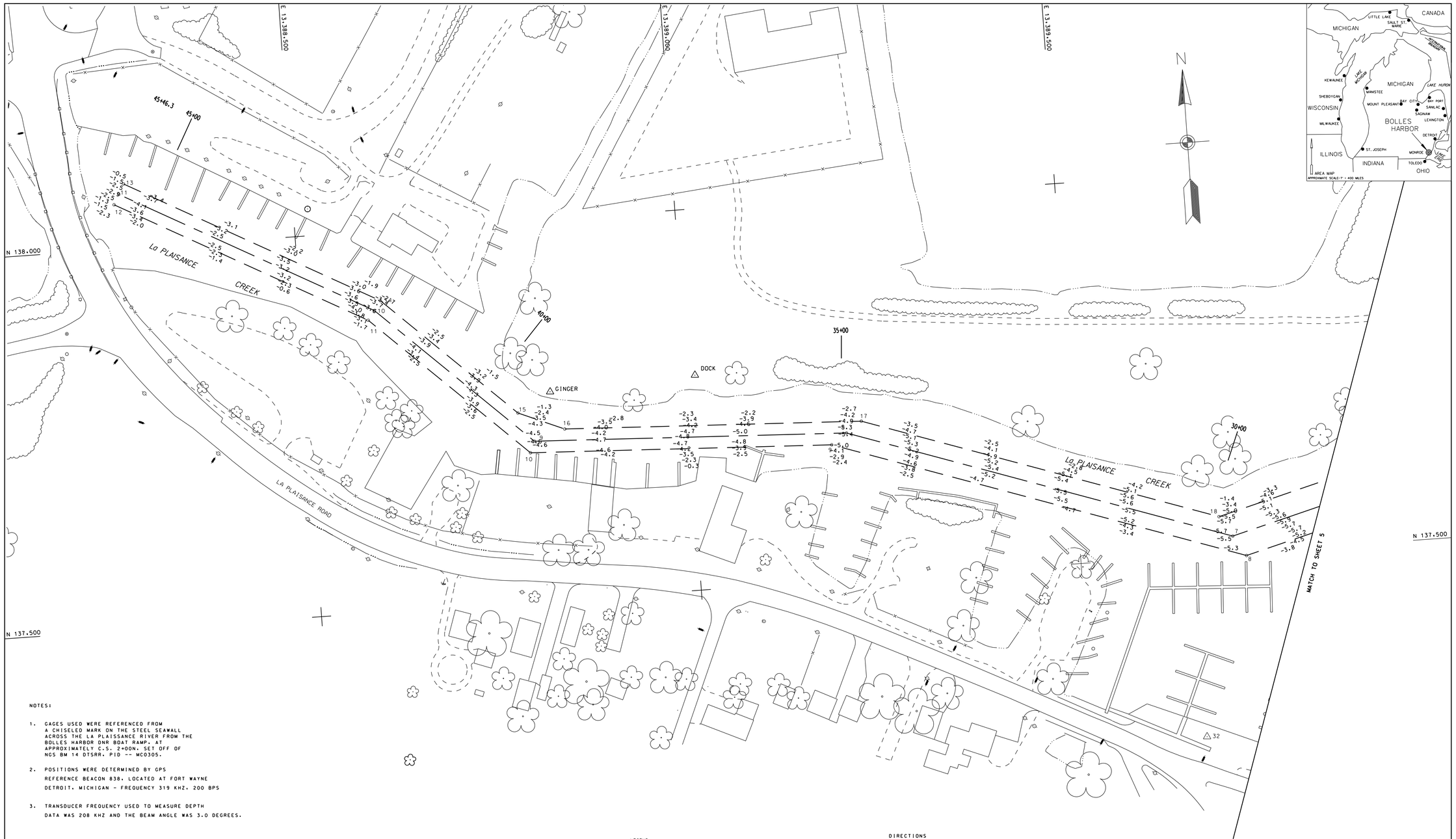

NOTES:

1. GAGES USED WERE REFERENCED FROM A CHISELED MARK ON THE STEEL SEAWALL ACROSS THE LA PLAISSANCE RIVER FROM THE BOLLES HARBOR DNR BOAT RAMP. AT APPROXIMATELY C.S. 2+00N. SET OFF OF NGS BM 14 DTSRR. PID -- MC0305.

2. POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838. LOCATED AT FORT WAYNE DETROIT. MICHIGAN - FREQUENCY 319 KHZ. 200 BPS

3. TRANSDUCER FREQUENCY USED TO MEASURE DEPTH DATA WAS 208 KHZ AND THE BEAM ANGLE WAS 3.0 DEGREES.

CHANNEL CONTROL DATA

STATION NUMBER	DESCRIPTION	COORDINATES NORTH	COORDINATES EAST
8	CHANNEL LINE	137.495.3712	13.389.717.4837
9	CHANNEL LINE	137.678.3691	13.389.184.1356
10	CHANNEL LINE	137.695.5419	13.388.788.7161
11	CHANNEL LINE	137.883.9234	13.388.588.2496
12	CHANNEL LINE	138.058.4619	13.388.265.8119
13	CHANNEL LINE	138.084.8455	13.388.280.0929
14	CHANNEL LINE	137.908.4555	13.388.605.9565
15	CHANNEL LINE	137.748.7729	13.388.775.8883
16	CHANNEL LINE	137.723.5302	13.388.835.7782
17	CHANNEL LINE	137.706.6159	13.389.225.0447
18	CHANNEL LINE	137.548.8151	13.389.684.9719
7	CENTERLINE	137.522.0931	13.389.701.2278
8	CENTERLINE	137.692.4925	13.389.204.5901
9	CENTERLINE	137.710.2863	13.388.794.9335
10	CENTERLINE	137.896.1895	13.388.597.1080
11	CENTERLINE	138.071.6537	13.388.272.9524

LEGEND

— × — × —	FENCE
— · · · —	SHORELINE
	CONTOUR LINE
△	HORIZONTAL CONTROL POINT
⊠	BENCHMARK

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). THE LOW WATER DATUM FOR BOLLES HARBOR IS 569.2 ft. ABOVE MEAN SEA LEVEL.

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 GRID COORDINATES ARE IN U.S. SURVEY FEET.

DIRECTIONS

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS

PROJECT DEPTHS ARE AS INDICATED. ALL DEPTHS ARE IN U.S. SURVEY FEET.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY ROBERT W. POLAK AND ROBERT R. SCHLIEWE. ABOARD THE USACOE SURVEY SMALL BOAT.

AUTOMATED EQUIPMENT USED

POSITIONING: TRIMBLE DGPS
SOFTWARE: COASTAL OCEANOGRAPHICS
SONIC SOUNDER: INNERSPACE 448

6.0 FT. PROJECT DEPTH CONTOUR

50' 0 50' 100' 150'

SCALE: 1" = 50'

NO.	DATE	REVISION	BY

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

BOLLES HARBOR, MI

CONDITION SOUNDINGS

C.S. 29+00N TO C.S. 35+00N -- 24 APR 2008

C.S. 36+00N TO C.S. 45+46N -- 01 MAY 2008

DETROIT AREA OFFICE

SUBMITTED
CHIEF, PROJ. OPNS SECT

APPROVED
CHIEF, CONST - OPNS DIVISION

APPROVAL RECOMMENDED
CHIEF, OTS BRANCH

SCALE AS SHOWN

CADD FILE NAME BOMD1A94.DGN

DRAWING NUMBER bo10608c.dgn

SHEET 6 OF 6