

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

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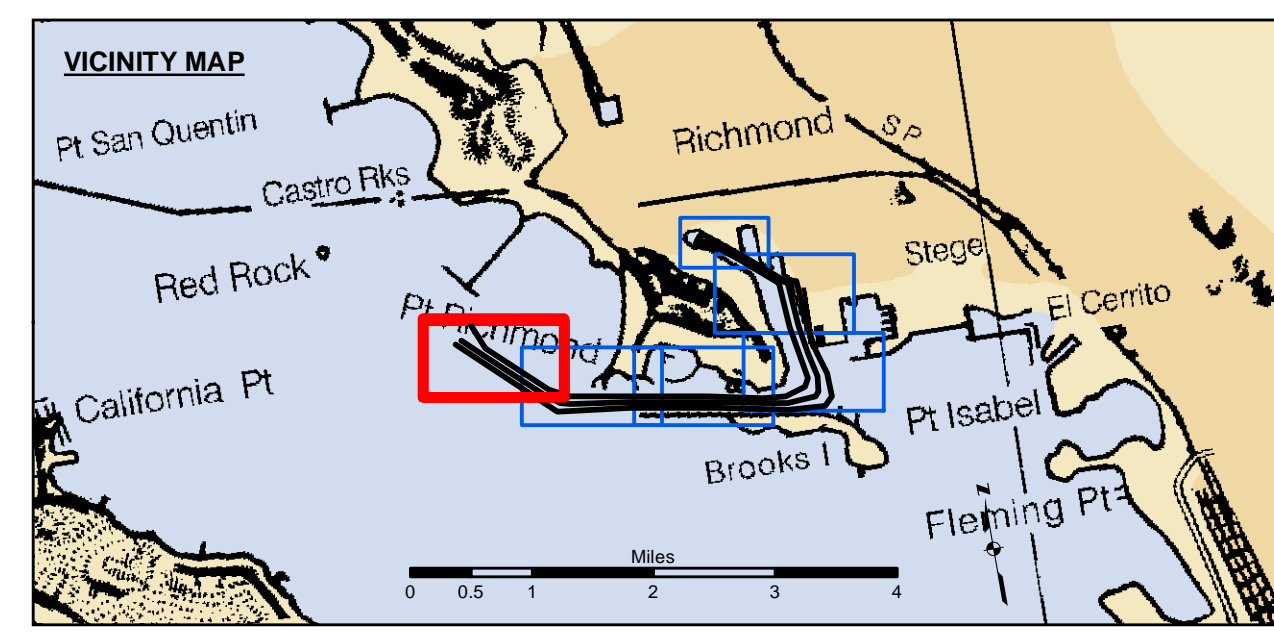
Centerline Angle Point	Easting	Northing
C01	6009645.81	2161871.50
C02	6012865.31	2158832.66
C03	6013468.42	2158386.31
C04	6013908.41	2158274.43
C05	6023181.49	2156671.94
C06	6024434.65	2156750.07
C07	6024602.82	2156937.00
C08	6024670.54	2157596.53
C09	6024272.27	2159641.94
C10	6024094.38	2161810.20
C11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

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Prepared Under the Direction of:	KEVIN P. ARNETT	Chart Date:	Mar 27, 2023
Surveyed By:	PDT	Designed by:	PDT
Plotted By:	PDT	Checked By:	PDT
Recommended:	Chief, Hydro Survey Section	Drawn by:	PDT
Approved:	Chief, Construction Branch		

CALIFORNIA
RICHMOND INNER HARBOR
 CONTRA COSTA
CONDITION SURVEY
 13-15 MARCH 2023



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-38
Placement Area	Navigation Buoy	-37
Anchorage Area	Navigation Buoy	-36
Wreck Area	Shoalest Sounding*	-35
Submerged Wreck		-34
Angle Point		

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.
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 *SHOALEST SOUNDING PER QUARTER PER REACH

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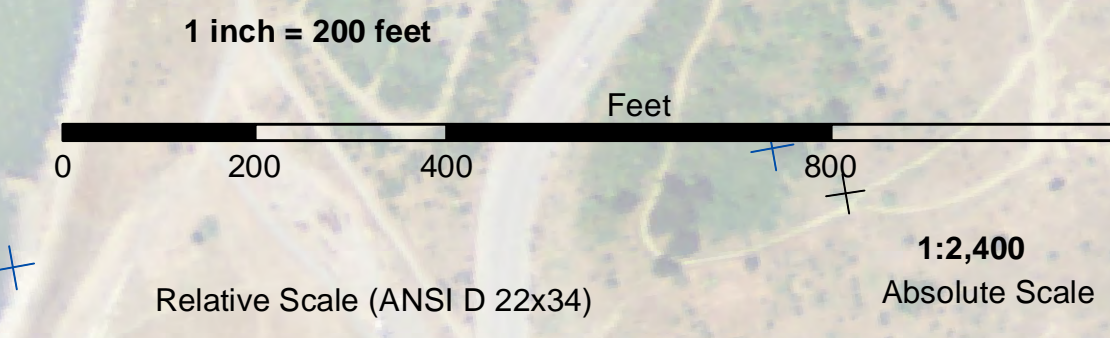
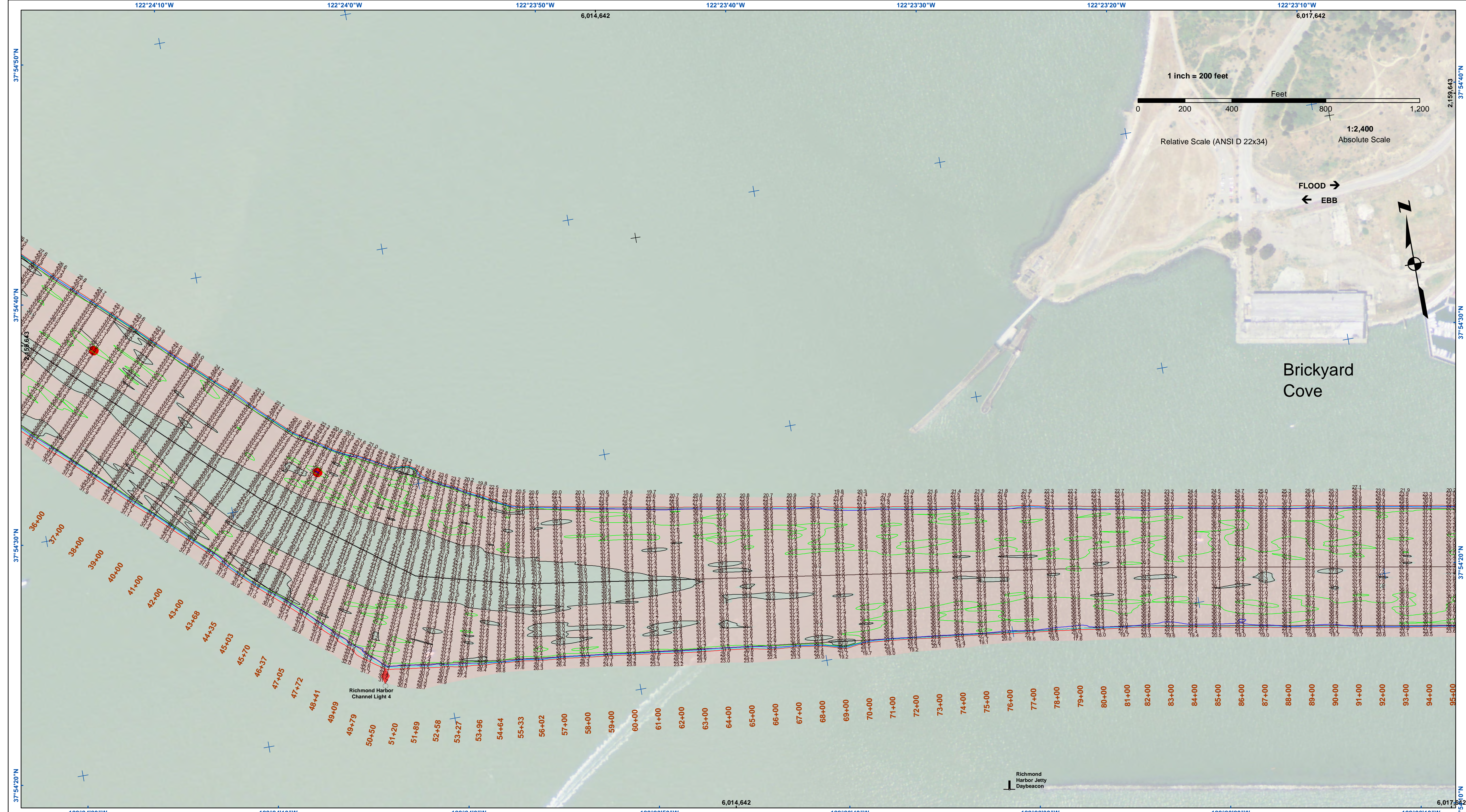
BASE MAPS ARE USDA NAIP 2010.

THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL -37.5 FEET.
 SANTE FE CHANNEL -30 FEET.

(INNER HARBOR CHANNEL) BENCHMARK A-658 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 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

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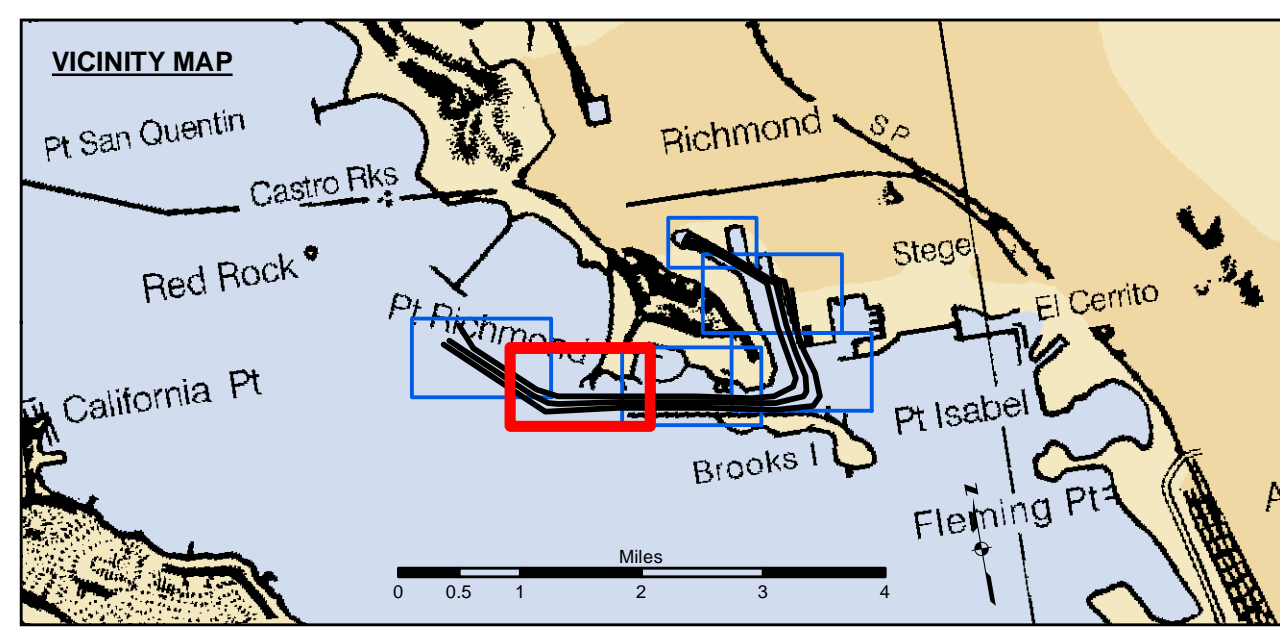


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Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer	Chart Date: Mar 27, 2023
Submitted by: Hydro Survey Team Leader	Designed by: PDT
Recommended by: Chief, Hydro Survey Section	Drawn by: PDT
Approved by: Chief, Construction Branch	PDT

CALIFORNIA
RICHMOND INNER HARBOR
 CONDITION SURVEY
 13-15 MARCH 2023

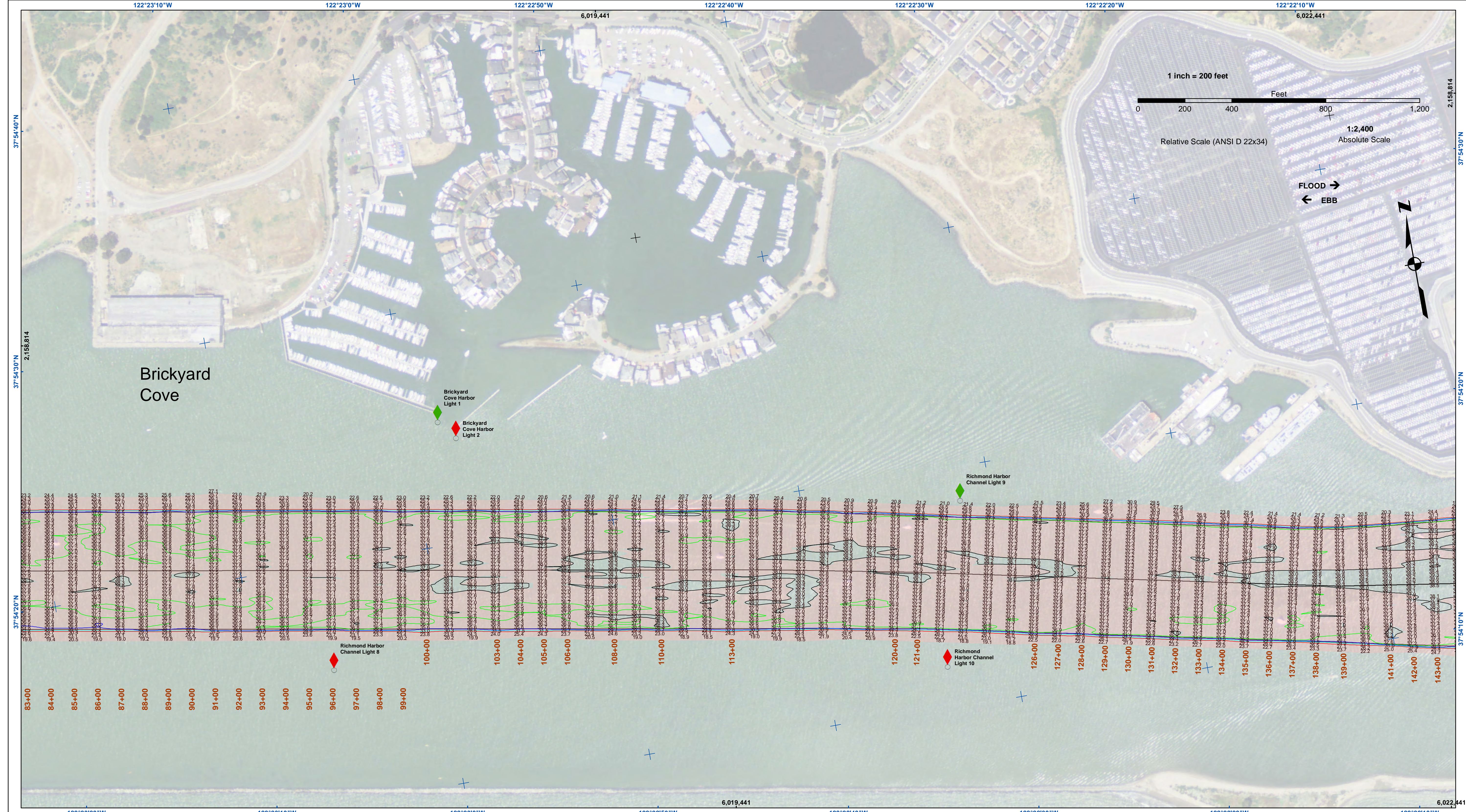


Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-38
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Submerged Wreck		-34
Angle Point		

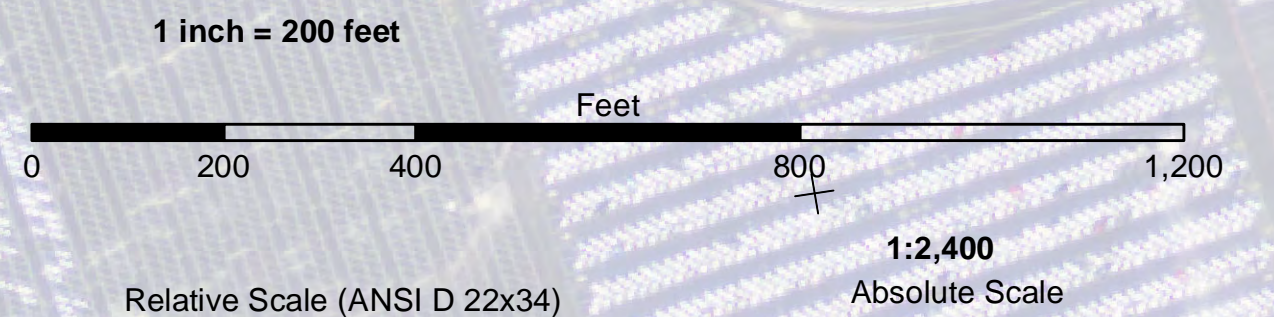
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 SURVEYED BY THE CORPS OF ENGINEERS.
 SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT.
 SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
 BASE MAPS ARE USDA NAIP 2010.
 THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL -37.5 FEET.
 SANTE FE CHANNEL -30 FEET.
 (INNER HARBOR CHANNEL) BENCHMARK A-688 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW.
 B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.
 TIDE GAGE LOCATION: MON B-1.
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 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

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Number
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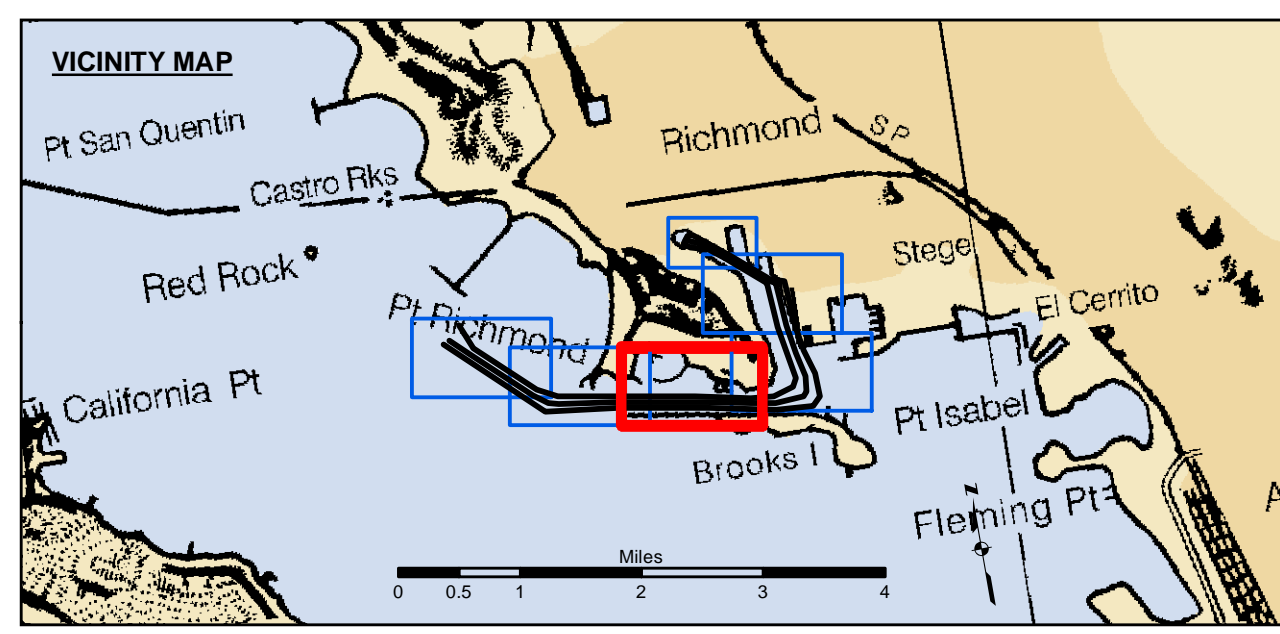


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Chart Date:	Mar 27, 2023
Surveyed By:	KEVIN P. ARNETT
Plotted By:	PDT
Checked By:	PDT
Drawn by:	PDT



Federal Navigation Channel	Beacon, General	Contours
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Angle Point		

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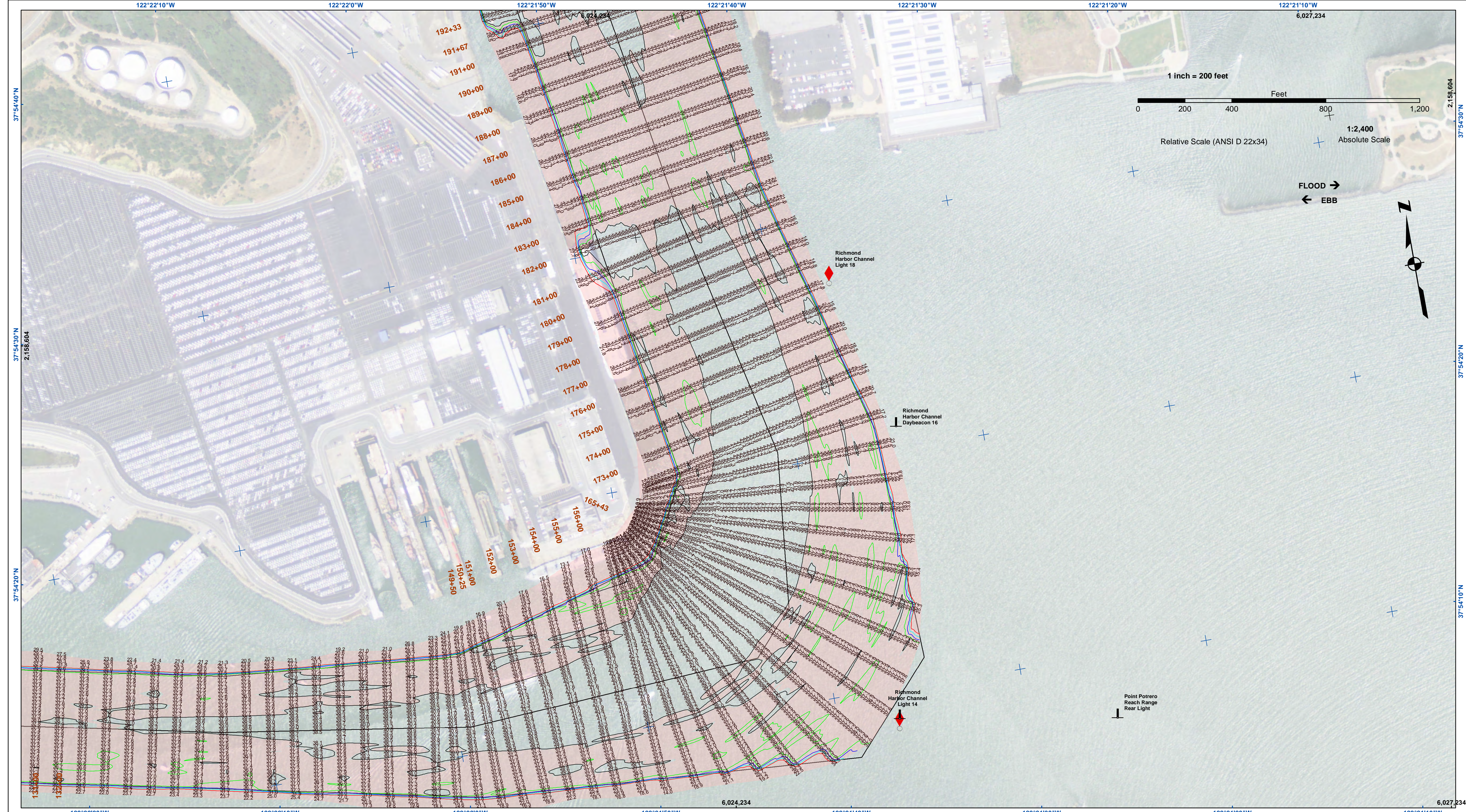
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 SANTE FE CHANNEL -30 FEET.

(INNER HARBOR CHANNEL) BENCHMARK A-658 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 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.
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CALIFORNIA
RICHMOND INNER HARBOR
 CONDITION SURVEY
 13-15 MARCH 2023

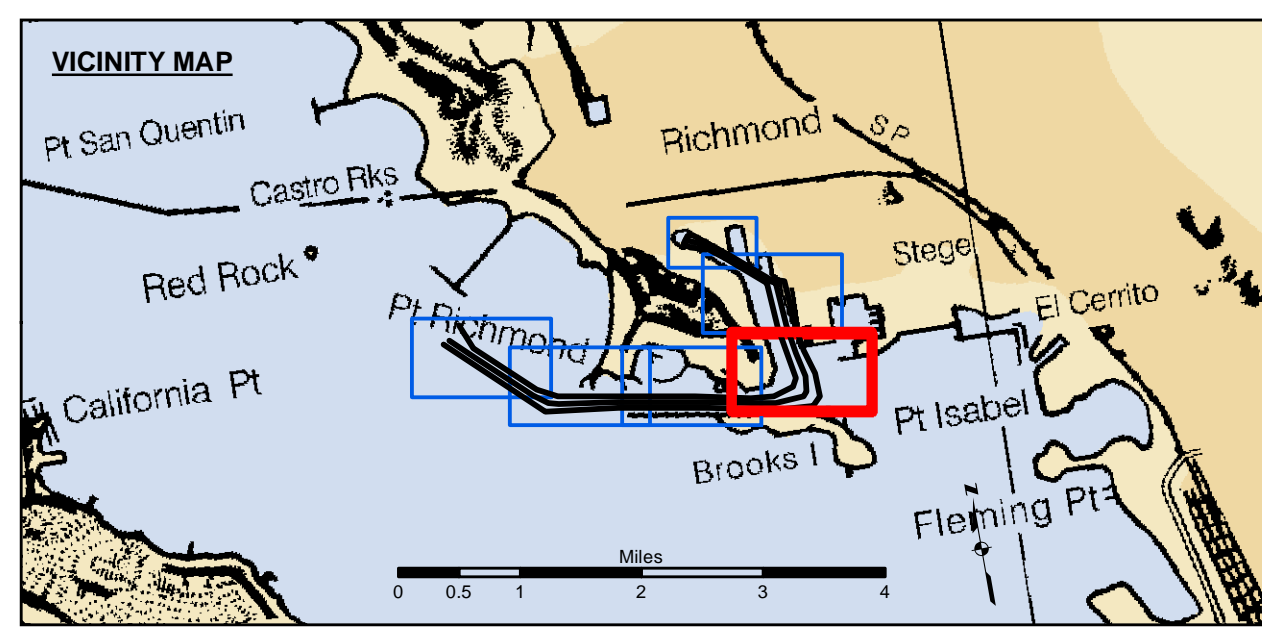


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Chart Date:	Mar 27, 2023
Surveyed By:	KEVIN P. ARNETT
Plotted By:	PDT
Checked By:	PDT
Drawn by:	PDT

CALIFORNIA
RICHMOND INNER HARBOR
 CONDITION SURVEY
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Federal Navigation Channel	Beacon, General	Contours
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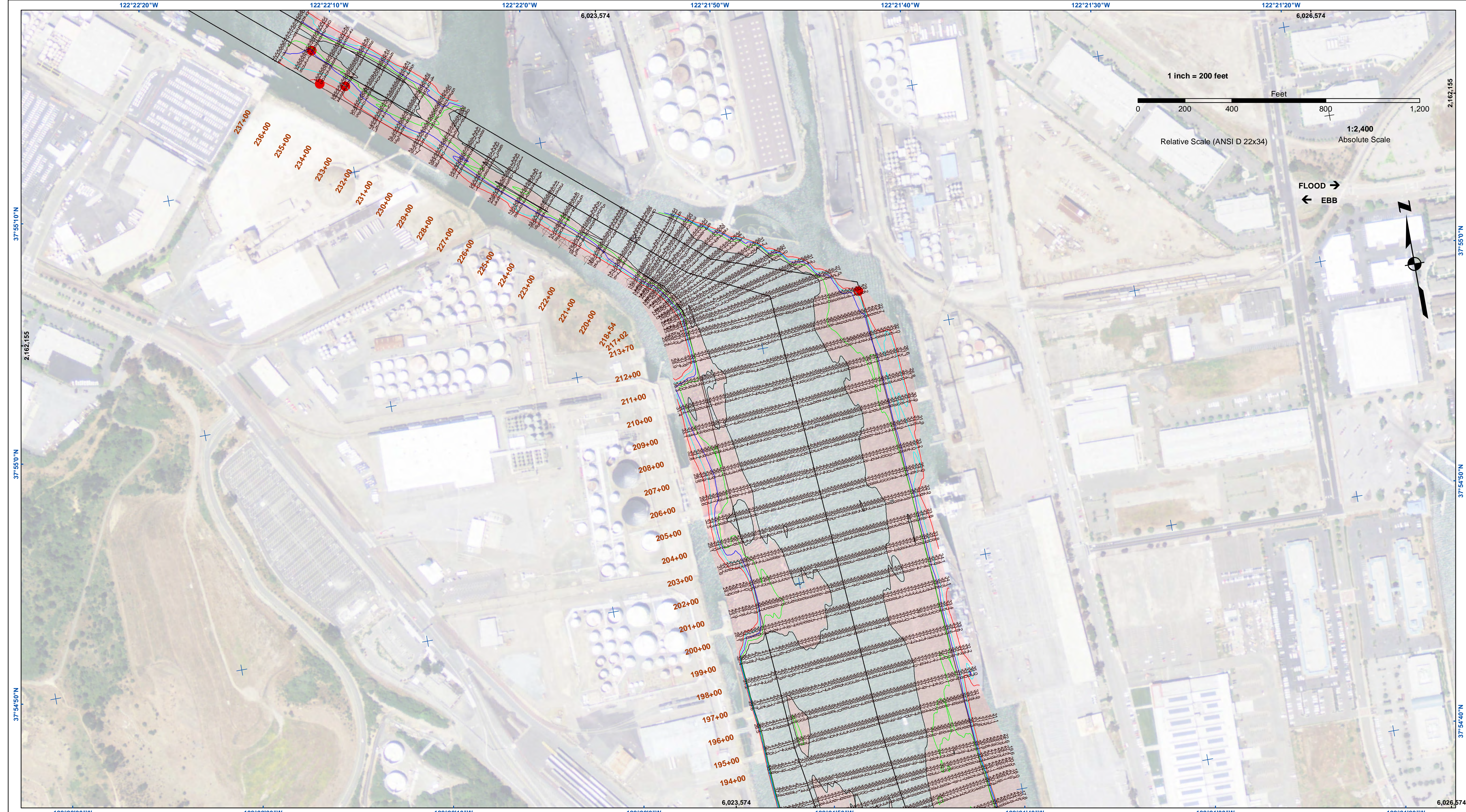
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TIDE GAGE LOCATION: MON B-1.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

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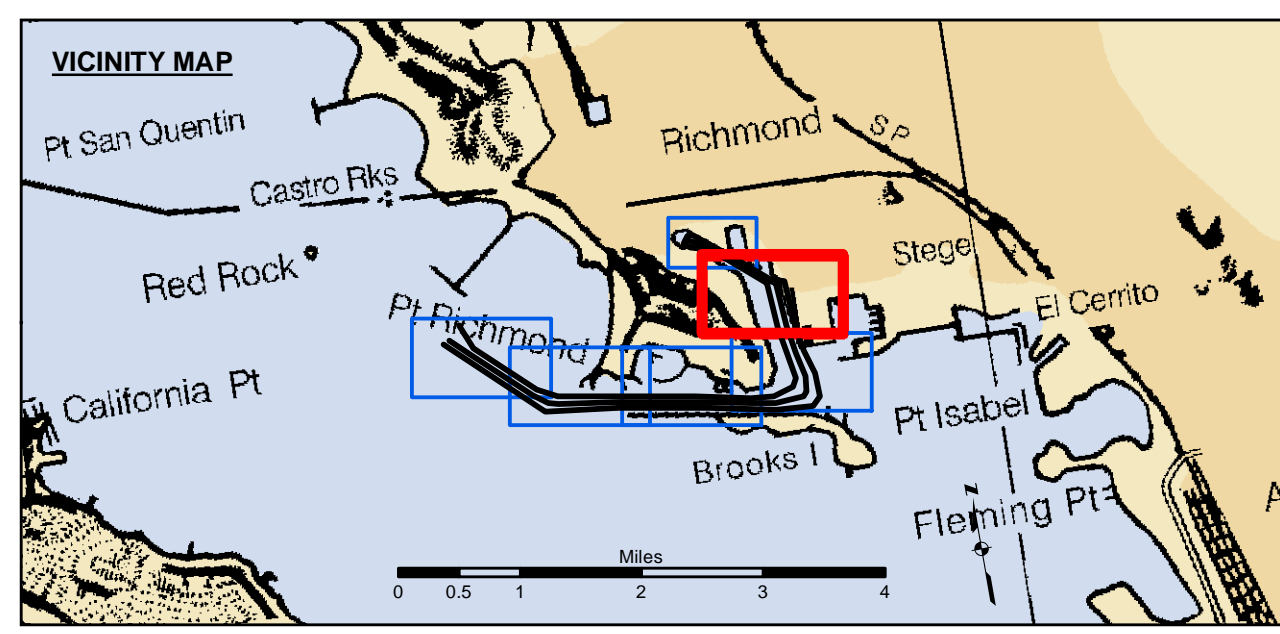
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 San Francisco District
 450 Golden Gate Ave
 San Francisco, CA 94102

1 inch = 200 feet
 Feet
 0 200 400 800 1,200
 Relative Scale (ANSI D 22x34) 1:2,400
 Absolute Scale

FLOOD →
← EBB

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 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

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 13-15 MARCH 2023

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