

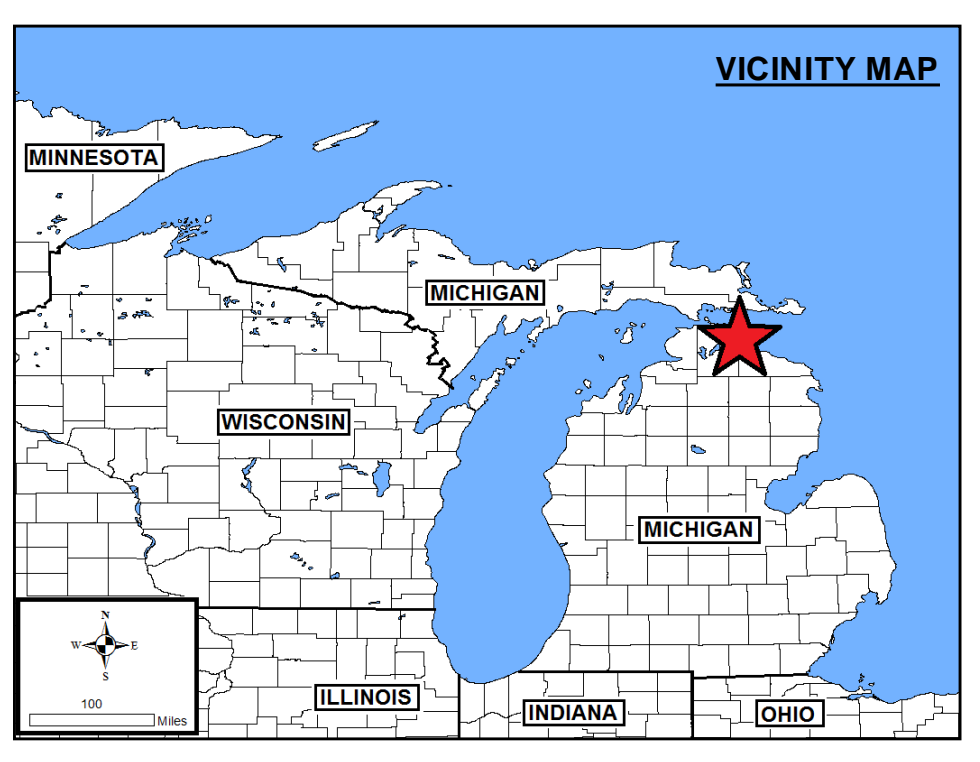
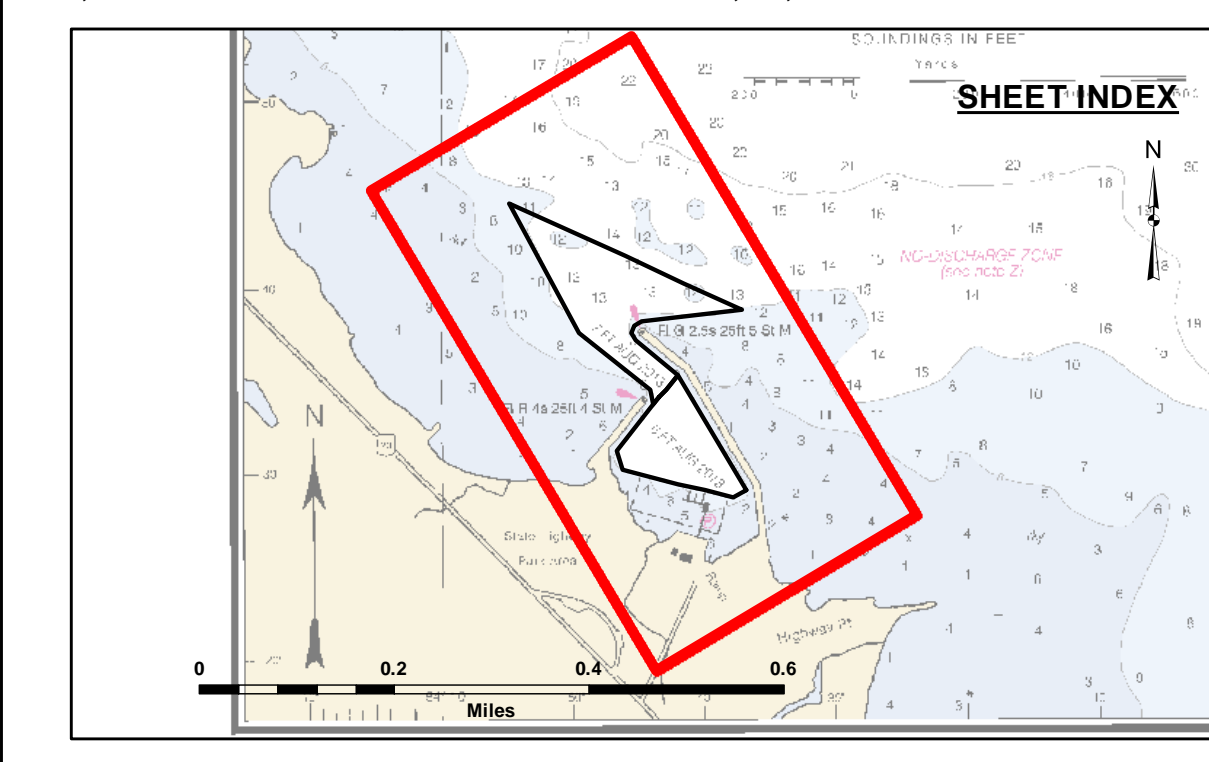
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U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT		
Submitted:	Surveyed By:	
Recommended:	Plotted By:	
Approved:	Chief, Technical Services	

**Hammond Bay Harbor, MI**  
**Hammond Bay Harbor**  
**HA\_01\_MND\_20210817\_CS**  
**17 August 2021**

**Sheet Reference Number**  
**1 of 1**

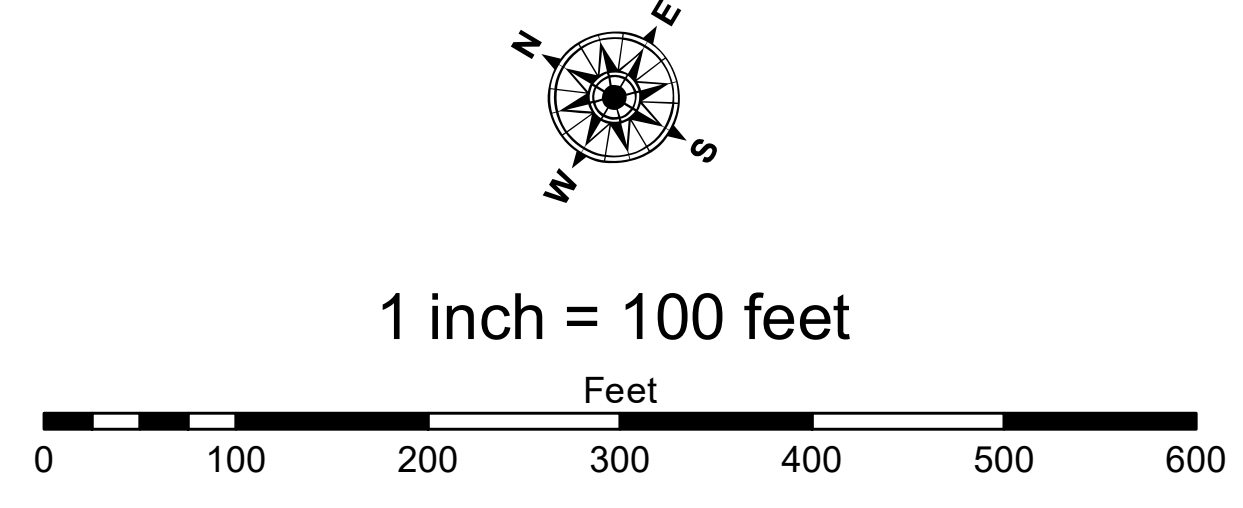


**LEGEND**

- ..... Cable Submarine
- - - Cable Overhead
- ▭ Channel Limits
- ⊥ Beacon, General
- Contour Lines
- ▭ Channel Limits

**SOUNDING LEGEND**

- Red: LESS THAN PROJECT DEPTH
- Light Blue: PROJECT DEPTH
- Medium Blue: PROJECT DEPTH +1'
- Dark Blue: PROJECT DEPTH +2'
- Very Dark Blue: PROJECT DEPTH +3'
- Black: PROJECT DEPTH +4'
- Dark Purple: PROJECT DEPTH +5'



**NOTES:** 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.

FOR MULTIBEAM SURVEYS: THE SOUNDINGS INDICATED HEREIN ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10X10 FOOT AREA CENTERED ON THE TEXT, DERIVED FROM A 1X1 FOOT AVERAGE DATASET AT CELL CENTER. THIS MAP SHOULD NOT BE USED FOR CHANNEL CLEARANCE OR VOLUME COMPUTATIONS. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SOAL REMOVAL OPERATIONS AND NOTICE TO NAVIGATION INTERESTS.

HORIZONTAL GRID DATUM BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, LAMBERT PROJECTION, CENTRAL ZONE (2112), NORTH AMERICAN DATUM 1983, U.S. SURVEY FOOT.

ALL SOUNDINGS ARE REFERENCED TO INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85), LWD LAKE HURON = 577.5'

TIDE VALUES ARE DERRIVED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) WATER LEVEL STATIONS: MACKINAW CITY, MI (#9075080)

ALSO, TBM 1 BEAM WHICH WAS ESTABLISHED FROM NGS CONTROL POINT W301 (PID QK0514).

POSITIONING: APPLANIX POS-MV4 W/ VRS/RTK OR MARINESTAR GNSS.  
 MOTION COMPENSATION: APPLANIX POS-MV4  
 SONAR: R2SONIC 2024 (MULTIBEAM) OR ODOM CV-300 (SINGLEBEAM)  
 SOFTWARE: HYPACK

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS  
 ALL COORDINATES ARE IN U.S. SURVEY FEET.