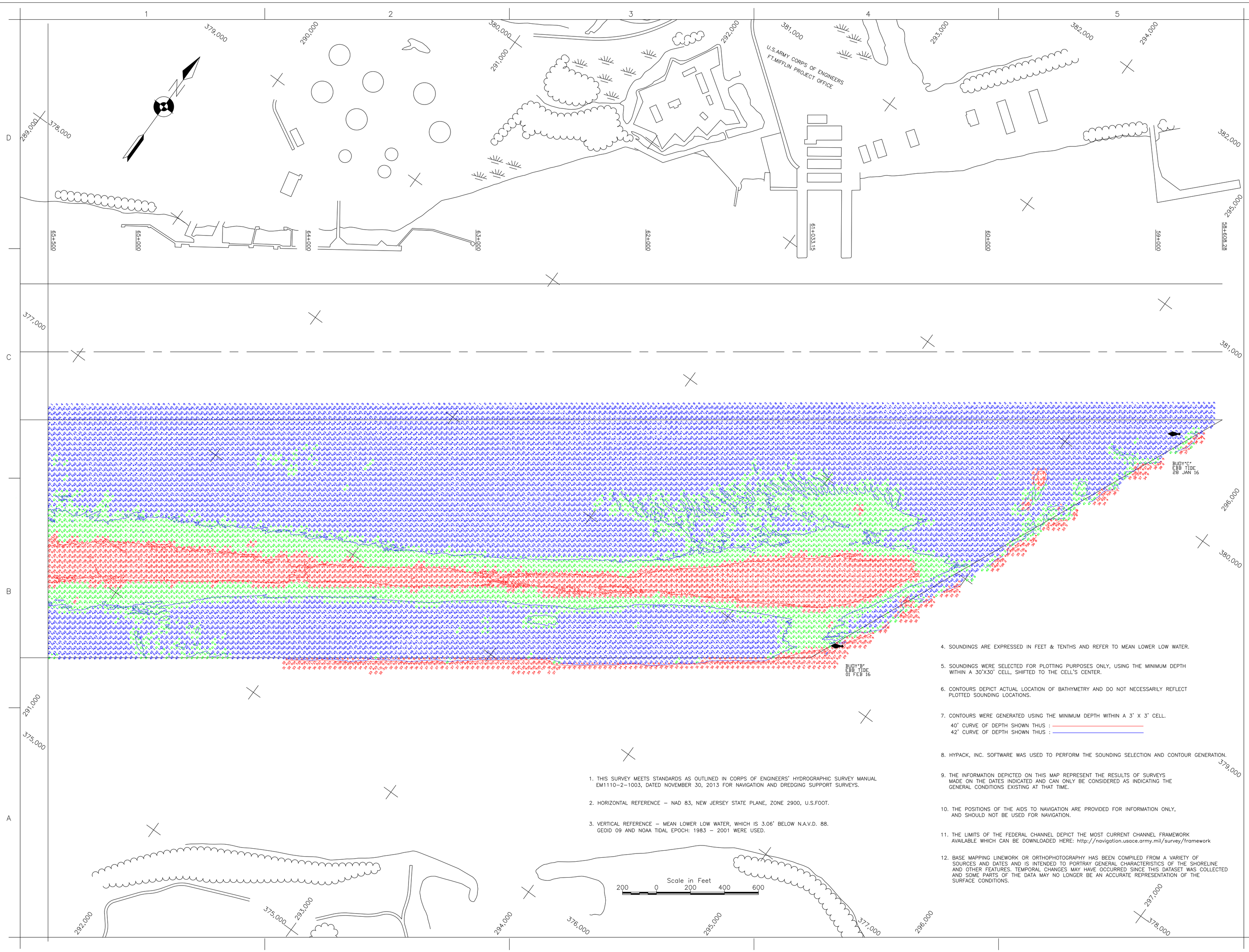


1. THIS SURVEY MEETS STANDARDS AS OUTLINED IN CORPS OF ENGINEERS' HYDROGRAPHIC SURVEY MANUAL EM1110-2-1003, DATED NOVEMBER 30, 2013 FOR NAVIGATION AND DREDGING SUPPORT SURVEYS.

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

3. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 3.06' 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.

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

Mark	Description	Date	Appr.

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

Designed by: Dwn by: Ckd by: Reviewed by: Submitted by: Chief, Arch. Branch
Date: Rev.
IFB W912BU1-
Quadrangle Name:
File name:
Plot date: 02/09/2016
Plot scale: 1in is 200 ft.

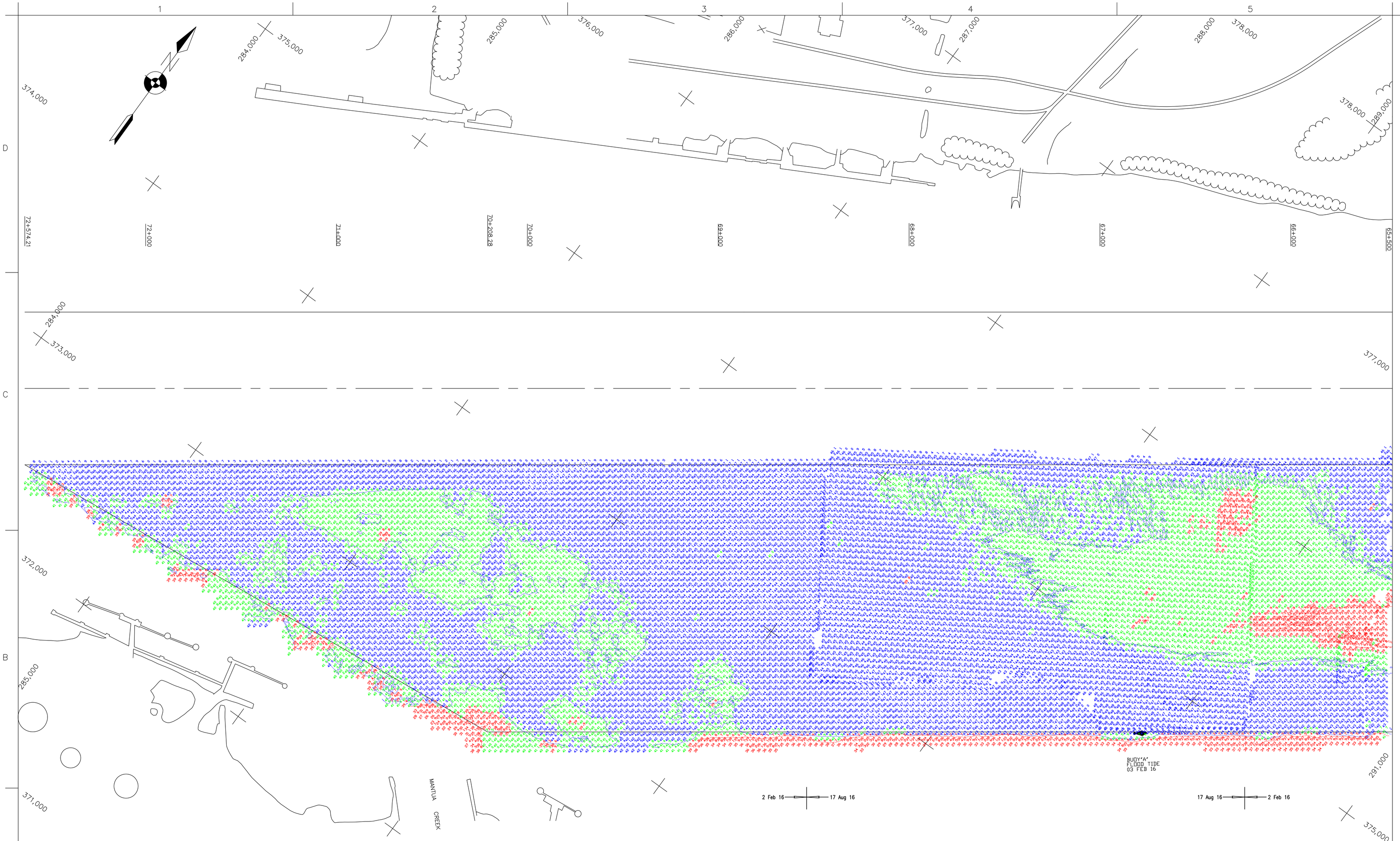
TRACED BY J.A.Grach
PLOTTED BY M.Gaughan
DRAWING NO. 65511
SURVEYED BY Dauntless
DATE SURVEYED 28 Jan & 01 Feb 16
APPROVED CHIEF, SURVEY BRANCH

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION

MANTUA CREEK ANCHORAGE
STA.58+608.28 TO STA.65+500

Sheet reference number:

Sheet 1 of 2



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US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.	Mark	Description	Date	Appr.
17 AUG 16	ADDED DATA FROM SWEEP LOCATION SURVEY ON 17 AUG 16						

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

Designed by: | Dwn by: | Ckd by: | Reviewed by: | Submitted by: Chief, Arch. Branch | Date: | Rev.
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TRACED BY J.A.Groch | PLOTTED BY M.Gaughan | DRAWING NO. 6512
SURVEYED BY Dauntless | DATE SURVEYED 03 Feb 16 | APPROVED CHIEF, ARCH. BRANCH

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION

MANTUA CREEK ANCHORAGE
STA.65+500 TO STA.72+574.21

Sheet reference number:

Sheet 2 of 2