

Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-50
Placement Area	Navigation Buoy	-49
Anchorage Area	Navigation Buoy	-48
Wreck Area	Shoalest Sounding*	-47
Submerged Wreck		-46
Angle Point		

NOTES:
 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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.
 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.
 SURVEYED BY THE CORPS OF ENGINEERS.
 BASE MAPS ARE USDA NAIP 2010.
 PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.
 PROJECT DEPTH OF OUTER AND INNER HARBOR IS -50 FEET.
 PROJECT DEPTH FROM INNER HARBOR TURNING BASIN TO PARK STREET BRIDGE IS 35 FEET.
 TIDAL CANAL PROJECT DEPTH IS 18 FEET.

VERTICAL CONTROL:
 PRCP: PORT 1 1836/PID HT0654.
 OAKLAND INNER, REACH 4-6 DISK SET AT SOUTH END OF CLAY STREET, AT THE PORT OF OAKLAND CLAY STREET PIER. ELEVATION: 9.56 FEET MLLW - PUBLISHED 21 APR 2003 ON NOAA STATION 941 4764 TIDE GAUGE LOCATION IS CHISEL MARK APPROX. 10 FEET WEST ON TOP OF CONCRETE CURB; CHISEL ELEVATION 11.0 FEET MLLW.
 LCP1: 941 4777 B TIDAL/PID A5211, OAKLAND INNER REACH 1-3 DISK SET IN BALLARD FOUNDATION NEAR THE NORTHEAST END OF BERTH 40 OF THE OAKLAND MIDDLE HARBOR. ELEVATION: 13.48 FEET MLLW - DERIVED FROM WGS-84 ELLIPSOID ELEVATION, GEOID09 AND VDATUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT BERTH 37; NAIL ELEVATION 9.7 FEET MLLW.
 LCP2: OAK OUTER 1 2012/NO PID, OAKLAND OUTER REACH 7-10 DISK SET IN PARKING LOT AT PIER 6 AMNAV TUG TERMINAL AT THE EDGE OF THE PIER. ELEVATION: 14.04 FEET MLLW - DERIVED FROM WGS-84 ELLIPSOID ELEVATION, GEOID09 AND DATUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT PIER 6, 10' EAST OF BENCHMARK; NAIL ELEVATION 10.1 FEET MLLW.

HORIZONTAL CONTROL:
 PRIMARY: RTK POSITIONING
 SECONDARY: COAST GURAD DGPS D-BEACON

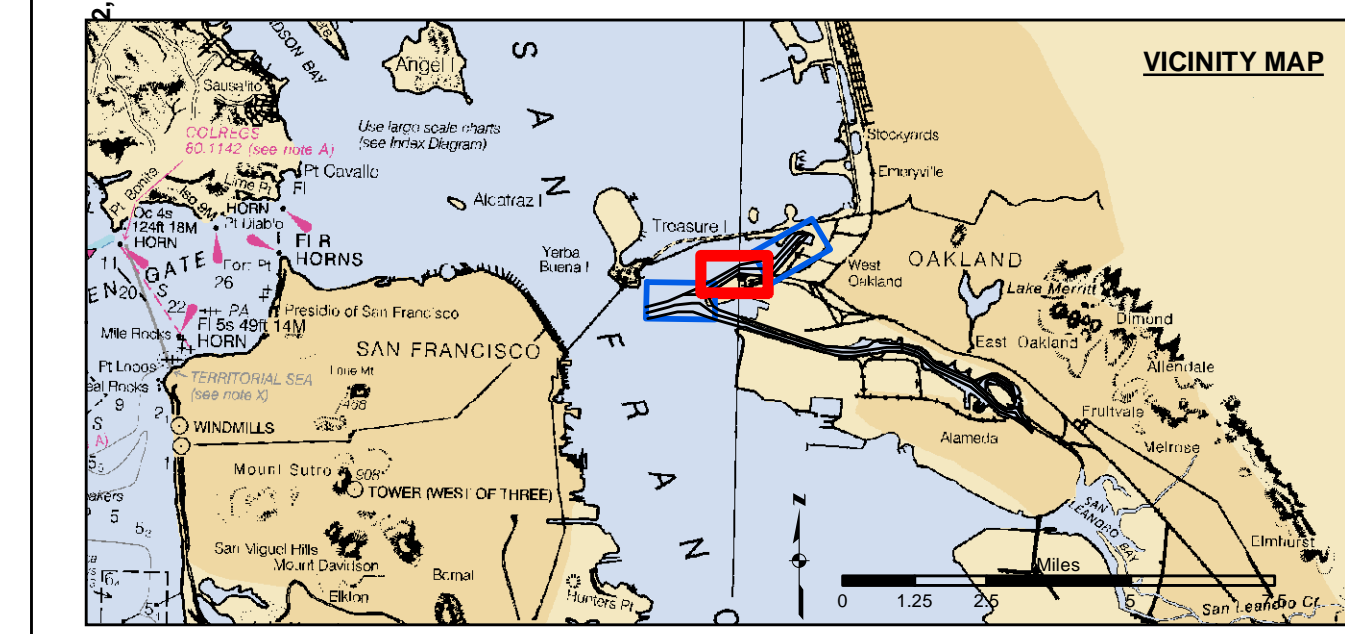
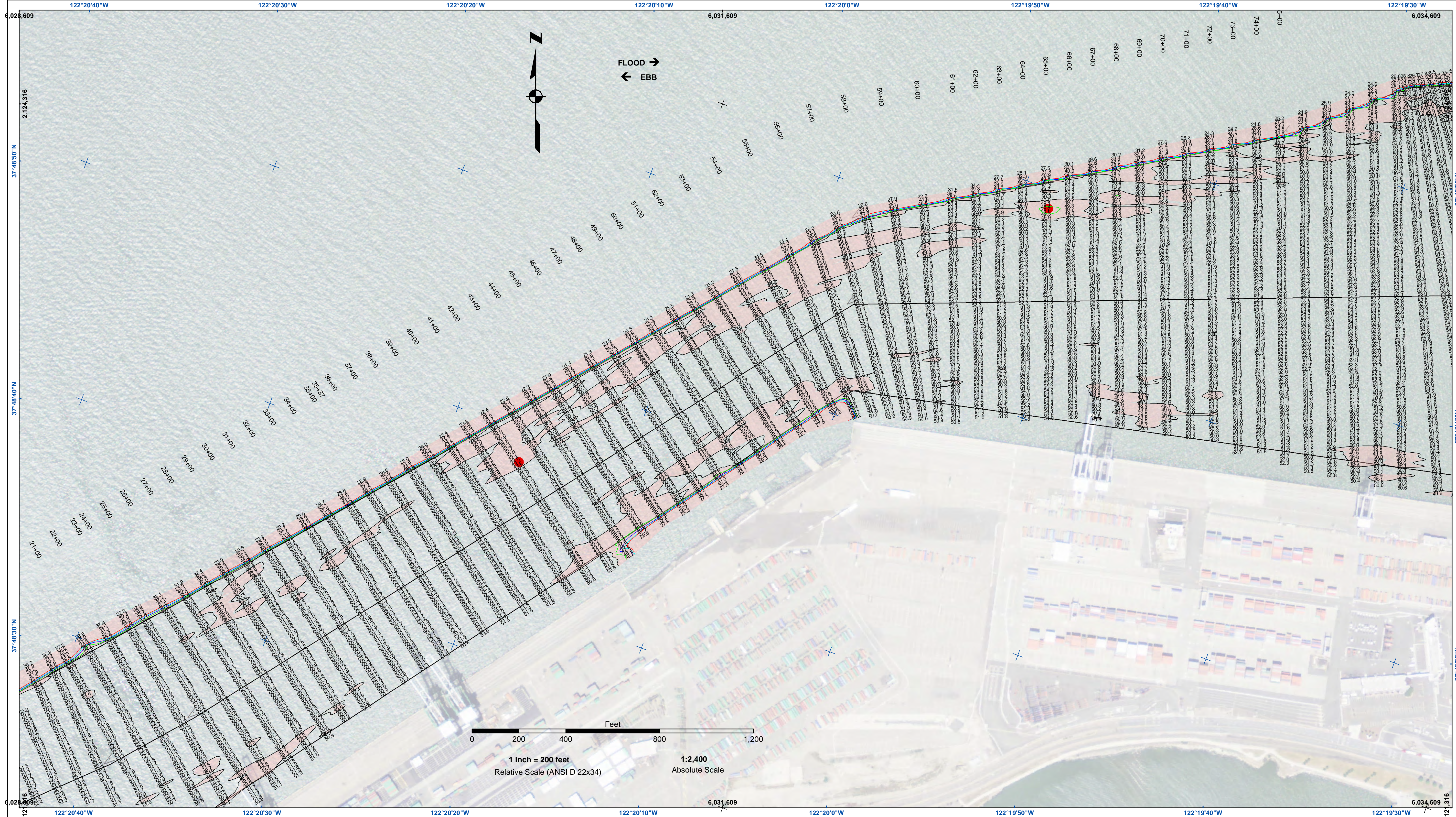


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Prepared Under the Direction of:	Chart Date:
JOHN D. CUNNINGHAM	Mar 01, 2021
LT COLONEL, C.E., DISTRICT ENGINEER	Designed by:
Submittal:	Plotted By:
Hydro Survey Team Leader	Checked By:
Navigation Technical Manager	Drawn by:
Approved:	Project Manager

ALAMEDA COUNTY
 CALIFORNIA
OAKLAND HARBOR
OUTER HARBOR
CONDITION SURVEY
 25 FEBRUARY 2021

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Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-50
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 PROP. PORT 1 1836PID HT0654.
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HORIZONTAL CONTROL:
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 SECONDARY: COAST GURAD DGPS D-BEACON

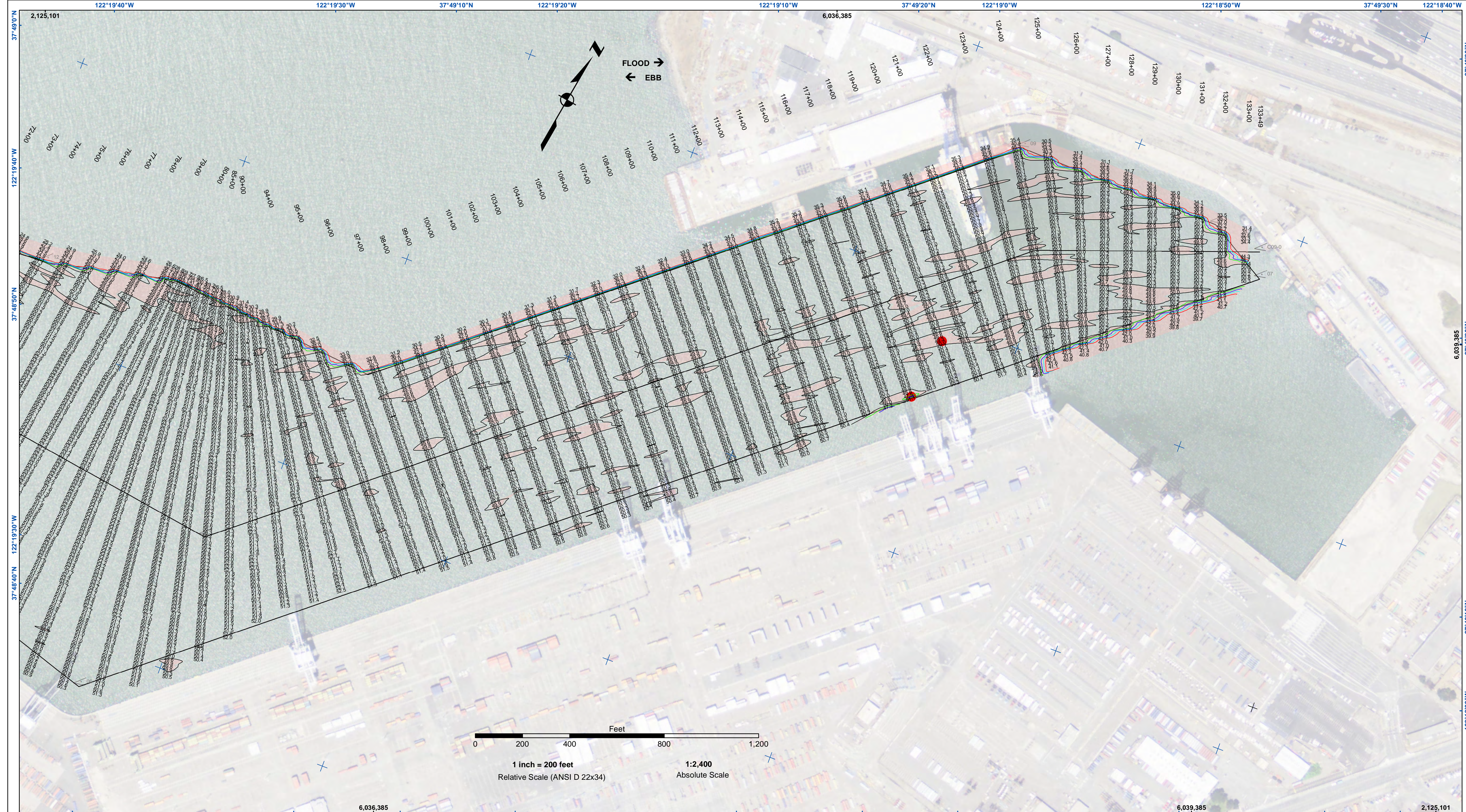
US Army Corps of Engineers
 San Francisco District
 1455 Market Street
 San Francisco, CA 94103

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Prepared Under the Direction of JOHN D. CUNNINGHAM LT COLONEL, C.E. DISTRICT ENGINEER	Chart Date: Mar 01, 2021
Submitted: Hydro Survey Team Leader	Designed by:
Recommended: Navigation Technical Manager	Drawn by:
Approved: Project Manager	

ALAMEDA COUNTY
OAKLAND HARBOR
 OUTER HARBOR
 CONDITION SURVEY
 25 FEBRUARY 2021

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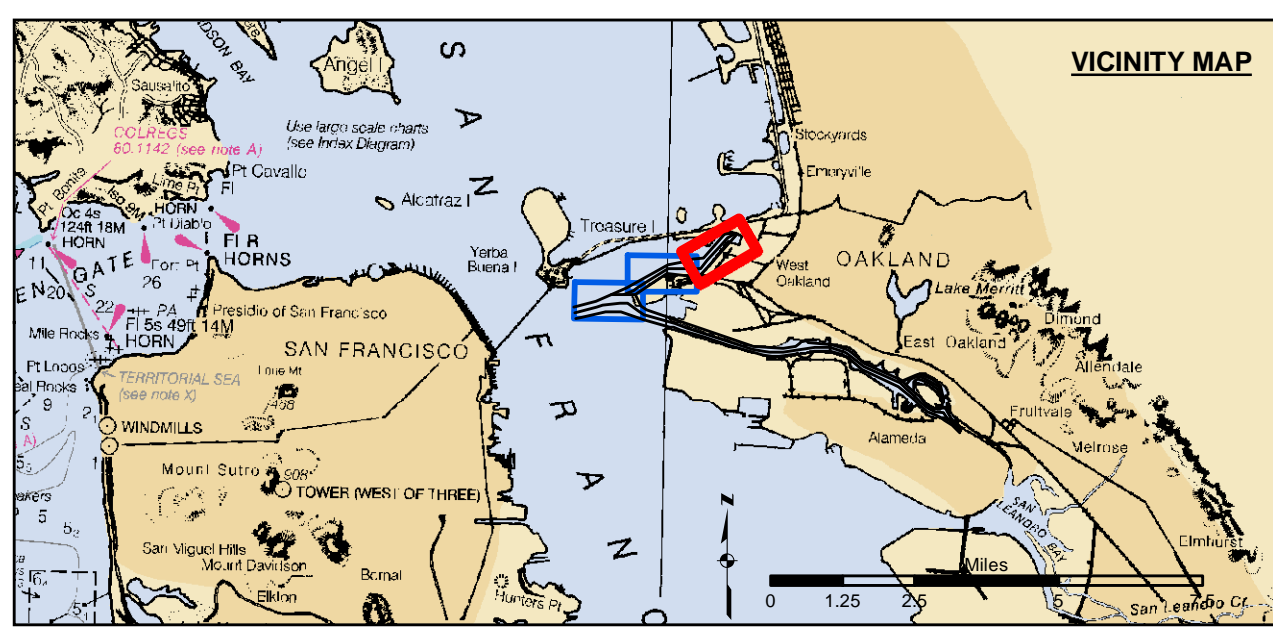


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Prepared Under the Direction of JOHN D. CUNNINGHAM LT COLONEL, C.E., DISTRICT ENGINEER	Chart Date: Mar 01, 2021
Subject: Hydro Survey Team Leader	Designed by:
Recommended: Navigation Technical Manager	Checked by:
Approved: Project Manager	Drawn by:

ALAMEDA COUNTY
OAKLAND HARBOR
 OUTER HARBOR
 CONDITION SURVEY
 25 FEBRUARY 2021



- | | | |
|----------------------------|--------------------|----------|
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SURVEYED BY THE CORPS OF ENGINEERS.
 DATE: 25 FEBRUARY 2021.

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