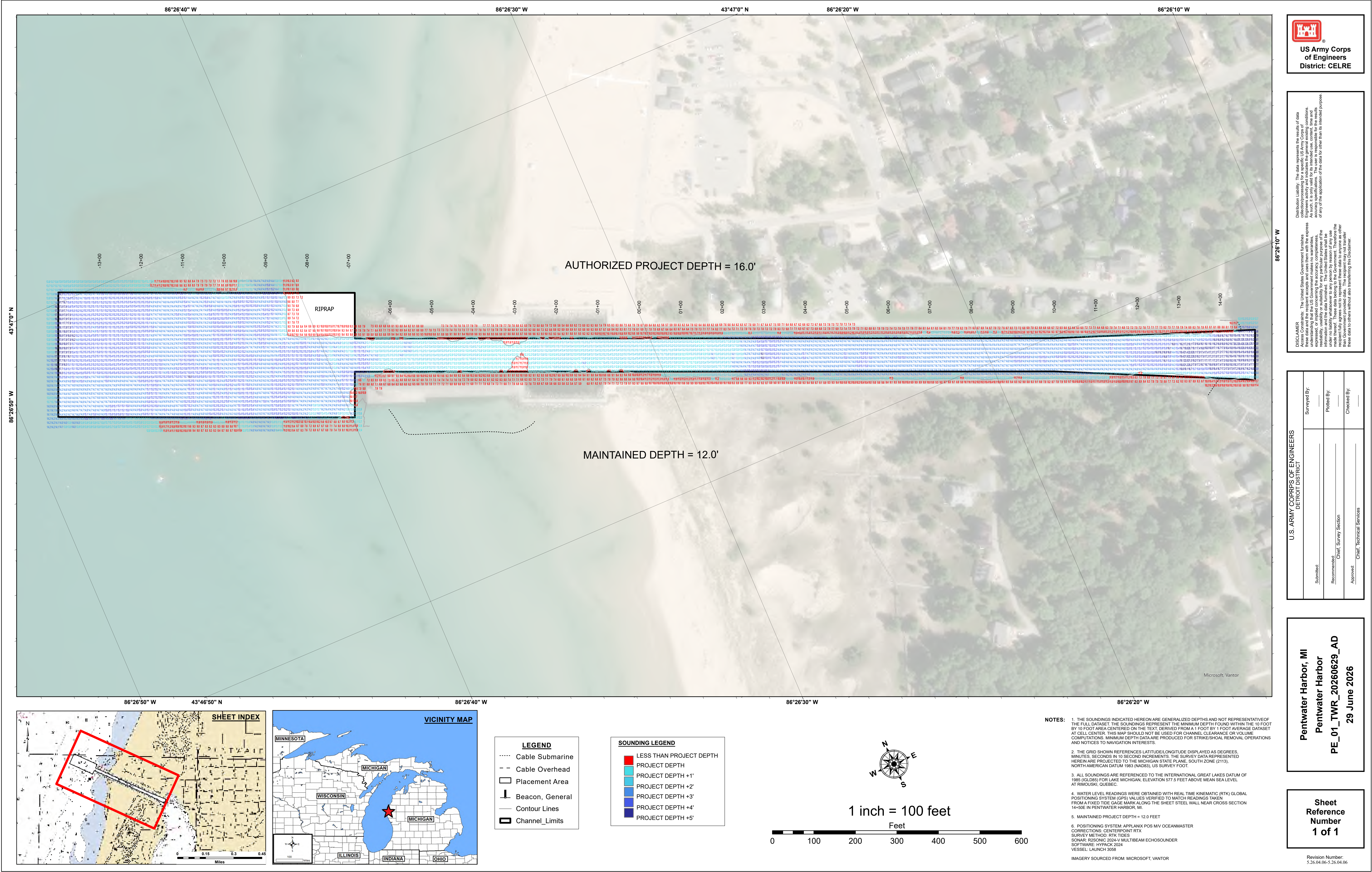






**US Army Corps
of Engineers**
District: CELRE

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

Pentwater Harbor, MI
Pentwater Harbor
PE_01_TWR_20260629_AD
29 June 2026

**Sheet
Reference
Number
1 of 1**

- NOTES:**
1. THE SOUNDINGS INDICATED HEREON ARE GENERALIZED DEPTHS AND NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT, DERIVED FROM A 1 FOOT BY 1 FOOT AVERAGE DATASET AT CELL CENTER. THIS MAP SHOULD NOT BE USED FOR CHANNEL CLEARANCE OR VOLUME COMPUTATIONS. MINIMUM DEPTH DATA ARE PRODUCED FOR STRIKE/SOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.
 2. THE GRID SHOWN REFERENCES LATITUDE/LONGITUDE DISPLAYED AS DEGREES, MINUTES, SECONDS IN 10 SECOND INCREMENTS. THE SURVEY DATA REPRESENTED HEREIN ARE PROJECTED TO THE MICHIGAN STATE PLANE, SOUTH ZONE (2119), NORTH AMERICAN DATUM 1983 (NAD83), US SURVEY FOOT.
 3. ALL SOUNDINGS ARE REFERENCED TO THE INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85) FOR LAKE MICHIGAN, ELEVATION 577.5 FEET ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC.
 4. WATER LEVEL READINGS WERE OBTAINED WITH REAL TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS) VALUES VERIFIED TO MATCH READINGS TAKEN FROM A FIXED TIDE GAGE MARK ALONG THE SHEET STEEL WALL NEAR CROSS SECTION 14+50E IN PENTWATER HARBOR, MI.
 5. MAINTAINED PROJECT DEPTH = 12.0 FEET
 6. POSITIONING SYSTEM: APPLANIX POS MV OCEANMASTER
CORRECTIONS: CENTERPOINT RTX
SURVEY METHOD: RTK TIDES
SONAR: RESONIC 2024-V MULTIBEAM ECHOSOUNDER
SOFTWARE: HYPACK 2024
VESSEL: LAUNCH 3056
IMAGERY SOURCED FROM: MICROSOFT, VANTOR