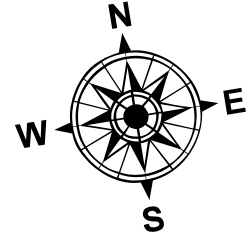
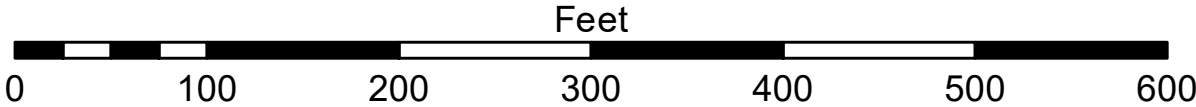


- LEGEND**
- ..... Cable Submarine
  - - Cable Overhead
  - Placement Area
  - └ Beacon, General
  - Contour Lines
  - ▭ Channel\_Limits

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



1 inch = 100 feet



- NOTES:**
1. THE SOUNDINGS INDICATED HEREIN ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATA SET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10X10 AREA CENTERED ON THE TEXT, DERIVED FROM A 1X1 AVERAGE DATASET AT CELL CENTER. THIS MAP SHOULD NOT BE USED FOR CHANNEL CLEARANCE OR VOLUME COMPUTATIONS.
  2. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICE TO NAVIGATION INTERESTS.
  3. GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2115) 1983 NORTH AMERICAN DATUM, U.S. FOOT.
  4. ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC.
  5. VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAGE MARK ALONG THE SHEET STEEL WALL IN BY CROSS SECTION 8+00E IN ST. JOSEPH HARBOR, MI.
  6. PROJECT DEPTHS FOR THIS HARBOR RANGE FROM 21.0' TO 18.0'.
  7. POSITIONING METHOD: MARINESTAR GNSS G2  
MOTION COMPENSATION: APRILIX OCEAN MASTER POS M/V  
EQUIPMENT: 2024 MULTIBEAM ECHOSOUNDER  
SOFTWARE: HYPACK  
VESSEL: LAUNCH 3058

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS



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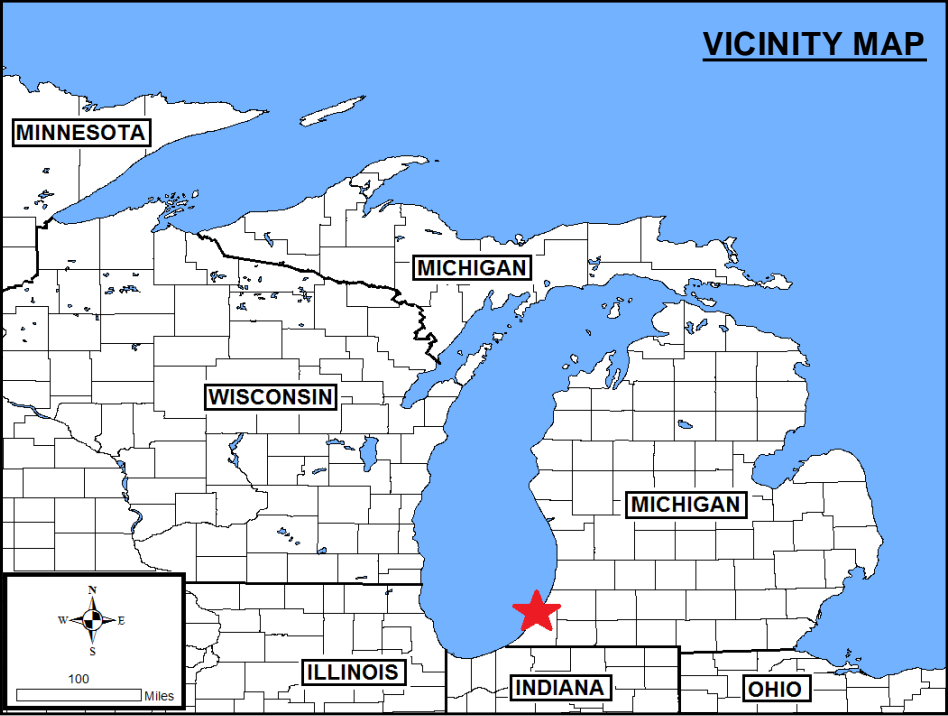
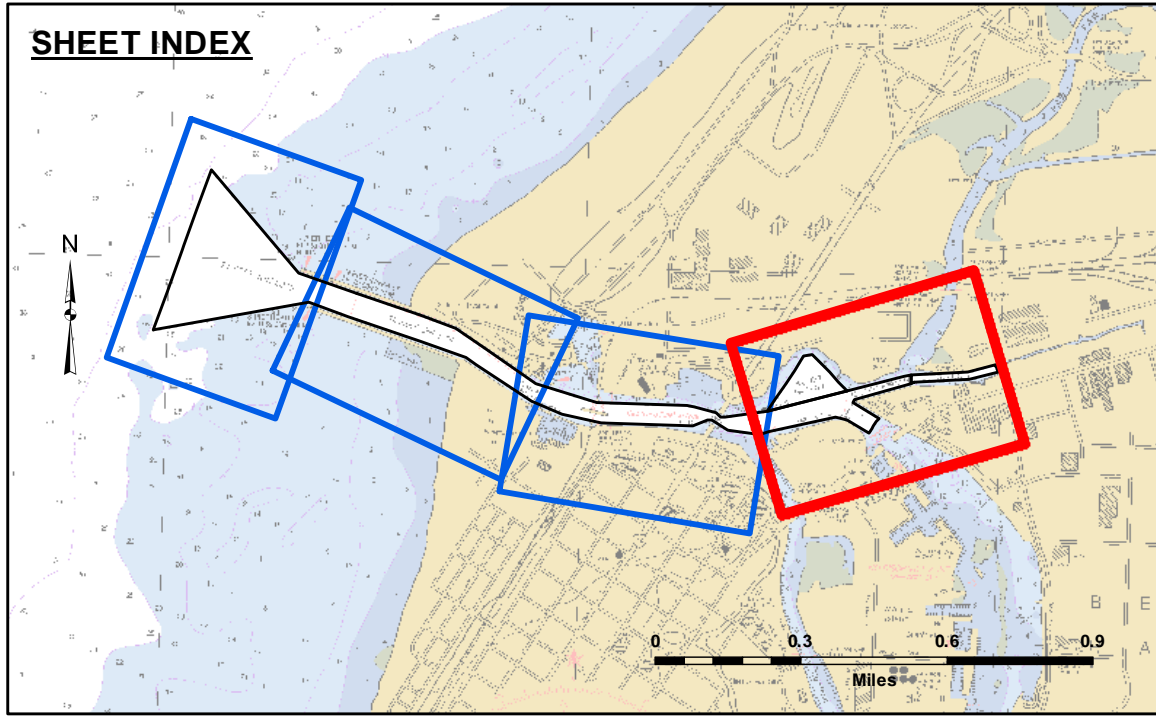
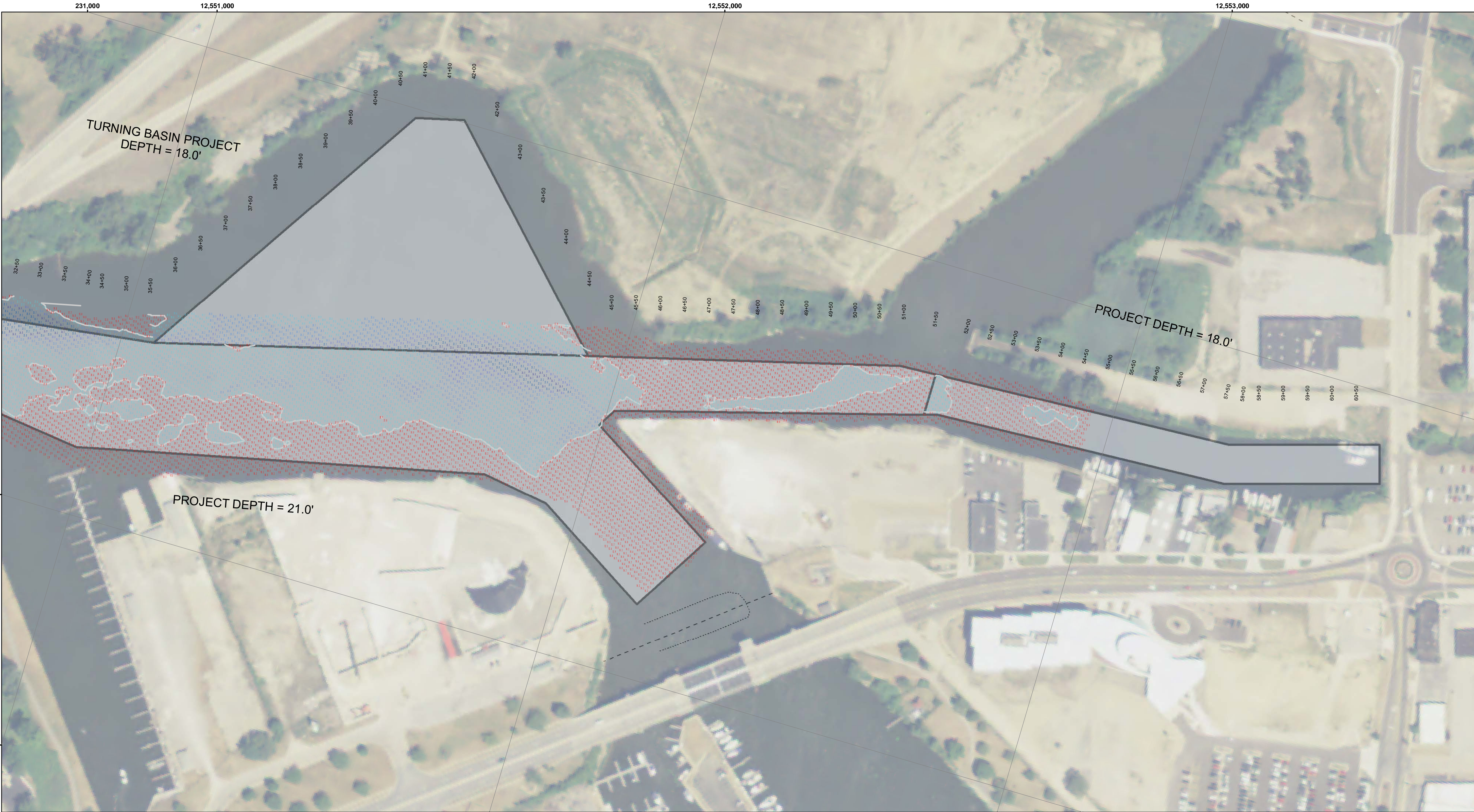
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U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT		
Submitted:	Surveyed By:	
Recommended: Chief, Survey Section	Plotted By:	
Approved:	Checked By:	

**ST JOSEPH HARBOR, MI**  
**St Joseph Harbor**  
**ST\_01\_JOE\_20210730\_BD**  
**30 July 2021**

**Sheet  
Reference  
Number**  
**3 of 4**





**LEGEND**

- ..... Cable Submarine
- - - Cable Overhead
- Placement Area
- ⌋ Beacon, General
- Contour Lines
- ▭ Channel\_Limits

**SOUNDING LEGEND**

- PROJECT DEPTH
- PROJECT DEPTH +1'
- PROJECT DEPTH +2'
- PROJECT DEPTH +3'
- PROJECT DEPTH +4'
- PROJECT DEPTH +5'

1 inch = 100 feet

Feet

0 100 200 300 400 500 600

**NOTES:** 1. THE SOUNDINGS INDICATED HEREIN ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATA SET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10X10 AREA CENTERED ON THE TEXT, DERIVED FROM A 1X1 AVERAGE DATASET AT CELL CENTER. THIS MAP SHOULD NOT BE USED FOR CHANNEL CLEARANCE OR VOLUME COMPUTATIONS.

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2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

U.S. ARMY CORPS OF ENGINEERS  
DETROIT DISTRICT

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

ST JOSEPH HARBOR, MI  
St Joseph Harbor  
ST\_01\_JOE\_20210730\_BD  
30 July 2021

Sheet  
Reference  
Number  
4 of 4

Revision Number:  
4.2-200206-020

US Army Corps  
of Engineers  
District: CELRE

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