

**US Army Corps of Engineers**  
 San Francisco District  
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**N.A.D. 1983 FEET COORDINATES**

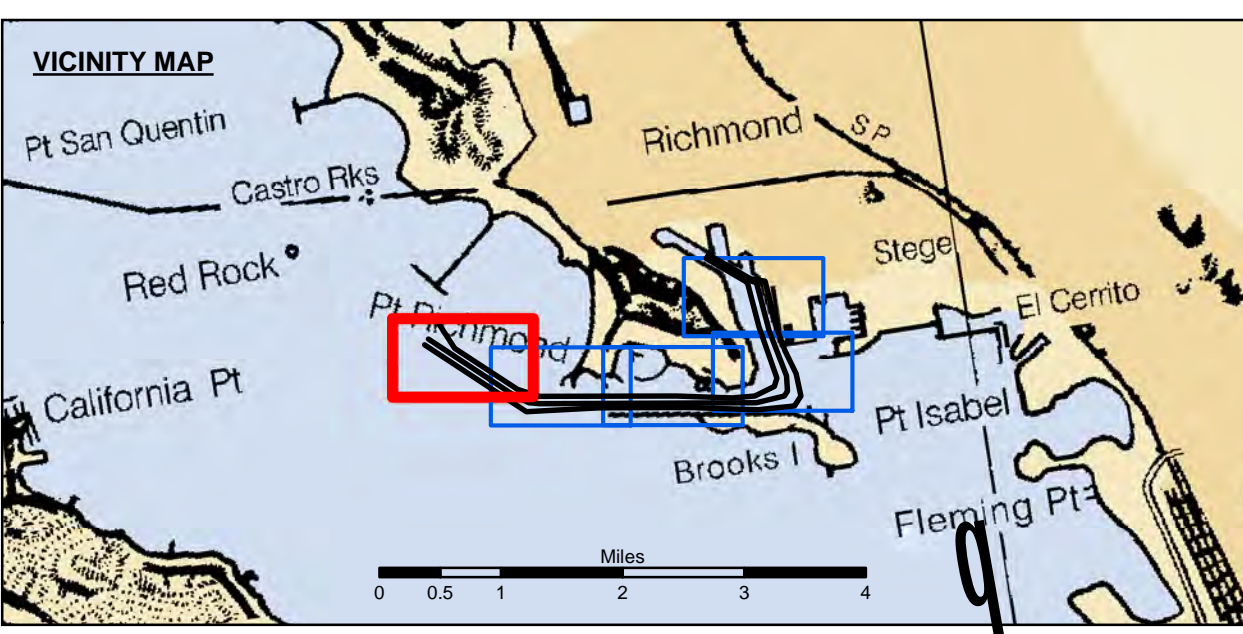
Channel Angle Point	Easting	Northing
01	6010230.66	2162394.62
02	6009436.76	2161650.06
03	6010702.46	2161282.52
04	6013280.69	2158029.15
05	6013071.04	2159051.01
06	6016426.10	2157649.80
07	6013946.57	2158590.79
08	6020299.03	2156972.78
09	6019811.99	2157565.50
10	6023187.74	2156366.30
11	6022179.38	2157068.47
12	6024797.57	2156256.37
13	6023175.24	2156977.58
14	6025133.92	2156630.24
15	6024071.72	2157243.76
16	6025096.44	2157620.99
17	6024244.63	2157572.06
18	6024794.33	2158699.33
19	6023863.13	2159896.61
20	6024629.99	2159700.65
21	6023718.07	2161814.06
22	6024470.69	2161806.34
23	6023659.10	2161929.33
24	6023871.49	2162011.81
25	6022130.19	2163218.69
26	6022259.11	2163371.56

**N.A.D. 1983 FEET COORDINATES**

Centerline Angle Point	Easting	Northing
C01	6009645.81	2161871.50
C02	6012865.31	2158832.66
C03	6013468.42	2158386.31
C04	6013908.41	2158274.43
C05	6023181.49	2156671.94
C06	6024434.65	2156750.07
C07	6024602.82	2156937.00
C08	6024670.54	2157596.53
C09	6024272.27	2159641.94
C10	6024094.38	2161810.20
C11	6023765.30	2161970.57
C12	6022194.65	2163295.13

Prepared Under the Direction of	JOHN C. MORROW	Chart Date	Apr 04, 2016
Surveyed By	LT COLONEL C.E. DISTRICT ENGINEER	Designed by	PDT
Plotted By	PDT	Checked By	PDT
Drawn by	PDT	Approved	Chief, Construction Branch

CALIFORNIA  
 RICHMOND INNER HARBOR  
 CONDITION SURVEY  
 15-22 MARCH 2016



- 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**
- 38
- 37
- 36
- 35
- 34

**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.

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.  
 BASE MAPS ARE USDA NAIP 2010.  
 THE PROJECT DEPTHS ARE AS FOLLOWS:  
 INNER HARBOR CHANNEL -37.5 FEET.  
 SANTE FE CHANNEL -30 FEET.

(INNER HARBOR CHANNEL) BENCHMARK A-556 ELEV 15.81 FT. MLLW.  
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.025 FT. MLLW.  
 B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.

TIDE GAGE LOCATION: MON B-1.  
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.  
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY