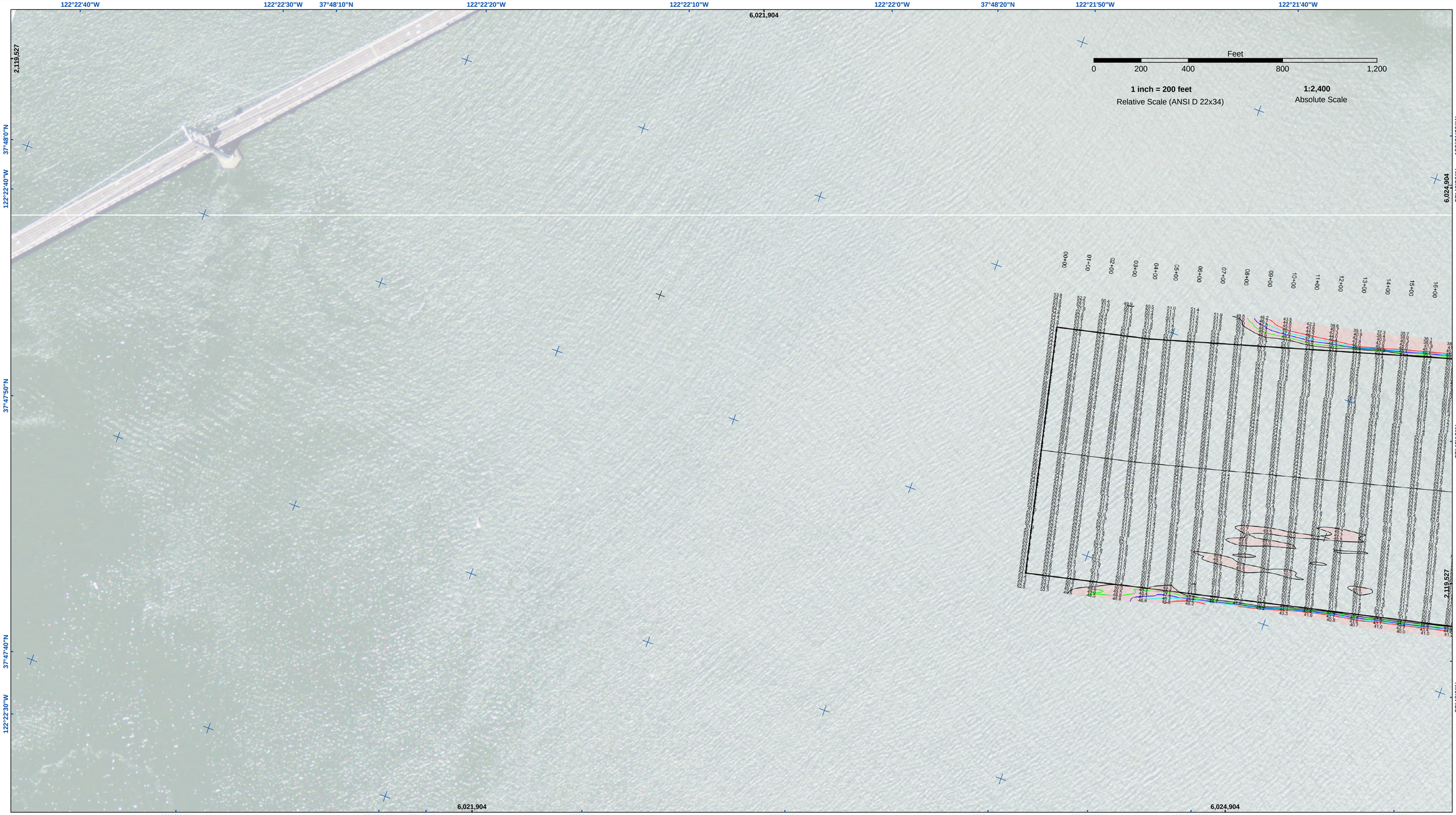
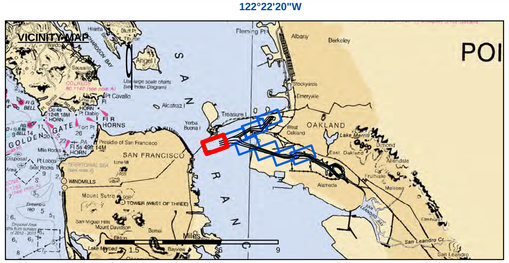




- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding*

Contours
-50
-49
-48
-47
-46

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.

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.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.
THE PROJECT DEPTHS ARE AS FOLLOWS:
OUTER AND INNER HARBOR IS -50 FEET
INNER HARBOR TURNING BASIN TO PARK STREET BRIDGE IS -35 FEET.
TIDAL CANAL PROJECT DEPTH IS -18 FEET.
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.
HORIZONTAL CONTROL:
PRIMARY: RTK POSITIONING
SECONDARY: COAST GUARD DGPS D-BEACON
VERTICAL CONTROL:
PPCP: PORT 1 1936/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.
LPCP 1: 941 4777 B TIDAL/PID AE5211, 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.
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 VDATUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT PIER 6, 10' EAST OF BENCHMARK;
NAIL ELEVATION 10.1 FEET MLLW.

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

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. Any use of this data for purposes other than stated may require additional surveys to verify and update the data to meet user accuracy specifications. The user is responsible for the results of any of the application of the data for other than its intended purpose.

DISCLAIMER:
Access Constraints: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the US Government makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information and the data furnished. The United States shall be used under the recipient's responsibility. The recipient agrees to indemnify the United States and its agents and employees from any claim made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government produced data. The recipient agrees to transfer these data to others without also transferring this Disclaimer.

Chart Date: May 25, 2017		
Surveyed by:	Designed by:	Drawn by: PDT
	Plotted By: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN C. MORROW
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
ALAMEDA COUNTY

OAKLAND HARBOR
INNER HARBOR
CONDITION SURVEY
16-22 MAY 2017

Sheet Reference Number
1 of 8

122°21'30"W 122°21'20"W 122°21'10"W 122°21'0"W 122°20'50"W 37°48'40"N 122°20'40"W 122°20'30"W

6,027,409 6,030,409

2,121,456

37°48'20"N 37°48'10"N 37°48'0"N 122°21'30"W 122°20'20"W 37°48'40"N 37°48'30"N 37°48'20"N 122°20'10"W

Feet
0 200 400 800 1,200

1 inch = 200 feet
Relative Scale (ANSI D 22x34)

1:2,400
Absolute Scale

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

DISCLAIMER:
Distribution Liability: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the US Government makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information and the data furnished. The United States shall be used or relied upon as a substitute for any survey conducted by a licensed surveyor. The user is responsible for the results of any application of the data for other than its intended purpose. The recipient fully agrees not to represent these data to anyone as other than data furnished by the US Government and to indemnify the US Government from any claim arising from the transfer of these data to others without also transferring this Disclaimer.

The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. Any uses to which these data are applied should be consistent with accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.

PREPARED UNDER THE DIRECTION OF
JOHN C. MORROW
LT. COLONEL, C.E., DISTRICT ENGINEER

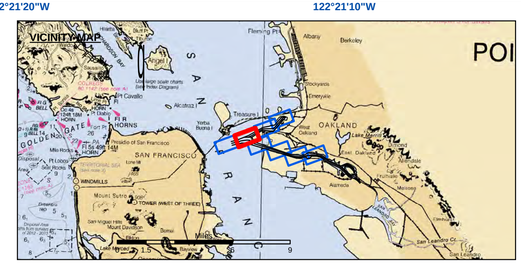
Surveyed By:		Chart Date: May 24, 2017	
Plotted By: PDT		Designed by:	
Checked By: PDT		Drawn by: PDT	
Submitted: Hydro Survey Team Leader			
Recommended: Chief, Hydro Survey Section			
Approved: Chief, Construction Branch			

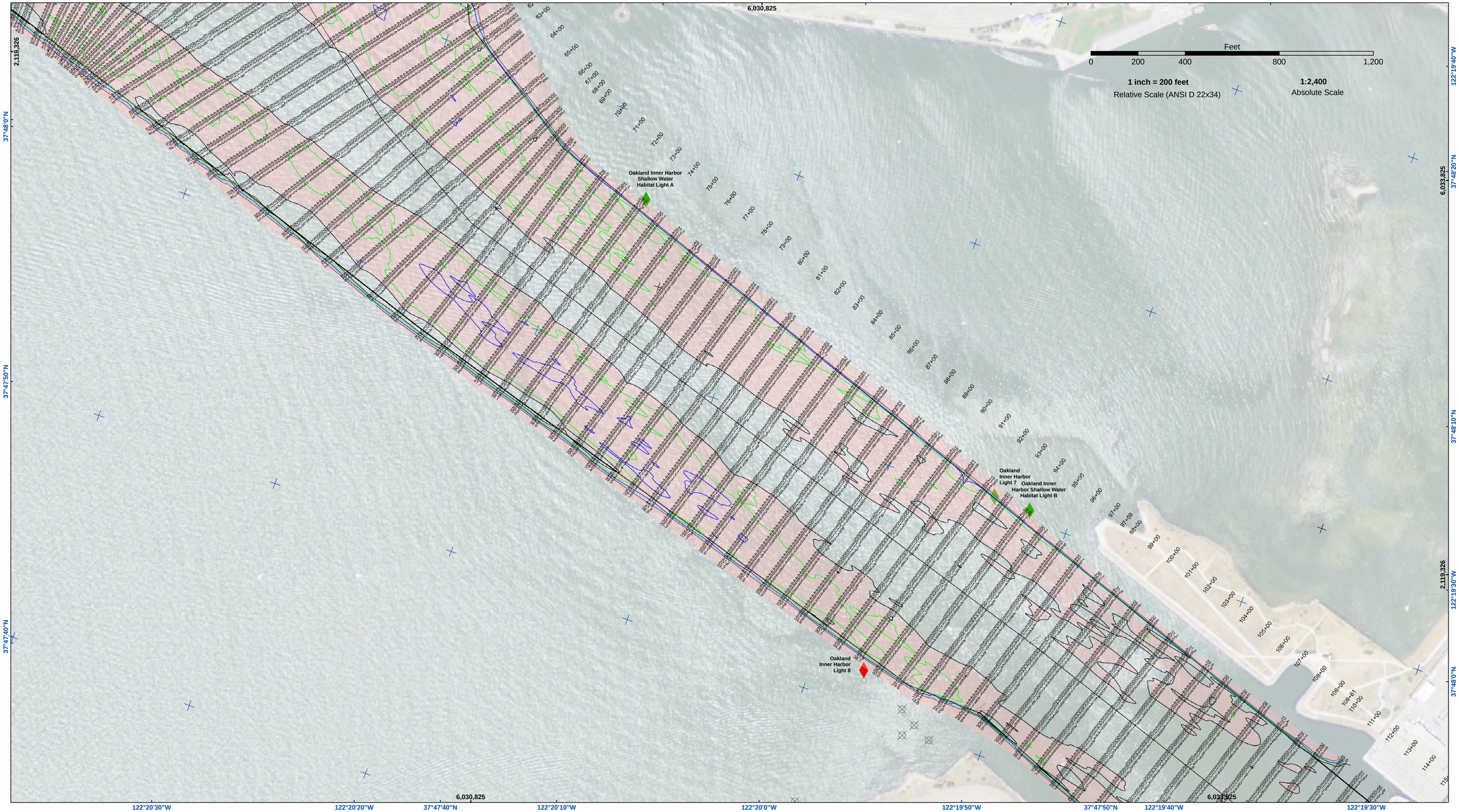
CALIFORNIA
ALAMEDA COUNTY

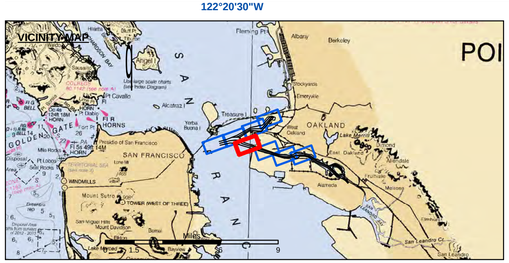
OAKLAND HARBOR
INNER HARBOR
CONDITION SURVEY
16-22 MAY 2017

Sheet Reference Number
2 of 8

VICINITY MAP


POI
SAN FRANCISCO
OAKLAND
ALAMEDA
Alcatraz I.
Treasure I.
Yerba Buena I.
Angel I.
Berkeley
Albany
Emeryville
Piedmont
Presidio of San Francisco
Golden Gate Bridge
Golden Gate National Recreation Area
Fort Cronkhite
Mount Tamalpais
Mount Diablo
San Francisco Bay
Pacific Ocean
Point Reyes National Seashore
Point Reyes
Bodega Bay
Drakes Bay
Tomales Bay
Point Bonita
Point Lobos
Point San Pedro
Point Pinole
Point Richmond
Point Molate
Point Isabel
Point Knox
Point Potrero
Point Blunt
Point Stuart
Point Diablo
Point Bolinas
Point Reyes Hill
Point Reyes Beach
Point Reyes Station
Point Reyes Lighthouse
Point Reyes Beach South
Point Reyes Beach North
Point Reyes Hill




VICINITY MAP
POI
SAN FRANCISCO
OAKLAND
Berkeley
Albany
Alcatraz I.
Treasure I.
Yerba Buena I.
Angel I.
Red Rock
Blossom Rock
Harding Rock
Mission Rock
Pier 70
Hunters Point
Islais Creek
Potrero Point
Point Bonita
Point Diablo
Point Richmond
Point San Pedro
Point Pinole
Point Molate
Point Isabel
Point Knox
Point Orient
Point Potrero
Point San Quentin
Point Stuart
Point Wilson
Point Blunts
Point Benicia
Point Edith
Point Chicago
Point Sonoma
Point Reyes
Point Tiburon
Point Bonita
Point Lobos



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

DISCLAIMER:
ACCEPTANCE of Terms: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the US Government makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information and the data furnished. The United States shall be under no liability whatsoever to any person by reason of any use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than data received from the Government. The recipient may transfer these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. As such, it is not adequate for navigation purposes or other high accuracy specifications. The user is responsible for the results of any of the application of the data for other than its intended purpose.

Chart Date: May 24, 2017
Surveyed By:
Designed by:
Plotted By: PDT
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN C. MORROW
LT. COLONEL, C.E., DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

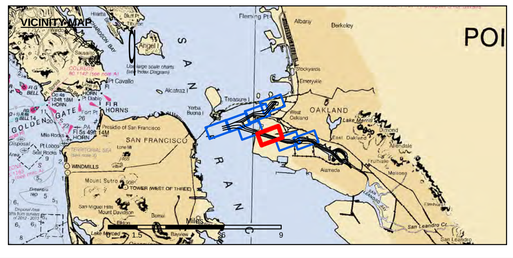
Recommended:
Chief, Hydro Survey Section

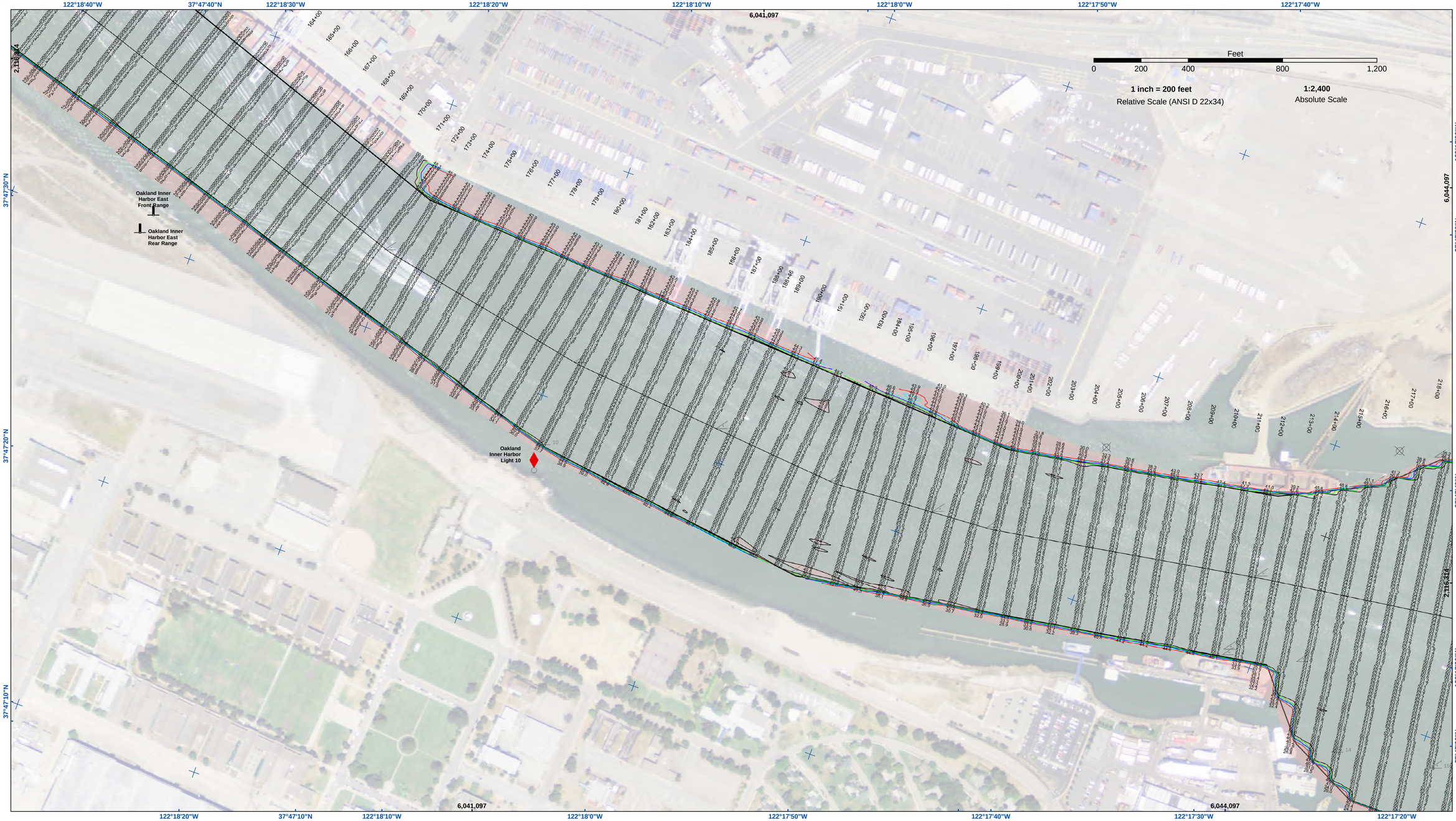
Approved:
Chief, Construction Branch

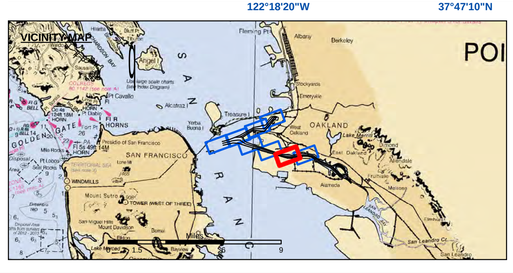
CALIFORNIA
ALAMEDA COUNTY

OAKLAND HARBOR
INNER HARBOR
CONDITION SURVEY
16-22 MAY 2017

Sheet Reference Number
6 of 8


VICINITY MAP
POI
SAN FRANCISCO
OAKLAND
ALAMEDA
Fleming Pt
Albany
Berkeley
Emeryville
Yerba Buena I
Treasure I
Alcatraz I
Fort Point
Presidio of San Francisco
Mile Rocks
WINDMILLS
TOWER (WEST OF THREE)
Mount Sutro
Point Bonita
Marin Islands
Point Diablo
Point Richmond
Point Pinole
San Leandro Bay
Bay Bridge
Golden Gate Bridge
Golden Gate
Golden Gate Fields
Emeryville Crescent
Oakland Inner Harbor
Oakland Outer Harbor
Alameda Naval Air Station
Alameda Point
Alameda Harbor
Alameda Channel
Alameda Entrance Channel
Oakland Harbor Entrance Channel
San Francisco Bay Entrance Channel
Oakland Harbor Turning Basin
Oakland Harbor Anchorage
Oakland Harbor Entrance Channel
Oakland Harbor Channel
Oakland Harbor Middle Harbor
Oakland Harbor Inner Harbor
Oakland Harbor Outer Harbor





Federal Navigation Channel
Shoaling Area
Placement Area
Anchorage Area
Wreck Area

Beacon, General
¾ Obstruction Point
Navigation Buoy
Navigation Buoy
Shoalest Sounding*

Contours
-50
-49
-48
-47
-46

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.

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.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.
THE PROJECT DEPTHS ARE AS FOLLOWS:
OUTER AND INNER HARBOR IS -50 FEET
INNER HARBOR TURNING BASIN TO PARK STREET BRIDGE IS -35 FEET.
TIDAL CANAL PROJECT DEPTH IS -18 FEET.
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.
HORIZONTAL CONTROL:
PRIMARY: RTK POSITIONING
SECONDARY: COAST GUARD DGPS D-BEACON
VERTICAL CONTROL:
PPCP: PORT 1 1936/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.
LPCP 1: 941 4777 B TIDAL/PID AE5211, 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.
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 VDATUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT PIER 6, 10' EAST OF BENCHMARK; NAIL ELEVATION 10.1 FEET MLLW.

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

DISCLAIMER:
Distribution Liability: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the US Government makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information and the data furnished. The United States shall be used in connection with any activity involving the data furnished made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than data received from the Government. The recipient hereby agrees to hold the Government harmless from any claim these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. Its use is solely at the discretion of the user. The user is responsible for the results of any the application of the data for other than its intended purpose.

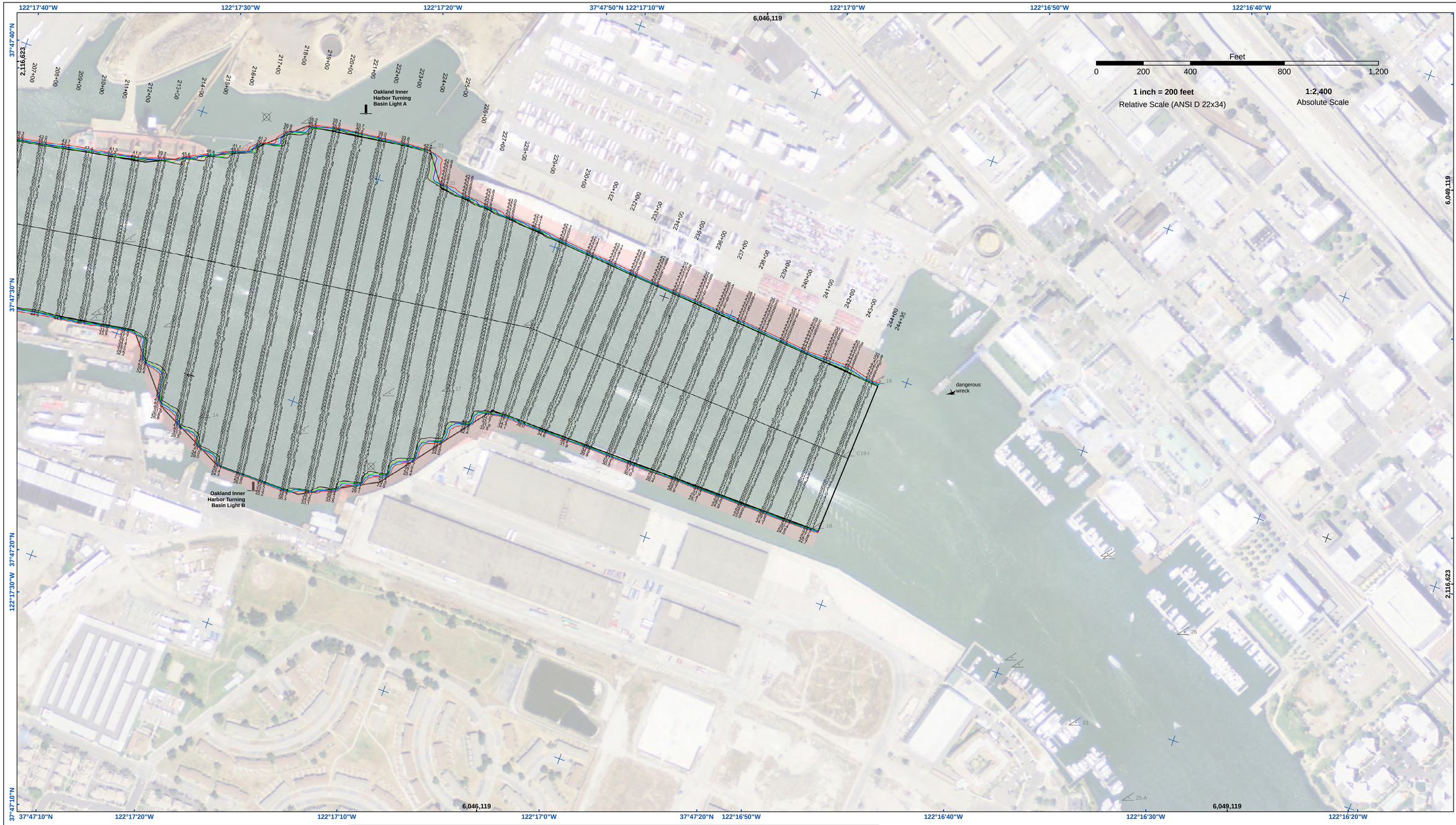
PREPARED UNDER THE DIRECTION OF
JOHN C. MORROW
LT. COLONEL, C.E., DISTRICT ENGINEER

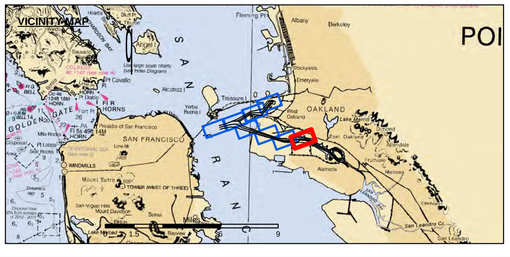
Chart Date: May 24, 2017		
Surveyed By:	Plotted By: PDT	Designed by:
		Drawn by: PDT
	Submitted: Hydro Survey Team Leader	Checked By: PDT
	Recommended: Chief, Hydro Survey Section	
	Approved: Chief, Construction Branch	

CALIFORNIA
ALAMEDA COUNTY
OAKLAND HARBOR
INNER HARBOR
CONDITION SURVEY
16-22 MAY 2017

Sheet Reference Number
7 of 8

CORPS OF ENGINEERS U.S. ARMY




VICINITY MAP
POI
SAN FRANCISCO
OAKLAND
ALAMEDA
GOLDEN GATE
Albany
Berkeley
Emeryville
Piedmont
Alameda
Yerba Buena I
Treasure I
Angel I
Alcatraz I
Fort Point
Fort Mason
Presidio of San Francisco
Fort Baker
Fort Cronkhite
Fort Barry
Fort Cavallo
Point Bonita
Point Diablo
Point Stuart
Point Richmond
Point Pinole
Point San Pablo
Point Molate
Point Orient
Point Isabel
Point Knox
Point Potrero
Point Avisadero
Point Lobos