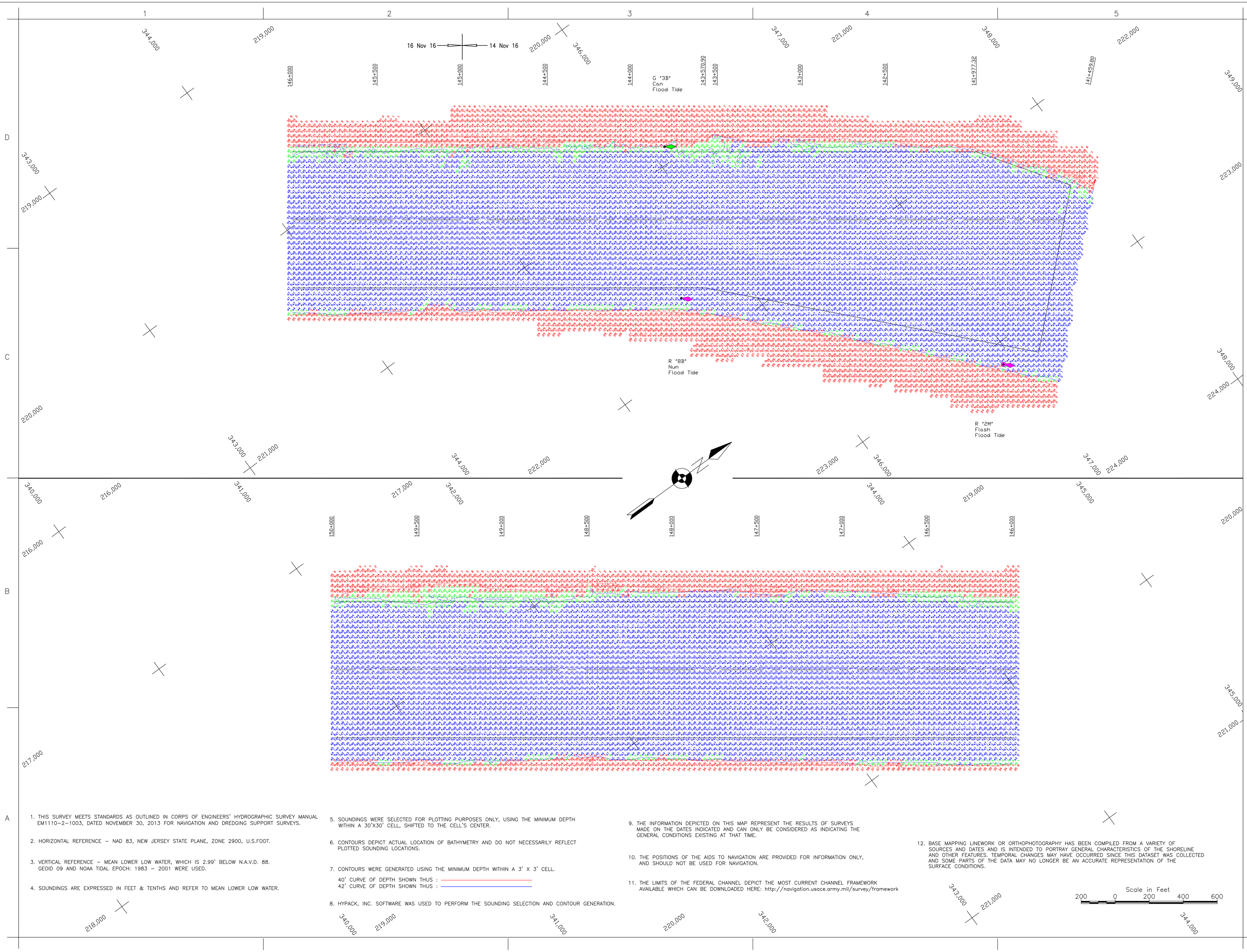


1. THIS SURVEY MEETS STANDARDS AS OUTLINED IN CORPS OF ENGINEERS' HYDROGRAPHIC SURVEY MANUAL EM1110-2-1003, DATED NOVEMBER 30, 2013 FOR NAVIGATION AND DREDGING SUPPORT SURVEYS.

2. HORIZONTAL REFERENCE – NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S.FOOT.

3. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.99' BELOW N.A.V.D. 88. GEOID 09 AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED.

4. SOUNDINGS ARE EXPRESSED IN FEET & TENTHS AND REFER TO MEAN LOWER LOW WATER.

5. SOUNDINGS WERE SELECTED FOR PLOTTING PURPOSES ONLY, USING THE MINIMUM DEPTH WITHIN A 30'X30' CELL, SHIFTED TO THE CELL'S CENTER.

6. CONTOURS DEPICT ACTUAL LOCATION OF BATHYMETRY AND DO NOT NECESSARILY REFLECT PLOTTED SOUNDING LOCATIONS.

7. CONTOURS WERE GENERATED USING THE MINIMUM DEPTH WITHIN A 3' X 3' CELL.

   40' CURVE OF DEPTH SHOWN THUS : ———————

   42' CURVE OF DEPTH SHOWN THUS : ———————

8. HYPACK, INC. SOFTWARE WAS USED TO PERFORM THE SOUNDING SELECTION AND CONTOUR GENERATION.

9. THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

10. THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR INFORMATION ONLY, AND SHOULD NOT BE USED FOR NAVIGATION.

11. THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN BE DOWNLOADED HERE: http://navigation.usace.army.mil/survey/framework

12. BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED 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 OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

Scale in Feet
200 0 200 400 600

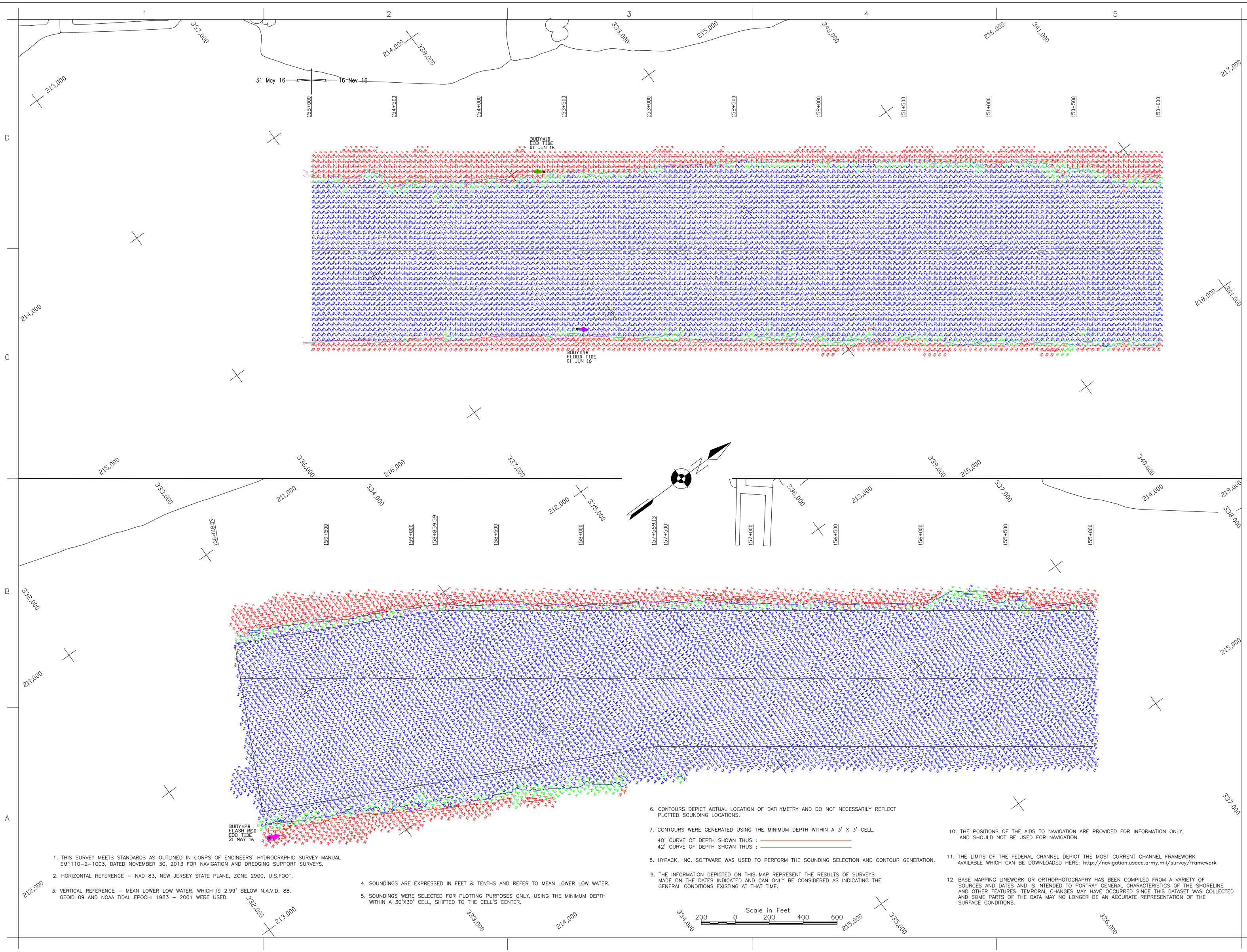
US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA CORPS OF ENGINEERS PHILADELPHIA, PENNSYLVANIA	
Designed by:	Date:
Dwn by: Chd by:	IFB DACW61-
TRACED BY: J.A.Groch	PLOTTED BY: W.Miller
SURVEYED BY: Chermeski	DATE SURVEYED: As Shown
Reviewed by:	Drawing code:
DRAWING NO. 65845	
APPROVED: CHIEF, SURVEY BRANCH	
Submitted by: Chief, Arch. Branch	File name: Plot date: 8 Dec 16 Plot scale: 1in to 200 ft
Rev.	

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
BELLEVUE RANGE
STA.141+459.80 TO STA.150+000

Sheet reference number:
Sheet 1 of 2



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Scale in Feet
200 0 200 400 600

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.
B Dec 16	ADDED DATA FROM 16 NOV 16 AT FROM STATION 150+000 TO 155+000		

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

TRACED BY J.A.Groch	PLOTTED BY M.Gaughan	DRAWING NO. 65674	
SURVEYED BY Cherneski	DATE SURVEYED as shown	APPROVED CHIEF, SURVEY BRANCH	

Designed by:		Date:	Rev.
Dwn by:	Ckd by:	IFB DACW61–	
Reviewed by:		Drawing code:	
Submitted by: Chief, Arch. Branch		File name: Plot date: 06/27/2016 Plot scale: 1in to 200 ft	

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
BELLEVUE RANGE
STA.150+000 TO STA.160+018.09

Sheet reference number:

Sheet 2 of 2