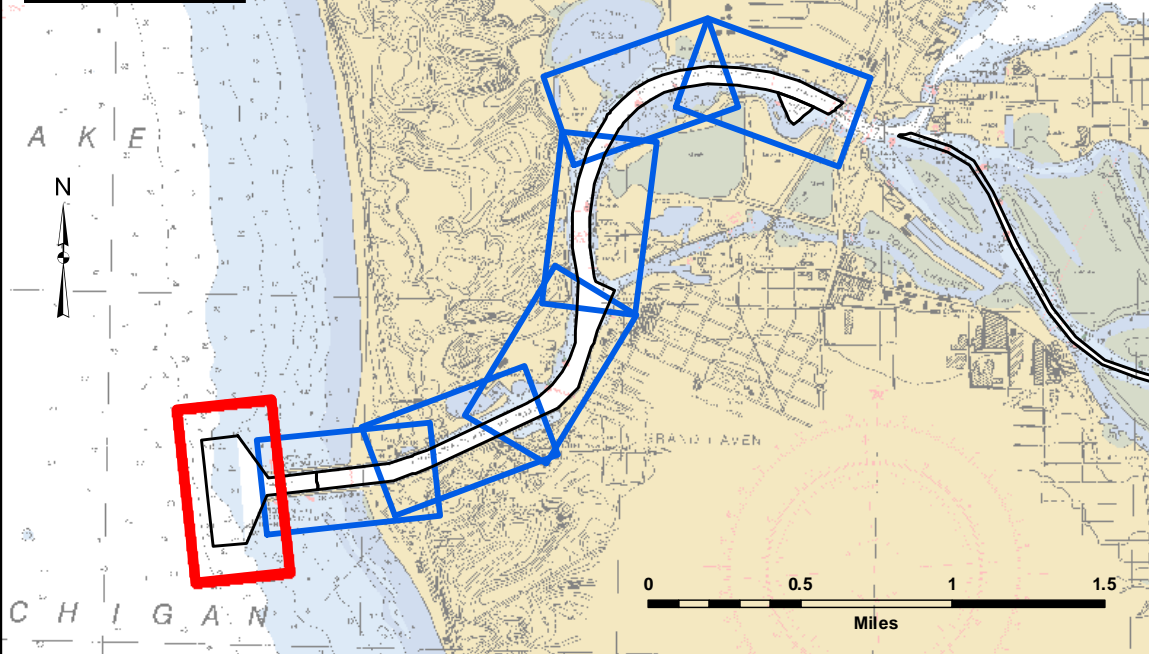


SHEET INDEX



VICINITY MAP

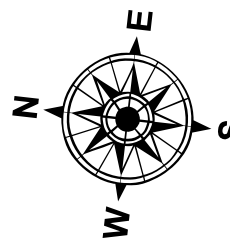


LEGEND

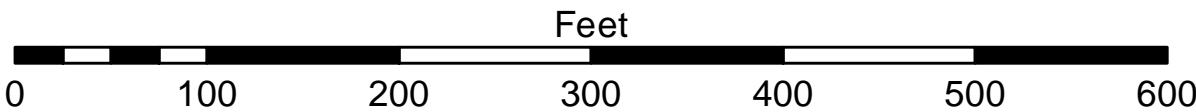
- Cable Submarine
- - Cable Overhead
- Placement Area
- Beacon, General
- Contour Lines
- Channel Limits

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 INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF THE 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.
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 5. PROJECT DEPTH = 23.0-21.0 FEET
 6. POSITIONING: APPLANIX POS M/V
CORRECTIONS: MARINSTAR GNSS G2
SONAR: R2SONIC 2024 MULTIBEAM
SOFTWARE: HYPACK 2020
VESSEL: LAUNCH 3058
- 2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS



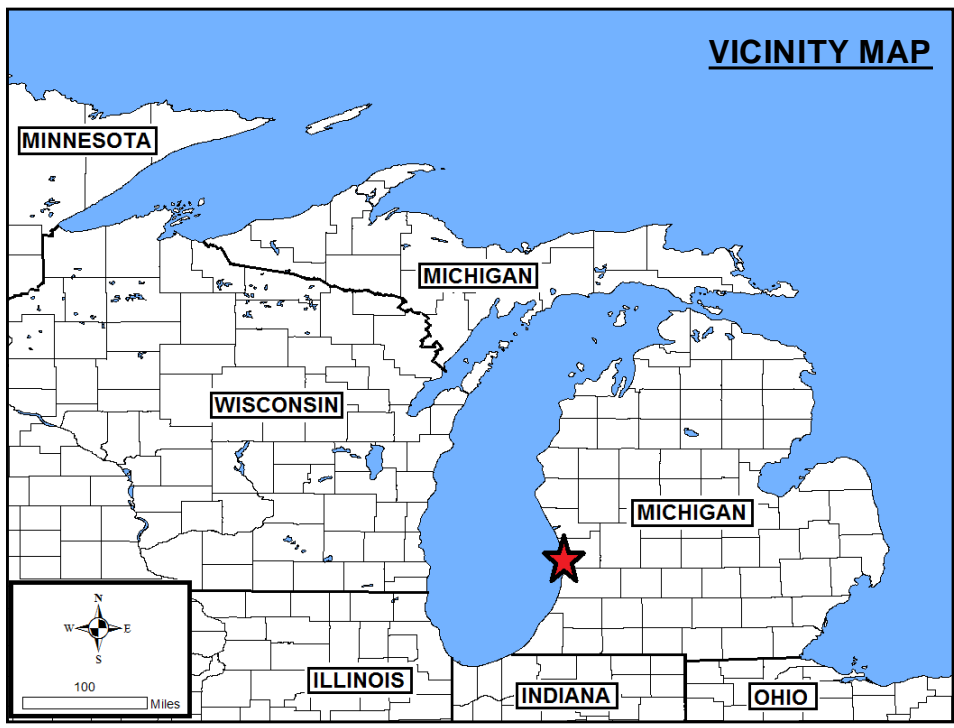
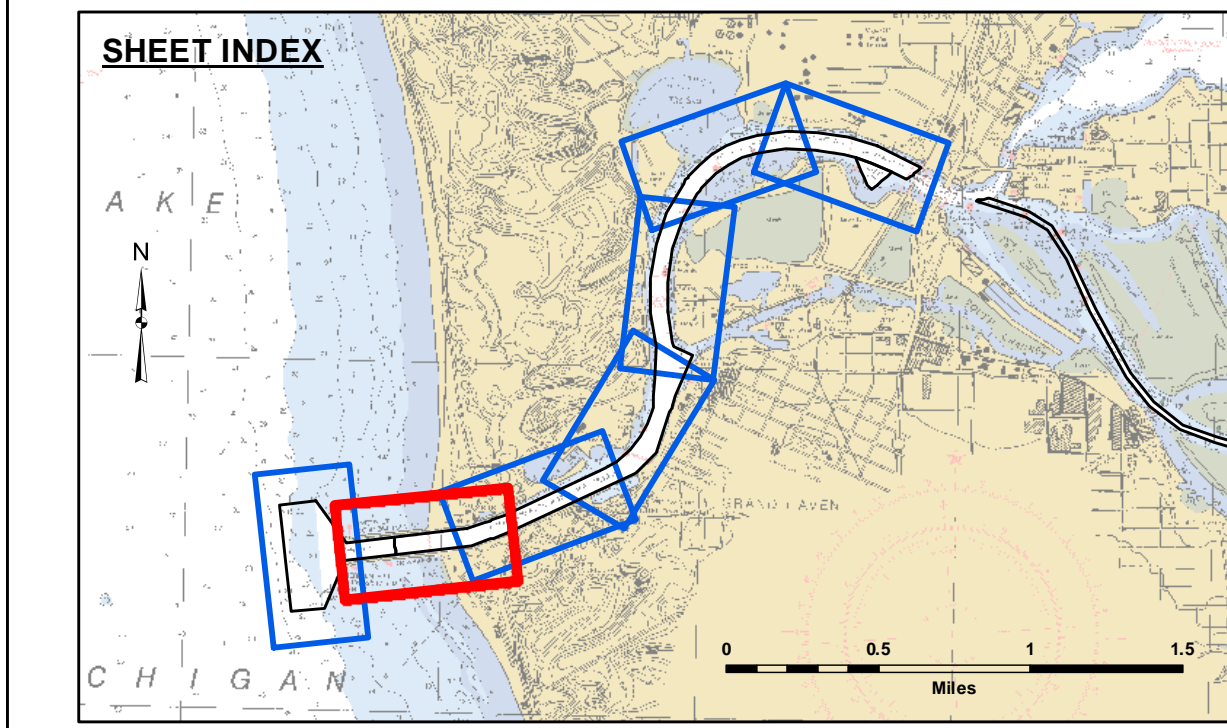
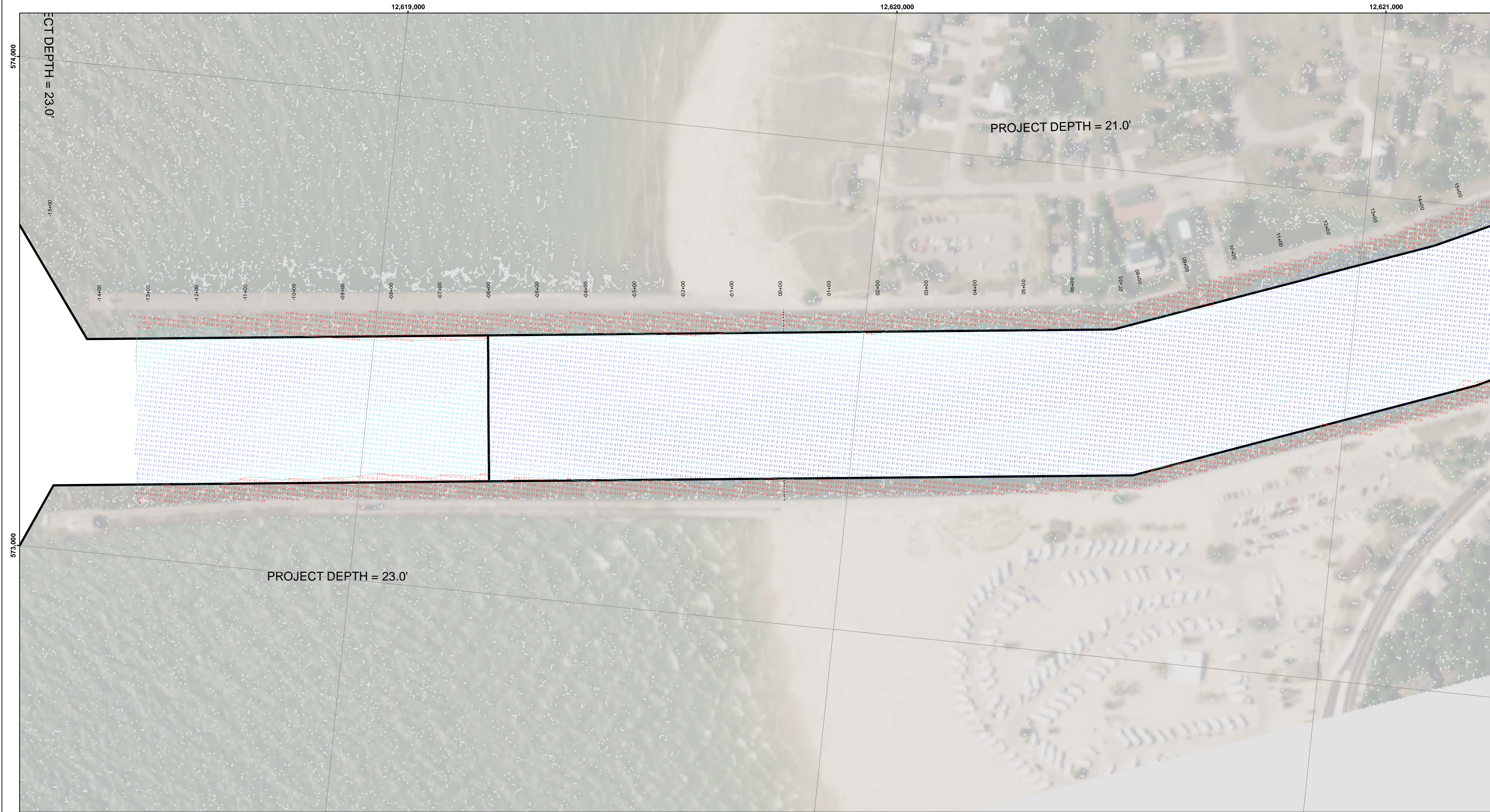
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Recommended: Chief, Survey Section	Plotted By:	
Approved: Chief, Technical Services	Checked By:	

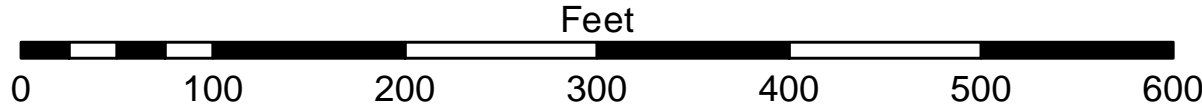
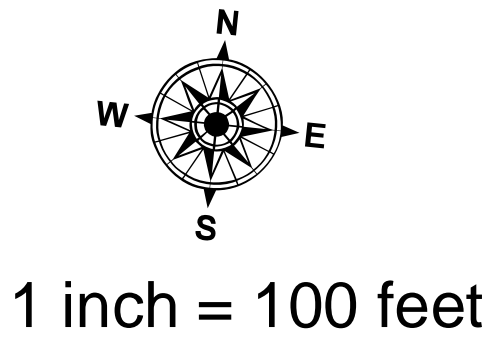
Grand Haven, MI
Grand Haven Harbor
GR_01_HVN_20210716_AD
16 July 2021

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

- SOUNDING LEGEND**
- LESS THAN PROJECT DEPTH
 - PROJECT DEPTH
 - PROJECT DEPTH +1'
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2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS



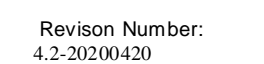
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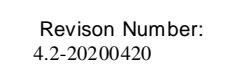
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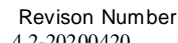
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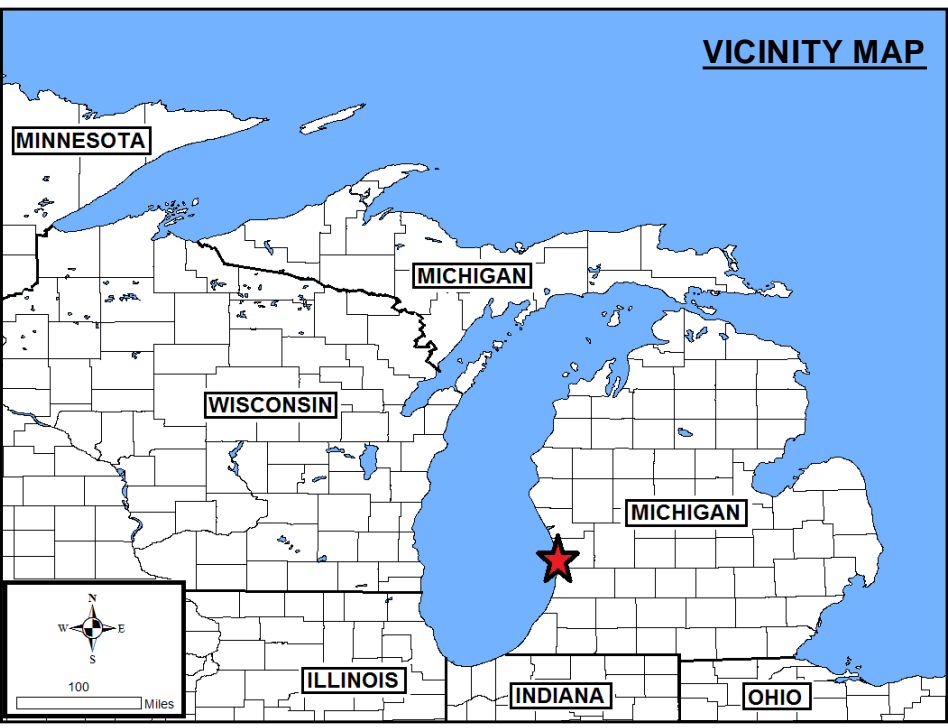
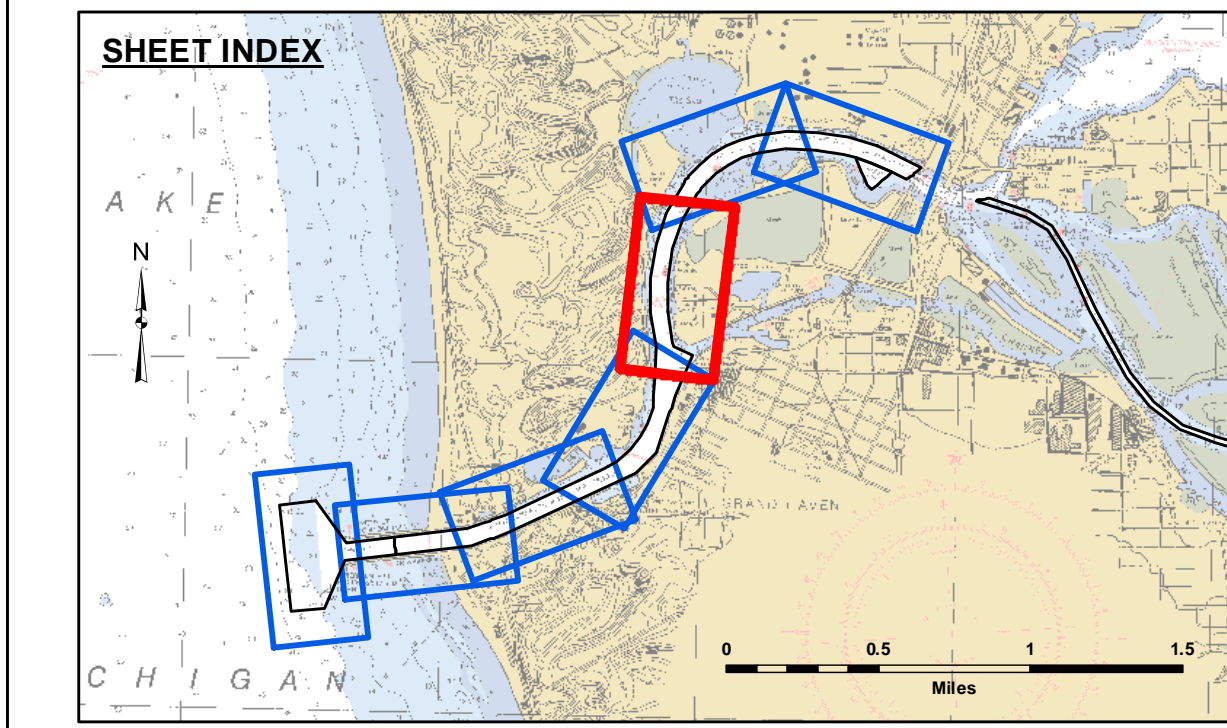
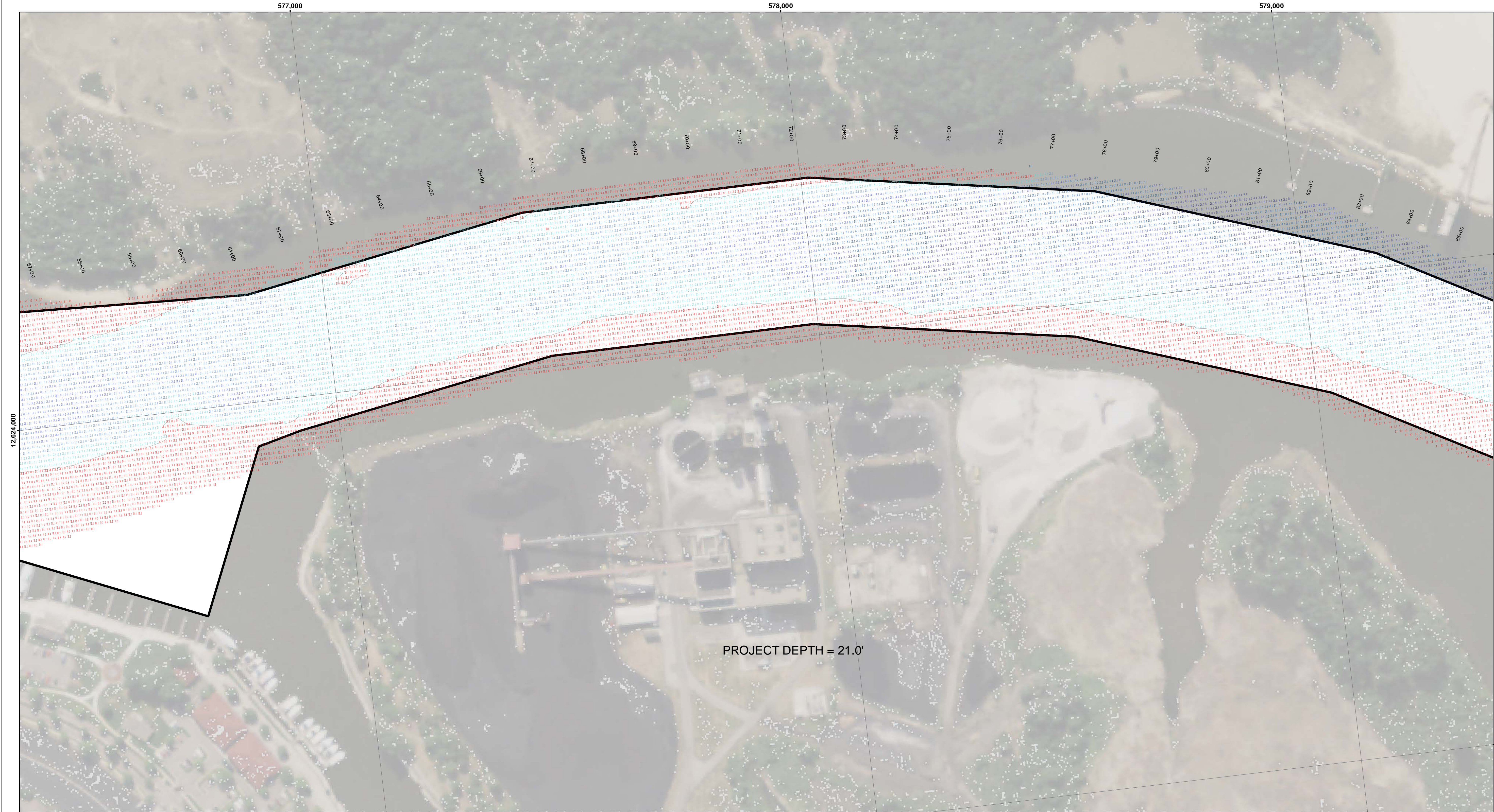
Surveyed By:	
Plotted By:	
Checked By:	
Submitted:	
Recommended:	Chief, Survey Section
Approved:	Chief, Technical Services

Grand Haven, MI
Grand Haven Harbor
GR_01_HVN_20210318_CS
18 March 2021



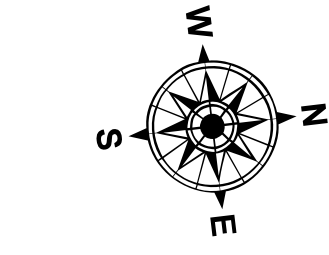




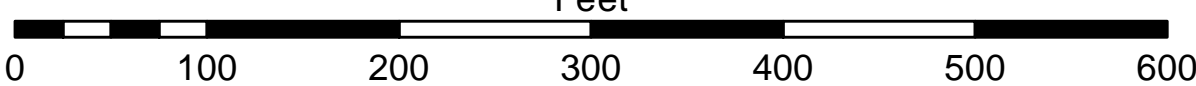


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2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS



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DETROIT DISTRICT

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Plotted By: _____
Checked By: _____

Submitted: _____
Recommended: Chief, Survey Section
Approved: Chief, Technical Services

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Grand Haven Harbor
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18 March 2021

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