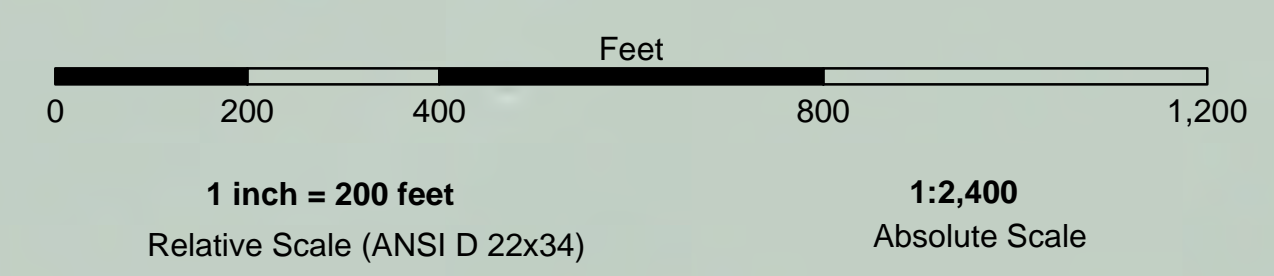
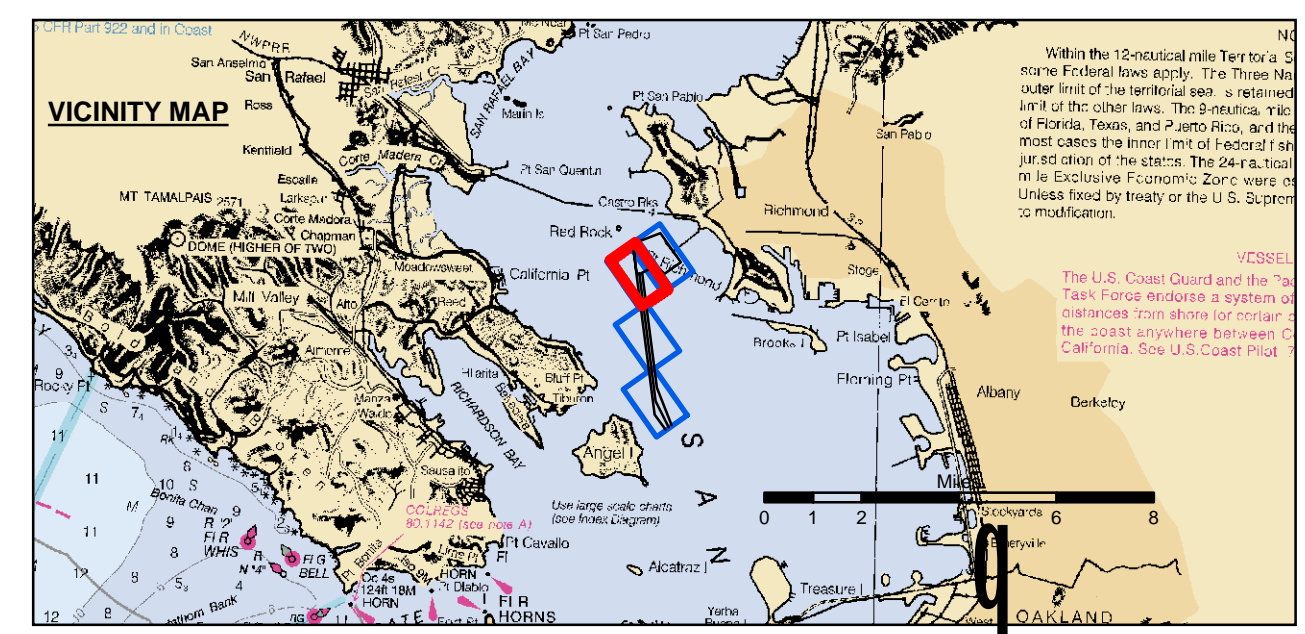


**PRELIMINARY ISSUE**  
THIS PLAN ISSUED FOR  
ADVANCE INFORMATION ONLY



**9**  
FLOOD a  
b  
EBB



- |                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  | -45             |
| Placement Area             | Navigation Buoy    | -44             |
| Anchorage Area             | Navigation Buoy    | -43             |
| Wreck Area                 | Shoalest Sounding* | -42             |
| Submerged Wreck            |                    | -41             |
| Angle Point                |                    |                 |

NOTES:  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
VERTICAL DATUM:  
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
THE PROJECT DEPTHS ARE AS FOLLOWS:  
SOUTHAMPTON SHOALS CHANNEL -45 FEET.  
LONG WHARF MANEUVERING AREA -45 FEET.  
1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
HORIZONTAL CONTROL:  
SOUNDINGS NOT TO BE USED FOR NAVIGATION.  
DRAWING NOT TO BE USED FOR NAVIGATION.  
ONLY CHANNEL CONDITION AT DATE OF SURVEY.  
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.  
SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT.  
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY, NAVD 88.  
BASE MAPS ARE USDA NAIP 2010.  
THE PROJECT DEPTHS ARE AS FOLLOWS:  
SOUTHAMPTON SHOALS CHANNEL -45 FEET.  
LONG WHARF MANEUVERING AREA -45 FEET.  
1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
HORIZONTAL CONTROL:  
SOUNDINGS NOT TO BE USED FOR NAVIGATION.  
DRAWING NOT TO BE USED FOR NAVIGATION.  
ONLY CHANNEL CONDITION AT DATE OF SURVEY.  
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.  
SURVEYED BY THE CORPS OF ENGINEERS.

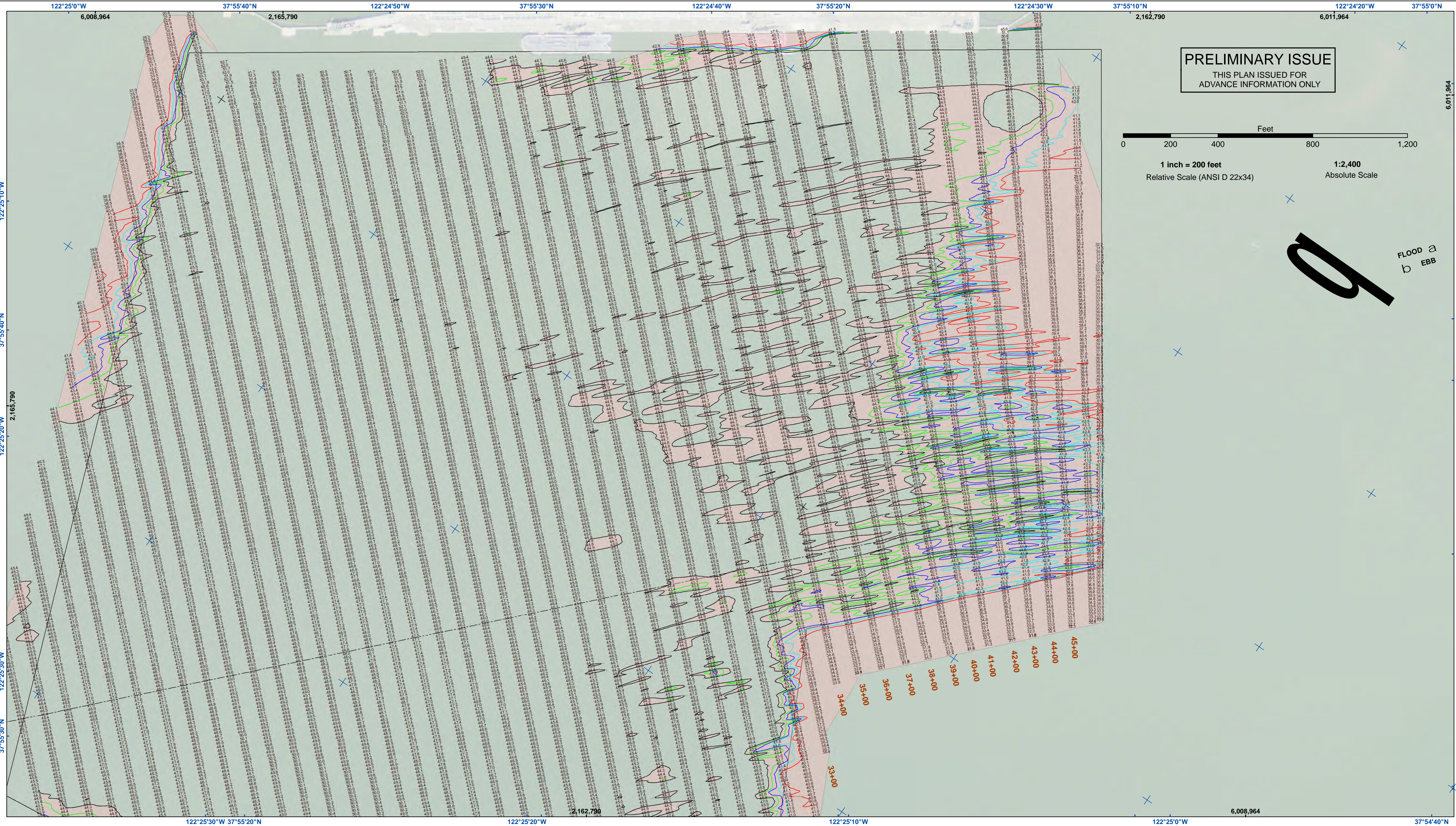


**DISCLAIMER**  
The United States Government furnishes this information as a service to the public. It is not intended to be used for any purpose other than that for which it was prepared. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose.

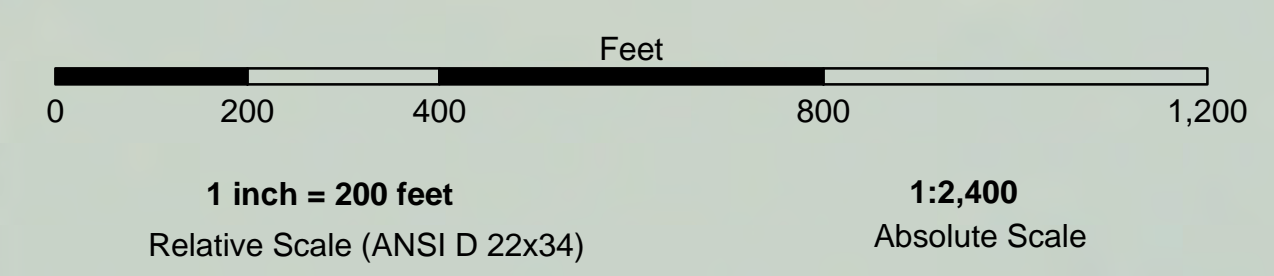
Prepared Under the Direction of	John C. Morrow	Chart Date	Jun 30, 2016
Surveyed By	PDT	Designed by	PDT
Plotted By	PDT	Drawn by	PDT
Checked By	PDT		
Approved	Chief, Construction Branch		

CALIFORNIA  
**RICHMOND OUTER HARBOR  
POST-DREDGE SURVEY**  
28-29 JUNE 2016

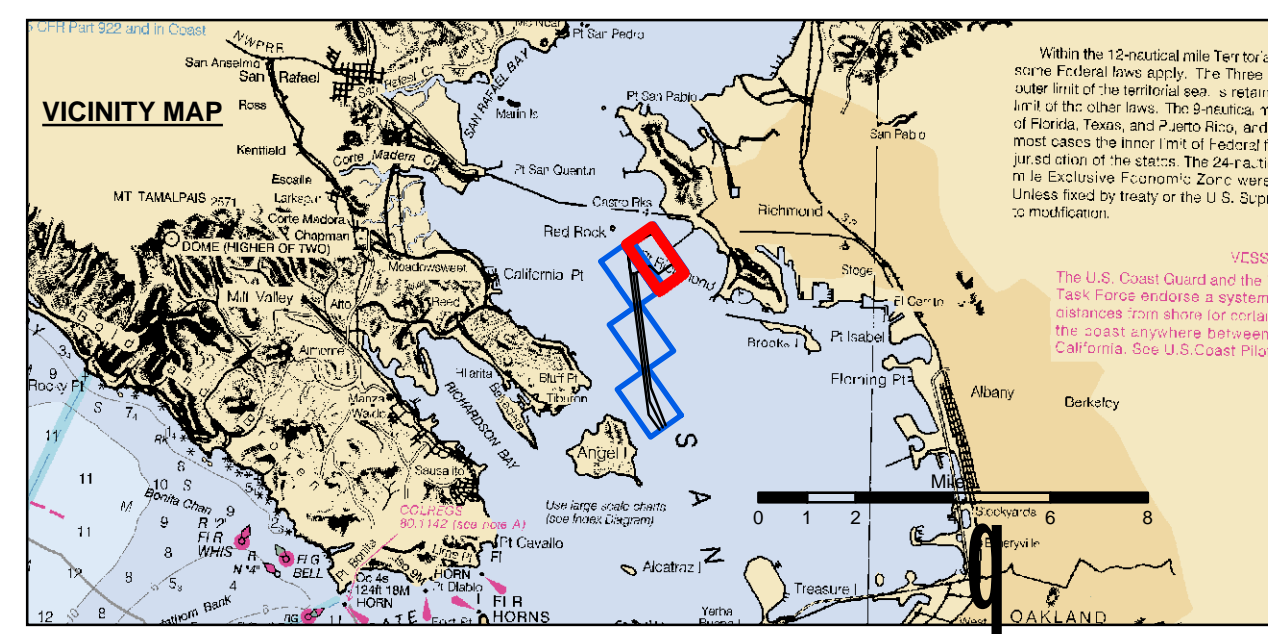
**Sheet  
Reference  
Number**  
**3 of 4**



**PRELIMINARY ISSUE**  
THIS PLAN ISSUED FOR  
ADVANCE INFORMATION ONLY



**9**  
FLOOD a  
b  
EBB



- |                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  | -45             |
| Placement Area             | Navigation Buoy    | -44             |
| Anchorage Area             | Navigation Buoy    | -43             |
| Wreck Area                 | Shoalest Sounding* | -42             |
| Submerged Wreck            |                    | -41             |
| Angle Point                |                    |                 |

NOTES:  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
VERTICAL DATUM:  
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.  
\*SHOALEST SOUNDING PER QUARTER PER REACH DRAWING NOT TO BE USED FOR NAVIGATION.  
ONLY CHANNEL CONDITION AT DATE OF SURVEY.  
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.  
SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT.  
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY, NAVD 88.  
BASE MAPS ARE USDA NAIP 2010.  
THE PROJECT DEPTHS ARE AS FOLLOWS:  
SOUTHAMPTON SHOALS CHANNEL -45 FEET.  
LONG WHARF MANEUVERING AREA -45 FEET.  
1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
HORIZONTAL CONTROL:  
HORIZONTAL POSITIONING: COAST GUARD DGPS  
VERTICAL TIDES: INTERPOLATED FROM NOAA ONLINE TIDE STATIONS:  
941 4865 - RICHMOND, CA  
941 4290 - SAN FRANCISCO, CA  
VERTICAL CONTROL:  
(SOUTHAMPTON SHOALS & LONG WHARF MANEUVERING) BENCHMARK \*11 1937 ELEV 15.86 FT. MLLW.  
AND BENCHMARK \*11 1946 ELEV 15.47 FT. MLLW.  
TIDE GAUGE LOCATED AT TIBURON NET DEPOT.

**US Army Corps of Engineers**  
San Francisco District  
1455 Market Street  
San Francisco, CA 94103

**DISCLAIMER**  
The United States Government furnishes this information as a service to the public and does not warrant, express or implied, the accuracy, completeness, or reliability of the information. The user is responsible for the results of any application of the data for other than its intended purpose. These data belong to the Government. Therefore the recipient may not transfer these data to others without also transferring the Disclaimer.

Prepared Under the Direction of:	Chart Date:
JOHN C. MORROW	Jun 30, 2016
LT Colonel, C.E., District Engineer	Designed by:
Hydro Survey Team Leader	PDT
Recommended by:	Checked by:
Chief, Hydro Survey Section	PDT
Approved by:	Drawn by:
Chief, Construction Branch	PDT

CALIFORNIA  
ALAMEDA COUNTY  
**RICHMOND OUTER HARBOR  
POST-DREDGE SURVEY**  
28-29 JUNE 2016

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