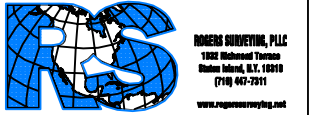


PREPARED FOR  
**THE PORT AUTHORITY  
OF NY & NJ**



ROGERS SURVEYING, LLC  
1302 Michael Thomas  
Rahway, NJ, 07065  
(708) 942-5911  
www.rogerssurveying.net

Title

**NEW JERSEY  
MARINE  
TERMINAL**

**HYDROGRAPHIC  
SURVEY**

No. Date Revision Approved

**VERTICAL CONTROL**  
Mean Low Water = 2.3' Below 0.00 NGVD '29

**HORIZONTAL CONTROL**  
ALL COORDINATES, BEARING AND  
DISTANCES ARE REFERENCED TO THE  
NEW JERSEY PLANE COORDINATE SYSTEM  
(N.A.D. 83) AS SET FORTH IN  
N.J.S.A. 51:3-7

This drawing subject to conditions in contract.  
All inventions, ideas, designs and methods  
herein are reserved to Port Authority and  
may not be used without its written consent.

Rogers Surveying BW DWR  
Surveyed by Drawn by Checked by

Date 12/10/12-01/17/13 Scale 1"= 80'  
Contract Number 410-12-037 Drawing Number 21 of 60  
BERTH 21

NOTE:  
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. THE DATA  
IS REPRESENTATIVE OF A LARGER DATA SET. SOUNDINGS AND CONTOURS  
SHOWN ARE FROM 8'X16' GRID NEAREST TO CENTER. COORDINATES REFER  
TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983) SOUNDINGS REFER TO  
THE PLANE OF MEAN LOW WATER THE PLANE OF MEAN LOW WATER IS 2.3  
FEET BELOW NGVD (1929) THE SOUNDING DATA DEPICTED ON THIS MAP  
WAS COLLECTED USING CLASS 2 SURVEY STANDARDS IN ACCORDANCE WITH  
EM 1110 2 1003.  
THIS SURVEY WAS COMPLETED USING THE FOLLOWING EQUIPMENT:  
• Survey Vessel "Red Rogers"  
• Reson 7101 Multibeam  
• TSS 320 POS/MV.  
• Coastal Oceanographics "HYPACK" software

Volume Report			
THE DATA USED FOR VOLUME CALCULATIONS IS REPRESENTATIVE OF A LARGER DATA SET. SOUNDINGS USED FOR VOLUME CALCULATIONS ARE ON A 3'X3' GRID WITH THE DEPTH NEAREST TO THE CENTER USED.			
Design Depth	Volume to Dredge Template	Volume of 2' Over dredge	Total Volume
35'	1 yd3	120 yd3	121 yd3
40'	3,520 yd3	5,936 yd3	9,456 yd3
TOTAL	3,521 yd3	6,056 yd3	9,577 yd3

NOTE: BERTH LENGTHS, WIDTHS AND DEEP WATER BERTH DIMENSIONS FROM P.A. PORT DEPARTMENT.

Coordinates are expressed in feet and refer to the NEW JERSEY STATE PLANE (NAD 83) System.

Soundings refer to Mean Low Water as determined by U.S.A.C.E.

The Plane of Mean Low Water is 2.3 feet below Mean Sea Level (NGVD 29).

Note:  
This survey does not guarantee the absence or presence of any underwater  
obstructions. Diver verification may be required.

NAVD88 3.42  
NGVD29 2.30  
MLW (N.O.A.A.) 0.67  
MLW (COE) & SURVEY 0.00

I hereby certify to The Port Authority  
of New York and New Jersey that this  
map indicates the conditions existing  
as of the date indicated hereon to the  
best of my professional knowledge.

William A. Rogers, Jr., P.E., L.S.  
New Jersey State # 22254  
A.C.S.M. Certified Hydrographer # 151