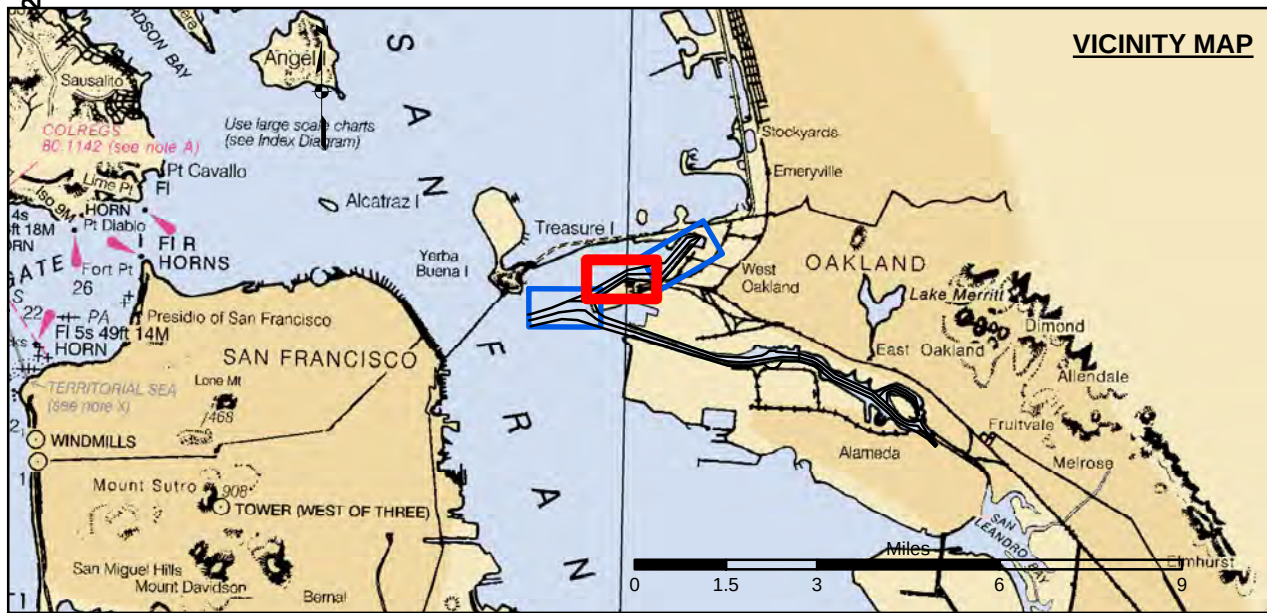
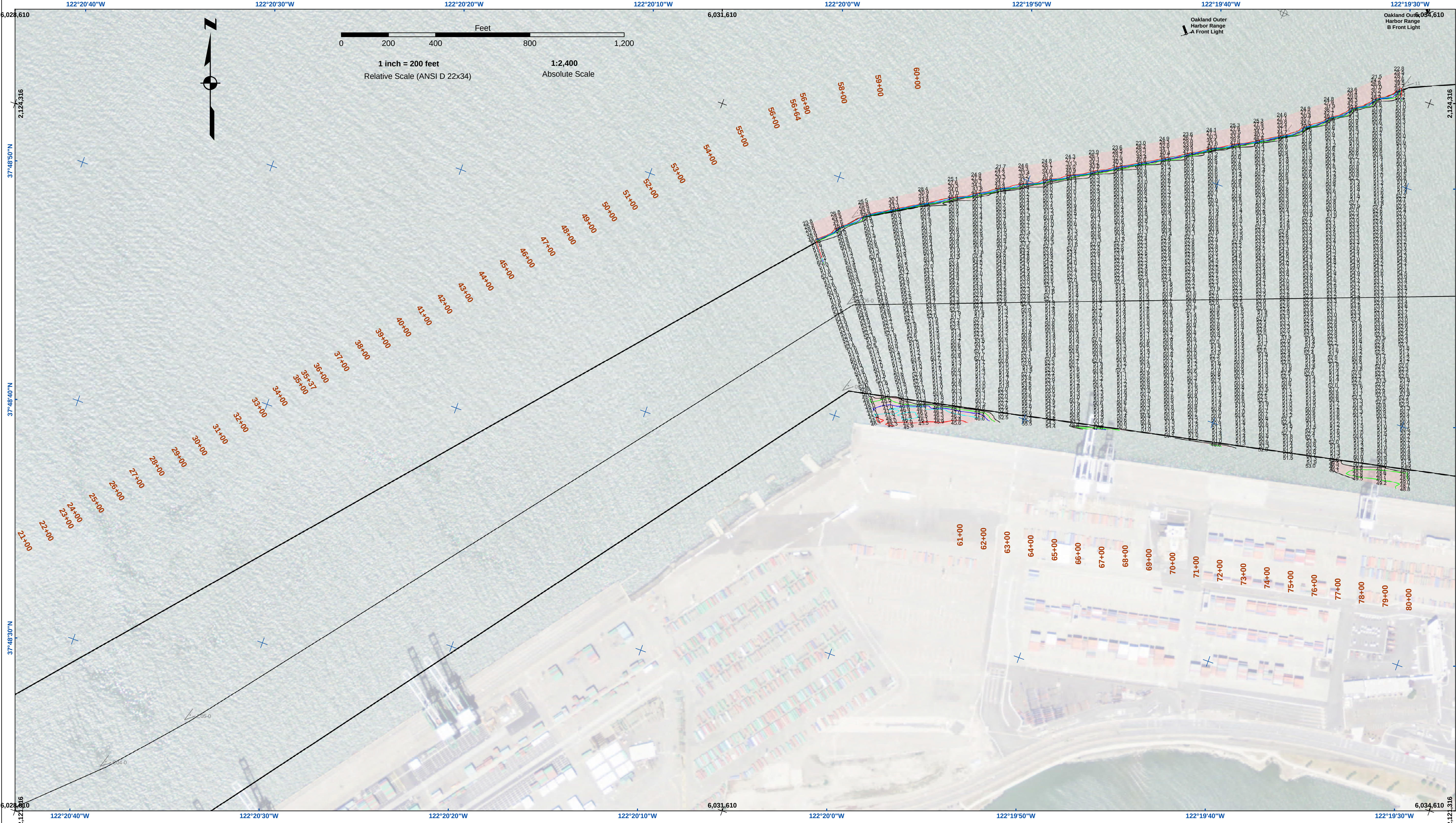




Federal Navigation Channel

Shoaling Area

Placement Area

Anchorage Area

Wreck Area

Submerged Wreck

Angle Point

Beacon, General

Obstruction Point

Navigation Buoy

Navigation Buoy

Shoalest Sounding*

Contours

-50

-49

-48

-47

-46

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.
BASE MAPS ARE USDA NAIP 2010.

VERTICAL CONTROL:
PCP: PORT 1 1906PID 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.
LPCP 1: 941 4777 B TIDALPID AES211, 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 VDUTUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT BERTH 37; NAIL ELEVATION 9.7 FEET MLLW.
LPCP 2: 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

US Army Corps of Engineers

San Francisco District

1455 Market Street

San Francisco, CA 94103

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PREPARED UNDER THE DIRECTION OF LT COLONEL C.E. DISTRICT ENGINEER TRAVIS J. RAYFIELD	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By:	Sep 08, 2017
Recommended: Chief, Hydro Survey Section	Checked By:	Designed by:
Approved: Chief Construction Branch	PDT	Drawn by:
	PDT	PDT

ALAMEDA COUNTY

OAKLAND HARBOR

POST-DREDGE SURVEY

02 SEPTEMBER 2017

Sheet

Number

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