

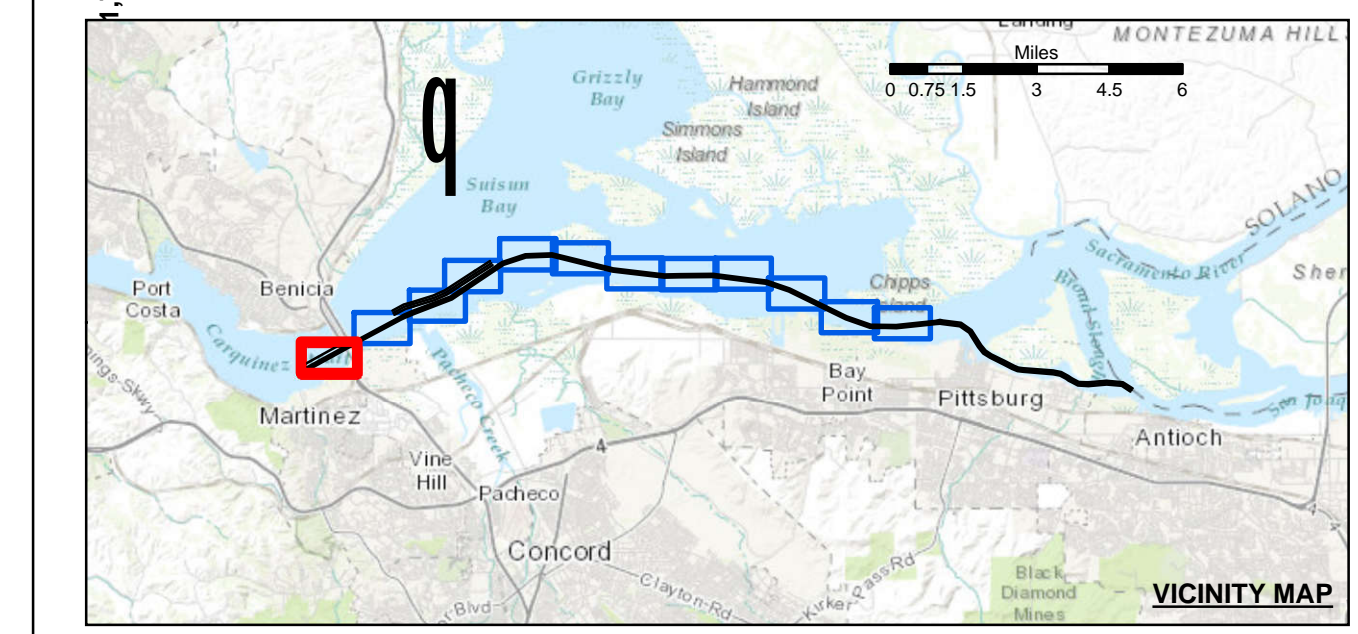
US Army Corps of Engineers
 San Francisco District
 1455 Market Street
 San Francisco, CA 94103

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Prepared Under the Direction of JOHN C. MORROW LT Colonel, C.E. District Engineer	Chart Date: Apr 04, 2017
Subproject: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Plotted by: PDT
Approved: Chief, Construction Branch	Checked by: PDT
	Drawn by: PDT

CALIFORNIA
 CONTRA COSTA COUNTY
SUISUN BAY CHANNEL
BULLSHED REACH
 CONDITION SURVEY
 29 MARCH 2017

Sheet Reference Number
 1 of 12

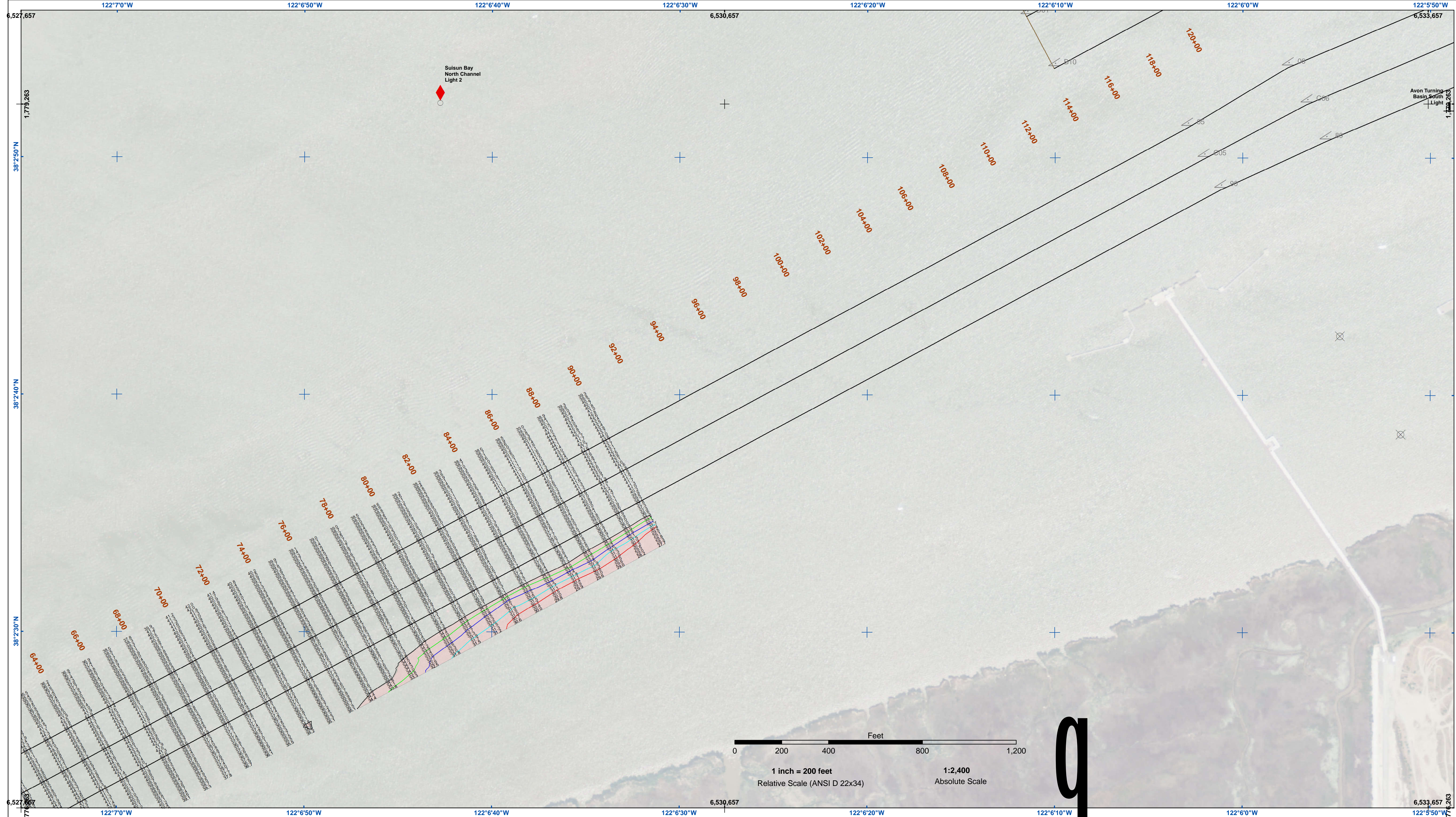


- | | | |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General | Contours |
| Shoaling Area | Obstruction Point | |
| Placement Area | Navigation Buoy | |
| Anchorage Area | Navigation Buoy | |
| Wreck Area | Shoalest Sounding* | |
| Submerged Wreck | | -35 |
| Angle Point | | -34 |
| | | -33 |
| | | -32 |
| | | -31 |

NOTES:
 HORIZONTAL COORDINATE SYSTEM:
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE II. 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.
 PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY, 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.

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.
 THE PROJECT DEPTH IS 35 FEET.
 VERTICAL CONTROL:
 SUISUN BAY CHANNEL
 (LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK ELEV 14.875 FT MLLW, NAVD 88 DATUM.
 TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.
 (LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997), USC&GS DISK ELEV 11.83 FT MLLW, NAVD 88 DATUM.
 TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.
 (LINES 660+00 TO 733+45) BENCHMARK "5096-B", USC&GS DISK ELEV 21.76 FT MLLW, NAVD 88 DATUM.
 TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

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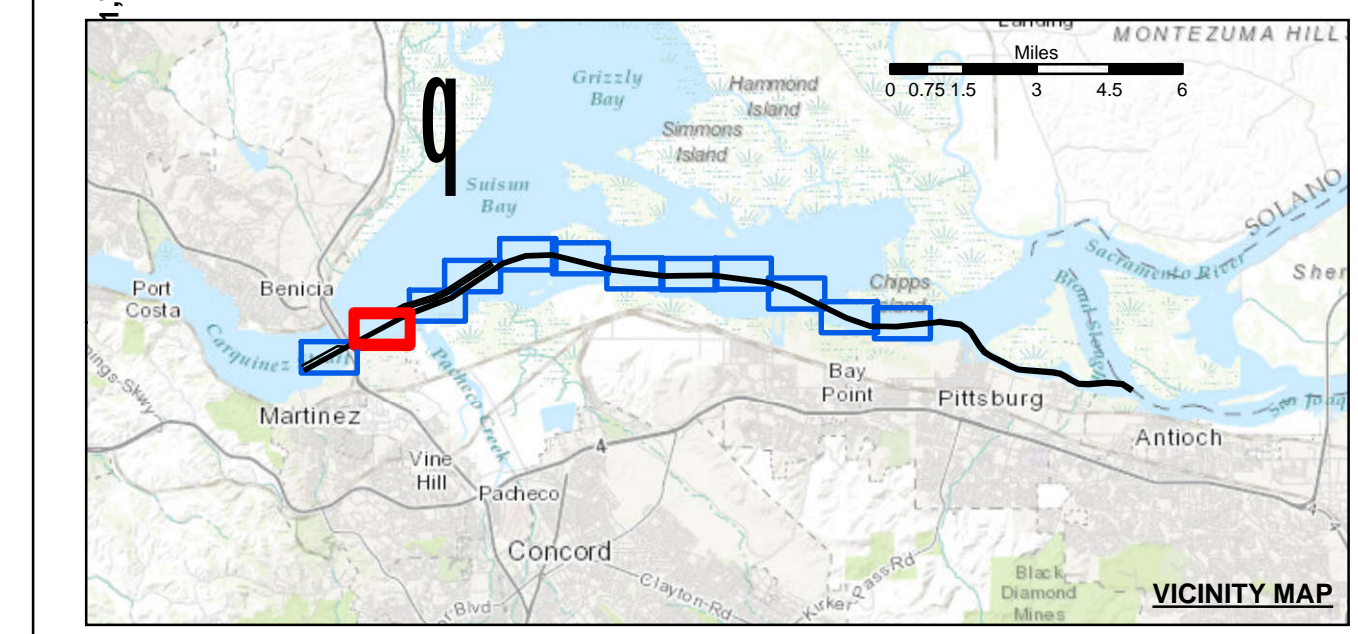
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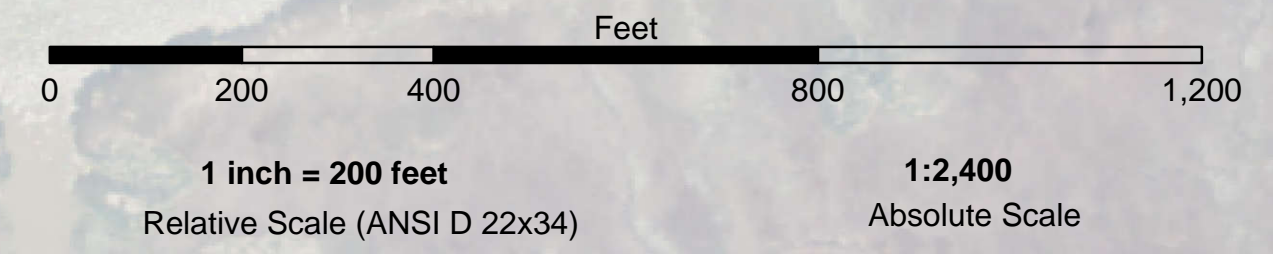
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Subproject: Hydro Survey Team Leader	Plotted By: PDT	Apr 04, 2017
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	Drawn by:

CALIFORNIA
SUISUN BAY CHANNEL
BULLSHED REACH
 CONDITION SURVEY
 29 MARCH 2017

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Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
Anchorage Area	Navigation Buoy	-33
Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle Point		



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