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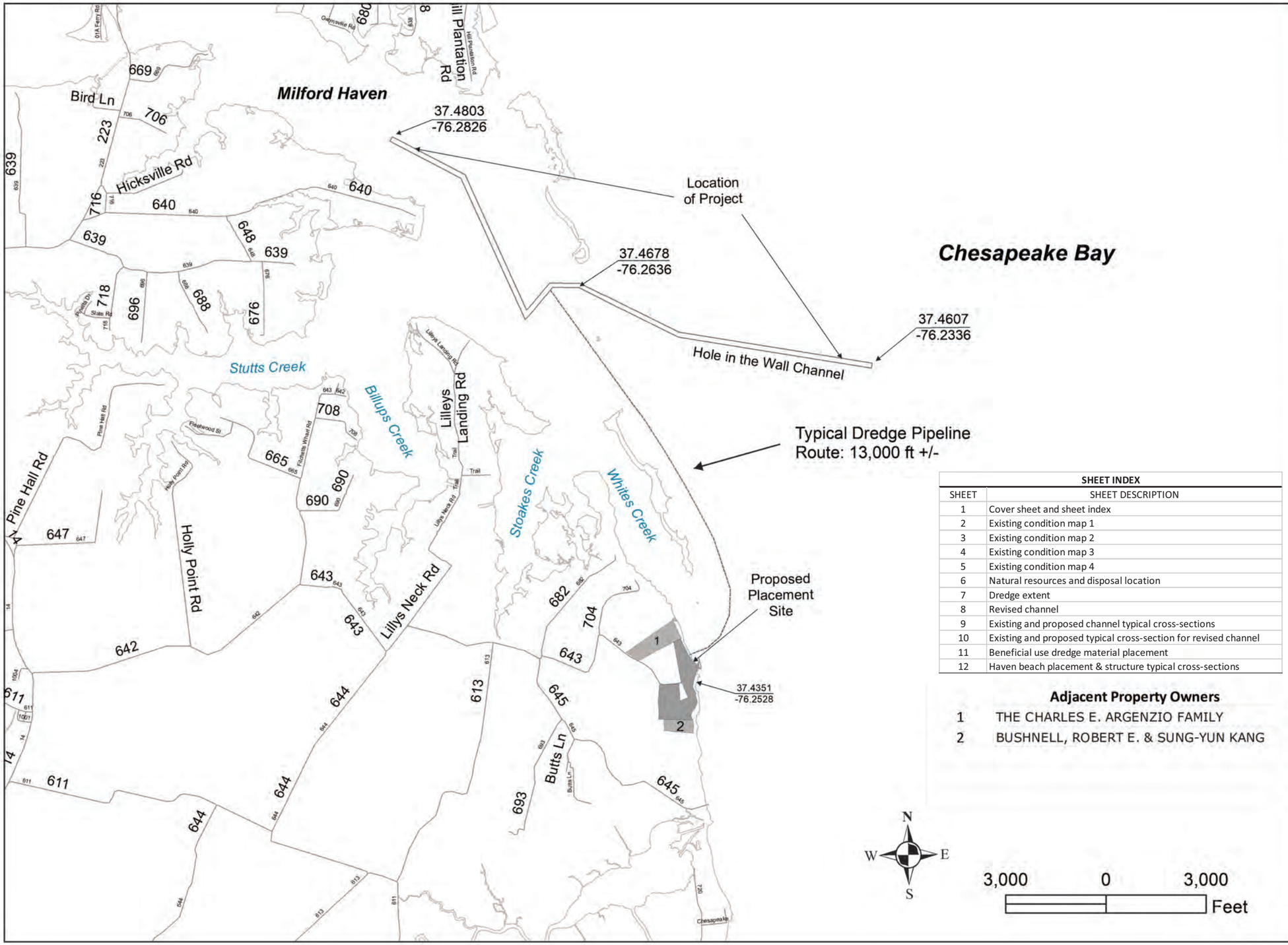

SHEET INDEX	
SHEET	SHEET DESCRIPTION
1	Cover sheet and sheet index
2	Existing condition map 1
3	Existing condition map 2
4	Existing condition map 3
5	Existing condition map 4
6	Natural resources and disposal location
7	Dredge extent
8	Revised channel
9	Existing and proposed channel typical cross-sections
10	Existing and proposed typical cross-section for revised channel
11	Beneficial use dredge material placement
12	Haven beach placement & structure typical cross-sections

Adjacent Property Owners

1 THE CHARLES E. ARGENZIO FAMILY
2 BUSHNELL, ROBERT E. & SUNG-YUN KANG

VIMS | WILLIAM & MARY
VIRGINIA INSTITUTE OF MARINE SCIENCE
Shoreline Studies Program

Vicinity Map

Virginia Institute of Marine Science
Gloucester County, Virginia

COVERSHEET

Plans for Dredging

Hole in the Wall Channel
Mathews County
Virginia

SCALE: AS SHOWN ON SHEET
November 19, 2021 Sheet 1 of 12

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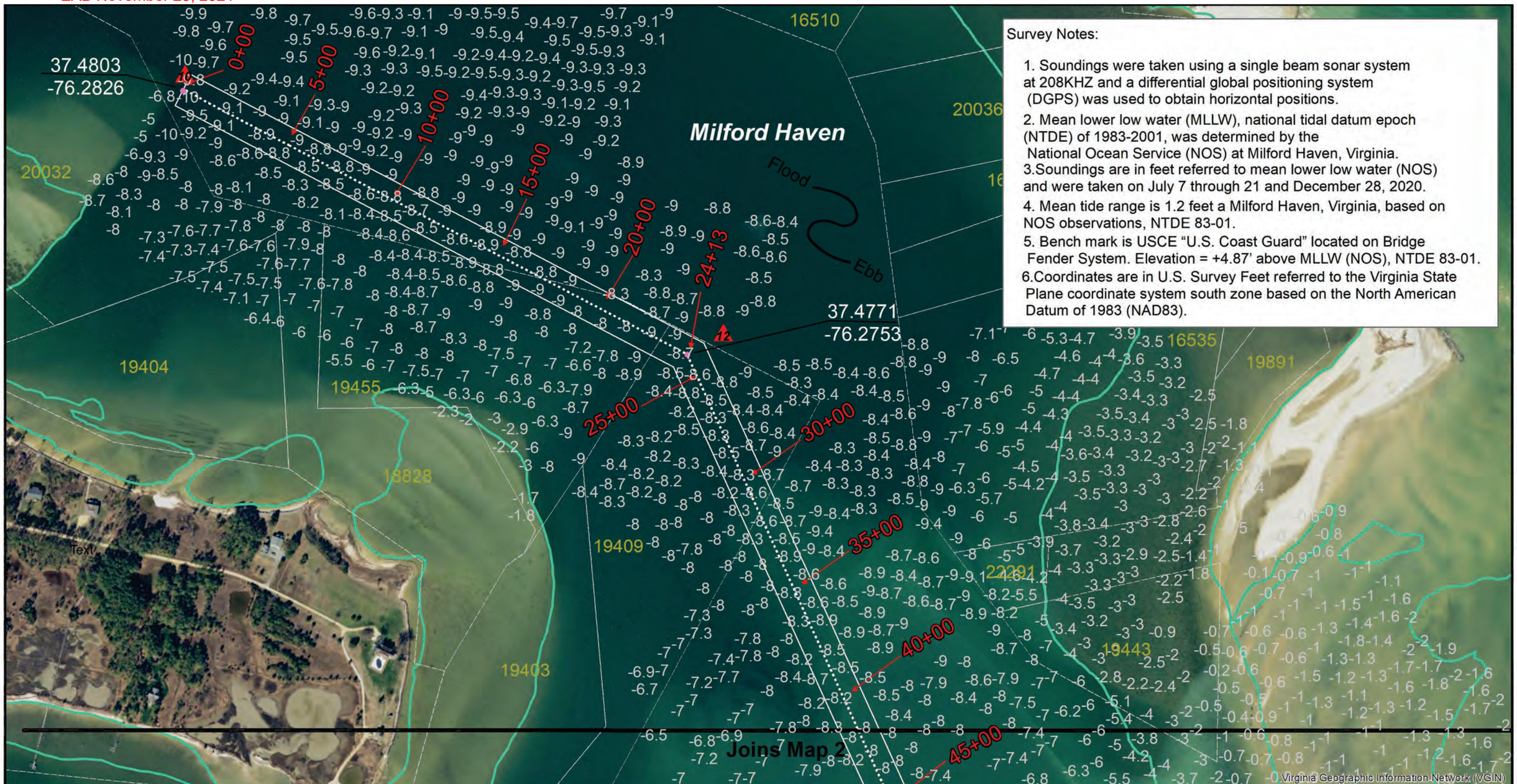


Survey Notes:

1. Soundings were taken using a single beam sonar system at 208KHZ and a differential global positioning system (DGPS) was used to obtain horizontal positions.
2. Mean lower low water (MLLW), national tidal datum epoch (NTDE) of 1983-2001, was determined by the National Ocean Service (NOS) at Milford Haven, Virginia.
3. Soundings are in feet referred to mean lower low water (NOS) and were taken on July 7 through 21 and December 28, 2020.
4. Mean tide range is 1.2 feet a Milford Haven, Virginia, based on NOS observations, NTDE 83-01.
5. Bench mark is USCE "U.S. Coast Guard" located on Bridge Fender System. Elevation = +4.87' above MLLW (NOS), NTDE 83-01.
6. Coordinates are in U.S. Survey Feet referred to the Virginia State Plane coordinate system south zone based on the North American Datum of 1983 (NAD83).

EXISTING CONDITIONS MAP 1

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

- Channel Lat/Long
- Channel Centerline
- Main Channel
- Private Oyster Leases
- SAV Composite Footprint (2015-2019)

ATONS

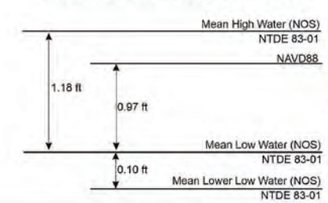
Lease # 19455
Lease Holder: GERALD CONDREY JR

Lease # 19409
Lease Holder: WILLIAM NELSON

400 0 400 Feet

N W E S

Diagram of Datum Plane
National Tidal Datum Epock (NTDE) 1983-2001



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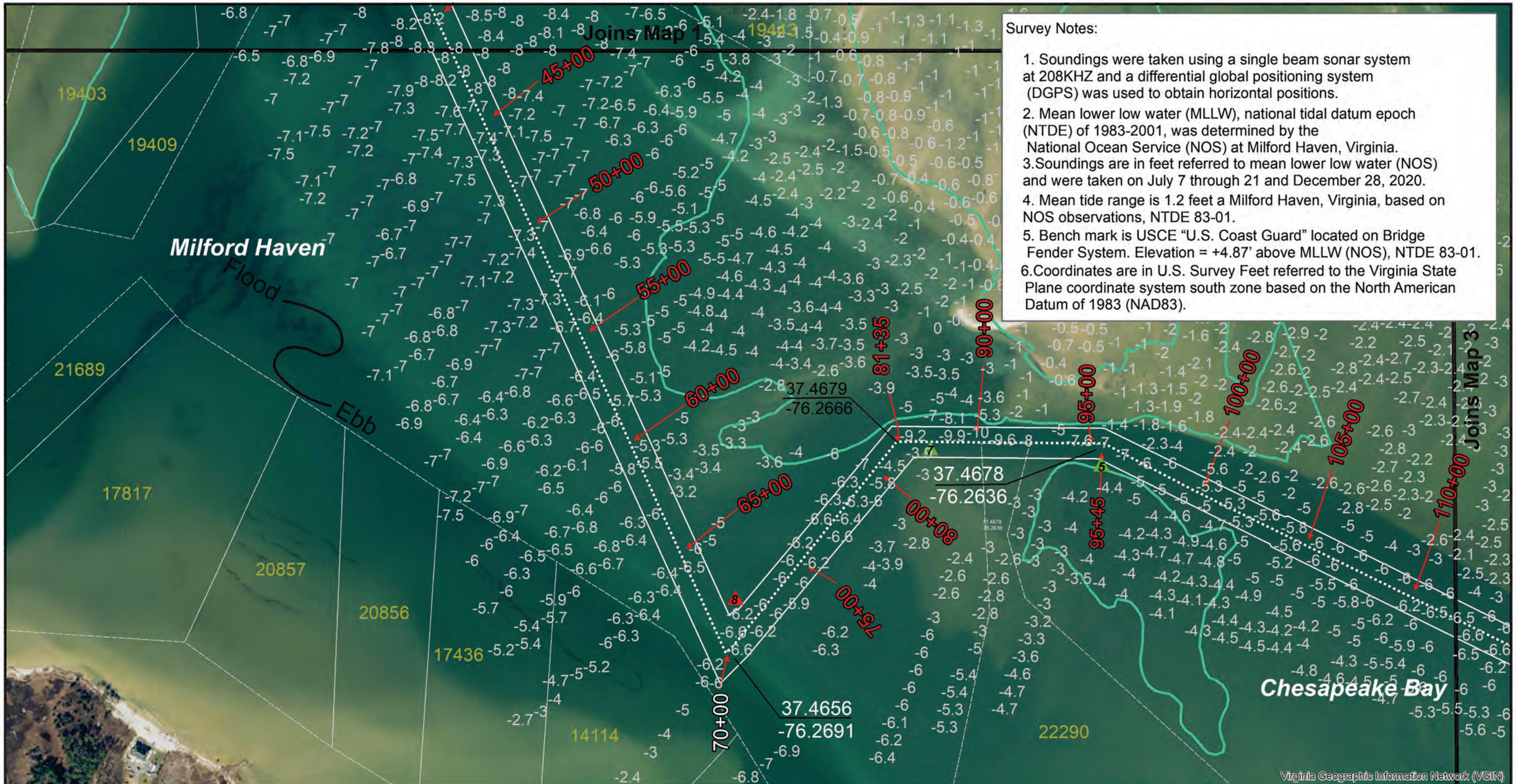

Survey Notes:

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5. Bench mark is USCE "U.S. Coast Guard" located on Bridge Fender System. Elevation = +4.87' above MLLW (NOS), NTDE 83-01.
6. Coordinates are in U.S. Survey Feet referred to the Virginia State Plane coordinate system south zone based on the North American Datum of 1983 (NAD83).

EXISTING CONDITIONS MAP 2

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

Centerline - Revised 2021
Main Channel - Revised 2021
Private Oyster Leases
SAV Composite Footprint (2015-2019)

ATONS

Lease # 19409
Lease Holder: WILLIAM NELSON

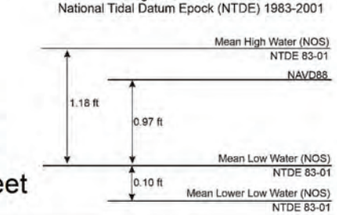
Lease # 14114
Lease Holder: SEAS FARM, INC

Lease # 22290
Lease Holder: JORDON PODD

N
W E
S

400 0 400
Feet

Diagram of Datum Plane
National Tidal Datum Epock (NTDE) 1983-2001



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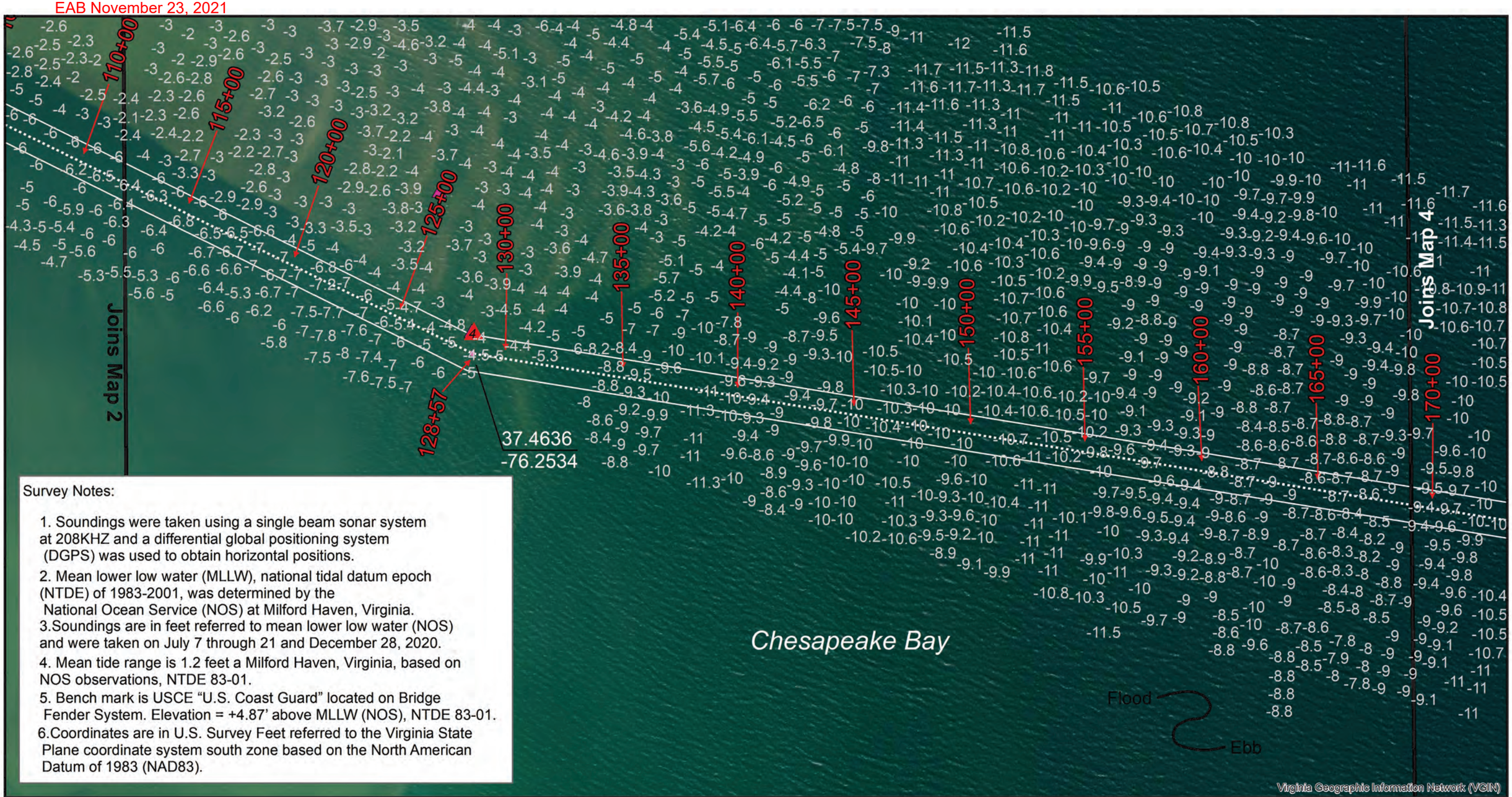

Survey Notes:

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6. Coordinates are in U.S. Survey Feet referred to the Virginia State Plane coordinate system south zone based on the North American Datum of 1983 (NAD83).

EXISTING CONDITIONS MAP 3

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

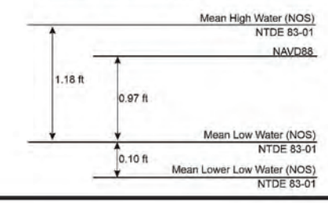
SCALE: AS SHOWN

Channel Lat/Long
Channel Centerline
Main Channel - Revised 2021
Private Oyster Leases
SAV Composite Footprint (2015-2019)
ATONS

N
W E
S

400 0 400
Feet

Diagram of Datum Plane
National Tidal Datum Epock (NTDE) 1983-2001



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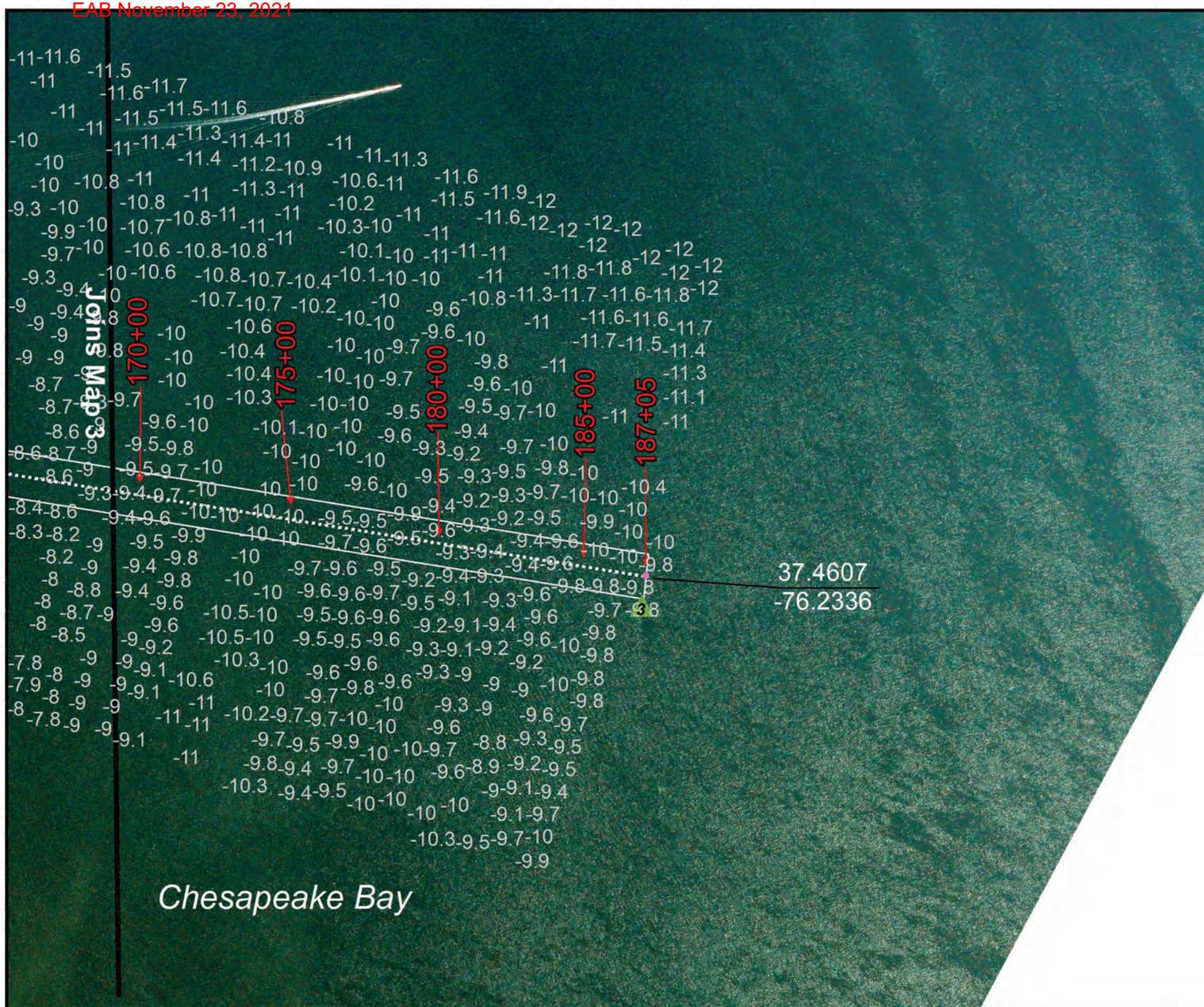

Survey Notes:

1. Soundings were taken using a single beam sonar system at 208KHZ and a differential global positioning system (DGPS) was used to obtain horizontal positions.
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5. Bench mark is USCE "U.S. Coast Guard" located on Bridge Fender System. Elevation = +4.87' above MLLW (NOS), NTDE 83-01.
6. Coordinates are in U.S. Survey Feet referred to the Virginia State Plane coordinate system south zone based on the North American Datum of 1983 (NAD83).

Flood
Ebb

EXISTING CONDITIONS MAP 4

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

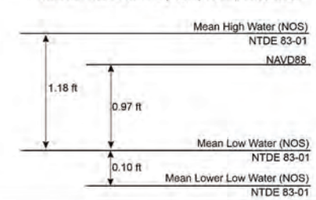
Channel Lat/Long
Channel Centerline
Main Channel
Private Oyster Leases
SAV Composite Footprint (2015-2019)

ATONS

N
W E
S

400 0 400
Feet

Diagram of Datum Plane
National Tidal Datum Epock (NTDE) 1983-2001



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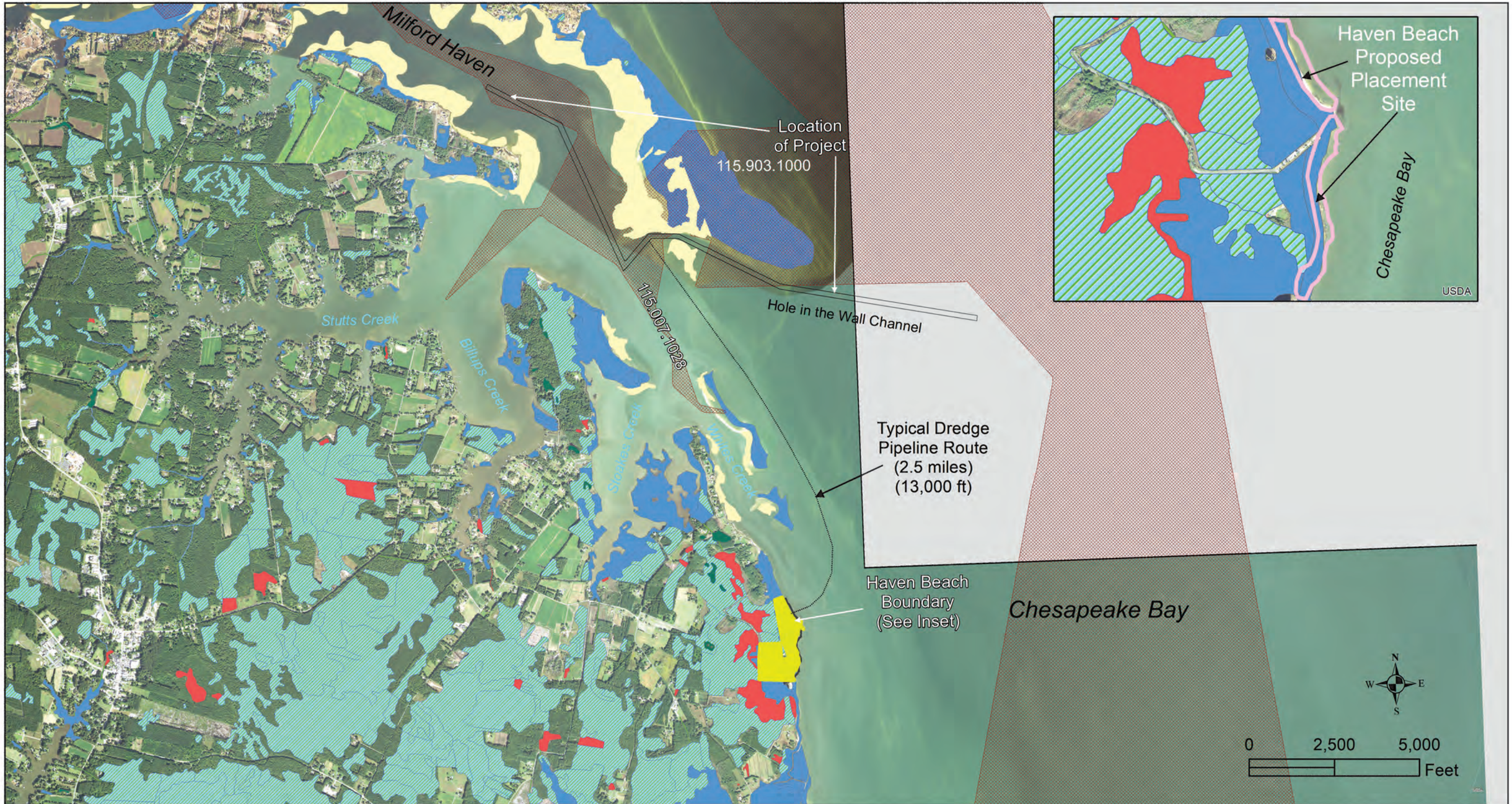

RESOURCES

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

Image: NAIP 2018

National Wetlands Inventory

- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- SAV Composite Footprint (2015-2019)
- Main Channel - Revised 2021
- Public Oyster Grounds

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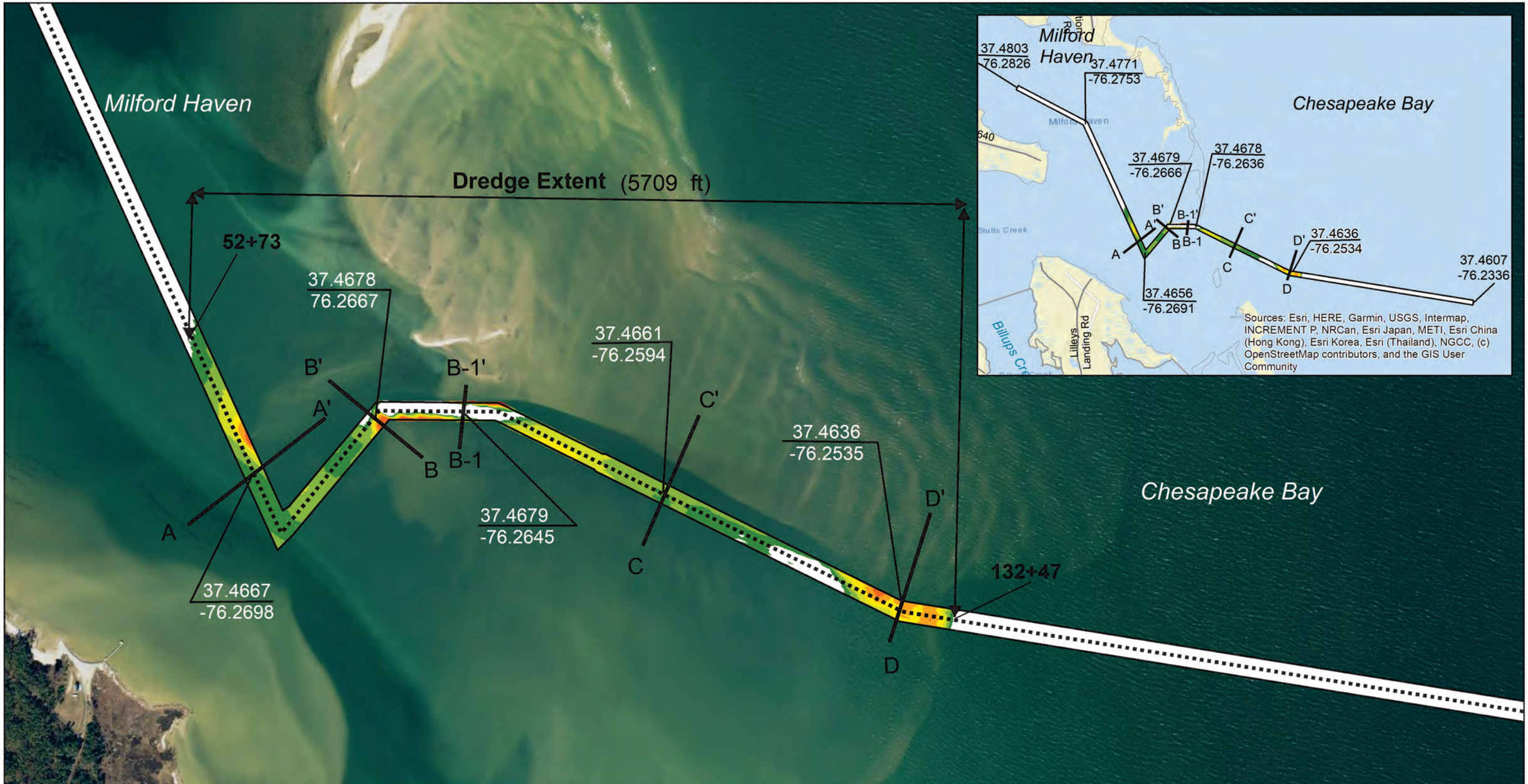

Dredge Extent

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

N
W E
S

800 0 800
Feet

Channel_Centerline_Revised_2021
Main Channel - Revised 2021

No Dredging
0.1-1
1-2
2-3
3-4
5-6
6-7
7-8

VBMP 2017 WGS

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Revised Channel

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

- HITW Channel - Revised Nov 2021
- Hole in the Wall Channel (150 ft)
- Private Oyster Leases
- SAV Composite Footprint (2015-2019)

ATONS

- Lease # 22290
- Lease Holder: JORDON PODD

N W E S

400 0 400 Feet

Diagram of Datum Plane
National Tidal Datum Epock (NTDE) 1983-2001

Mean High Water (NOS) NTDE 83-01
NAVD88
1.18 ft
0.97 ft
Mean Low Water (NOS) NTDE 83-01
0.10 ft
Mean Lower Low Water (NOS) NTDE 83-01

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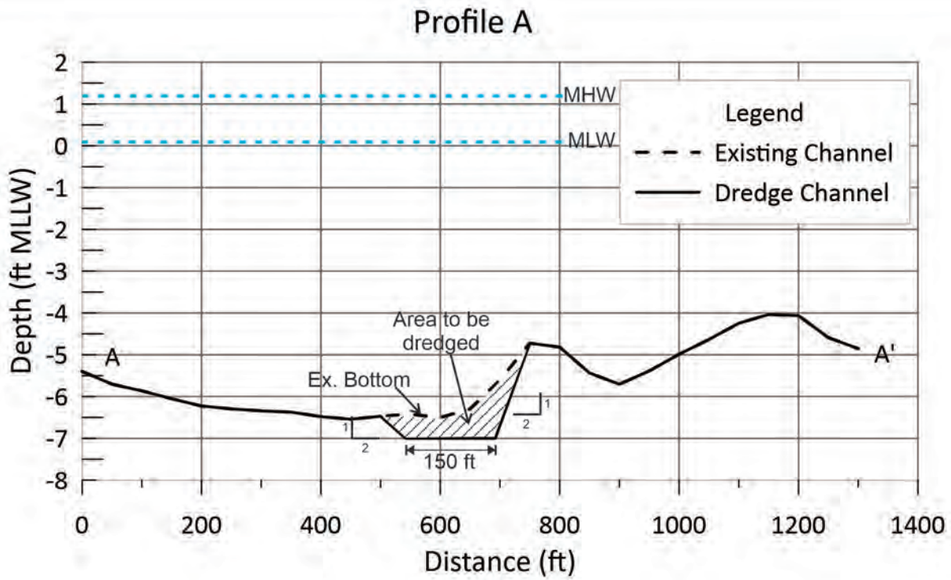

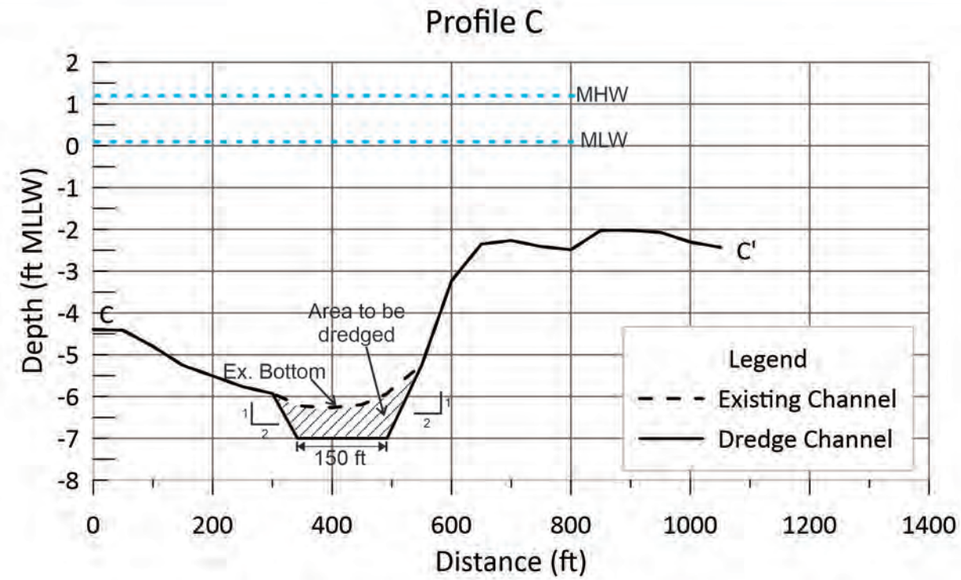

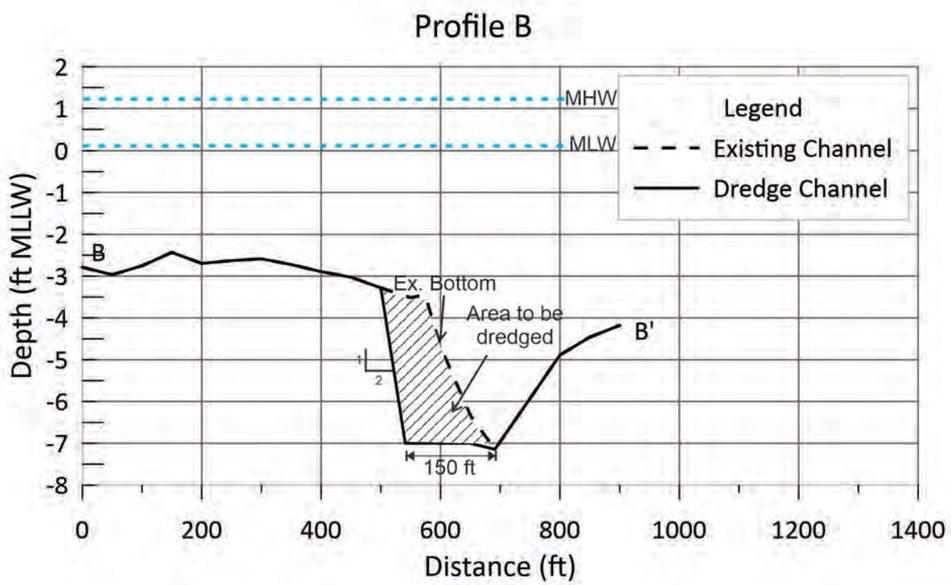

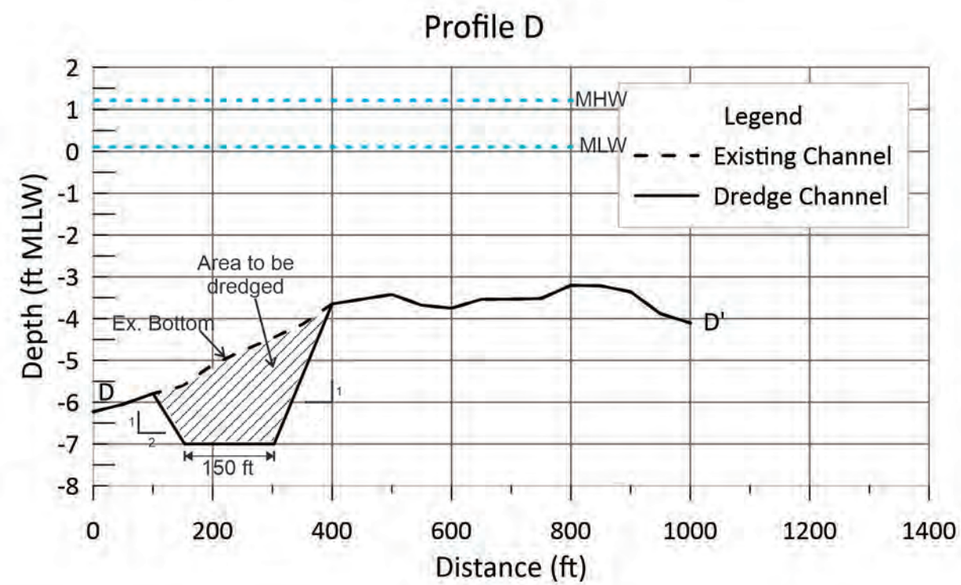

EXISTING AND PROPOSED CHANNEL
TYPICAL CROSS-SECTIONS

HOLE IN THE WALL
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

- - - Existing Channel
—— Dredge Channel

NTS

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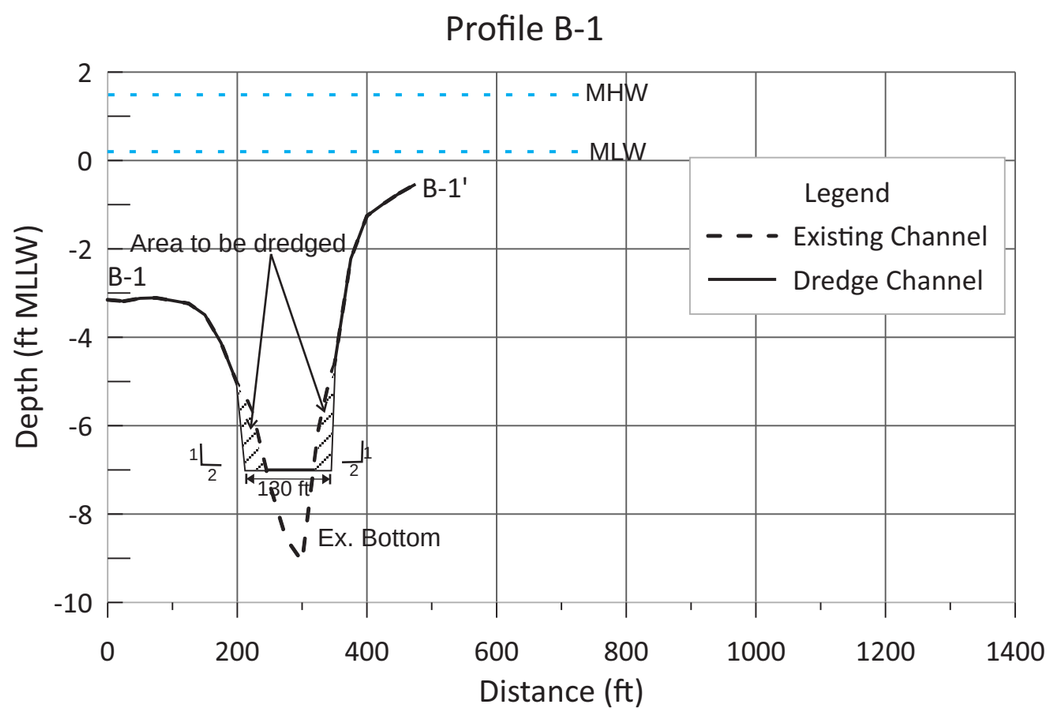

EXISTING AND PROPOSED
REVISE CHANNEL CROSS-SECTION

HOLE IN THE WALL
MATHEWS COUNTY, VA

Scale: As Shown

Existing Channel
Dredge Channel

NTS

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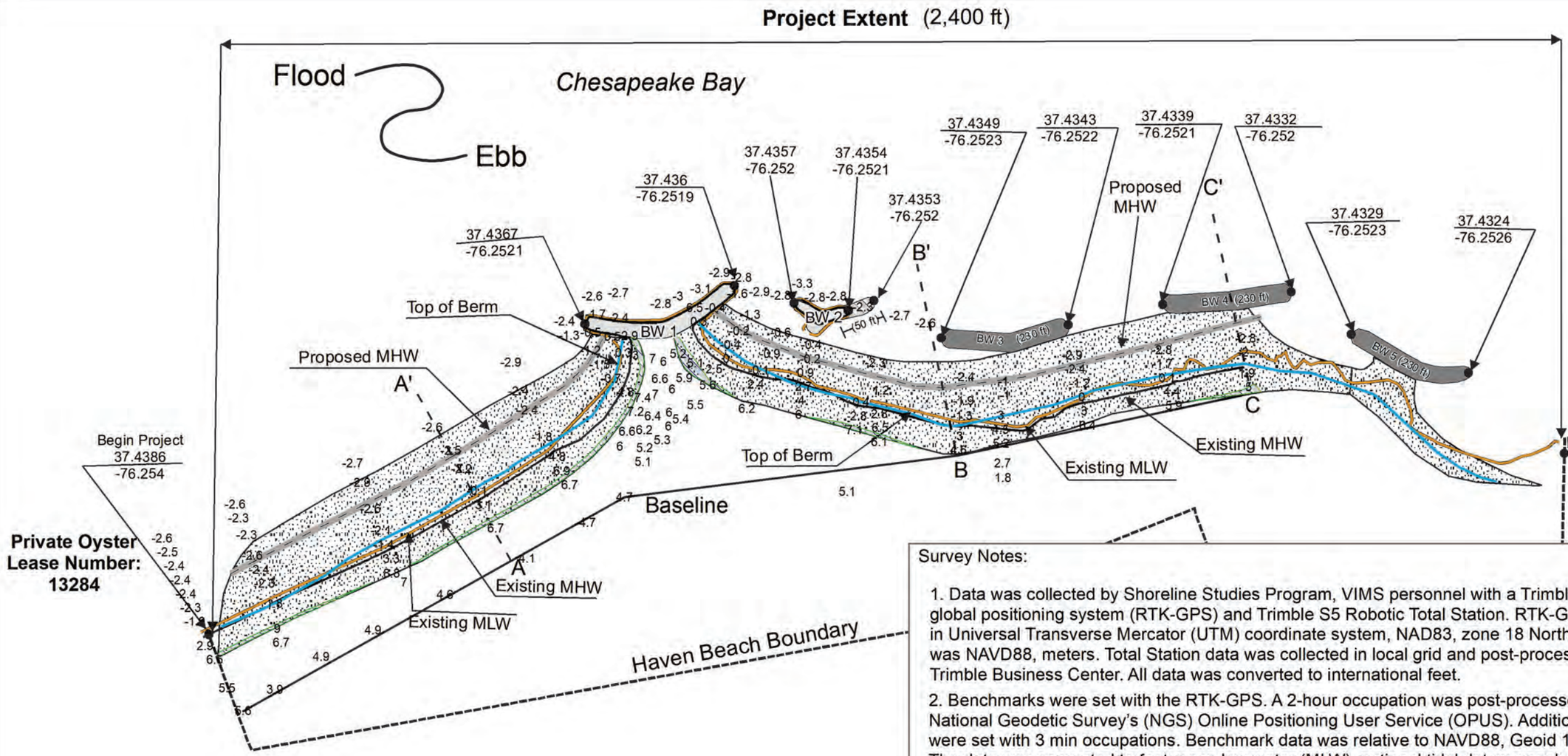

Survey Notes:

1. Data was collected by Shoreline Studies Program, VIMS personnel with a Trimble R8 real-time kinematic global positioning system (RTK-GPS) and Trimble S5 Robotic Total Station. RTK-GPSdata was collected in Universal Transverse Mercator (UTM) coordinate system, NAD83, zone 18 North, meters.Vertical datum was NAVD88, meters. Total Station data was collected in local grid and post-processed to UTM using Trimble Business Center. All data was converted to international feet.

2. Benchmarks were set with the RTK-GPS. A 2-hour occupation was post-processed through the National Geodetic Survey's (NGS) Online Positioning User Service (OPUS). Additional benchmarks were set with 3 min occupations. Benchmark data was relative to NAVD88, Geoid 18, meters. The data was converted to feet mean low water (MLW), national tidal datum epoch (NTDE) of 1983-2001, using information derived from VDATUM. The conversion used was 1.1 ft.

3. Data was collected on 14 and 28 October 2020.

4. Mean tide range is 1.3 feet at Haven Beach, Virginia, based on NOS observations, NTDE 83-01.

5. Coordinates are in International Feet referred to UTM coordinate system south zone based on the North American Datum of 1983 (NAD83).

BENEFICIAL USE
DREDGE MATERIAL PLACEMENT

HAVEN BEACH
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

- End Points
- Typical Cross-Sections
- Top of Berm
- Proposed MHW
- Haven Boundary Line
- Existing MHW
- Existing MLW

Structures
- Existing Breakwater
- Breakwater
- Breakwater Extension

Dredge Material Beneficial Use
- Sand Placement Area
- Alternate Sand Placement Area

Habitat
- Dune Grass Impacts

N E S W

0 200 400 Feet

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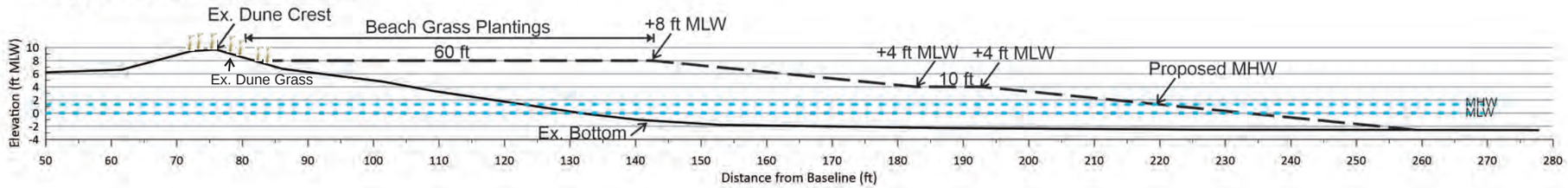
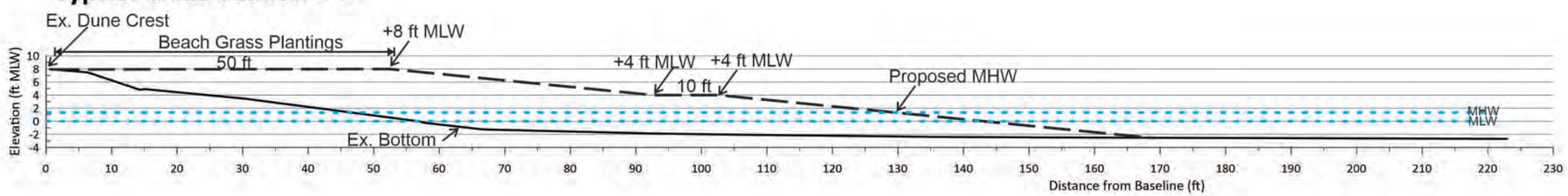
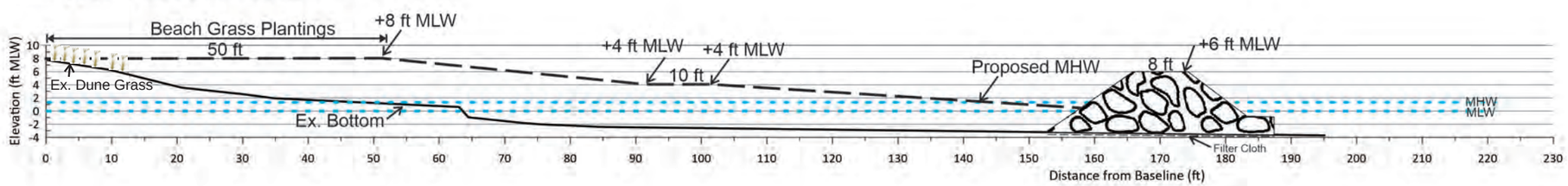
Typical Cross-Section A-A'



Typical Cross-Section B-B'



Typical Cross-Section C-C'



HAVEN BEACH PLACEMENT & STRUCTURE
TYPICAL CROSS-SECTIONS

HAVEN BEACH
MATHEWS COUNTY, VIRGINIA

SCALE: AS SHOWN

Existing Profile
Proposed Sand Placement

0 20 ft

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