US Army Corps
of Engineers®

Detroit District
P.O. Box 1027
Detroit, MI 48231-1027
(313) 226-6796
FAX - (313) 226-3519

Notice to Navigation Interests

Notice No. L02-16 Date: 10 APRIL 2002

Waterway: LAKE SUPERIOR Location: MINNESOTA

CELRE-OT-T

CONDITION OF FEDERAL NAVIGATION CHANNEL
GRAND MARAIS HARBOR

1. Condition surveys performed within the Federal navigation channel at Grand Marais Harbor, Minnesota during October 2001, indicate shoaling as shown on the back of this sheet.

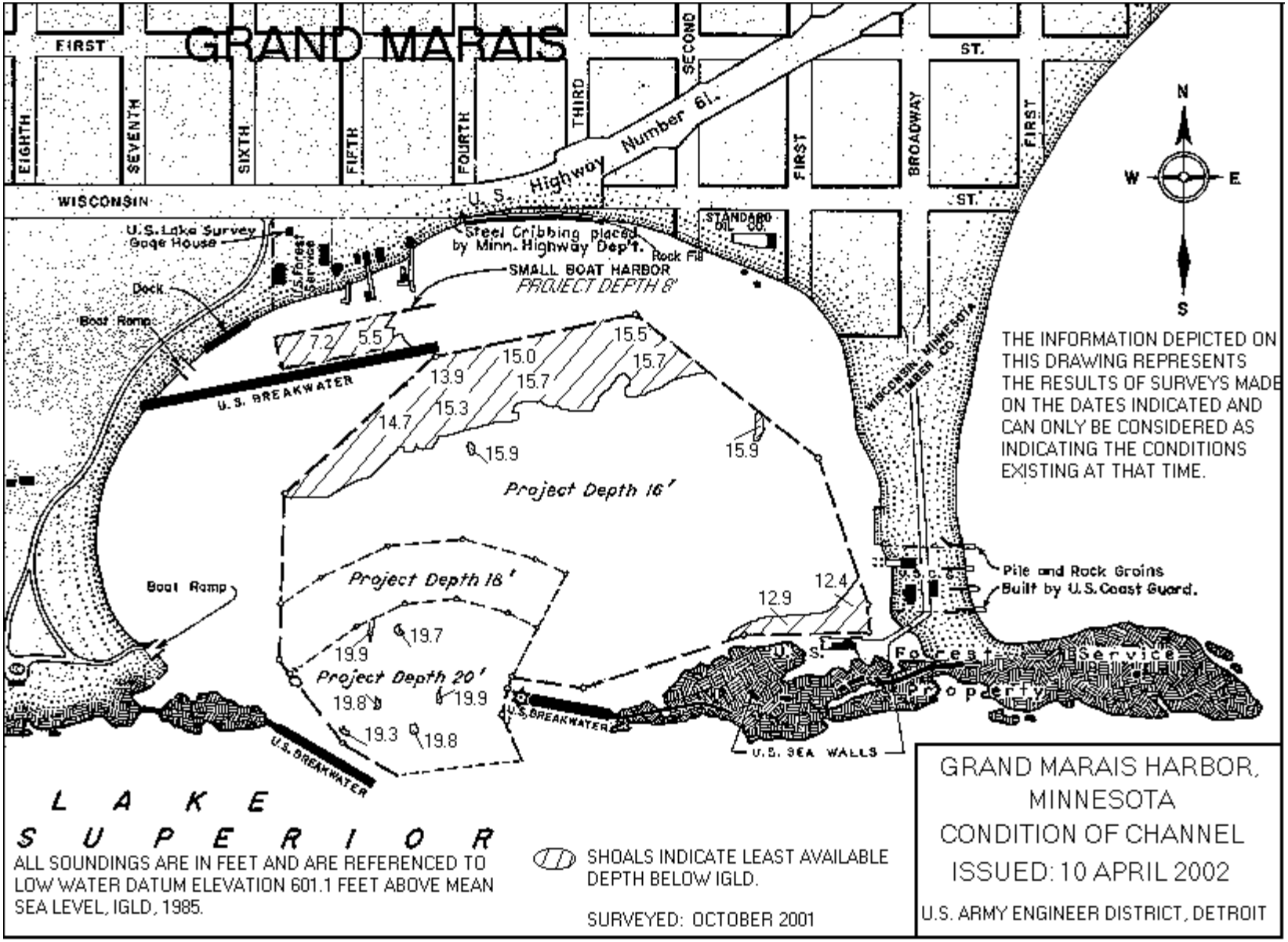
2. Mariners are urged to use extreme caution in the area.

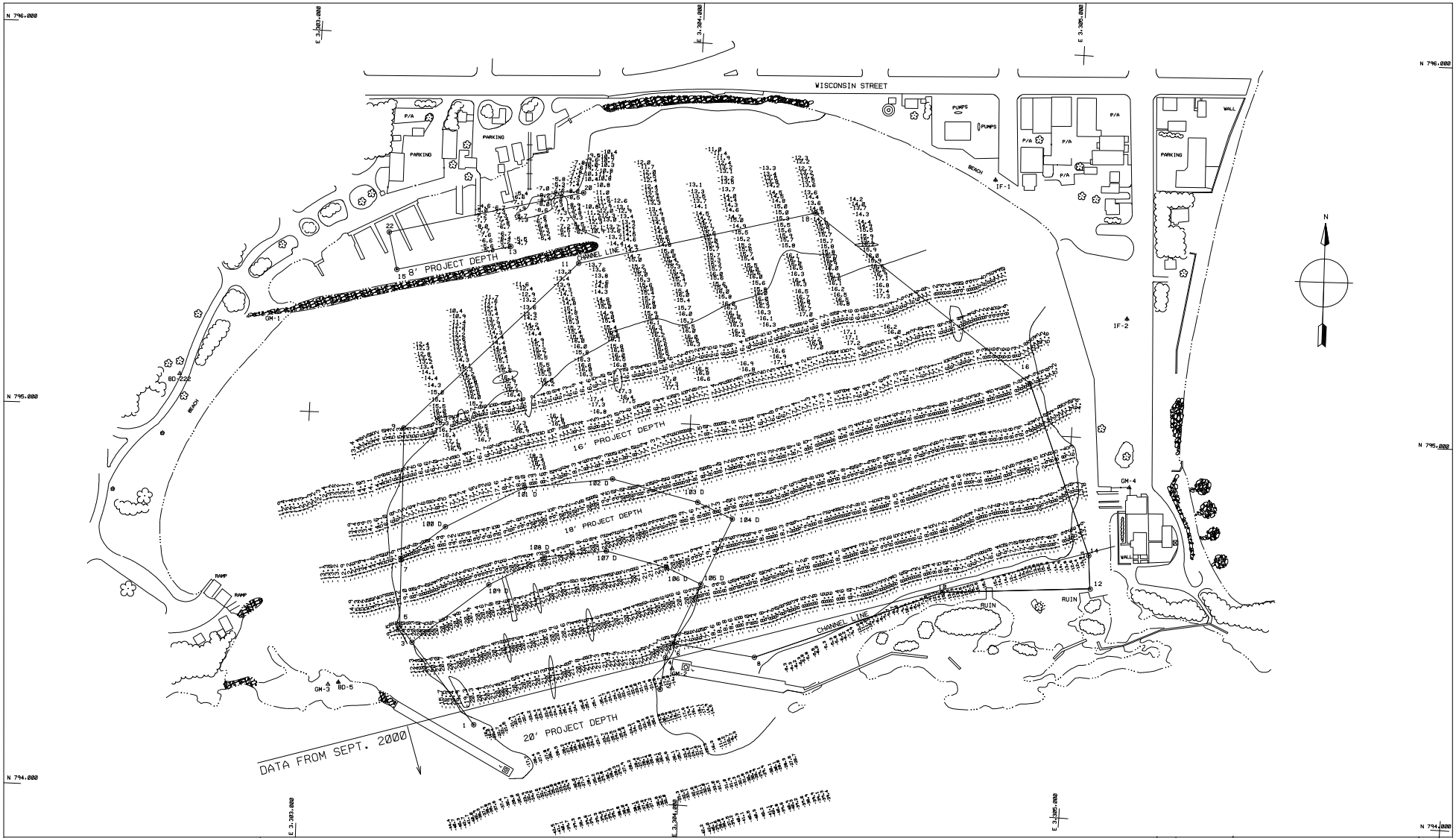
3. All inquiries should be addressed to CELRE-OT-T and should refer to Notice to Navigation Interests No. L02-16. Internet address: http://huron.lre.usace.army.mil/OandM/o&m.html

RICHARD J. POLO, JR.
Lieutenant Colonel, U.S. Army
District Engineer

Notice to the Postmaster:

It is requested that the above notice be conspicuously and continuously posted until November 30, 2002.


GRAND MARAIS
FIRST
EIGHTH
SEVENTH
SIXTH
FIFTH
FOURTH
THIRD
SECOND
FIRST
BROADWAY
FIRST
ST.
ST.
WISCONSIN
U. S. Highway Number 61.
STANDARD OIL CO.
U.S. Lake Survey Gage House
U.S. Forest Service
Steel Cribbing placed by Minn. Highway Dep't.
Rock Fill
SMALL BOAT HARBOR
PROJECT DEPTH 8'
Dock
Boat Ramp
7.2
5.5
U. S. BREAKWATER
13.9
15.0
15.5
15.7
15.7
15.3
14.7
15.9
15.9
Project Depth 16'
Project Depth 18'
Boat Ramp
12.9
12.4
19.7
19.9
Project Depth 20'
19.8
19.9
19.3
19.8
U.S. BREAKWATER
U.S. BREAKWATER
WISCONSIN MINNESOTA TIMBER CO.
U.S.C.G.
Pile and Rock Groins Built by U.S. Coast Guard.
U.S. Forest Service Property
U.S. SEA WALLS
N
W
E
S
THE INFORMATION DEPICTED ON THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME.
L A K E
S U P E R I O R
ALL SOUNDINGS ARE IN FEET AND ARE REFERENCED TO LOW WATER DATUM ELEVATION 601.1 FEET ABOVE MEAN SEA LEVEL, IGLD, 1985.
SHOALS INDICATE LEAST AVAILABLE DEPTH BELOW IGLD.
SURVEYED: OCTOBER 2001
GRAND MARAIS HARBOR, MINNESOTA
CONDITION OF CHANNEL
ISSUED: 10 APRIL 2002
U.S. ARMY ENGINEER DISTRICT, DETROIT



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 PRESENT AT THAT TIME.

2) ALL SOUNDINGS ARE IN FEET AND ARE REFERENCED TO LOW WATER DATUM ELEVATION 601.1 ABOVE MEAN SEA LEVEL, I.G.L.D. 1985. NOAA INTERNET GAGE USED FOR SURVEY

3) PROJECT DEPTHS FOR THIS AREA ARE 8',16' 18',&20'

4) THE GRID COORDINATE SYSTEM SHOWN IS REFERENCED TO THE MINNESOTA STATE PLANE COORDINATE SYSTEM, LAMBERT PROJECTION, NORTH ZONE (2201), NORTH AMERICAN DATUM 1983 (NAD 83), US FOOT.

5) THE LOCATION OF NAVIGATION BUOYS REPRESENTS THE GENERAL LOCATION ON THE DATE OF THE SURVEY AND CANNOT BE CONSIDERED FOR NAVIGATION.

6) THE SURVEY SHOWN WAS CONDUCTED BY DC GOLTZ, PARTY CHIEF DURING 09- OCT.2001 USING D.G.P.S. POSITIONING, AN INNERSPACE 448 SOUNDER, AND A HYPACK AUTOMATED HYDROGRAPHIC SURVEY SYSTEM.

7) THE BASE MAP FEATURES DEPICTED ON THIS MAP WERE DIGITIZED FROM EXISTING CHARTS AND ARE OUTDATED AND INACCURATE.

IMPORTANT NOTE - THIS SURVEY WAS CONDUCTED USING IGLD 85 - REFERENCE 601.1 FT.

CHANNEL LINE COORDINATE TABLE

STA.	COORDINATES NORTHING	COORDINATES EASTING
STA. 1	794193.184	3383457.981
STA. 2	794302.872	3383343.514
STA. 3	794403.988	3383288.564
STA. 4	794385.784	3383954.925
STA. 5	794445.236	3383255.816
STA. 6	794423.846	3383371.776
STA. 7	794618.942	3383253.449
STA. 8	794394.368	3384188.283
STA. 9	794965.898	3383248.740
STA. 10	794581.146	3384675.842
STA. 11	795411.743	3383832.957
STA. 12	794683.353	3385081.536
STA. 13	795456.021	3383613.567
STA. 14	794689.814	3385855.594
STA. 15	795373.808	3383216.787
STA. 16	795136.192	3384987.324
STA. 18	794564.221	3384389.506
STA. 20	795596.815	3383697.763
STA. 22	795477.182	3383193.768
STA. 1B	794789.726	3383368.648
STA. 1B1D	794819.686	3383579.749
STA. 1B2D	794849.579	3383880.932
STA. 1B3D	794795.721	3384826.823
STA. 1B4D	794754.985	3384118.293
STA. 1B5D	794581.188	3384841.403
STA. 1B6D	794522.815	3383943.148
STA. 1B7D	794659.883	3383790.628
STA. 1B8D	794638.087	3383625.014
STA. 1B9D	794561.545	3383495.515

SURVEY CONTROL POINTS

STA.	DESCRIPTION	COORDINATES NORTHING	COORDINATES EASTING
GM-1	DISK	795257.115	3382941.186
GM-2	DISK	794357.789	3383973.328
GM-3	DISK	794396.828	3383872.531
GM-4	ALUM. CAP	794871.858	3385185.971
IF-1	ALUM. CAP	795666.358	3384778.613
IF-2	ALUM. CAP	795312.499	3385128.515
BD-5	CHISELED "+"	794293.846	3383899.362
BD-222	DISK	795288.007	3382656.681

LEGEND

- HORIZONTAL CONTROL POINT
- DREDGING LIMIT TURNING POINT
- NO. CHANNEL LINE TURNING POINT
- NO. HARBOR LINE TURNING POINT
- HARBOR LINE
- CHANNEL LINE
- DREDGING LIMIT
- SHORELINE
- PROJECT DEPTH CONTOUR

SCALE IN FEET
100 0 100 200 300 400 500

NO.	DATE	REVISION	BY

U.S. ARMY ENGINEER DISTRICT, DETROIT
CORPS OF ENGINEERS
DETROIT, MICHIGAN

GRAND MARAIS HARBOR
MINNESOTA

CONDITION SURVEY-OCTOBER 2001

I.G.L.D. 1985 DATUM 601.1

DULUTH AREA OFFICE DULUTH, MN

DESIGNED BY:*
DRAWN BY:*
CHECKED BY:*
REVIEWED BY:*
SUBMITTED BY:*
APPROVAL RECOMMENDED:*
DATE
CHIEF, PROJ. OPNS. SEC.
CHIEF, OPERATIONS & MANAGEMENT BR.
APPROVED:*
CHIEF, CONST.-OPNS. DIVISION
(* AS REQUIRED BY ENGINEERING CIRCULAR 1110-1-76)

SCALE AS SHOWN 1" = 100'
CADD FILE NAME = C01gdmo.dgn
DRAWING NUMBER
SHEET 1 OF 1

GM7570/37