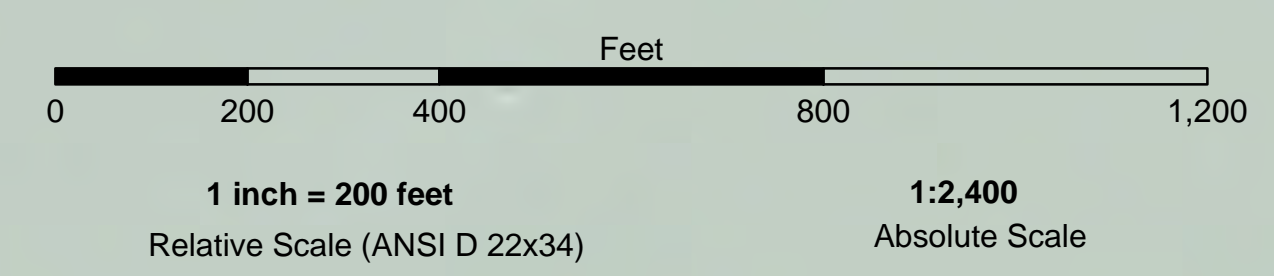
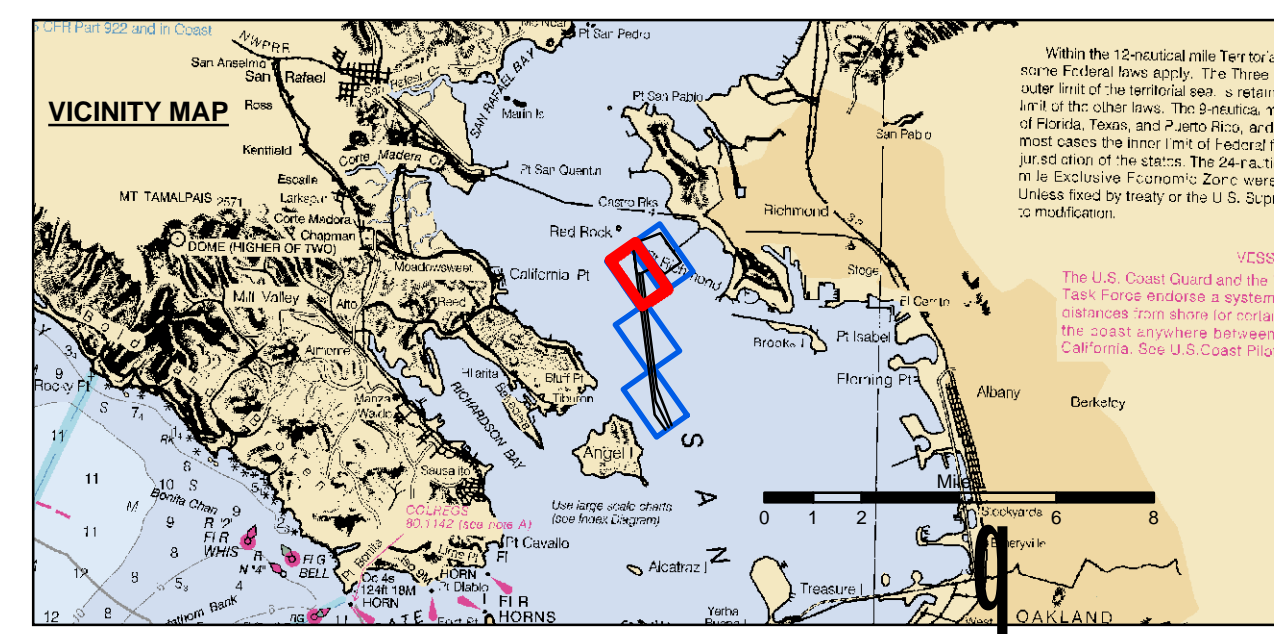


PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



9
FLOOD a
EBB b



Federal Navigation Channel	Beacon, General	Contours
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 4863 - 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.

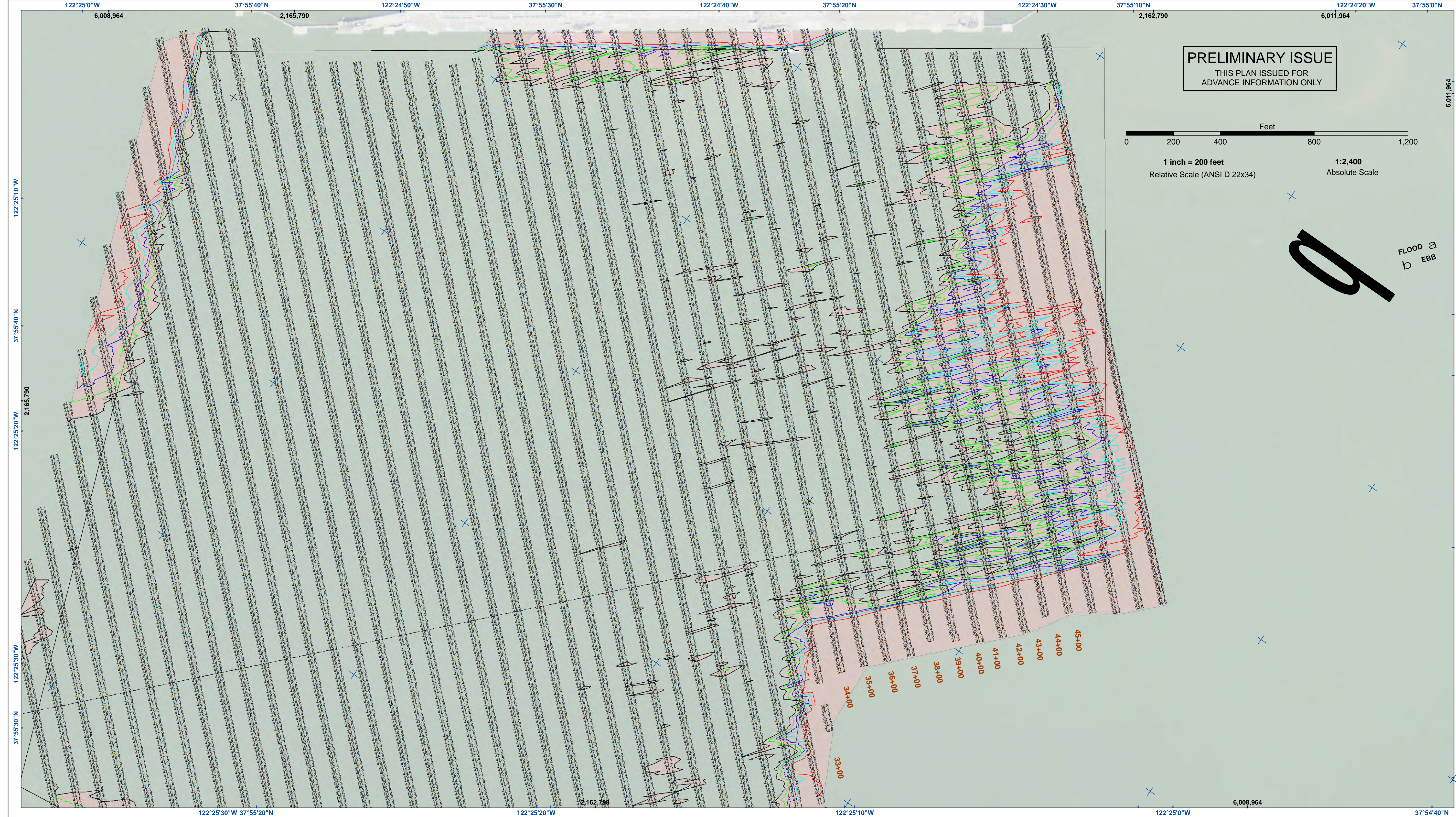
US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

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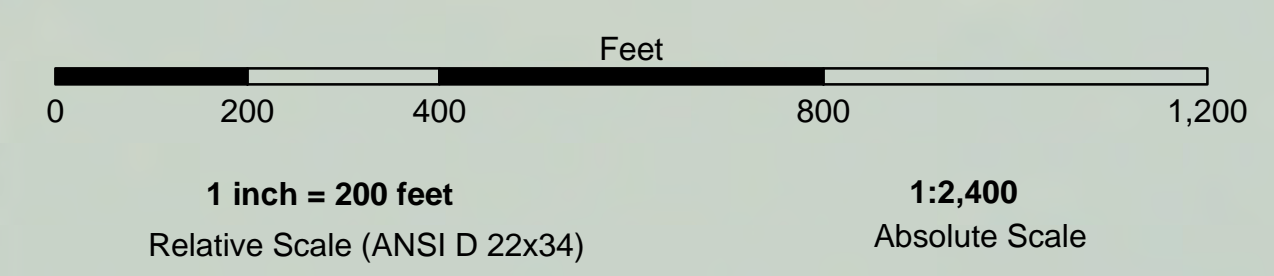
Prepared Under the Direction of: JOHN C. MORROW LT. COLONEL, C.E., DISTRICT ENGINEER	Chart Date: Oct 24, 2016
Submitted: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Drawn by: PDT
Approved: Chief, Construction Branch	

ALAMEDA COUNTY
RICHMOND OUTER HARBOR
POST-DREDGE SURVEY
23 OCTOBER 2016

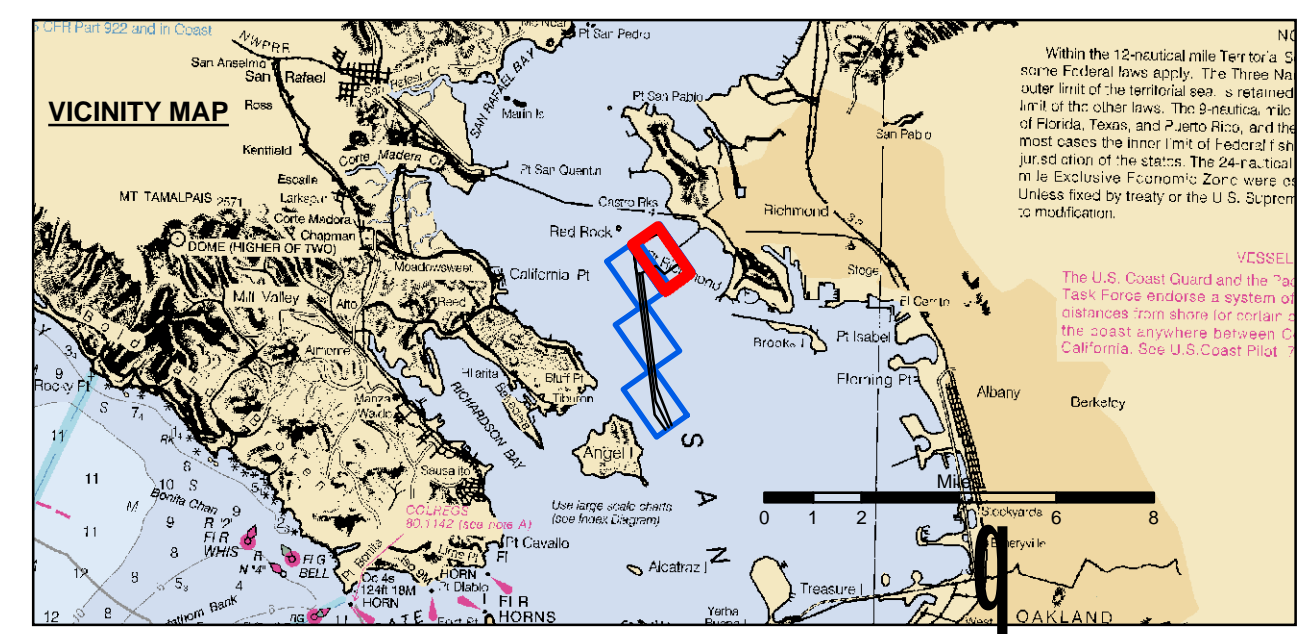
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9
FLOOD a
b EBB



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

NOTES:
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NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.

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Prepared Under the Direction of:	JOHN C. MORROW	Chart Date:	Oct 24, 2016
Plotted By:	PDT	Designed by:	PDT
Checked By:	PDT	Drawn by:	PDT
Approved:	Chief, Hydro Survey Section		
	Chief, Construction Branch		

CALIFORNIA
RICHMOND OUTER HARBOR
POST-DREDGE SURVEY
23 OCTOBER 2016

Sheet
Reference
Number
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