

**U.S. Army Corps
of Engineers**

Baltimore District
PN-23-34

Public Notice

**In Reply to Application Number
NAB-2023-60233-M50 (MD Coastal Bays Program -
Sinepuxent South/Living Shoreline**

Comment Period: August 22, 2023 to September 21, 2023

THE PURPOSE OF THIS PUBLIC NOTICE IS TO INFORM INTERESTED PARTIES OF THE PROPOSED ACTIVITY AND TO SOLICIT COMMENTS. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344), as described below:

APPLICANTS:

Maryland Coastal Bays Program
c/o Mr. Bill Weiland
8219 Stephen Decatur Hwy
Berlin, Maryland 21811

Assateague State Park
c/o Ms. Angela Baldwin
6915 Stephen Decatur Hwy.
Berlin, Maryland 21811

Assateague Island National Seashore
c/o Mr. Bill Huslander
7206 National Seashore Lane
Berlin, Maryland 21811

Ruark Family Limited Partnership Country Club
P.O. Box 1752
Salisbury, Maryland 21802

WATERWAY AND LOCATION OF THE PROPOSED WORK:

The proposed project is located in Sinepuxent Bay, in Berlin, Worcester County, Maryland (Latitude: 38.247045; Longitude: -75.15465).

OVERALL PROJECT PURPOSE:

To provide shoreline erosion control, to establish/enhance habitat, and to provide coastal resiliency at 11800 Marsh View Lane, in Berlin, Worcester County, Maryland.

PROJECT DESCRIPTION:

The applicant proposes, in accordance with the attached plans, to stabilize approximately 1,420 linear feet of shoreline utilizing a living shoreline design by emplacing a series of four (4) shore connected headland control breakwater structures, all within an approximately 72,959 square foot (sf) or 1.67 acre impact area as follows: to construct a 250-foot (ft) long by 58-ft wide stone breakwater (Breakwater 1), not to exceed 243 ft channelward of the approximately mean high water (MHW) shoreline; to construct a 135-ft long by 35-ft wide stone breakwater (Breakwater 2), not to exceed 135 ft channelward of the approximate MHW shoreline; to construct a 139-ft long by 43-ft wide stone breakwater (Breakwater 3), not to exceed 143 ft channelward of the approximate MHW shoreline; to construct a 195-ft long by 36-ft wide stone breakwater (Breakwater 4), not to exceed 154 ft channelward of the approximate MHW shoreline; and to emplace approximately 2,208 cy of sand and 3,117 cy of stone for tombolo/habitat construction; and to stabilize with approximately 2,137 sf of low marsh vegetation (*Spartina alterniflora*) and 35,270 sf of high marsh vegetation (*S. patens*), all within the area of each of the four above-described breakwaters.

All work is proposed in accordance with the attached plans prepared by Underwood and Associates, dated May 22, 2023.

Please refer to the table below for a summary of aquatic resource impacts.

EFFECTS ON AQUATIC RESOURCES:

Proposed Activity	Aquatic Resource Impact (sf)	Aquatic Resource Type	Authority
Breakwater/Headland Structures	17,666	Submerged Aquatic Vegetation (SAV)	Section 10/404
	1,372	Tidal Marsh	
	10,126	Open Water/Intertidal	
Beach and Vegetated Tombolos	7,867	SAV	
	18,687	Tidal Marsh	
	17,241	Open Water/Intertidal	
Total:	72,959		

LEAD FEDERAL AGENCY:

The United States Army Corps of Engineers, as the lead federal agency, is responsible for all coordination pursuant to applicable federal authorities.

APPLICANT'S PROPOSED AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION:

As part of the planning process for the proposed project, steps were taken to avoid and minimize impacts to aquatic resources to the maximum extent practicable based on the existing site conditions. The applicant proposes to avoid and minimize impacts by designing the headland breakwaters to be of the minimum channelward extent necessary to provide reduced wave energy, erosion rates and provide for coastal resiliency.

No compensatory mitigation is currently proposed. An approximately 25,533 sf area of 2018-2022 mapped submerged aquatic vegetation would be impacted as a result of the proposed project based on existing site conditions and Corps review of submerged aquatic vegetation mapping data available from VIMS for the most recent 5 years of mapped coverage data. Approximately 9,239 sf of existing tidal vegetation would be filled and revegetated at the project elevation. The project would result in the establishment of approximately 2,137 sf of low marsh vegetation (*Spartina alterniflora*) and 35,270 sf of high marsh vegetation (*S. patens*). The applicant designed the proposed ratio of low to high marsh vegetation to more closely mimic natural Sinepuxent Bay shorelines, which tend to be dominated by *S. patens* and beach strand habitat.

The applicant considered alternative project designs that would result in a reduced project footprint but would not meet the overall project purpose. These included no-action, shoreline armoring with bulkheads or revetments, and a traditional breakwater and tombolo design. Specifically, the breakwater and tombolo design would absorb wave energy and maintain the shoreline at a preferred orientation but would not be expected to provide the quality of habitat as the proposed in the submitted design.

CORPS EVALUATION REQUIREMENTS:

This project will be evaluated pursuant to Corps Regulatory Program Regulations (33 CFR Parts 320-332). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be

expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people. The evaluation of the impact of this project will also include application of the Clean Water Act Section 404(b)(1) Guidelines promulgated by the Administrator, United States Environmental Protection Agency.

ENDANGERED SPECIES:

A preliminary review of this application indicates that the proposed work is not likely to adversely affect federally listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

ESSENTIAL FISH HABITAT:

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH), including species of concern, life cycle habitat, or Habitat Areas of Particular Concern. The project site lies in or adjacent to EFH as described under MSFCMA for managed species under the MSFCMA. The Baltimore District has made a preliminary determination that the project will not have a substantial adverse effect on EFH. The Baltimore District has made a preliminary determination that mitigative measures are not required to minimize adverse effects on EFH at this time. This determination may be modified if additional information indicates otherwise.

HISTORIC RESOURCES:

Pursuant to Section 106 of the National Historic Preservation Act of 1966 and applicable guidance, the Corps has reviewed the latest published version of the National Register of Historic Places and initially determined that no registered properties listed as eligible for inclusion, therein, are located at the site of the proposed work. The Corps has made the preliminary determination that the proposed project would have no effect on historic

properties. The Corps final eligibility and effect determination will be based on coordination with the State Historic Preservation Office as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps' identified permit area.

TRIBAL RESOURCES:

Section 106 of the National Historic Preservation Act also requires federal agencies to consult with federally recognized American Indian tribes that attach religious and cultural significance to historic properties that may be affected by the agency's undertaking. Corps Tribal Consultation Policy mandates an open, timely, meaningful, collaborative, and effective deliberative communication process that emphasizes trust, respect, and shared responsibility. The policy further emphasizes that, to the extent practicable and permitted by law, consultation works toward mutual consensus and begins at the earliest planning stages before decisions are made and actions taken. The Corps final eligibility and effect determination will be based on coordination with interested tribes, in accordance with the Corps current tribal standard operating procedures as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on tribal resources.

MODIFICATION OF CIVIL WORKS PROJECTS: 33 USC 408 (SECTION 408):

All Section 408 proposals will be coordinated internally at the United States Army Corps of Engineers. The Section 408 decision will be issued along with the Section 404 and/or Section 10 decision. Please see the following link for more information regarding Section 408: <https://www.nab.usace.army.mil/Missions/Regulatory/Section-408-Requests/>.

WATER QUALITY CERTIFICATION:

The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act.

COASTAL ZONE MANAGEMENT PROGRAMS:

Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management Program. By this public notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The applicant must obtain any state or local government permits which may be required.

SUBMISSION OF COMMENTS:

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action and are subject to release to the public through the Freedom of Information Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the United States Army Corps of Engineers, Baltimore District within the comment period specified above through postal mail at the address below or electronic submission to the project manager email address below. Written comments should reference the Application Number NAB-2023-60233-M50 (MD Coastal Bays Program - Sinepuxent South/Living Shoreline).

PUBLIC HEARING REQUESTS:

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received within the comment period as specified above to receive consideration. Also, it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected. The public hearing request may be submitted by electronic mail or mailed to the following address:

Megan Spindler
megan.l.spindler@usace.army.mil
U.S. Army Corps of Engineers, Baltimore District
Regulatory Branch
218 N. Washington St. Ste 304
Easton, Maryland 21601

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested, who did not receive a copy of this notice.




PROJECT AREA

PLAN
SCALE: 1"=500'

VICINITY MAP

SHEET INDEX

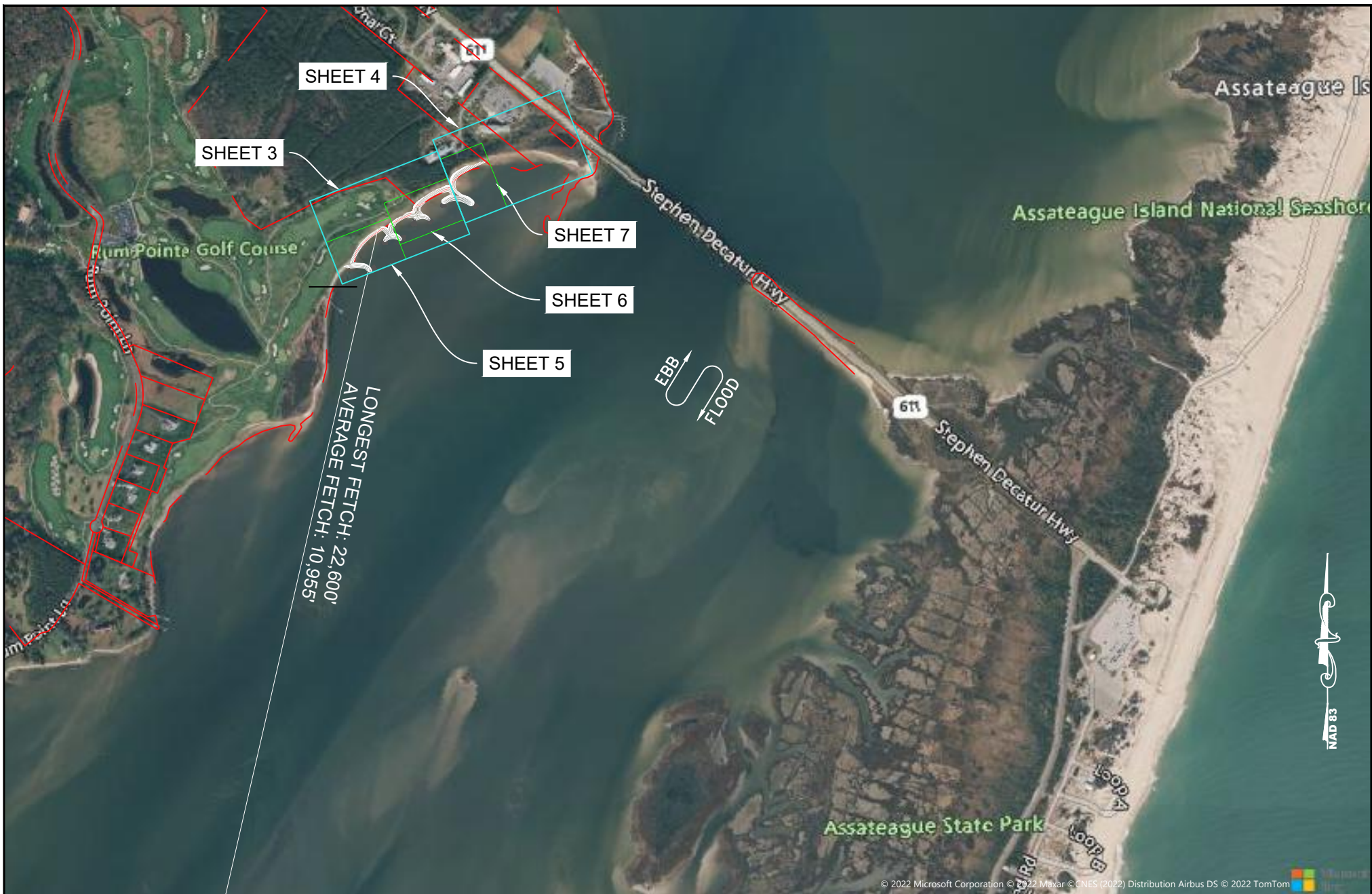
DESCRIPTION	SHEET
VICINITY MAP AND AERIAL PHOTO.....	1
PROJECT VICINITY CONDITIONS	2
EXISTING CONDITIONS.....	3-4
PROPOSED CONDITIONS.....	5-7
PROJECT CROSS SECTIONS	8-9
BUFFER MANAGEMENT PLAN.....	10-12
PROJECT DETAILS	13-14
PROJECT DATA TABLES	15
PLANTING SCHEDULE.....	16



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LANDSCAPE ARCHITECTURE ♦ ECOLOGICAL RESTORATION
A DESIGN/BUILD Co.
1753 EBLING TRAIL • ANNAPOLIS, MD 21401
tel. 410-849-3211 fax. 410-849-2136

May 22, 2023	
Scale	AS SHOWN
Drawn By	J.H./J.K.
Approved By	D.W.
Sheet No.	1 Of 16
Project No.	21-032
Proposal No.	...

VICINITY MAP AND AERIAL PHOTO
SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE
11800 MARSH VIEW LANE, BERLIN, MD 21811
MAP 0042, GRID 0020, PARCEL 0008
1ST ELECTION DISTRICT, WORCESTER COUNTY



PLAN

SCALE: 1"=1000'

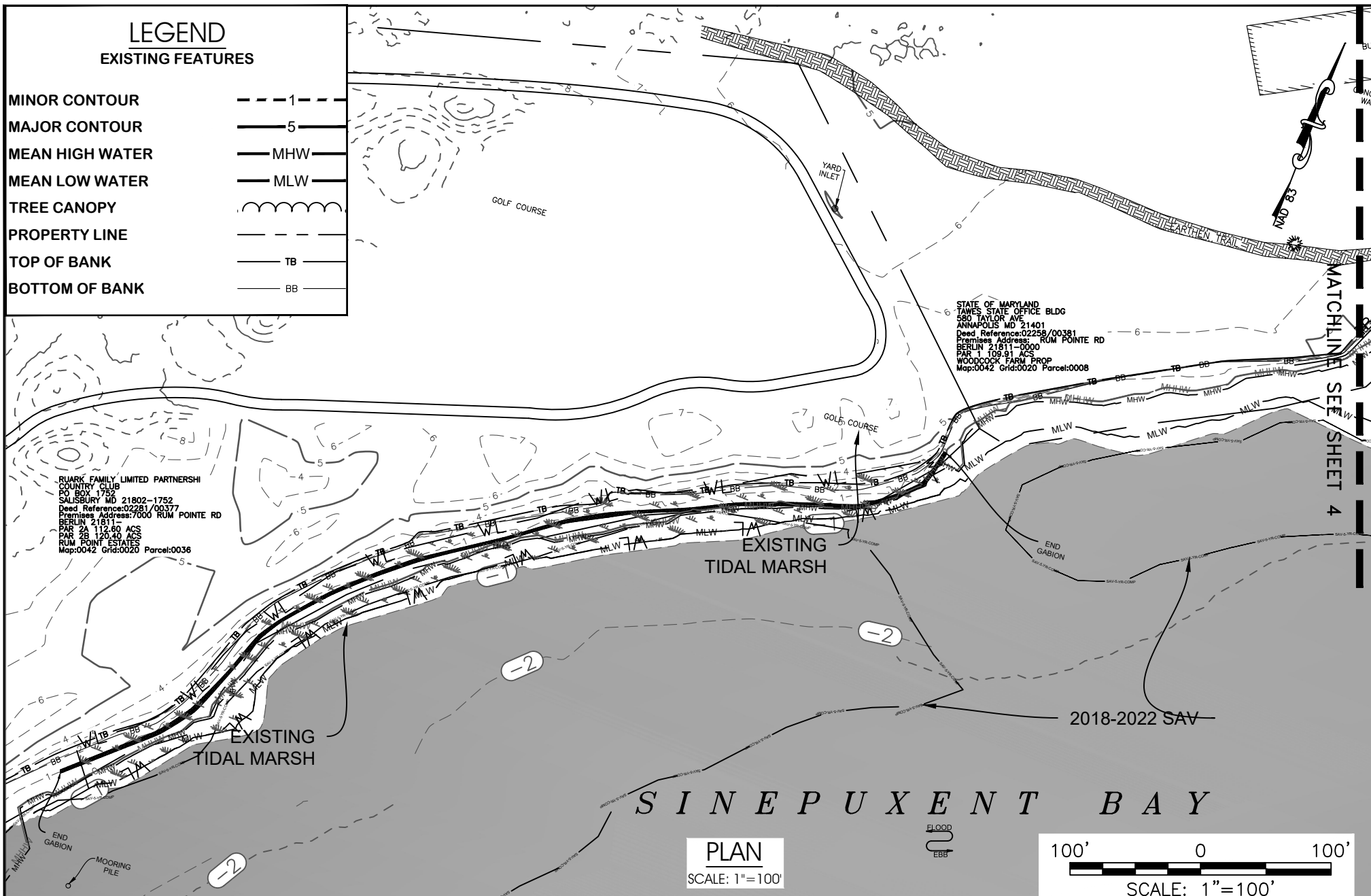
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 Tel. 410-849-3211 Fax. 410-849-2136

May 22, 2023		PROJECT VICINITY CONDITIONS	
Scale	AS SHOWN	SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE 11800 MARSH VIEW LANE, BERLIN, MD 21811 MAP 0042, GRID 0020, PARCEL 0008 1ST ELECTION DISTRICT, WORCESTER COUNTY	
Drawn By	J.H./J.K.		
Approved By	D.W.		
Sheet No.	2 Of 16		
Project No.	21-032		
Proposal No.	...		

LEGEND

EXISTING FEATURES

MINOR CONTOUR	---	1
MAJOR CONTOUR	---	5
MEAN HIGH WATER	---	MHW
MEAN LOW WATER	---	MLW
TREE CANOPY	---	
PROPERTY LINE	---	
TOP OF BANK	---	TB
BOTTOM OF BANK	---	BB



RUARK FAMILY LIMITED PARTNERSHI
COUNTRY CLUB
PO BOX 1752
SALISBURY MD 21802-1752
Deed Reference:02281/00377
Premises Address:7000 RUM POINTE RD
BERLIN 21811-
PAR 2A 112.90 ACS
PAR 2B 120.40 ACS
RUM POINT ESTATES
Map:0042 Grid:0020 Parcel:0036

STATE OF MARYLAND
JAMES STATE OFFICE BLDG
580 TAYLOR AVE
ANNAPOLIS MD 21401
Deed Reference:02258/00381
Premises Address: RUM POINTE RD
BERLIN 21811-0000
PAR 1 109.91 ACS
WOODCOCK FARM PROP
Map:0042 Grid:0020 Parcel:0008

NOTES:

MHW = -0.09 / MLW = -0.7 (NAVD88 DATUM)
MHW = 0.61 / MLW = 0 (MLW DATUM)
MHW AND MLW ARE BASED ON NOAA BUNTINGS BRIDGE, MD STATION 8570691

UNDERWOOD & ASSOCIATES

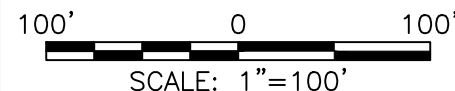
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PLAN

SCALE: 1"=100'

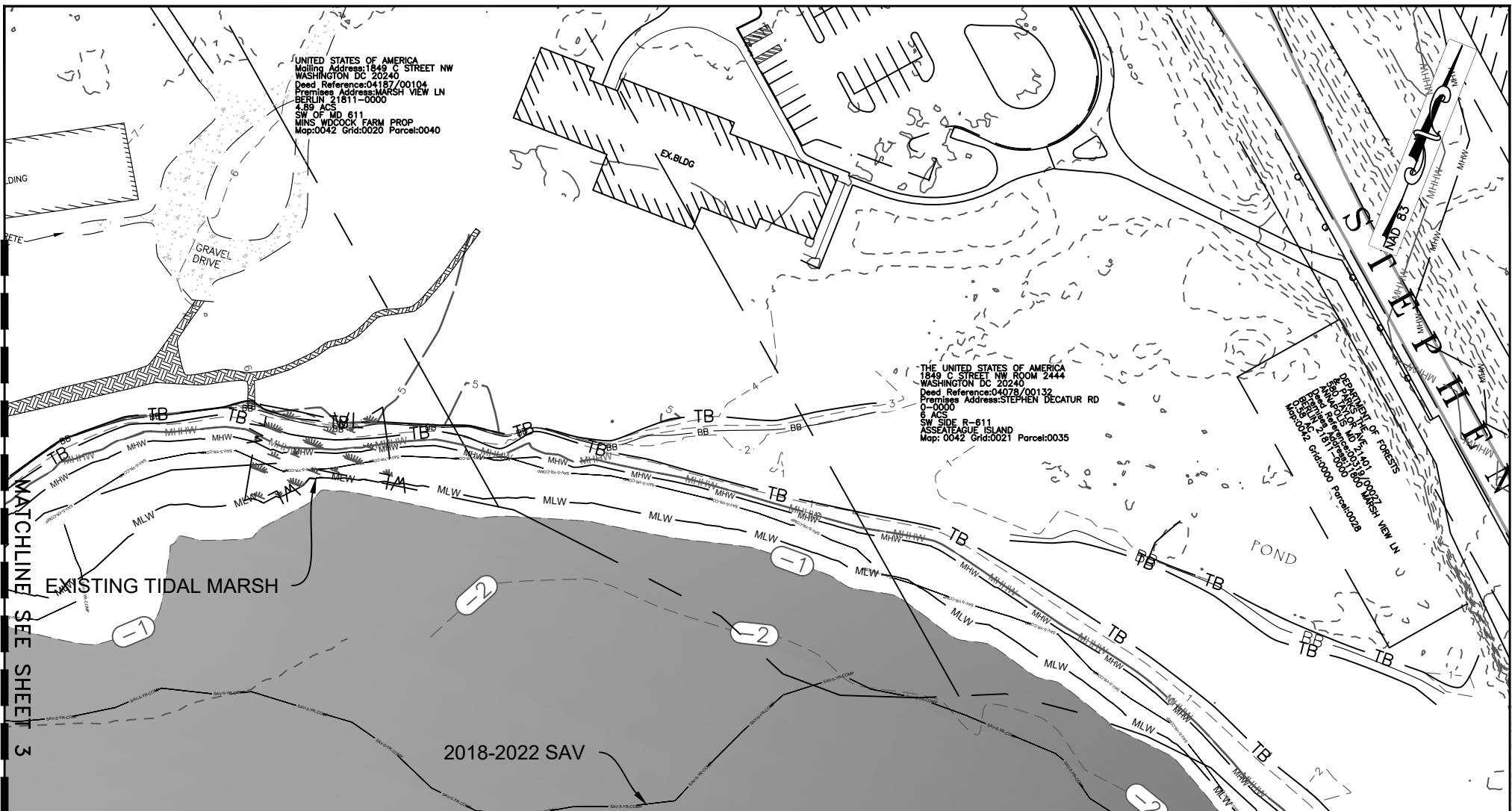


May 22, 2023

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Approved By	D.W.
Sheet No.	3 Of 16
Project No.	21-032
Proposal No.	...

EXISTING CONDITIONS

SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE
11800 MARSH VIEW LANE, BERLIN, MD 21811
MAP 0042, GRID 0020, PARCEL 0008
1ST ELECTION DISTRICT, WORCESTER COUNTY



LEGEND	
EXISTING FEATURES	
MINOR CONTOUR	--- 1 ---
MAJOR CONTOUR	--- 5 ---
MEAN HIGH WATER	— MHW —
MEAN LOW WATER	— MLW —
TREE CANOPY	~~~~~
PROPERTY LINE	--- ---
TOP OF BANK	— TB —
BOTTOM OF BANK	— BB —

SINEPUXENT BAY

PLAN

SCALE: 1"=100'

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May 22, 2023

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Sheet No.	4 Of 16
Project No.	21-032
Proposal No.	...

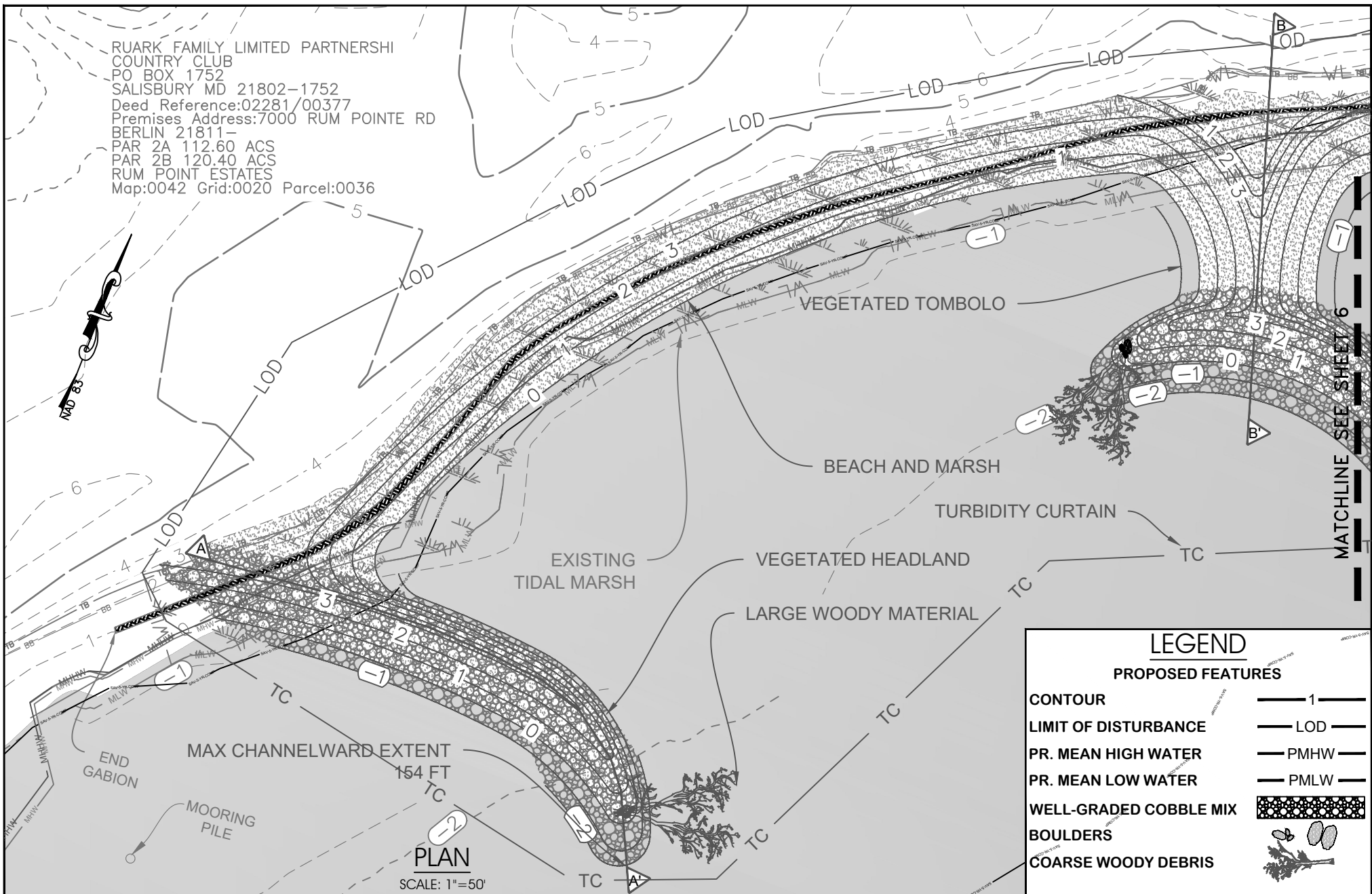
EXISTING CONDITIONS	
SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE	
11800 MARSH VIEW LANE, BERLIN, MD 21811	
MAP 0042, GRID 0020, PARCEL 0008	
1ST ELECTION DISTRICT, WORCESTER COUNTY	

UNITED STATES OF AMERICA
Mailing Address: 1849 C STREET NW
WASHINGTON DC 20240
Deed Reference: 04187/00104
Premises Address: MARSH VIEW LN
BERLIN 21811-0000
4.89 ACS
SW OF MD 611
MINS. WIDCOCK FARM PROP
Map: 0042 Grid: 0020 Parcel: 0040

THE UNITED STATES OF AMERICA
1849 C STREET NW ROOM 2444
WASHINGTON DC 20240
Deed Reference: 04078/00132
Premises Address: STEPHEN DECATUR RD
0-0000
6 ACS
SW SIDE R-611
ASSEATEAGUE ISLAND
Map: 0042 Grid: 0021 Parcel: 0035

DEPARTMENT OF FORESTS
11800 MARSH VIEW LN
BERLIN, MD 21811
Map: 0042 Grid: 0020 Parcel: 0008

RUARK FAMILY LIMITED PARTNERSHI
COUNTRY CLUB
PO BOX 1752
SALISBURY MD 21802-1752
Deed Reference:02281/00377
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BERLIN 21811-
PAR 2A 112.60 ACS
PAR 2B 120.40 ACS
RUM POINT ESTATES
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LEGEND

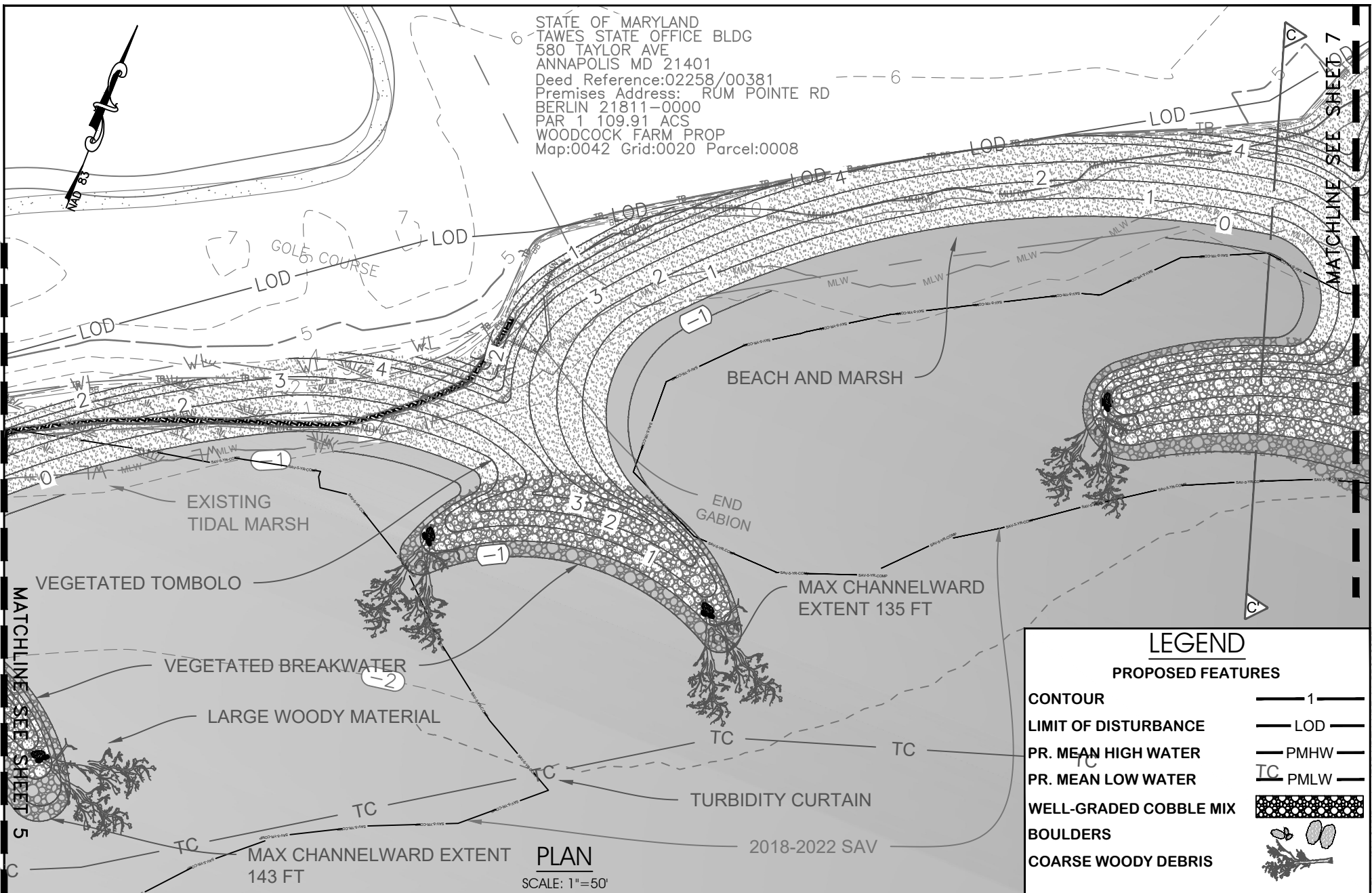
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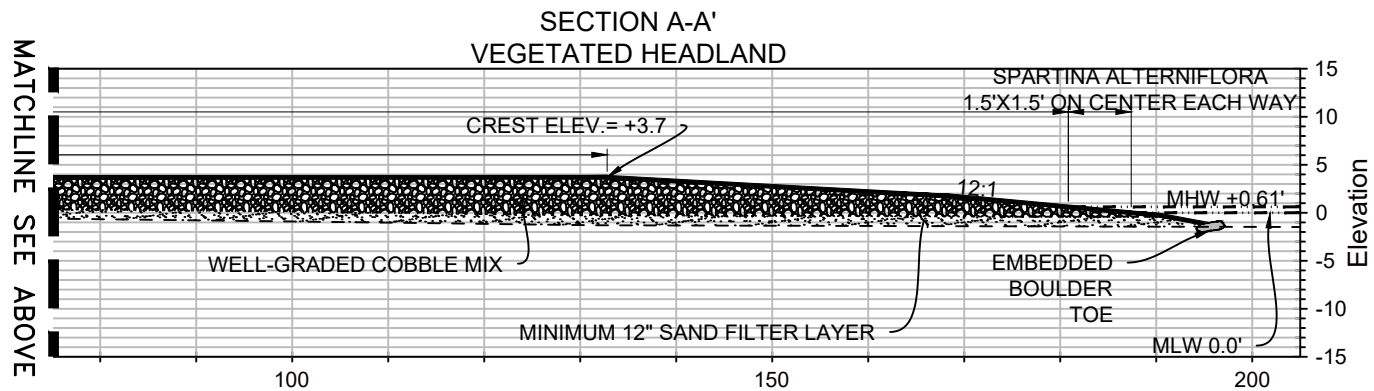
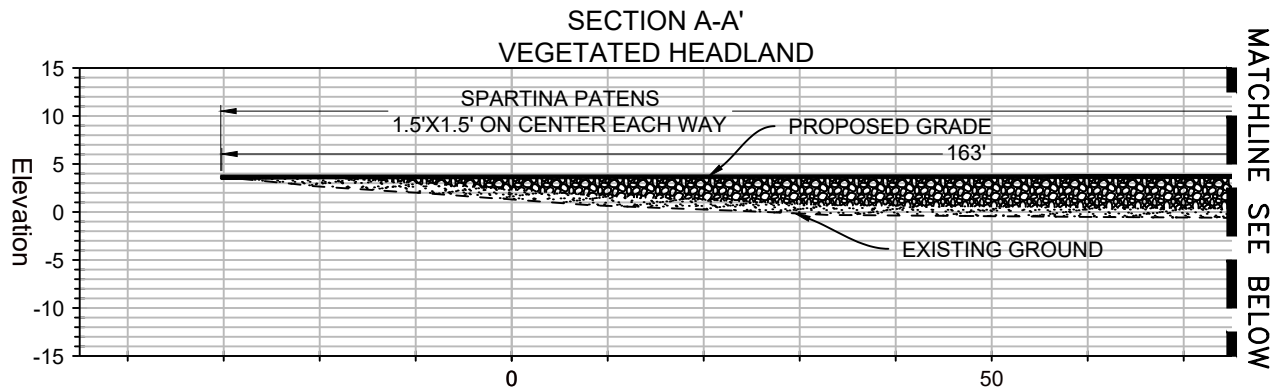
CONTOUR	1
LIMIT OF DISTURBANCE	LOD
PR. MEAN HIGH WATER	PMHW
PR. MEAN LOW WATER	PMLW
WELL-GRADED COBBLE MIX	
BOULDERS	
COARSE WOODY DEBRIS	

50' 0 50'
SCALE: 1"=50'

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May 22, 2023	
Scale	AS SHOWN
Drawn By	J.H./J.K.
Approved By	D.W.
Sheet No.	5 Of 16
Project No.	21-032
Proposal No.	...
PROPOSED CONDITIONS	
SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE	
11800 MARSH VIEW LANE, BERLIN, MD 21811	
MAP 0042, GRID 0020, PARCEL 0008	
1ST ELECTION DISTRICT, WORCESTER COUNTY	





LEGEND

EXISTING GRADE

PROPOSED GRADE

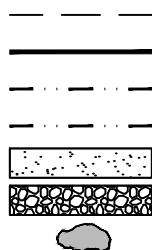
MEAN HIGH WATER (MHW)

MEAN LOW WATER (MLW)

SAND/WOOD CHIP MIX

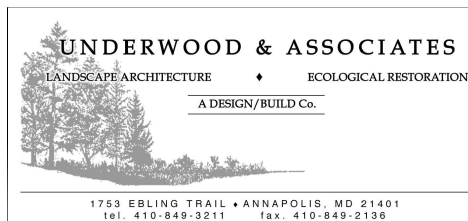
WELL-GRADED COBBLE MIX

BOULDER



CROSS SECTIONS

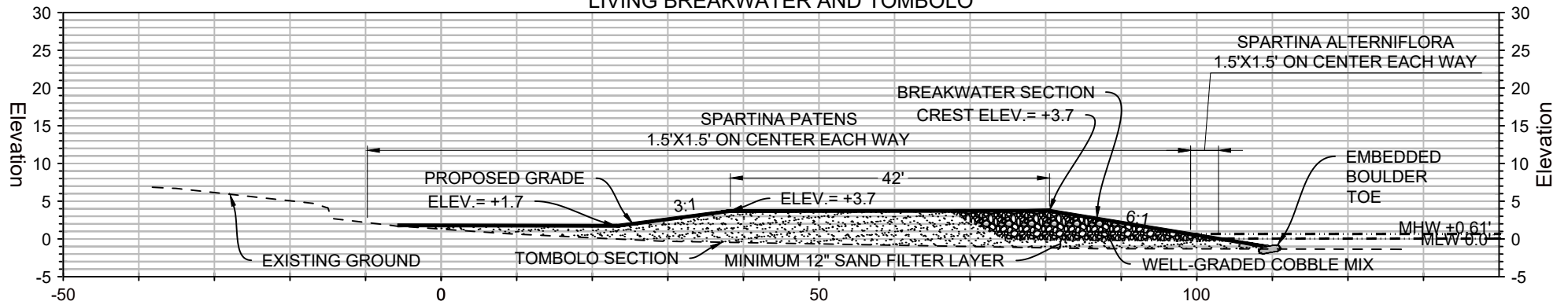
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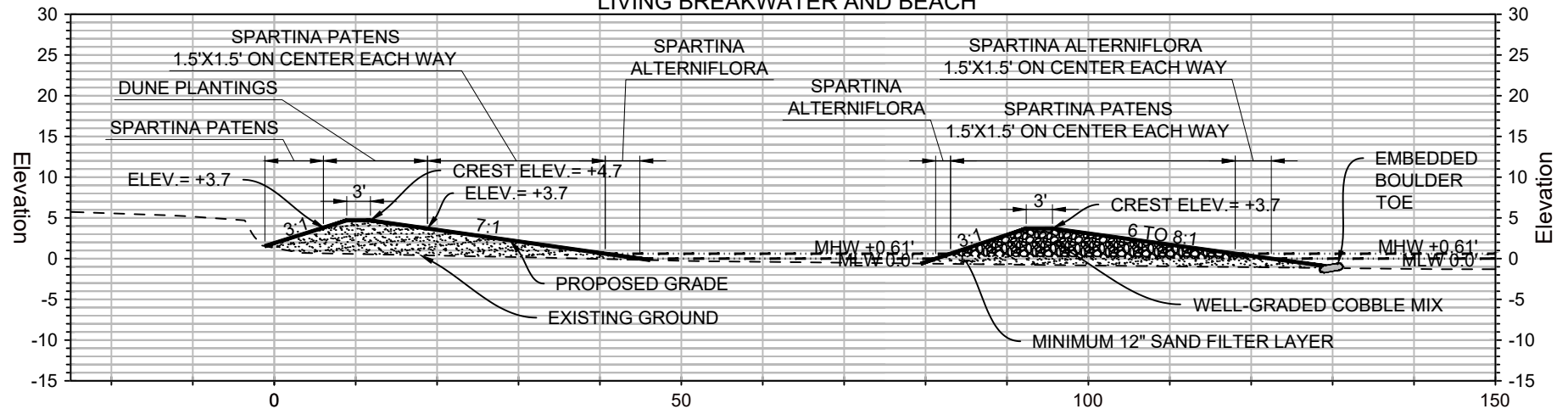
May 22, 2023	
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Approved By	D.W.
Sheet No.	8 Of 16
Project No.	21-032
Proposal No.	...

PROJECT CROSS SECTION	
SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE	
11800 MARSH VIEW LANE, BERLIN, MD 21811	
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1ST ELECTION DISTRICT, WORCESTER COUNTY	

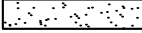


SECTION B-B' LIVING BREAKWATER AND TOMBOLO



SECTION C-C' LIVING BREAKWATER AND BEACH



LEGEND

EXISTING GRADE	---
PROPOSED GRADE	—
MEAN HIGH WATER (MHW)	- - - - -
MEAN LOW WATER (MLW)	- · - · -
SAND/WOOD CHIP MIX	
WELL-GRADED COBBLE MIX	
BOULDER	

CROSS SECTIONS

SCALE: HORI. 1"=20', VERT. 1"=20'



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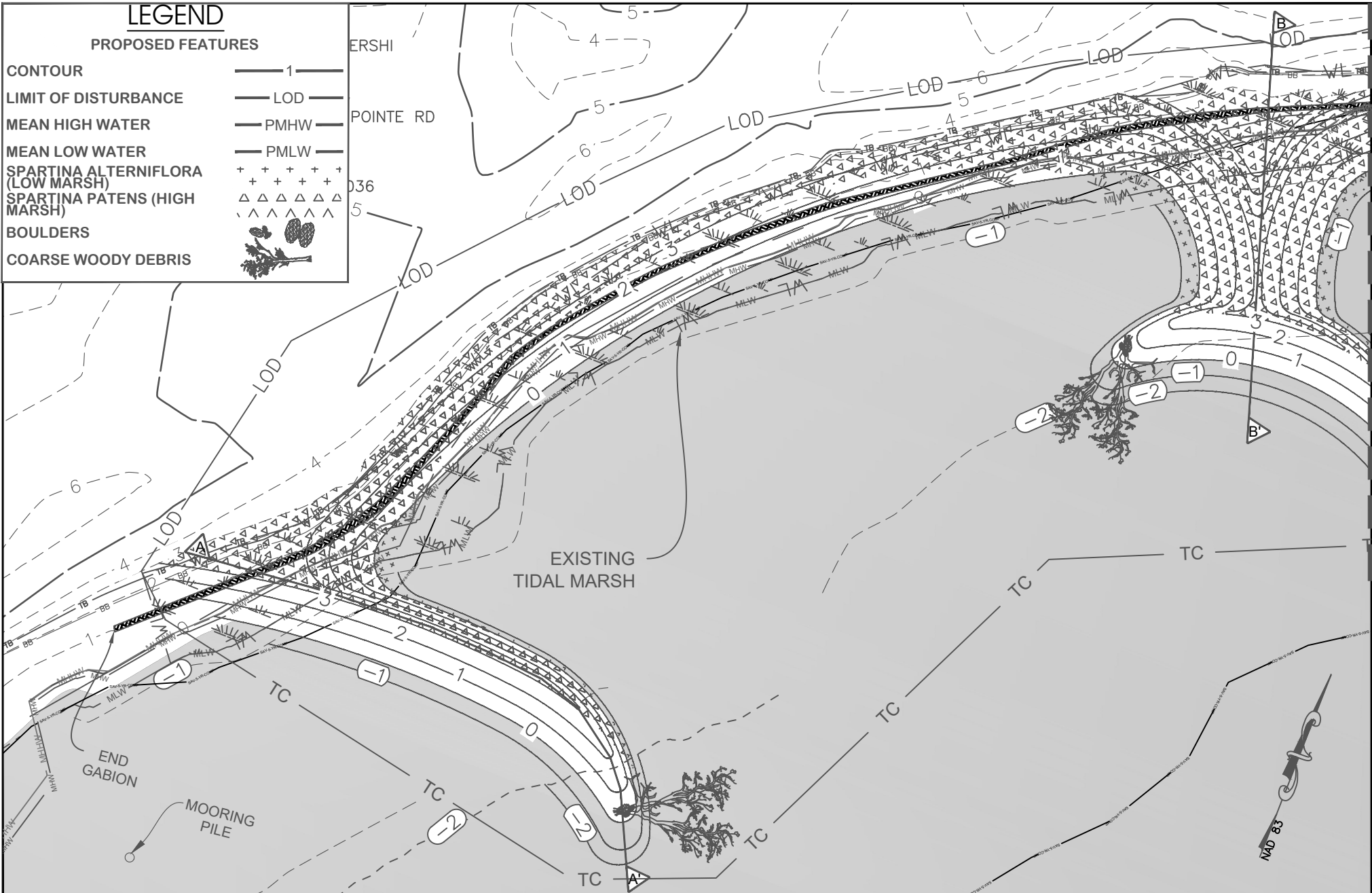
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Drawn By	J.H./J.K.
Approved By	D.W.
Sheet No.	9 Of 16
Project No.	21-032
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PROJECT CROSS SECTION SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE 11800 MARSH VIEW LANE, BERLIN, MD 21811 MAP 0042, GRID 0020, PARCEL 0008 1ST ELECTION DISTRICT, WORCESTER COUNTY	

LEGEND

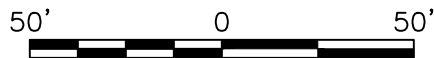
PROPOSED FEATURES

CONTOUR	1
LIMIT OF DISTURBANCE	LOD
MEAN HIGH WATER	PMHW
MEAN LOW WATER	PMLW
SPARTINA ALTERNIFLORA (LOW MARSH)	+
SPARTINA PATENS (HIGH MARSH)	△
BOULDERS	
COARSE WOODY DEBRIS	



PLAN

SCALE: 1"=50'



SCALE: 1"=50'

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LANDSCAPE ARCHITECTURE

ECOLOGICAL RESTORATION

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Proposal No.	...



BUFFER MANAGEMENT PLAN

SINEPUXENT SOUTH DYNAMIC LIVING SHORELINE

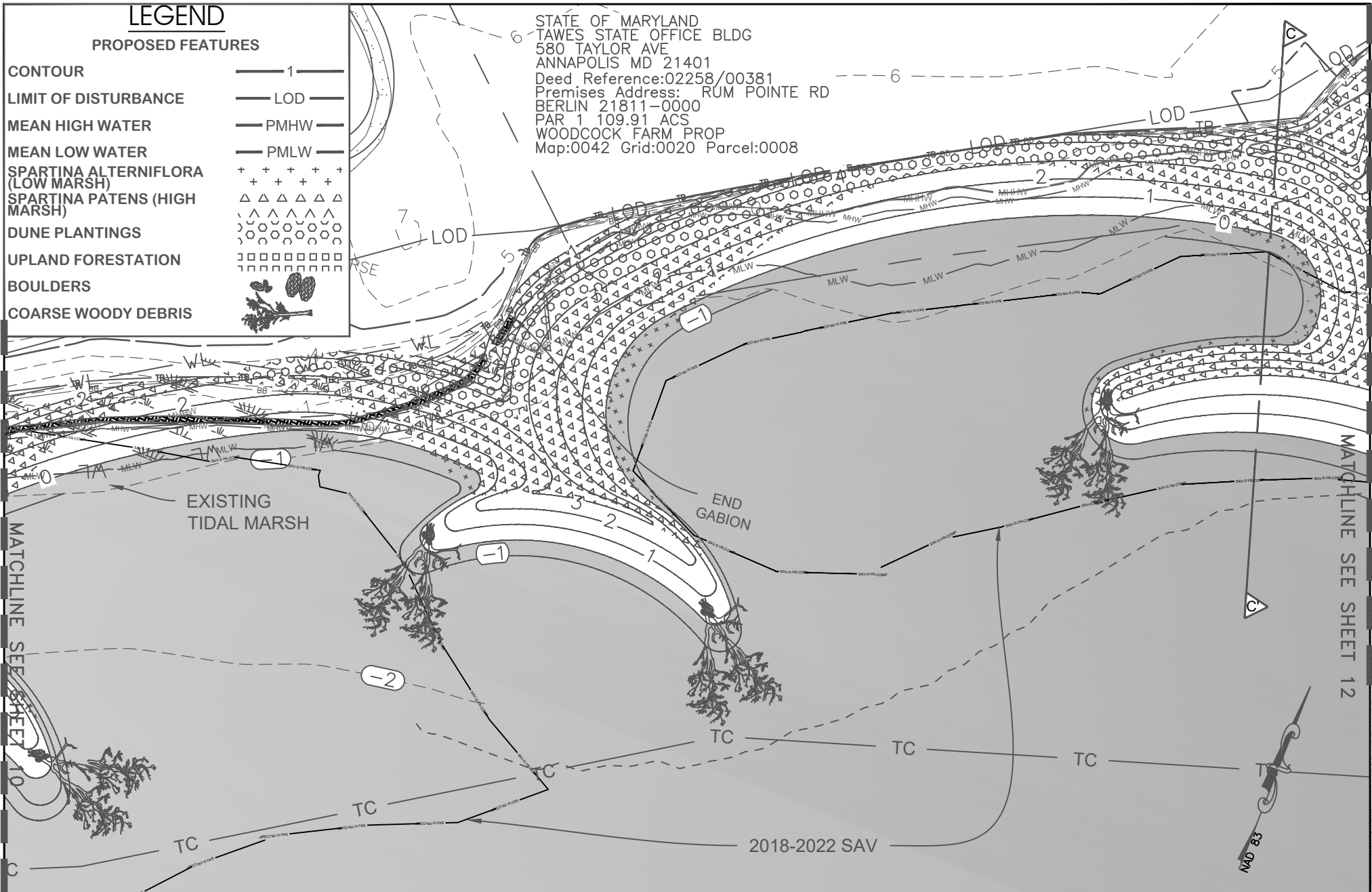
11800 MARSH VIEW LANE, BERLIN, MD 21811
MAP 0042, GRID 0020, PARCEL 0008
1ST ELECTION DISTRICT, WORCESTER COUNTY

LEGEND

PROPOSED FEATURES

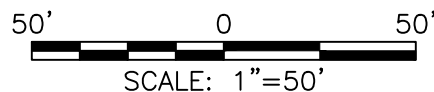
CONTOUR	— 1 —
LIMIT OF DISTURBANCE	— LOD —
MEAN HIGH WATER	— PMHW —
MEAN LOW WATER	— PMLW —
SPARTINA ALTERNIFLORA (LOW MARSH)	+ + + + +
SPARTINA PATENS (HIGH MARSH)	△ △ △ △ △
DUNE PLANTINGS	○ ○ ○ ○ ○
UPLAND FORESTATION	□ □ □ □ □
BOULDERS	
COARSE WOODY DEBRIS	

STATE OF MARYLAND
TAWES STATE OFFICE BLDG
580 TAYLOR AVE
ANNAPOLIS MD 21401
Deed Reference: 02258/00381
Premises Address: RUM POINTE RD
BERLIN 21811-0000
PAR 1 109.91 ACS
WOODCOCK FARM PROP
Map: 0042 Grid: 0020 Parcel: 0008



PLAN

SCALE: 1"=50'



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A DESIGN/BUILD Co.

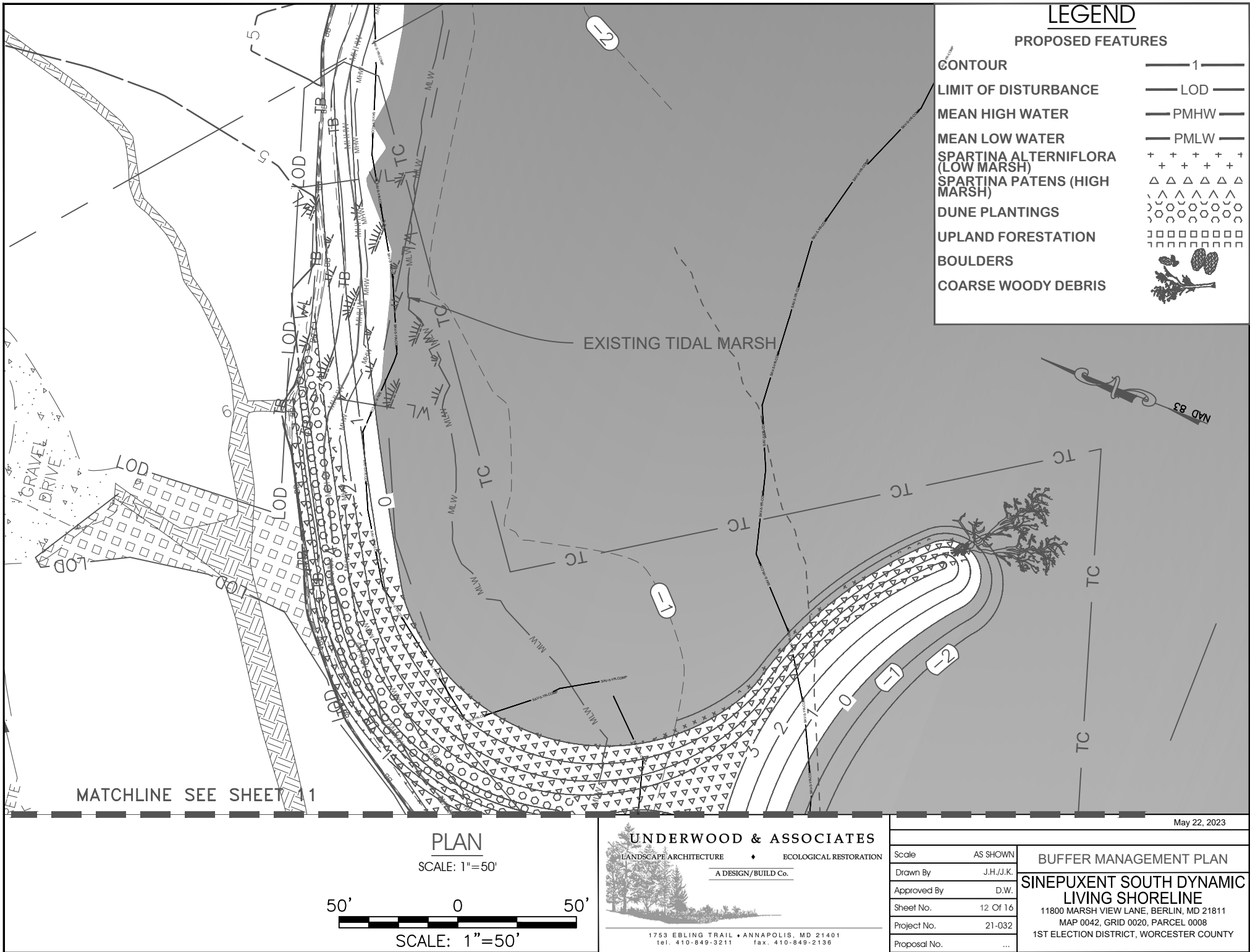


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MAP 0042, GRID 0020, PARCEL 0008
1ST ELECTION DISTRICT, WORCESTER COUNTY




WOODY MATERIAL ANCHORING (TYP.) - PLAN VIEW

BREAKWATER (TYP.)

EMBEDDED TREE
(EXPOSED CROWN)

BOULDER BURIED TO ANCHOR
DEBRIS AT TRUNK INTERSECTION

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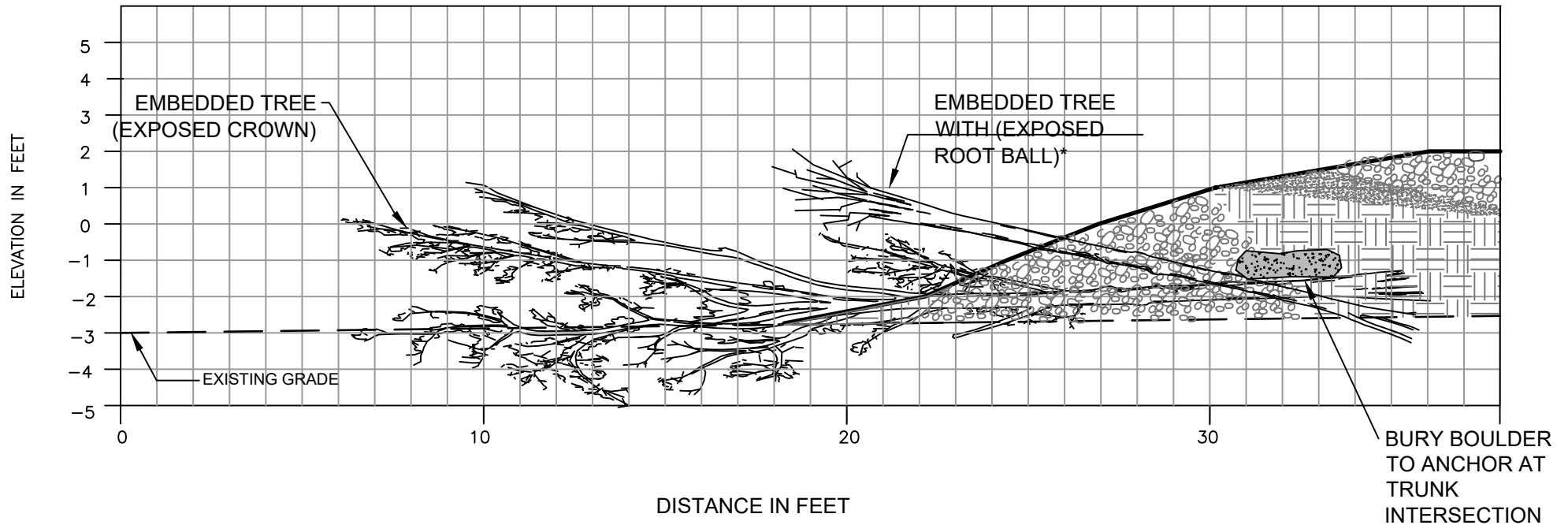
1753 EBLING TRAIL • ANNAPOLIS, MD 21401
tel. 410-849-3211 fax. 410-849-2136

May 22, 2023

Scale	AS SHOWN
Drawn By	J.H./J.K.
Approved By	D.W.
Sheet No.	13 Of 16
Project No.	21-032
Proposal No.	...

PROJECT DETAILS
**SINEPUXENT SOUTH DYNAMIC
LIVING SHORELINE**
11800 MARSH VIEW LANE, BERLIN, MD 21811
MAP 0042, GRID 0020, PARCEL 0008
1ST ELECTION DISTRICT, WORCESTER COUNTY

WOODY MATERIAL ANCHORING (TYP.) - PROFILE VIEW



*NOTE: THE EMBEDDED TREE WITH EXPOSED ROOT BALL IS SET AT THE EXISTING GRADE. THIS DETAIL SHOWS THE ROOT BALL SLIGHTLY ELEVATED IN ORDER TO DISPLAY BOTH TREES. SEE PLAN VIEW FOR ALIGNMENT.

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PROJECT DATA TABLES

Feature	Existing	Proposed	Difference
<i>Spartina Patens</i> - High Marsh (SF)	0	35,270	+35,270
<i>Spartina Alterniflora</i> - Low Marsh (SF)	0	2,137	+2,137
Total Tidal Wetlands (SF)	9,052	37,407	+28,355
Shoreline at MHW (LF)	1,453	2,675	+1,222

Year	Permanent Impact (SF)	Temporary Impact (SF)
2018	no data	no data
2019	no data	no data
2020	17,459	63,306
2021	23,333	100,682
2022	no data	no data

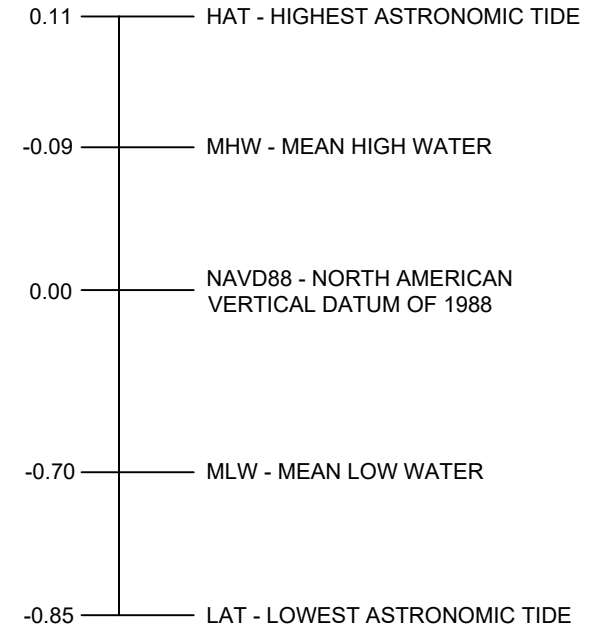
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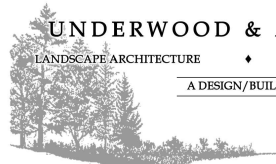
PERMANENT IMPACTS ARE AREAS WHERE PROPOSED SAND, GRAVEL, COBBLE, OR BOULDER FILL OVERLAPS MAPPED SAV BEDS.

DATUM TRANSFORMATIONS

ELEVATIONS ON THESE PLANS ARE REFERENCED TO NAVD88 TO BE IN AGREEMENT WITH THE CONSTRUCTION PLANS. TO CONVERT TO THE MLW DATUM, ADD 0.70 FT TO ALL ELEVATIONS.

DATA IN FT FROM NOAA GAUGE 8570691, BUNTINGS BRIDGE MD




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 11800 MARSH VIEW LANE, BERLIN, MD 21811
 MAP 0042, GRID 0020, PARCEL 0008
 1ST ELECTION DISTRICT, WORCESTER COUNTY

PLANTING SCHEDULE													
Planting Zone	Symbol	Total Area (Ft^2)	Common Name	Scientific Name	Type	Wetland Indicator Status	Size	Distribution	Avg Spacing (ft)	Quantity	Credit Area (SF per plant)	Total Credit Area (SF)	Description
Lowmarsh Cordgrass	Pluses	2,137	Lowmarsh Cordgrass	<i>Spartina alterniflora</i>	SAV	OBL	Gal	Random	1.5	950	2	1900	Between PMLW and PMHW.
Highmarsh Cordgrass	Triangles	35,270	Highmarsh Cordgrass	<i>Spartina patens</i>	SAV	FACW+	Gal	Random	1.5	15,676	2	31352	Between PMHW to proposed elevation 3 ft NAVD88 (3.7 ft MLW)
Dune	Hexagons	8,450	Evening primrose	<i>Oenothera humifusa</i>	Herbaceous	FACU	Qt	Random	5	49	2	98	All newly created areas above elevation 3 ft NAVD88 (3.7 ft MLW)
			Beach plum***	<i>Prunus maritima</i>	Shrub	UPL	2-3'	Random	8	19	50	950	
			Bitter panicgrass	<i>Panicum amarum</i>	Herbaceous	FACU-	Qt	Random	5	49	2	98	
			American beachgrass	<i>Ammophila breviligulata</i>	Herbaceous	FACU	Qt	Random	5	49	2	98	
			Early Low Blueberry	<i>Vaccinium Pallidum</i>	Shrub	N/A	1-2'	Random	8	19	50	950	
			Creeping Juniper	<i>Juniperus Horizontalis</i>	Shrub	FACU	1-2'	Random	8	19	50	950	
Upland Forestation	Squares	2,742	Prickly pear	<i>Opuntia humifosa</i>	Herbaceous	N/A	Qt	Random	5	49	2	98	Primarily the upland canopy area impacted by construction access.
			Chirstmas Fern	<i>Polystychum acrostichoides</i>	Herbaceous	-	Qt	Random	8	4	2	8	
			Coastal Wood Fern	<i>Dryopteris arguta</i>	Herbaceous	-	Qt	Random	8	4	2	8	
			Creeping Phlox	<i>Phlox stolonifera</i>	Herbaceous	-	Qt	Random	8	4	2	8	
			Virginia Chain Fern	<i>Woodwardia virginica</i>	Herbaceous	-	Qt	Random	8	4	2	8	
			Wild Bergamot	<i>Monarda fistulosa</i>	Herbaceous	-	Qt	Random	8	4	2	8	
			Mountain Laurel	<i>Kalmia latifolia</i>	Shrub	-	Gal	Random	8	4	50	200	
			Sheep Laurel	<i>Kalmia augustifolia</i>	Shrub	-	Gal	Random	8	4	50	200	
			Winterberry	<i>Ilex verticillata</i>	Shrub	-	Gal	Random	8	4	50	200	
			American Holly	<i>Ilex opaca</i>	Tree	-	2-3'	Random	12	2	100	200	
Black Chokeberry	<i>Prunus virginiana</i>	Tree	-	2-3'	Random	12	2	100	200				
Southern Red Oak	<i>Quercus falcata</i>	Tree	-	2-3'	Random	12	2	100	200				
Critical Area Mitigation Calculations			Total Area of Disturbed Canopy (SF)		Mitigation Ratio		Total Mitigation Credit Required (SF)		Total Credit Area (SF)		Percent Mitigation (%)		
			2,742		1:1		2,742		37,734		1376%		



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General information regarding the Corps' permitting process can be found on our website at <https://www.nab.usace.army.mil/Missions/Regulatory.aspx>. This public notice has been prepared in accordance with Corps implementing regulations at 33 CFR 325.3. If you have any questions concerning this specific project or would like to request a paper copy of this public notice, please contact Ms. Megan Spindler of this office via email at megan.l.spindler@usace.army.mil. This public notice is issued by the Chief, Regulatory Branch.