discharge pipe from the containment facility to the water. We understand that no significant vegetation removal or grading will take place.

The proposal will minimize disturbance and avoid impacts to forested areas. After construction of the DMP, the areas inside will be left to naturally vegetate and the areas outside will become meadows. These meadow areas will be maintained to limit the spread of invasives. This proposal is adjacent to a Habitat of Local Significance (HLS), but no work is proposed in the HLS.

TTY for the Deaf

Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450

Continued, Page Two
Perryman Park Dredge Material Consistency
March 17, 2006

The Commission staff has determined that the above proposed development: 1) has environmental or economic consequences that will largely be confined to the immediate area of the site on which the development is located, 2) does not substantially affect the Critical Area program of the local jurisdiction, and 3) is not considered by the Commission as major development. *(See COMAR: Chapter Two, Regulations for Development in the Critical Area Resulting from State and Local Agency Programs).*

Therefore, approval of the above project by the Commission is not necessary. If there are any changes in development that may affect the habitat within the area on site, this office would like to be notified immediately at (410) 260-3483.

Sincerely,


Dawnn McCleary
Natural Resources

cc: Pat Pudelkwicz
Regina Esslinger
HC 130-06

DAVID R. CRAIG
HARFORD COUNTY EXECUTIVE



C. PETE GUTWALD
DIRECTOR OF PLANNING & ZONING

LORRAINE COSTELLO
DIRECTOR OF ADMINISTRATION

HARFORD COUNTY GOVERNMENT

Department of Planning and Zoning

February 16, 2006

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FEB 22 2006

CRITICAL AREA COMMISSION

Ms. Dawnn McCleary
Chesapeake Bay Critical Area Program
1804 West Street, Suite 100
Annapolis, Maryland 21401

RE: Dredge Material Placement Site Consistency Report

Dear Ms. McCleary:

Enclosed, please find a copy of the consistency report for the proposed dredge material placement site. This proposal serves to contain the materials that will be dredged as part of the operation for the maintenance of navigational waters in the Bush River and Otter Point Creek.

The site is located along the Bush River in Perryman and is owned by Harford County Government. The current use of the property is as a park. The land use designation of the site is a RCA.

This proposal includes the creation of a Dredge Material Placement (DMP) containment facility, walkways, and a parking lot. In total, this project will disturb approximately 16.7 acres of land and will create about 0.69 acres of new impervious surfaces (less than 1% of the total parcel). The stormwater runoff from these surfaces will be treated by a combination of facilities which include a detention pond (the actual containment facility), a grass channel, and vegetative plantings. The end result will be the maintenance of stormwater quality as required in the RCA. The area to be disturbed does not contain any forest and is currently old agricultural fields.

This project occurs adjacent to an area that was determined to be a Habitat of Local Significance. Specifically, the Belcamp Beach HLS is located here. The consultant, Bayland Consultants and Design, has contacted the U.S. Fish and Wildlife Service as well as DNR Natural Heritage to determine if there are any rare, threatened, and endangered species in the area. Any recommendations as to the protection of these

~ Preserving Harford's past; promoting Harford's future ~

MY DIRECT PHONE NUMBER IS

220 SOUTH MAIN STREET BEL AIR, MARYLAND 21014 410.638.3000 • 410.879.2000 • TTY 410.638.3086 • www.harfordcountymd.gov

THIS DOCUMENT IS AVAILABLE IN ALTERNATIVE FORMAT UPON REQUEST.

Page 2

RE: Dredge Material Placement Site Consistency Report

resources will be integrated into best management practices used during the construction of the project. Copies of the correspondence are included in the end of this report.

Harford County has determined that this project is of local significance and that it is consistent with the goals of Harford County's Critical Area Program. Please review this project and provide us with your comments. If you have any questions please do not hesitate to contact me at (410) 638-3103.

Sincerely,



Nick Walls
Critical Area Planner

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CRITICAL AREA COMMISSION

NW/dl
Encl:

HC 130-06

PERRYMAN PARK

UPPER BUSH RIVER DREDGE MATERIAL PLACEMENT SITE

CRITICAL AREA REPORT

DECEMBER 2005

RECEIVED

FEB 22 2006

CRITICAL AREA COMMISSION

Prepared for

Harford County Government
Department of Parks and Recreation

Prepared by

BayLand



Consultants & Designers, Inc.

"Integrating Engineering and Environment"

1321 Mercedes Drive, Suite C
Hanover, Maryland 21076

Phone: (410) 694-9401
Fax: (410) 694-9405

I. DESCRIPTION OF THE PROJECT

This Critical Area Report has been prepared as required for all County capital projects. This report includes site plans and copies of correspondences to U.S. Fish and Wildlife Services and the Department of Natural Resources Forest, Wildlife and Heritage Service.

The proposed project is the construction of a Dredge Material Placement (DMP) containment site, paved walkway and parking area in Perryman Park in Harford County, Maryland. This project will provide a disposal site for dredge material, walkways and a parking lot to promote passive use of the park.

The subject property is identified as Parcel 342 on Harford County Tax Map 63. Ownership is listed under deed reference 1386/671 (Harford County). The 51-acre waterfront property is located west of Aberdeen Proving Ground in Harford County, Maryland. A portion of the property is located within the Chesapeake Bay Critical Area with a land use designation of Resource Conservation Area (RCA). Zoning within the property has been established as agricultural. The park is located in the southwestern part of the County and accessed by Fords Lane. The property is bordered on the west by Church Creek and south by Fords Lane. Location and site maps are provided in Attachment 2. Perryman Park is currently used as farmland.

The site area within Perryman Park is 51 AC. Construction will require the disturbance of 16.7 AC, 728,897 SF. The property currently does not have impervious surfaces. As a result of this project, the total impervious area created on site will be 30,031 SF, 0.69 AC, which is less than 1% of the total site acreage. Limits of disturbance are shown on the accompanying site plan (Attachment 1). All construction activities are located landward of the mean high water line.

The project has been designed to minimize impacts. Silt fence along the slope of the proposed grading will provide sediment control on the site. There are minimal trees within the limit of disturbance, this area will be accessed by small equipment that will not require the cutting of trees. The site was chosen to minimize landslide disturbance and to avoid impacts to forested areas. The site is currently farmland and after construction of the DMP the areas inside will be left to naturally vegetate and the areas outside will become meadows.

II. NATURAL RESOURCES INVENTORY

The following table is a summary of the various natural features and/or land use designations associated with the subject property.

NATURAL FEATURES/DESIGNATIONS

Feature/Designation	Identified	Not Identified
A) Mean High Tide Shoreline	X	
B) Tidal Wetlands	X	
C) Anadromous Fish Spawning Waters		X
D) Submerged Aquatic Vegetation		X
E) Tributary Streams	X	
F) 100-foot Critical Area Buffer	X	
G) Nontidal Wetlands	X	
H) 75-foot Nontidal Wetlands Buffer	X	
I) Soils Hydric Soils	X	
J) Steep Slopes		X
K) Rare, Threatened or Endangered Species		X*
L) Riparian Forest/Forest Interior Dwelling Species Habitat		X
M) Colonial Water Bird Nesting Site		X
N) Waterfowl Concentration Area		X
O) Habitats of Local Significance	X	
P) Natural Heritage Area		X*
Q) Trees and Woodland Areas	X	

* A letter has been sent to both the Maryland Department of Natural Resources Natural Heritage Program and the U.S. Fish and Wildlife Service requesting any information on file concerning the existence of these features within the vicinity.

- 1
- A) The mean high tide shoreline was identified and no construction will occur within this area.
 - B) The parcel is partially located within the 100 Year Floodplain. No disturbance will occur within the 100 Year Floodplain. Tidal marsh vegetation along the park's waterfront is limited to the small area shown on the plans located approximately 150 feet west of the DMP site.
 - C) Perryman Park is not considered to be Anadromous Fish Propagation Waters.
 - D) A review of the annual VIMS aerial surveys for SAV determined that there was no growth of submerged aquatic vegetation near the site.
 - E) There is a tributary stream located on the northern side of the parcel approximately 150 LF north of the DMP site. The stream will not be disturbed during construction. }
 - F) The accompanying Site Plan has established the correct location of the 100-foot Critical Area Buffer. The Buffer within the park is currently comprised of gradual slopes, farmed areas and woodland areas. The DMP site has been designed to minimize impacts to existing natural vegetation within the Buffer. No grading or disturbance will be performed within the 100-foot buffer. }??
 - G-H) Tidal wetlands are located along the shoreline of Church Creek. The proposed DMP Site construction does impact or cause shading to any tidal or non-tidal wetlands vegetation according to the Corps of Engineers methodologies. }*??
 - I) According to the Soil Survey of Harford County Area Maryland, (USDA/75), the subject site is underlain by six soil types, Elsinboro silt loam, 0 to 2 percent slopes (EsA), Elsinboro silt loam, 2 to 5 percent slopes (EsB2), Delanco silt loam, 3 to 8 percent slopes (DcB), Beltsville silt loam, 2 to 5 percent slopes (BeB), Keyport silt loam, 2 to 5 percent slopes (KpB), and Othello silt loam (Ot). The Elsinboro association (EsA, EsB2) consists of deep, nearly level to moderate slopes, well drained. The Delanco association (DcB) and Keyport association (KpB) are deep, nearly level and gently sloping, and moderately well drained soils. The Beltsville association (BeB) consists of level to moderately sloping well drained soils. The Othello association (Ot) consists of deep, nearly level, poorly drained soils. EsA, EsB2, DcB, BeB and KpB all have a moderate probability of erosion. Othello silt loam (Ot) has a minimal probability of erosion. Othello silt loam contains hydric inclusions according to Harford County Office of Planning and Zoning maps. The location of the site, an area of no slope to gradual slope, was selected to minimize landslide disturbances. A soils map of the site is included as Attachment 3.

- J) Based on spot elevations provided by Harford County, the elevations of the site range from sea level to thirty feet. The property gently slopes in the direction of the shoreline. There are no areas of steep slopes (>15%) on the site.
- K-P) BayLand Consultants & Designers, Inc. has contacted the Maryland Department of Natural Resources Natural Heritage Program and the U.S. Fish and Wildlife Service to request any information on file concerning the existence of known Federal or State threatened or endangered plant or wildlife species or National Heritage Areas on or near this project site (Attachment 5). The U.S. Fish and Wildlife Service reviewed the site and determined that except for transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project area. After review of the Harford County Office of Planning and Zoning Resource maps and Maryland Department of Natural Resources files, it appears there are significant areas within the vicinity that include wildlife habitats of local significance. The location of these features can be seen in Attachment 4. This feature is located within the designated property but not within the proposed construction site.
- Q) No trees or woodland areas will be disturbed by the proposed project. Wooded vegetation surrounding the site can be seen in Attachment 4.

III. Description of Proposed Impacts

The proposed project will impact 728,897 SF and create 30,031 SF of impervious area. The new construction includes a DMP containment site for the storage of 181,247 CY of dredge material, 2,830 LF of pathway and a 14 space parking lot. The following table summarizes the projects proposed impacts:

Total Site Area	51.79 AC
Total Disturbed Area	728,879 SF
Area to be Vegetatively Stabilized	698,848 SF
Existing Impervious Surface	0 SF
New Impervious Surface	30,031 SF

IV. Description of Mitigation Efforts

The project disturbs 728,897 SF and 698,848 SF of area will be vegetatively

stabilized. The site is currently being farmed. After construction of the DMP site the area surrounding the DMP will be meadow and the area inside the DMP will be left to naturally vegetate.

Several efforts to limit the amount of impacts were made. All proposed construction is outside of the 100 foot buffer, wetlands, forested areas and 100 yr floodplain. Forty one eastern white pines are being planted to help in the mitigation.

} 27

V. Site Plan

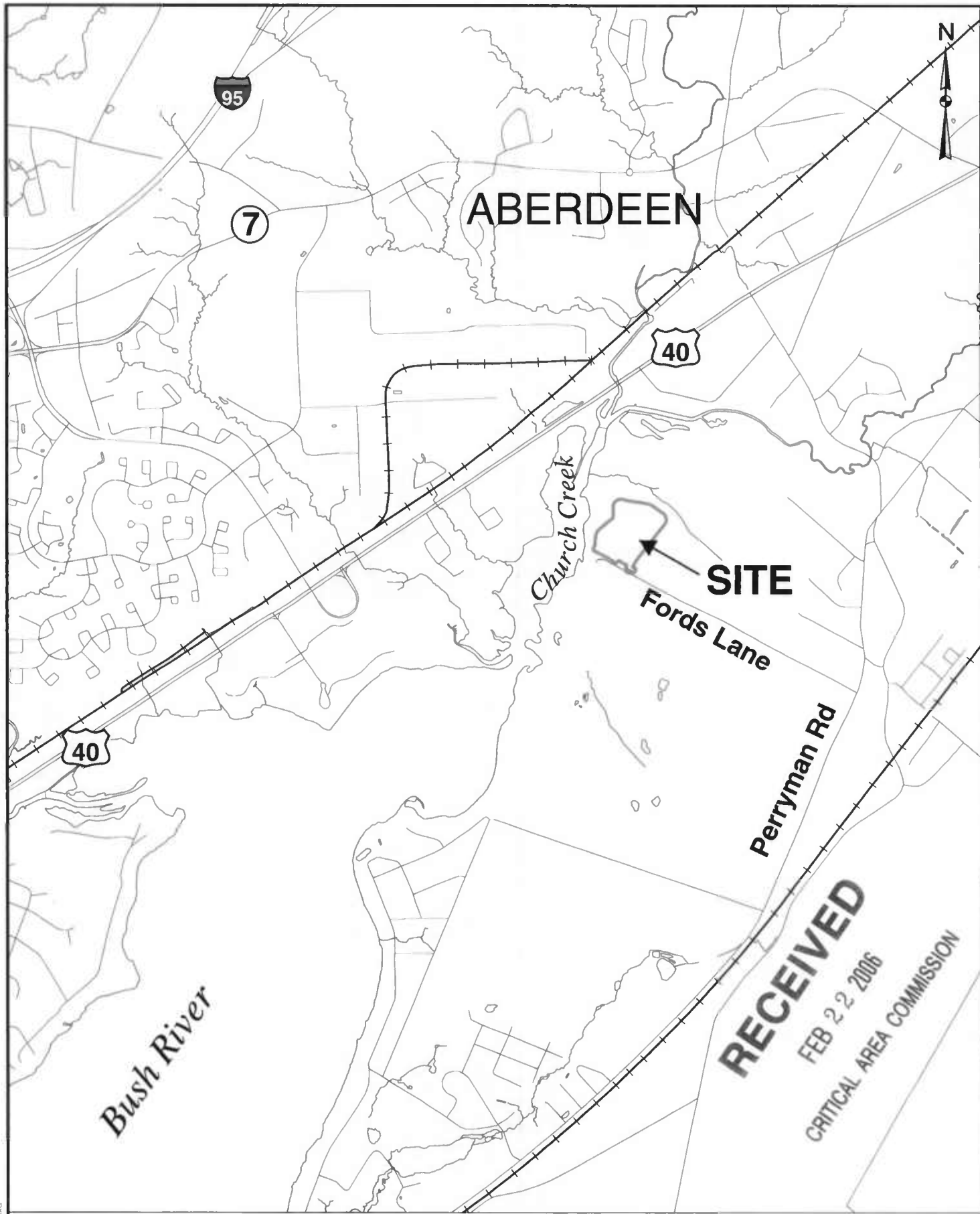
Plans and specifications for the proposed improvements have been previously prepared for this project and are included as Attachment 1.

VI. Conclusion

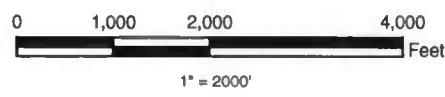
This Critical Area Report has identified the sensitive environmental features and Habitat Protection Areas located within the study area of Perryman Park. The proposed development has been designed to protect those features to the maximum extent possible. Protection measures include minimizing the disturbed area and vegetatively stabilizing all disturbed areas.

ATTACHMENT 1

ATTACHMENT 2



RECEIVED
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 CRITICAL AREA COMMISSION

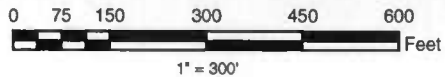


— PROJECT AREA
 Basemap from Harford County 2000 Planimetrics

Bayo
 Land
 Consultants & Designers, Inc.
"Integrating Engineering and Environment"
 1321 Mercedes Drive, Suite C Phone: (410) 694-9401
 Hanover, Maryland 21076 Fax: (410) 694-9405

UPPER BUSH RIVER
 DMP
 LOCATION MAP

P:\41104\01\LOCATION_MAP.mxd



- - - - - PROPERTY LINES
 _____ PROJECT AREA
 Imagery from Harford County 2000 Aerial Photography

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 Hanover, Maryland 21076 Fax: (410) 694-9405

UPPER BUSH RIVER
 DMP
 SITE MAP

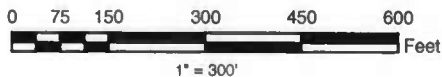
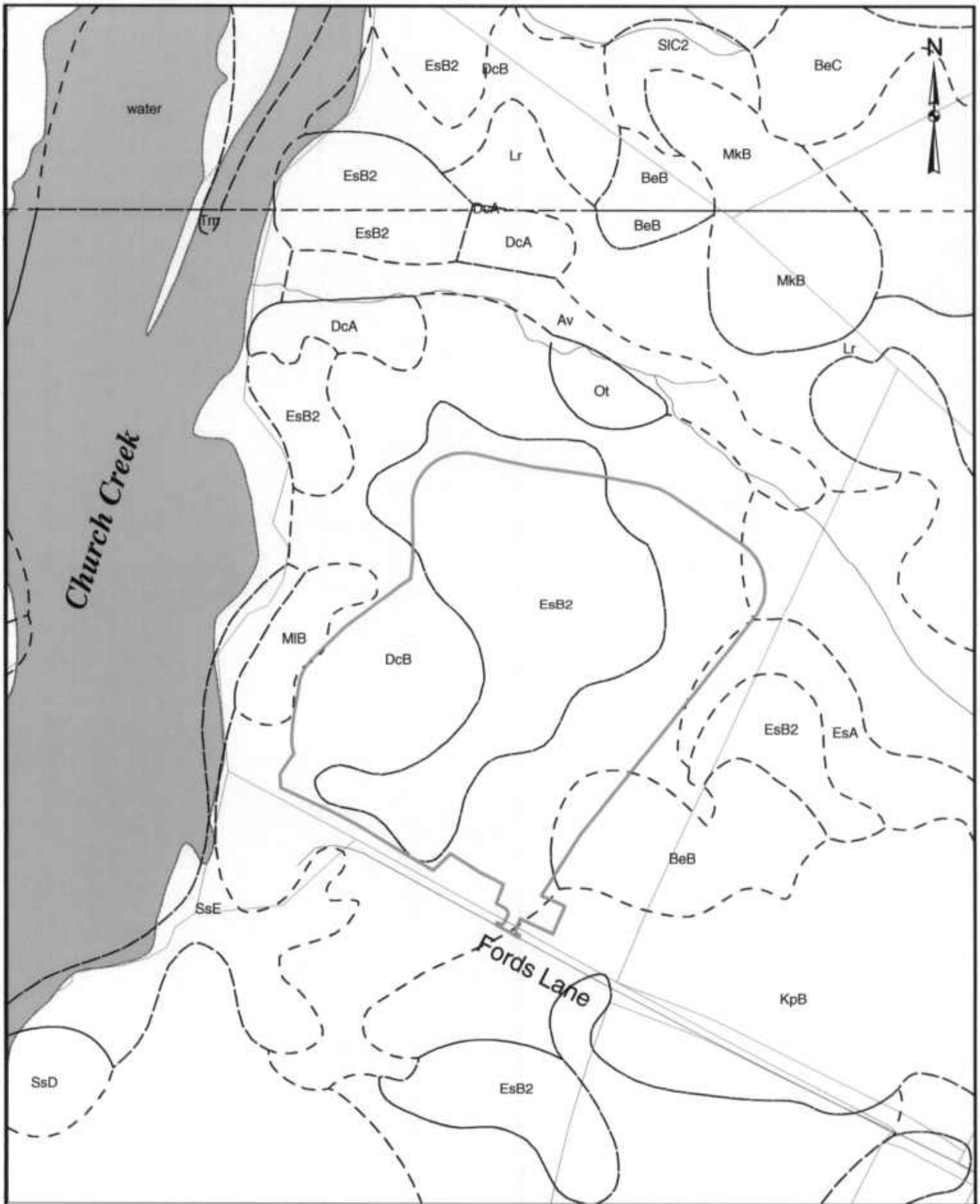
P:\41104\01\SITE_MAP.mxd

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CRITICAL AREA COMMISSION

ATTACHMENT 3



--- SOILS
 — PROJECT AREA
 Basemap from Harford County 2000 Planimetrics

Bayo Land
 Consultants & Designers, Inc.
 "Integrating Engineering and Environment"
 1321 Mercedes Drive, Suite C Phone: (410) 694-9401
 Hanover, Maryland 21076 Fax: (410) 694-9405

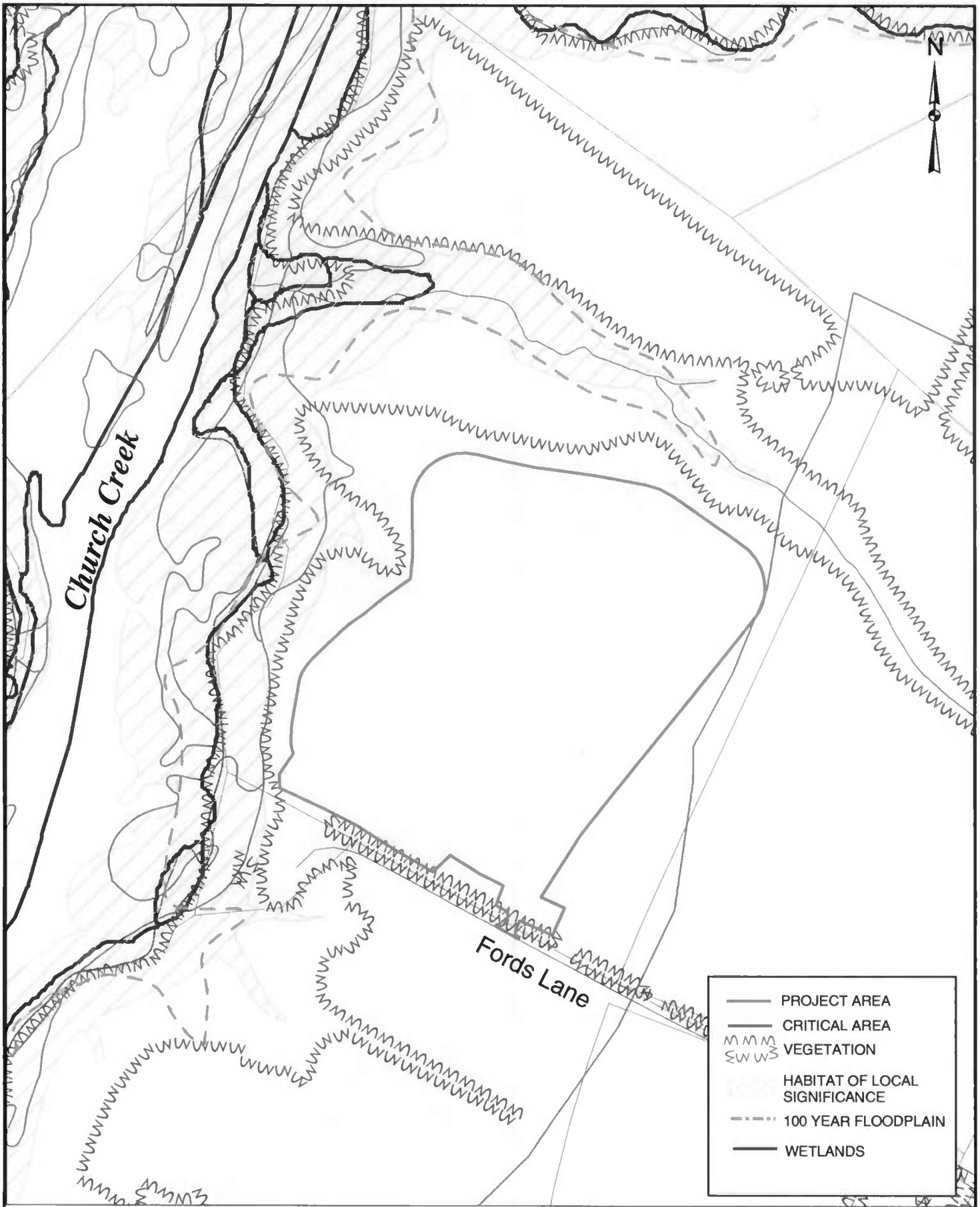
UPPER BUSH RIVER
 DMP
 SOILS MAP

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CRITICAL AREA COMMISSION

ATTACHMENT 4



- PROJECT AREA
- CRITICAL AREA
- ~~~~~ VEGETATION
- HABITAT OF LOCAL SIGNIFICANCE
- - - - - 100 YEAR FLOODPLAIN
- WETLANDS



P:\41104\01\SOILS_MAP.mxd

Basemap from Harford County 2000 Planimetrics

BayLand
 Consultants & Designers, Inc.
 "Integrating Engineering and Environment"
 1321 Mercedes Drive, Suite C Phone: (410) 694-9401
 Hanover, Maryland 21076 Fax: (410) 694-9405

UPPER BUSH RIVER
 DMP
 ENVIRONMENTAL
 IMPACTS

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FEB 22 2006

CRITICAL AREA COMMISSION

2

ATTACHMENT 5



Consultants & Designers, Inc.

Copy
41104,6

"Integrating Engineering and Environment"

November 21, 2005

U.S. Fish and Wildlife Service
177 Admiral Cochran Drive
Annapolis, MD 21401

Re: Environmental Review Request
Perryman Park DMP Site Construction
Harford County, Maryland

BayLand Consultants & Designers, Inc. is currently preparing a Critical Area Report for the above referenced project for the Harford County Department of Parks and Recreation. Enclosed is a location map and site map. Please review this project at your earliest convenience and notify us if there are any natural resources of concern or if the proposal is acceptable.

The proposed construction includes a dredged material placement (DMP) area, paved walkway and parking area.

Feel free to contact myself at 410-694-9401 if you have any questions.

Sincerely,

Sepher Baharlou, P.E.
Project Engineer

Enclosure

cc: Bob Lee Geddes, Harford County Department of Parks and Recreation

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CRITICAL AREA COMMISSION

P:\41104_U Bush River_DMP_P & D (PE)(DE)\06 County Permits\Critical Area Report\FWS.doc

November 21, 2005

Maryland Department of Natural Resources
Natural Heritage Program
Tawes Office Building E-1
Annapolis, MD 21401

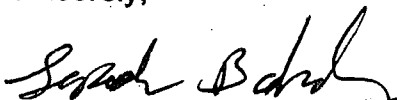
Re: Environmental Review Request
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Harford County, Maryland

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Sincerely,



Sepher Baharlou, P.E.
Project Engineer

Enclosure

cc: Bob Lee Geddes, Harford County Department of Parks and Recreation

RECEIVED

FEB 22 2006

CRITICAL AREA COMMISSION

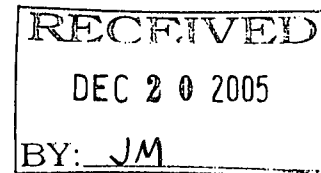


United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401



December 19, 2005



Sepher Baharlou
Bay Land Consultants & Designers, Inc.
1321 Mercedes Dr., Suite C
Hanover, MD 21076

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FEB 22 2006

RE: *Perryman Park DMP Site Construction, Harford County, MD*

CRITICAL AREA COMMISSION

Dear Mr. Baharlou:

This responds to your letter, received November 23, 2005, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the vicinity of the above reference project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Maricela Constantino at (410) 573-4542.

Sincerely,

G. A. Moser

for Mary J. Ratnaswamy, Ph.D.
Program Supervisor, Threatened and Endangered Species

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FEB 22 2006

CRITICAL AREA COMMISSION

DISCHARGE POINT:
 NORTHING= 659639.4594
 EASTING = 1532742.9760

GEOTEXTILE, 10' X 20'
 NORTH AMERICAN GREEN
 C350 OR EQUAL

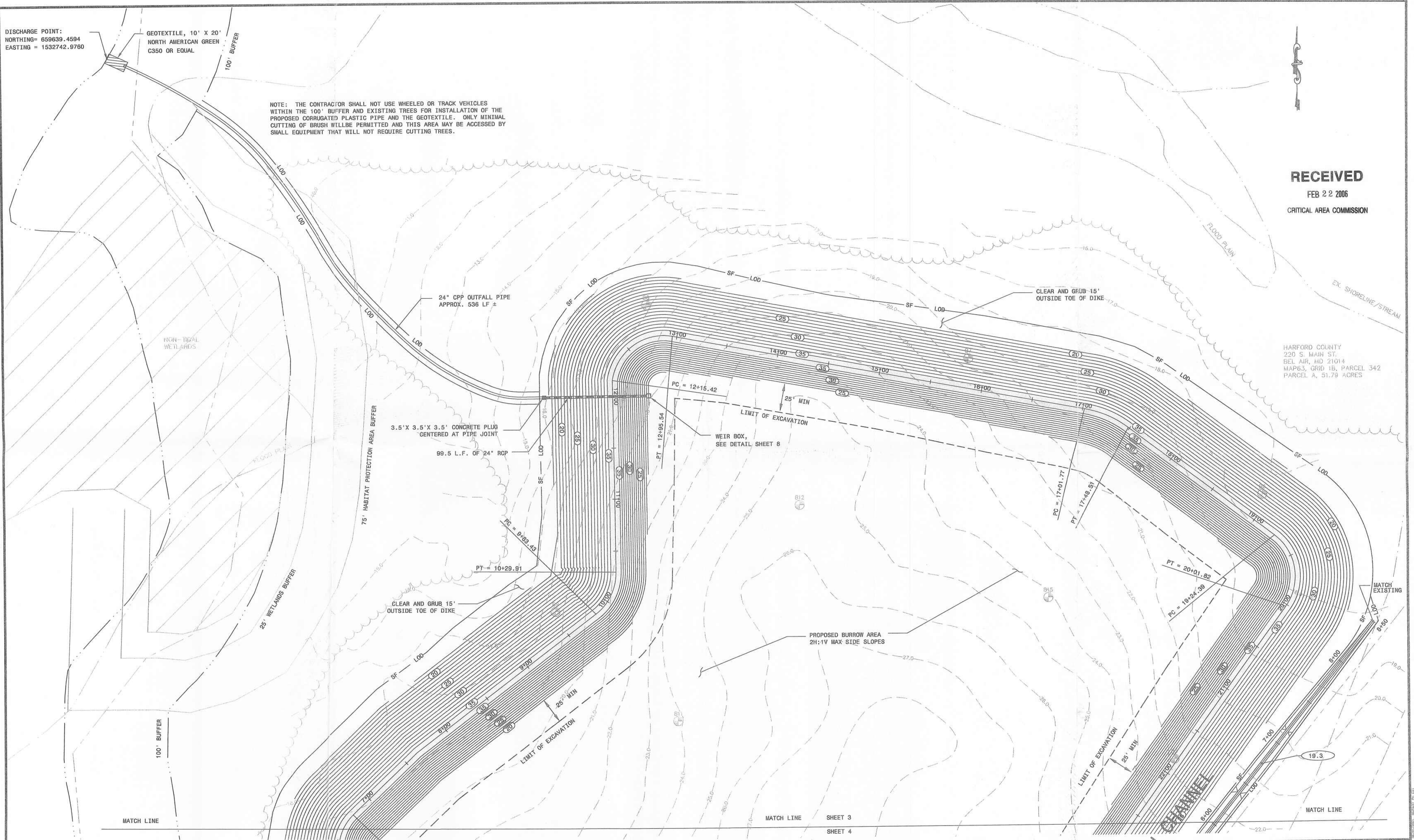
NOTE: THE CONTRACTOR SHALL NOT USE WHEELED OR TRACK VEHICLES WITHIN THE 100' BUFFER AND EXISTING TREES FOR INSTALLATION OF THE PROPOSED CORRUGATED PLASTIC PIPE AND THE GEOTEXTILE. ONLY MINIMAL CUTTING OF BRUSH WILL BE PERMITTED AND THIS AREA MAY BE ACCESSED BY SMALL EQUIPMENT THAT WILL NOT REQUIRE CUTTING TREES.

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FEB 22 2006

CRITICAL AREA COMMISSION

HARFORD COUNTY
 220 S. MAIN ST.
 BEL AIR, MD 21014
 MAP63, GRID 1B, PARCEL 342
 PARCEL A, 51.79 ACRES



MATCH LINE

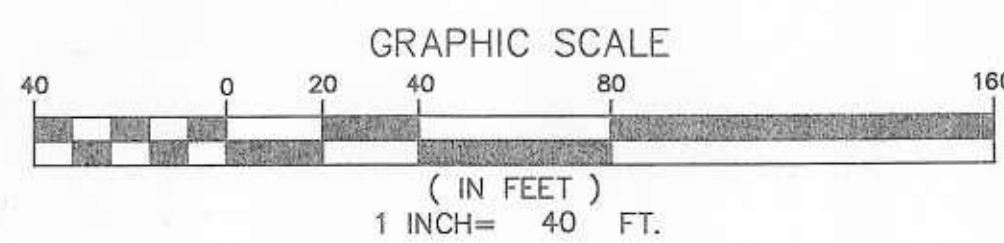
MATCH LINE

SHEET 3

SHEET 4

SITE ANALYSIS

TOTAL SITE AREA= 51.79 AC., 2,255,972.4 SF.
 TOP OF DIKE EL. : 35'+
 TOP OF WEIR EL.: 33.0'
 MAX. POND ELEVATION: 33.0'
 AVAILABLE STORAGE VOLUME TO EL. 32.0: 181,247 CY



Bayland
 Consultants & Designers, Inc.
 "Integrating Engineering and Environment"
 1321 Mercedes Drive, Suite C Phone: (410) 694-9401
 Hanover, Maryland 21076 Fax (410) 694-9405
 BAYLAND JOB NO. 41104

HARFORD COUNTY
 DEPARTMENT OF PARKS AND RECREATION

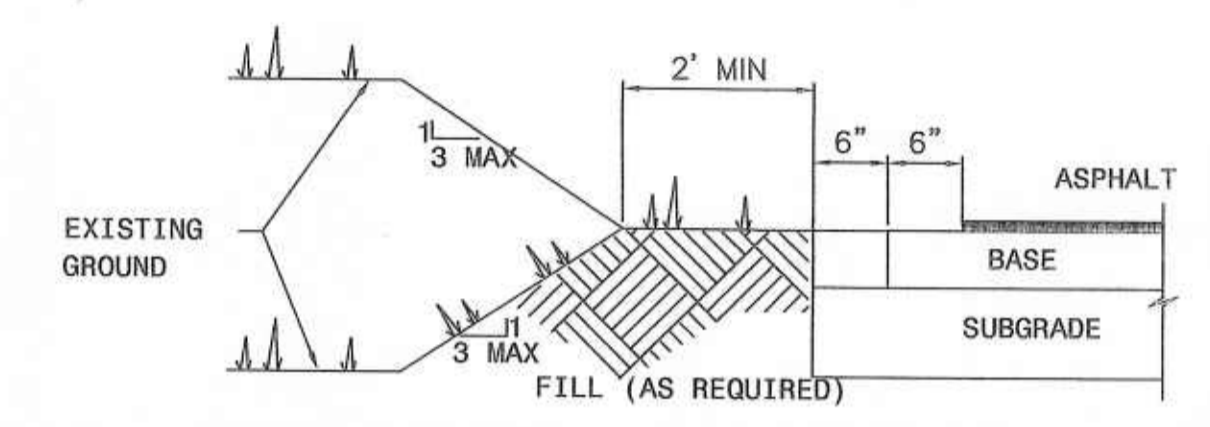
REVISED	SCALE: 1" = 40'
DATE BY	DRAWN BY: SS 08/05/05
	CHECKED BY: SB
	SHEET NO. 3 OF 12
	BID NUMBER:

UPPER BUSH RIVER DMP SITE
 GRADING AND SEDIMENT CONTROL PLAN

RECEIVED
 FEB 22 2006
 CRITICAL AREA COMMISSION

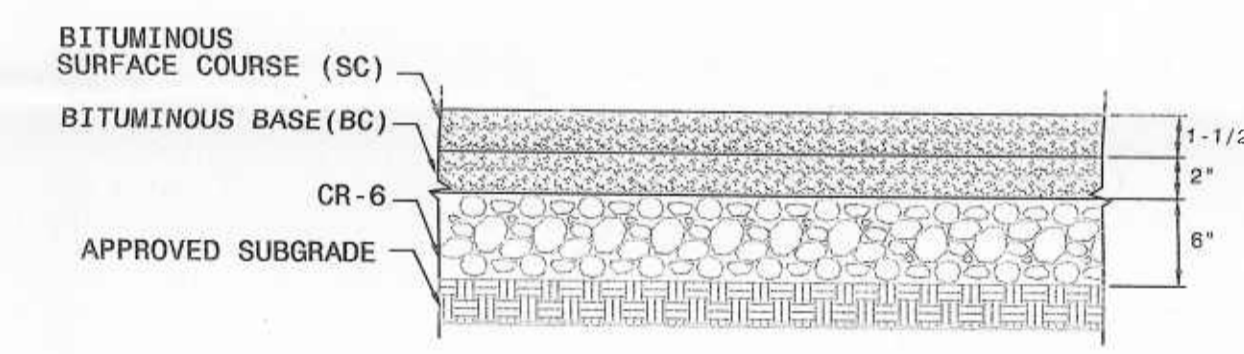


MITCHELL FO & BRO
 PO BOX 36
 PERRYMAN, MD
 MAP 63, GRID 1B, PARCEL 306
 PARCEL 1, 36.076 AC



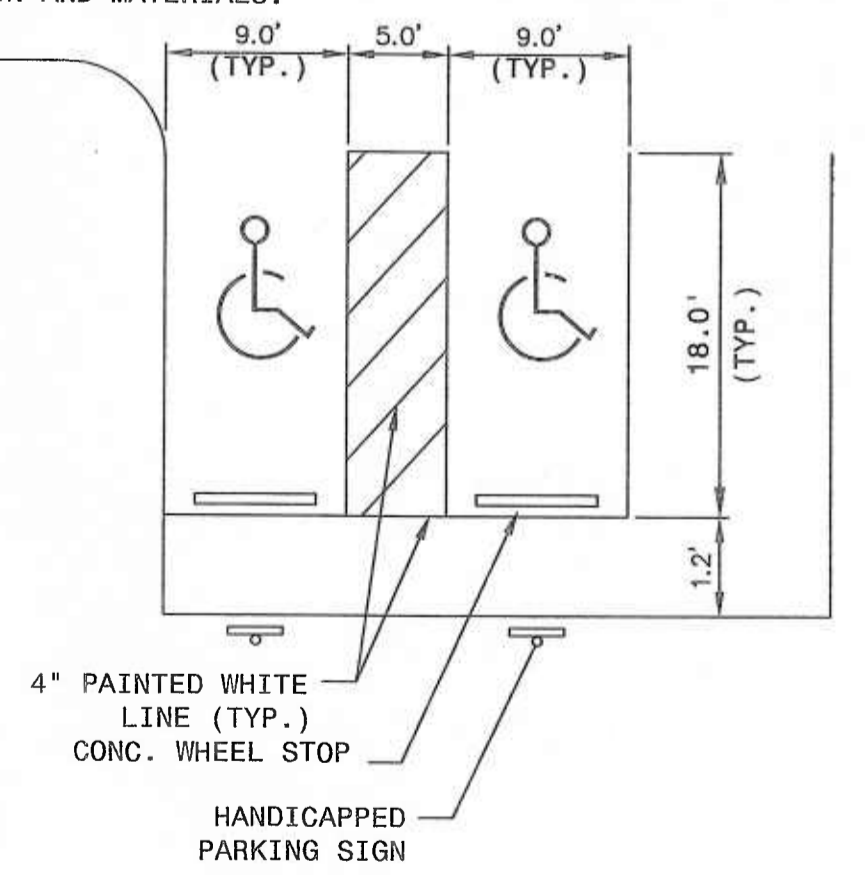
PAVEMENT EDGE SECTION
 STA. 0+00 TO STA. 2+47
 N.T.S.

- NOTE:
1. STABILIZE SIDESLOPES WITH SEED AND MULCH. ON SLOPES 3H:1V USE EROSION CONTROL MATTING, NORTH AMERICAN GREEN C125 OR EQUAL.

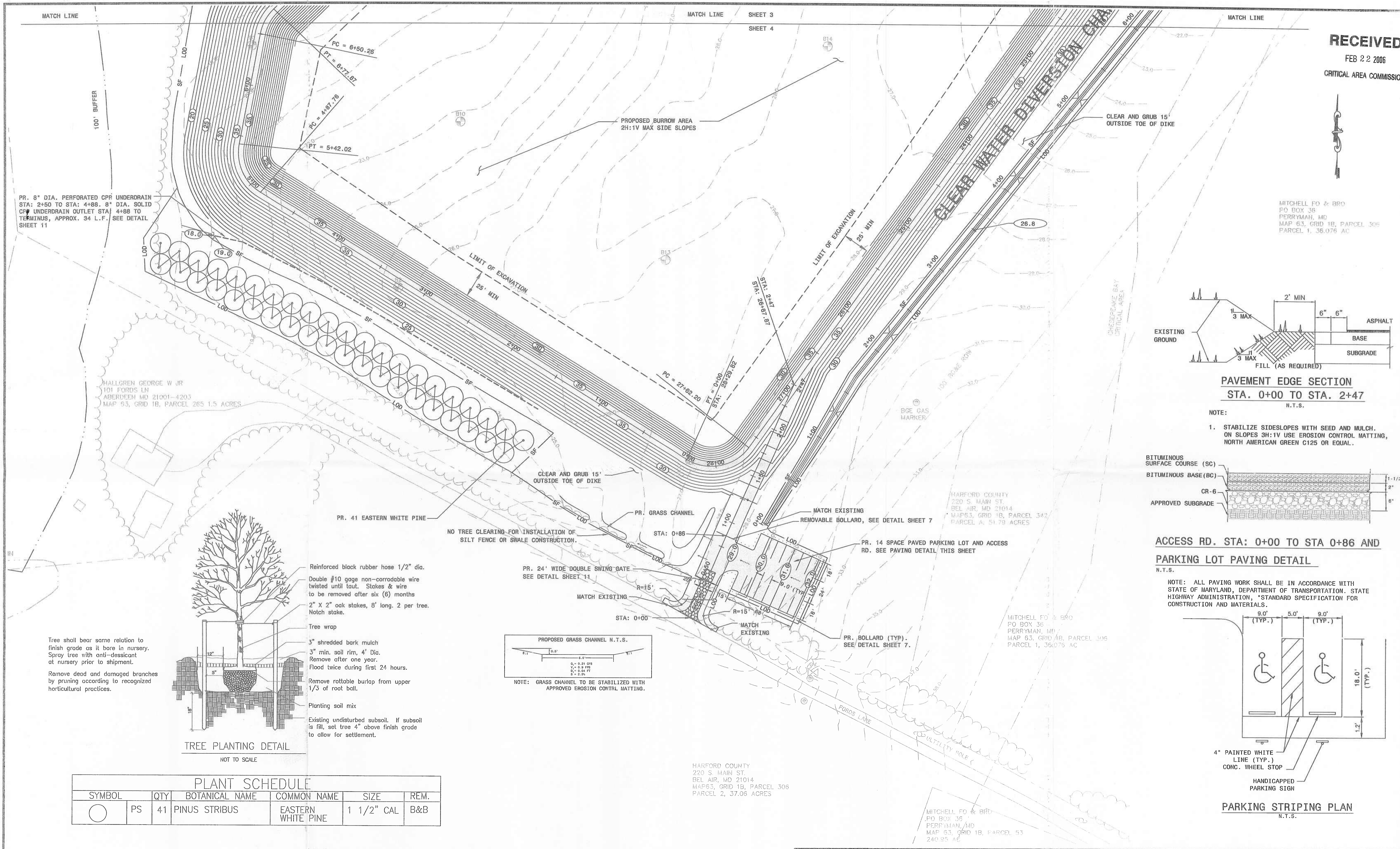


ACCESS RD. STA: 0+00 TO STA 0+86 AND PARKING LOT PAVING DETAIL
 N.T.S.

NOTE: ALL PAVING WORK SHALL BE IN ACCORDANCE WITH STATE OF MARYLAND, DEPARTMENT OF TRANSPORTATION. STATE HIGHWAY ADMINISTRATION, "STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS."



PARKING STRIPING PLAN
 N.T.S.



PR. 8" DIA. PERFORATED CPP UNDERDRAIN
 STA: 2+50 TO STA: 4+88. 8" DIA. SOLID
 CPP UNDERDRAIN OUTLET STA: 4+88 TO
 TERMINUS, APPROX. 34 L.F. SEE DETAIL
 SHEET 11

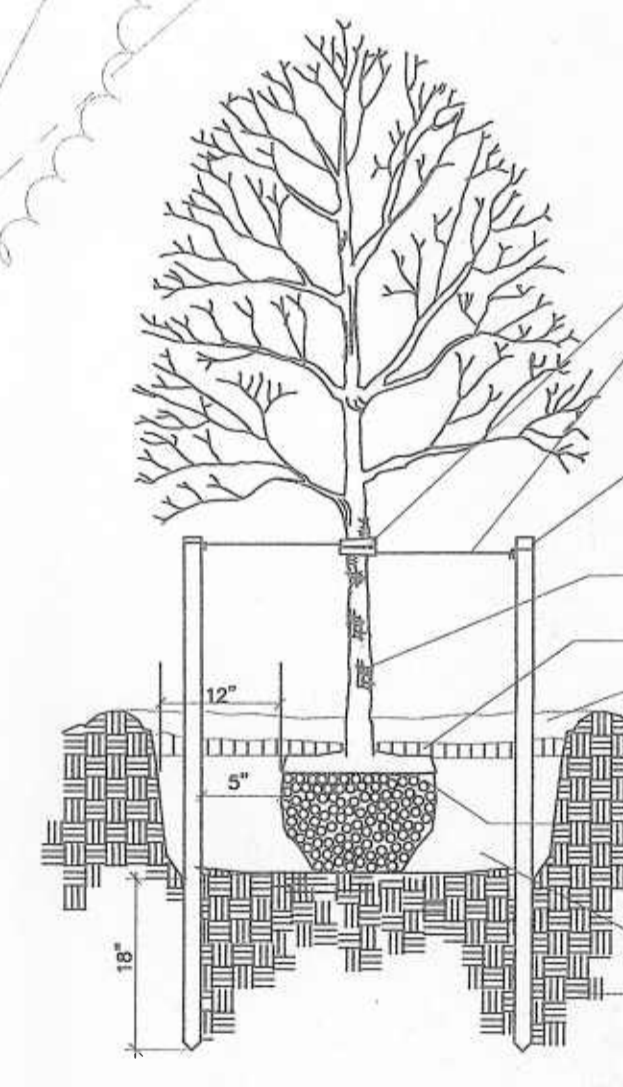
HALLGREN GEORGE W JR
 101 FORDS LN
 ABERDEEN MD 21001-4203
 MAP 53, GRID 1B, PARCEL 265 1.5 ACRES

HARFORD COUNTY
 220 S. MAIN ST.
 BEL AIR, MD 21014
 MAP 63, GRID 1B, PARCEL 342
 PARCEL A, 51.79 ACRES

MITCHELL FO & BRO
 PO BOX 36
 PERRYMAN, MD
 MAP 63, GRID 1B, PARCEL 306
 PARCEL 1, 36.076 AC

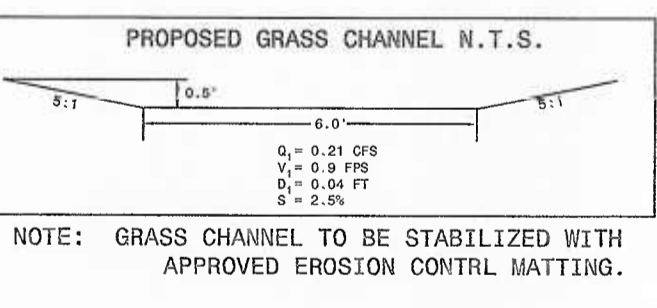
HARFORD COUNTY
 220 S. MAIN ST.
 BEL AIR, MD 21014
 MAP 63, GRID 1B, PARCEL 306
 PARCEL 2, 37.06 ACRES

MITCHELL FO & BRO
 PO BOX 36
 PERRYMAN, MD
 MAP 63, GRID 1B, PARCEL 53
 240.95 AC



TREE PLANTING DETAIL
 NOT TO SCALE

- Reinforced black rubber hose 1/2" dia.
- Double #10 gage non-corrodable wire twisted until taut. Stakes & wire to be removed after six (6) months
- 2" x 2" oak stakes, 8' long. 2 per tree. Notch stake.
- Tree wrap
- 3" shredded bark mulch
- 3" min. soil rim, 4" Dia. Remove after one year.
- Flood twice during first 24 hours.
- Remove rottable burlap from upper 1/3 of root ball.
- Planting soil mix
- Existing undisturbed subsoil. If subsoil is fill, set tree 4" above finish grade to allow for settlement.

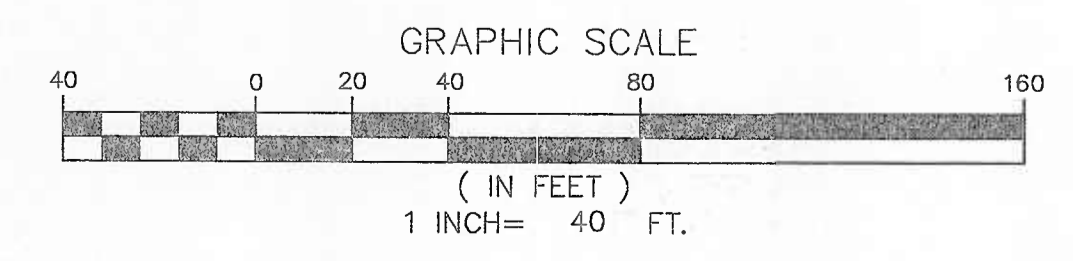


PROPOSED GRASS CHANNEL N.T.S.
 NOTE: GRASS CHANNEL TO BE STABILIZED WITH APPROVED EROSION CONTROL MATTING.

PLANT SCHEDULE					
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REM.
○	PS 41	PINUS STRIBUS	EASTERN WHITE PINE	1 1/2" CAL	B&B

SITE ANALYSIS

TOTAL SITE AREA= 51.79 AC., 2,255,972.4 SF.
 TOP OF DIKE EL.: 35'+
 TOP OF WEIR EL.: 33.0'
 MAX. POND ELEVATION: 33.0'
 AVAILABLE STORAGE VOLUME TO EL. 32.0: 181,247 CY



Bayland
 Consultants & Designers, Inc.
 "Integrating Engineering and Environment"

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BAYLAND JOB NO. 41104

HARFORD COUNTY
 DEPARTMENT OF PARKS AND RECREATION

REVISED	DATE	BY	SCALE: 1"= 40'
			DRAWN BY: SS 08/10/05
			CHECKED BY: SB
			SHEET NO. 4 OF 12
			BID NUMBER:

UPPER BUSH RIVER DMP SITE
 GRADING AND SEDIMENT CONTROL PLAN