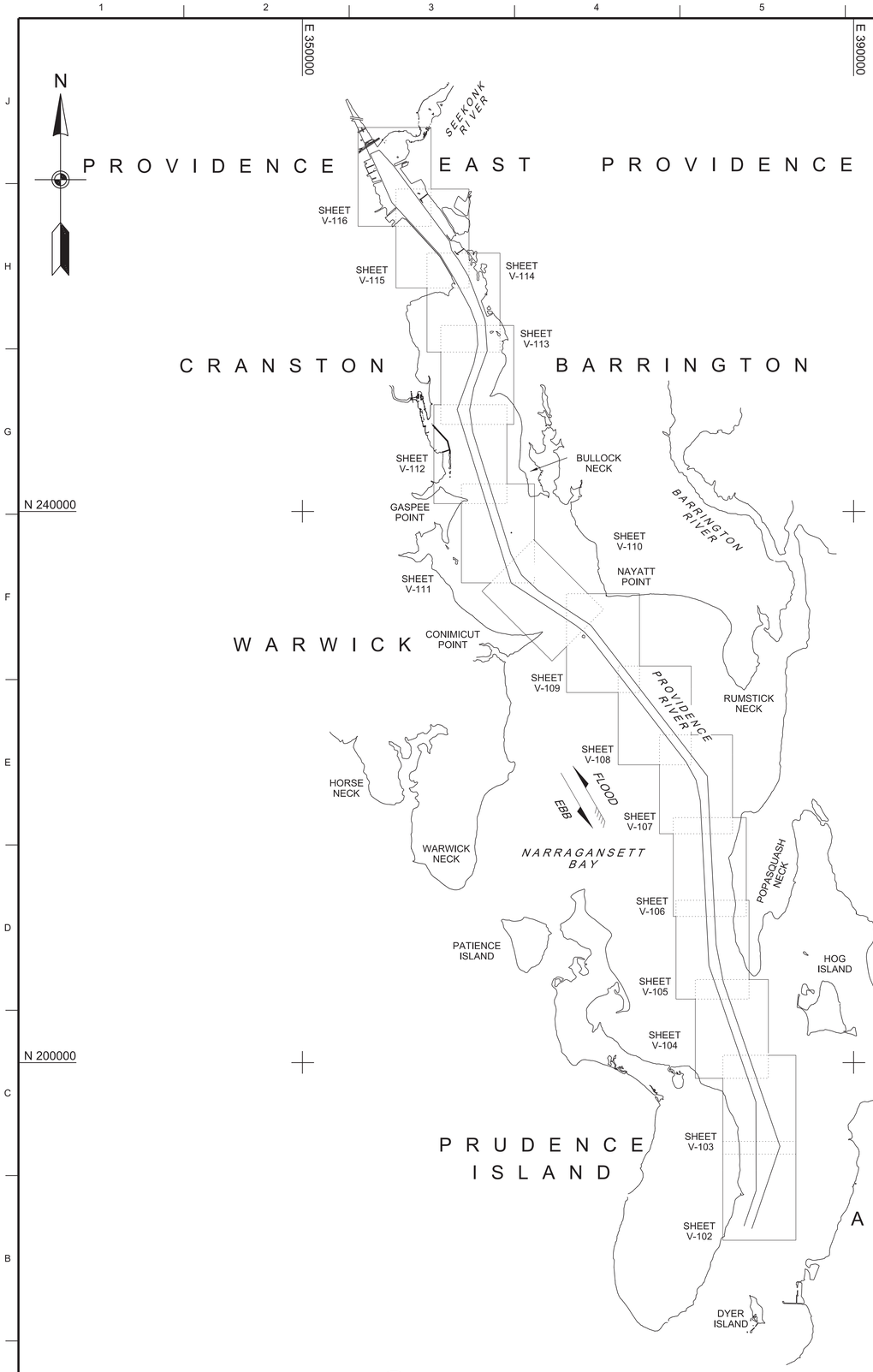
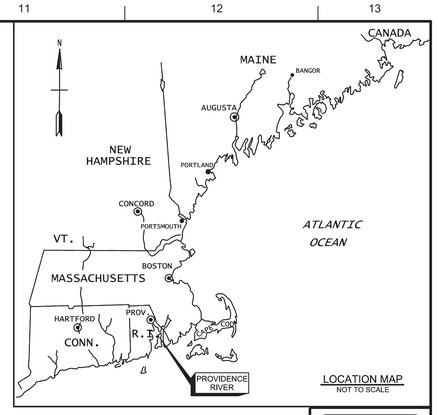


A3 GENERAL PLAN

SCALE: 1" = 4000'

0 4000' 8000'



LOCATION MAP
NOT TO SCALE

INDEX OF NAVIGATION AIDS					
NAME / NO.	DATE	STATE PLANE COORDINATES		GEOGRAPHIC (WGS84) POSITION	
		NORTHING	EASTING	LATITUDE	LONGITUDE
RN-40	7/7/2015	257436.64	361851.46	41°-47'-23.2" N	71°-22'-34.2" N
GC-41	7/7/2015	256809.28	361083.72	41°-47'-17.0" N	71°-22'-44.4" N
FL G-33	8/3/2015	250796.99	362496.83	41°-46'-17.6" N	71°-22'-25.8" N
FL G-35	8/3/2015	252088.28	362783.12	41°-46'-30.4" N	71°-22'-22.0" N
FL G-37	8/3/2015	253661.04	362617.12	41°-46'-45.9" N	71°-22'-24.2" N
FL R-34	8/3/2015	251623.10	363428.83	41°-46'-25.8" N	71°-22'-13.5" N
GC-39	8/3/2015	254731.56	362213.41	41°-46'-56.5" N	71°-22'-29.5" N
FL R-32	1/25/2016	248810.15	362379.24	41°-45'-58.0" N	71°-22'-27.4" N
FL G-29	1/26/2016	247389.88	361304.34	41°-45'-44.0" N	71°-22'-41.6" N
FL R-30	1/26/2016	247340.98	362122.21	41°-45'-43.5" N	71°-22'-30.9" N
FL G-25	4/13/2016	241620.19	363063.66	41°-44'-46.9" N	71°-22'-18.5" N
FL R-26	4/13/2016	241671.95	363679.06	41°-44'-47.4" N	71°-22'-10.4" N
FL R-28	4/13/2016	245760.28	362370.36	41°-45'-27.9" N	71°-22'-27.6" N
FL G-27	4/13/2016	244555.31	362111.69	41°-45'-16.0" N	71°-22'-31.0" N
FL G-23	4/14/2016	238866.80	363887.34	41°-44'-19.7" N	71°-22'-07.7" N
FL R-22	4/14/2016	236701.75	365211.59	41°-43'-58.3" N	71°-21'-50.3" N
FL R-20	4/26/2016	235288.42	365986.88	41°-43'-44.3" N	71°-21'-40.1" N
FL G-19	4/26/2016	234726.17	365188.03	41°-43'-38.8" N	71°-21'-50.7" N
GC-17	4/26/2016	233062.03	367752.94	41°-43'-22.3" N	71°-21'-16.9" N
FL R-16	4/26/2016	231721.49	370979.15	41°-43'-09.0" N	71°-20'-34.4" N
FL G-15	4/26/2016	231379.14	370466.16	41°-43'-05.6" N	71°-20'-41.1" N
FL G-13	4/27/2016	228931.04	372307.32	41°-42'-41.4" N	71°-20'-16.9" N
FL R-14	4/27/2016	229299.64	372839.52	41°-42'-45.1" N	71°-20'-09.9" N
FL R-12	5/9/2016	224576.89	376508.23	41°-41'-58.3" N	71°-19'-21.6" N
FL G-11	5/9/2016	224081.41	376068.83	41°-41'-53.4" N	71°-19'-27.5" N
FL R-10 BELL	5/9/2016	220824.43	379457.80	41°-41'-21.2" N	71°-18'-42.9" N
FL G-9	5/9/2016	220633.12	378661.45	41°-41'-19.3" N	71°-18'-53.4" N
FL R-8	5/17/2016	214506.44	379764.58	41°-40'-18.8" N	71°-18'-39.0" N
FL G-7	5/17/2016	214417.66	379194.93	41°-40'-17.9" N	71°-18'-46.5" N
FL R-6	5/17/2016	208595.36	380048.82	41°-39'-20.4" N	71°-18'-35.4" N
FL G-5	5/17/2016	207022.91	379612.86	41°-39'-04.8" N	71°-18'-41.2" N
FL R-4	5/18/2016	205744.37	380630.91	41°-38'-52.2" N	71°-18'-27.9" N
FL G-3	5/18/2016	203643.98	380730.19	41°-38'-31.4" N	71°-18'-26.6" N
FL R-2	5/19/2016	201894.64	381916.09	41°-38'-14.1" N	71°-18'-11.0" N
FL G-1	5/19/2016	198654.19	382359.25	41°-37'-42.1" N	71°-18'-05.3" N
FL R-26 BELL	5/23/2016	188196.66	382824.52	41°-35'-58.8" N	71°-17'-59.5" N
FL G-25	5/23/2016	188338.30	382145.73	41°-36'-00.2" N	71°-18'-08.4" N
FL G&R-SP	5/23/2016	193893.05	384634.69	41°-36'-55.0" N	71°-17'-35.5" N

GENERAL NOTES:

1. SOUNDINGS ARE IN FEET AND TENTHS. THE REFERENCE PLANE IS MEAN LOWER LOW WATER (MLLW) AND IS BASED ON THE 1983-2001 TIDAL EPOCH. SOUNDINGS NOTED WITH A (+) ARE ABOVE THE REFERENCE PLANE OF MLLW. SOUNDINGS WITHOUT A SIGN ARE BELOW THE REFERENCE PLANE OF MLLW, AND SHOULD BE CONSIDERED NEGATIVE.

2. TOPOGRAPHY SHOWN IS FROM PREVIOUS SURVEYS, AERIAL IMAGERY AND/OR NOAA CHART NOS.13223, 13224 and 13225. ALL TOPOGRAPHY, INCLUDING SHORELINE,BRIDGES, PIERS, ETC., IS LOCATED APPROXIMATE UNLESS OTHERWISE NOTED AND SHOULD BE USED AS A GENERAL REFERENCE ONLY.

3. BENCH MARK DATA: TIDES WERE RECORDED USING RTK GPS. THE MLLW TO NAVD88 CORRECTION FOR THIS PROJECT IS 2.41 FEET. THE CORRECTION WAS ESTABLISHED FROM AN AVERAGE OF NOAA BENCH MARKS FOUND AT:

BRISTOL FERRY (STATION ID 8451552, 06/28/2004)
BAY SPRING, BULLOCK COVE (STATION ID 8453033, 01/27/2005)
PROVIDENCE, PROVIDENCE RIVER (STATION ID 8454000, 04/21/2003)

NAVD88 IS ABOVE MLLW; THEREFORE THE CORRECTION SHOULD BE ADDED TO NAVD88 TO CONVERT TO MLLW.
NO TIDE GAUGES WERE USED ON THIS PROJECT.
THE AVERAGE RANGE OF TIDE IS 4.4 FEET.

4. COORDINATES SHOWN ARE BASED ON THE TRANSVERSE MERCATOR GRID SYSTEM FOR THE STATE OF RHODE ISLAND (ZONE 3800), NAD 1983 AND ARE BASED ON U.S. SURVEY FEET.

5. SURVEY WAS PERFORMED USING AN R2 SONIC 2024 MULTIBEAM SONAR SYSTEM OPERATING AT 300 KHZ. HORIZONTAL POSITIONING AND REAL TIME TIDE READINGS WERE RECORDED UTILIZING A TRIMBLE SPS 855 RTK GPS SYSTEM. THE RTK BASE STATIONS USED WERE STA. JUDY (SHEETS 1-4), STA. COLT (SHEETS 4-9), STA. SABIN (SHEETS 10-14), AND MTS LINCOLN (SHEETS 15-17).

6. THE SOUNDING INFORMATION SHOWN ON THESE MAPS REPRESENTS THE SHOALEST SOUNDINGS OF THOSE OBTAINED FROM HYDROGRAPHIC SURVEYS CONDUCTED FROM MAY 2015 THRU MAY 2016. THE DATA DEPICTED ON THESE MAPS SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.

7. THE INFORMATION DEPICTED ON THESE MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME.

8. FIELD BOOK: R&H 4539
40-FOOT DEPTH CONTOUR SHOWN THUS: ————————
SURVEYED BY: ROBERT MACGOVERN AND CREW
REFER TO SURVEY NO. 16-1412

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

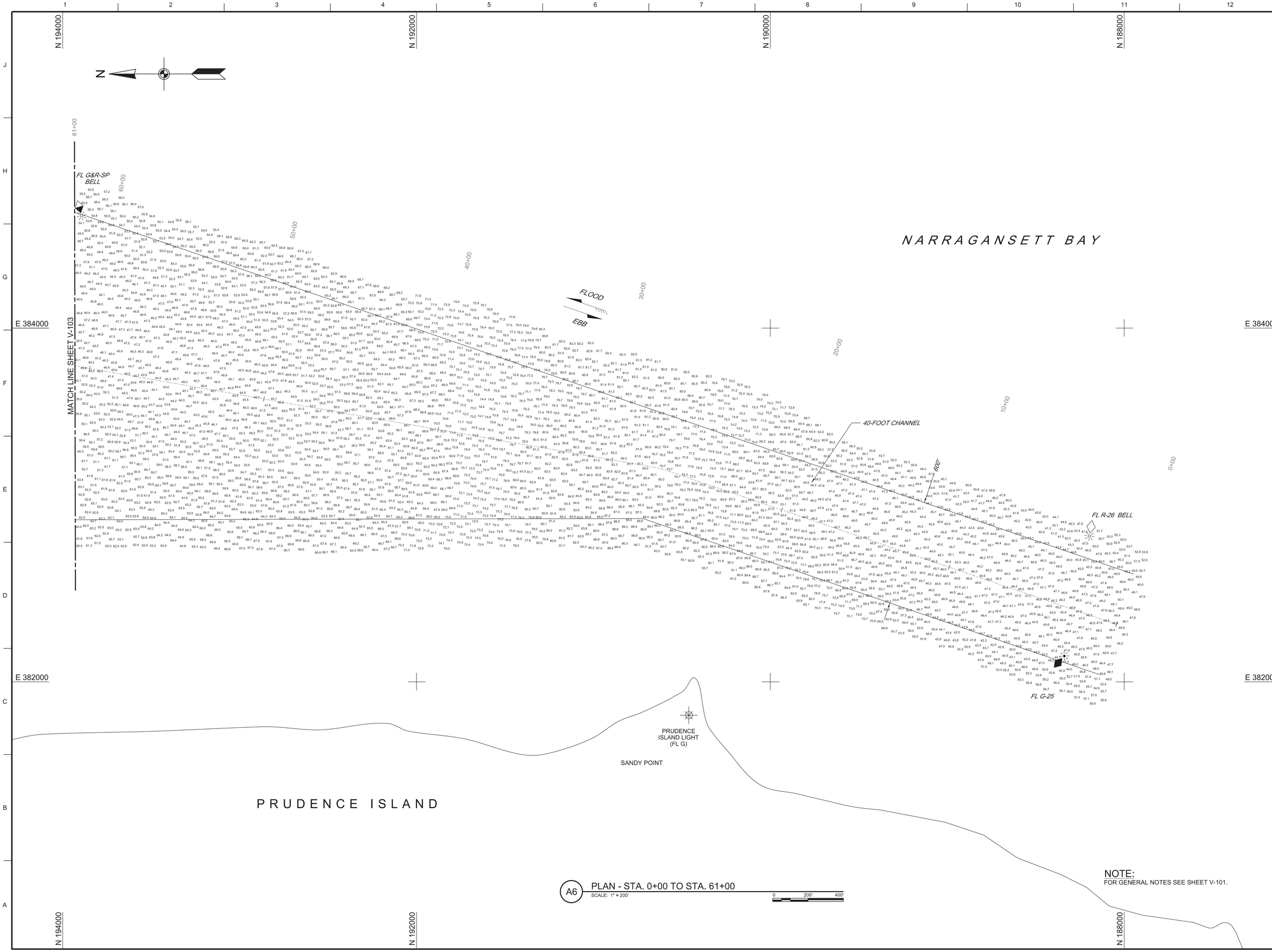
DWN BY: WHW
CKD BY: SWK
REVIEWED BY: Asst. Chief, Survey Sec.
REVIEWED BY: Chief, Survey Section
ISSUE DATE: JULY 28, 2016
DRAWING CODE: PROJ-483
SIZE: ANSI F
SCALE: 1:1
SHEET 1 OF 16

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-101



A6 PLAN - STA. 0+00 TO STA. 61+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

ISSUE DATE: JULY 28, 2016

DWN BY: WHW | CKR BY: SWK | REVIEWED BY: | Asst. Chief, Survey Sec. | REVIEWED BY: | Exp. Chief, Survey Section | SCALE: 1:1 | ANSI F

DRAWING CODE: PRO-H35 | SHEET 2 OF 16

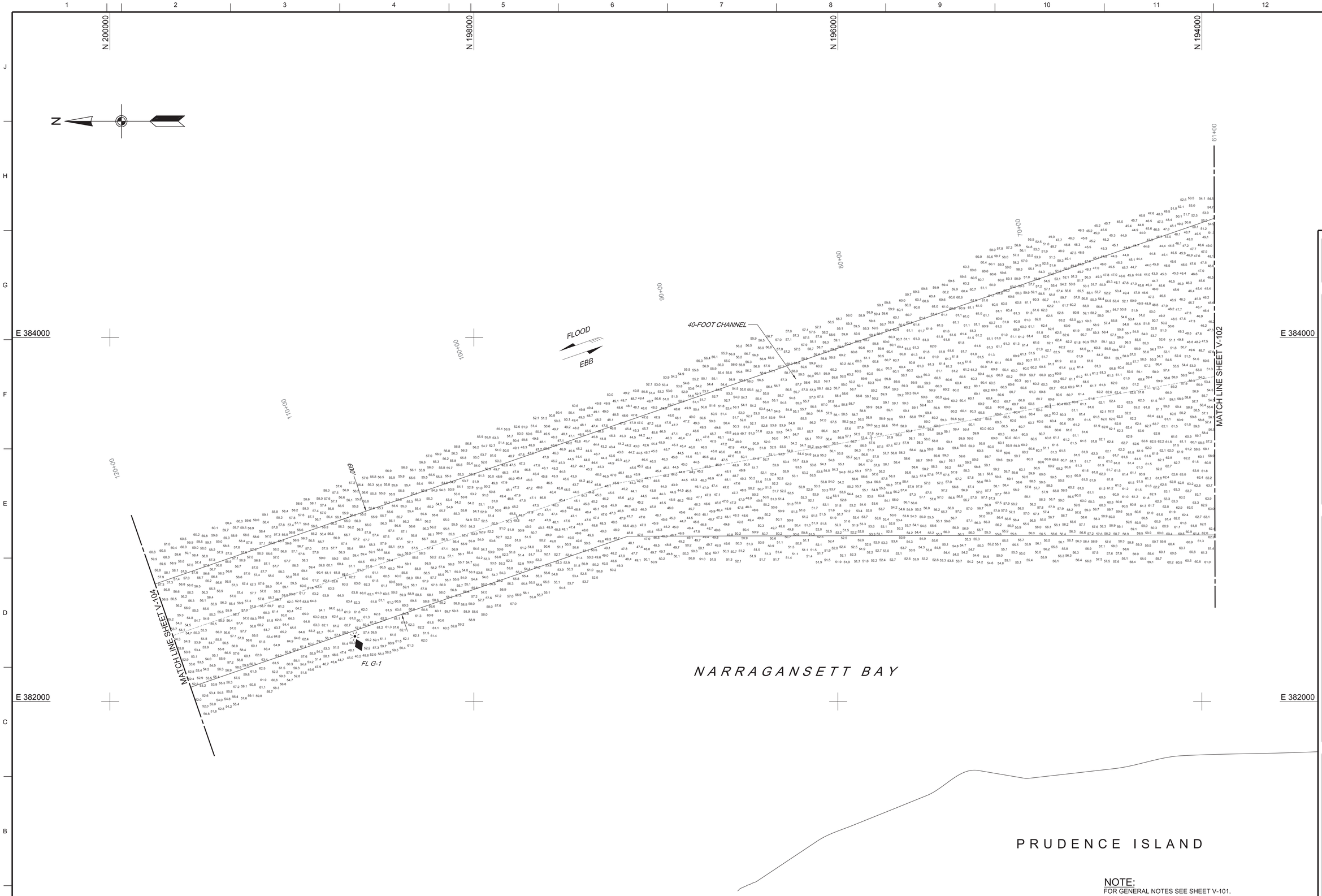
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-102



NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

A6 PLAN - STA. 61+00 TO STA. 120+00
SCALE: 1" = 200'

0 200' 400'

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MARK	DESCRIPTION	DATE

ISSUE DATE: JULY 28, 2016

DWN BY: WHW | CKB BY: SWK | REVIEWED BY: | REVIEWED BY: | Asst. Chief, Survey Sec. | Exp. Chief, Survey Section | SCALE: 1:1 | ANSI F

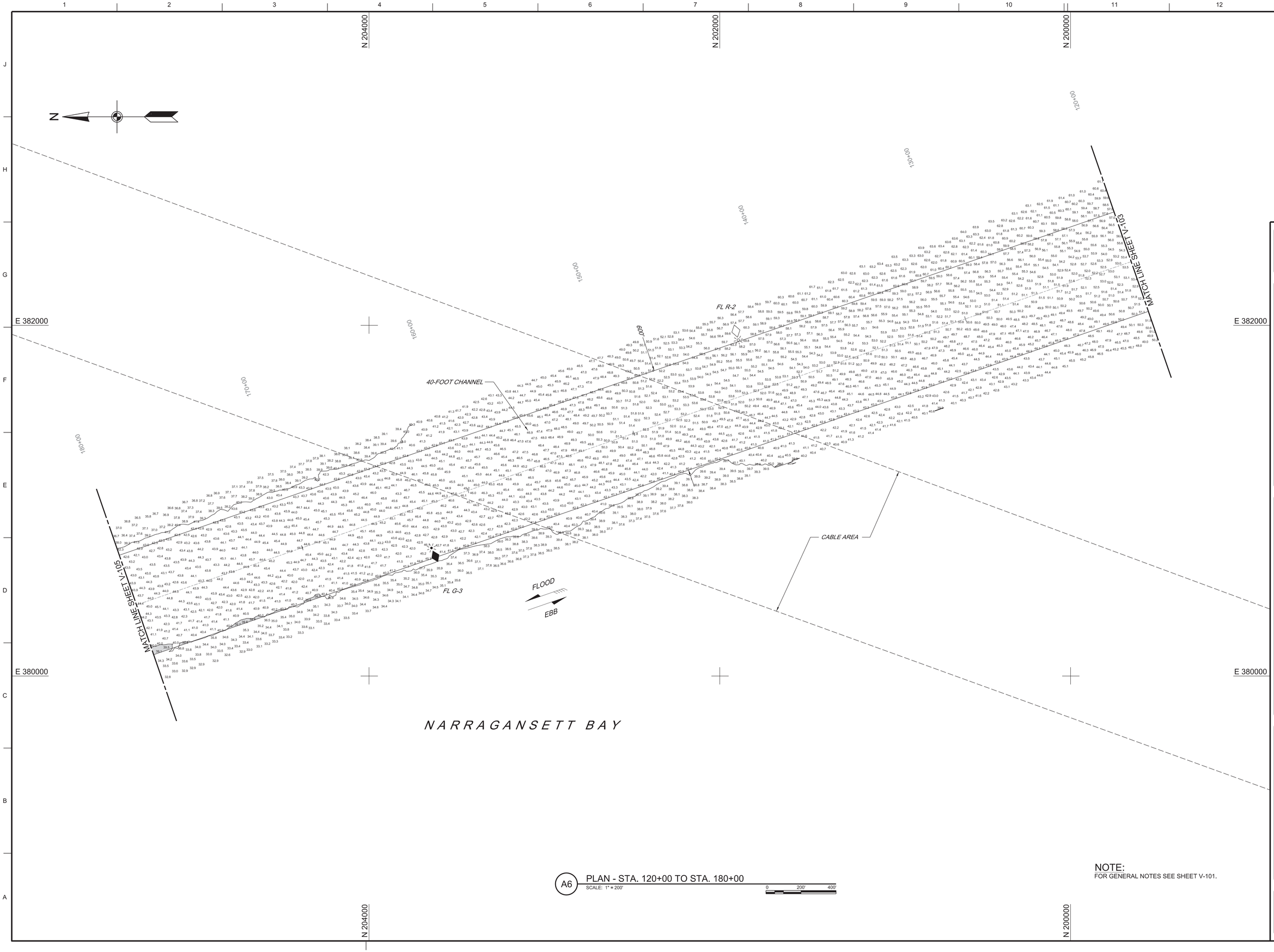
DRAWING CODE: PRO-H35 | SHEET 3 OF 16

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE WATERFRONT
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-103



A6 PLAN - STA. 120+00 TO STA. 180+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

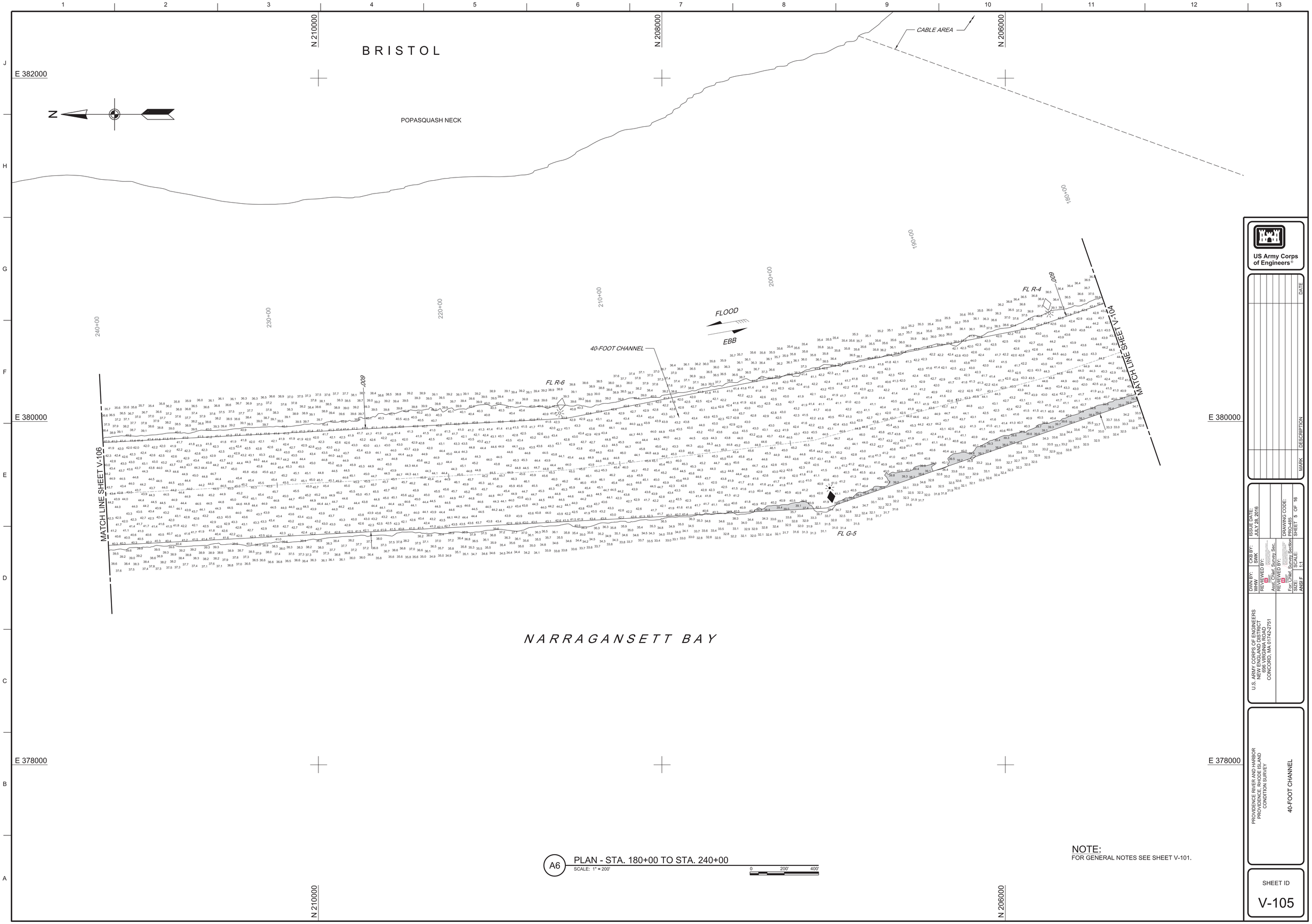
DWN BY: VHW
CKB BY: SWK
REVIEWED BY:
Asst. Chief, Survey Sec.
REVIEWED BY:
Sup. Chief, Survey Section
SCALE: ANSI F 1:1
ISSUE DATE: JULY 28, 2016
DRAWING CODE: PRO-2483
SHEET 4 OF 18

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-104



A6 PLAN - STA. 180+00 TO STA. 240+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DWN BY: WHW | CKB BY: SWK | ISSUE DATE: JULY 28, 2016

REVIEWED BY: Asst. Chief, Survey Sec. | REVIEWED BY: Exec. Chief, Survey Section | DRAWING CODE: PRO-485

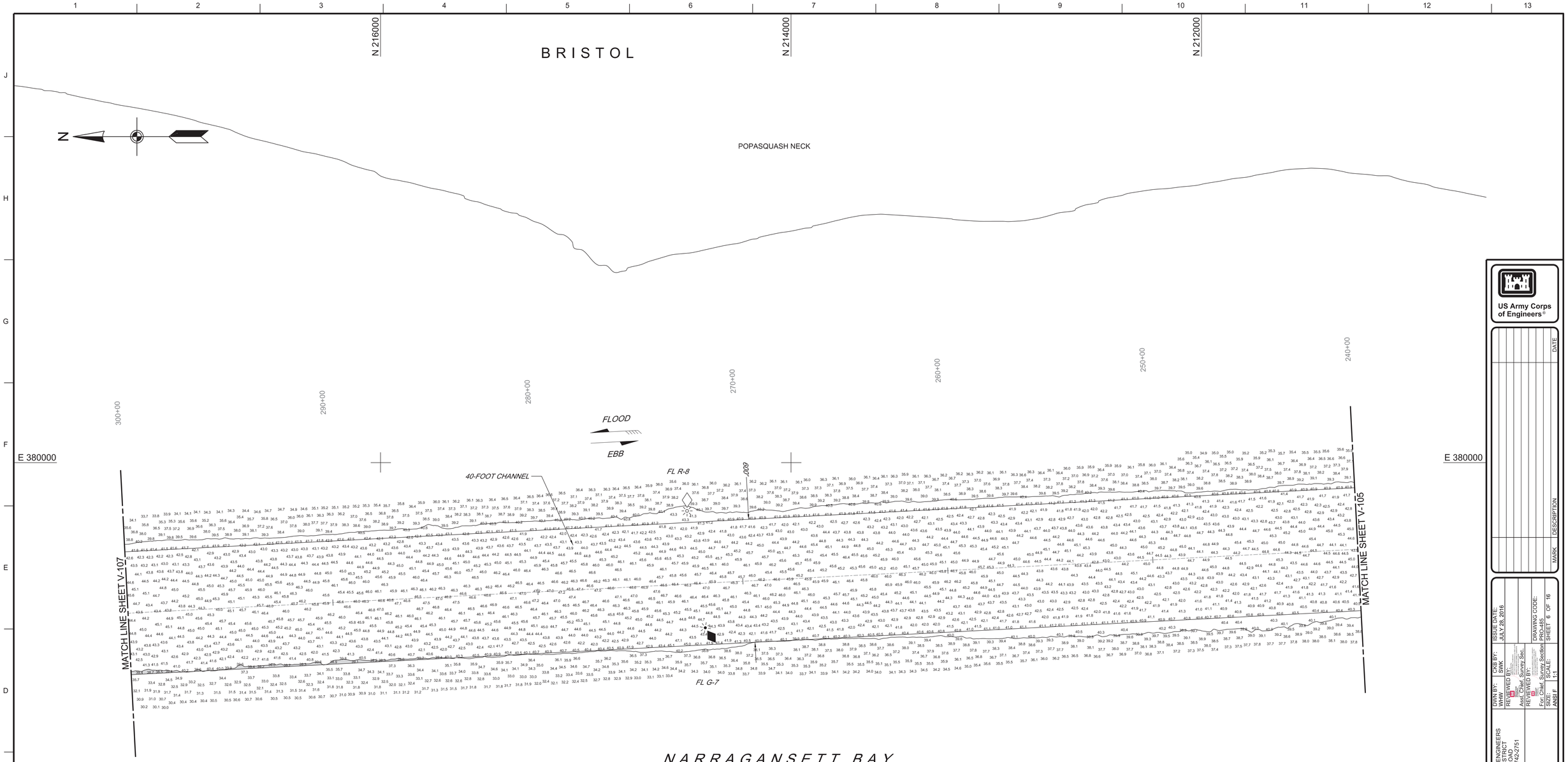
SIZE: ANSI F | SCALE: 1:1 | SHEET 5 OF 16

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-105



A6 PLAN - STA. 240+00 TO STA. 300+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

ISSUE DATE: JULY 28, 2016

DWN BY: WHW
CKB BY: SWK
REVIEWED BY: Asst. Chief, Survey Sec.
REVIEWED BY: Exec. Chief, Survey Section
SIZE: ANSI F
SCALE: 1:1
DRAWING CODE: PROJ-ABS
SHEET 6 OF 16

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-106

A6 PLAN - STA. 300+00 TO STA. 360+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

ISSUE DATE: JULY 28, 2016

DWN BY: WHW | CKD BY: SWK

REVIEWED BY: Asst. Chief, Survey Sec.

REVIEWED BY: Sup. Chief, Survey Section

DRAWING CODE: PRO-485

SHEET 7 OF 16

SCALE: ANSI F 1:1

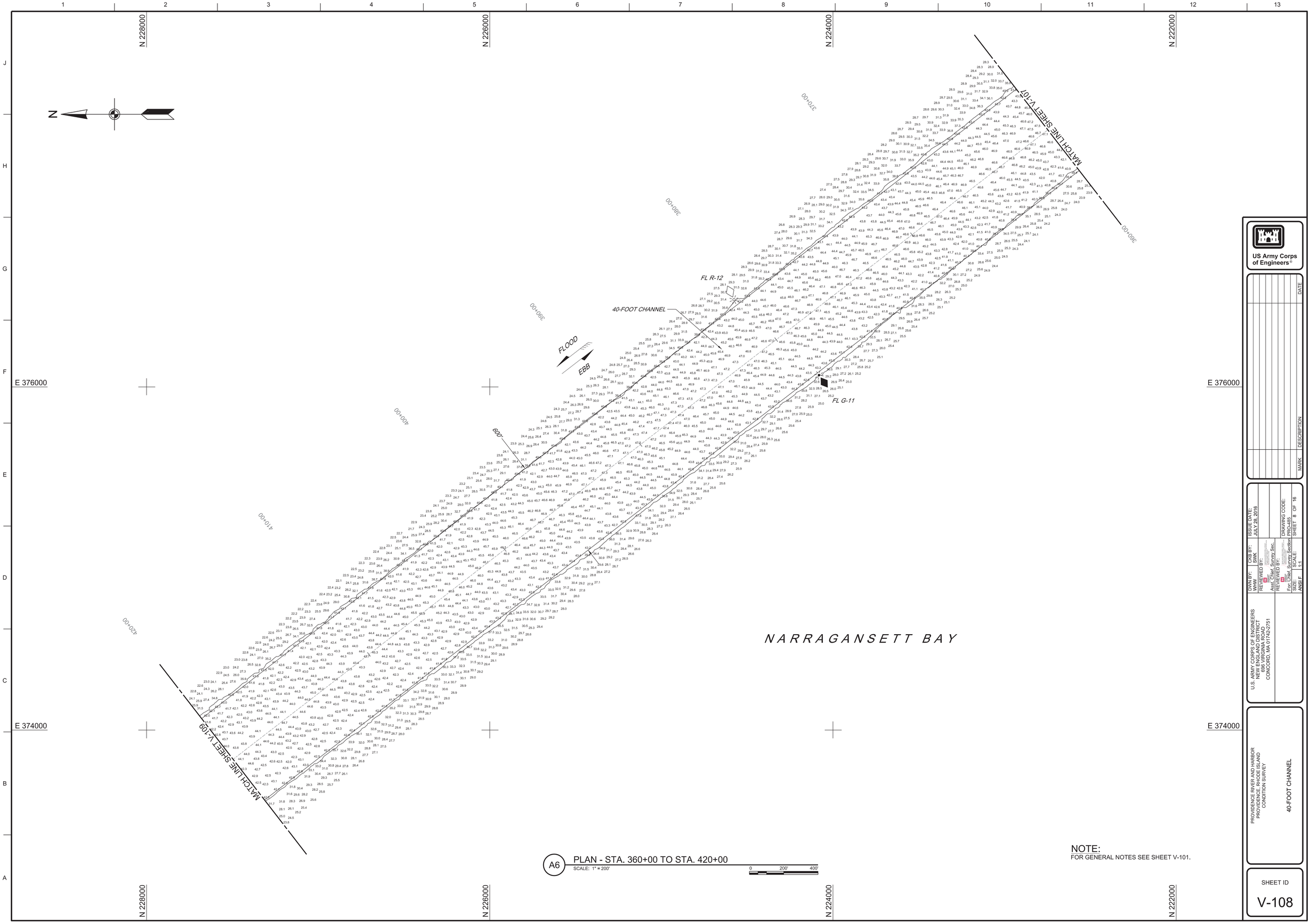
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE RIVER, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-107



A6 PLAN - STA. 360+00 TO STA. 420+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

DWN BY: WHW	CKB BY: SWK
REVIEWED BY: Asst. Chief, Survey Sec.	
REVIEWED BY: Exec. Chief, Survey Section	
SIZE: ANSI F	SCALE: 1:1

ISSUE DATE: JULY 28, 2016

DRAWING CODE: PRO-485

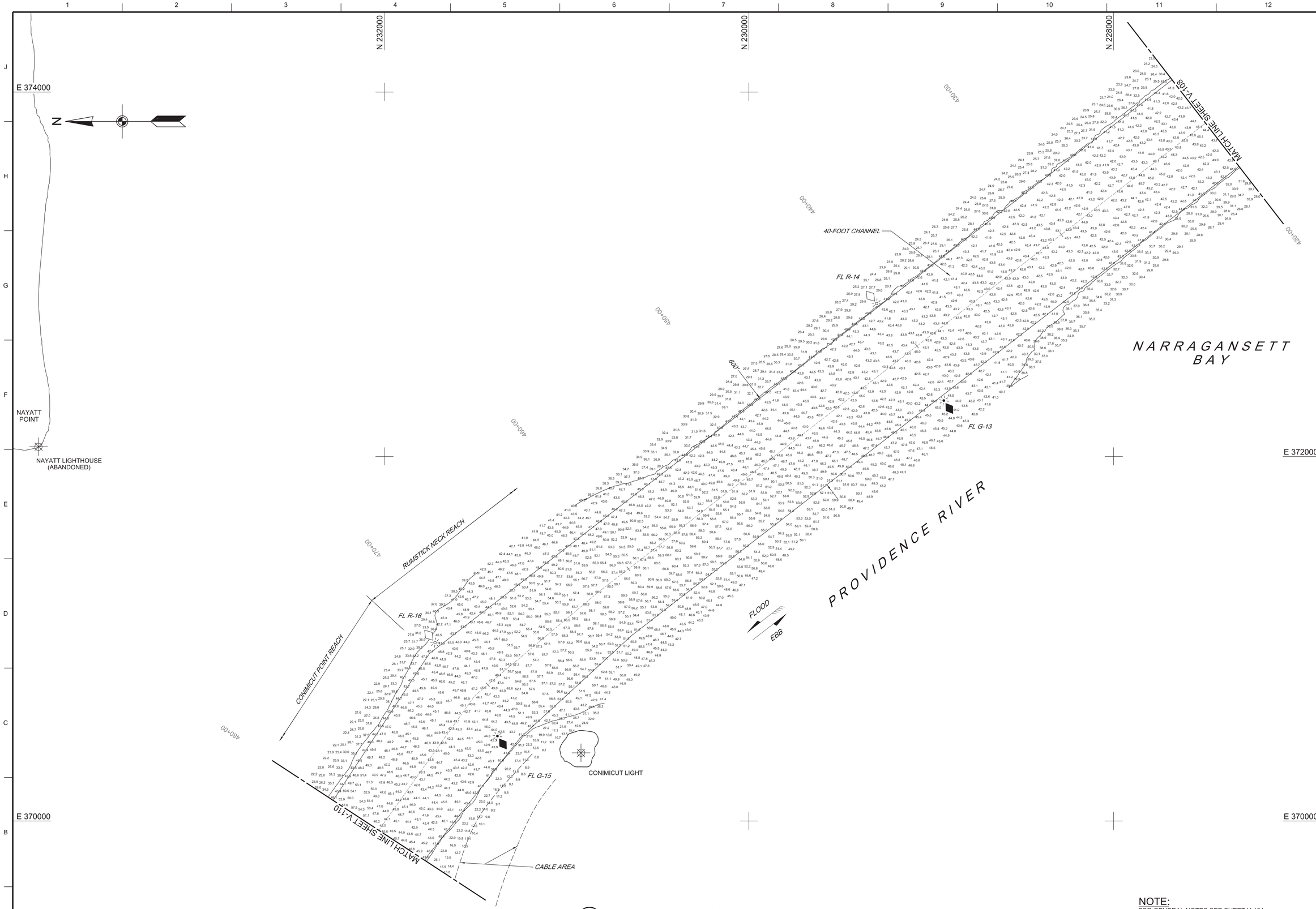
SHEET 8 OF 16

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-108



A6 PLAN - STA. 420+00 TO STA. 480+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

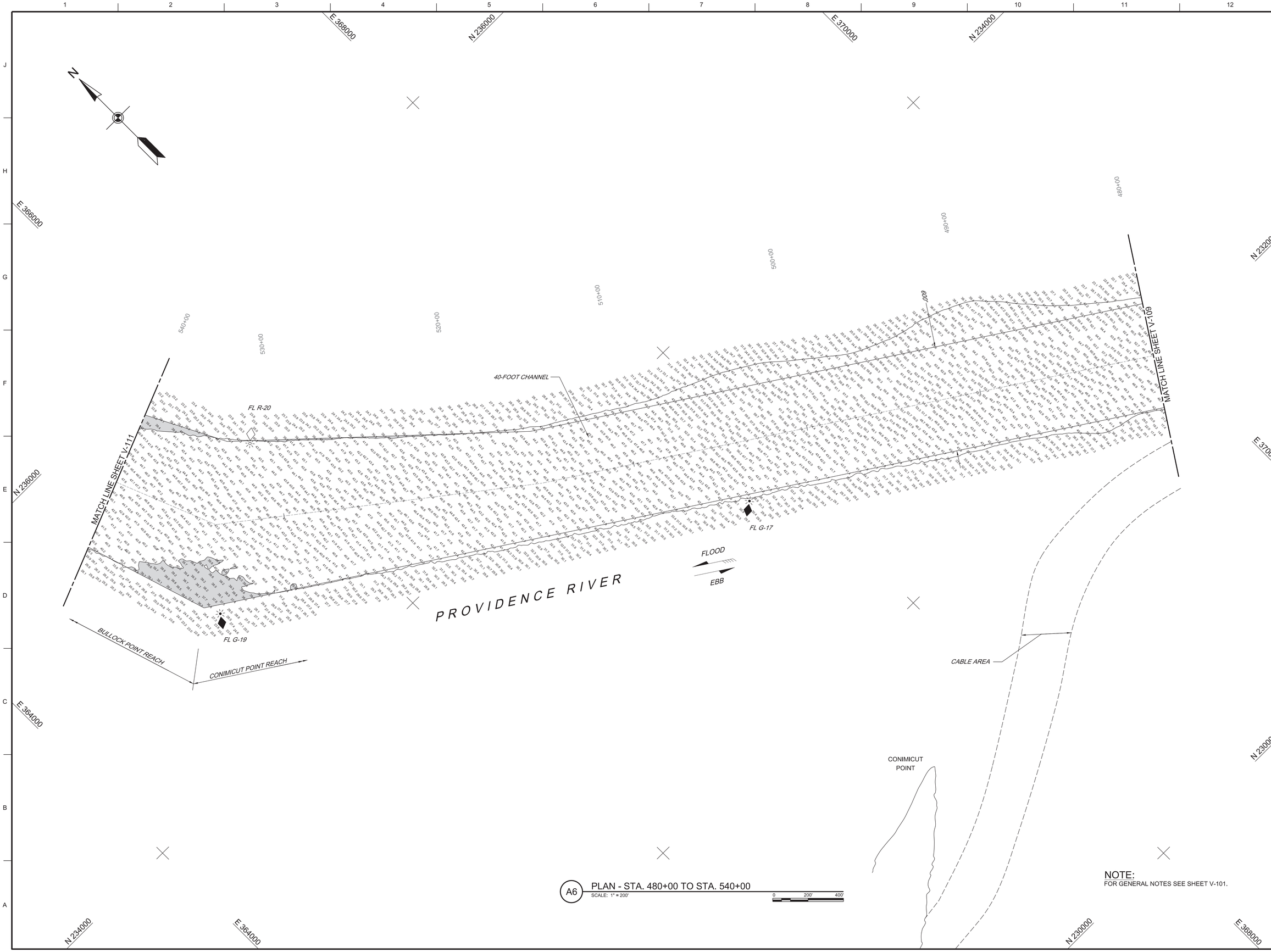
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

DWN BY: WHW
CKB BY: SWK
ISSUE DATE: JULY 28, 2016
REVIEWED BY: Asst. Chief, Survey Sec.
REVIEWED BY: Exec. Chief, Survey Section
DRAWING CODE: PRO-485
SIZE: ANSI F
SCALE: 1:1
SHEET 9 OF 16

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-109



A6 PLAN - STA. 480+00 TO STA. 540+00
SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

DWN BY: WHW	CKB BY: SWK
REVIEWED BY:	
Asst. Chief, Survey Sec.	
REVIEWED BY:	
Exp. Chief, Survey Section	
SCALE: ANSI F	SCALE: 1:1

ISSUE DATE: JULY 28, 2016

DRAWING CODE: PRG-485

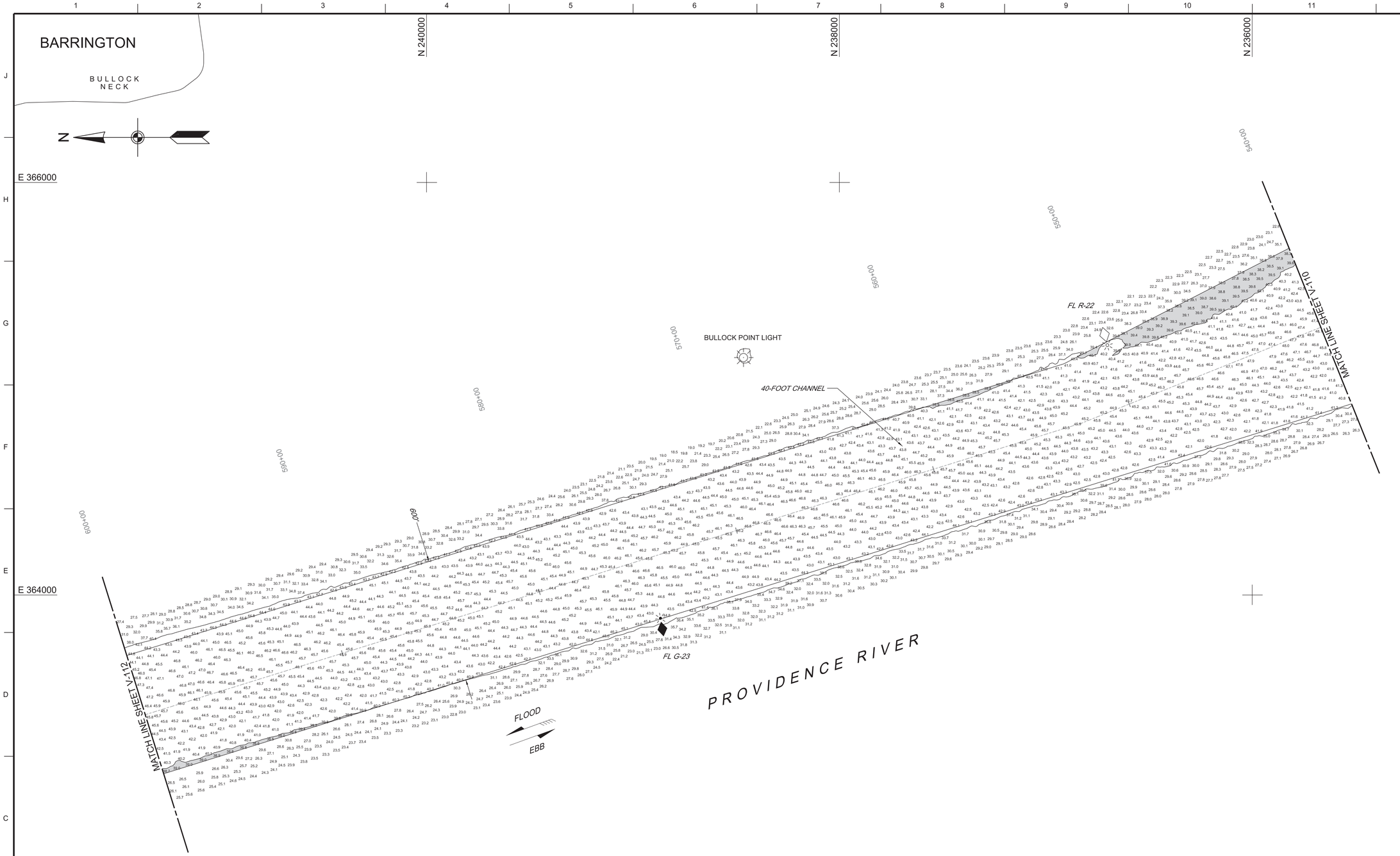
SHEET 10 OF 16

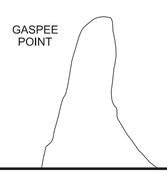
PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-110





A6 PLAN - STA. 540+00 TO STA. 600+00

SCALE: 1" = 200'

0 200' 400'

NOTE:

FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

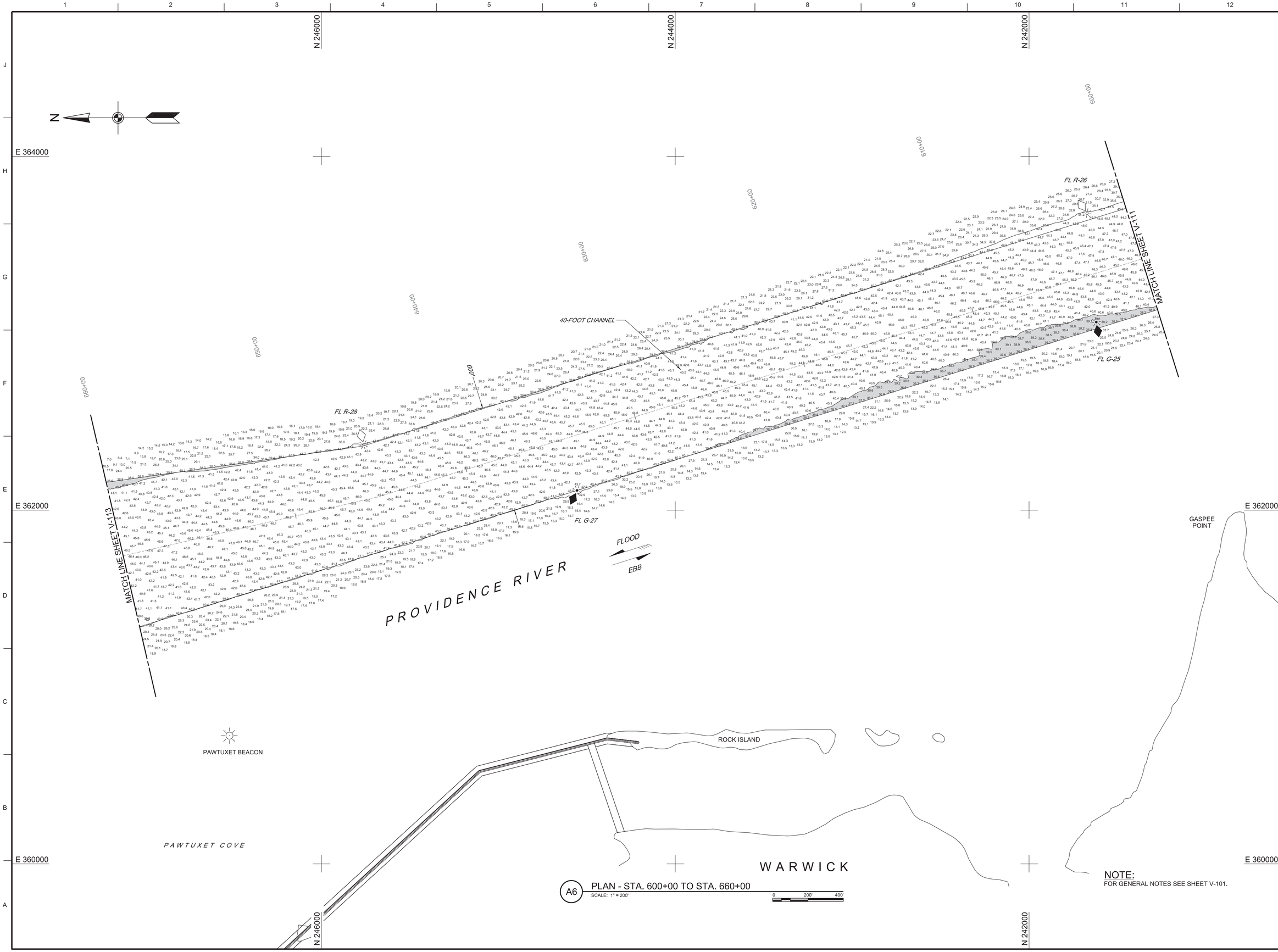
DWN BY: WHW | CKB BY: SWK | ISSUE DATE: JULY 28, 2016
REVIEWED BY: Team Leader | REVIEWED BY: Asst. Chief, Survey Sec.
REVIEWED BY: Chief, Survey Section
SIZE: ANSI F | SCALE: 1:1 | DRAWING CODE: PRO-4263 | SHEET 11 OF 16

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-111



A6 PLAN - STA. 600+00 TO STA. 660+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

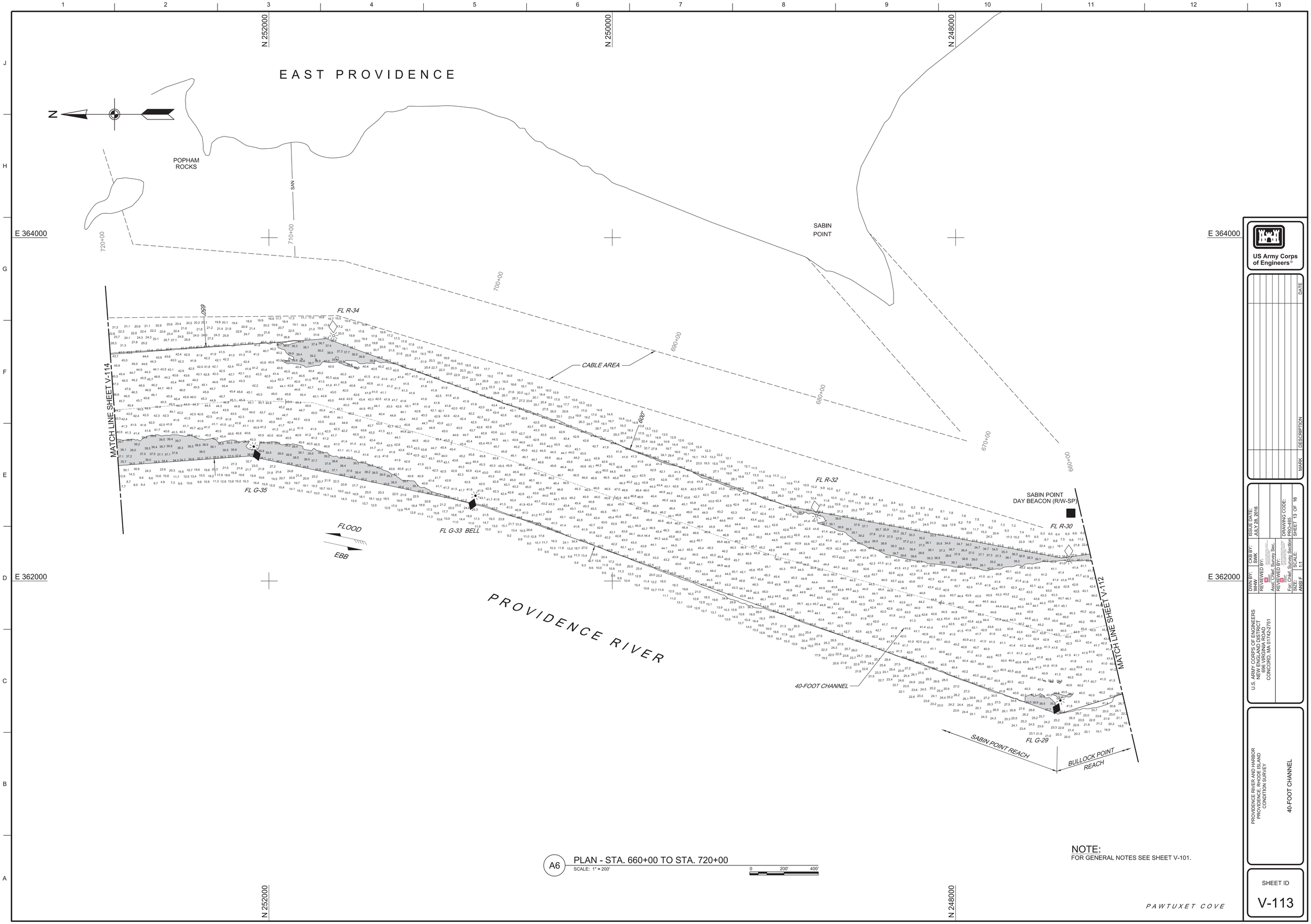
DWN BY: WHW
CKB BY: SWK
REVIEWED BY: Asst. Chief, Survey Sec.
REVIEWED BY: For: Chief, Survey Section
SIZE: ANSI F
SCALE: 1:1
ISSUE DATE: JULY 28, 2016
DRAWING CODE: PRO-485
SHEET 12 OF 16

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-112



A6 PLAN - STA. 660+00 TO STA. 720+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

ISSUE DATE: JULY 28, 2016

DRAWN BY: WHW
CKB BY: SWK
REVIEWED BY:
Asst. Chief, Survey Sec.
REVIEWED BY:
Sup. Chief, Survey Section
SCALE: 1:1
ANSI F

DRAWING CODE: PRO-C483
SHEET 13 OF 18

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-113

A6 PLAN - STA. 720+00 TO STA. 770+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

ISSUE DATE: JULY 28, 2016

DRAWING CODE: PRO-485

SHEET 14 OF 16

DWN BY: WHW | CKB BY: SWK

REVIEWED BY: Asst. Chief, Survey Sec.

REVIEWED BY: Sup. Chief, Survey Section

SIZE: ANSI F | SCALE: 1:1

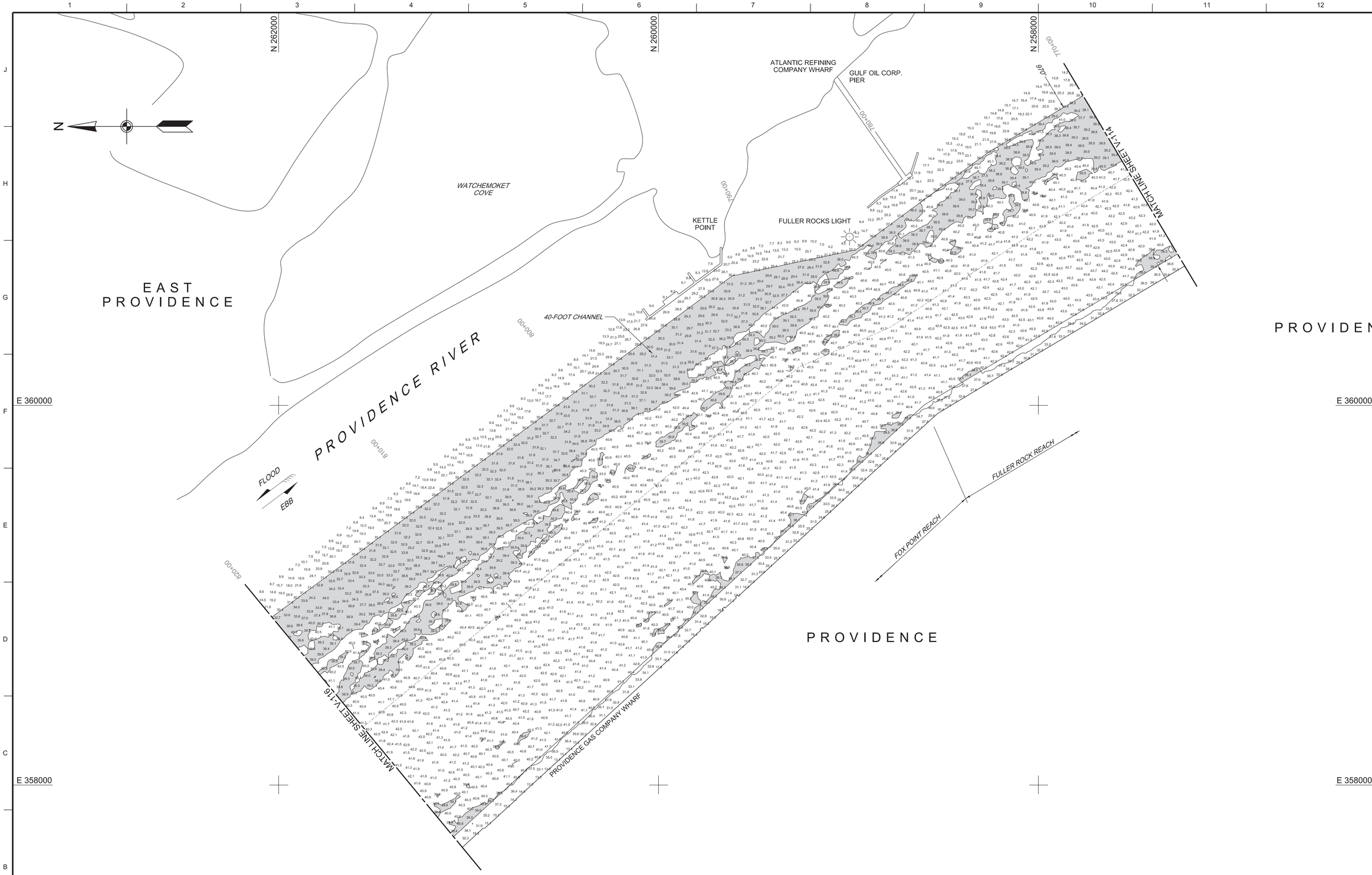
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-114



A6 PLAN - STA. 770+00 TO STA. 820+00

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DWN BY: WHW | CKB BY: SWK | ISSUE DATE: JULY 28, 2016

REVIEWED BY: Asst. Chief, Survey Sec.

REVIEWED BY: Sr. Chief, Survey Section

DRAWING CODE: PRO-L463

SIZE: ANSI F | SCALE: 1:1 | SHEET 15 OF 16

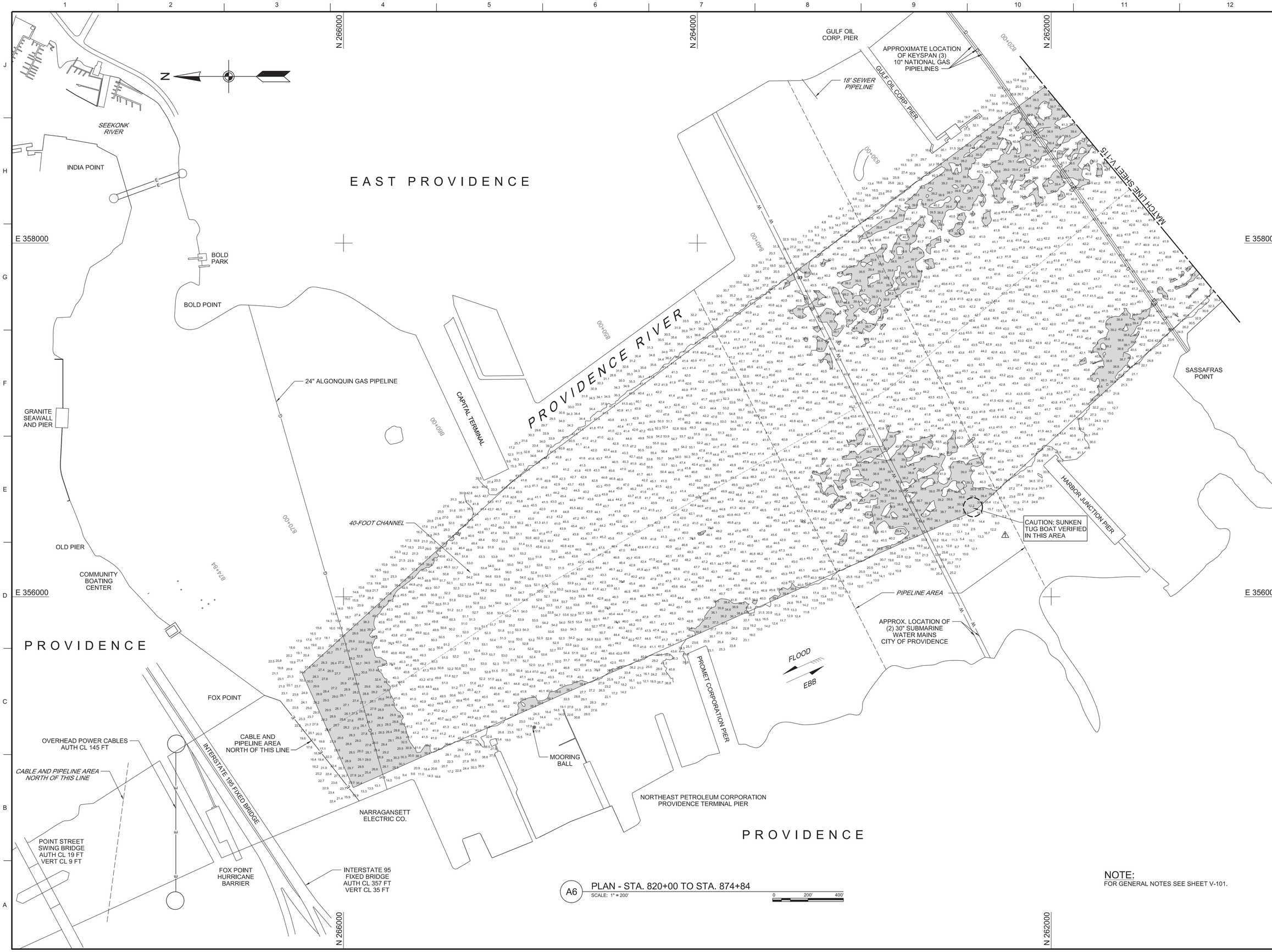
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID

V-115



A6 PLAN - STA. 820+00 TO STA. 874+84

SCALE: 1" = 200'

0 200' 400'

NOTE:
FOR GENERAL NOTES SEE SHEET V-101.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
	NOTE ADDED TO MARK OBJECT VERIFIED "SUNKEN TUG BOAT"	

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

DWN BY: WHW
CKB BY: SWK
REVIEWED BY: Asst. Chief, Survey Sec.
REVIEWED BY: Exp. Chief, Survey Section
ISSUE DATE: JULY 28, 2016
DRAWING CODE: PRO-485
SHEET 16 OF 16
SIZE: ANSI F
SCALE: 1:1

PROVIDENCE RIVER AND HARBOR
PROVIDENCE, RHODE ISLAND
CONDITION SURVEY

40-FOOT CHANNEL

SHEET ID
V-116