

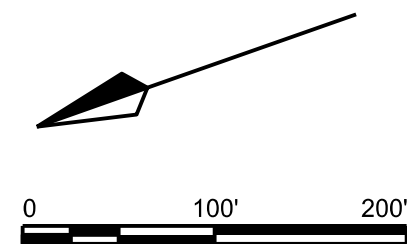
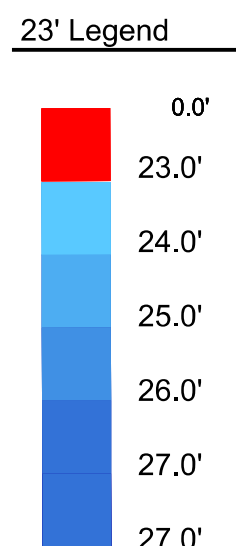
ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR
LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN
SEA LEVEL AT RIMOUSKI, QUEBEC.

GRID SYSTEM BASED ON LAMBERT PROJECTION,
MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH
ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. FOOT.

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.

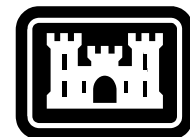
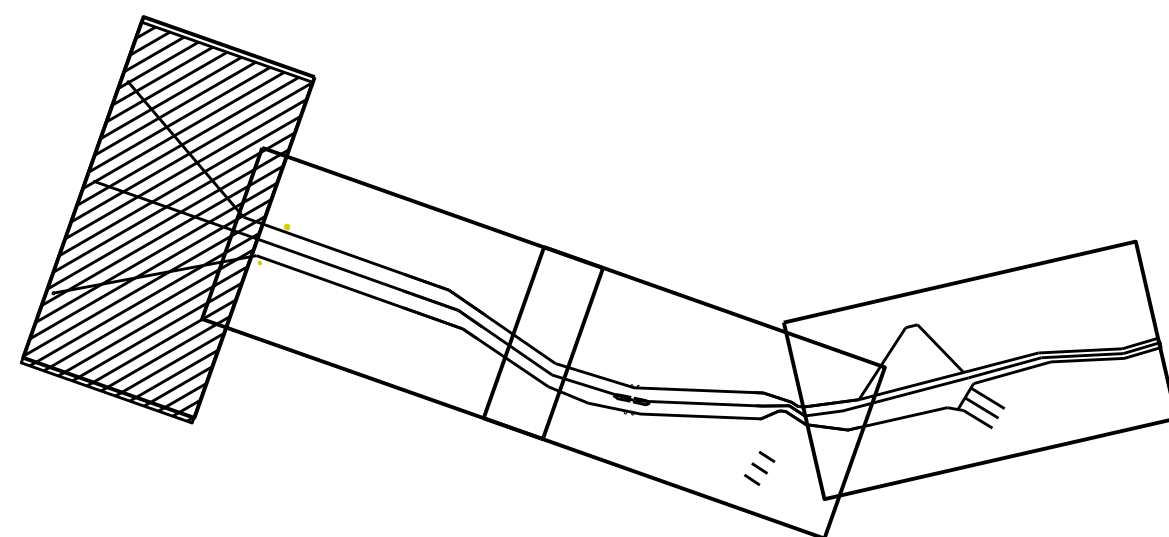
VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A
FIXED GAUGE MARK ALONG THE SHEET STEEL WALL NEAR
CROSS SECTION 8+00E IN ST JOSEPH HARBOR, MI.

SURVEYED ON: 29 MARCH 2019
POSITIONING METHOD: APPLANIX POS M/V W/DGPS CORRECTIONS
MOTION COMPENSATION: APPLANIX OCEAN MASTER POS M/V
EQUIPMENT: ODOM CV 300 SINGLE BEAM SOUNDER
SOFTWARE: HYPACK
VESSEL: LAUNCH 3058



CENTER LINE T.P.		
T.P.	EAST X	NORTH Y
CL 2B	12,544,735.85	232,195.07
CL 1B	12,545,957.34	231,761.96

CHANNEL LINE T.P.		
T.P.	EAST X	NORTH Y
1	12,545,978.05	231,895.20
1D	12,545,025.39	233,011.57
2D	12,544,406.85	231,267.05

US Army Corps
of Engineers®[illegible]

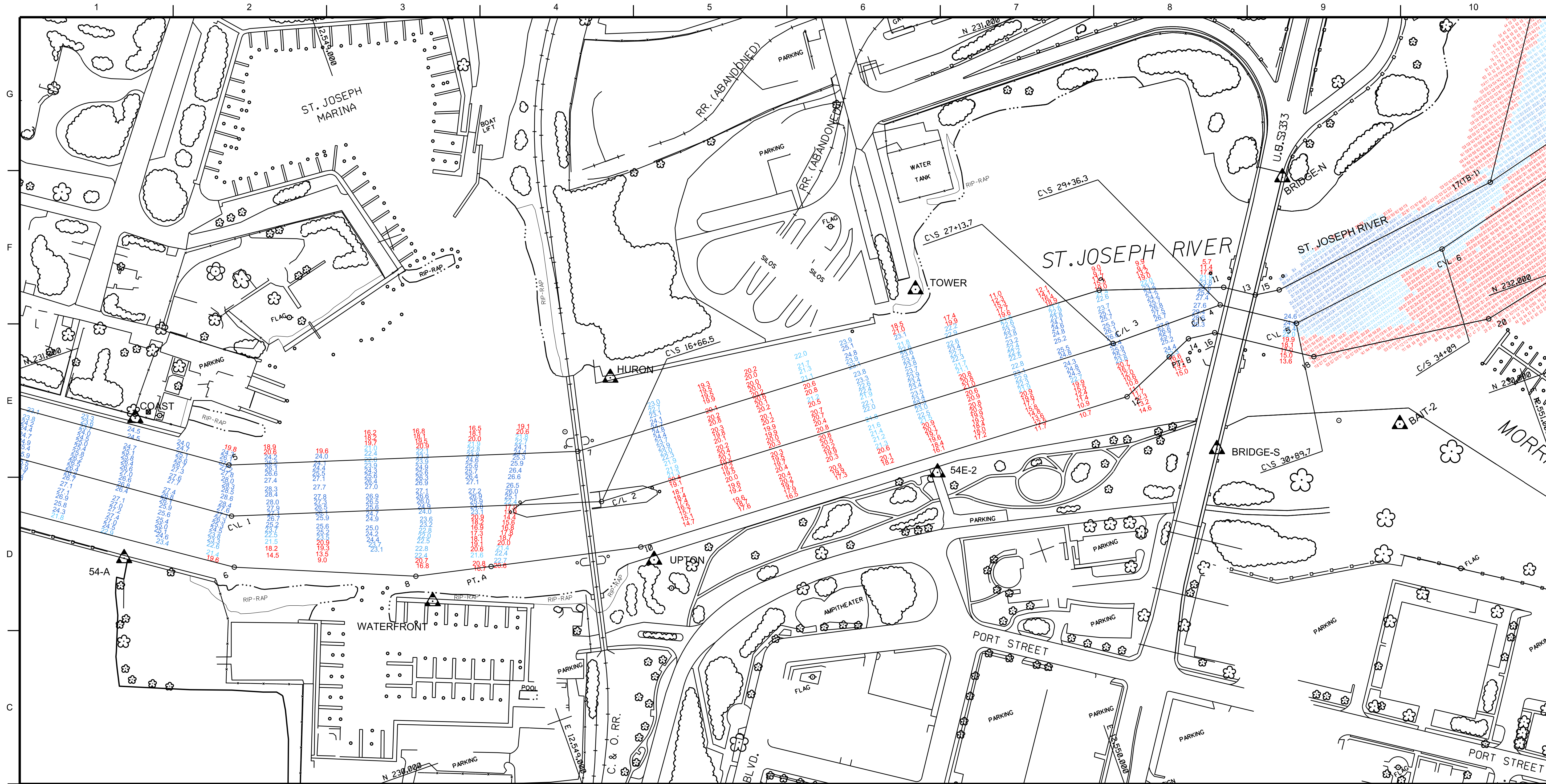
U.S. ARMY, CORPS OF ENGINEERS DETROIT DISTRICT 477 MICHIGAN AVE. DETROIT, MI 48226	SURVEYED BY:	ISSUE DATE:
	E.D.S.	1-APRIL-19
	DRAWN BY:	SOLICITATION NO.:
	E.D.S.	
	REVIEWED BY:	CONTRACT NO.:
LAKE MICHIGAN AREA OFFICE 307 SOUTH HARBOR DR. GRAND HAVEN, MI 49417	APPROVED BY:	DRAWING NUMBER:
	FILE NAME: SL10april19 march 2019.rvt	

ST JOSEPH HARBOR

CONDITION OF CHANNEL

SHEET ID

VH101



ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC.

GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. FOOT.

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.

VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAUGE MARK ALONG THE SHEET STEEL WALL NEAR CROSS SECTION 8+00E IN ST JOSEPH HARBOR, MI.

SURVEYED ON: 02 APRIL 2019

POSITIONING METHOD: APPLANIX POS M/V W/DGPS CORRECTIONS

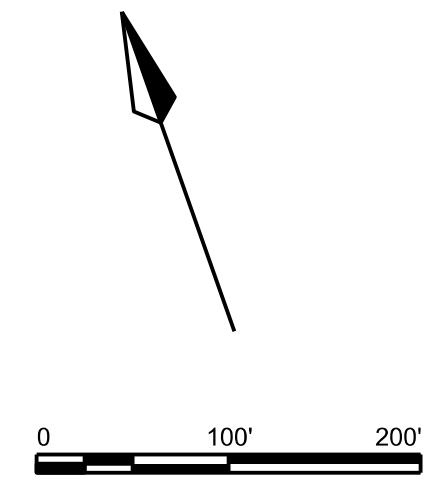
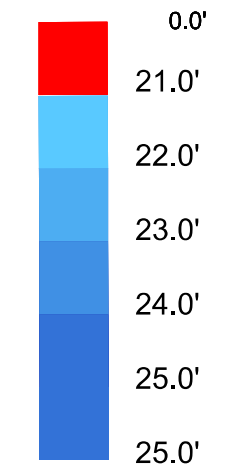
MOTION COMPENSATION: APPLANIX OCEAN MASTER POS M/V

EQUIPMENT: ODOM CV 300 SINGLE BEAM SOUNDER

SOFTWARE: HYPACK

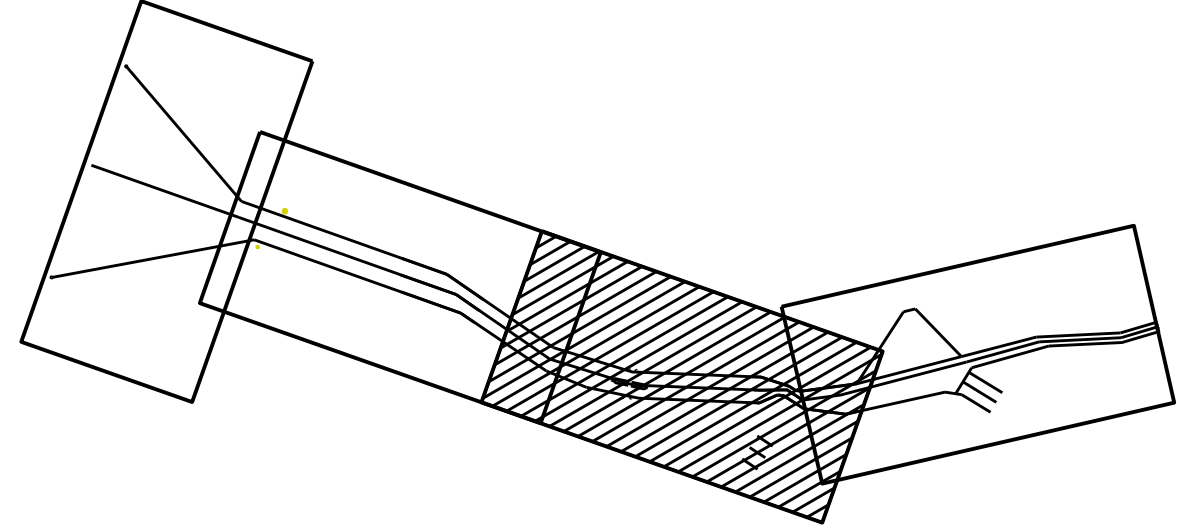
VESSEL: LAUNCH 3058

21.0' Legend



CENTER LINE T.P.			
T.P.	EAST X	NORTH Y	
CL-1	12,548,527.78	230,890.14	
CL-2	12,548,219.39	230,376.50	
CL-3	12,550,269.77	230,335.61	
CL-4	12,550,488.52	230,307.16	
CL-5	12,550,617.08	230,263.70	
CL-6	12,551,020.19	230,262.39	

CHANNEL LINE T.P.			
T.P.	EAST X	NORTH Y	
5	12,548,556.02	230,086.08	
6	12,484,499.53	230,484.21	
7	12,549,208.57	230,484.50	
8	12,548,828.56	230,399.36	
9	12,550,274.71	230,442.84	
10	12,550,506.19	230,367.29	
11	12,550,506.19	230,367.29	
12	12,550,266.82	230,226.37	
13	12,550,556.42	230,332.78	
14	12,550,407.80	230,285.32	
15	12,550,606.81	230,326.50	
16	12,550,499.98	230,286.39	
17	12,551,096.12	230,387.81	
18	12,550,627.35	230,180.90	
19	12,551,929.24	230,612.83	
20	12,550,874.28	230,136.87	
PT.A	12,548,973.70	230,328.53	
PT.D	12,550,981.09	230,146.16	



US Army Corps of Engineers®

ISSUE DATE:	CONTRACT NO.:	MARK	DATE
02-APRIL-2019			
EDS:	SOLICITATION NO.:		
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REVIEWED BY:	CONTRACT NO.:		
APPROVED BY:	DRAWING NUMBER:		
SIZE:	FILE NAME:		
ANSI D	St Joseph March 2019.dgn		

U.S. ARMY CORPS OF ENGINEERS
DETROIT DISTRICT
477 MICHIGAN AVE
DETROIT, MI 48226

LAKE MICHIGAN AREA OFFICE
307 SOUTH HARBOR DR
GRAND HAVEN, MI 49417

ST JOSEPH HARBOR MI

CONDITION OF CHANNEL
APRIL 2019

SHEET ID

VH103

