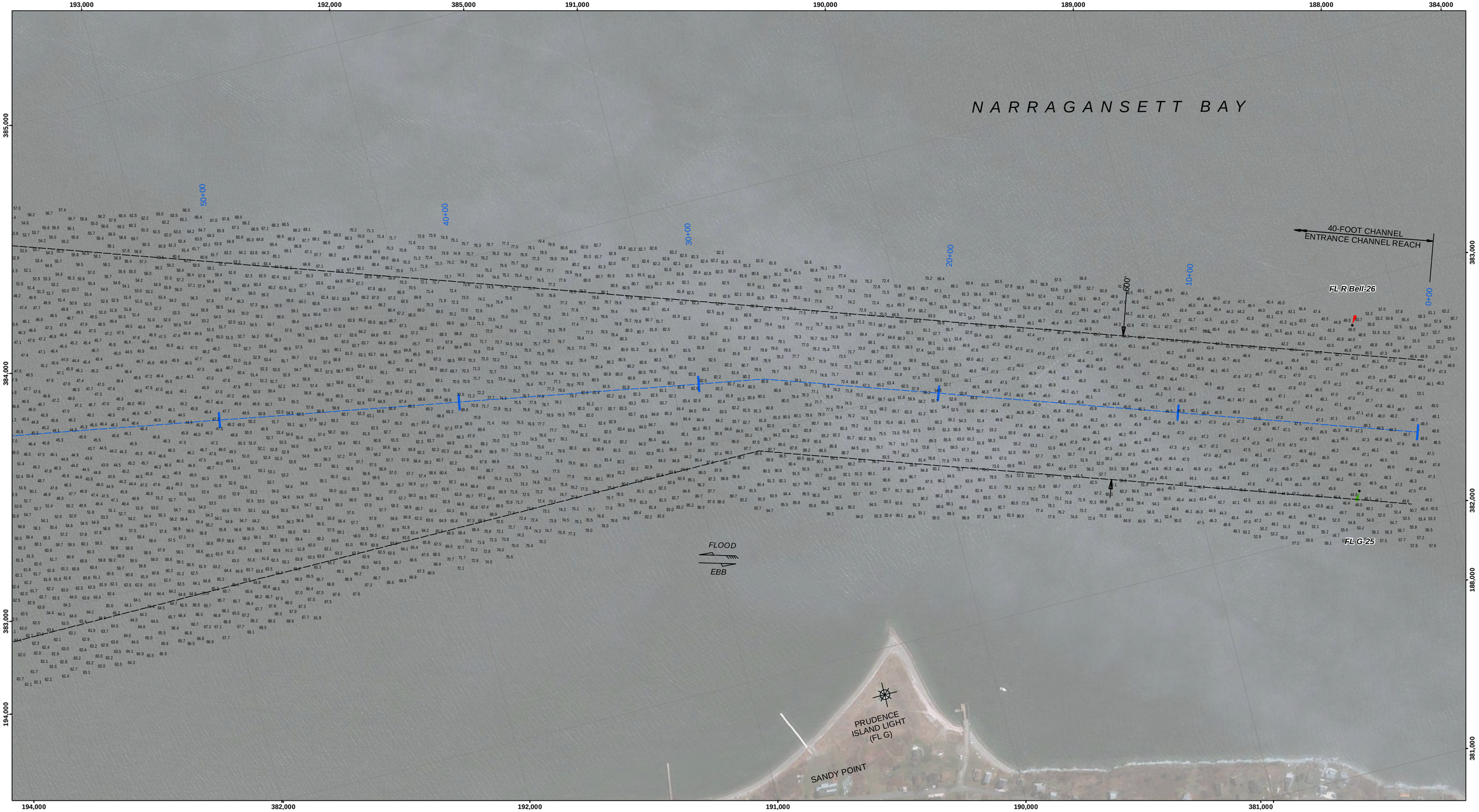

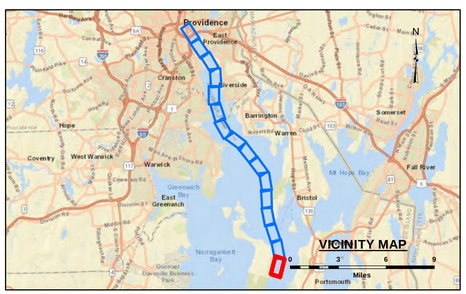

LEGEND

- 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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NYICT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

PROVIDENCE RIVER AND HARBOR PROVIDENCE, RHODE ISLAND CONDITION SURVEY

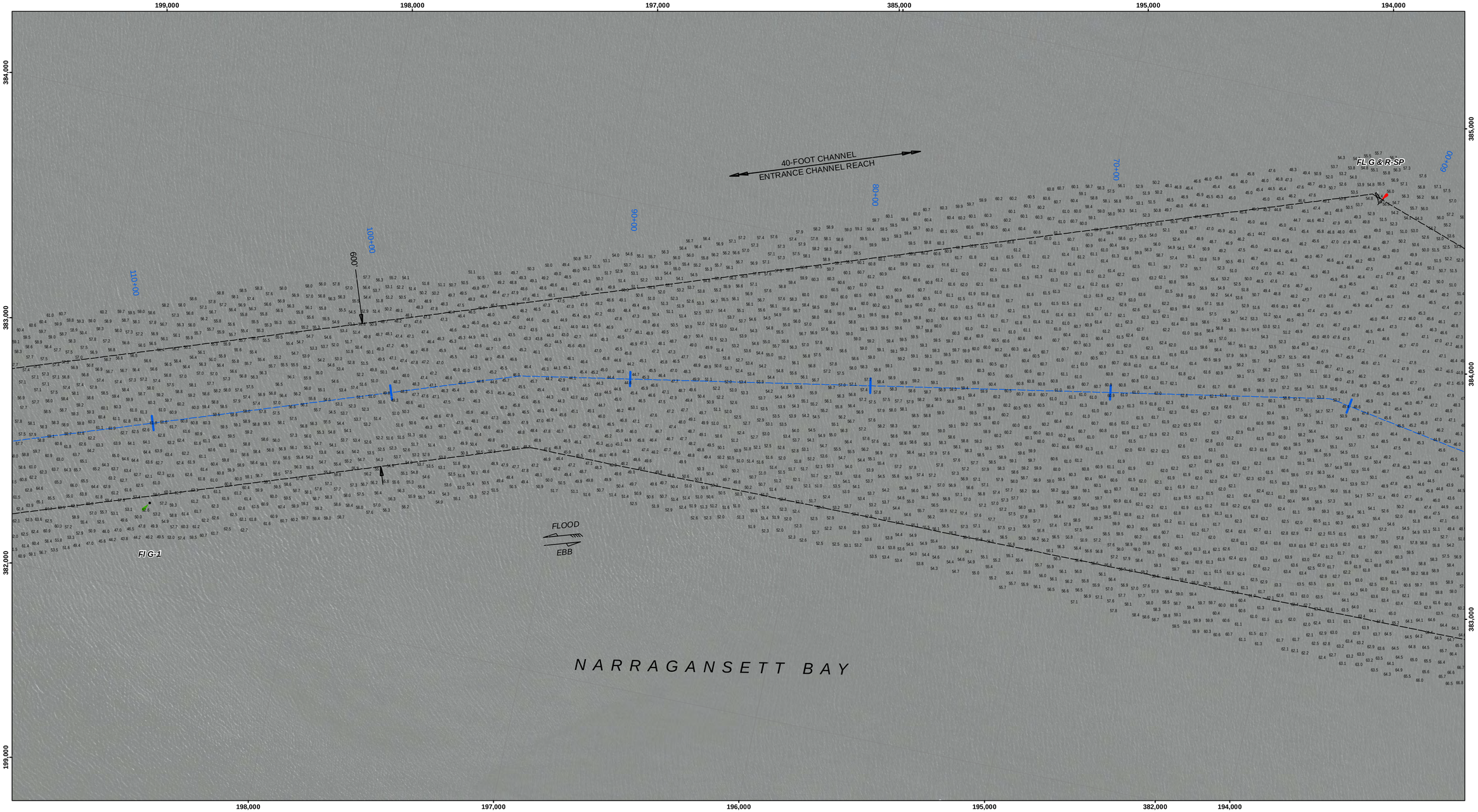
40-FOOT CHANNEL

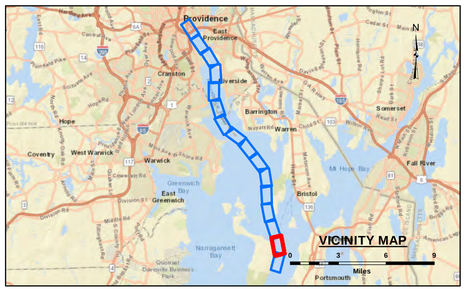
File Name: RI 06 PRO 20200429 CS 2019 067

SHEET IDENTIFICATION
Providence River

Sheet 1 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

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: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

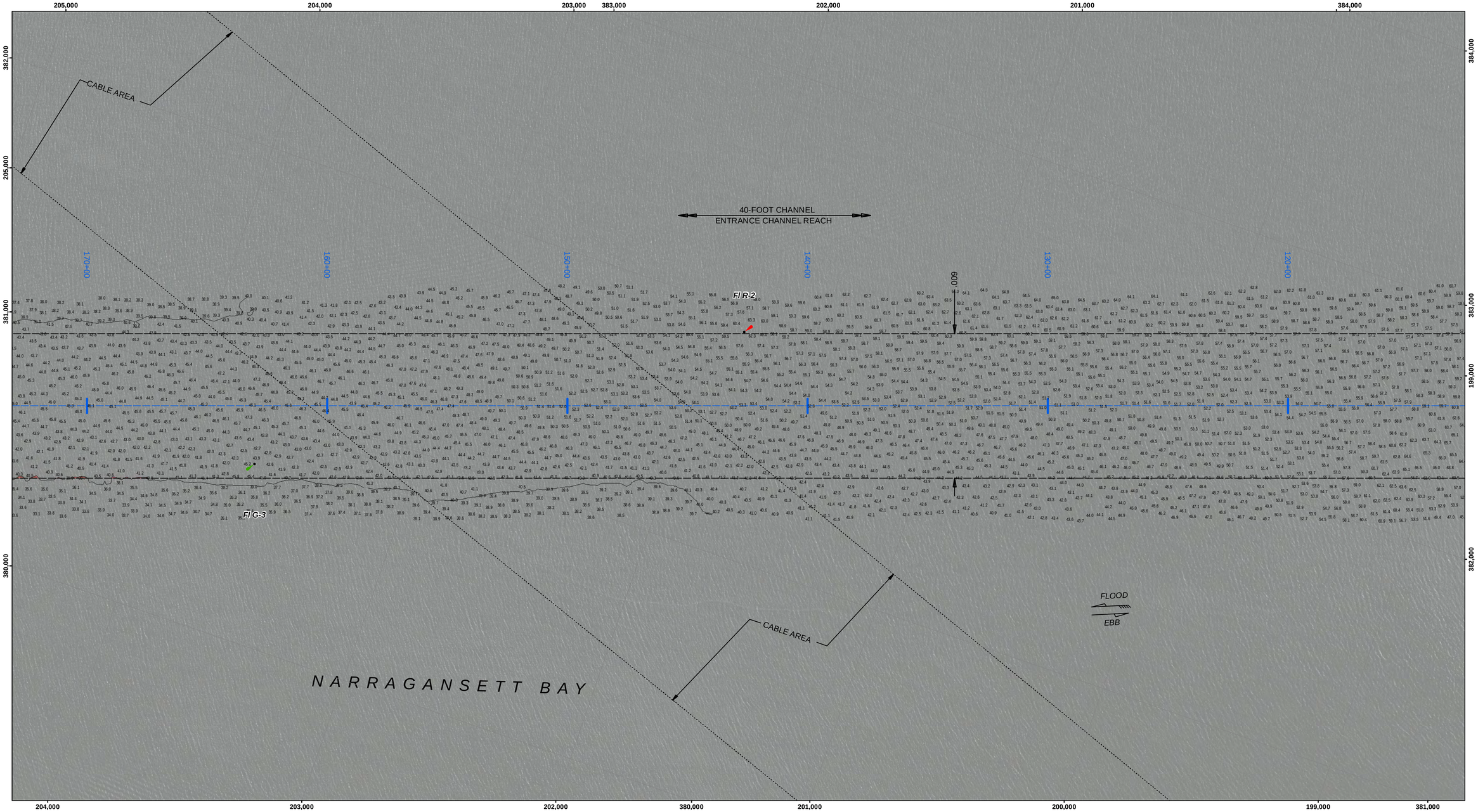
40-FOOT CHANNEL

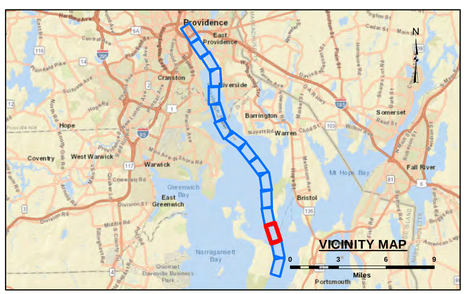
File Name: **RI 06 PRO 20200429 CS 2019 067**

SHEET IDENTIFICATION
Providence River

Sheet 2 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NYICT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

SIZE: ANSI D

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

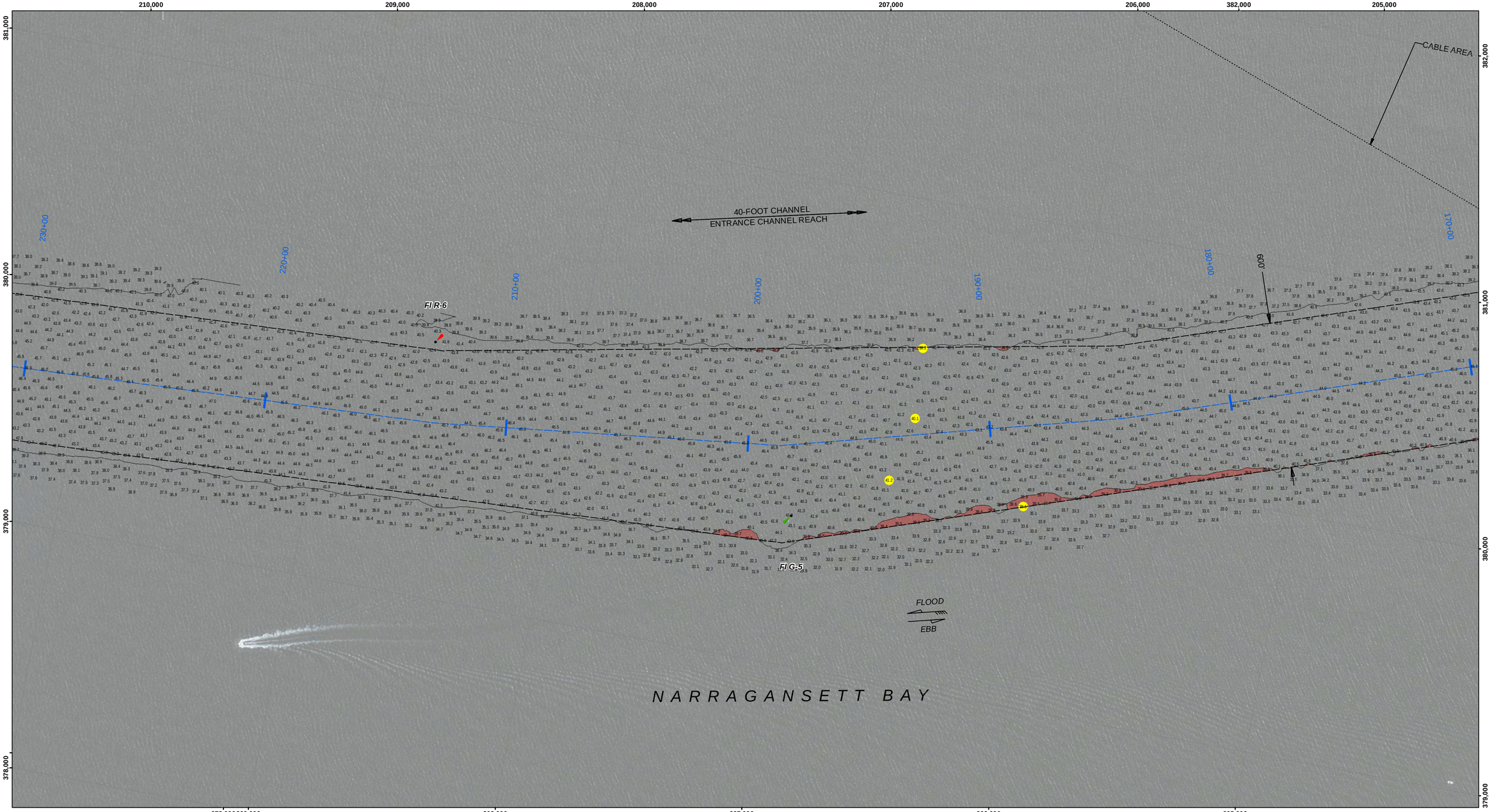
40-FOOT CHANNEL

File Name: **RI 06 PRO 20200429 CS 2019 067**

SHEET IDENTIFICATION
Providence River

Sheet 3 of 16

Revison Number: 4.1-20191105



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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020
SIZE: ANSI D
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

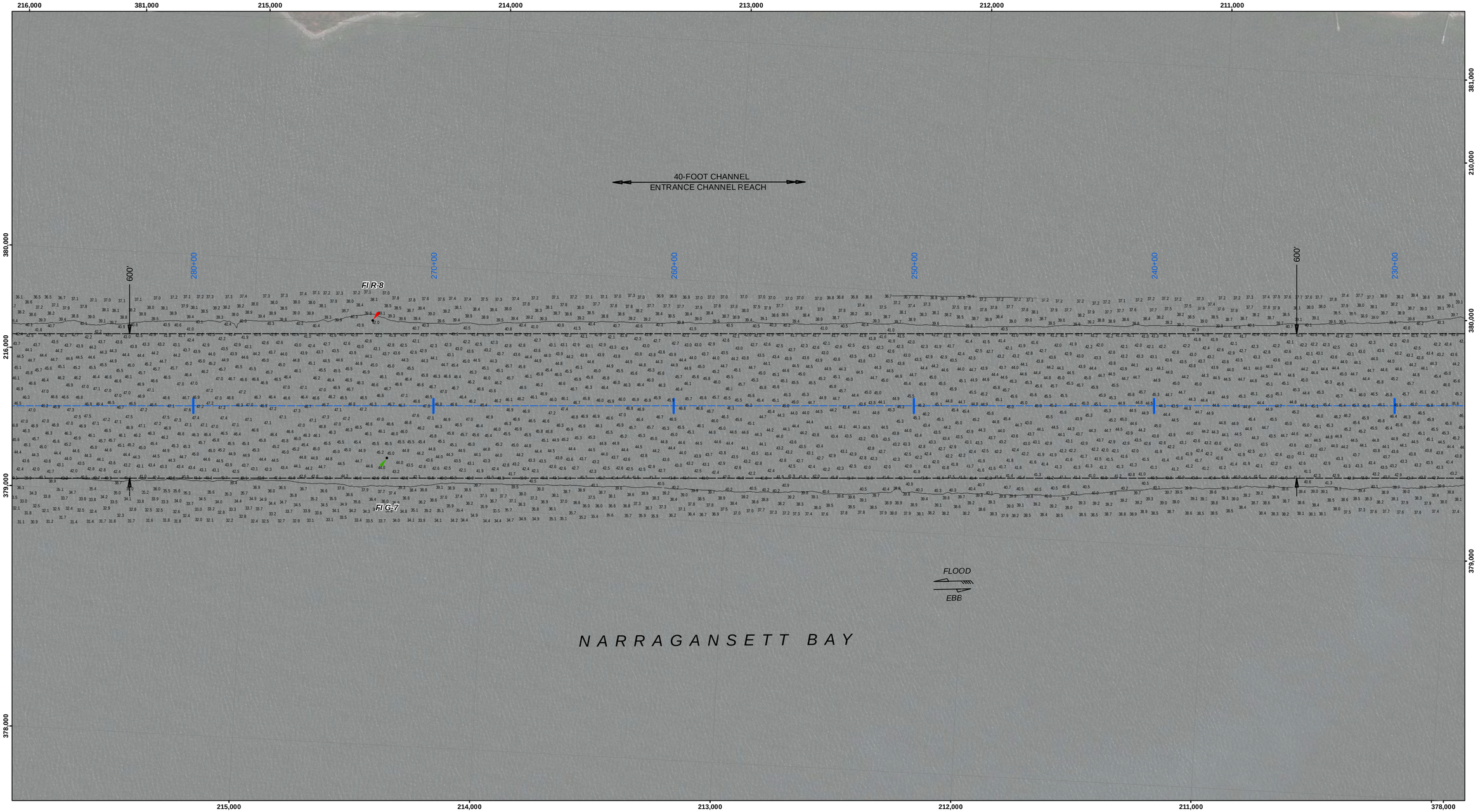
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
40-FOOT CHANNEL

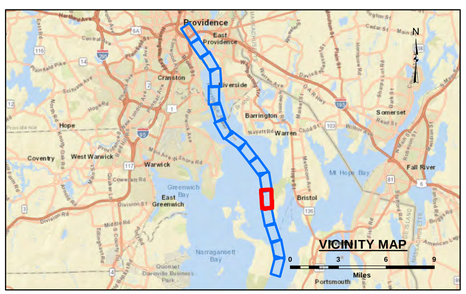
File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 4 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

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: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020
SIZE: ANSI D
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

PROVIDENCE RIVER AND HARBOR PROVIDENCE, RHODE ISLAND CONDITION SURVEY

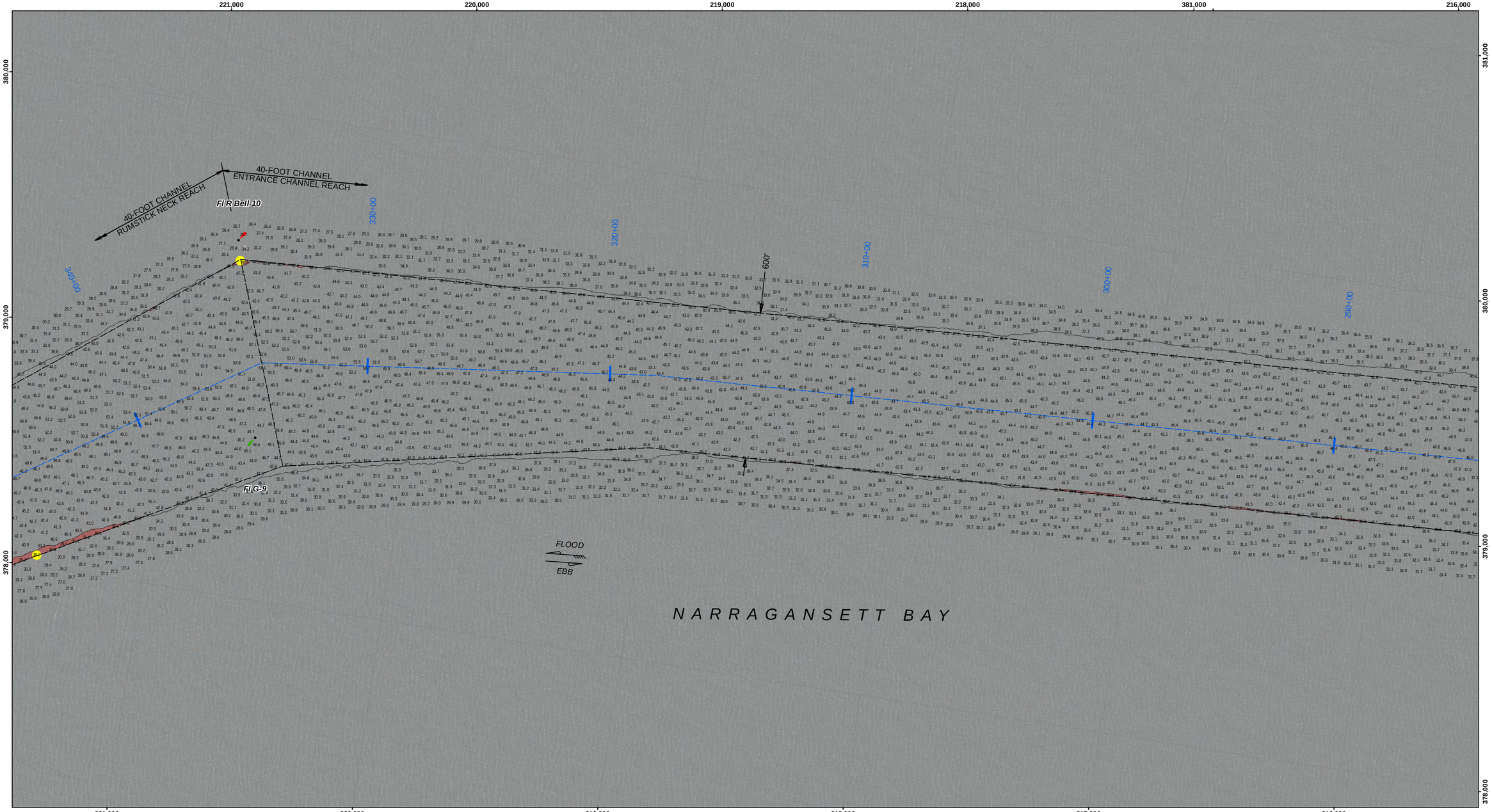
40-FOOT CHANNEL

File Name: RI 06 PRO 20200429 CS 2019 067

SHEET IDENTIFICATION
Providence River

Sheet 5 of 16

Revison Number: 4.1-20191105



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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 kHz
Survey Method: RTK, GPS TIDES
GPS_System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
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Sounding Sort Distance: 40'
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Survey No.: RI_06_PRO_20200429_CS_2019_067
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Project Remarks
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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: Zachary McAvoy
APPROVED BY: NAE Survey
SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020
SIZE: ANSI D
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

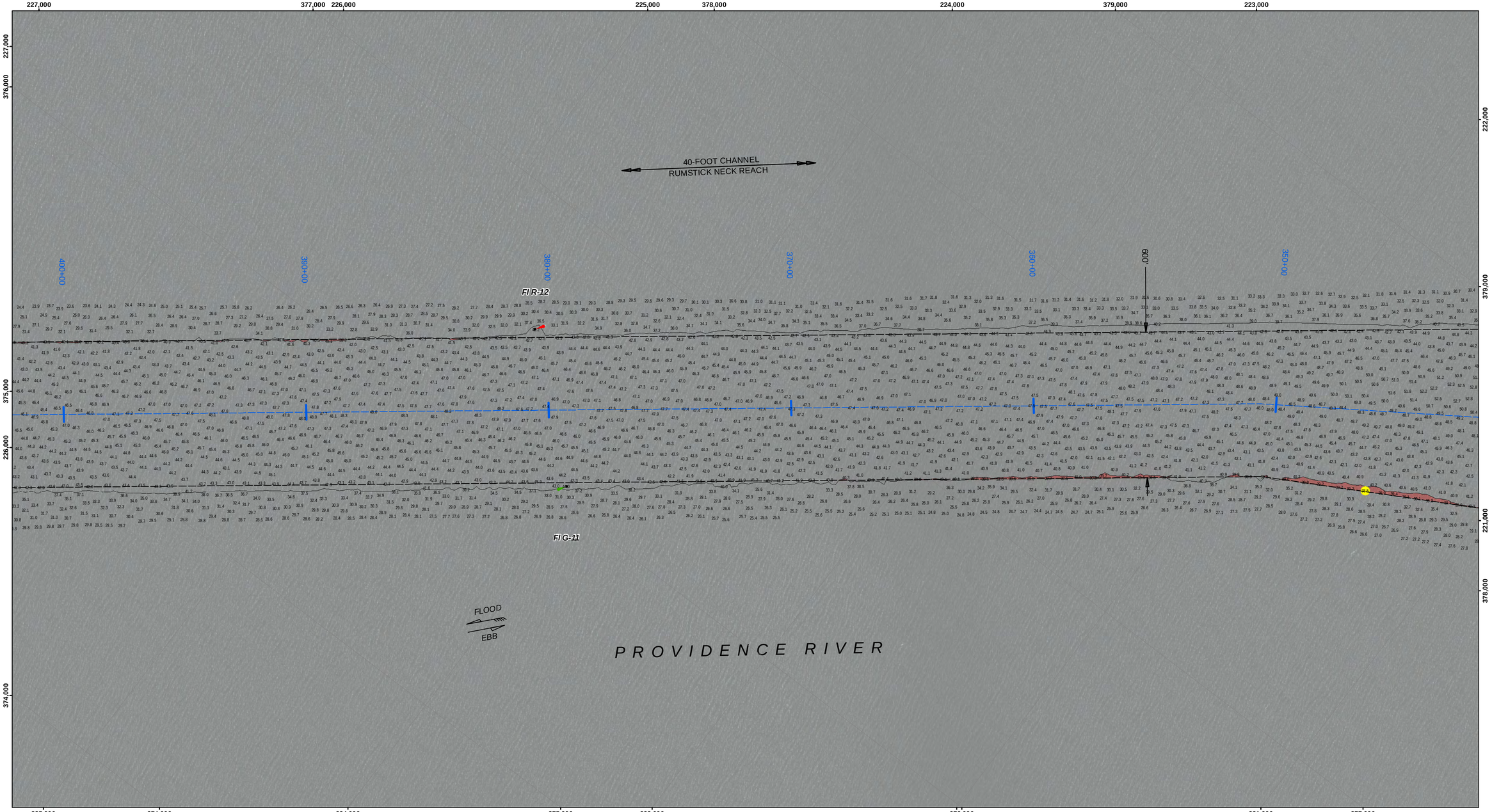
40-FOOT CHANNEL

File Name: **RI_06_PRO_20200429_CS_2019_067**

SHEET IDENTIFICATION
Providence River

Sheet 6 of 16

Revison Number: 4.1-20191105



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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

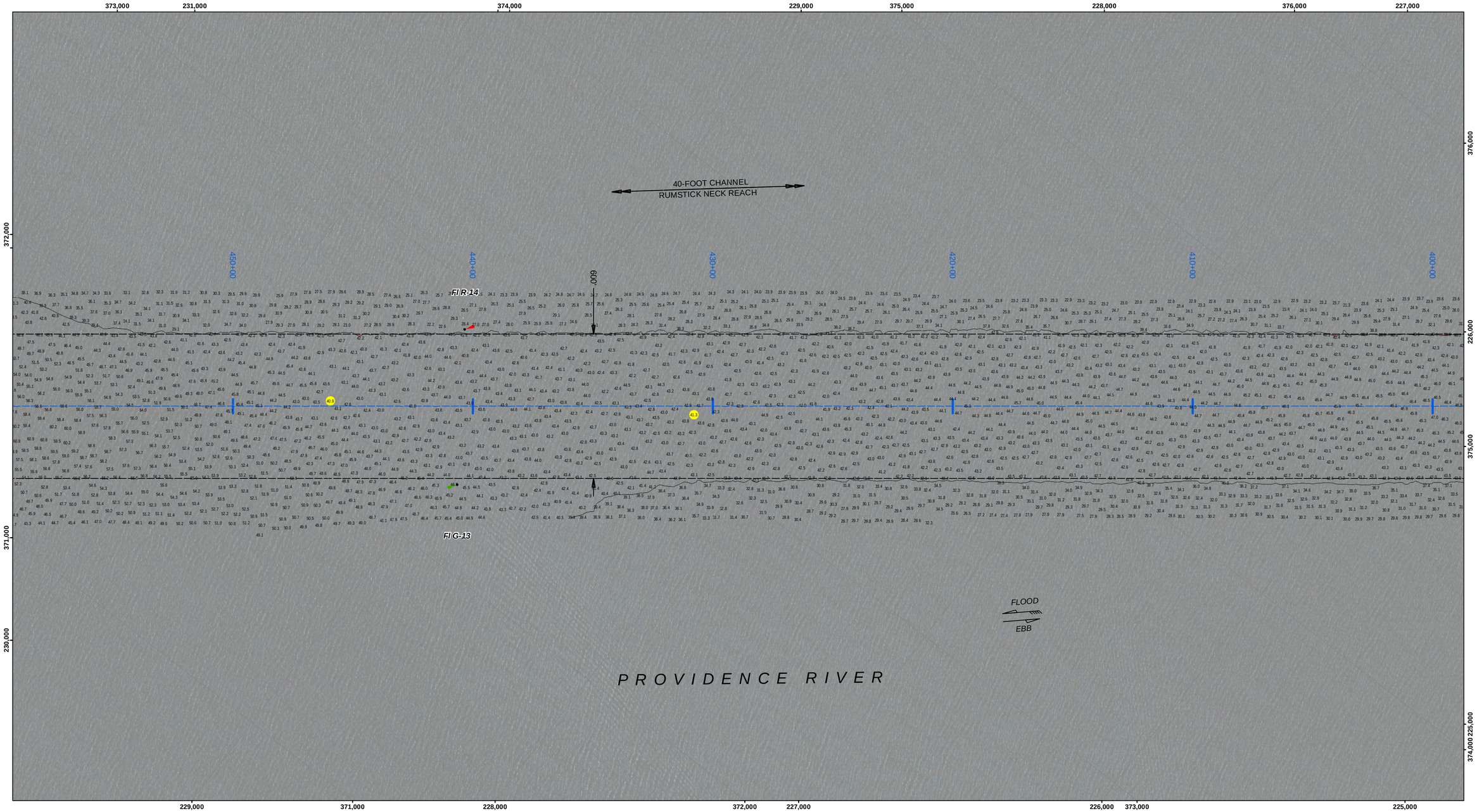
40-FOOT CHANNEL

File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 7 of 16

Revison Number: 4.1-20191105



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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020
SIZE: ANSI D
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

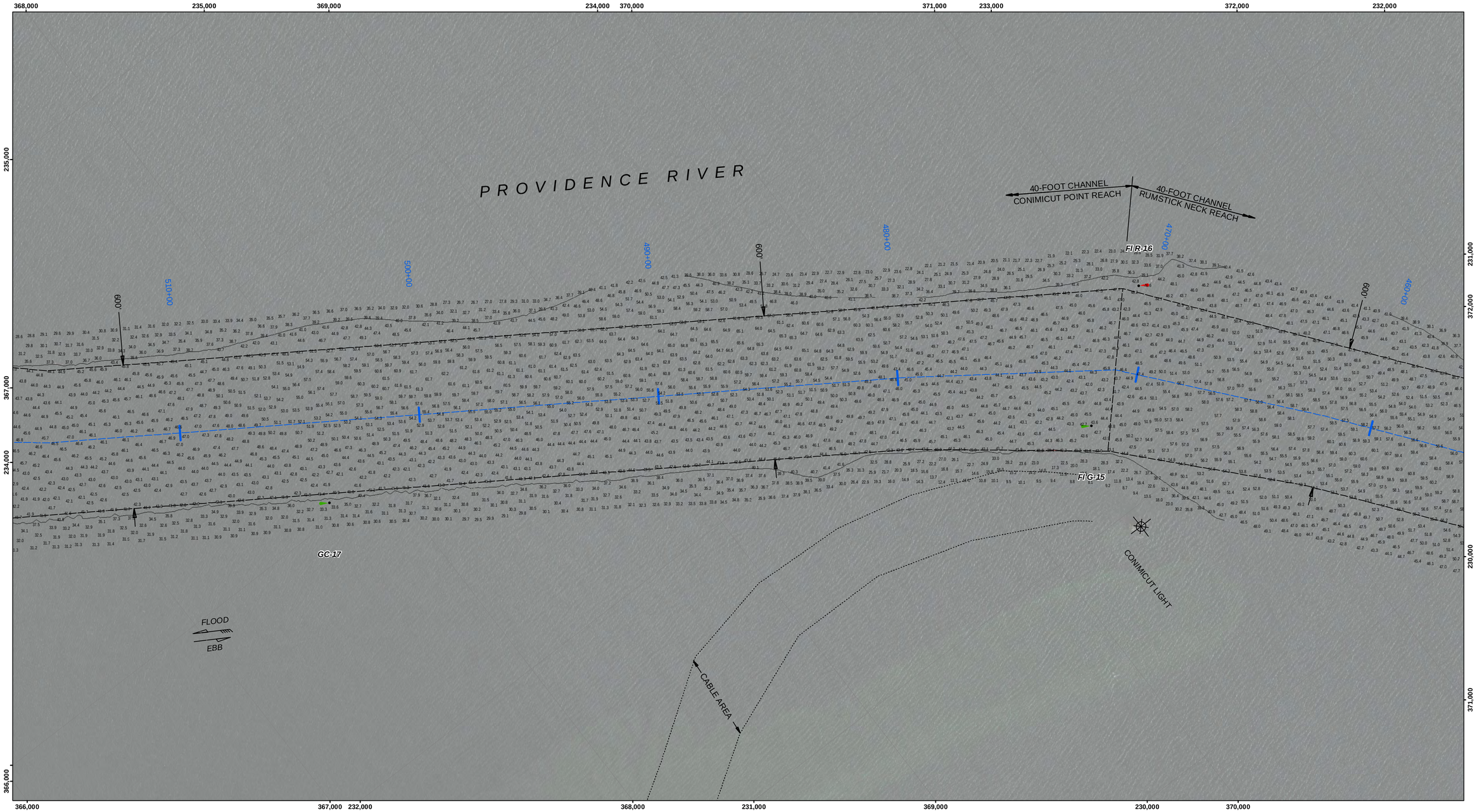
40-FOOT CHANNEL

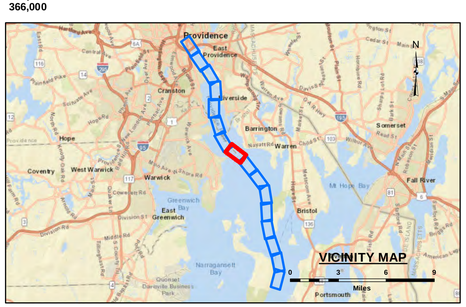
File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 8 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

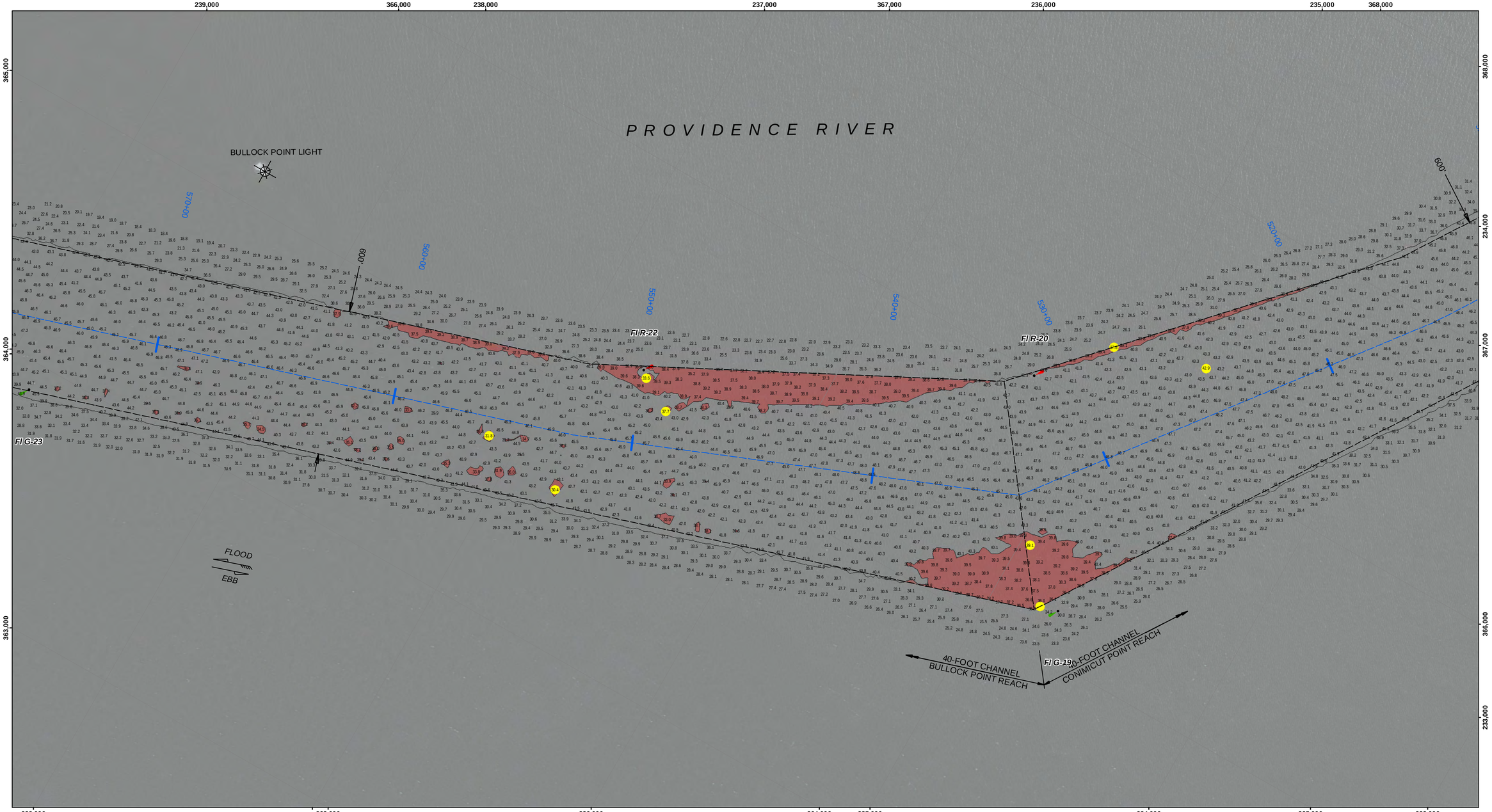
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
40-FOOT CHANNEL

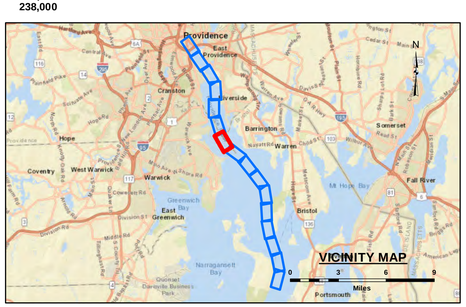
File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 9 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAPDOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

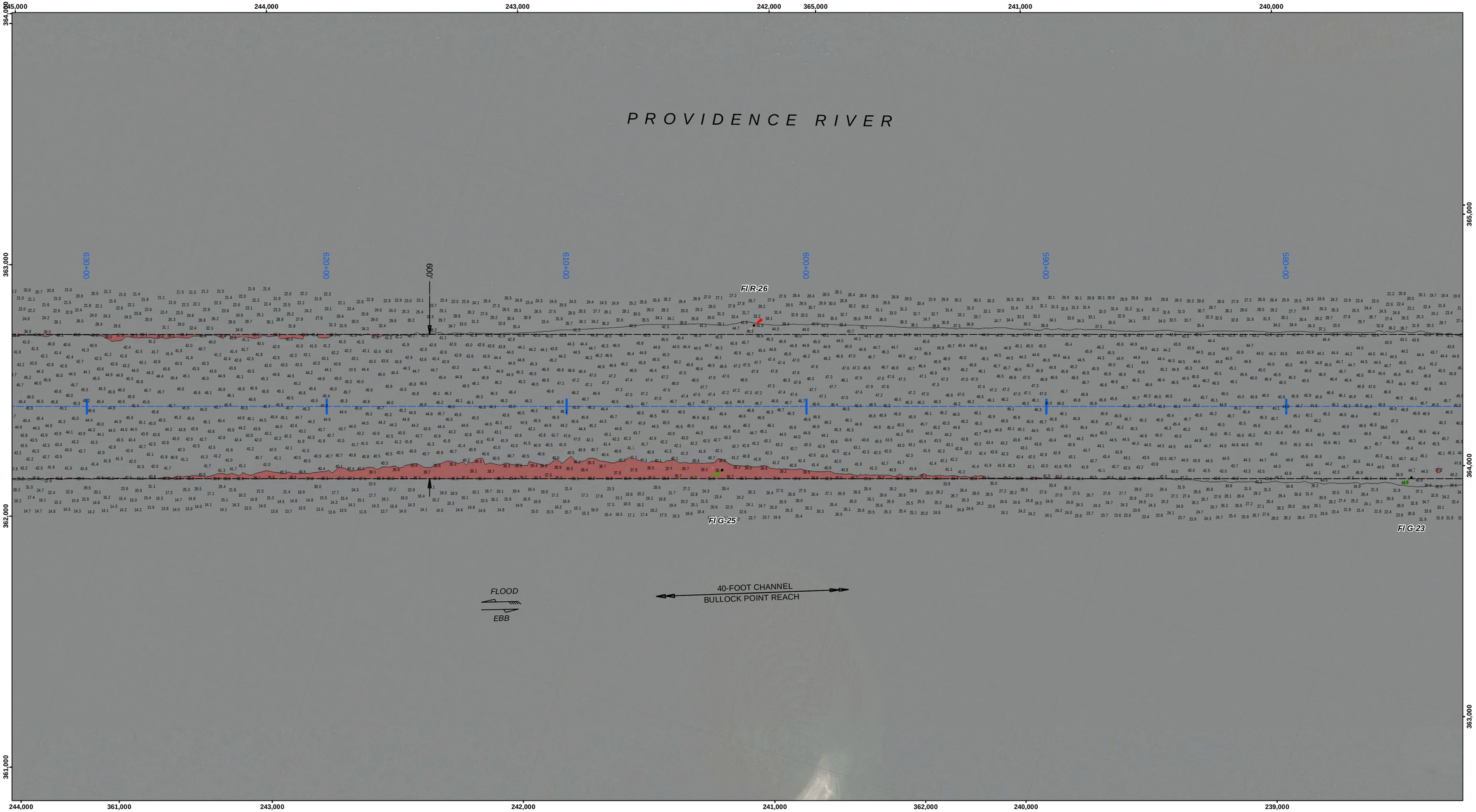
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
40-FOOT CHANNEL

File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 10 of 16

Revison Number: 4.1-20191105



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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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Project Remarks
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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: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

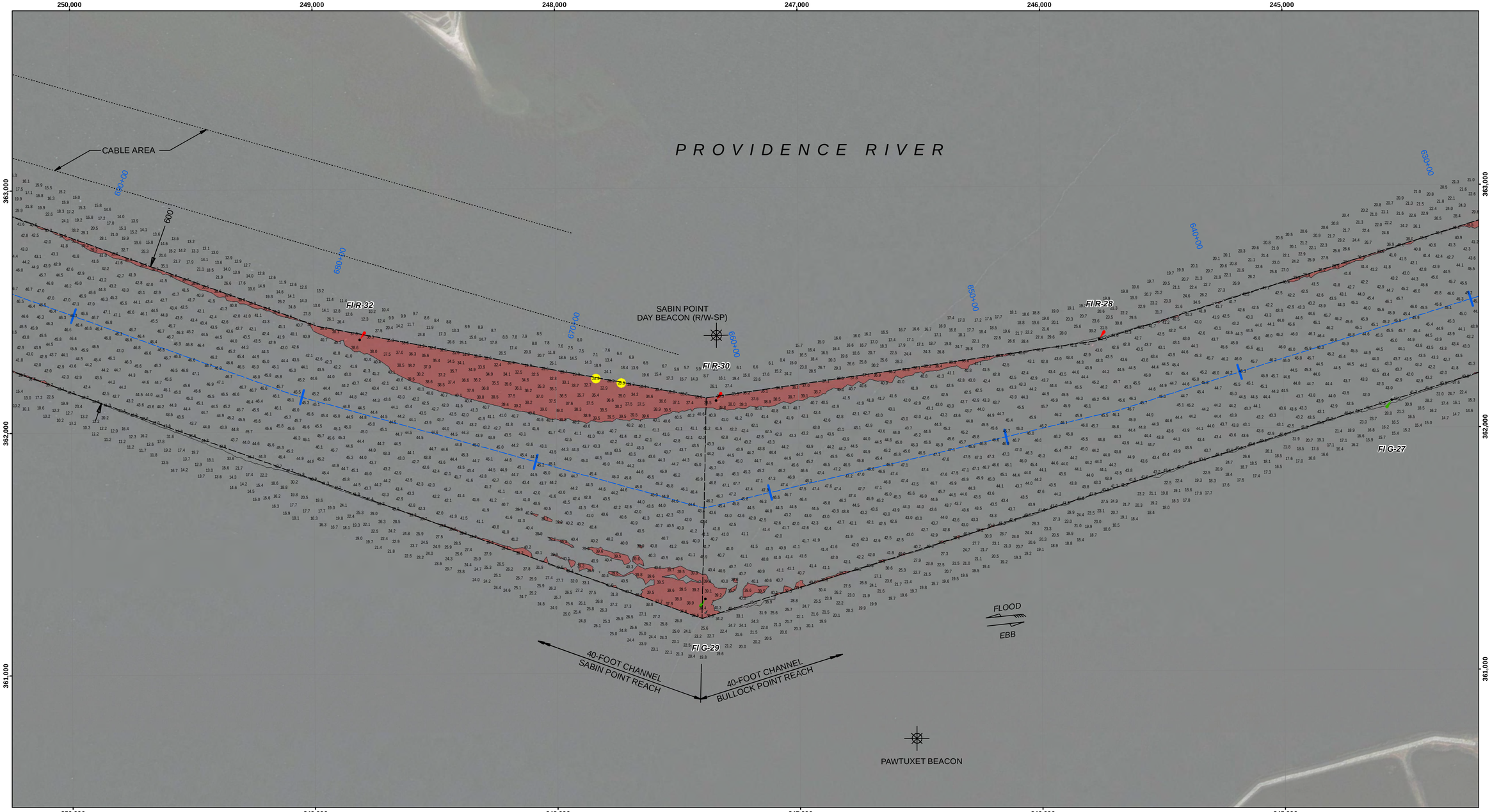
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
40-FOOT CHANNEL

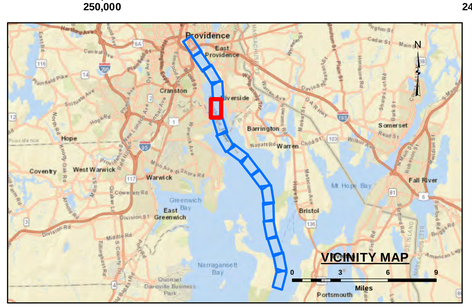
File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 11 of 16

Revison Number: 4.1-20191105





LEGEND

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

GRAPHIC SCALE

1" = 200' 200 0 200 400 Feet

E N S W

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 kHz
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Project Remarks
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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: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

SIZE: ANSI D
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

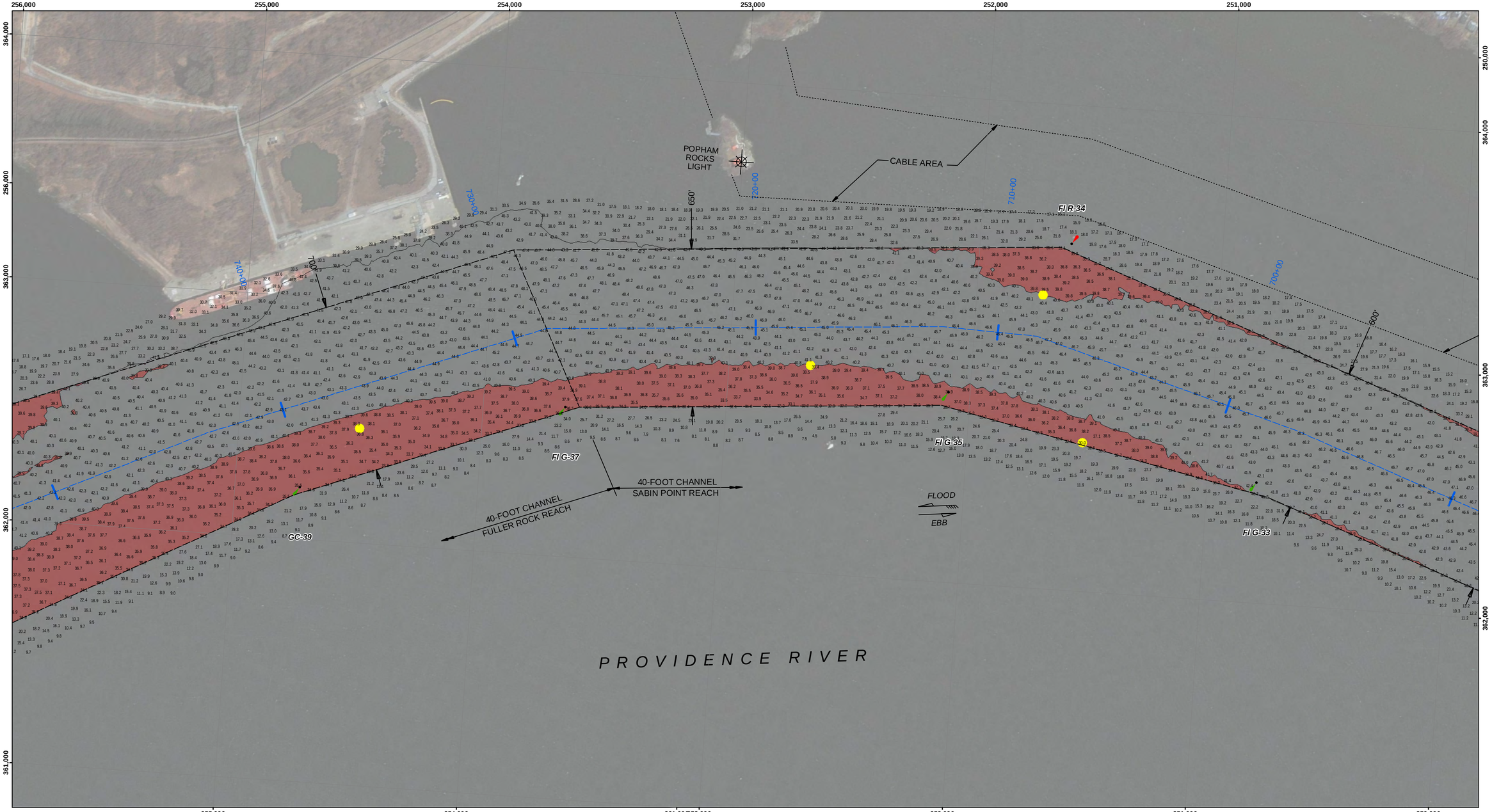
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
40-FOOT CHANNEL

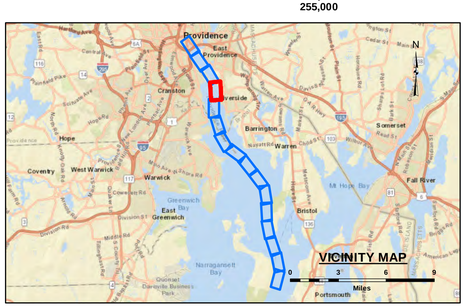
File Name: RI_06_PRO_20200429_CS_2019_067

SHEET IDENTIFICATION
Providence River

Sheet 12 of 16

Revison Number: 4.1-20191105





LEGEND

- Federal Navigation Channel
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- Red Navigation Buoy
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** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey
SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067
SIZE: ANSI D

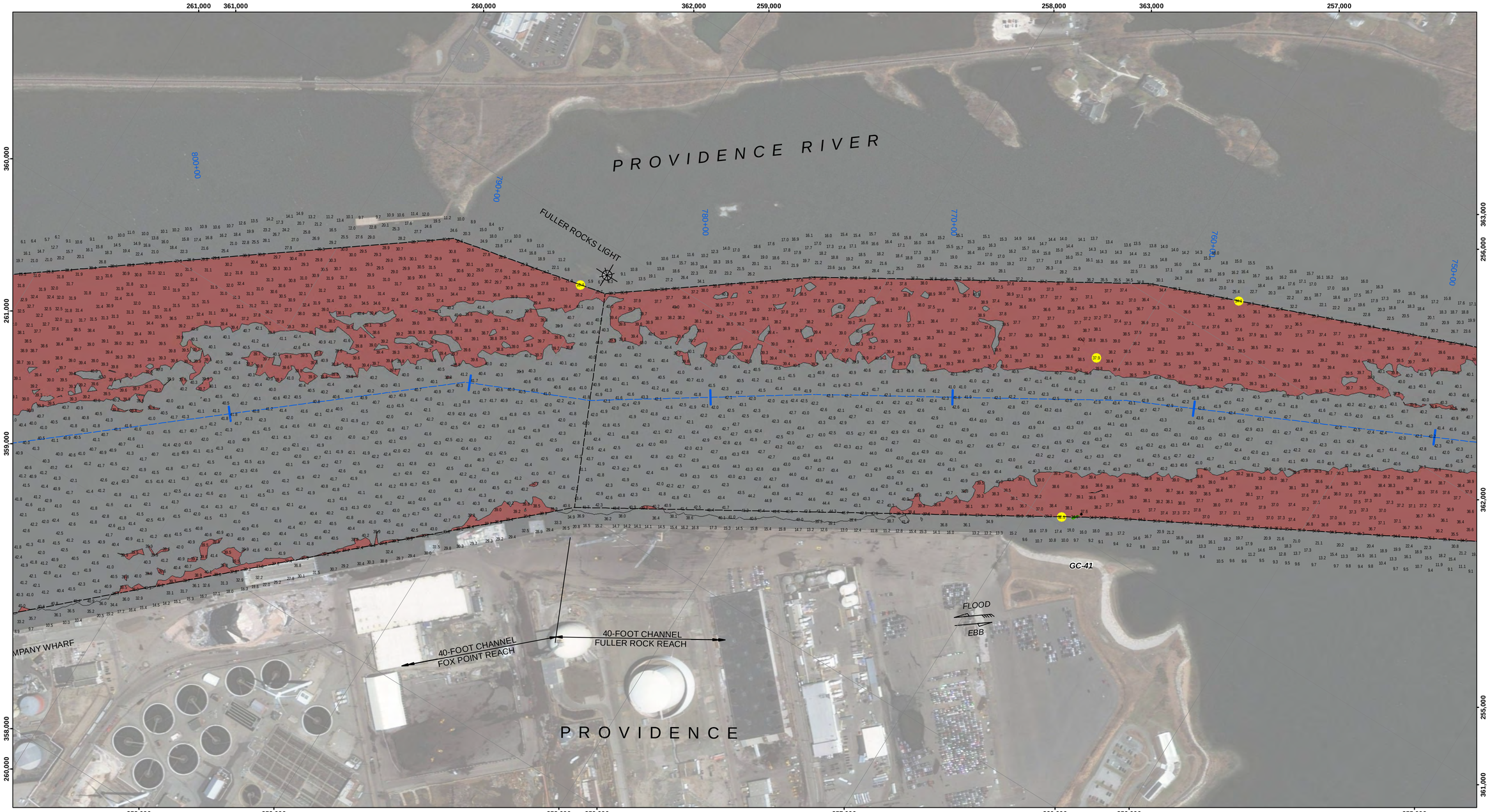
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
40-FOOT CHANNEL

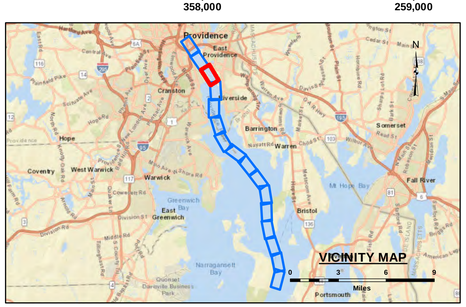
File Name: **RI_06_PRO_20200429_CS_2019_067**

SHEET IDENTIFICATION
Providence River

Sheet 13 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 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 4539
Survey No.: RI_06_PRO_20200429_CS_2019_067
Reference NOAA Chart No.: 13223, 13224, 13225

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.

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Project Remarks
Sholest sounding in southern exetent of Fox Point Reach, is the top of a charted wreck on NOAA chart 13225.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.

US Army Corps of Engineers
District: CENAE

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U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

SIZE: ANSI D

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

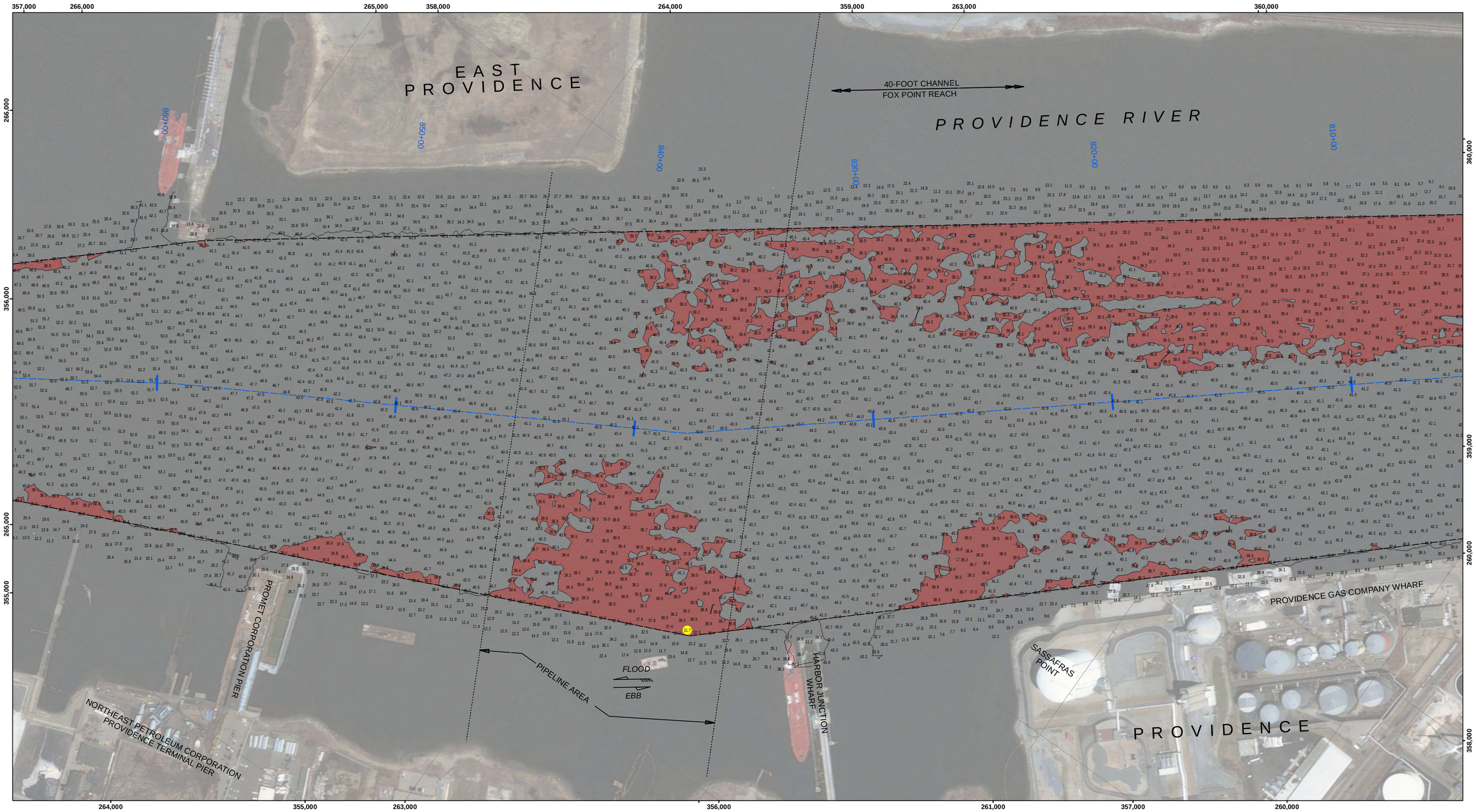
40-FOOT CHANNEL

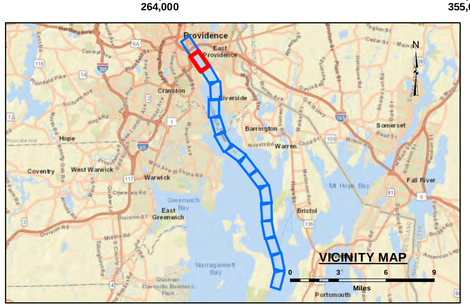
File Name: **RI_06_PRO_20200429_CS_2019_067**

SHEET IDENTIFICATION
Providence River

Sheet 14 of 16

Revison Number: 4.1-20191105





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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 kHz
Survey Method: RTK, GPS TIDES
GPS_System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
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Project Remarks
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Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.32 feet to 2.49 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2 in the vicinity of Providence River and Harbor, Providence, Rhode Island. 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

SUBMITTED BY: Zachary McAvoy
APPROVED BY: NAE Survey
SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020
SIZE: ANSI D
MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

File Name: **RI_06_PRO_20200429_CS_2019_067**

SHEET IDENTIFICATION
Providence River

Sheet 15 of 16

Revison Number: 4.1-20191105

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" = 200' 200 0 200 400 Feet

Notes:
Horizontal Datum: Rhode Island, RI-3800 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
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Survey Method: RTK, GPS TIDES
GPS_System: Trimble SPS 855 (RTK)
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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: Zachary McAvoy
APPROVED BY: NAE Survey

SURVEYED BY: Surveyed_By_IN
CHECKED BY: ZSM
ISSUE DATE: 5/21/2020

SIZE: ANSI D

MAP DOCUMENT: RI_06_PRO_20200429_CS_2019_067

PROVIDENCE RIVER AND HARBOR PROVIDENCE, RHODE ISLAND CONDITION SURVEY

40-FOOT CHANNEL

File Name: RI 06 PRO 20200429 CS 2019 067

SHEET IDENTIFICATION
Providence River

Sheet 16 of 16

Revison Number: 4.1-20191105