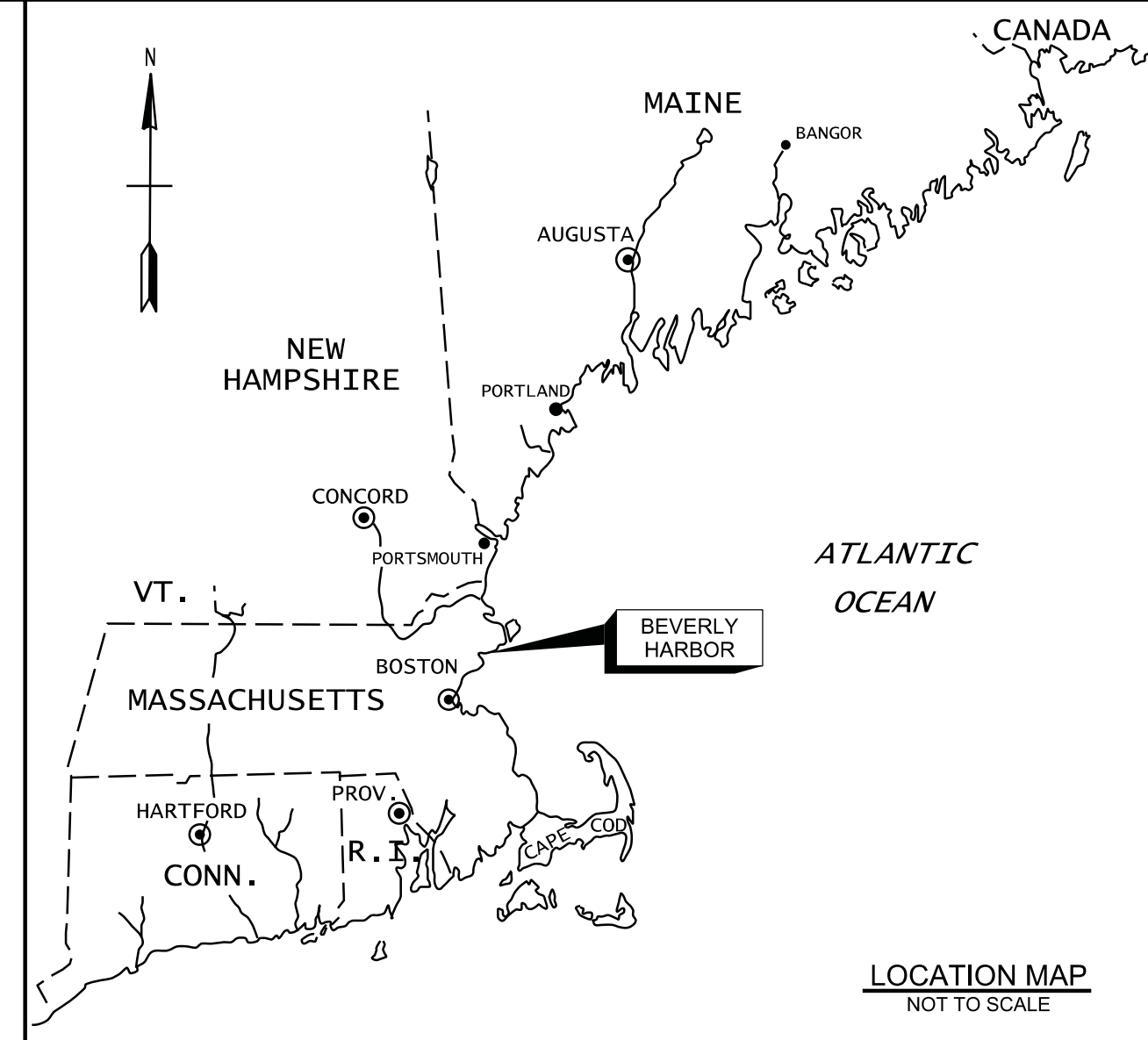


INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
GC-3	07/26/17	N 3022033.43 E 827945.09	42°-32'-19.9"N 70°-51'-45.4"W
RN-4	07/26/17	N 3023095.98 E 826846.01	42°-32'-30.4"N 70°-52'-00.0"W
GC-5	07/26/17	N 3022894.00 E 826635.89	42°-32'-28.5"N 70°-52'-02.8"W
GC-7	07/26/17	N 3023043.86 E 825848.50	42°-32'-30.0"N 70°-52'-13.3"W
RN-8	07/26/17	N 3022839.57 E 824986.67	42°-32'-28.0"N 70°-52'-24.9"W
GC-9	07/26/17	N 3022427.33 E 824749.54	42°-32'-24.0"N 70°-52'-28.1"W
RN-10	07/26/17	N 3022238.97 E 824084.40	42°-32'-22.2"N 70°-52'-37.0"W
GC-11	08/01/17	N 3021815.55 E 823861.80	42°-32'-18.0"N 70°-52'-40.0"W
GC-13	08/01/17	N 3021959.35 E 822912.59	42°-32'-19.5"N 70°-52'-52.7"W
GC-15	07/26/17	N 3022059.14 E 821627.90	42°-32'-20.6"N 70°-53'-09.8"W



US Army Corps of Engineers®	
MARK	DESCRIPTION

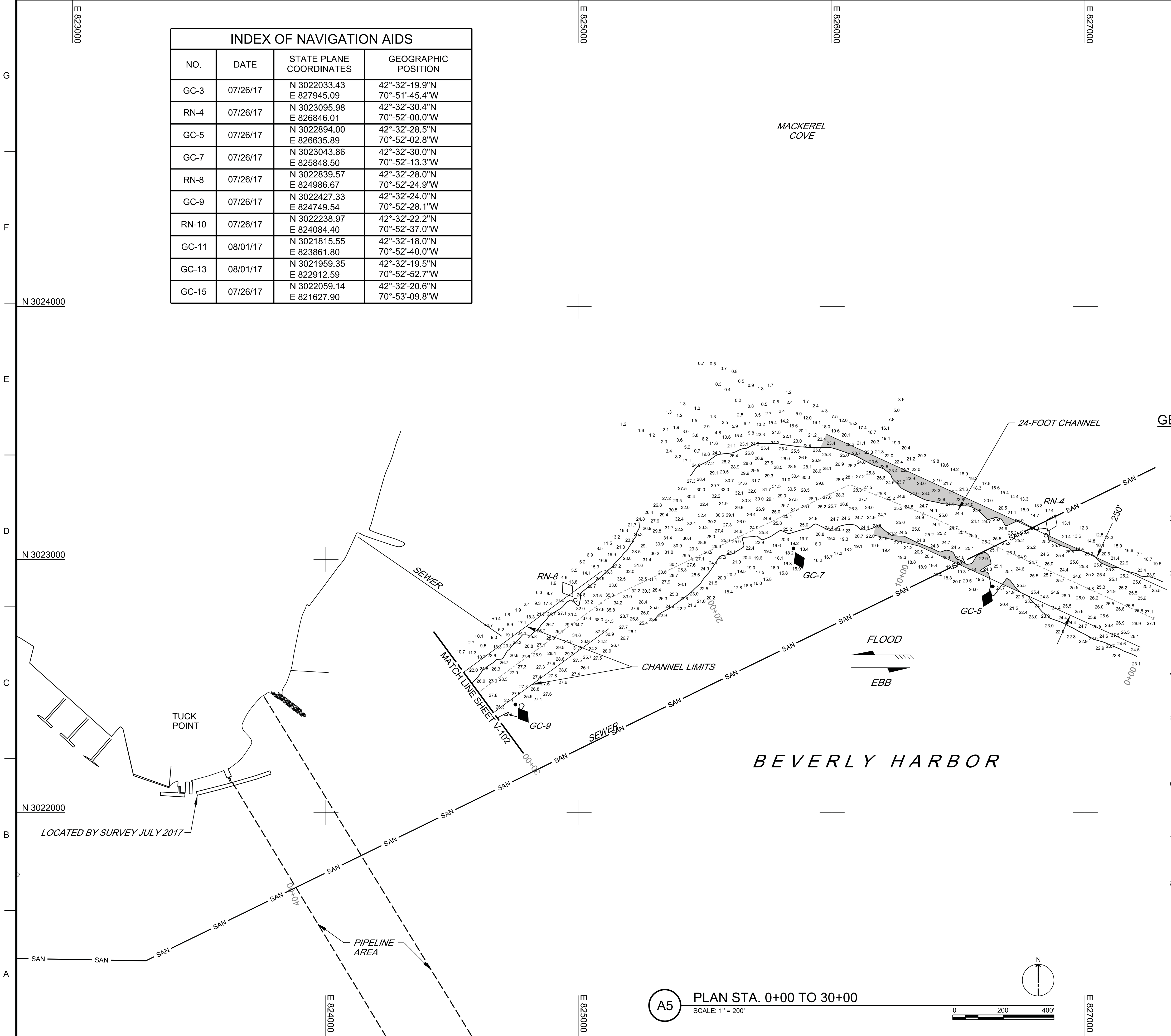
ISSUE DATE: September 3, 2017	CONTRACT NO.:
CHK BY: DJB	DRAWING CODE: BEV-147
DATE REVIEWED BY: [Signature]	DATE: 1 OF 2
APPROVED BY: [Signature]	SCALE: 1" = 200'
FOR: Chief, Survey Section	ANSI D

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

BEVERLY HARBOR
BEVERLY, MASSACHUSETTS
CONDITION SURVEY

24-FOOT CHANNEL

SHEET ID
V-101



GENERAL NOTES:

- 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.
- TOPOGRAPHY SHOWN IS FROM PREVIOUS SURVEYS, AERIAL IMAGERY AND/OR NOAA CHART NO. 13276. ALL TOPOGRAPHY, INCLUDING SHORELINE, BRIDGES, PIERS, ETC., IS LOCATED APPROXIMATE UNLESS OTHERWISE NOTED AND SHOULD BE USED AS A GENERAL REFERENCE ONLY.
- BENCH MARK DATA: TIDES WERE RECORDED USING RTK GPS. THE MLLW TO NAVD88 CORRECTION FOR THIS PROJECT IS 5.15 FEET. THE CORRECTION IS REFERENCED FROM NOAA'S V-DATUM MODEL IN THE VICINITY OF BEVERLY HARBOR, MA. 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 MEAN HIGH TIDE IS 8.93 FEET ABOVE MLLW.
- COORDINATES SHOWN ARE BASED ON THE LAMBERT GRID SYSTEM FOR THE COMMONWEALTH OF MASSACHUSETTS (MAINLAND ZONE 2001), NAD 1983 AND ARE BASED ON U.S. SURVEY FEET.
- SURVEY WAS PERFORMED USING AN ODOM MK 3 ECHO SOUNDER OPERATING AT 200 KHZ. HORIZONTAL POSITIONING AND REAL TIME TIDE READINGS WERE RECORDED UTILIZING A TRIMBLE SPS 855 RTK GPS SYSTEM. THE RTK BASE STATIONS USED WAS STATION JYC (2017).
- THE SOUNDING INFORMATION SHOWN ON THESE MAPS REPRESENT THE SHOALEST SOUNDINGS OF THOSE OBTAINED FROM HYDROGRAPHIC SURVEYS CONDUCTED DURING JULY 2017. THE DATA DEPICTED ON THESE MAPS SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES
- THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME.
- FIELD BOOK: R&H 4285
24-FOOT DEPTH CONTOUR SHOWN THUS:
SURVEYED BY: F.W. PERRY AND CREW
REFER TO SURVEY NO. 17-2461

A5 PLAN STA. 0+00 TO 30+00
SCALE: 1" = 200'

