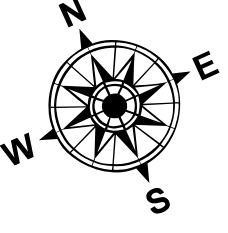


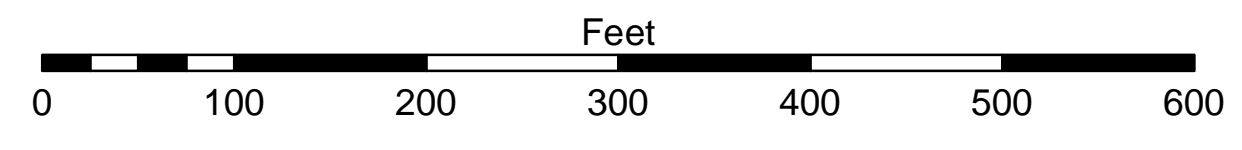
- LEGEND**
- Cable Submarine
 - - - Cable Overhead
 - Placement Area
 - ⊥ Beacon, General
 - Contour Lines
 - ▭ Channel Limits

- SOUNDING LEGEND**
- LESS THAN PROJECT DEPTH
 - PROJECT DEPTH
 - PROJECT DEPTH +1'
 - PROJECT DEPTH +2'
 - PROJECT DEPTH +3'
 - PROJECT DEPTH +4'
 - PROJECT DEPTH +5'

IGLD Reference: 577.5'
 Current Level in
 Ludington, MI: 579.94'
 Add 2.47' for actual
 water depth



1 inch = 100 feet



- NOTES:**
1. 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 EXISTING AT THAT TIME.
 2. GRIDS SHOWN ARE BASED ON THE NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE (2113), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM, US SURVEY FOOT.
 3. ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC.
 4. VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAGE MARK ALONG THE SHEET STEEL WALL NEAR CROSS SECTION 14+50E IN PENTWATER HARBOR, MI.
 5. PROJECT DEPTH = 12.0 FEET
 6. POSITIONING: APPLANIX POS MVV
 CORRECTIONS: MARINESTAR GNSS G2
 SONAR: R2SONIC MULTIBEAM ECHOSOUNDER
 SOFTWARE: HYPACK 2021
 VESSEL: LAUNCH 3058
- 2014 AERIAL PHOTOGRAPHY DATA SOURCE: NAIP
 ** SHOALEST SOUNDING PER QUARTER PER REACH.



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U.S. ARMY CORPS OF ENGINEERS
 DETROIT DISTRICT

| | |
|--------------|--------------|
| Submitted: | Surveyed By: |
| Recommended: | Plotted By: |
| Approved: | Checked By: |

Chief, Survey Section
 Chief, Technical Services

Pentwater Harbor, MI
 Pentwater Harbor
 PE_01_TWR_20230712_CS
 12 July 2023

Sheet Reference Number
 1 of 1