



Maryland
Department of
the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary

April 9, 2024

Hillsmere Shores Improvement Association
c/o Environmental Systems Analysis, Inc.
Attention: Leslie Wood
2141 Priest Bridge Dr., Ste 1
Crofton, MD 21114

Via email: lwood@esatoday.com

Re: Agency Interest Number: 178383
Tracking Number: 202361421
Tidal Authorization Number: 24-WQC-0003

Dear Hillsmere Shores Improvement Association:

Your project did not qualify for approval under the Maryland State Programmatic General Permit (MDSPGP); therefore a separate review and issuance of the federal permit will be required by the U.S. Army Corps of Engineers. The federal permit is not attached.

Additionally, your project required a Wetlands License to be approved and issued by the Maryland Board of Public Works (BPW). The Wetlands License will be sent to you by BPW's Wetlands Administrator.

A project that does not qualify for approval under the MDSPGP requires an individual Water Quality Certification (WQC) to be issued by the Maryland Department of the Environment, which is attached. Please take a moment to read and review your WQC to ensure that you understand the limits of the authorized work and all of the general and special conditions.

You should not begin any work until you have obtained all necessary State, local, and federal authorizations. Please contact Mel Throckmorton at mel.throckmorton@maryland.gov with any questions.

Sincerely,

Tammy Roberson

Tammy K. Roberson
Chief
Tidal Wetlands Division



STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
WATER AND SCIENCE ADMINISTRATION
WATER QUALITY CERTIFICATION



24-WQC-0003

EFFECTIVE DATE: **April 9, 2024**
CERTIFICATION HOLDER: **Hillsmere Shores Improvement Association**
ADDRESS: **Attn: Steve Vanderbosch**
133 Lee Dr
Annapolis, MD 21403
PROJECT LOCATION: **133C E Bay View Dr**
Annapolis, MD 21403

UNDER AUTHORITY OF SECTION 401 OF THE FEDERAL WATER POLLUTION CONTROL ACT AND ITS AMENDMENTS AND IN ACCORDANCE WITH § 9-313 THROUGH § 9-323, INCLUSIVE, OF THE ENVIRONMENT ARTICLE, ANNOTATED CODE OF MARYLAND, THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER AND SCIENCE ADMINISTRATION HAS DETERMINED THAT THE REGULATED ACTIVITIES DESCRIBED IN THE REQUEST FOR CERTIFICATION FOR THE PROPOSED HILLSMERE SHORES MARINA SHORELINE STABILIZATION PROJECT AND AS DESCRIBED IN THE ATTACHED PLAN SHEETS DATED March 15th, 2024, AND ANY SUBSEQUENT MODIFICATIONS APPROVED BY THE DEPARTMENT WILL NOT VIOLATE MARYLAND'S WATER QUALITY STANDARDS, IF CONDUCTED IN ACCORDANCE WITH THE CONDITIONS OF THIS CERTIFICATION.

THIS CERTIFICATION DOES NOT RELIEVE THE APPLICANT OF RESPONSIBILITY FOR OBTAINING ANY OTHER APPROVALS, LICENSES, OR PERMITS IN ACCORDANCE WITH FEDERAL, STATE, OR LOCAL REQUIREMENTS AND DOES NOT AUTHORIZE COMMENCEMENT OF THE PROPOSED PROJECT. A COPY OF THIS REQUIRED CERTIFICATION HAS BEEN SENT TO THE CORPS OF ENGINEERS. THE CERTIFICATION HOLDER SHALL COMPLY WITH THE CONDITIONS LISTED BELOW.

The Maryland Department of the Environment satisfied the statutory and regulatory public notice requirements by placing the WQC on Public Notice from January 15, 2024 to February 15, 2024 on Maryland Department of the Environment's Public Notice webpage and advertising in the Capital Gazette on January 19, 2024.

PROJECT DESCRIPTION

Construct a living shoreline consisting of: two low profile stone groins, measuring 40-feet long and 18-feet wide, and 50-feet long by 21-feet wide; and, two stone breakwaters, measuring 103-feet long by 25-feet wide and 93-feet long by 23-feet wide, sand containment structures extending a maximum of 76 feet channelward of the mean high water line; and, fill and grade with 2,475 cubic yards of sand/cobble mixture along 650 feet of eroding shoreline and plant with 10,910 square feet of high marsh and 4,542 square feet of low marsh vegetation; and, to incorporate coarse woody debris and 63 clusters of 4 reef balls to create habitat, to be marked by navigational buoys.

GENERAL CONDITIONS

1. All water quality-related performance standards and conditions required by the Department in any state issued authorization for activities in tidal wetlands, nontidal wetlands, their 100-year floodplains, nontidal wetlands buffers, or nontidal wetland expanded buffers to ensure that any discharges will not result in a failure to comply with water quality standards in COMAR 26.08.02 or any other water quality requirements of state law or regulation shall be met.
2. This Certification does not obviate the need to obtain required authorizations or approvals from other State, federal or local agencies as required by law.
3. All additional authorizations or approvals, including self-certifying General Permits issued by the Department, shall be obtained and all conditions shall be completed in compliance with such authorizations.
4. The proposed project shall be constructed in accordance with the approved final plan by the Department, or, if Department approval is not required, the plan approved by the U.S. Army Corps of Engineers, and its approved revisions.
5. All fill and construction materials not used in the project shall be removed and disposed of in a manner which will prevent their entry into waters of this State.
6. This Certification does not authorize any injury to private property, any invasion of rights, or any infringement of federal, state, or local laws or regulations.
7. Authorized representatives of the Department shall be provided access to the site of authorized activities during normal business hours to conduct inspections and evaluations of the operations and records necessary to assure compliance with this Certification.
8. No stockpiles of any material shall be placed in Waters of the U.S. or state or private tidal wetlands.
9. Temporary construction trailers or structures, staging areas and stockpiles shall not be located within tidal wetlands, nontidal wetlands, nontidal wetlands buffers, or the 100-year floodplain unless specifically included on the Approved Plan.
10. This Certification is valid for the project identified herein and the associated U.S. Army Corps of Engineers authorization NAB-2023-61421 (Hillsmere Shores Improvement Association – Marina) until such time that it expires or is not administratively extended.

SPECIAL CONDITIONS

1. All Critical Area requirements shall be followed and all necessary authorizations from the Critical Area Commission (“Commission”) shall be obtained. This Certificate does not constitute authorization for disturbance in the 100-foot Critical Area Buffer. “Disturbance” in the Buffer means clearing, grading, construction activities, or removal of any size of tree or vegetation. Any anticipated Buffer disturbance requires prior written approval, before commencement of land disturbing activity, from local jurisdiction in the form of a Buffer Management Plan.

2. All work performed under this Water Quality Certificate shall be conducted by a marine contractor licensed by the Marine Contractors Licensing Board (MCLB) in accordance with Title 17 of the Environment Article of Annotated Code of Maryland. Licensing by MCLB shall occur prior to the beginning of construction activities. A list of licensed marine contractors may be obtained by contacting the MCLB at 410-537- 3249, by e-mail at MDE.MCLB@maryland.gov or by accessing the Maryland Department of the Environment, Environmental Boards webpage.
3. The issuance of this Certificate is not a validation or authorization by the Department for any of the existing structures depicted on the plan sheets on the subject property that is not part of the authorized work description, nor does it relieve the Certificate Holder of the obligation to resolve any existing noncompliant structures and activities within tidal wetlands.
4. The Certificate Holder shall not perform any construction from November 15th through March 1st of any year to protect wintering waterfowl. The proposed project site is located in a Historic Waterfowl Concentration Area.
5. The Certificate Holder shall coordinate with the U.S. Coast Guard to ensure that all artificial reefs are marked with the appropriate aids to navigation.
6. The Certificate Holder shall construct the marsh establishment area in accordance with the following conditions:
 1. The Certificate Holder shall use clean substrate fill material, no more than 10% of which shall pass through a standard number 100 sieve.
 2. The marsh establishment area shall be planted within one year following completion of the filling operation.
 3. The marsh establishment project shall be maintained as a wetland, with non-nuisance species' aerial coverage of at least 85% for three consecutive years. If 85% coverage is not attained, the reasons for failure shall be determined, corrective measures shall be taken, and the area shall be replanted.
 4. If the fill is graded hydraulically, the licensee shall use a turbidity curtain around the perimeter of the instream work.
 5. If the existing bank is to be cleared or graded:
 - i. The Certificate Holder shall perform all work under and in accordance with an approved Soil Erosion and Sediment Control Plan from the applicable sediment and erosion control agency; and
 - ii. The Certificate Holder shall perform all work under and in accordance with the Critical Area requirements of the local jurisdiction in the form of an approved Buffer Management Plan.
7. The Certificate Holder shall accept the terms of the marsh maintenance plan by signing and returning the standard plan to the Water and Science Administration, Tidal Wetlands Division prior to commencement of any work authorized under this Certificate. If the Certificate Holder wishes to propose an alternative marsh maintenance plan, the alternative plan must be submitted to and approved by the Tidal Wetlands Division, Water and Science Administration, prior to commencement of any work authorized under this Certificate. Any alternative plan must provide assurances of success that are at least equivalent to those of the standard plan, in terms of the extent of native marsh plant coverage, elimination of invasive species and timeframe for plant establishment.

8. The Certificate Holder shall submit photographs on an annual basis for the first five growing seasons to the Tidal Wetlands Division, Water and Science Administration in order to document the success of the project in terms of the extent of native marsh plant coverage. Photographs shall be taken from at least two directions, as necessary to fully depict the living shoreline.

CITATIONS AND STATEMENTS OF NECESSITY

1. Statement of Necessity for General Conditions 1, 2, 3, 4, and Special Conditions 1, 3, 5: These conditions are necessary to ensure that water quality standards are met, and designated uses are maintained.

Citations: Federal and state laws which authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.10G(3); COMAR 26.23.02.06; COMAR 26.17.01; COMAR 26.23; COMAR 26.24

2. Statement of Necessity for General Conditions 5, 8, 9 and Special Conditions 6, 7, 8: Fill or construction material within or adjacent to regulated resources may cause discharges resulting in turbidity in excess of water quality standards and interfere with designated uses of growth and propagation of fish, other aquatic life, wildlife; and other designated uses; and fail to meet general water quality criteria that waters not be polluted by substances in amounts sufficient to be unsightly or create a nuisance.

Citation: 26.08.02.03B(1)-B(2); COMAR 26.23; COMAR 26.24; COMAR 26.17.04

3. Statement of Necessity for General Condition 6: This condition is necessary to clarify the scope of this certification to ensure compliance with water quality regulations, without limiting restrictions through other requirements.

Citation: Federal and state laws which authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08, COMAR 26.08.02.10E; COMAR 26.23.02.06; COMAR 26.17.04; COMAR 26.23; COMAR 26.24

4. Statement of Necessity for General Condition 7: Conditions of certification involve precise actions to comply with water quality standards. Site inspection may be necessary to ensure that limits, methods, and other requirements are met to ensure that water quality standards are met and designated uses are maintained. These conditions are necessary to ensure that the activity was conducted, and project completed according to terms of the authorization/certification, while allowing for review of in-field modifications which may have resulted in discharges to ensure that water quality standards were met. Designated uses include support of estuarine and marine aquatic life and shellfish harvesting and for growth and propagation of fish, other aquatic life, and wildlife

Citation: Federal and state laws that authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.03B(1)(b); COMAR 26.08.02.03B(2); COMAR 26.23.02.06; COMAR 26.23; COMAR 26.24; COMAR 26.17.04

5. Statement of Necessity for General Condition 10: This condition is necessary to qualify the period of applicability of the terms and conditions of this Certification to be protective of Maryland water quality standards.

Citations: Federal and state laws which authorize this condition include but are not limited to: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; 40 C.F.R. 121, 15 C.F.R. 930, Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.17.04; COMAR 26.23; COMAR 26.24

6. Statement of Necessity for Special Condition 2: Expertise for conducting certain activities is required to ensure that there is no violation of water quality standards nor interference with designated uses. This condition is necessary to ensure that discharges will be conducted in a manner which does not violate water quality criteria nor interfere with designated uses.

Citation: COMAR 26.08.02.02B(2)- B(4); COMAR 26.08 02.03B(2)(d) – (e); COMAR 26.08.02.03B(1)(b); 26.08.02.03B(2); COMAR 23.02.04.04

7. Statement of Necessity for Special Condition 4: A time of year restriction is necessary to maintain the designated use for support of estuarine and marine aquatic life and shellfish harvesting.

Citation: Federal and state laws which authorize this condition include but are not limited to: COMAR: 26.08.02.02B(1)(d); 26.08.02.02B(3); COMAR 26.08.02.02-16.

8. Statement of Necessity for Special Conditions 6, 7, 8: Tidal wetlands provide essential habitat, water quality, food, and movement corridors for wildlife, and support of estuarine and marine aquatic life and shellfish harvesting. Successful establishment is necessary to prevent discharges which interfere with designated uses, including growth and propagation of fish, other aquatic life, and wildlife through loss of stream channel habitat and wetlands. Required establishment, re-establishment, or enhancement and loss limits will maintain the designated use.

Citations: COMAR 26.08.02.02B(3); COMAR 26.08.02.03B(3) and B(4); COMAR 26.24.

CERTIFICATION APPROVED



D. Lee Currey, Director
Water and Science Administration

4/8/2024

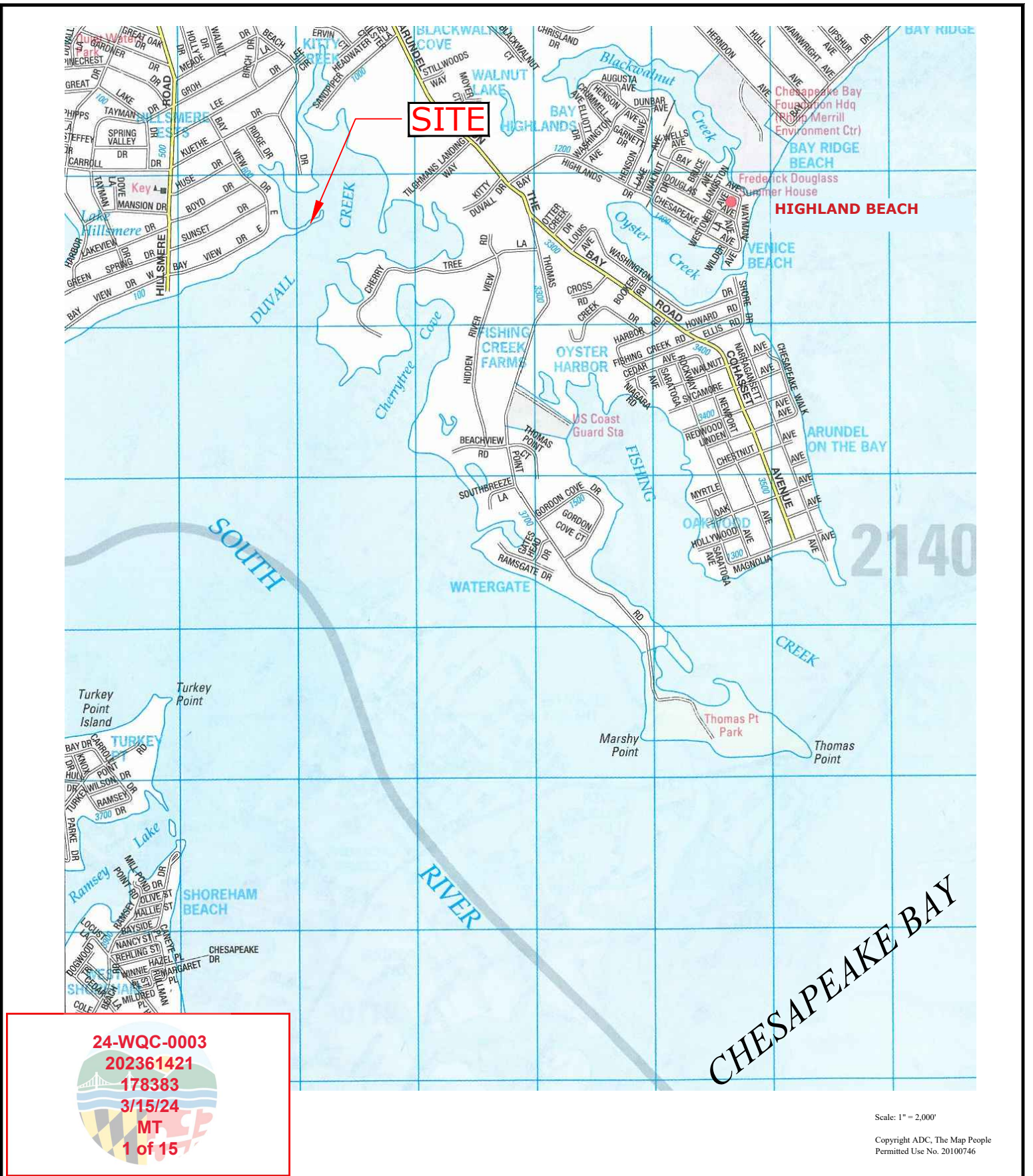
Date

Tracking Number: 202361421
Agency Interest Number: 178383

Effective Date: **April 9, 2024**

Enclosure: Plan Sheets dated March 15th, 2024


cc: WSA Inspection & Compliance Program
Army Corps of Engineers



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Scale: 1" = 2,000'
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Prepared For:



Arundel Rivers
FEDERATION

2822 Solomons Island Road, #202
Edgewater, Maryland 21037

Applicant:

Hillsmere Shores
Improvement Association
P.O. Box 3485
Annapolis, Maryland 21043

Prepared by:




**Environmental
Systems
Analysis, Inc.**
 Natural Resources Management
 Ecological Restoration
 2141 Priest Bridge Drive, Suite 1
 Crofton, Maryland 21114

VICINITY MAP

**HILLSMERE SHORES
COASTAL RESILIENCY PROJECT**

2ND Election District
Anne Arundel County, Maryland

SCALE: 1" = 2000'
 DATE: MARCH, 2023
 ESA PROJECT NAME\ 2021-31
 Hillsmere Sand Spit\CAD



NORTH

SHEET: 1 of 15



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Prepared For:



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FETCH MAP

HILLSMERE SHORES COASTAL RESILIENCY PROJECT
 2ND Election District
 Anne Arundel County, Maryland

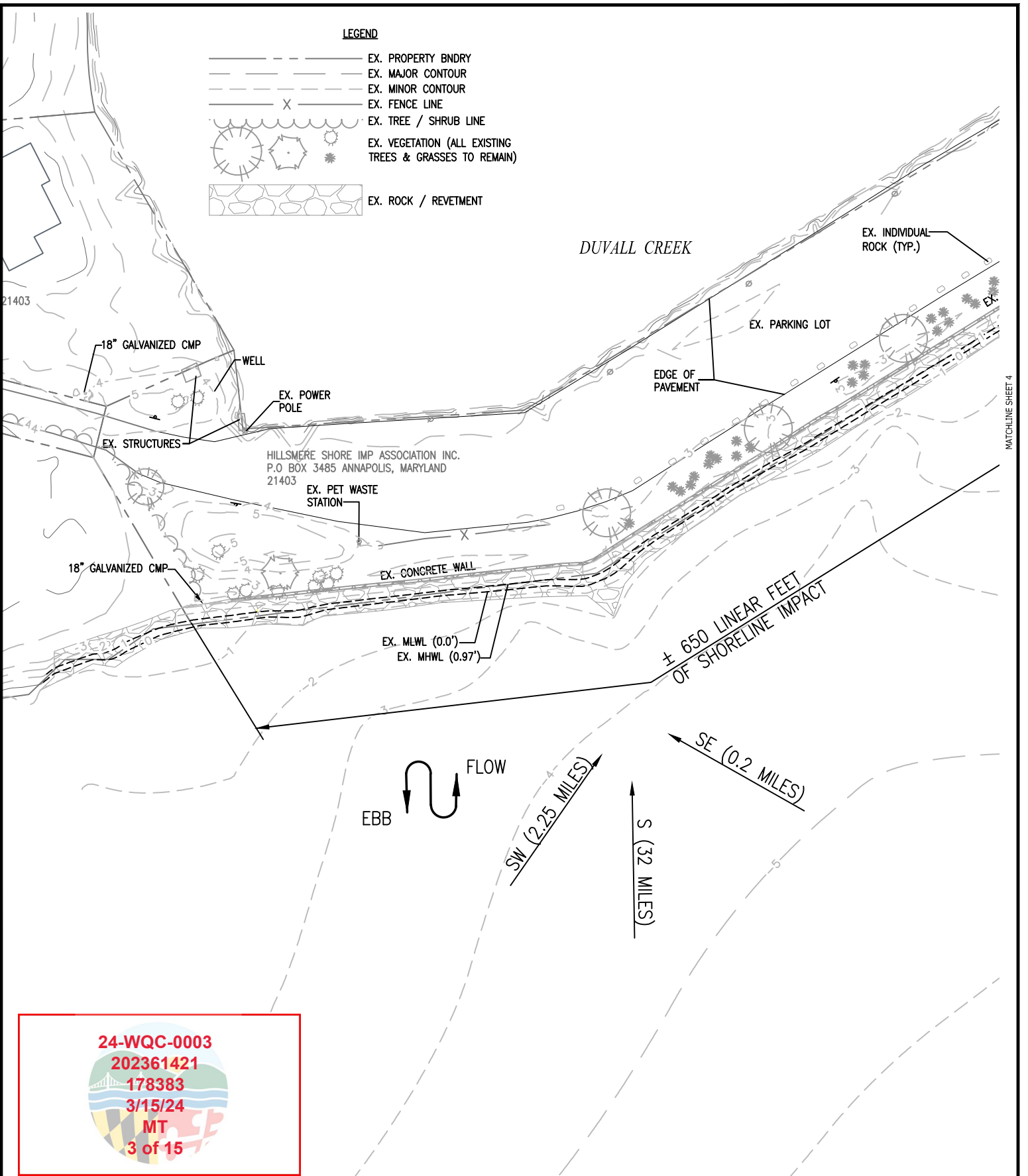
SCALE:	1"=2000'
DATE:	MARCH, 2023
ESA PROJECT NAME:	2021-31 Hillsmere Sand Spit\CAD
SHEET:	2 of 15



NORTH

LEGEND

- EX. PROPERTY BNDRY
- - - EX. MAJOR CONTOUR
- - - EX. MINOR CONTOUR
- X - EX. FENCE LINE
- ~ EX. TREE / SHRUB LINE
- ☆ EX. VEGETATION (ALL EXISTING TREES & GRASSES TO REMAIN)
- ▨ EX. ROCK / REVETMENT



MATCHLINE SHEET 4

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Edgewater, Maryland 21037


Applicant:

Hillsmere Shores
Improvement Association
P.O. Box 3485
Annapolis, Maryland 21043

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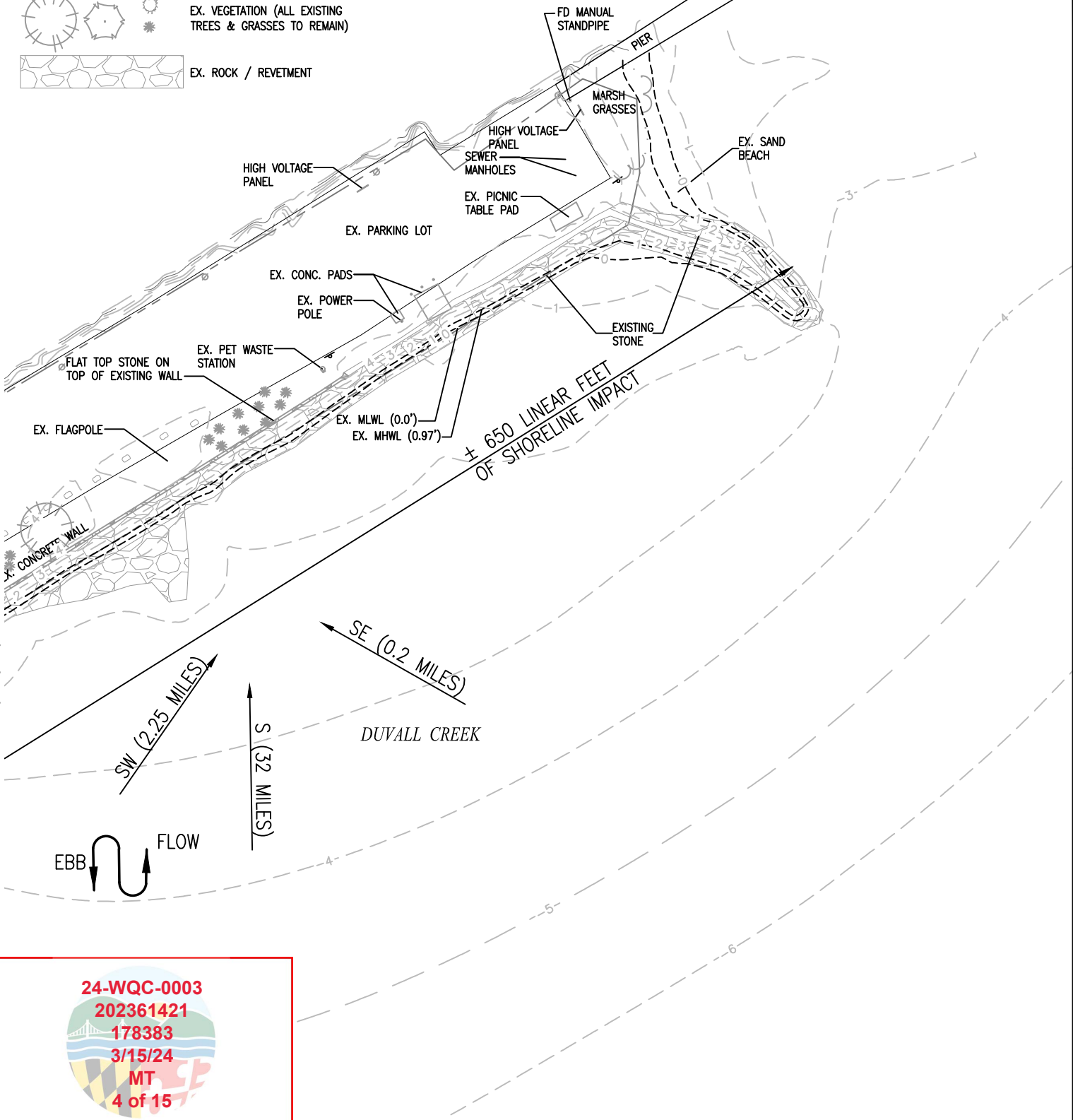


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EXISTING CONDITIONS	
HILLSMERE SHORES COASTAL RESILIENCY PROJECT	
2ND Election District Anne Arundel County, Maryland	
	SCALE: 1" = 50'
DATE: MARCH, 2023	
ESA PROJECT NAME: 2021-31 Hillsmere Sand Spit\CAD	
SHEET: 3 of 15	

LEGEND


- EX. PROPERTY BNDRY
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- X- EX. FENCE LINE
- ~~~~~ EX. TREE / SHRUB LINE
- ☉ EX. VEGETATION (ALL EXISTING TREES & GRASSES TO REMAIN)
- ▨ EX. ROCK / REVETMENT



MATCHLINE SHEET 3

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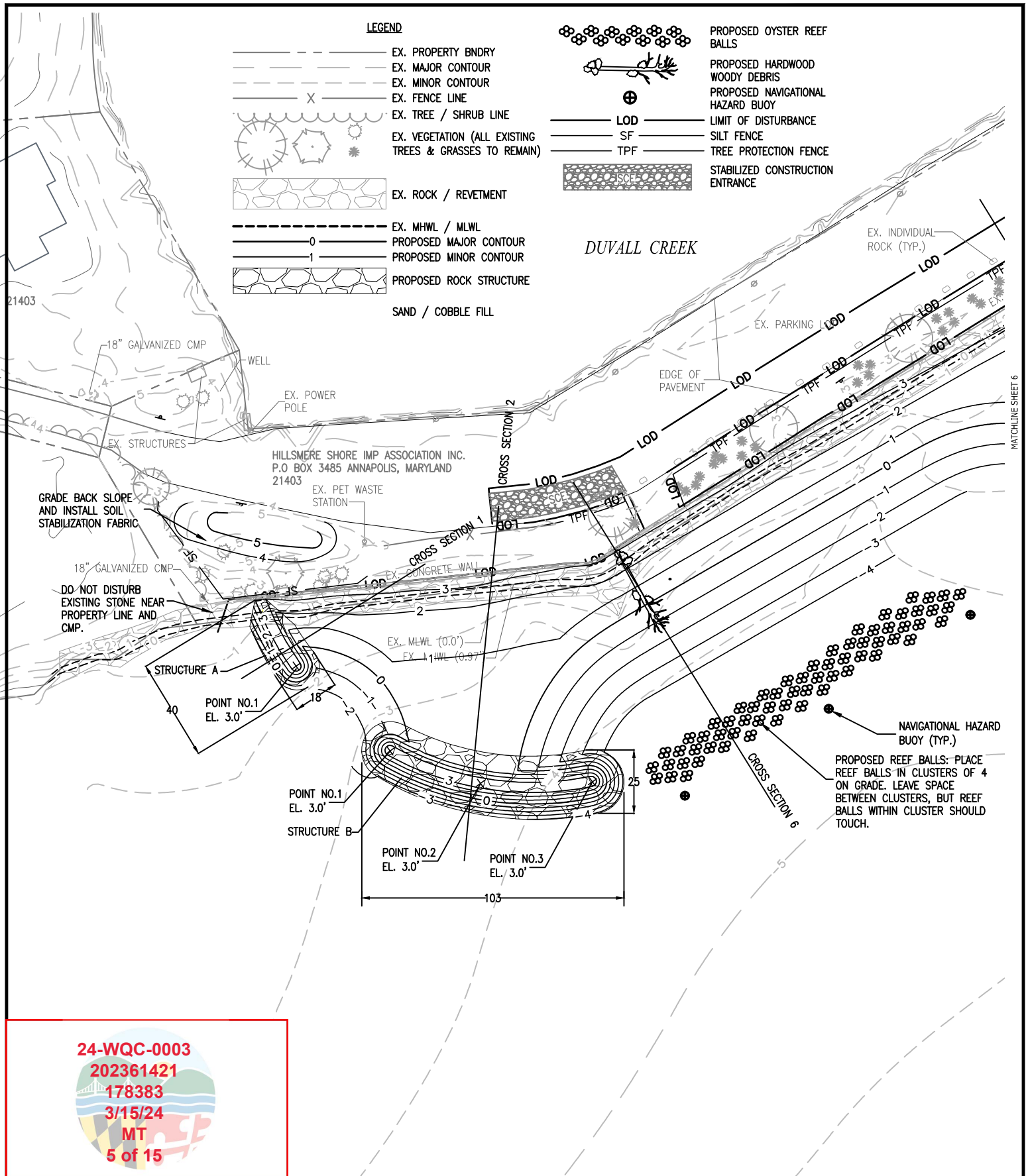
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EXISTING CONDITIONS	
HILLSMERE SHORES COASTAL RESILIENCY PROJECT	
2ND Election District Anne Arundel County, Maryland	
SCALE: 1" = 50'	DATE: MARCH, 2023
ESA PROJECT NAME: 2021-31 Hillsmere Sand Spit\CAD	
 NORTH	SHEET: 4 of 15

- LEGEND**
- EX. PROPERTY BNDRY
 - - - EX. MAJOR CONTOUR
 - - - EX. MINOR CONTOUR
 - X - EX. FENCE LINE
 - EX. TREE / SHRUB LINE
 - EX. VEGETATION (ALL EXISTING TREES & GRASSES TO REMAIN)
 - EX. ROCK / REVETMENT
 - - - EX. MHWL / MLWL
 - - - 0 PROPOSED MAJOR CONTOUR
 - - - 1 PROPOSED MINOR CONTOUR
 - PROPOSED ROCK STRUCTURE
 - SAND / COBBLE FILL
 - PROPOSED OYSTER REEF BALLS
 - PROPOSED HARDWOOD WOODY DEBRIS
 - ⊕ PROPOSED NAVIGATIONAL HAZARD BUOY
 - LOD LIMIT OF DISTURBANCE
 - SF SILT FENCE
 - TPF TREE PROTECTION FENCE
 - STABILIZED CONSTRUCTION ENTRANCE



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IMPACT PLATES

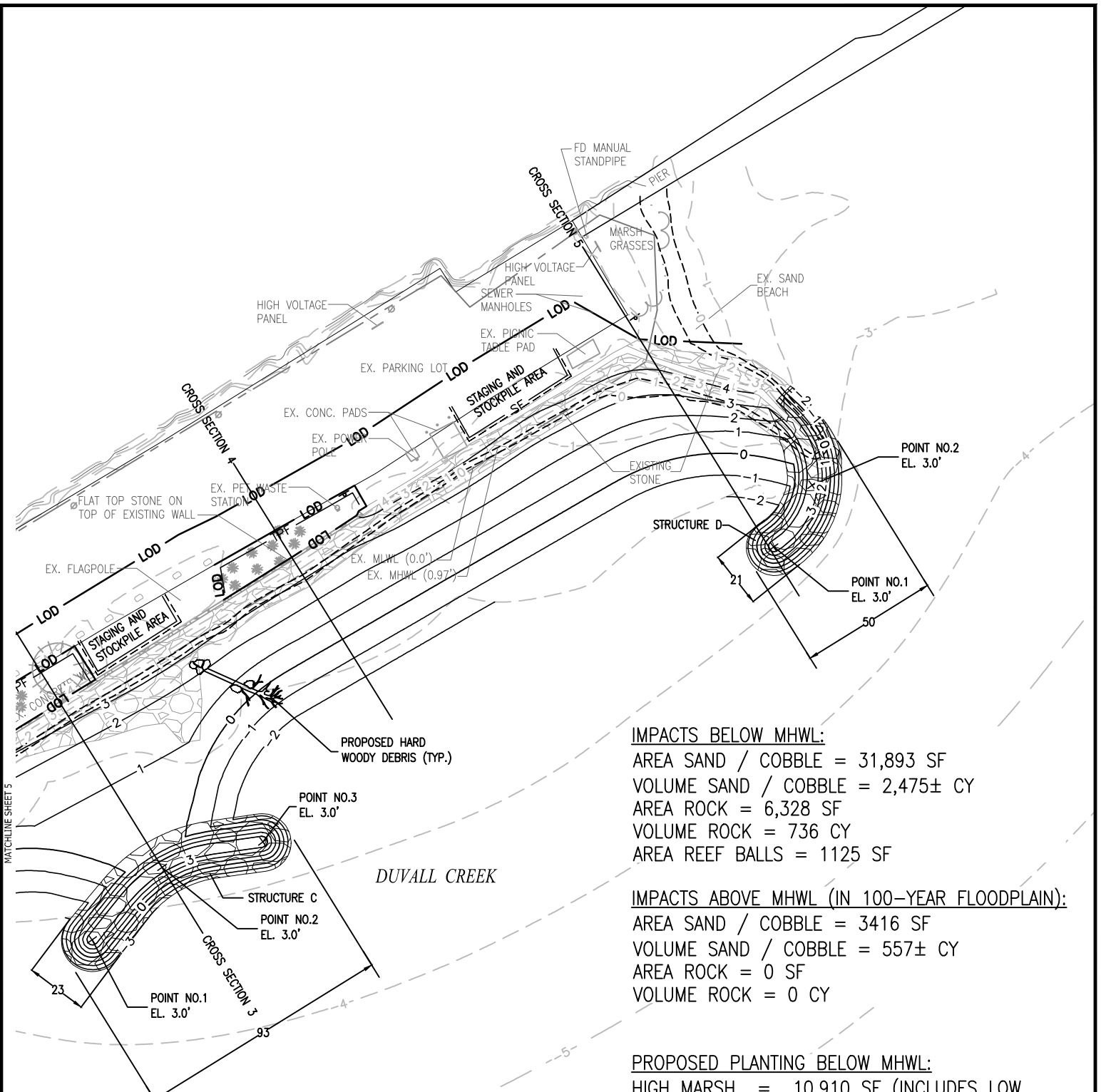
**HILLSMERE SHORES
COASTAL RESILIENCY PROJECT**

2ND Election District
Anne Arundel County, Maryland

SCALE: 1" = 50'
DATE: MARCH, 2023
ESA PROJECT NAME: 2021-31
Hillsmere Sand Spit\CAD

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IMPACTS BELOW MHWL:
 AREA SAND / COBBLE = 31,893 SF
 VOLUME SAND / COBBLE = 2,475± CY
 AREA ROCK = 6,328 SF
 VOLUME ROCK = 736 CY
 AREA REEF BALLS = 1125 SF

IMPACTS ABOVE MHWL (IN 100-YEAR FLOODPLAIN):
 AREA SAND / COBBLE = 3416 SF
 VOLUME SAND / COBBLE = 557± CY
 AREA ROCK = 0 SF
 VOLUME ROCK = 0 CY

PROPOSED PLANTING BELOW MHWL:
 HIGH MARSH = 10,910 SF (INCLUDES LOW DUNE PLANTINGS)
 LOW MARSH = 4,542 SF

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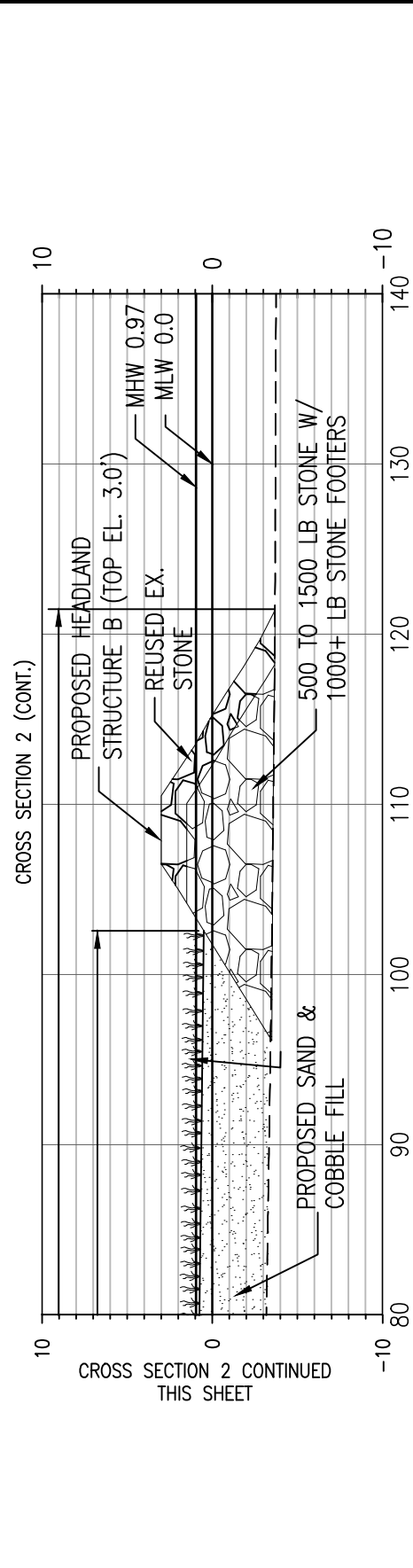
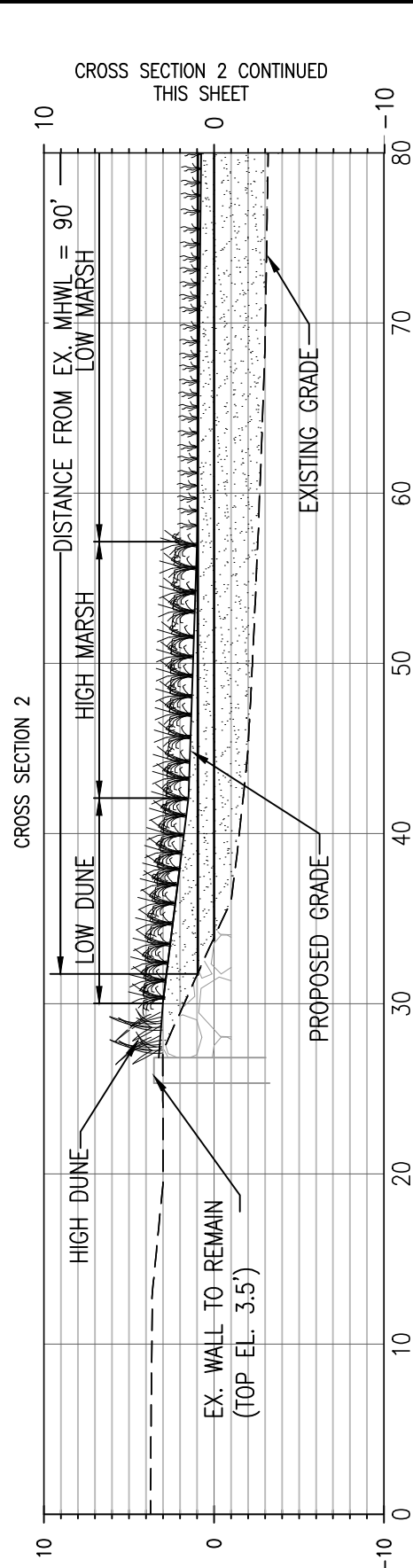
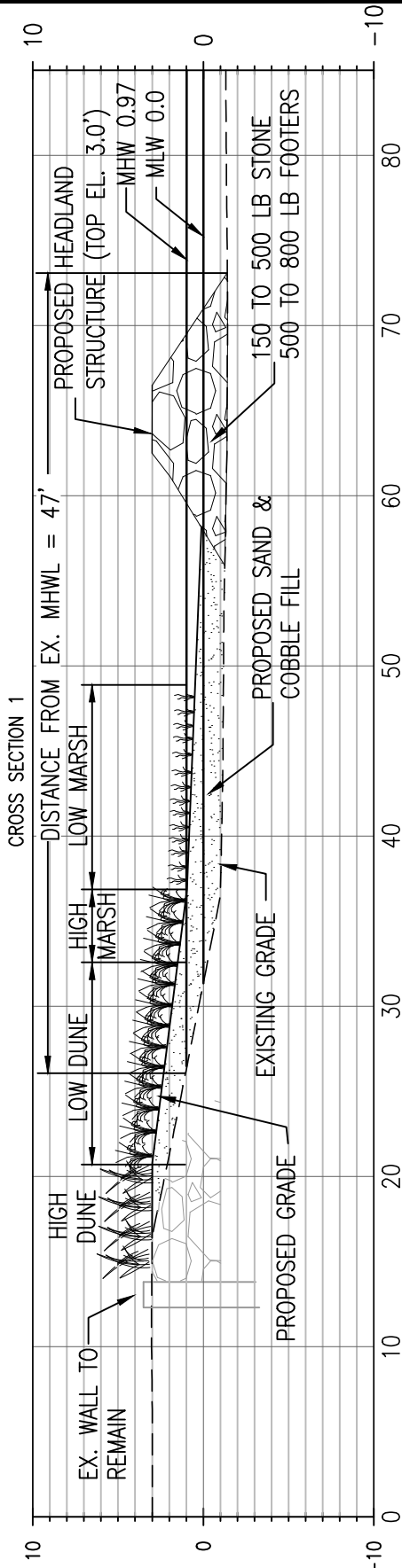
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IMPACT PLATES

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COASTAL RESILIENCY PROJECT**

2ND Election District
Anne Arundel County, Maryland

	SCALE: 1"= 50'
	DATE: MARCH, 2023
	ESA PROJECT NAME: 2021-31 Hillsmere Sand Spit\CAD
	SHEET: 6 of 15



CROSS SECTION 2 CONTINUED THIS SHEET

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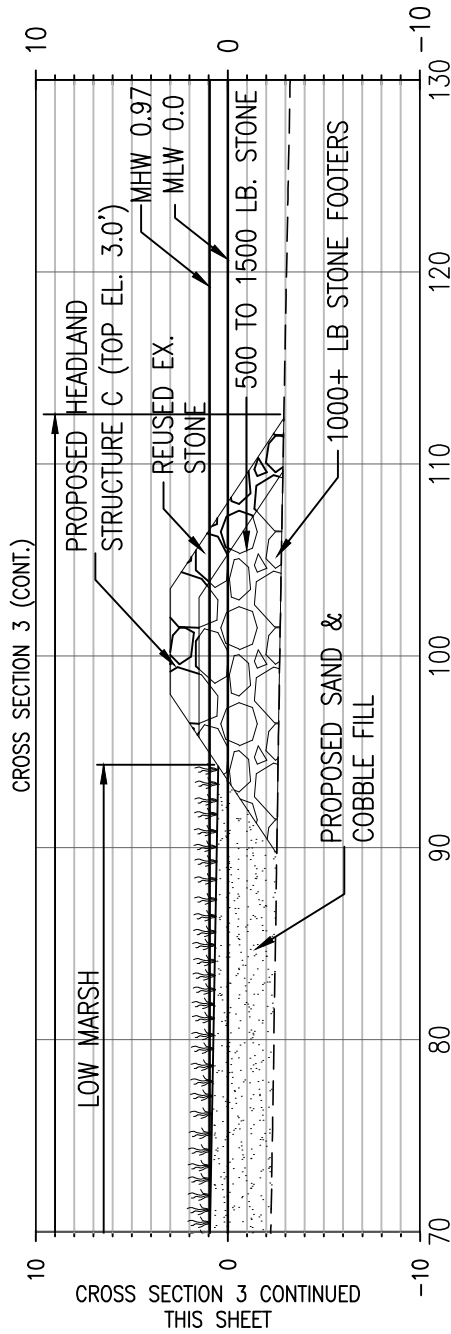
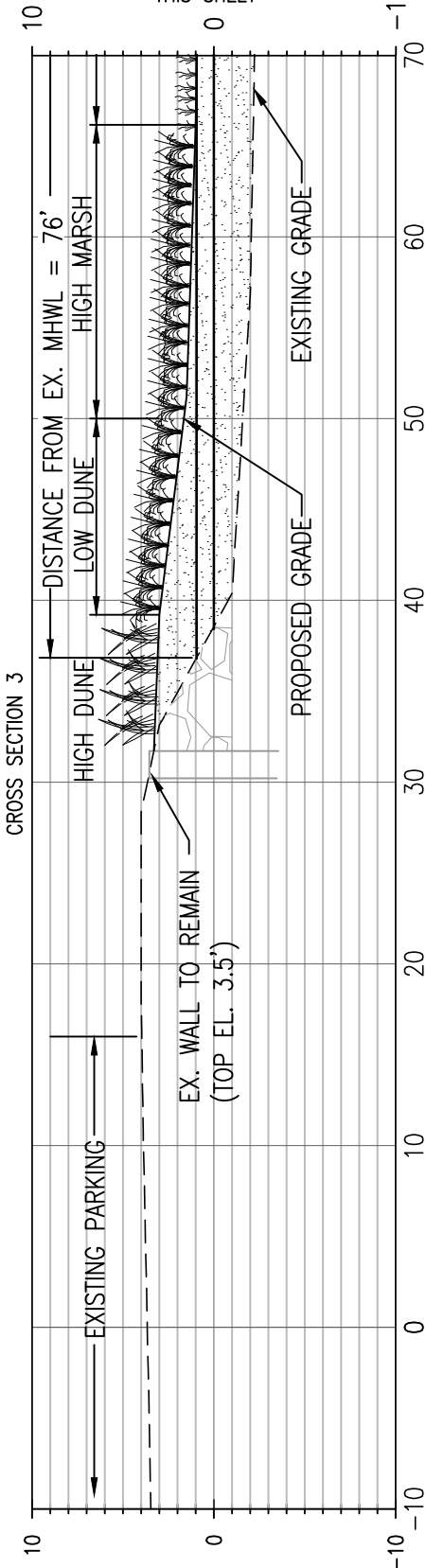
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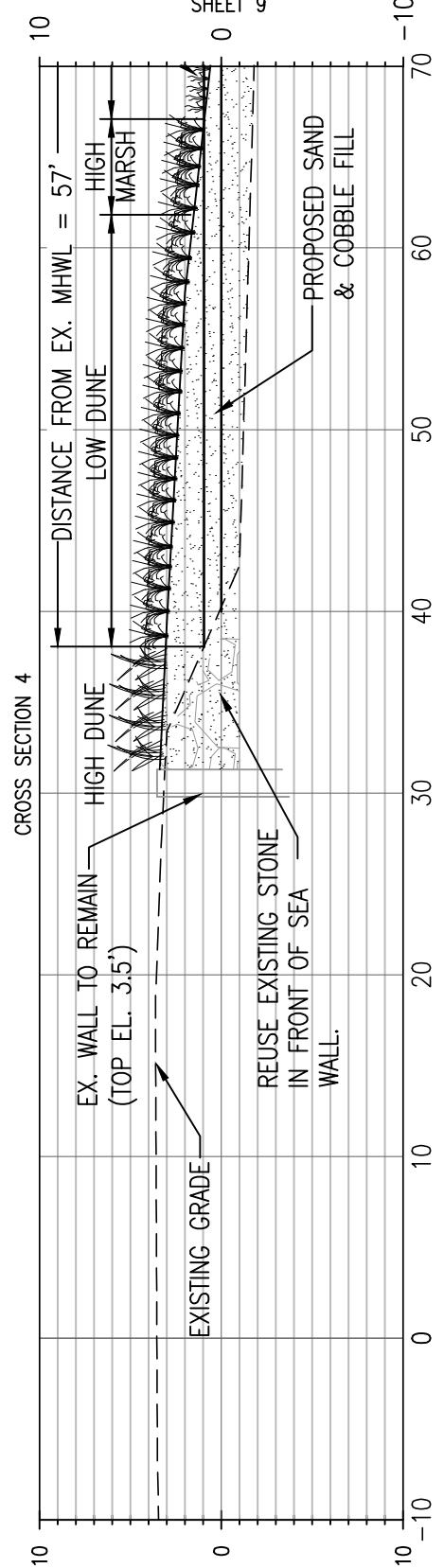
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CROSS SECTION 3 CONTINUED
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CROSS SECTION 4 CONTINUED
SHEET 9



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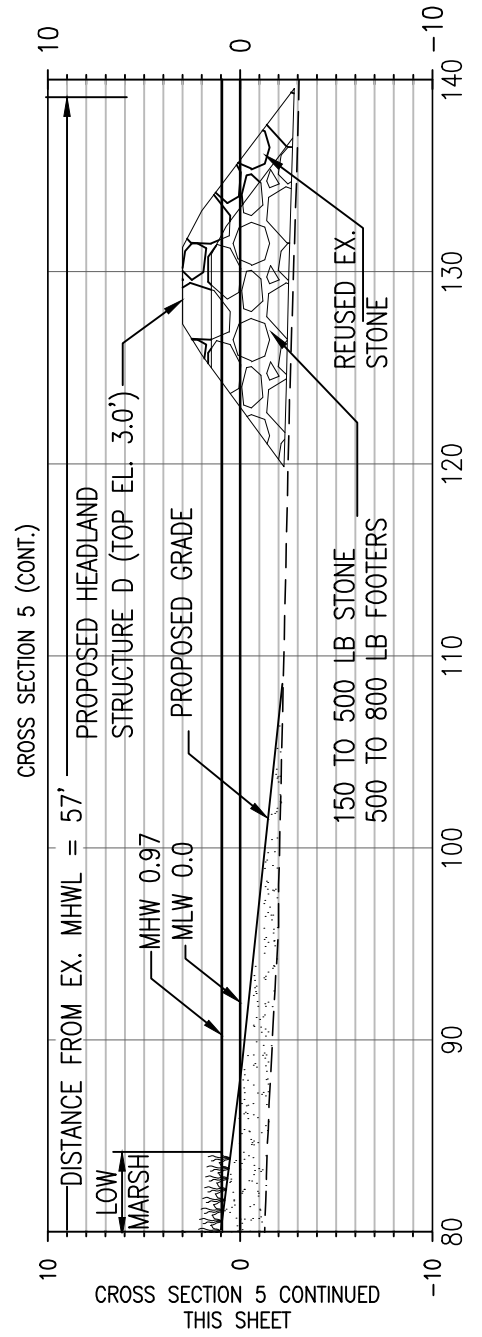
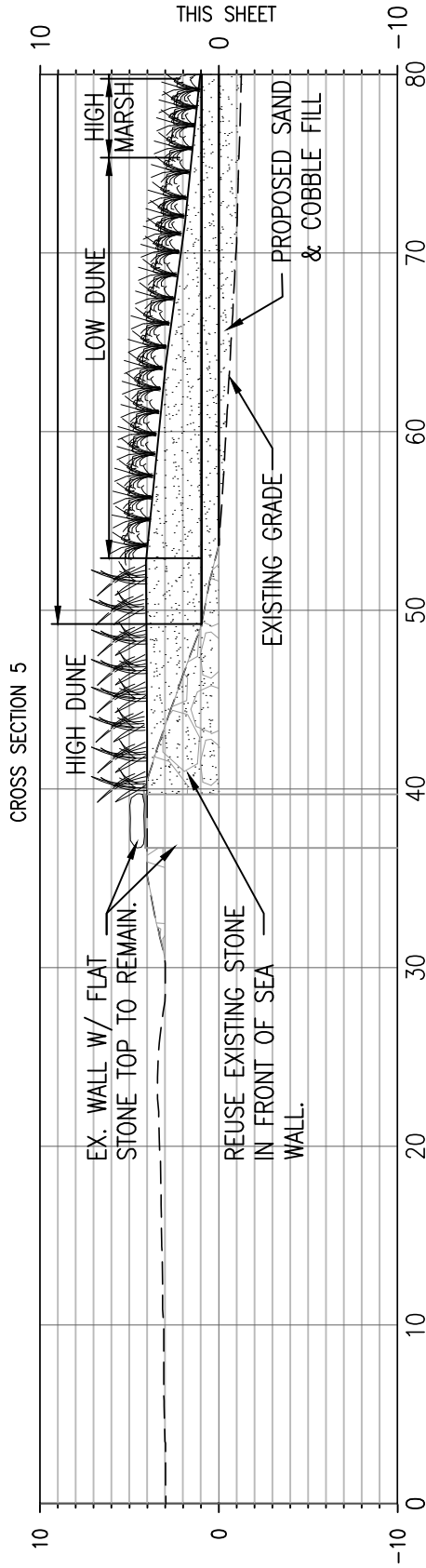
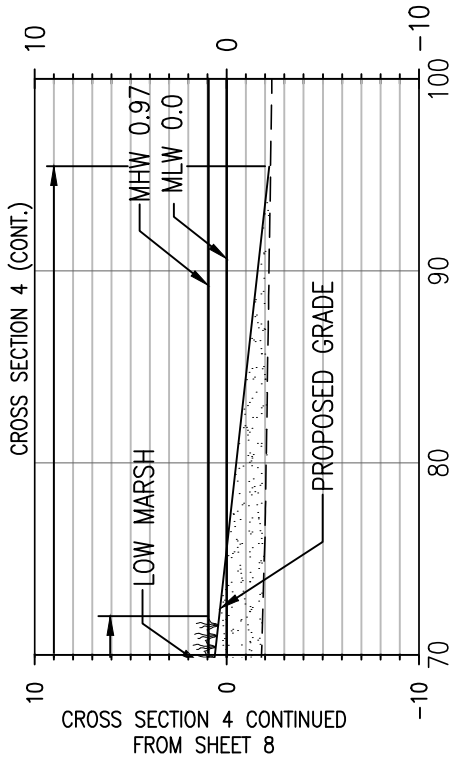
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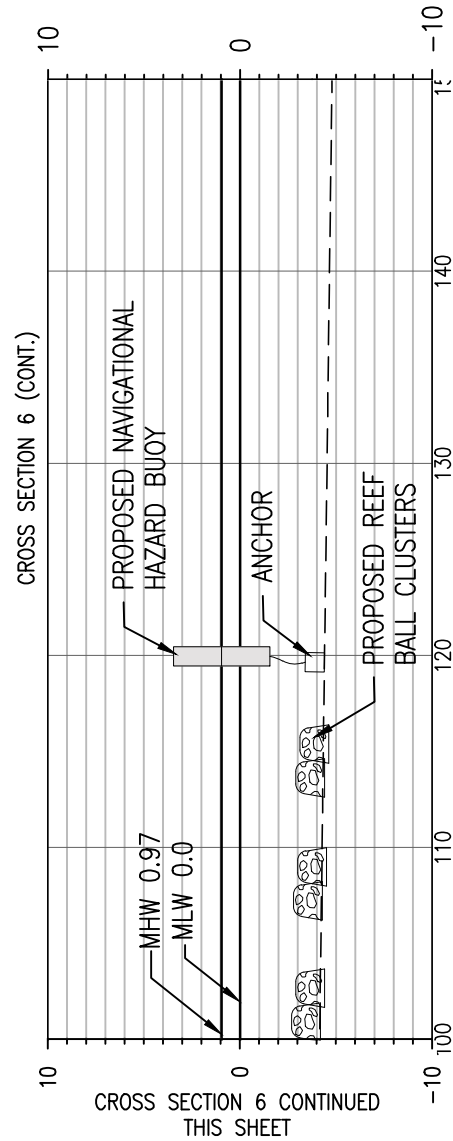
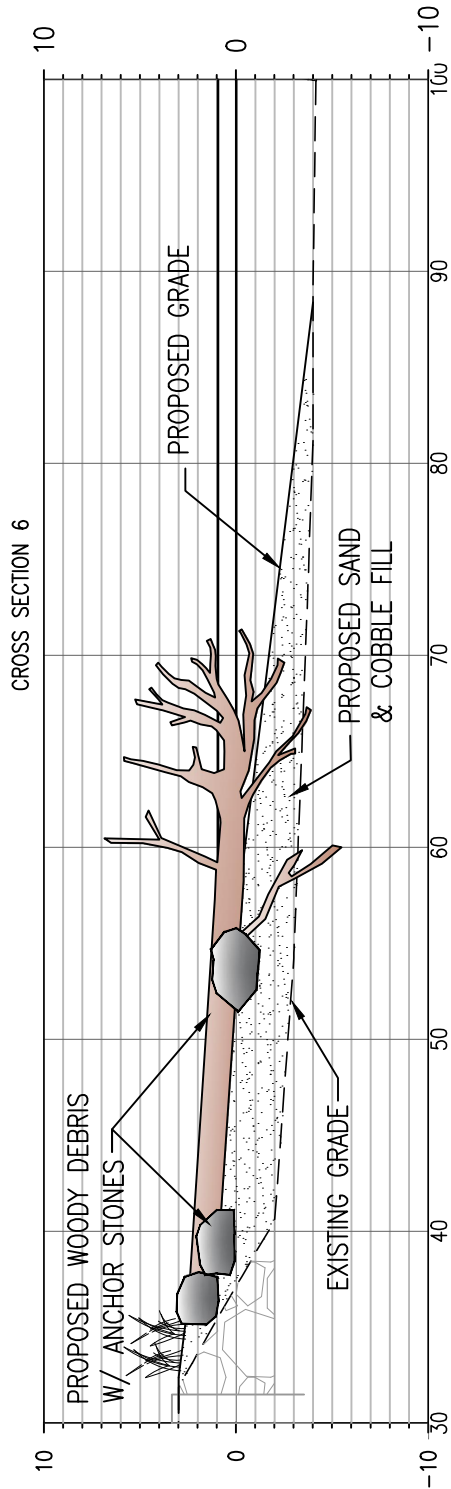
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CROSS SECTION 6 CONTINUED
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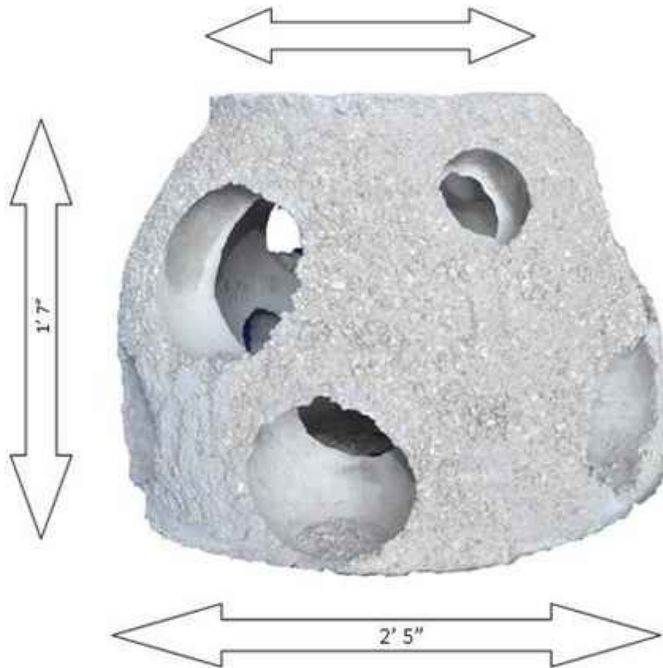


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Mini Bay Reef Ball



- 1' 7" tall
- 2' 5" max. diameter
- surface area 29 sq ft
- average number of holes 14
- wavy bottom
- interconnecting holes
- aggregated exposed outside surface texture
- Weight 300 lbs.

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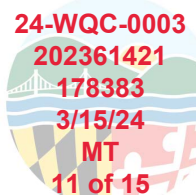
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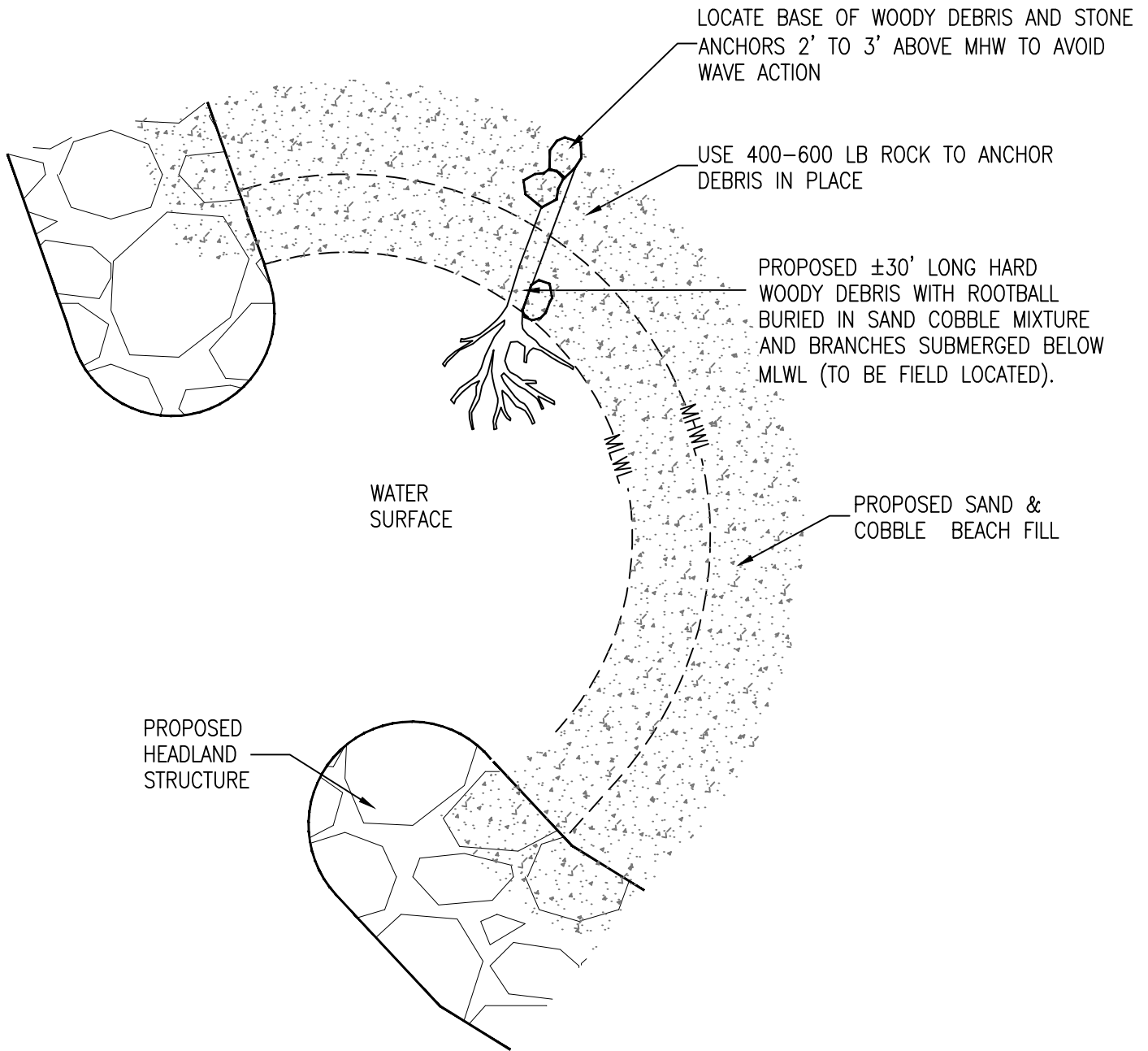
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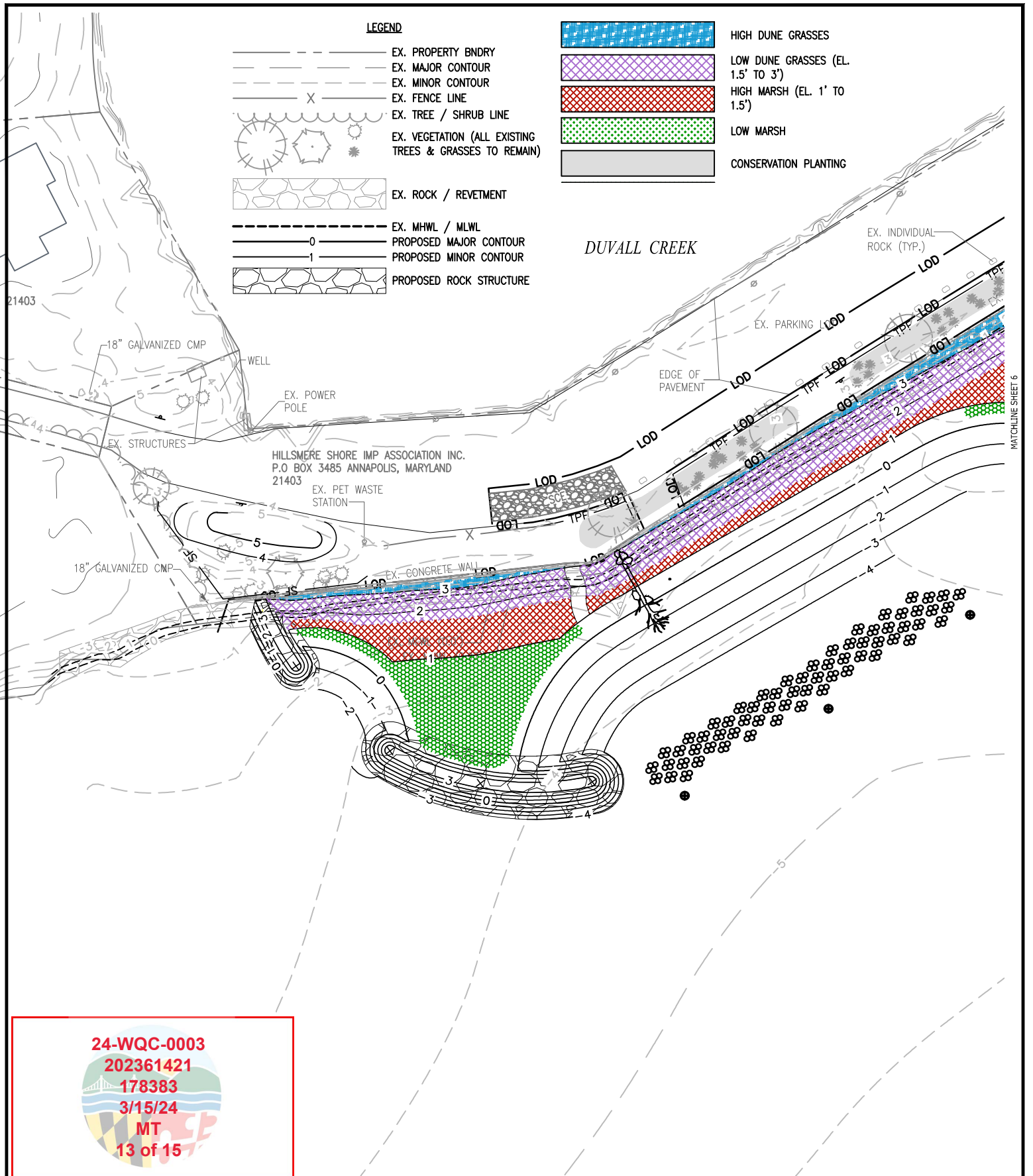


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- LEGEND**
- EX. PROPERTY BNDRY
 - - - EX. MAJOR CONTOUR
 - - - EX. MINOR CONTOUR
 - X - EX. FENCE LINE
 - EX. TREE / SHRUB LINE
 - EX. VEGETATION (ALL EXISTING TREES & GRASSES TO REMAIN)
 - ▨ EX. ROCK / REVETMENT
 - - - 0 EX. MHWL / MLWL
 - - - 1 PROPOSED MAJOR CONTOUR
 - - - 1 PROPOSED MINOR CONTOUR
 - ▨ PROPOSED ROCK STRUCTURE


-  HIGH DUNE GRASSES
-  LOW DUNE GRASSES (EL. 1.5' TO 3')
-  HIGH MARSH (EL. 1' TO 1.5')
-  LOW MARSH
-  CONSERVATION PLANTING



MATCHLINE SHEET 6

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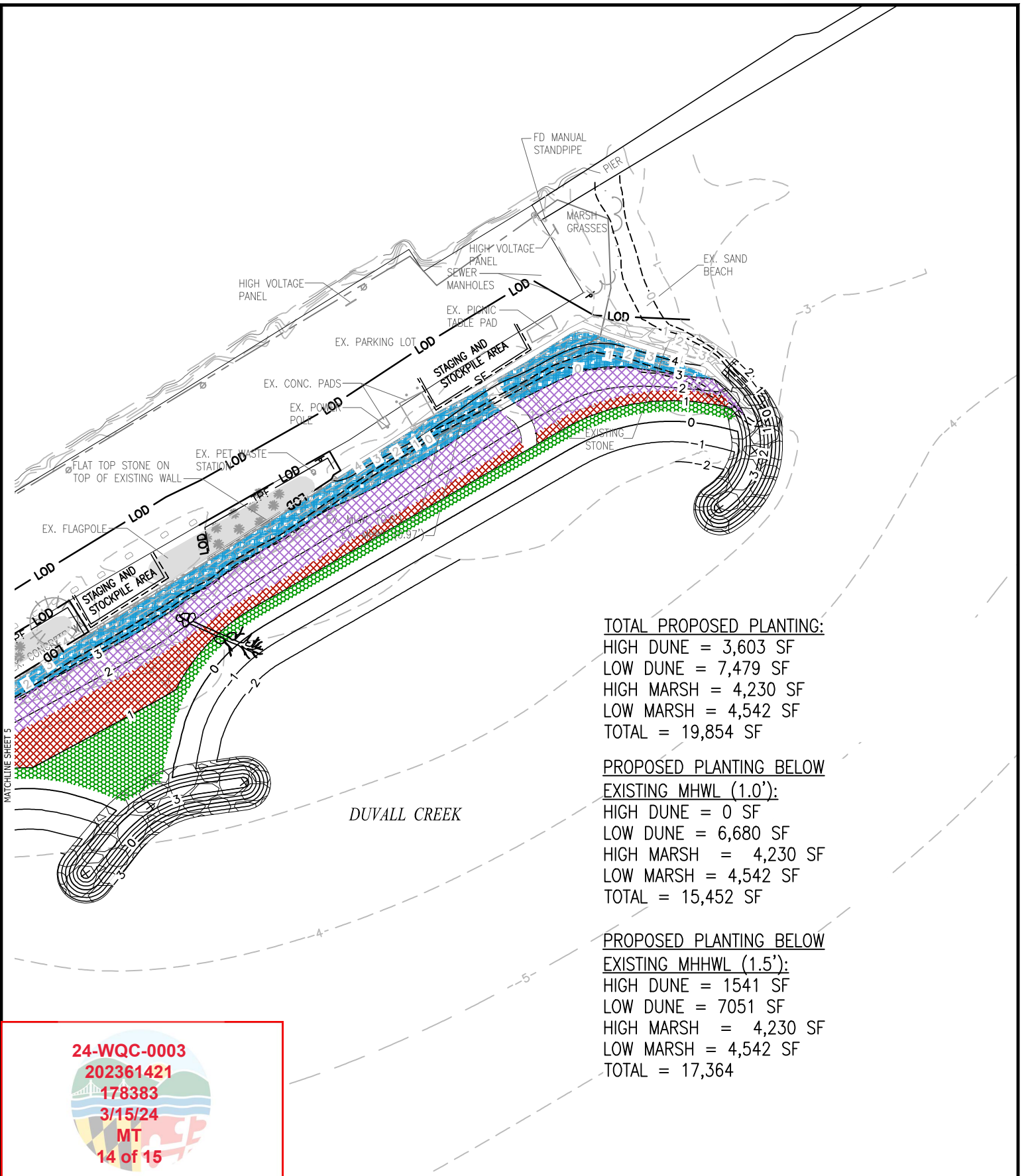
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IMPACT PLATES

**HILLSMERE SHORES
COASTAL RESILIENCY PROJECT**

2ND Election District
Anne Arundel County, Maryland

	SCALE: 1" = 50'
	DATE: MARCH, 2023
	ESA PROJECT NAME: 2021-31 Hillsmere Sand Spit\CAD
	SHEET: 13 of 15



TOTAL PROPOSED PLANTING:

HIGH DUNE = 3,603 SF
 LOW DUNE = 7,479 SF
 HIGH MARSH = 4,230 SF
 LOW MARSH = 4,542 SF
 TOTAL = 19,854 SF


PROPOSED PLANTING BELOW EXISTING MHWL (1.0'):

HIGH DUNE = 0 SF
 LOW DUNE = 6,680 SF
 HIGH MARSH = 4,230 SF
 LOW MARSH = 4,542 SF
 TOTAL = 15,452 SF

PROPOSED PLANTING BELOW EXISTING MHHWL (1.5'):

HIGH DUNE = 1541 SF
 LOW DUNE = 7051 SF
 HIGH MARSH = 4,230 SF
 LOW MARSH = 4,542 SF
 TOTAL = 17,364


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PLANTING PLAN
**HILLSMERE SHORES
 COASTAL RESILIENCY PROJECT**
 2ND Election District
 Anne Arundel County, Maryland

 SCALE: 1"= 50'
 DATE: MARCH, 2023
 ESA PROJECT NAME\ 2021-31
 Hillsmere Sand Spit\CAD
 SHEET: 14 of 15

QTY.	SCIENTIFIC NAME	COMMON NAME	CONDITION	SIZE	SPACING
HIGH DUNE (3,603 S.F.)					
400	AMMOPHILA BREVILIGULATA	AMERICAN BEACHGRASS	PLUG	-	18" O.C.
400	PANICUM AMARUM	COASTAL PANIC GRASS	PLUG	-	18" O.C.
400	PANICUM VIRGATUM	SWITCHGRASS	PLUG	-	18" O.C.
400	SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	PLUG	-	18" O.C.
LOW DUNE (7,480 S.F. FROM EL. 1.0' TO 3.0')					
3400	SPARTINA PATENS	SALT MEADOW HAY	PLUG	-	18" O.C.
HIGH MARSH (4,230 S.F. FROM EL. 1.0' TO 1.5')					
1880	SPARTINA PATENS	SALT MEADOW HAY	PLUG	-	18" O.C.
LOW MARSH (4,542 S.F. FROM EL. 0.5' TO 1.0')					
2000	SPARTINA ALTERNIFOLIA	SALT MARSH CORD GRASS	PLUG	-	18" O.C.

NOTES:

1. GRASSES SHALL BE PLANTED 2 INCHES BELOW NURSERY GROWN DEPTH.



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PLANT SCHEDULE
HILLSMERE SHORES COASTAL RESILIENCY PROJECT
 2ND Election District
 Anne Arundel County, Maryland

SCALE:
 DATE: MARCH, 2023
 ESA PROJECT NAME: 2021-31 Hillsmere Sand Spit\CAD

 NORTH

SHEET: 15 of 15