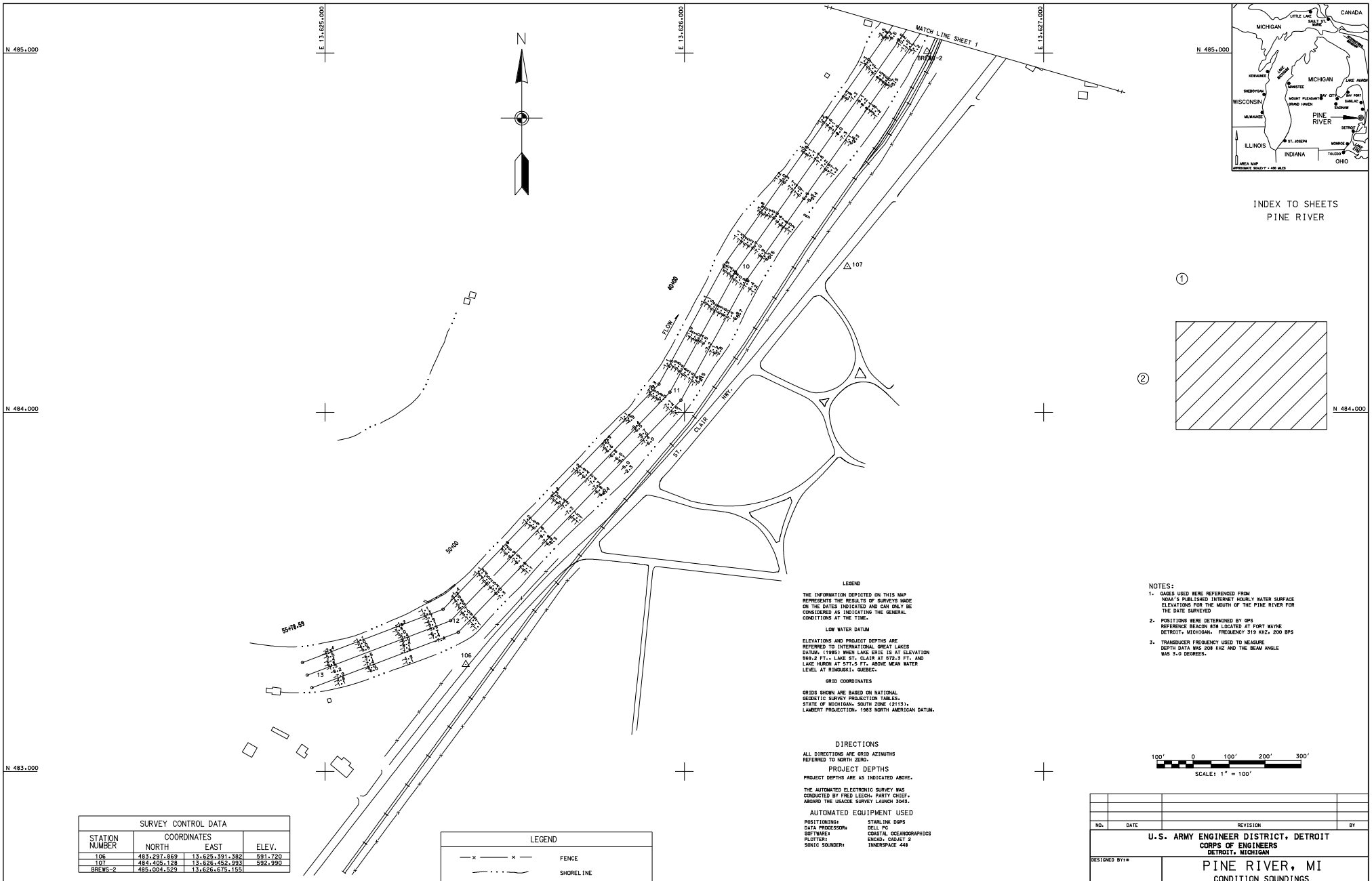

LEGEND

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) WHEN LAKE ERIE IS AT ELEVATION 569.2 FT., LAKE ST. CLAIR AT 572.5 FT. AND LAKE HURON AT 577.5 FT. ABOVE MEAN WATER LEVEL AT RIMOUSKI, QUEBEC.

GRID COORDINATES

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

DIRECTIONS

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS

PROJECT DEPTHS ARE AS INDICATED ABOVE.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY FRED LEECH, PARTY CHIEF, ABOARD THE USACOE SURVEY LAUNCH 3043.

AUTOMATED EQUIPMENT USED

POSITIONING:	STARLINK DGPS
DATA PROCESSOR:	DELL PC
SOFTWARE:	COASTAL OCEANOGRAPHICS
PLOTTER:	ENCAD, CADJET 2
SONIC SOUNDER:	INNERSPACE 448

12.0 FT. CONTOUR

NOTES:

1. GAGES USED WERE REFERENCED FROM NOAA'S PUBLISHED INTERNET HOURLY WATER SURFACE ELEVATIONS FOR THE MOUTH OF THE PINE RIVER FOR THE DATE SURVEYED
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.

100' 0 100' 200' 300'

SCALE: 1" = 100'

SURVEY CONTROL DATA

STATION NUMBER	COORDINATES NORTH	COORDINATES EAST	ELEV.
106	483,297.869	13,625,391.382	591.720
107	484,405.128	13,626,452.993	592.990
BREWS-2	485,004.529	13,626,675.155	

CHANNEL CONTROL DATA

STATION NUMBER	DESCRIPTION	COORDINATES NORTH	COORDINATES EAST
10	CENTERLINE	484,389.676	13,626,142.093
11	CENTERLINE	484,056.072	13,625,959.658
12	CENTERLINE	483,419.744	13,625,349.308
13	CENTERLINE	483,268.282	13,624,950.056

LEGEND

—x——x—	FENCE
—·····—	SHORELINE
~~	CONTOUR LINE
△	HORIZONTAL CONTROL POINT
△	HORIZONTAL CONTROL POINT AND BENCHMARK
⊠	BENCHMARK

NO.	DATE	REVISION	BY

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

DESIGNED BY:*
DRAWN BY:*
CHECKED BY:*

PINE RIVER, MI

CONDITION SOUNDINGS

C.S. 31+00 TO C.S. 55+00

19 JUN 2003

DETROIT AREA OFFICE

SUBMITTED
CHIEF PROJ OPNS SECT

APPROVAL RECOMMENDED:
CHIEF OTS BRANCH

APPROVED
CHIEF CONST – OPNS DIVISION

SCALE AS SHOWN 1" = 100'

SHEET 2 OF 2

DRAWING NUMBER pr203c.dgn