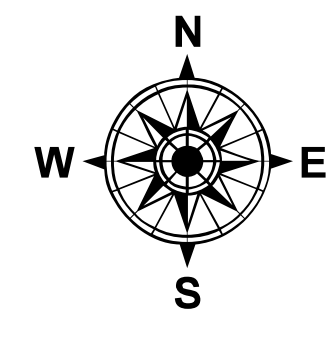
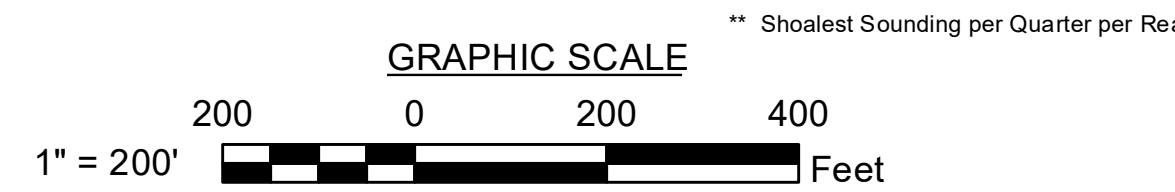


LEGEND

--- Federal Navigation Channel	✳ Fixed Navigation Aids
--- Channel Center Line	● Red Navigation Buoy
..... Cable Submarine	● Green Navigation Buoy
— Contour Line	■ Shoaling Area
⊗ Obstruction Point	● Shoalest Sounding**



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
 Sonar System: Reson 7125 (Multibeam Sonar)
 Sounding Frequency: 400 kHz
 Survey Method: RTK GPS Tides
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 40'
 Field Books: R&H 4566
 Survey No.: FLR_CS_2019_012
 Reference NOAA Chart No.: 13229

General Notes
 The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during January 2019. 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. Orthoimagery 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

Project Remarks
 None

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.61 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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.

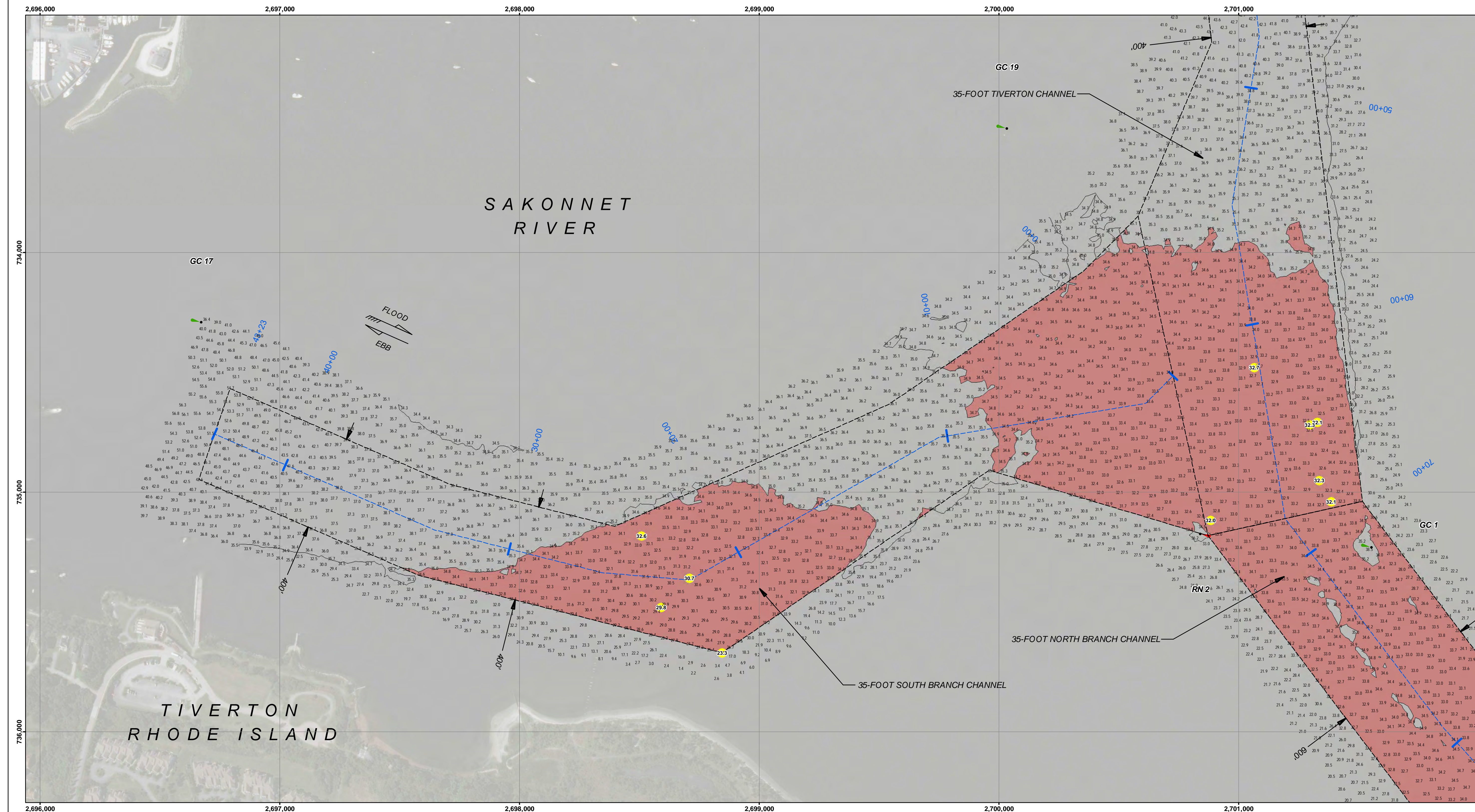


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SUBMITTED BY: William Walker	CHECKED BY: MWH	ISSUE DATE: 3/26/2019
APPROVED BY: NAE Survey		
U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT		MAP DOCUMENT: MAP_CENAE_1910195_CS_2019_012

**FALL RIVER HARBOR
 RHODE ISLAND AND MASSACHUSETTS
 CONDITION SURVEY
 35-FOOT CHANNELS AND TURNING BASIN
 30-FOOT CHANNELS AND
 25-FOOT ANCHORAGE**

SHEET IDENTIFICATION
 Fall River Harbor
 Sheet 1 of 9



US Army Corps of Engineers District: CENAE

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SUBMITTED BY: William Walker	CHECKED BY: WHV	ISSUE DATE: 3/28/2019
APPROVED BY: NAE Survey	MAP DOCUMENT: NA_C_E_P-1010	
SIZE: A3SID	U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	

FALL RIVER HARBOR
RHODE ISLAND AND MASSACHUSETTS
CONDITION SURVEY
35-FOOT CHANNELS AND TURNING BASIN
30-FOOT CHANNELS AND
25-FOOT ANCHORAGE

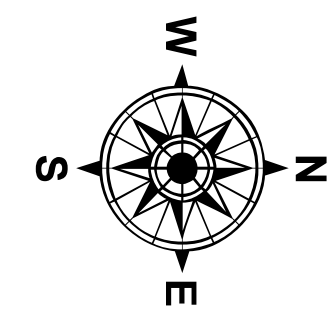
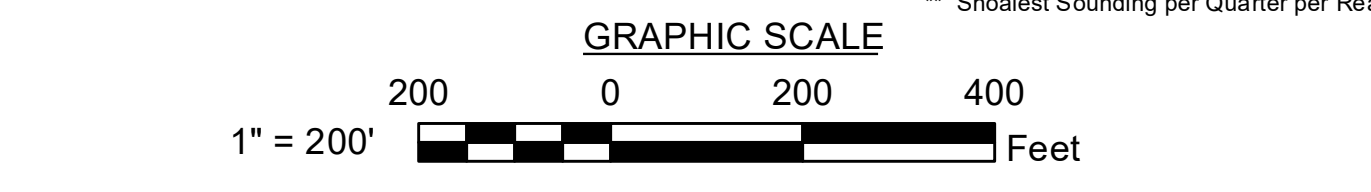
File Name: MA_62_FLR_20190125_CS_2019_012

SHEET IDENTIFICATION
Fall River Harbor

Sheet 2 of 9

LEGEND

--- Federal Navigation Channel	✱ Fixed Navigation Aids
— Channel Center Line	● Red Navigation Buoy
..... Cable Submarine	● Green Navigation Buoy
— Contour Line	■ Shoaling Area
⊗ Obstruction Point	● Shoalest Sounding**



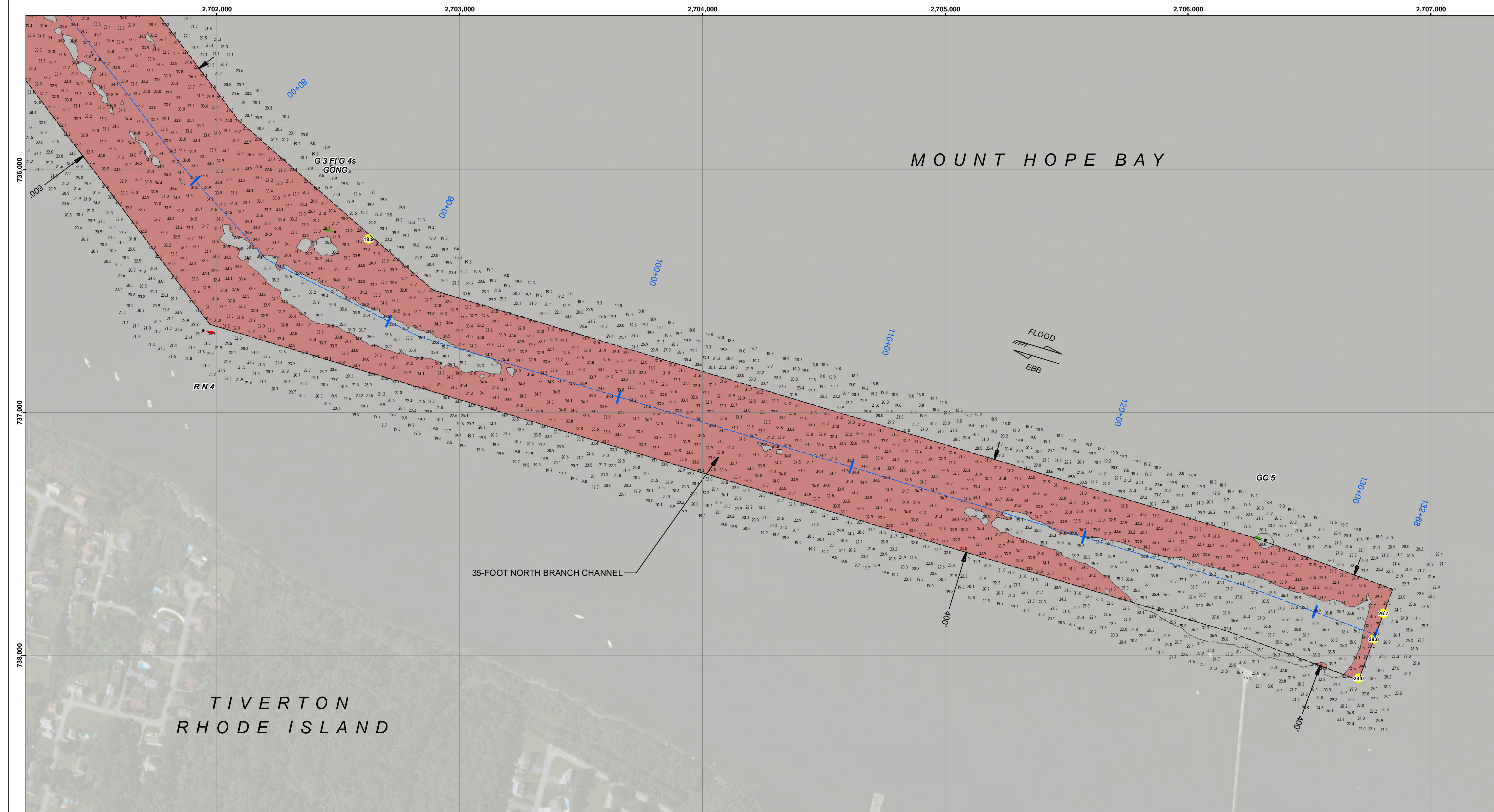
Notes:
Horizontal Datum: Mass Mainland, MA-2001 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: KEEGAN
Sonar System: Reson 7125 (Multibeam Sonar)
Sounding Frequency: 400 KHz
Survey Method: RTK GPS Tides
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 40'
Field Books: R&H 4566
Survey No.: FLR_CS_2019_012
Reference NOAA Chart No.: 13229

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 January 2019. 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. Orthorectification 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

Project Remarks
None

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.61 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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.



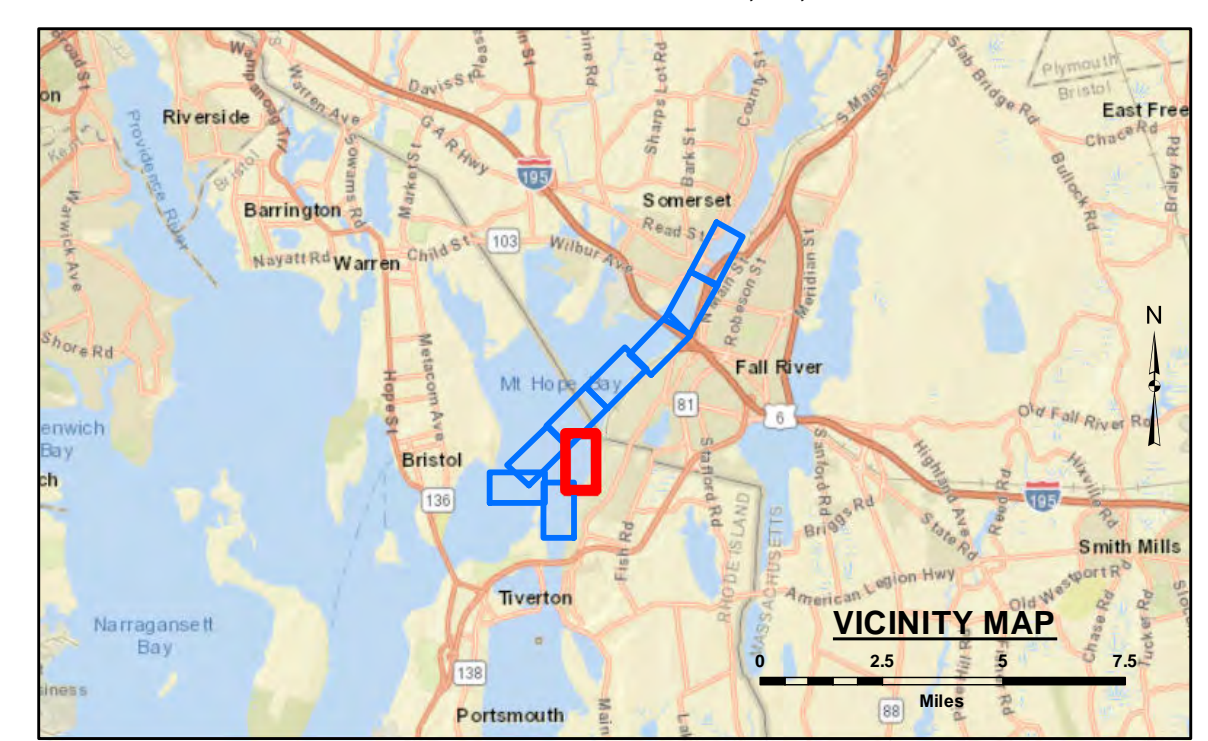
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SUBMITTED BY: William Walker	SURVEYED BY: PJB	CHECKED BY: WHV	ISSUE DATE: 3/28/2019
	APPROVED BY: NAE Survey		

FALL RIVER HARBOR AND MASSACHUSETTS RHODE ISLAND SURVEY CONDITION SURVEY 35-FOOT CHANNELS AND TURNING BASIN 30-FOOT CHANNELS AND 25-FOOT ANCHORAGE

File Name: MA_62_FLR_20190125_CS_2019_012

SHEET IDENTIFICATION
Fall River Harbor
Sheet 3 of 9

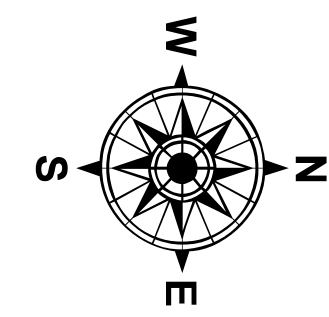


LEGEND

- Federal Navigation Channel
- Channel Center Line
- Cable Submarine
- 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" = 200'
0 200 400 Feet



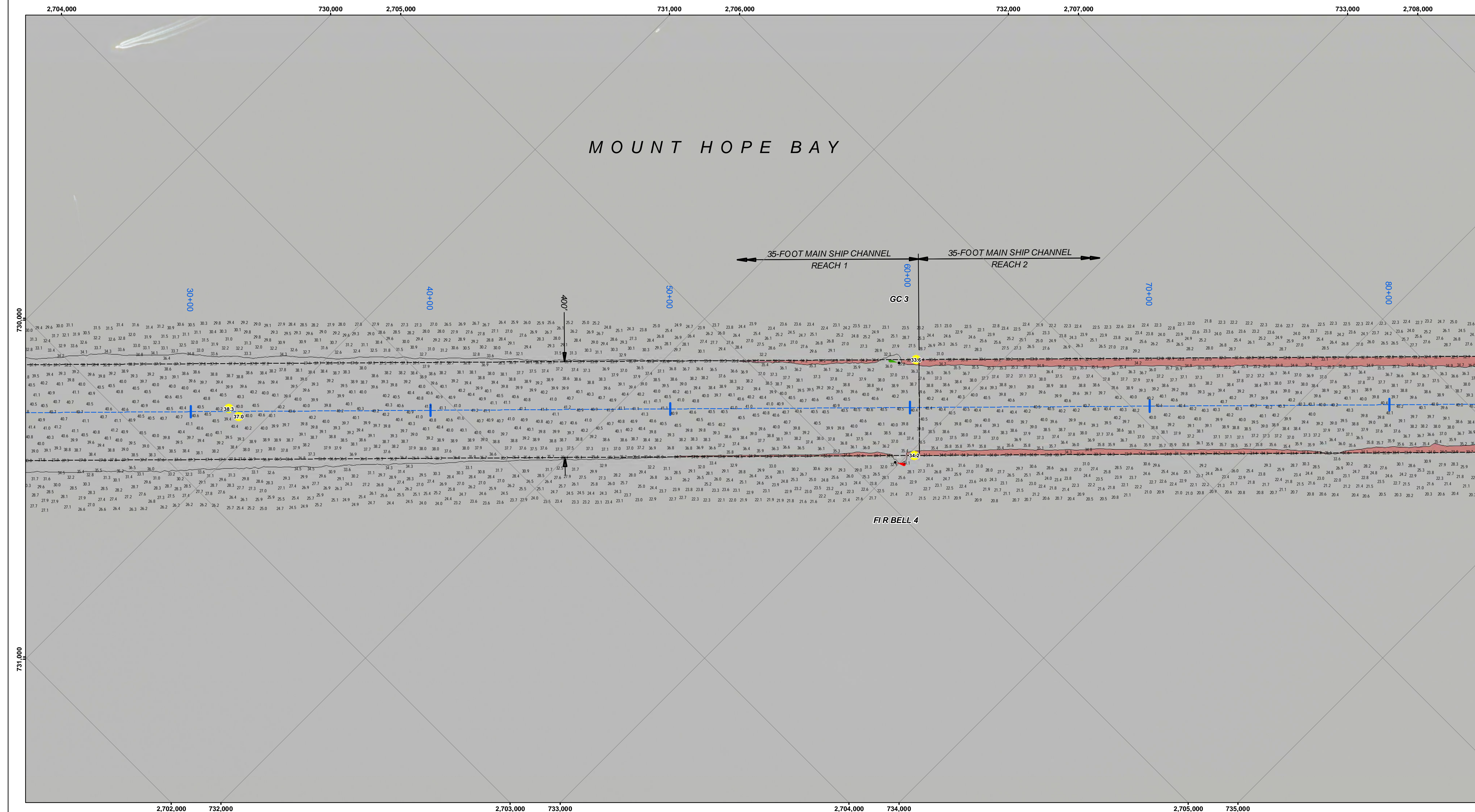
Notes:
Horizontal Datum: Mass Mainland, MA-2001 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: KEEGAN
Sonar System: Reson 7125 (Multibeam Sonar)
Sounding Frequency: 400 KHz
Survey Method: RTK GPS Tides
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 40'
Field Books: R&H 4566
Survey No.: FLR_CS_2019_012
Reference NOAA Chart No.: 13229

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 January 2019. 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. Orthometry 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

Project Remarks
None

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.51 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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.



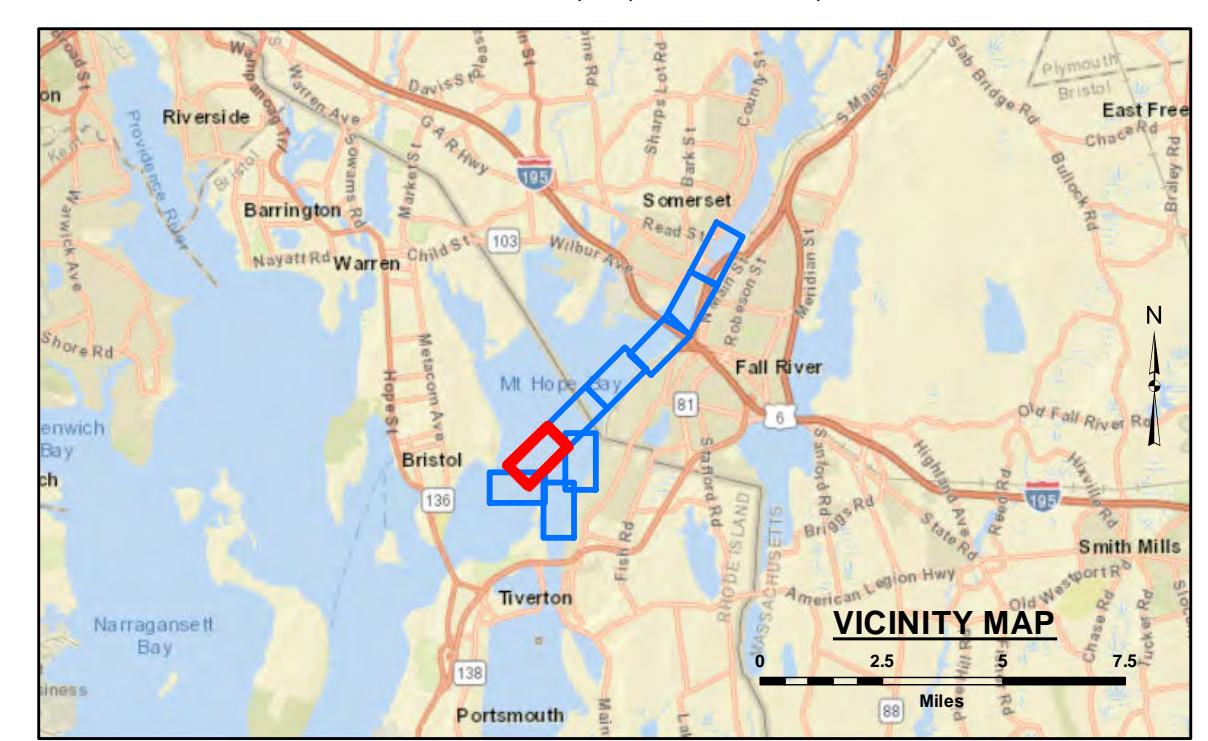
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SURVEYED BY: PJB	CHECKED BY: WHY	ISSUE DATE: 3/23/2019
SUBMITTED BY: William Walker	APPROVED BY: NAE Survey	MAP DOCUMENT: MA_C_E_P-19-012
U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT		SIZE: A3

**FALL RIVER HARBOR
RHODE ISLAND AND MASSACHUSETTS
CONDITION SURVEY
35-FOOT CHANNELS AND TURNING BASIN
30-FOOT CHANNELS AND
25-FOOT ANCHORAGE**

File Name: MA_62_FLR_20190125_CS_2019_012

SHEET IDENTIFICATION
Fall River Harbor
Sheet 4 of 9

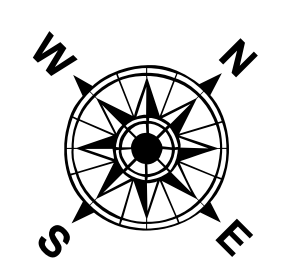


LEGEND

- Federal Navigation Channel
- Channel Center Line
- Cable Submarine
- 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" = 200'
0 200 400 Feet



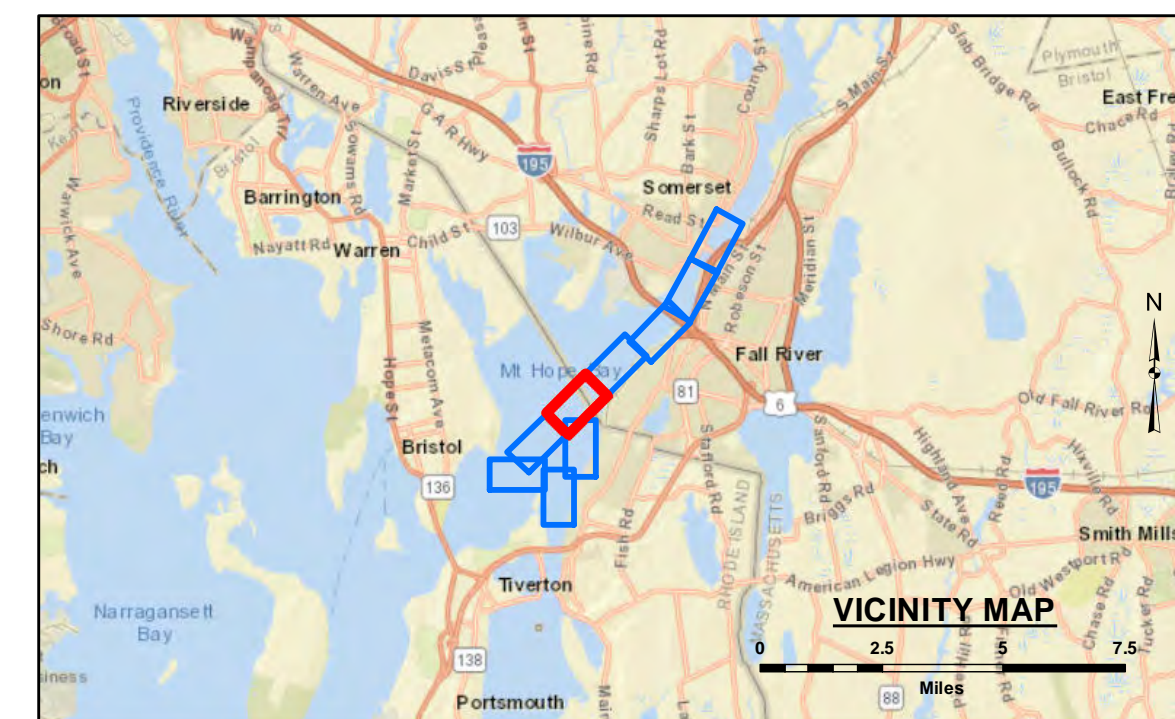
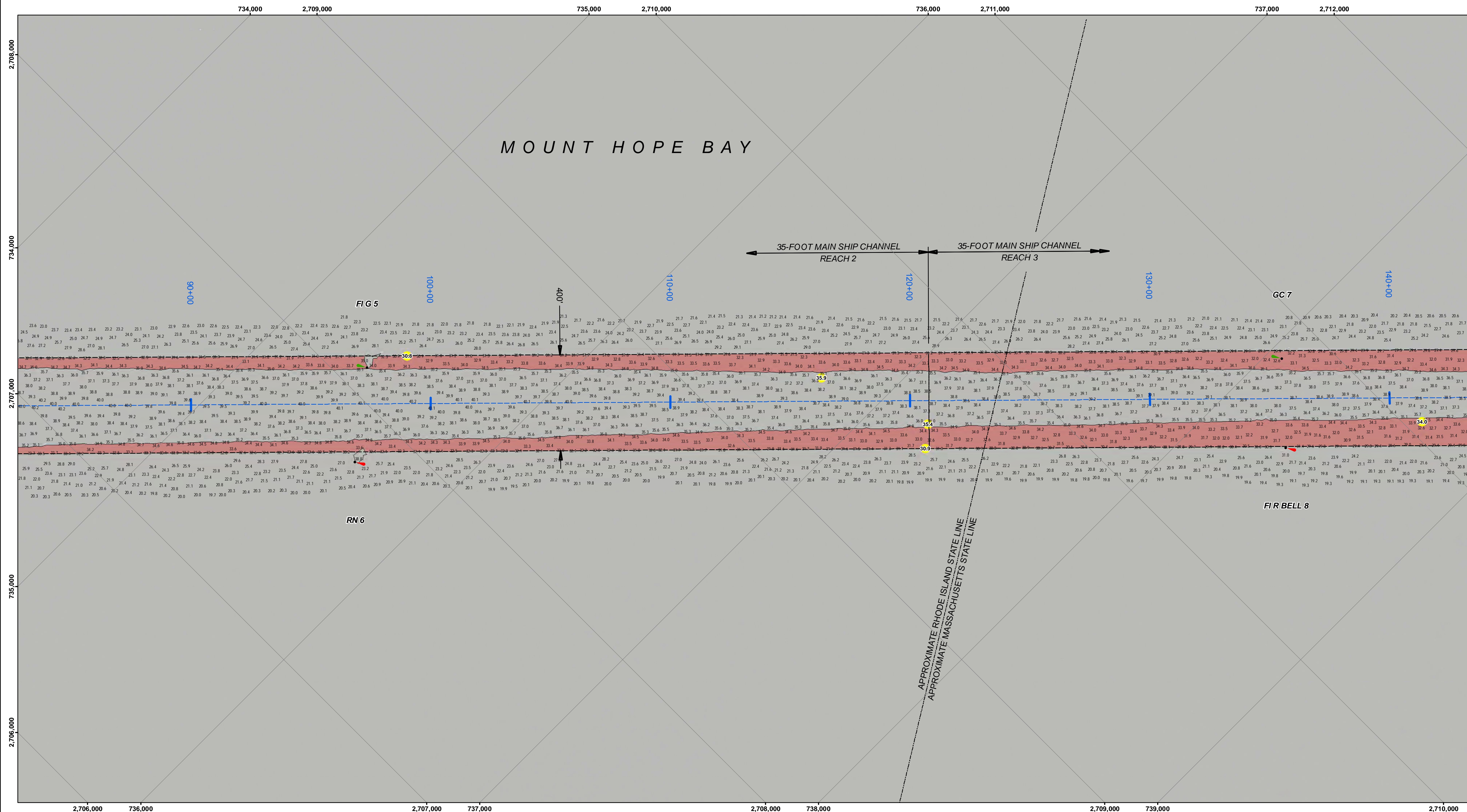
Notes:
Horizontal Datum: Mass Mainland, MA-2001 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: KEEGAN
Sonar System: Reson 7125 (Multibeam Sonar)
Sounding Frequency: 400 KHz
Survey Method: RTK GPS Tides
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 40'
Field Books: R&H 4566
Survey No.: FLR_CS_2019_012
Reference NOAA Chart No.: 13229

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
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Project Remarks
None

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.61 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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

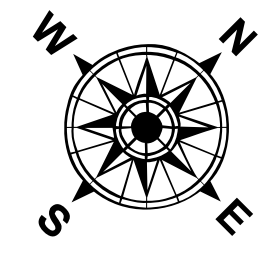
- Federal Navigation Channel
- Channel Center Line
- Cable Submarine
- Contour Line
- ⊗ Obstruction Point
- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
- Green Navigation Buoy
- Shoaling Area
- Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 200'

0 200 400 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
 Sonar System: Reson 7125 (Multibeam Sonar)
 Sounding Frequency: 400 kHz
 Survey Method: RTK GPS Tides
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 40'
 Field Books: R&H 4566
 Survey No.: FLR_CS_2019_012
 Reference NOAA Chart No.: 13229

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Project Remarks
 None

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.61 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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.



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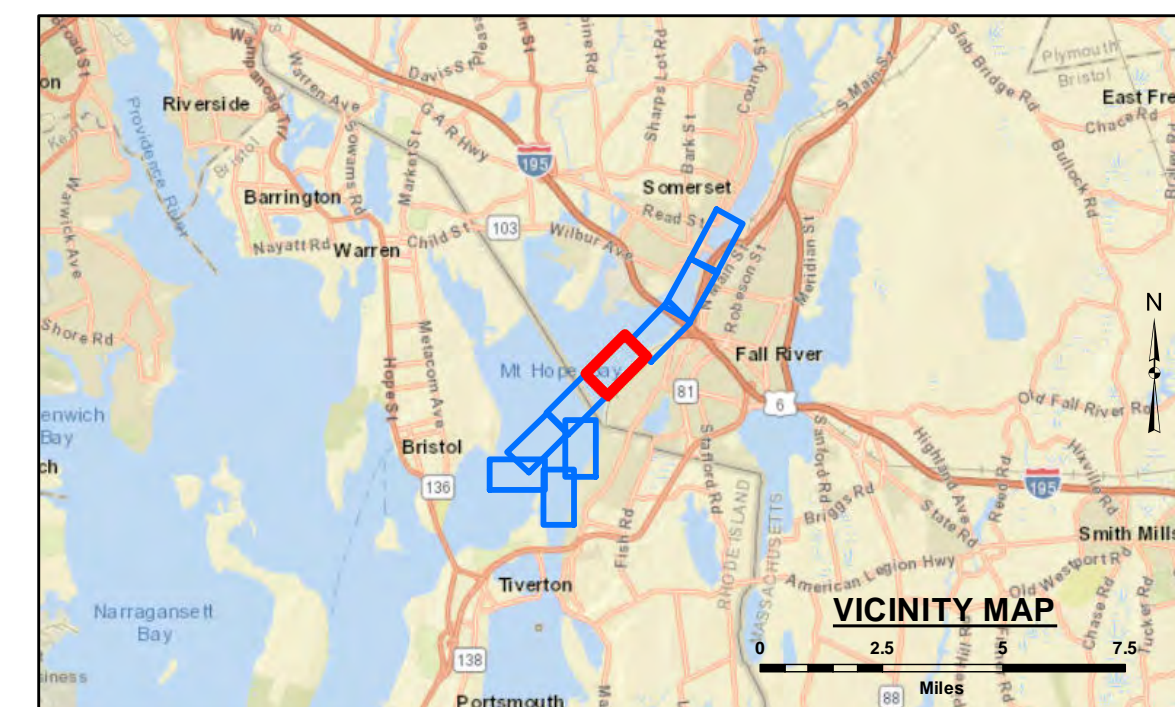
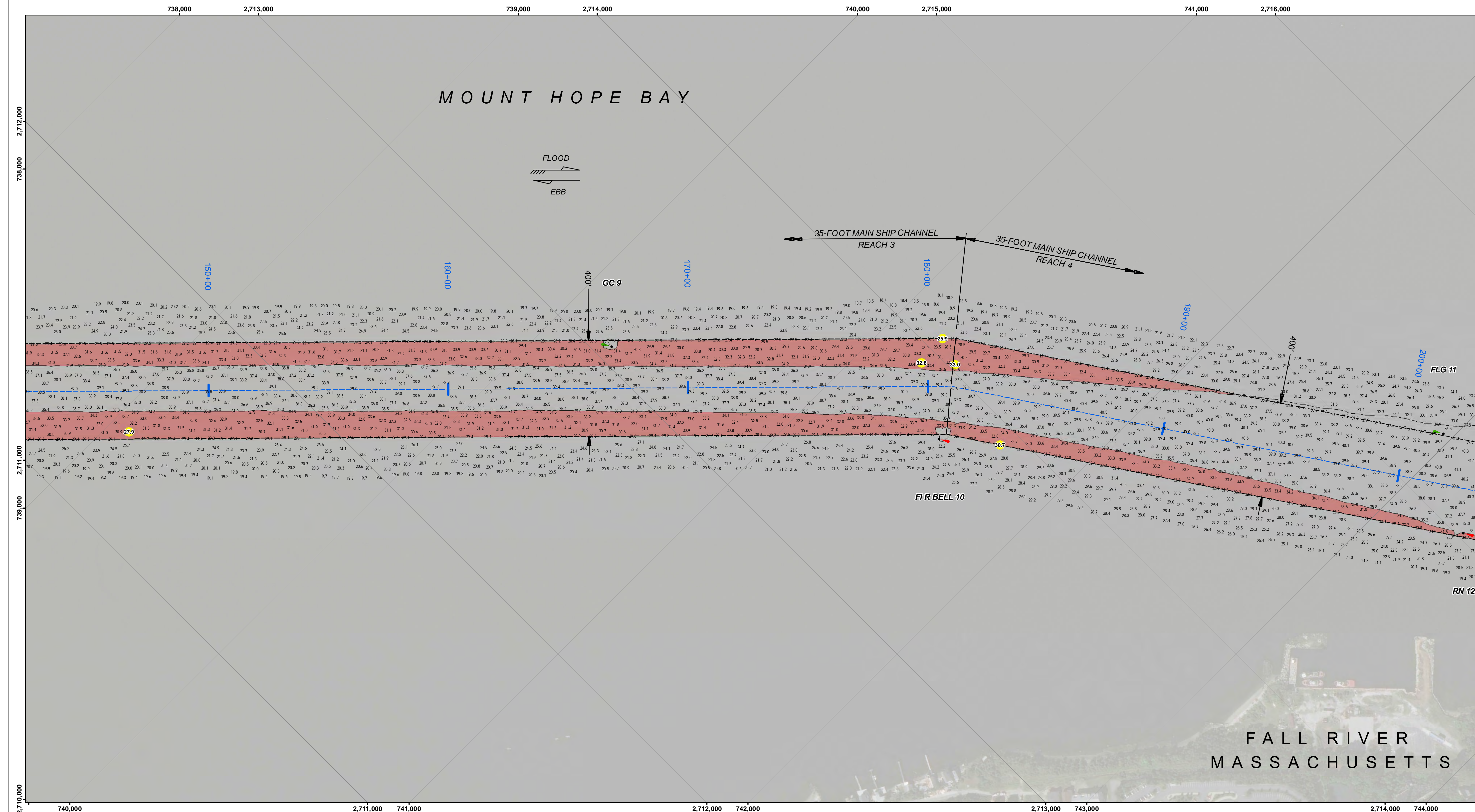
U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	SURVEYED BY: PJB	CHECKED BY: WHV	ISSUE DATE: 3/28/2019
	APPROVED BY: NAE Survey	MAP DOCUMENT: MAP_CENAE	
	SIZE: A3/D3		

**FALL RIVER HARBOR
 RHODE ISLAND AND MASSACHUSETTS
 CONDITION SURVEY
 35-FOOT CHANNELS AND TURNING BASIN
 30-FOOT CHANNELS AND
 25-FOOT ANCHORAGE**

File Name: MA_62_FLR_20190125_CS_2019_012

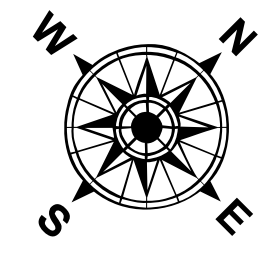
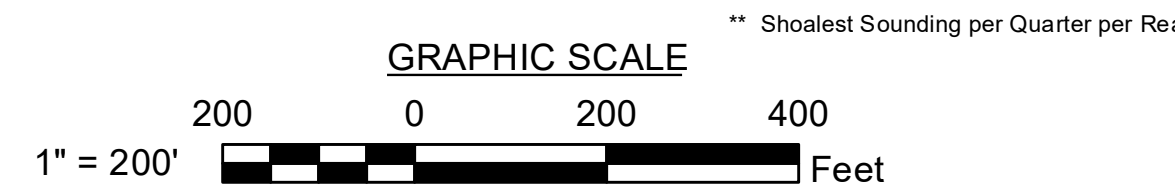
SHEET IDENTIFICATION
 Fall River Harbor

Sheet 5 of 9



LEGEND

--- Federal Navigation Channel	✳ Fixed Navigation Aids
— Channel Center Line	🚩 Red Navigation Buoy
..... Cable Submarine	🟢 Green Navigation Buoy
— Contour Line	🔴 Shoaling Area
⊗ Obstruction Point	● Shoalest Sounding**



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
 Sonar System: Reson 7125 (Multibeam Sonar)
 Sounding Frequency: 400 kHz
 Survey Method: RTK GPS Tides
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 40'
 Field Books: R&H 4566
 Survey No.: FLR_CS_2019_012
 Reference NOAA Chart No.: 13229

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
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Project Remarks
 None

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.61 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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.



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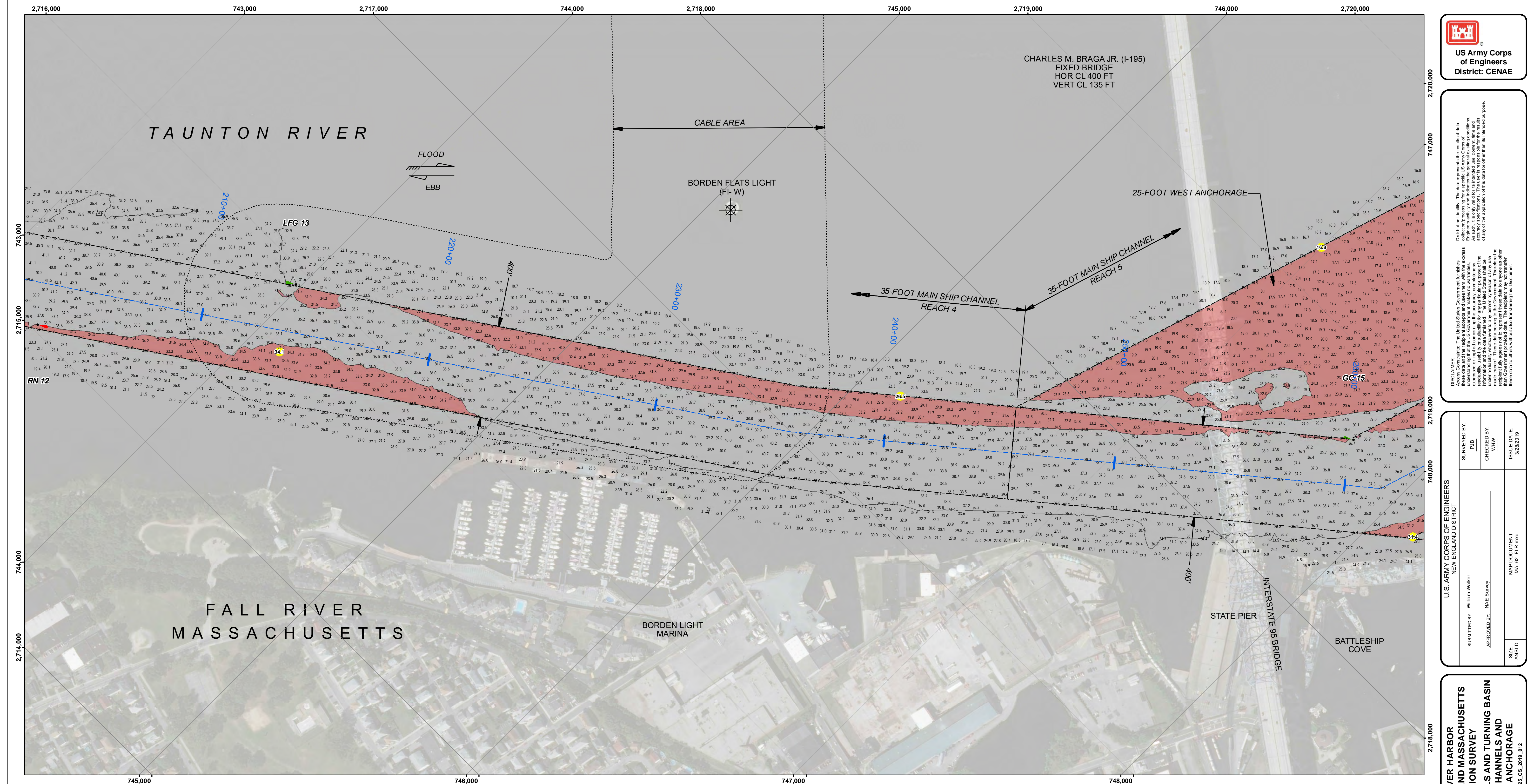
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SUBMITTED BY: William Walker	SURVEYED BY: PJB	CHECKED BY: WHV	ISSUE DATE: 3/28/2019
	APPROVED BY: NAE Survey		MAP DOCUMENT: MAP_CENAE

FALL RIVER HARBOR AND MASSACHUSETTS RHODE ISLAND SURVEY CONDITION SURVEY 35-FOOT CHANNELS AND TURNING BASIN 30-FOOT CHANNELS AND 25-FOOT ANCHORAGE

File Name: MA_62_FLR_20190125_CS_2019_012

SHEET IDENTIFICATION
 Fall River Harbor
 Sheet 6 of 9

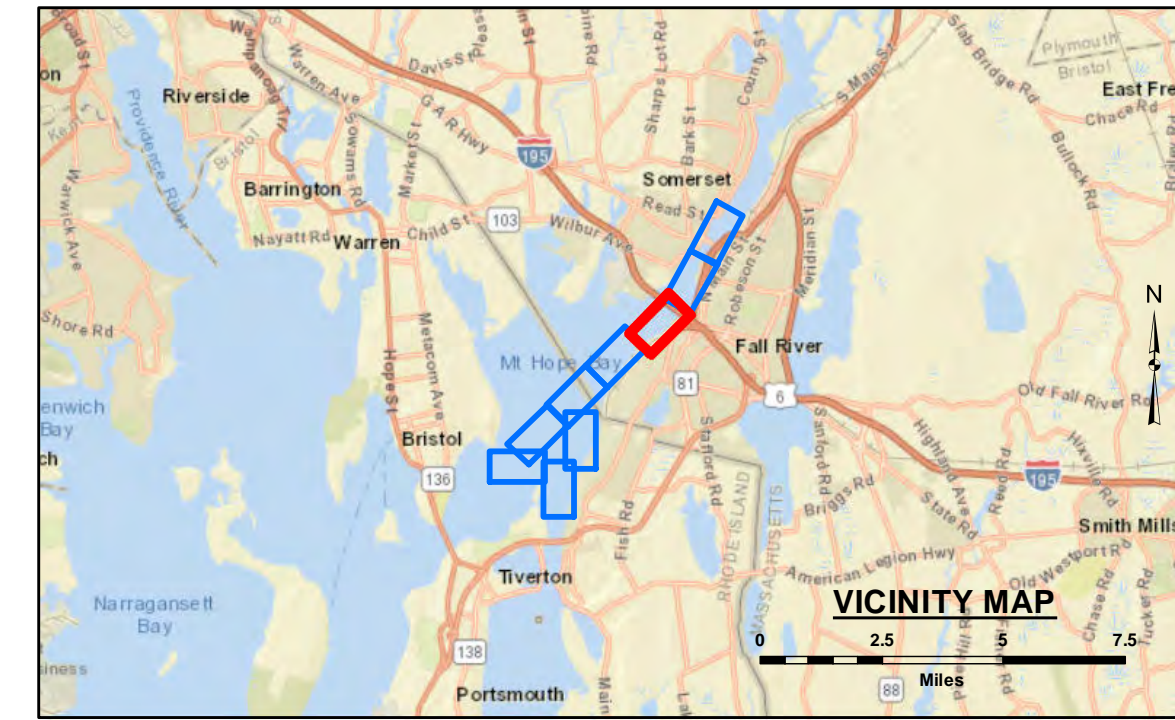


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U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	SUBMITTED BY: William Walker	CHECKED BY: WHV	ISSUE DATE: 3/28/2019
	APPROVED BY: NAE Survey		
	MAP DOCUMENT: NAE_CENAE		

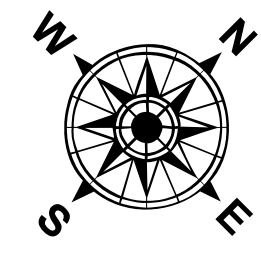
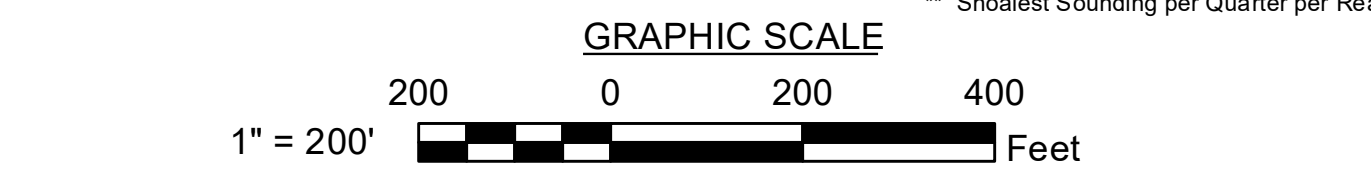
**FALL RIVER HARBOR
RHODE ISLAND AND MASSACHUSETTS
CONDITION SURVEY
35-FOOT CHANNELS AND TURNING BASIN
30-FOOT CHANNELS AND
25-FOOT ANCHORAGE**

File Name: MA_62_FLR_20190125_CS_2019_012



LEGEND

--- Federal Navigation Channel	✳ Fixed Navigation Aids
— Channel Center Line	● Red Navigation Buoy
..... Cable Submarine	● Green Navigation Buoy
— Contour Line	■ Shoaling Area
⊗ Obstruction Point	● Shoalest Sounding**



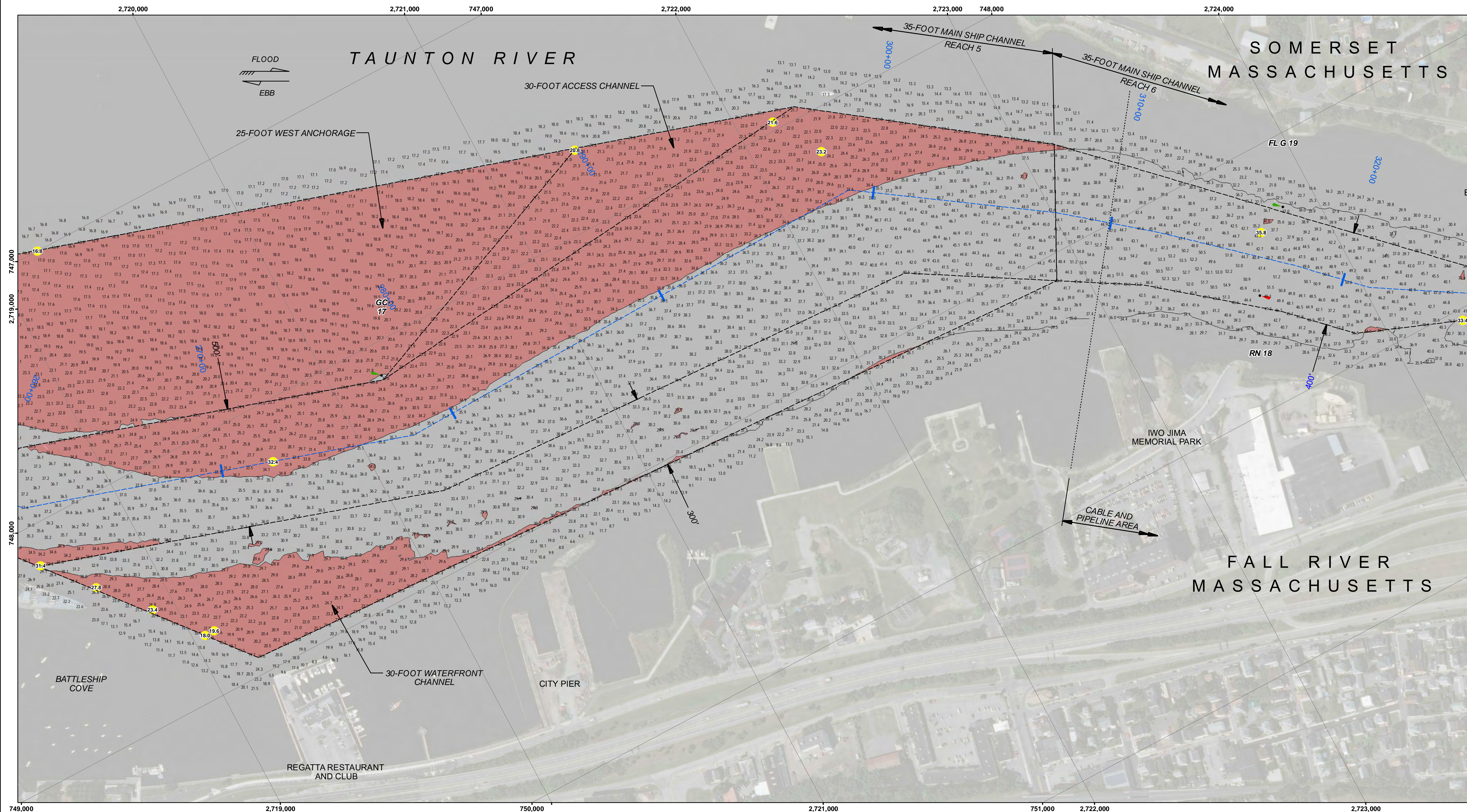
Notes:
Horizontal Datum: Mass Mainland, MA-2001 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: KEEGAN
Sounding System: Reson 7125 (Multibeam Sonar)
Sounding Frequency: 400 kHz
Survey Method: RTK GPS Tides
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 40'
Field Books: R&H 4566
Survey No.: FLR_CS_2019_012
Reference NOAA Chart No.: 13229

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
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Project Remarks
None

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.33 feet to 2.61 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the vicinity of Fall River Harbor, 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
- Channel Center Line
- Cable Submarine
- 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" = 200'

0 200 400 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
 Sonar System: Reson 7125 (Multibeam Sonar)
 Sounding Frequency: 400 KHz
 Survey Method: RTK GPS Tides
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 40'
 Field Books: R&H 4566
 Survey No.: FLR_CS_2019_012
 Reference NOAA Chart No.: 13229

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

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Project Remarks

None

Water Level Information

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US Army Corps of Engineers
 District: CENAE

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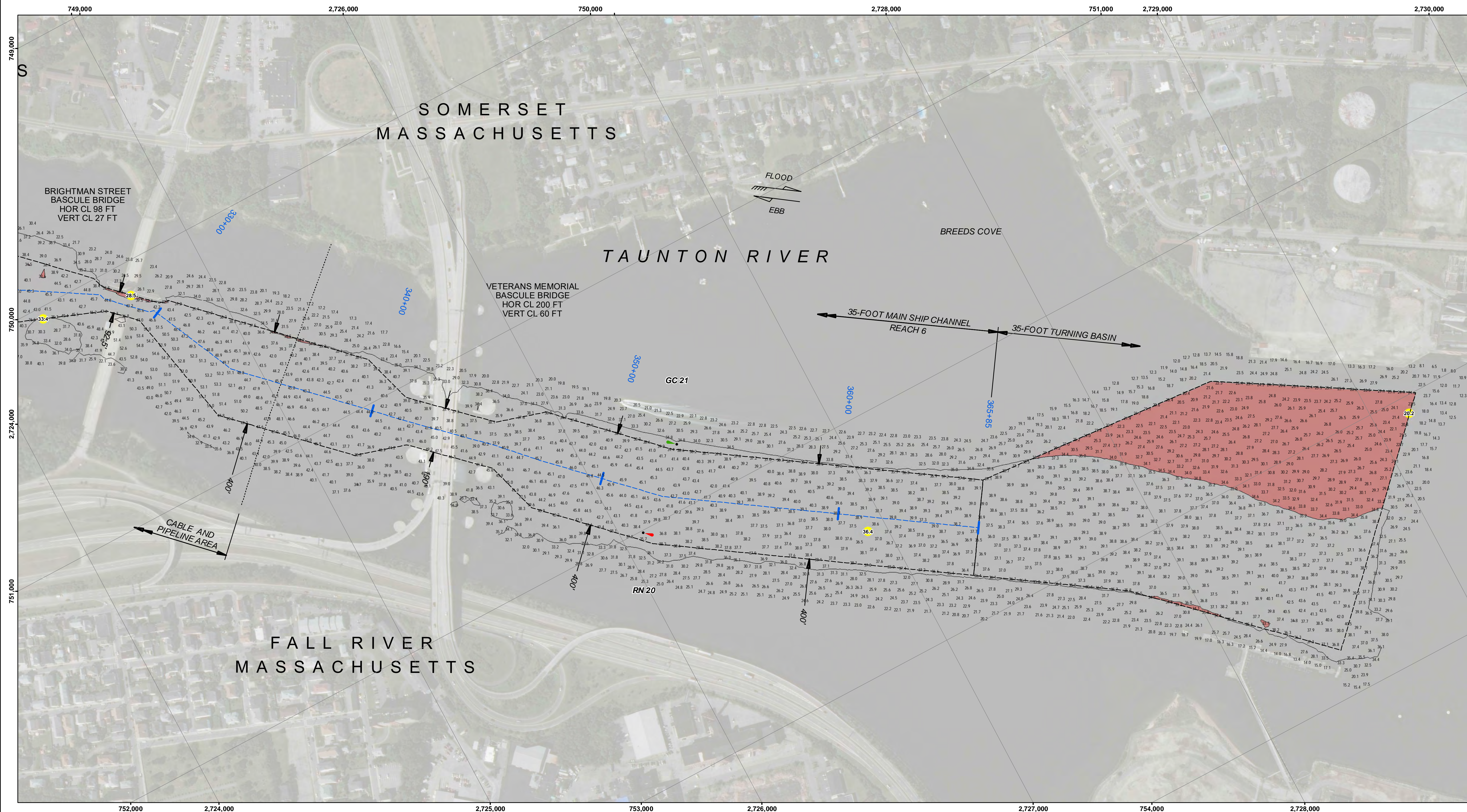
U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	SUBMITTED BY: William Walker	APPROVED BY: NAE Survey	MAP DOCUMENT: NA-CG-F-1000
	CHECKED BY: WHW	ISSUE DATE: 3/28/2019	
		SIZE: A3/D3	

FALL RIVER HARBOR AND MASSACHUSETTS
RHODE ISLAND AND MASSACHUSETTS
CONDITION SURVEY
35-FOOT CHANNELS AND TURNING BASIN
30-FOOT CHANNELS AND
25-FOOT ANCHORAGE

File Name: MA_62_FLR_20190125_CS_2019_012

SHEET IDENTIFICATION
 Fall River Harbor

Sheet 8 of 9



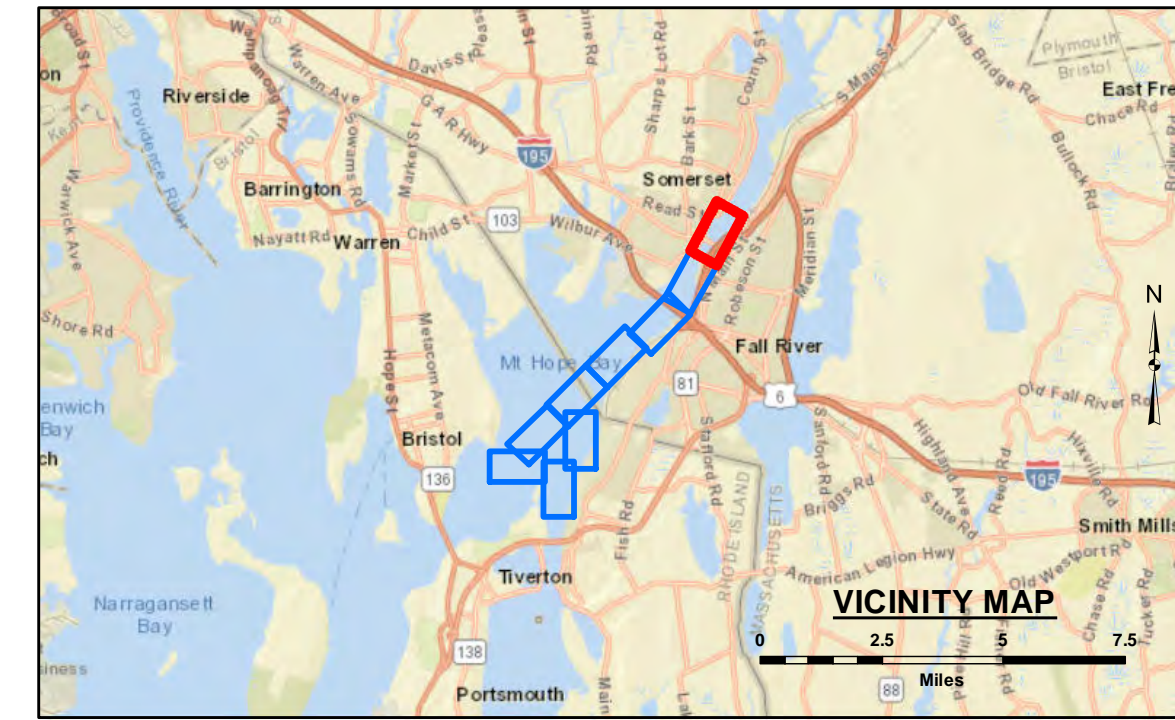
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SUBMITTED BY: William Walker	CHECKED BY: MWH	ISSUE DATE: 3/26/2019
APPROVED BY: NAE Survey	MAP DOCUMENT: MAP_CENAE_1910125	
SIZE: A3 (11x17)		

FALL RIVER HARBOR AND MASSACHUSETTS RHODE ISLAND SURVEY CONDITION SURVEY 35-FOOT CHANNELS AND TURNING BASIN 30-FOOT CHANNELS AND 25-FOOT ANCHORAGE

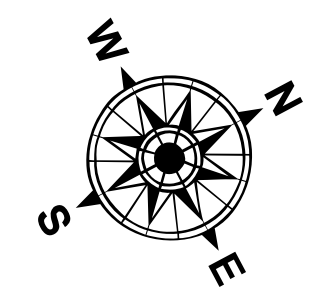
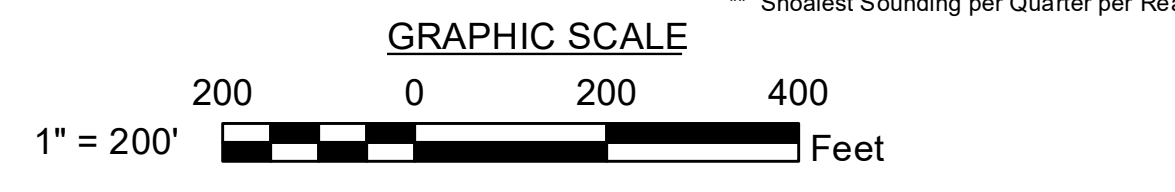
File Name: MA_62_FLR_20190125_CS_2019_012

SHEET IDENTIFICATION
Fall River Harbor
Sheet 9 of 9



LEGEND

--- Federal Navigation Channel	✱ Fixed Navigation Aids
— Channel Center Line	● Red Navigation Buoy
..... Cable Submarine	● Green Navigation Buoy
— Contour Line	■ Shoaling Area
⊗ Obstruction Point	● Shoalest Sounding**



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: KEGAN
Sonar System: Reson 7125 (Multibeam Sonar)
Sounding Frequency: 400 kHz
Survey Method: RTK GPS Tides
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 40'
Field Books: R&H 4566
Survey No.: FLR_CS_2019_012
Reference NOAA Chart No.: 13229

General Notes
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Project Remarks
None

Water Level Information
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