

U.S. ARMY CORPS OF ENGINEERS

New Haven Harbor Improvement Industry Day

30 June 2025

Civil Works Branch Chief: Jenifer Thalhauser

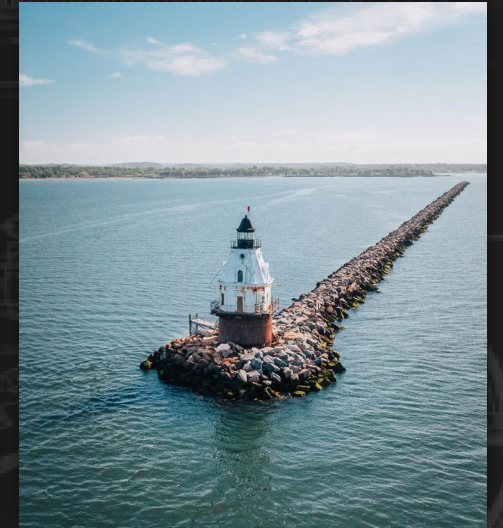
Project Manager: Craig Martin



U.S. ARMY



US Army Corps
of Engineers®
New England District





INDUSTRY DAY AGENDA



2

1. Federal Navigation Project Location & Details
2. Site History / Recent Work in the Harbor
3. Improvement Project Scope
 - Authorized Channel Improvements
 - Characteristics of Materials
 - Dredge Material Placement Sites
 - Environmental Requirements / Work windows
 - Surveying / Acceptance Criteria
4. Details of the Cable Relocation Project
(provided by Cross Sound Cable LLC)
5. Project Schedule
6. General USACE Procurement Process Overview

Objective of Today

Provide Industry partners with project details and **get feedback** for improving acquisition methodology, constructability, biddability, safety and cost effectiveness of the project.

PROJECT LOCATION & DETAILS



U.S. ARMY



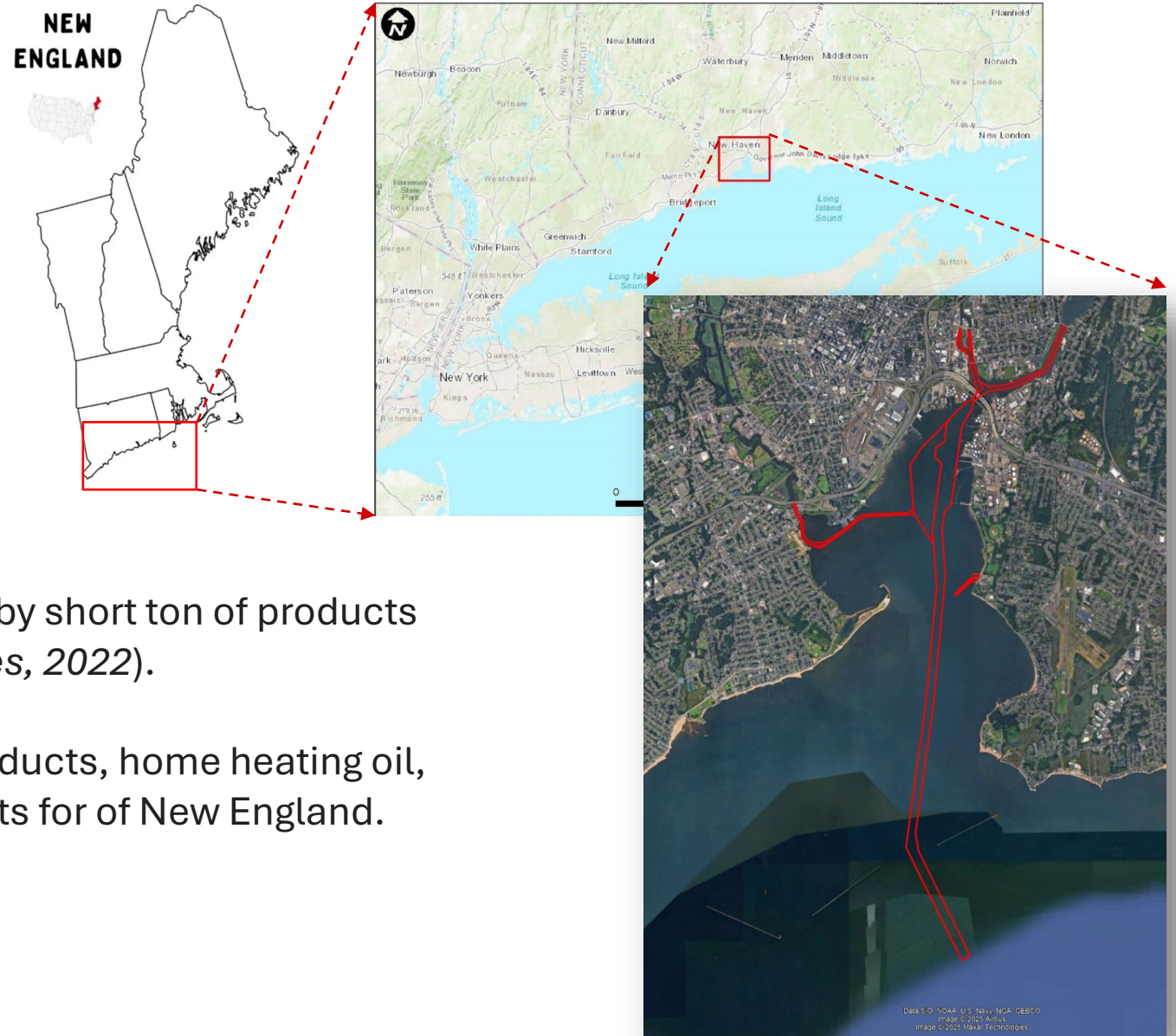
US Army Corps
of Engineers®
New England District



FEDERAL NAVIGATION PROJECT LOCATION



- New Haven harbor is located on the southern shore of CT in Long Island sound approximately 80 miles east of New York City.
- Largest port of call in Long Island Sound.
- 3rd largest port in New England (in tonnage) behind only Boston, MA and Portland, ME.
- New Haven is the 53rd largest port in the U.S.A. by short ton of products imported/exported (*Institute for Water Resources, 2022*).
- Provides substantial capacity for petroleum products, home heating oil, aggregates, equipment and scrap metal products for of New England.





FEDERAL NAVIGATION PROJECT DETAILS



5

Existing Federal Navigation Project (FNP) includes the deep draft entrance channel, main channel, turning basin, and maneuvering area all of which are authorized at -35 feet mean lower low water (MLLW).

There are also 3 shallow draft channels, several anchorages, three breakwaters and a training dike. These are not included in the improvement project.

The main channel and turning basin service several terminals at the head of navigation.

The Improvement project will reduce current wait times for deep draft vessels which call on the port and improve safety and maneuverability under severe weather conditions.



SITE HISTORY / RECENT WORK IN THE HARBOR



U.S. ARMY



US Army Corps
of Engineers®
New England District



SITE HISTORY / RECENT WORK IN THE HARBOR



New Haven is Connecticut's largest seaport and is located on the northern shore of Long Island Sound (LIS) on the central Connecticut coast. The existing Federal navigation project (FNP) was adopted by the Act of 1852 and modified by subsequent Acts.

The New Haven Harbor Improvement Chief of Engineers Report was signed in May 2020 and the project was authorized by Congress in the Water Resources Development Act of 2020. Funding for the improvement was appropriated under the Infrastructure Investment and Jobs Act (IIJA) in Nov 2021.

CY12/13 – New Haven & Norwalk Harbor, Maintenance Dredging

- *Mechanical removal of +/- 810,000 CY of fine sand and silt with placement at the Central Long Island Sound Disposal Site (CLDS) by Cashman Dredging.*

CY25/26 – New Haven Harbor, Maintenance Dredging

- *Mechanical removal of up to 770,000 CY of silty/fine grain sand with placement at CLIS. Contract solicited on May 16, 2025, for a 30-day bid period with a work window of 1 October 2025 – 15 February 2026. Bid opening was held 26 June 2025 resulting in apparent low bidder.*

IMPROVEMENT PROJECT SCOPE



U.S. ARMY



US Army Corps
of Engineers®
New England District

Turning Basin Optimization

Deepening to -40ft MLLW

Maneuvering Area Remaining

Channel Widening

Bend Widening

Channel Extension and Widening

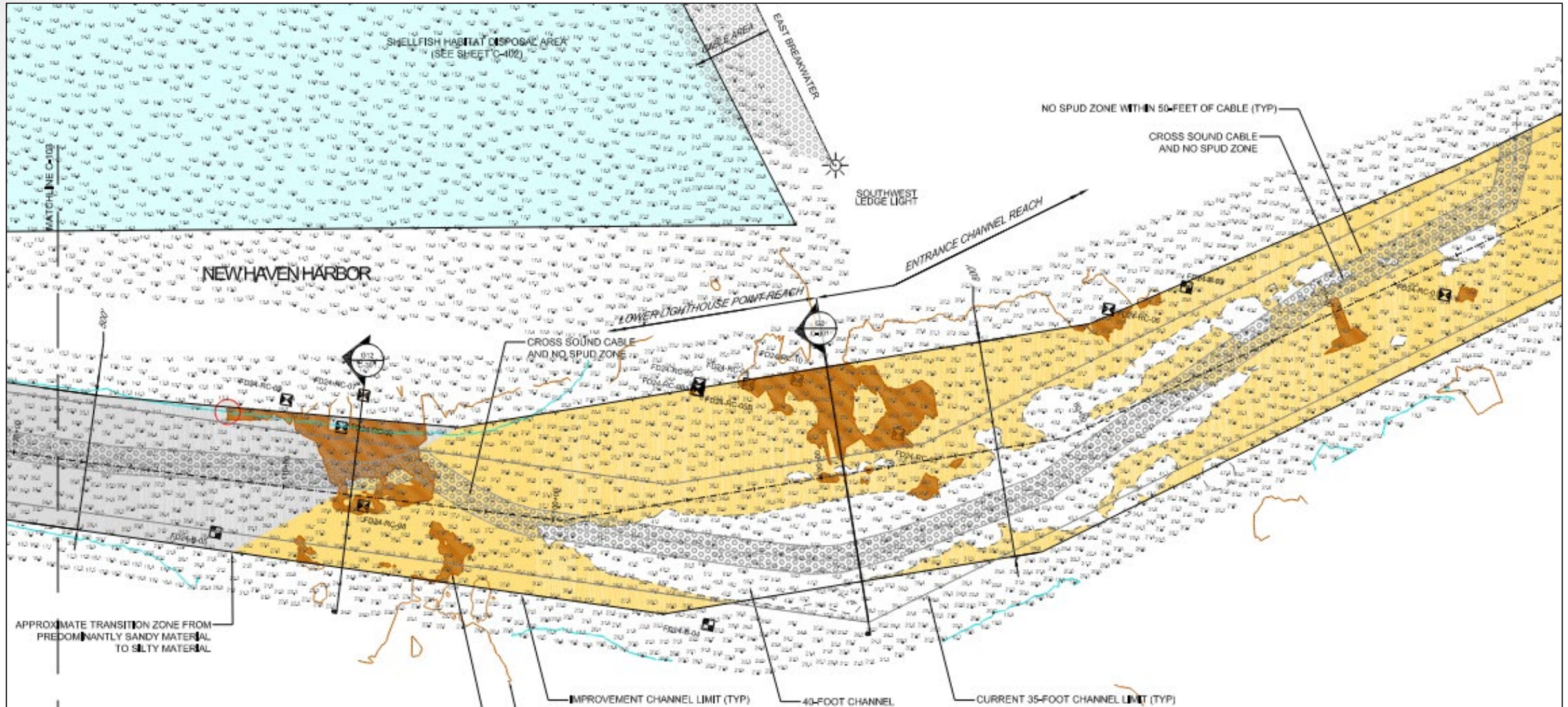


AUTHORIZED CHANNEL IMPROVEMENTS



10

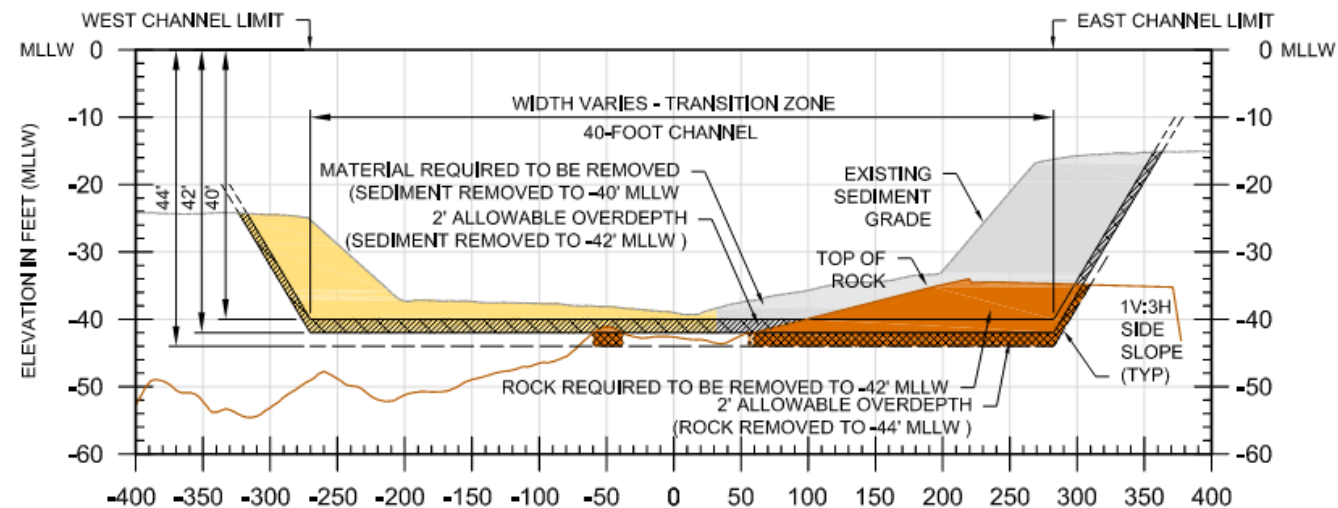
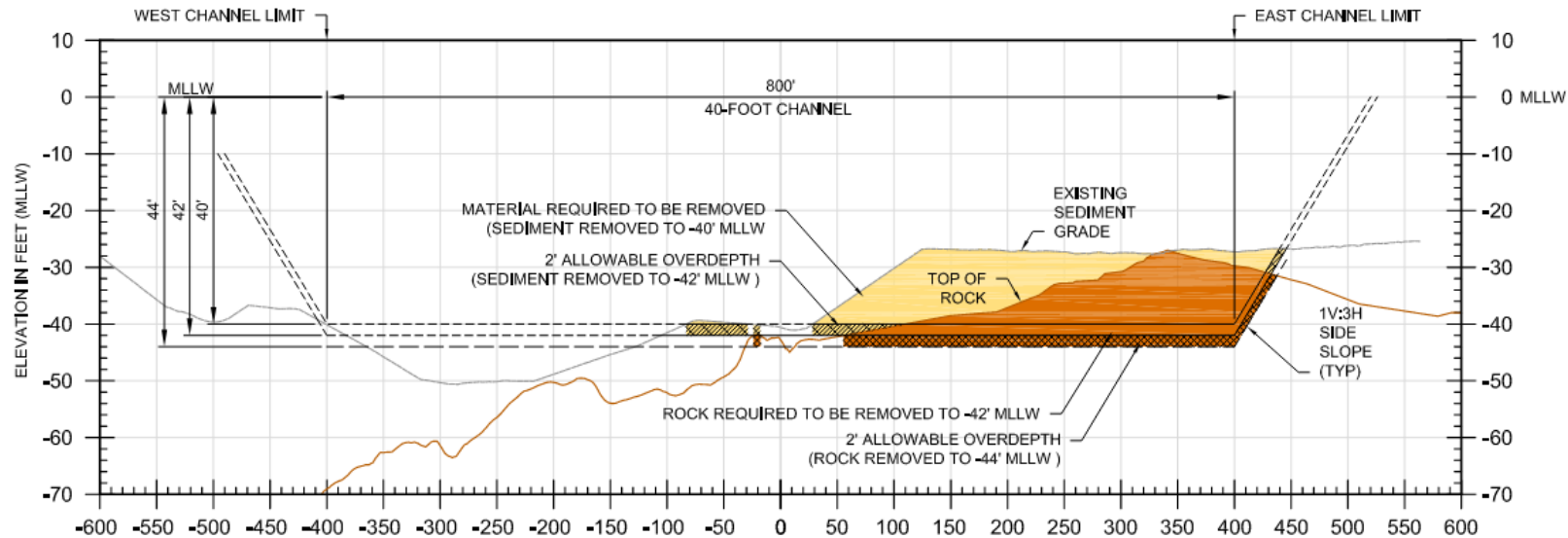
General Work Elements Overview:





AUTHORIZED CHANNEL IMPROVEMENTS

General Work Elements Overview:



DREDGED MATERIAL PLACEMENT SITES



U.S. ARMY



US Army Corps
of Engineers®
New England District



DREDGE MATERIAL PLACEMENT SITES

Silts

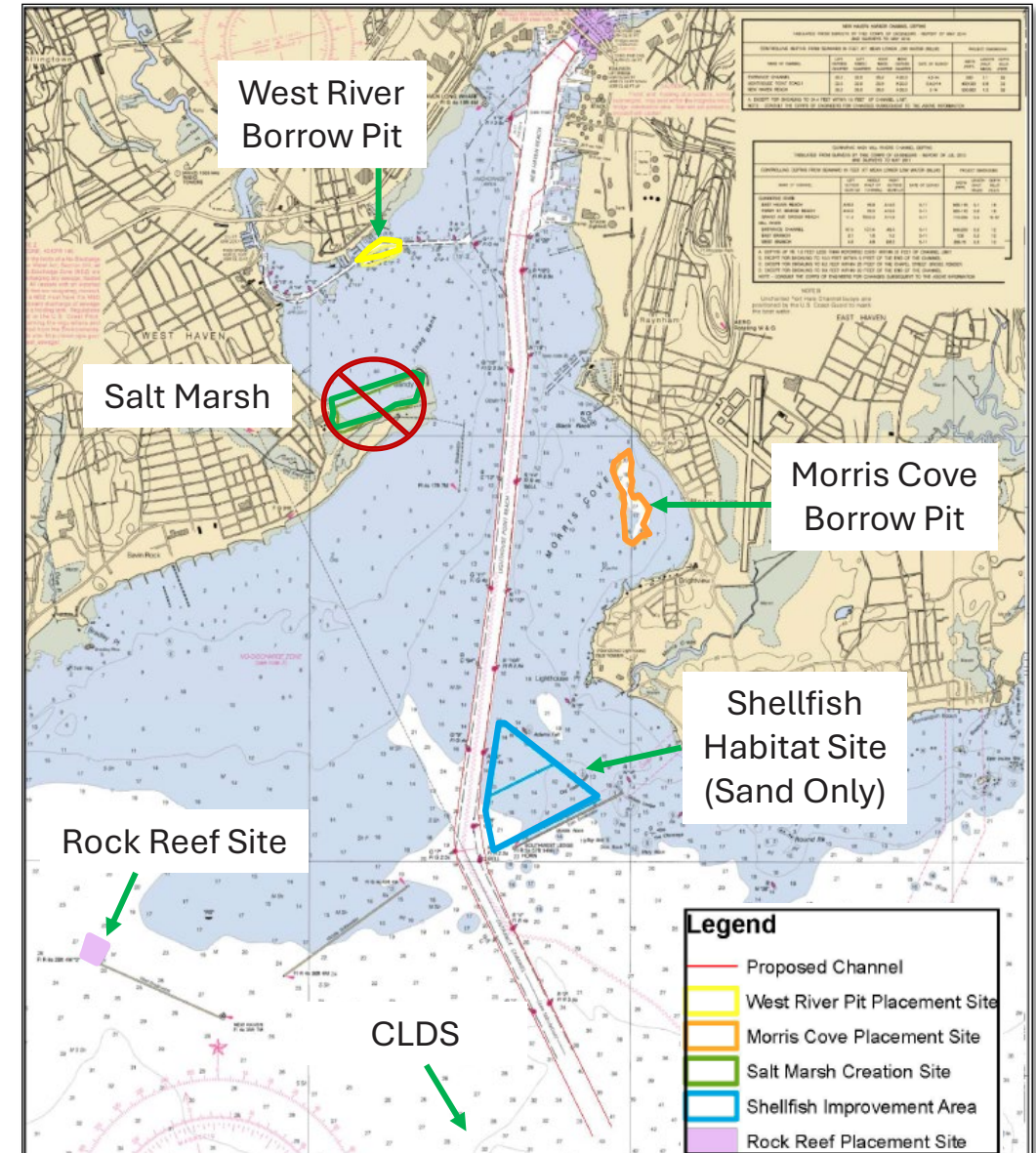
- West River Borrow Pit
- Morris Cove Borrow Pit
- Open water placement at Central Long Island Sound Disposal Site (CLDS) with targeted placement to cover historic disposal mounds
- Sandy Point Salt Marsh – *being removed from project*

Sands

- Shellfish Habitat Creation site at the East Breakwater
- CLDS for volume what can be contained at Shellfish Habitat creation site

Rock

- Rock reef Creation site north of the West Breakwater



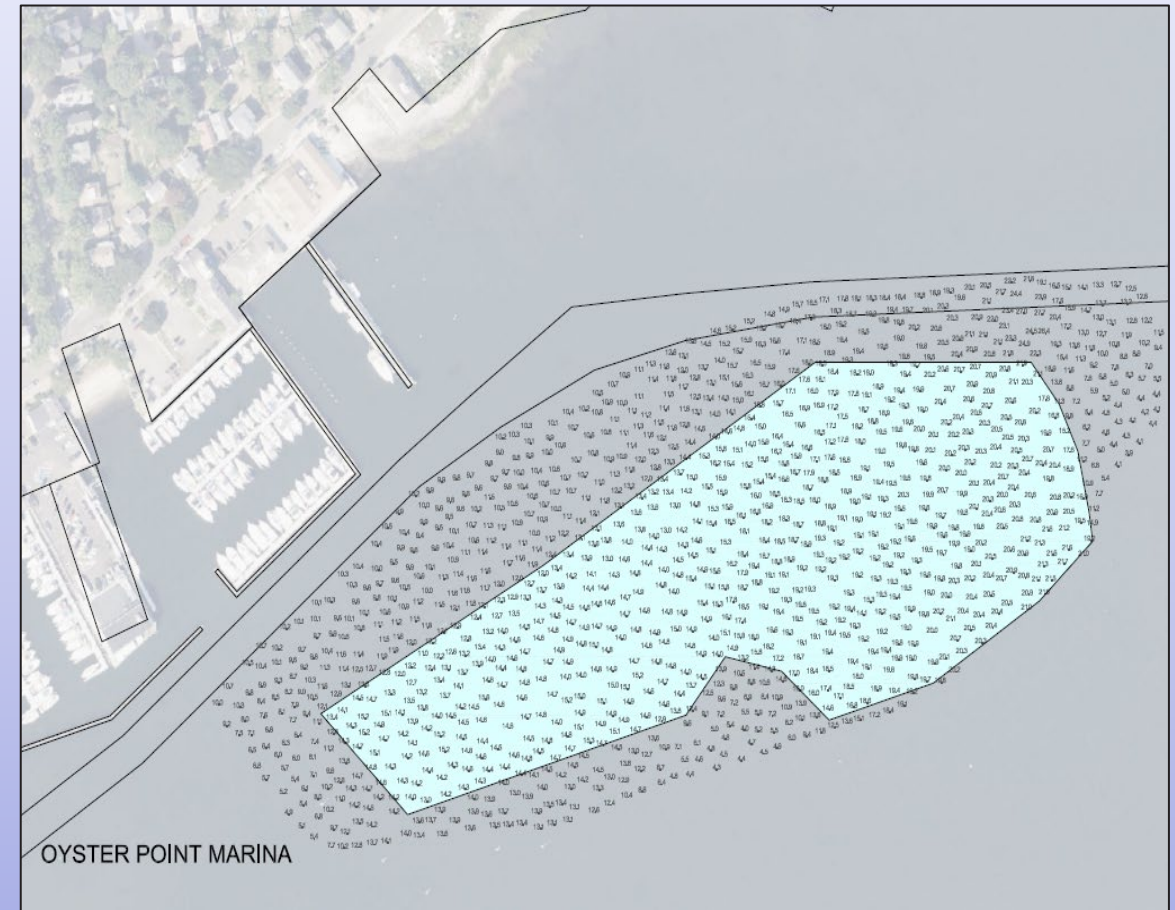
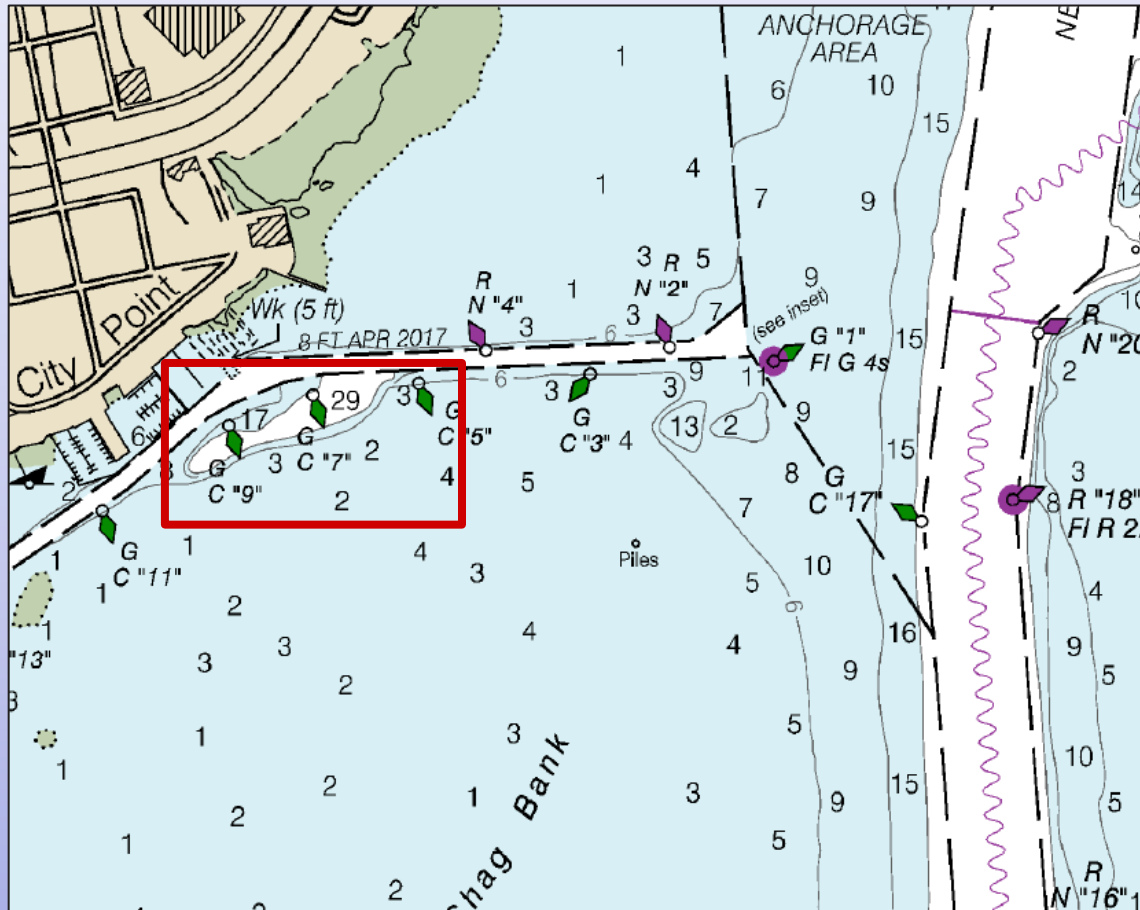


DREDGE MATERIAL PLACEMENT SITES



14

WEST RIVER BORROW PIT – Silt Capacity: 87,000 CY ; Approach Depths: ~ 12-ft MLLW



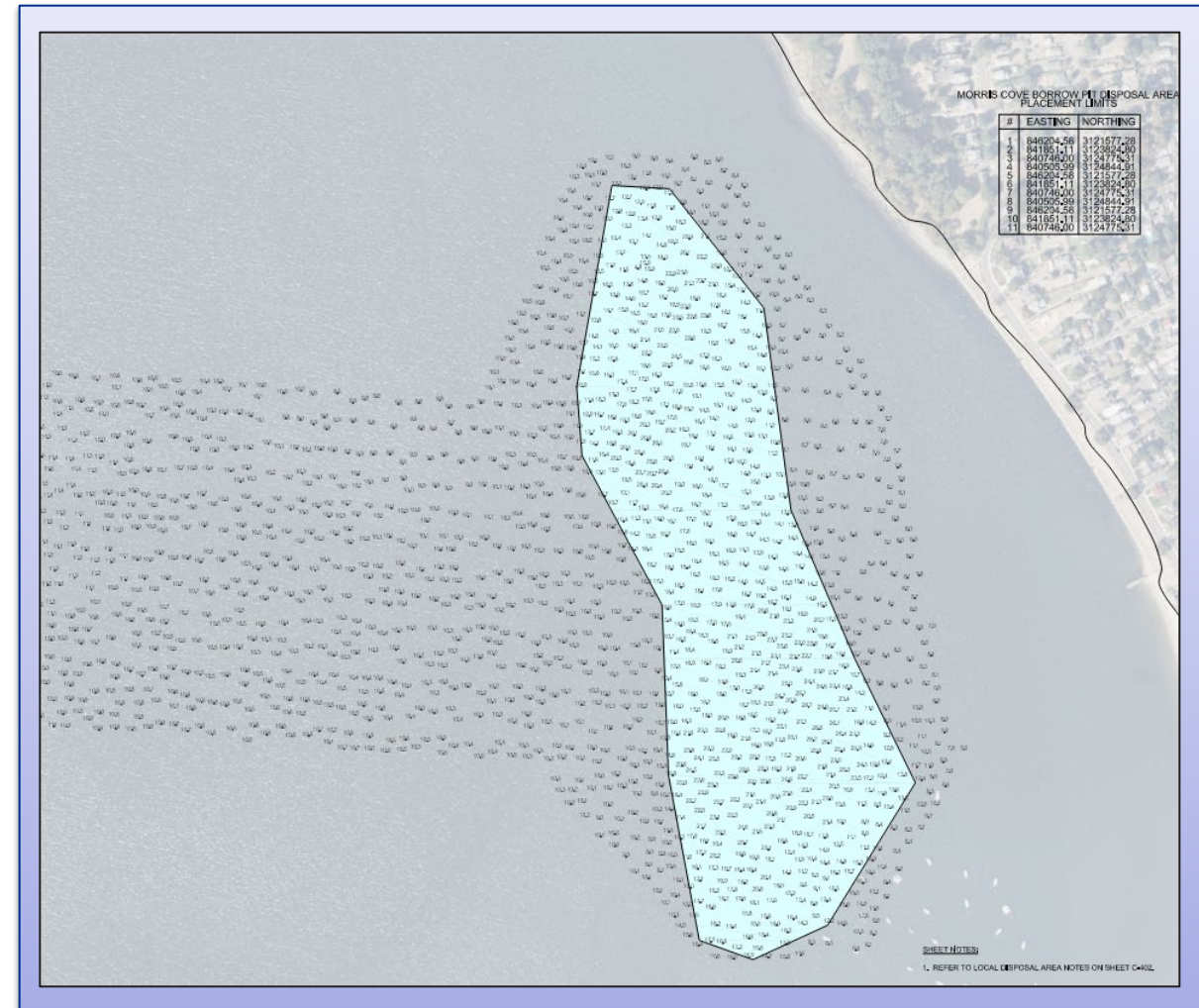
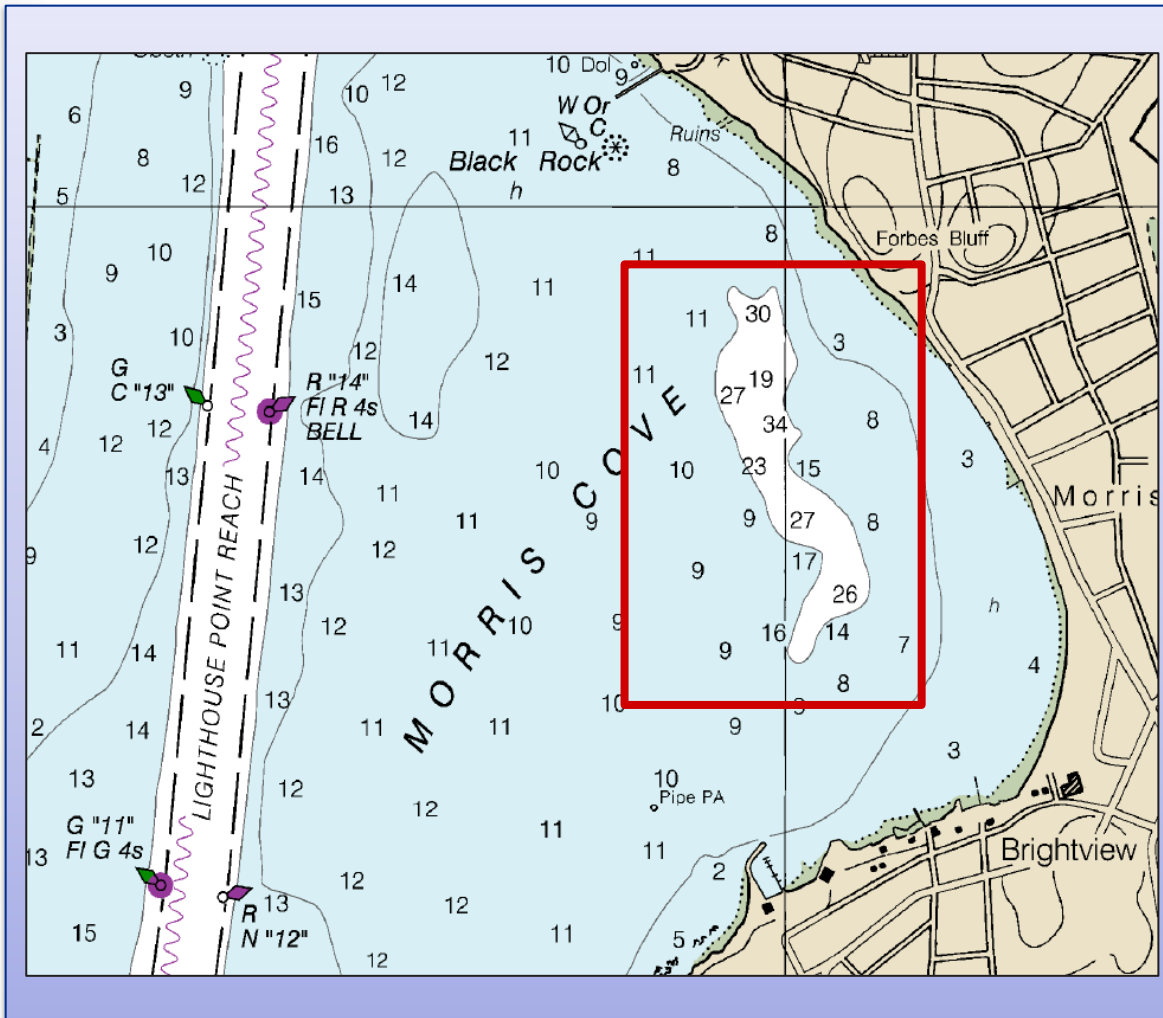


DREDGE MATERIAL PLACEMENT SITES



15

MORRIS COVE BORROW PIT – Silt Capacity: 600,000 CY ; Approach Depths: ~ 10-ft MLLW



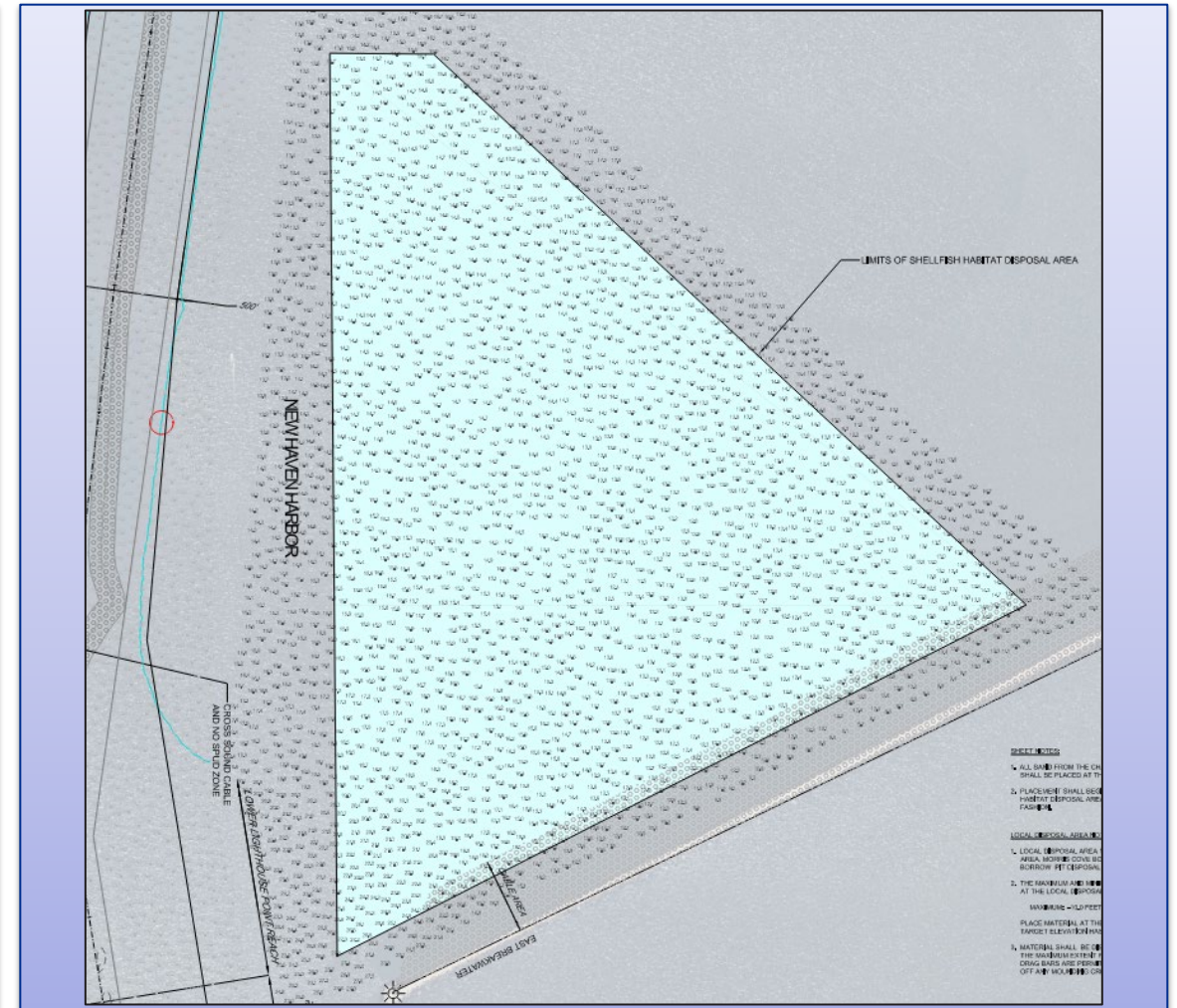
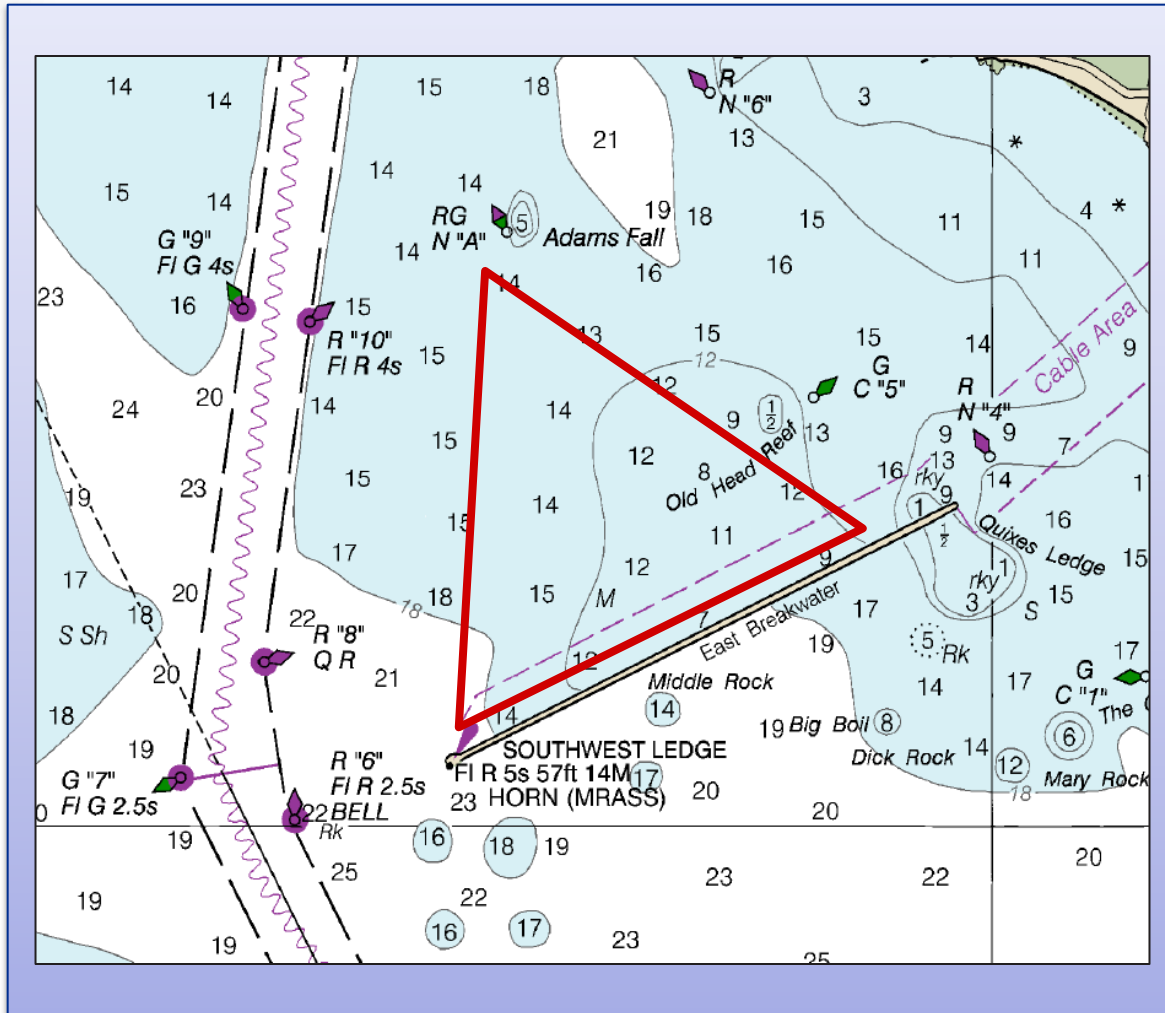


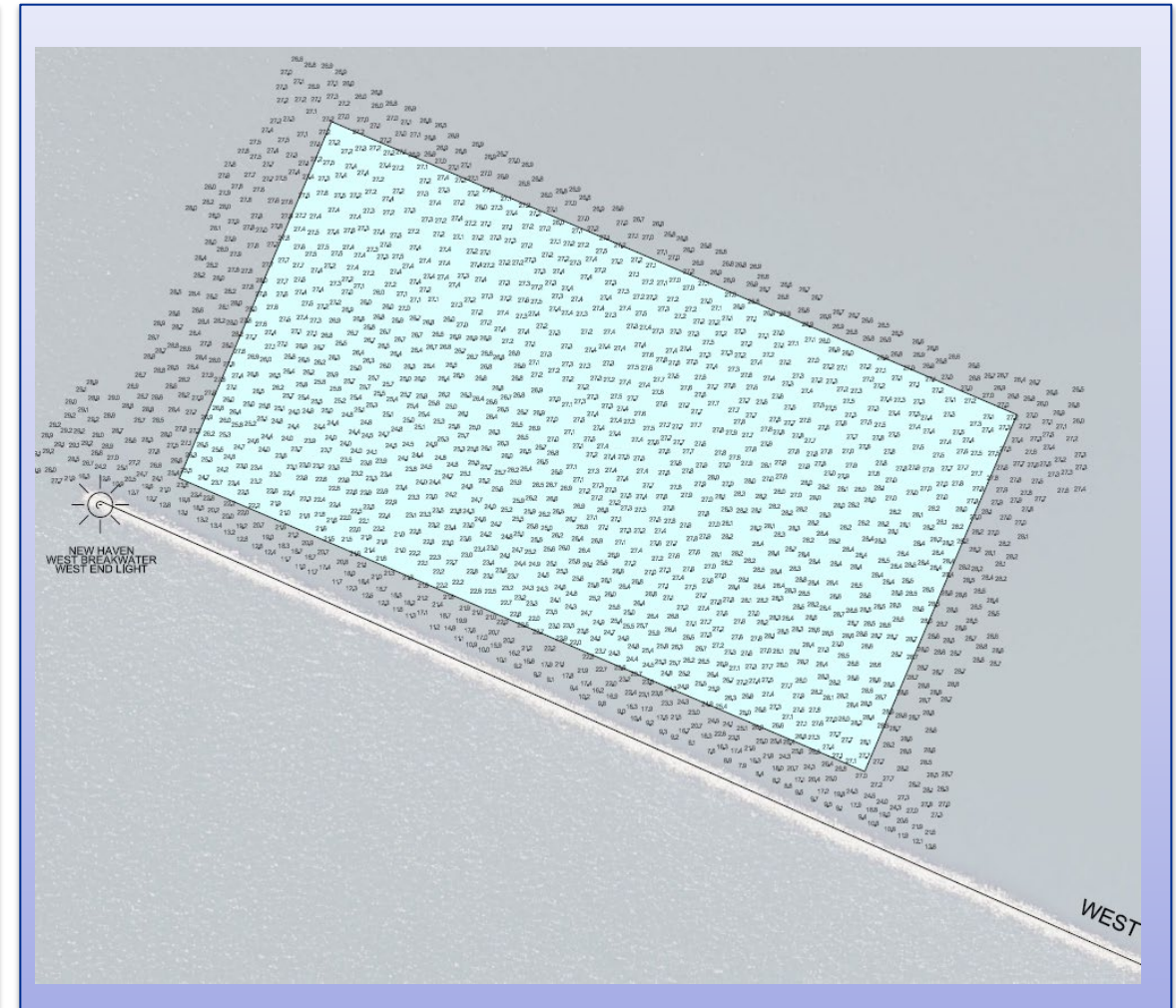
DREDGE MATERIAL PLACEMENT SITES



16

SHELLFISH HABITAT – Sand Capacity: 900,000+ CY ; Approach Depths: ~ 15-ft MLLW

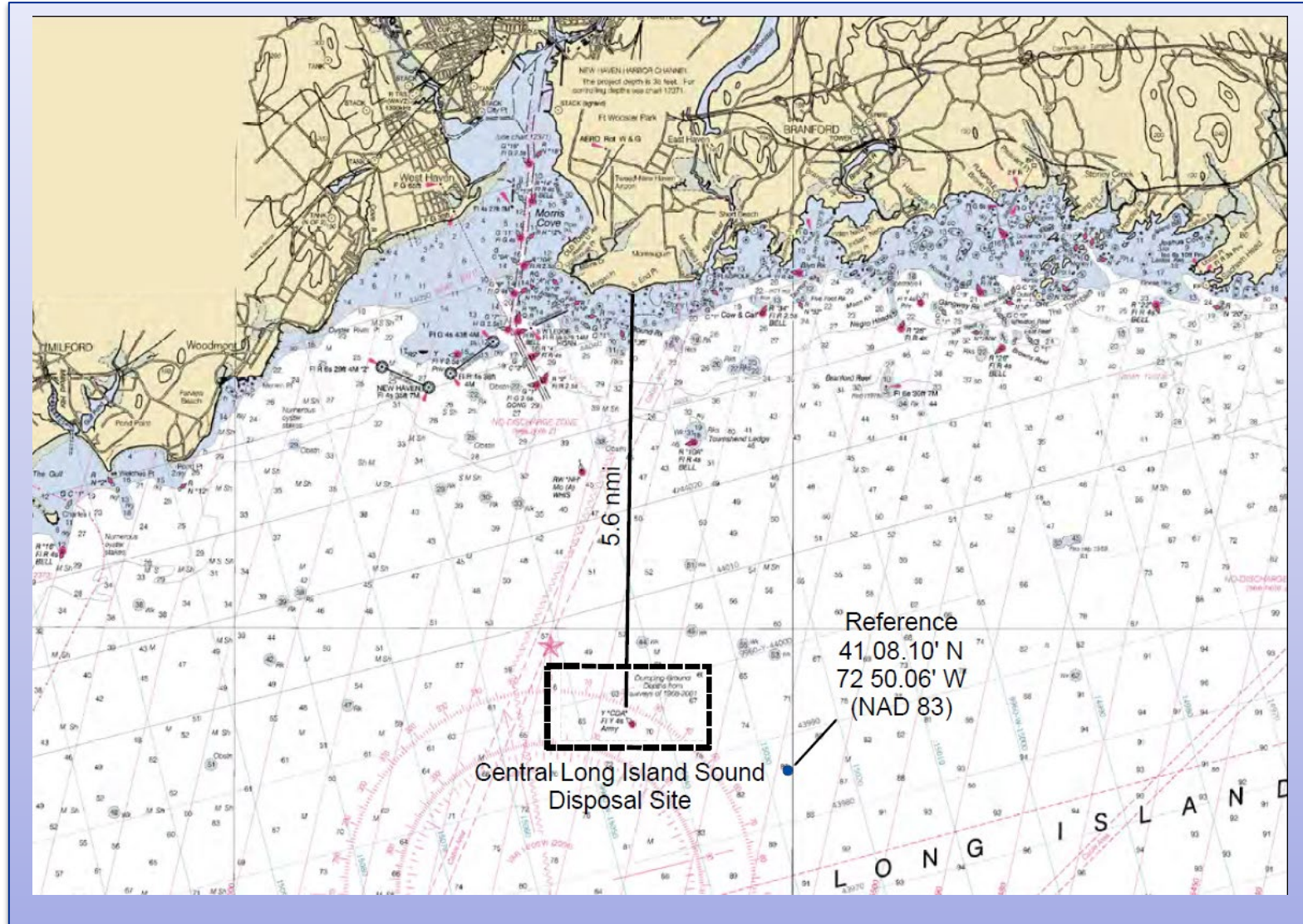






DREDGE MATERIAL PLACEMENT SITES

Central Long Island Sound Disposal Site (CLDS)



CHARACTERISTICS OF MATERIALS



U.S. ARMY



US Army Corps
of Engineers®
New England District



CHARACTERISTICS OF MATERIALS

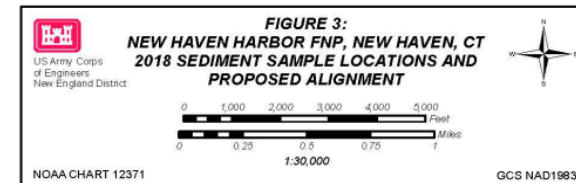
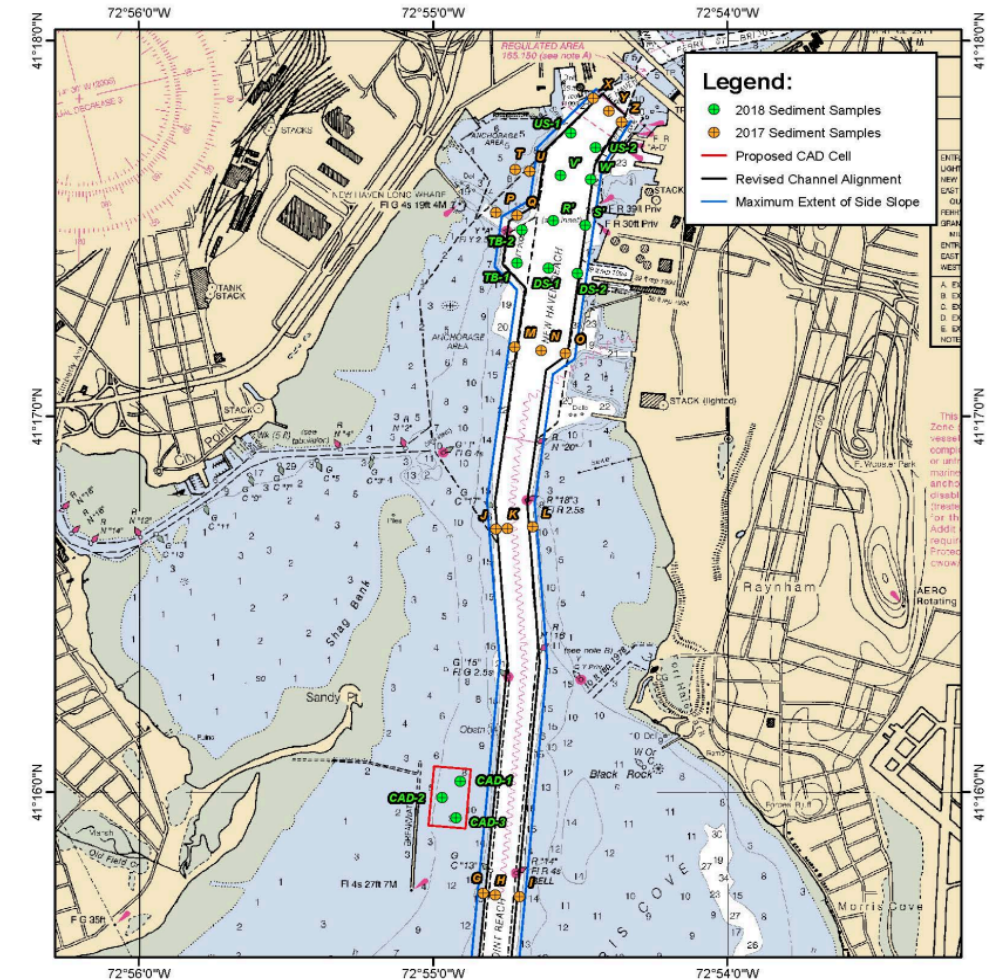


Material Characterization Efforts

- Sediment sampling and testing for suitability determination was collected in support of Feasibility and Design.
- Geotechnical and Geophysical Investigation during Design.

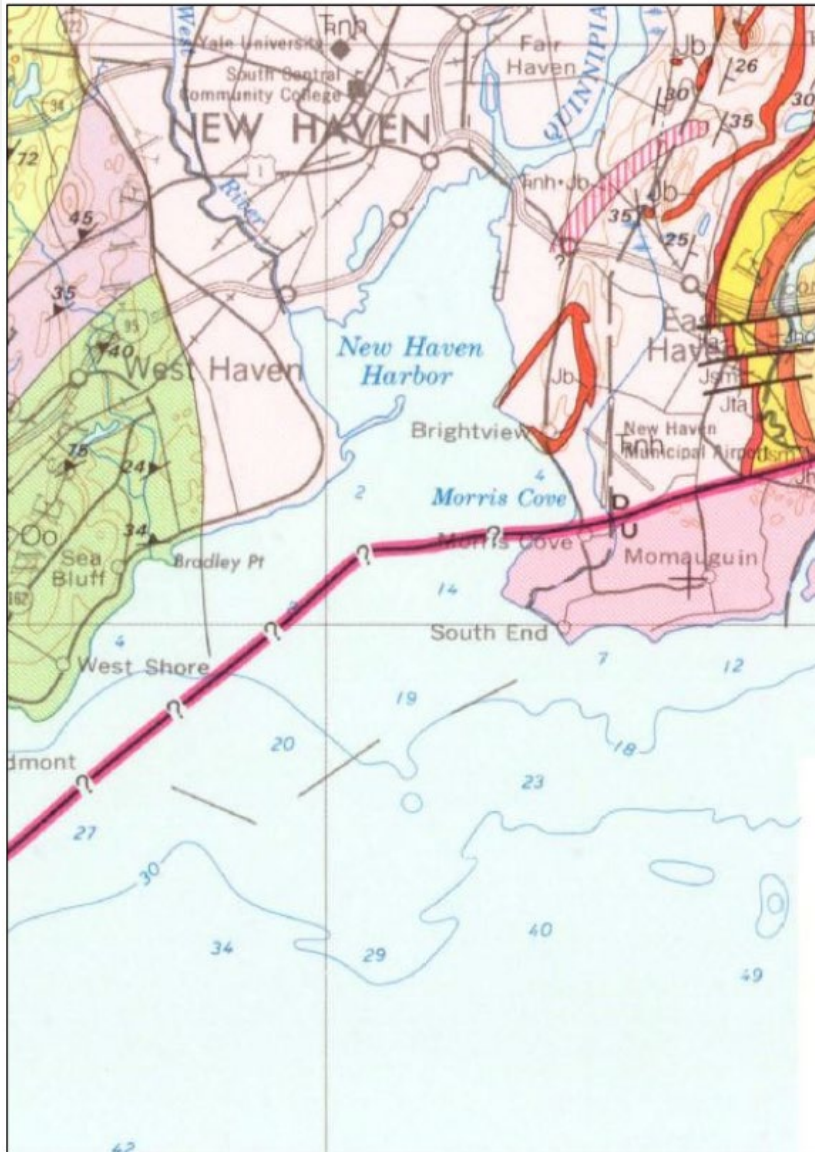
Channel Design Depth (-40 Feet MLLW)	Pre-construction, Engineering & Design (PED)
Rock	61,000
Sand (fine sand w/ limited silt)	900,000
Fines (Silt/Clay)	2,900,00
TOTAL Volume (required & OD) * (cubic yards)	3,861,000

* Estimated O&M volume of 600,000 CY removed from total





CHARACTERISTICS OF MATERIALS

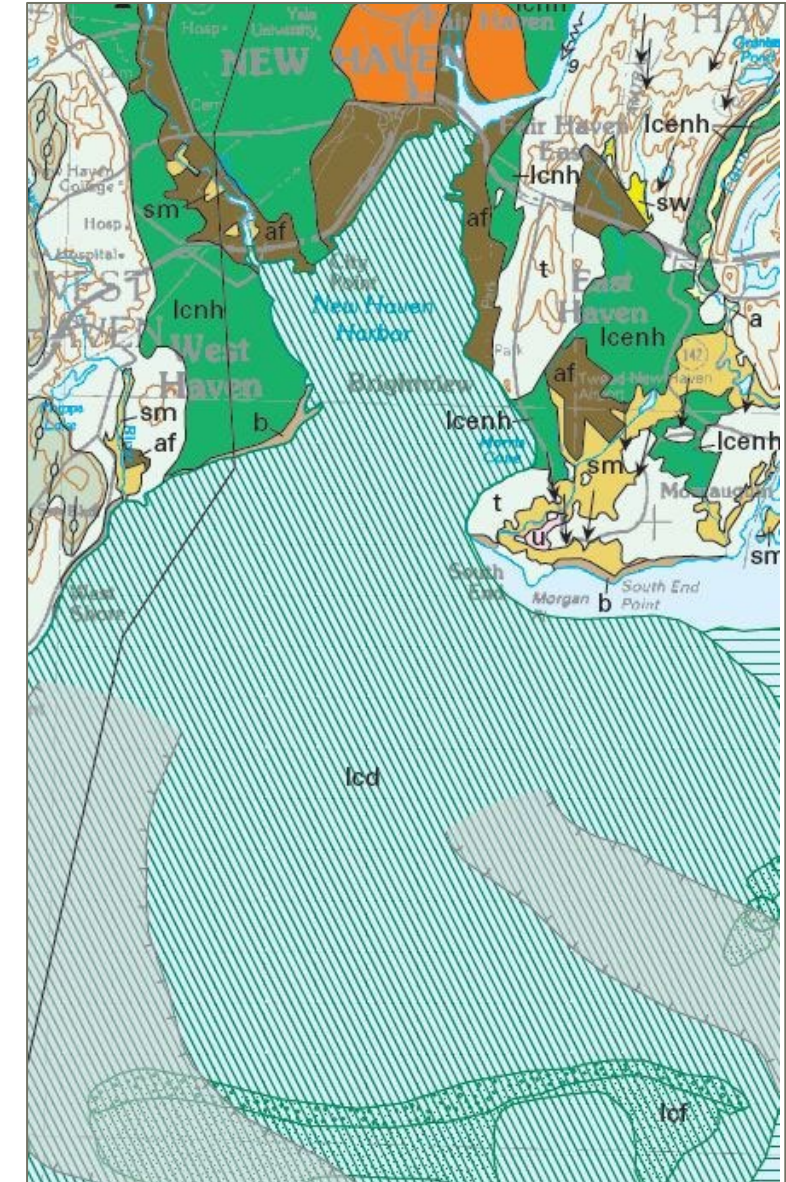


Bedrock Geology

- Lighthouse gneiss is darker pink, older, upthrown, is within the dredging prism
- High relief
- Eastern border fault runs through harbor
- Light pink is New Haven Arkose; not within the dredging prism

Surficial Geology

- Glaciofluvial outwash deposited by flowing water
- Thin till
- Deltaic deposits are shown in dashed green
- Thick fines in the upper harbor transition to sands in outer harbor





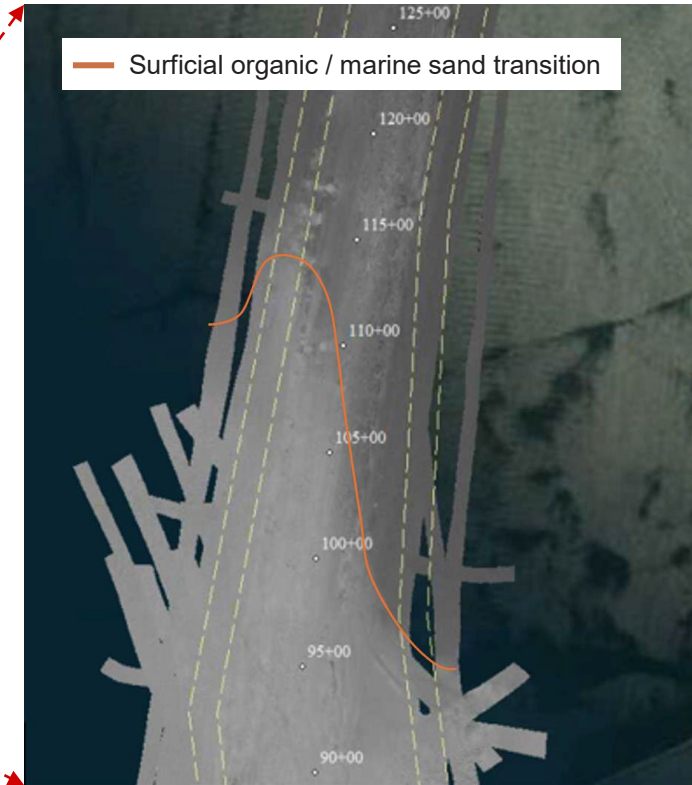
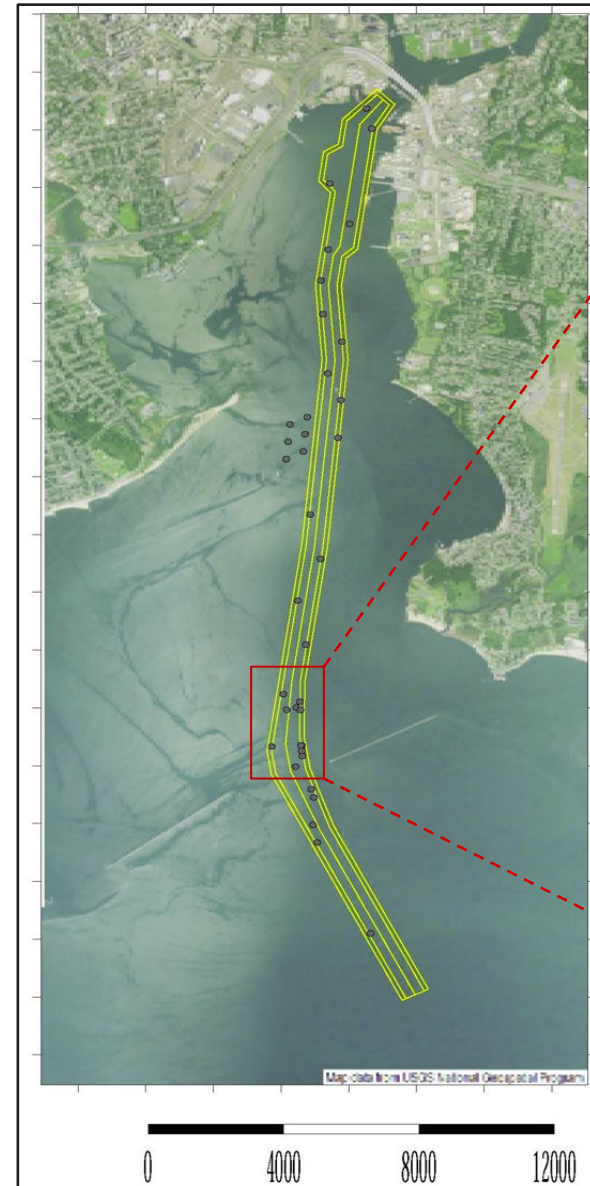
CHARACTERISTICS OF MATERIALS

Geophysical Surveys

- Towed array of equipment – 200ft (approx.)
- Sub-bottom profiler
- Multibeam Echosounder
- Multi-Channel Seismic Reflection
- Multi-Channel Seismic Refraction

Geotechnical Borings

- Drill Depths:
 - Channel/Turning Basin – 60ft below MLLW
 - CAD cell – 100ft below MLLW
- Total of 36 borings collected:
 - Channel / Turning Basin – 20
 - Rock areas – 10
 - CAD cell (future maintenance) – 6





CHARACTERISTICS OF MATERIALS

Sediment Types

ORGANIC SEDIMENT (OS)



- Modern, estuarine
- Very soft, high water content, WOR/WOH
- Found in Inner Harbor up until bend
- Unit extends from mudline to between -27' to -52' MLLW

MARINE SAND (MS)



- Unconsolidated marine, modern, deltaic fine to med sands
- Below OS unit in Inner Harbor (right); predominate unit in outer harbor (left) found at the mudline to top of rock
- Extends from -32' to -62' MLLW
- N-values from 0 to 18

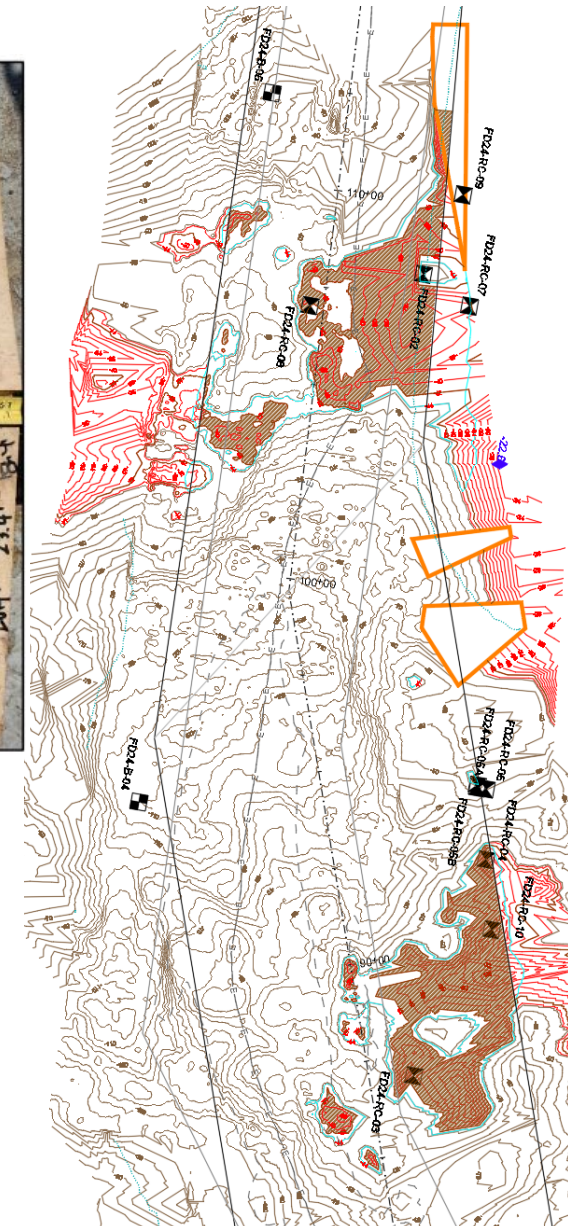




CHARACTERISTICS OF MATERIALS



Rock Quality

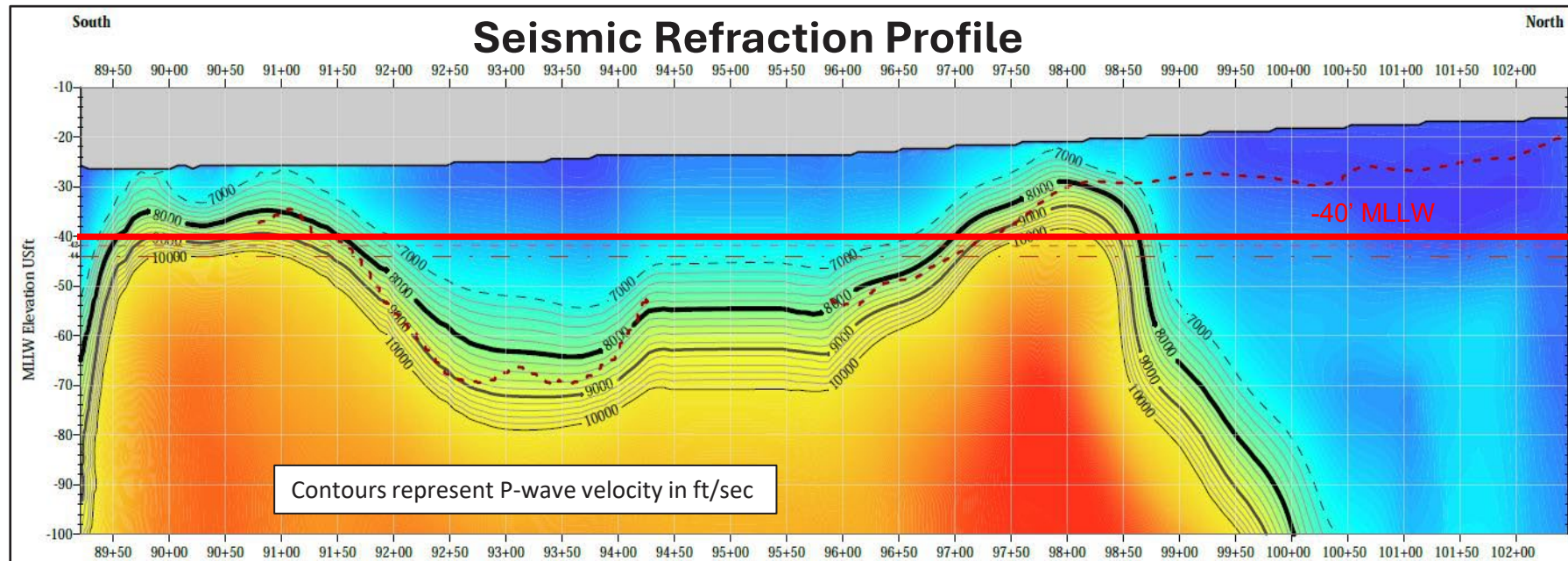
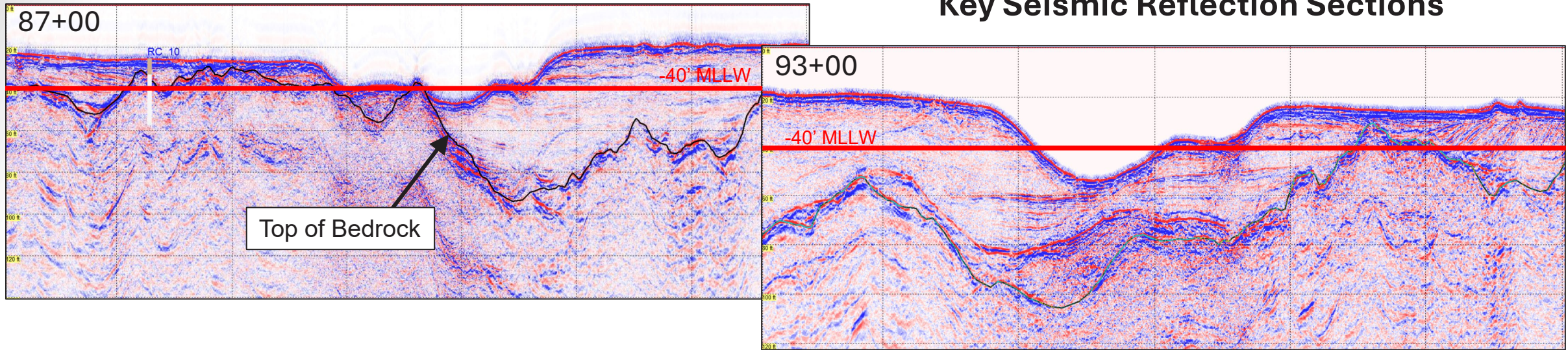


- Extremely hard, altered granite schists
- Average Rock Quality Designation (RQD) of 70%, which is considered “Fair”
 - Generally, RQD ranged between 50% - 80%
- Rock outcrops between stations 65+00 and 113+25
 - Most of the rock is between 80+00 and 110+00
 - two smaller but significant outcrops at stations 65+00 and 75+00
- Sharp undulations dive to over -100 ft in some areas



CHARACTERISTICS OF MATERIALS

Key Seismic Reflection Sections



Geophysical Results:

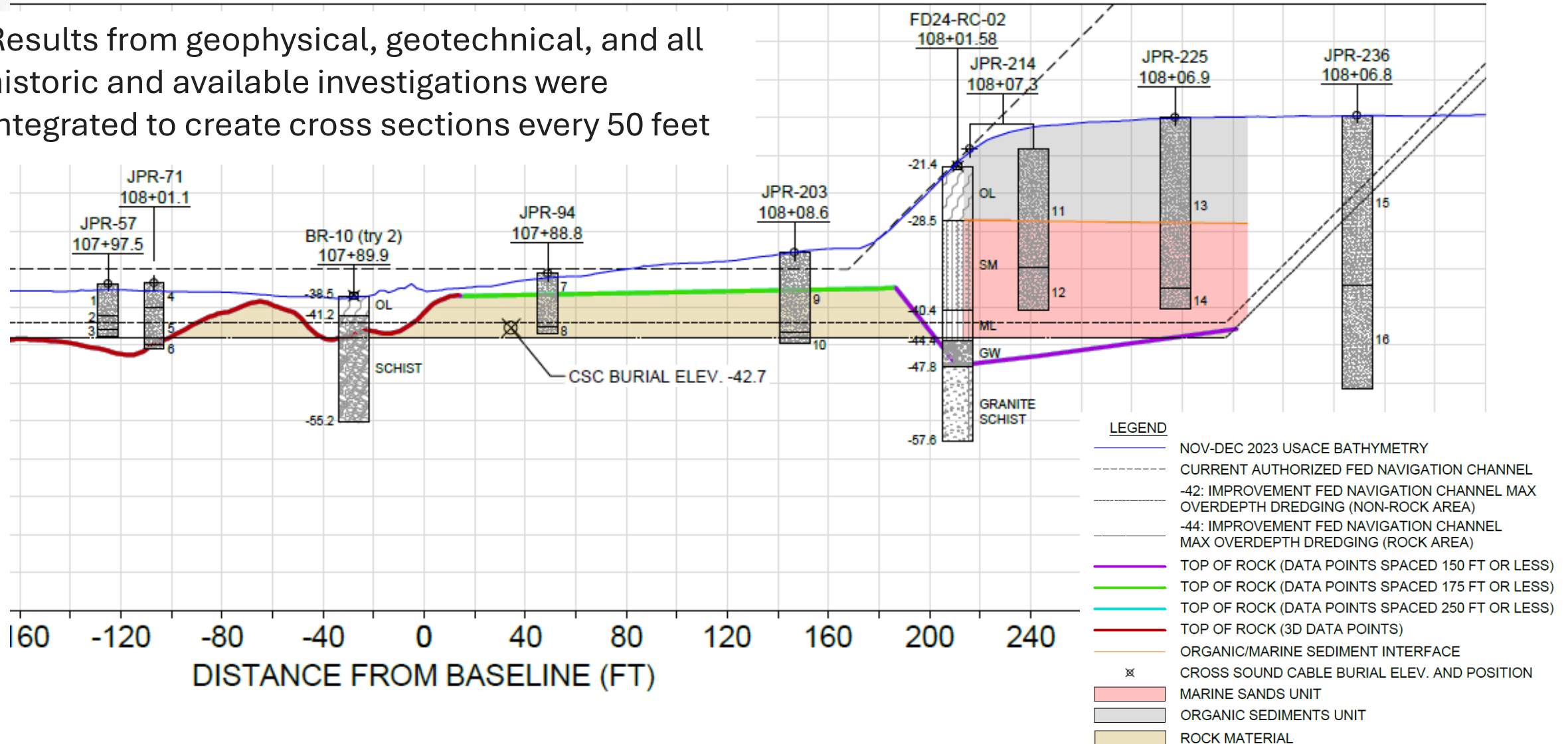
- Strong bedrock reflector (above)
- Highly variable top of rock surface, i.e. contours are complicated
- Most of rock requiring removal is in widening area
- Little to no weathered rock; all very hard



CHARACTERISTICS OF MATERIALS

108+00

Results from geophysical, geotechnical, and all historic and available investigations were integrated to create cross sections every 50 feet



ENVIRONMENTAL REQUIREMENTS / WORK WINDOWS



U.S. ARMY



US Army Corps
of Engineers®

New England District



ENVIRONMENTAL REQUIREMENTS / WORK WINDOWS



28

Permitting

- All permits and environmental coordination completed by USACE.
- No requirement / constraint on bucket or clamshell type/size.
- Material placed at CLDS is required to be sequenced north to south.

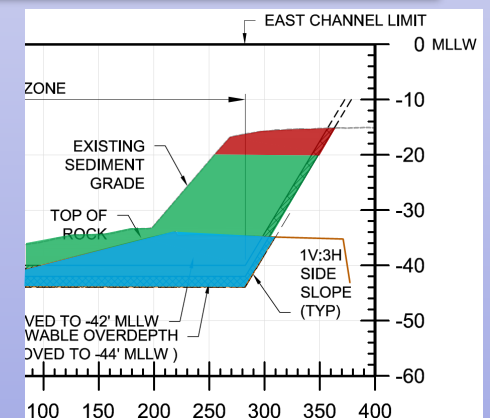
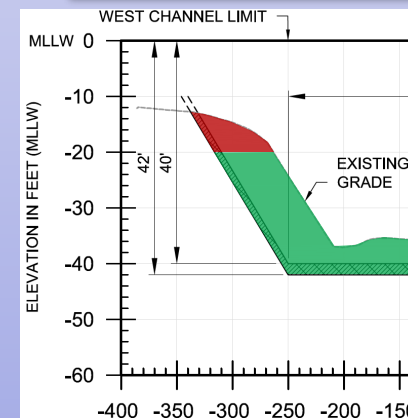
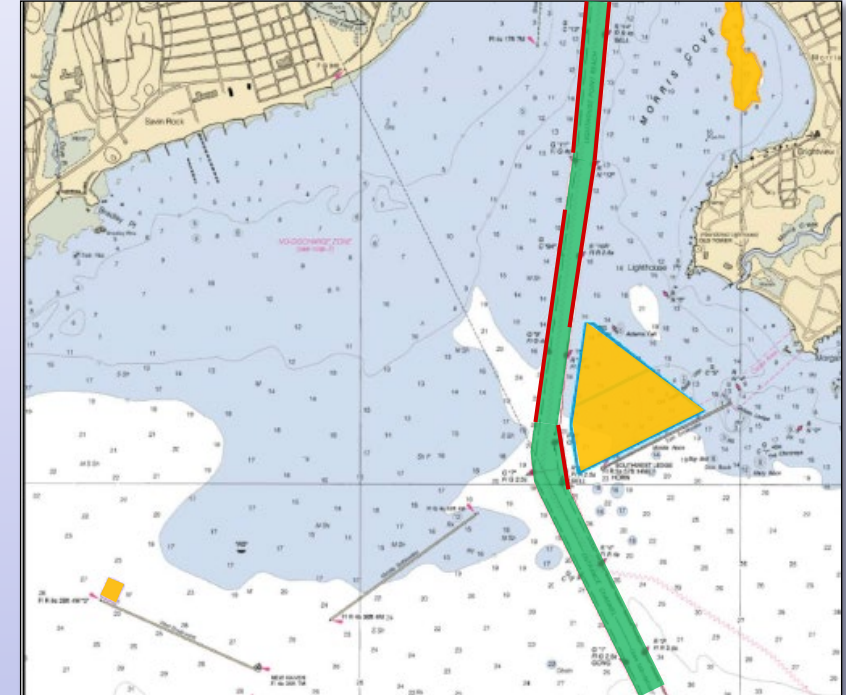
Available Work Windows (1 Oct – 1 Mar)

1 October – 1 January

- **Dredging:** Entrance Channel, Main Channel, Turning Basin where depths are shallower than -20ft MLLW
- **Placement:** Material can be taken to all placement sites: West River & Morris Cove borrow pits, Shellfish Habitat

1 October – 1 March

- **Dredging:** Entrance Channel, Main Channel, Turning Basin where depths are deeper than -20ft MLLW
- **Placement:** Material Placement at CLDS
- Drilling/Blasting & Rock removal with placement at Rock Reef





BLASTING REQUIREMENTS



Blasting Guidance

Confined Underwater Blasting to be conducted according to latest USACE guidance:

Whole Building Design Guide Specifications:
UFGS 31 23 01 Underwater Blasting

USACE Engineering Manual:
EM 1110-2-3800 Engineering and Design Blasting for Rock Excavations

USACE Engineering and Construction Bulletin:
ECB 2025-2 Engineering Oversight of Blasting Operations for Rock Excavation or Rock Production

USACE Safety Manual (2024):
EM 385-1-1 Chapter 29 Blasting

Best Management Practices

- Fish deterrent hydroacoustic system.
- Multiple scare charges prior to blast.
- Fish and mammal observers with sonar and fish finder prior to blast and post-blast observations.
- Test blast program with minimum three blasts.
- Near-field underwater overpressure monitoring with pressure transducers for all blasts.
- Far-field underwater noise monitoring with hydrophones for all blasts.
- Land and underwater vibration monitoring for all blasts.

SURVEYING / ACCEPTANCE CRITERIA



U.S. ARMY



US Army Corps
of Engineers®
New England District



SURVEY / ACCEPTANCE CRITERIA



- Government after-dredge survey collected at the completion of the O&M project (~Jan/Feb 2026) will serve as the pre-dredge survey for the Improvement project.
- The proposed work under this contract is anticipated to take 3 dredge seasons.
- Contractor Work Plan to layout acceptance sections, not necessarily by current identified USACE reaches of the project, for timely completion of the work. *Agreement between contractor and govt on plan for work completed during each season.*
- Multibeam after-dredge surveys will be required for acceptance of sections and hand off to government.
- Complete patch tests / comparative survey for calibration between Govt and contractor prior to the start of each dredge season.
- **Government will not accept any depths above required authorized depth. MUST meet grade of authorized project.**

CABLE RELOCATION PROJECT

PRESENTED BY CROSS SOUND CABLE LLC



U.S. ARMY



US Army Corps
of Engineers®
New England District

PROJECT SCHEDULE



U.S. ARMY



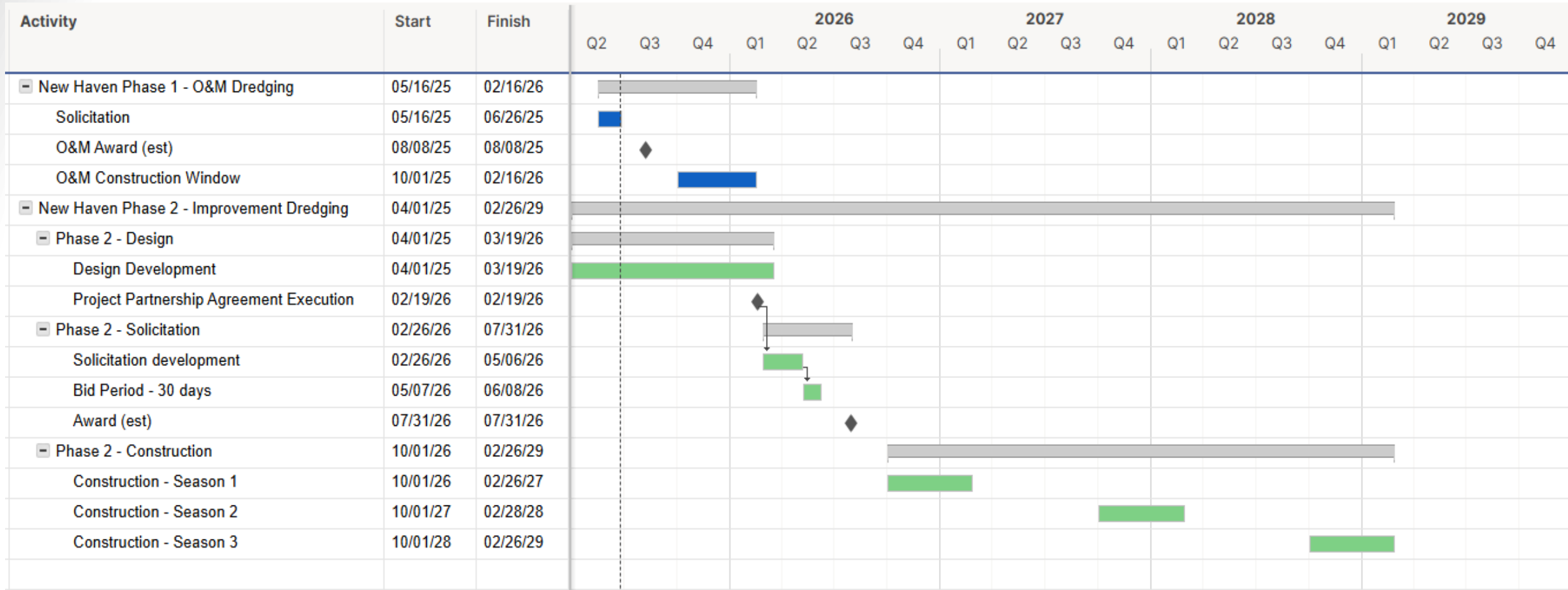
US Army Corps
of Engineers®
New England District



NEW HAVEN HARBOR SCHEDULE



34



Phase 1 - O&M Dredging

Phase 2 – Improvement Dredging

GENERAL USACE PROCUREMENT PROCESS FROM SOURCES SOUGHT THROUGH NOTICE TO PROCEED



U.S. ARMY



US Army Corps
of Engineers®
New England District



SOURCES SOUGHT & PRE-SOLICITATION

Sources Sought

- Market research used by the Government to gauge the interest and capability of an industry to complete the subject work.
- Posted for a minimum of fifteen days.
- Responses from industry guide the Government's decision of procurement method (ex. SB or full & open)

Pre-Solicitation Notice

- Government informs industry of an upcoming contract opportunity to allow potential contractors who may want to bid on the project time to prepare.
- Posted for a minimum of fifteen days.
- *Contractors who have not submitted proposals through PIEE should create an account early to ensure they will be able to bid on the project. Interested contractors must also be registered in SAM.gov. Contact Tyler Maryak for info about account creation.*



SOLICITATION

- Typically posted to PIEE and SAM.gov shortly after the pre-solicitation closes. (SAM is the Government Point of Entry (GPE), PIEE is where bids are submitted.)
- Typically, thirty days for bids to be submitted. (May be extended if there are amendments, or if the work warrants a longer bid preparation time.)
- Bid opening typically occurs one hour after the bid submission deadline, when all bids are read aloud.
- Bid abstract posted to SAM.gov shortly after bid opening.



AWARD & NOTICE TO PROCEED (NTP)

- Prior to award, the Government will conduct a responsibility determination for the apparent low bidder. Per FAR 19.601, elements of responsibility include capability, competency, capacity, credit, integrity, perseverance, and limitations on subcontracting.
- Assuming the apparent low bidder or proposer is found responsible, award is developed and the contractor is notified (typically within 1-2 weeks).
- Award is posted to SAM.gov.
- The Government sends the successful contractor a NTP in accordance with the solicitation (generally fifteen days after bid submission).
- The selected contractor must provide the Government with Payment & Performance Bonds insured by a Surety.

QUESTIONS & ANSWERS

[HTTPS://WWW.NAE.USACE.ARMY.MIL/BUSINESS-WITH-US/CONTRACTING/NEW-HAVEN-HARBOR-IMPROVEMENT-PROJECT-INDUSTRY-DAY/](https://www.nae.usace.army.mil/business-with-us/contracting/new-haven-harbor-improvement-project-industry-day/)



U.S. ARMY



US Army Corps
of Engineers®
New England District