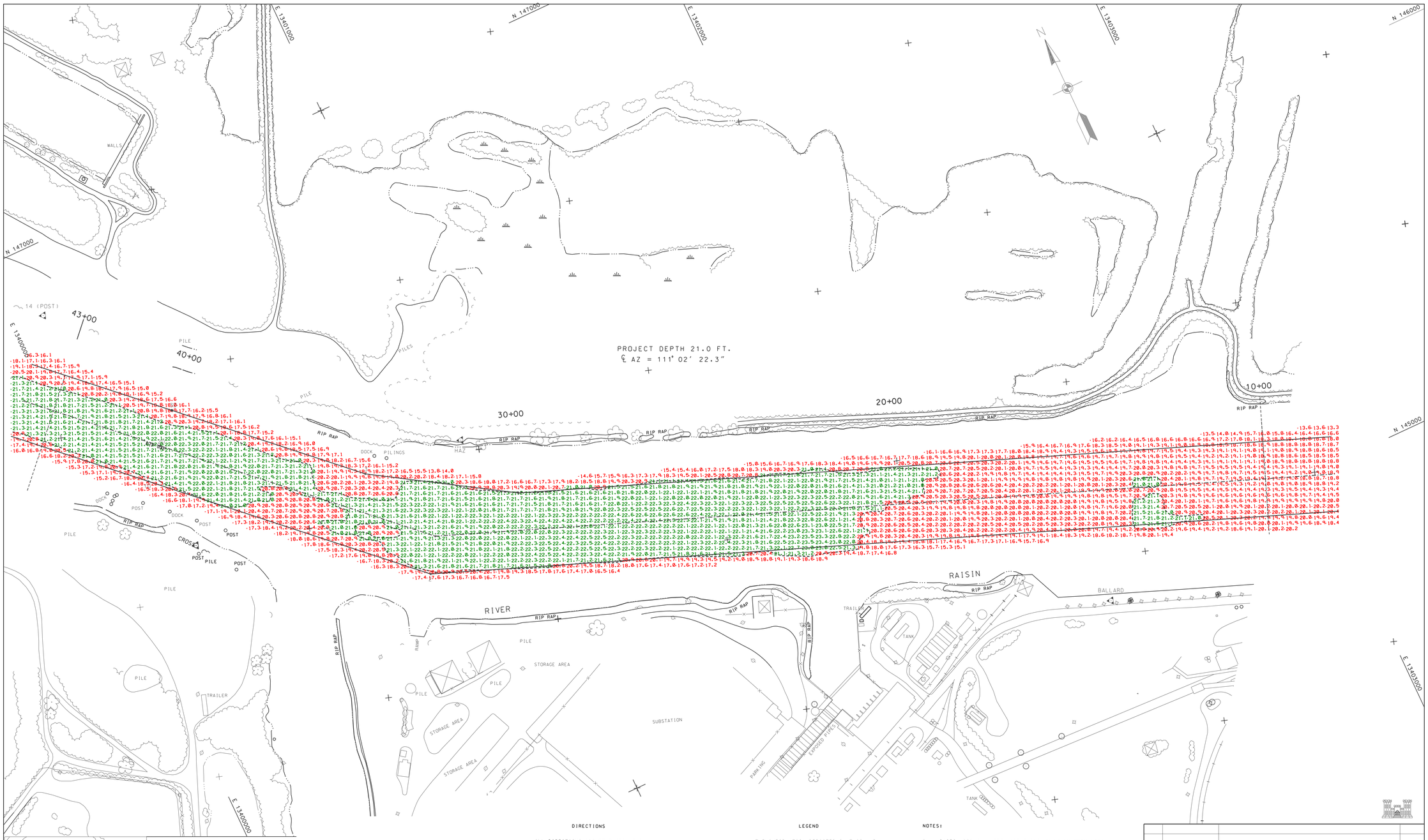

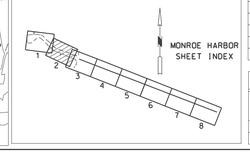

CHANNEL LINE		
STATION NUMBER	COORDINATES NORTH	EAST
1	145849.4883	13401046.6348
2	145752.4188	13400741.9006
3	146069.0466	13400696.7743
1D	146295.8832	13400162.7999
3D	146441.7208	13400299.6671

CENTERLINE		
STATION NUMBER	COORDINATES NORTH	EAST
CL(132+25.48)	145838.7273	13400796.0642
2D	146368.8001	13400231.2269

DIRECTIONS

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS ARE AS INDICATED ABOVE.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY JOHN C. HASS AND JOSEPH D. PERCELL, ABOARD THE USACE SURVEY VESSEL "WHEELER".

AUTOMATED EQUIPMENT USED

POSITIONING: TSS POS-MV
SOFTWARE: HYPACK HYSWEEP
SONIC SOUNDER: RESON SEABAT 8125

21.0 FT. CONTOUR

LEGEND

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

LOW WATER DATUM

ELEVATIONS AND PROJECT DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM. (1985)

GRID COORDINATES

GRIDS SHOWN ARE BASED ON NATIONAL GEODETIC SURVEY PROJECTION TABLES. STATE OF MICHIGAN. SOUTH ZONE (2113). LAMBERT PROJECTION. 1983 NORTH AMERICAN DATUM.

ALL COORDINATES ARE IN U.S. SURVEY FEET.

NOTES:

1. GAGES USED WERE OBTAINED ELECTRONICALLY FROM NOAA GAGE AT FERMI POWER PLANT. MICHIGAN. VIA THE INTERNET.
2. POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838 LOCATED AT FORT WAYNE. DETROIT. MICHIGAN. FREQUENCY 319 KHZ AT 200 BPS.
3. DEPTH MEASURED USING RESON SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTIBEAM SOUNDER SYSTEM AND ODOM DIGIBAR PRO DB1200 VELOCITY PROFILER.
4. EDITED MULTIBEAM SOUNDINGS WERE SORTED INTO A 37 FOOT BY 15 FOOT MATRIX. THE AVERAGE OF THE SOUNDINGS LOCATED IN EACH MATRIX CELL WAS THEN SELECTED FOR PLOTTING AT THE CELL CENTER.

100′ 0 100′ 200′ 300′
scale feet

NO.	DATE	REVISION	BY

U.S. ARMY ENGINEER DISTRICT, DETROIT
CORPS OF ENGINEERS
DETROIT, MICHIGAN

DRAWN BY R.W.P.
DETROIT AREA OFFICE 02 NOVEMBER 2010

MONROE HARBOR, MICH.

CS 43+00W TO CS 10+00W
MULTIBEAM CONDITION SWEEP SURVEY
AVERAGE DEPTH PLOT

DESIGNED BY
CHECKED BY
REVIEWED:
SUBMITTED:
APPROVAL RECOMMENDED:
CHIEF,DTS BRANCH
CHIEF C.O. DIVISION
DATE
APPROVED
LTC. C.E. DISTRICT ENGINEER

SCALE 1″ = 100′
DRAWING NUMBER
SHEET 2 OF 8 mon2s1110.dgn