



US Army Corps of Engineers
District: CENAE

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SUBMITTED BY: Zachary McAvoy		CHECKED BY: ZSM		ISSUE DATE: 11/23/2020
APPROVED BY: NAE Survey		NAE DOCUMENT: MA_40_WFH_20201120_AD_045		
SIZE: A3	FILE NAME: MA_40_WFH_20201120_AD_045			

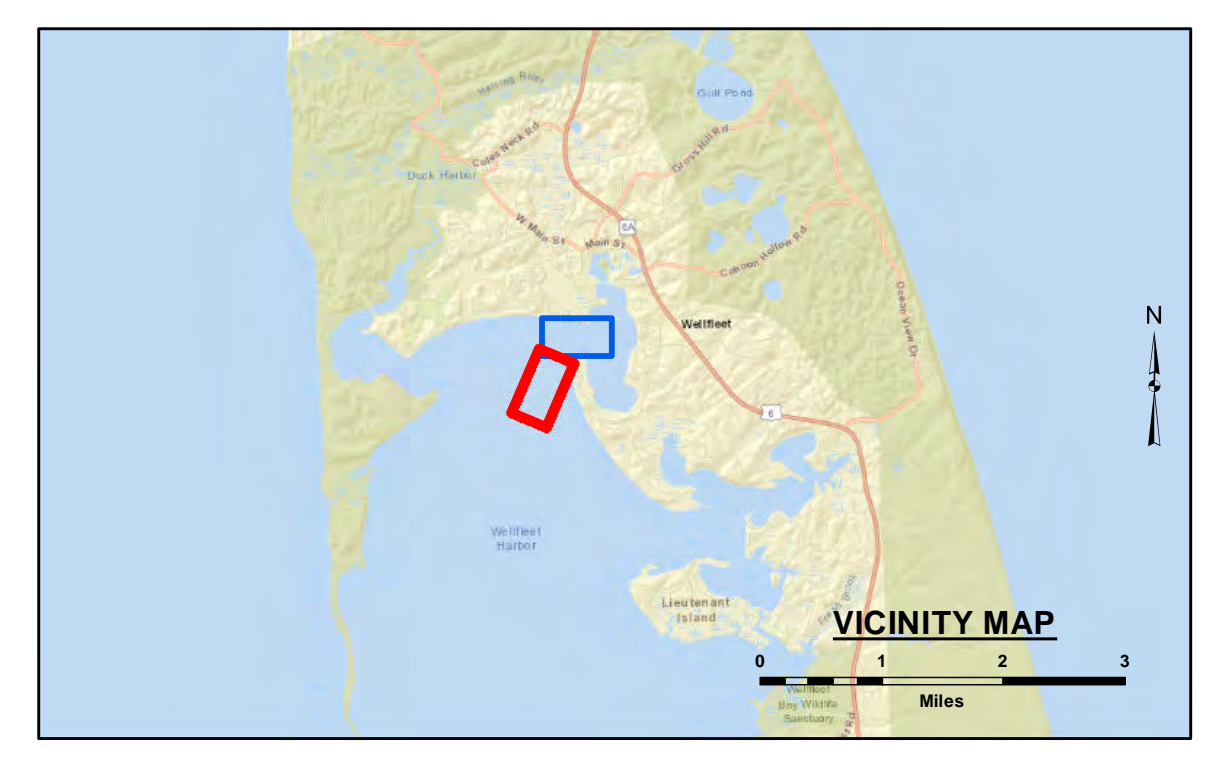
WELLFLEET HARBOR
WELLFLEET, MASSACHUSETTS
AFTER DREDGE SURVEY

10-FOOT CHANNEL
AND ANCHORAGE

File Name: MA_40_WFH_20201120_AD_045

SHEET IDENTIFICATION
Wellfleet Harbor

Sheet 1 of 2



LEGEND

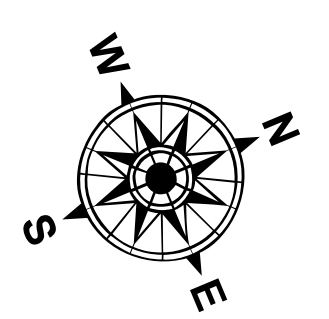
--- Federal Navigation Channel	✱ Fixed Navigation Aids
..... Cable or Pipe Areas	🚩 Red Navigation Buoy
--- Channel Center Line	🚩 Green Navigation Buoy
— Contour Line	🔴 Shoaling Area
⊗ Obstruction Point	🟡 Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 100'

0 100 200 Feet



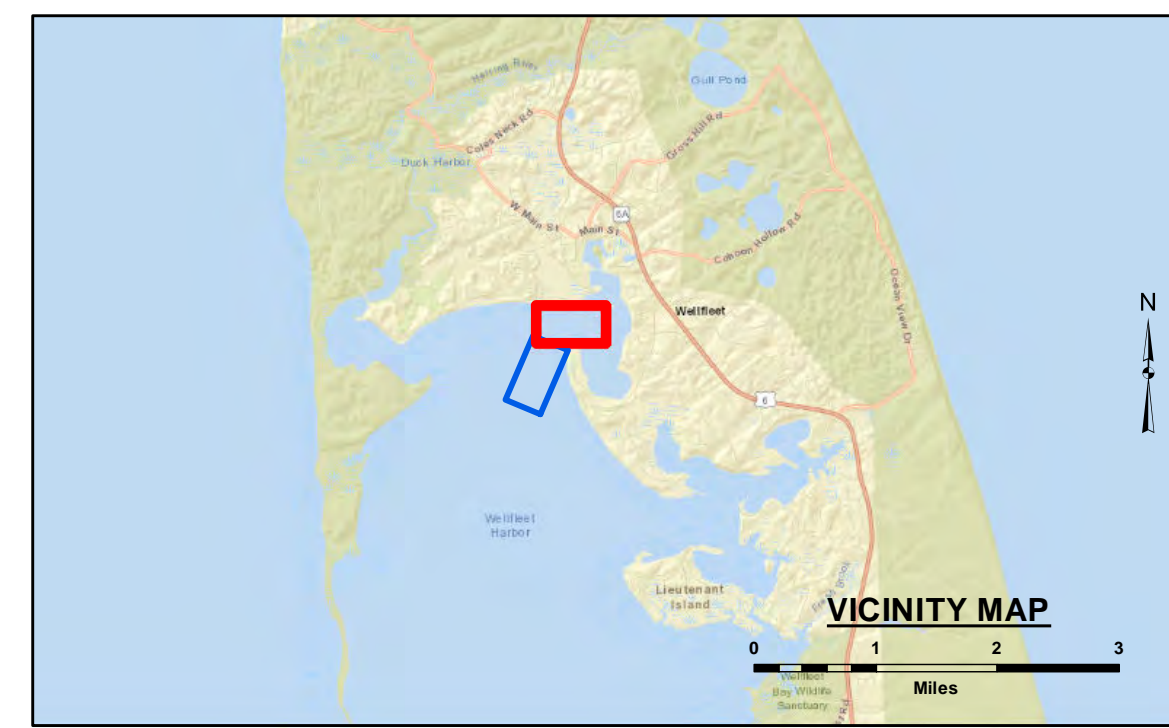
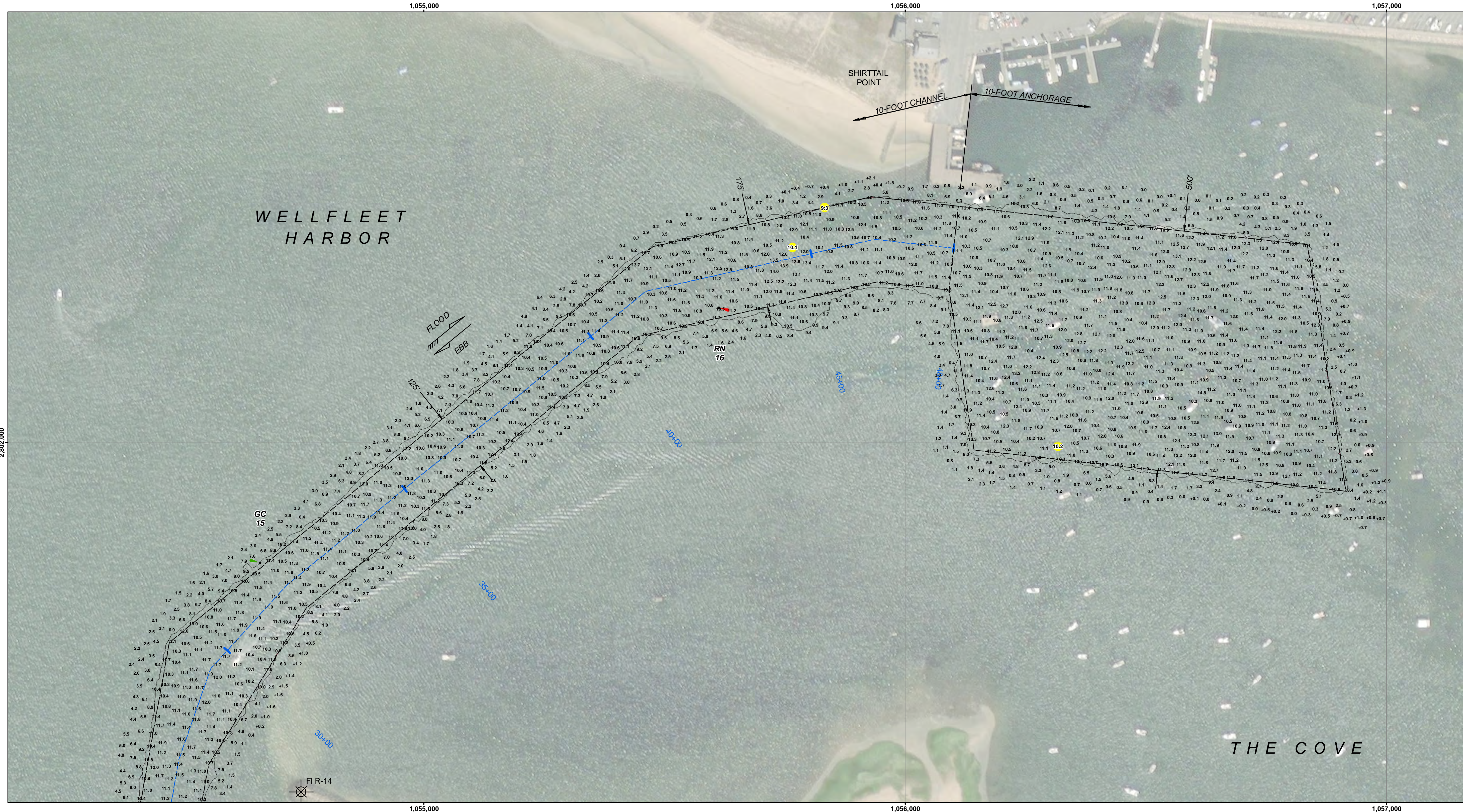
Notes:
Horizontal Datum: Mass Mainland, MA-2001 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: KEEGAN
Sounding System: Reson TS50 (Multibeam Sonar)
Sounding Frequency: 400 kHz
Survey Method: RTK GPS TIDES
GPS System: Trimble SPS 855
RTK Base Station: Station WLFLT (2015)
Software Used: Hypack
Sounding Sort Distance: 20'
Field Books: R&H 4095
Survey No.: MA_40_WFH_20201120_BD_045
Reference NOAA Chart No.: 13250

The information depicted on these charts represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time.

General Notes
The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during November 2020. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthomagery is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
None

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 6.19 feet to 6.21 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, MEANHMA region Version 1.3, in the vicinity of Wellfleet Harbor, Wellfleet, Massachusetts. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.



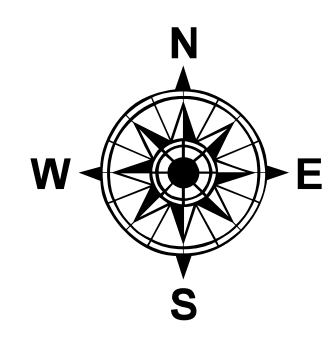
LEGEND

- Federal Navigation Channel
- Cable or Pipe Areas
- Channel Center Line
- Contour Line
- ⊗ Obstruction Point
- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
- Green Navigation Buoy
- Shoaling Area
- Shoalest Sounding**

*** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 100' 0 100 200 Feet



Notes:
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 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: KEEGAN
 Sonar System: Reson T50 (Multibeam Sonar)
 Sounding Frequency: 400 KHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855
 RTK Base Station: Station WLFLT (2015)
 Software Used: Hypack
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Project Remarks
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SURVEYED BY: PJB		CHECKED BY: ZSM		ISSUE DATE: 11/23/2020
SUBMITTED BY: Zhenhai Mooney		APPROVED BY: NAE Survey		MAP DOCUMENT: MA_40_WFH_20201120_AD_045
SIZE: A3SID				

**WELLFLEET HARBOR
 AFTER DREDGE SURVEY**

**10-FOOT CHANNEL
 AND ANCHORAGE**

File Name: MA_40_WFH_20201120_AD_045

SHEET IDENTIFICATION
 Wellfleet Harbor

Sheet 2 of 2