

AnglePoint	POINT_X	POINT_Y
01	6009617.00	2192346.00
02	6012570.00	2196164.00
03	6016237.00	2199512.00
04	6022215.00	2203334.00
05	6034682.58	2210783.40
06	6047610.83	2213082.81
07	6058067.95	2213781.27
08	6058127.86	2213182.59
09	6057419.43	2213135.37
10	6055005.55	2212266.87
11	6053815.20	2211848.50
12	6047716.66	2212492.26
13	6036383.66	2210459.23
14	6033802.66	2209535.23
15	6022551.66	2202836.23
16	6016604.00	2199034.00
17	6013013.00	2195756.00
18	6010090.00	2191976.00
C01	6009631.93	2192304.35
C02	6012791.00	2195960.00
C03	6016421.00	2199273.00
C04	6022385.00	2203086.12
C05	6033649.18	2209793.00
C06	6034836.66	2210359.38
C07	6036340.65	2210754.51
C08	6047663.65	2212787.53
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C11	6058107.91	2213481.93

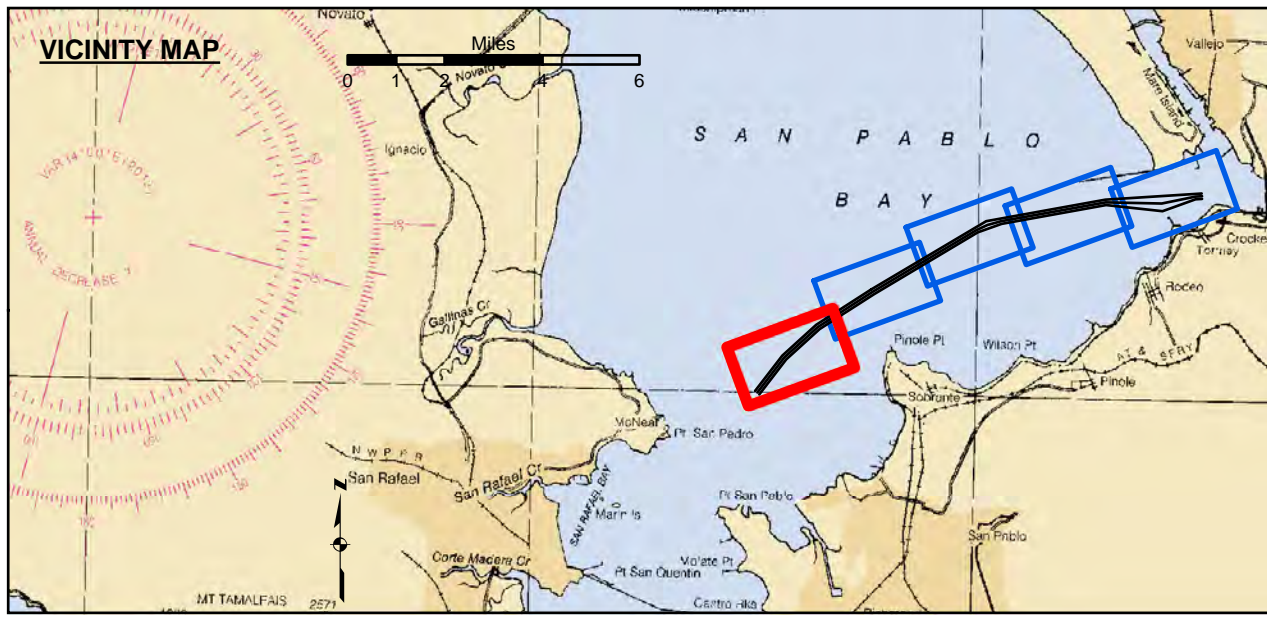
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 San Francisco District  
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 San Francisco, CA 94103

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Chart Date:	Oct 16, 2017
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

CALIFORNIA  
**PINOLE SHOALS**  
 PRE-DREDGE SURVEY  
 8-10 OCTOBER 2017  
 SAN PABLO BAY

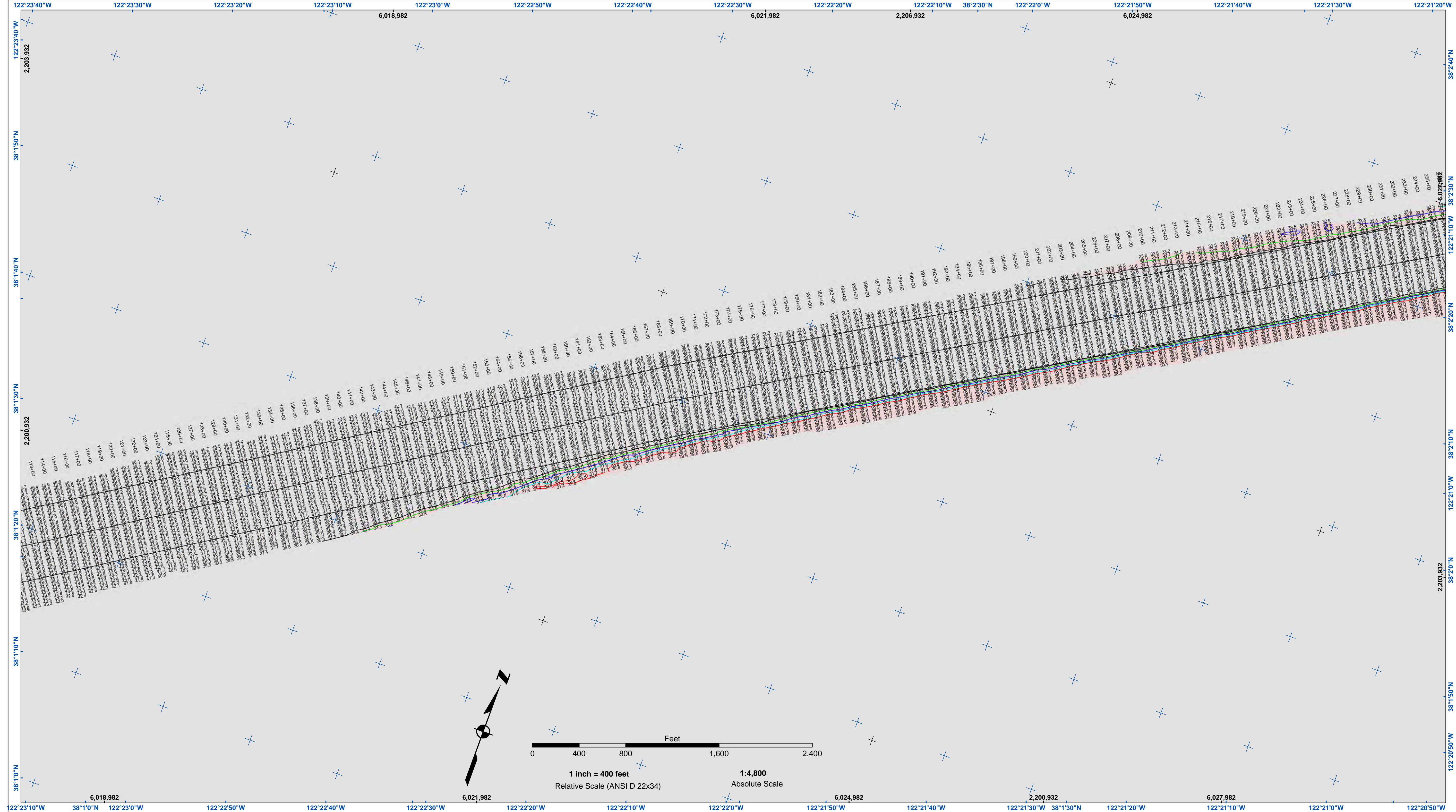
**Sheet Reference Number**  
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Federal Navigation Channel	Beacon, General	Countours
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
Anchorage Area	Navigation Buoy	-33
Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle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

**NOTES:**  
 HORIZONTAL COORDINATE SYSTEM:  
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 SURVEYED BY THE CORPS OF ENGINEERS.  
 THE PROJECT DEPTH IS -35 FEET AT MLLW.  
 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 GPS CONTROL:  
 COAST GUARD D-BEACON  
 VERTICAL CONTROL:  
 BENCHMARK "5056 C" (1976) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM  
 TIDE GAUGE LOCATED AT POINT PINOLE PIER.  
 BENCHMARK "5218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM  
 TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.



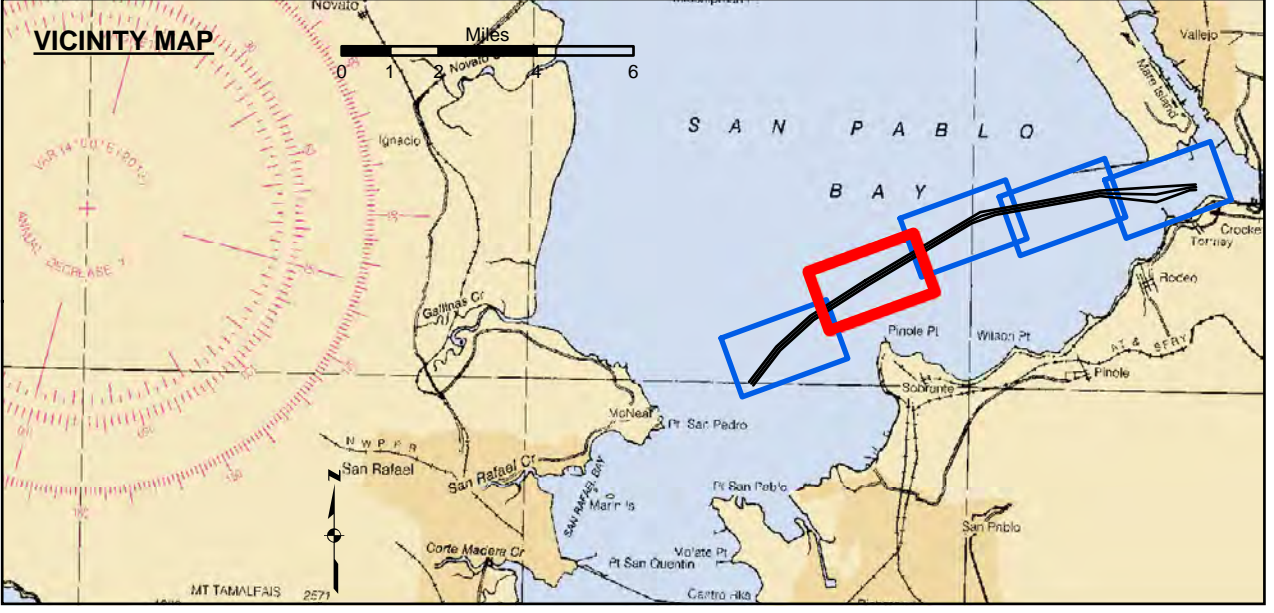
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Chart Date:	Oct 16, 2017
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch
Surveyed By:	Travis J. Rayfield
Plotted By:	PDT
Recommended:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch

CALIFORNIA  
**PINOLE SHOALS**  
 PRE-DREDGE SURVEY  
 8-10 OCTOBER 2017

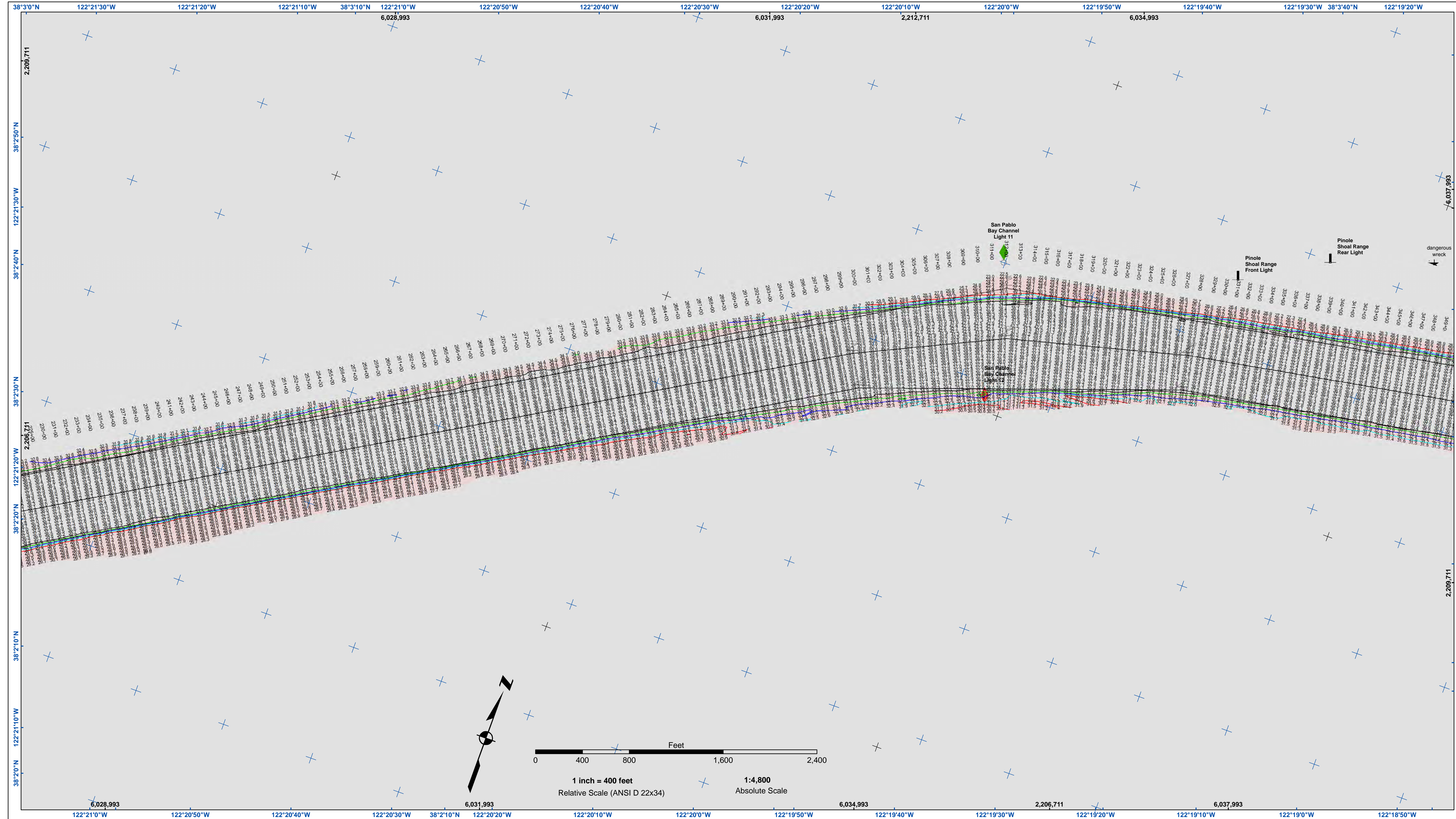
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- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding\*
- Countours
- 35
- 34
- 33
-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

**NOTES:**  
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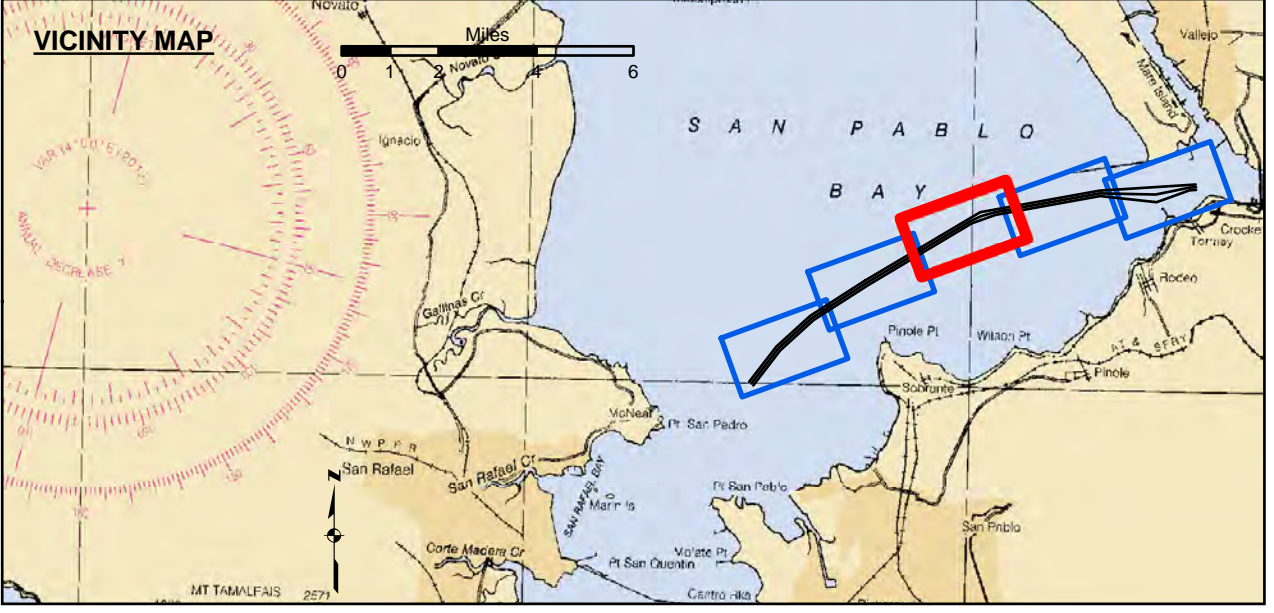
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Prepared Under the Direction of <b>TRAVIS J. RAYFIELD</b> LT Colonel, C.E., District Engineer	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Oct 16, 2017
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	Drawn by: PDT

CALIFORNIA  
**PINOLE SHOALS**  
 PRE-DREDGE SURVEY  
 8-10 OCTOBER 2017

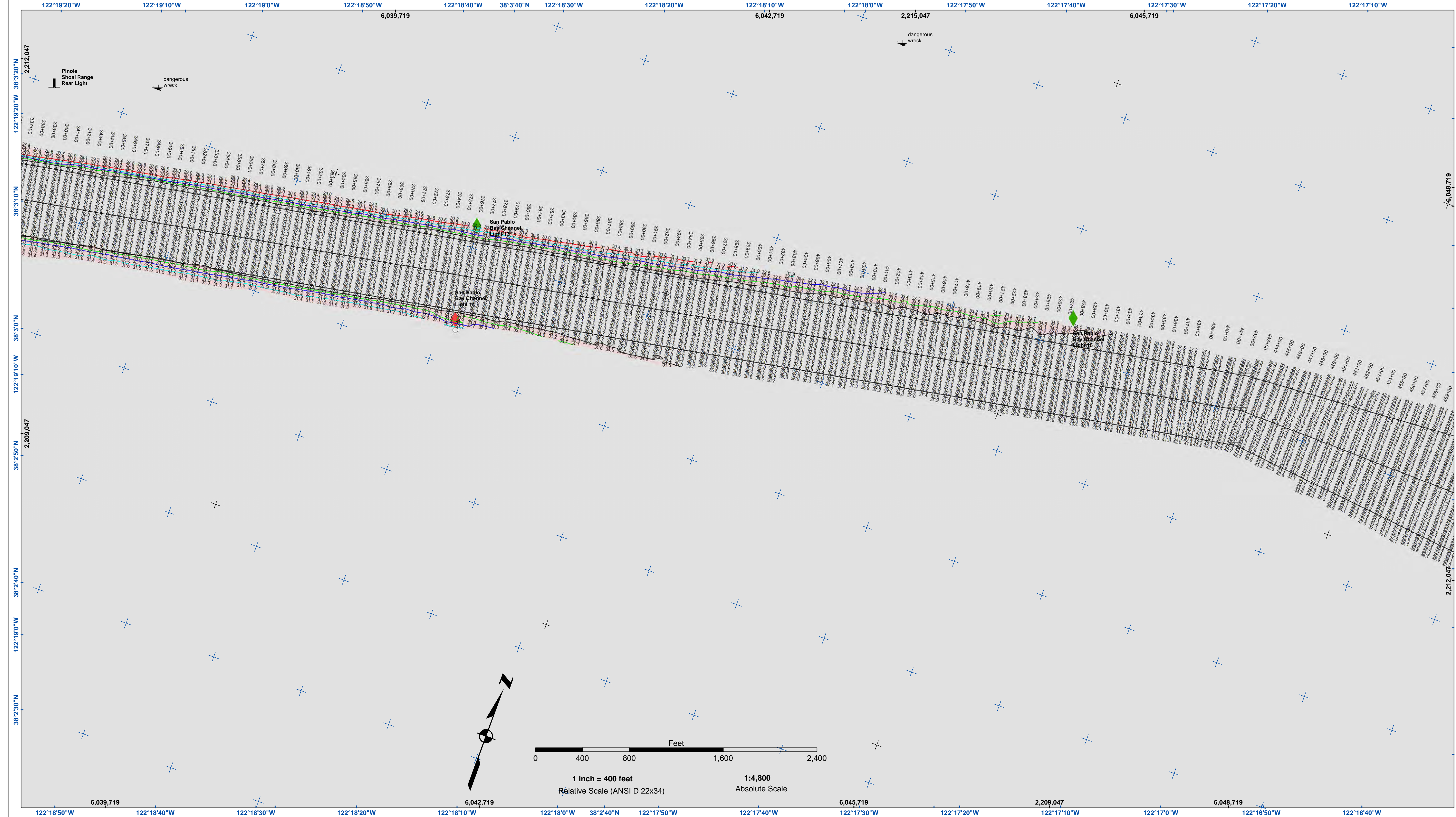
**Sheet Reference Number**  
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Federal Navigation Channel	Beacon, General	Countours
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
Anchorage Area	Navigation Buoy	-33
Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle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

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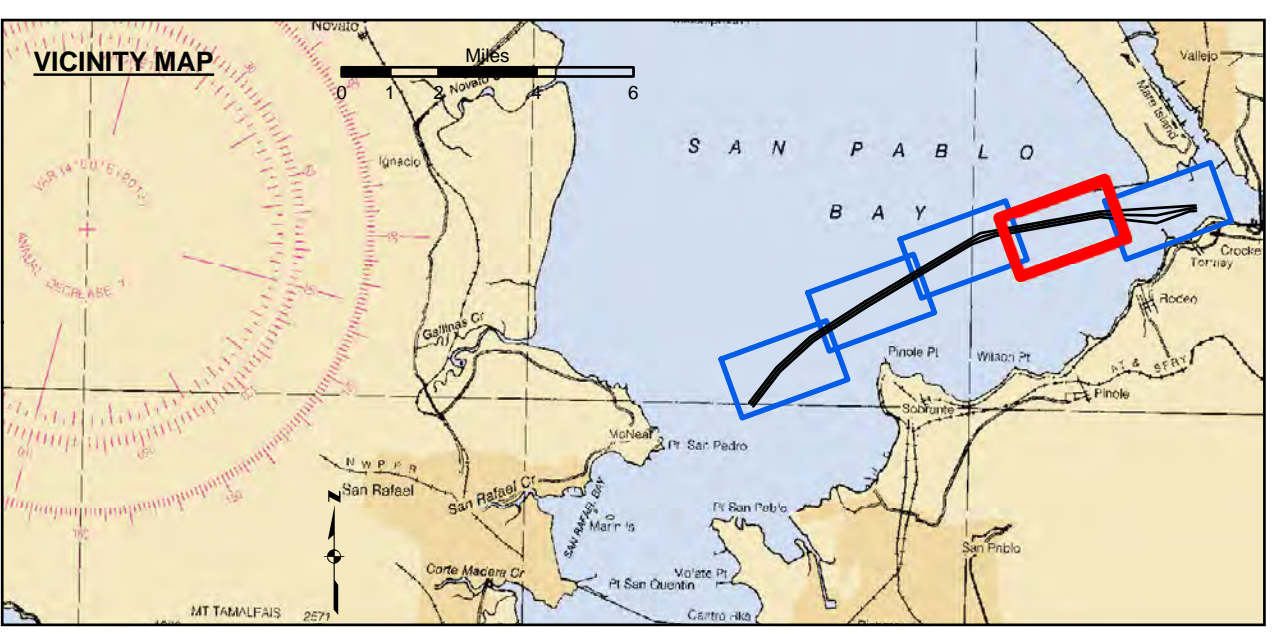
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Prepared Under the Direction of <b>TRAVIS J. RAYFIELD</b> LT COLONEL, C.E., DISTRICT ENGINEER	Chart Date: Oct 16, 2017
Submitted by: Hydro Survey Team Leader	Designed by: PDT
Recommended by: Chief, Hydro Survey Section	Checked by: PDT
Approved by: Chief, Construction Branch	Drawn by: PDT

CALIFORNIA  
**PINOLE SHOALS**  
 PRE-DREDGE SURVEY  
 8-10 OCTOBER 2017  
 SAN PABLO BAY

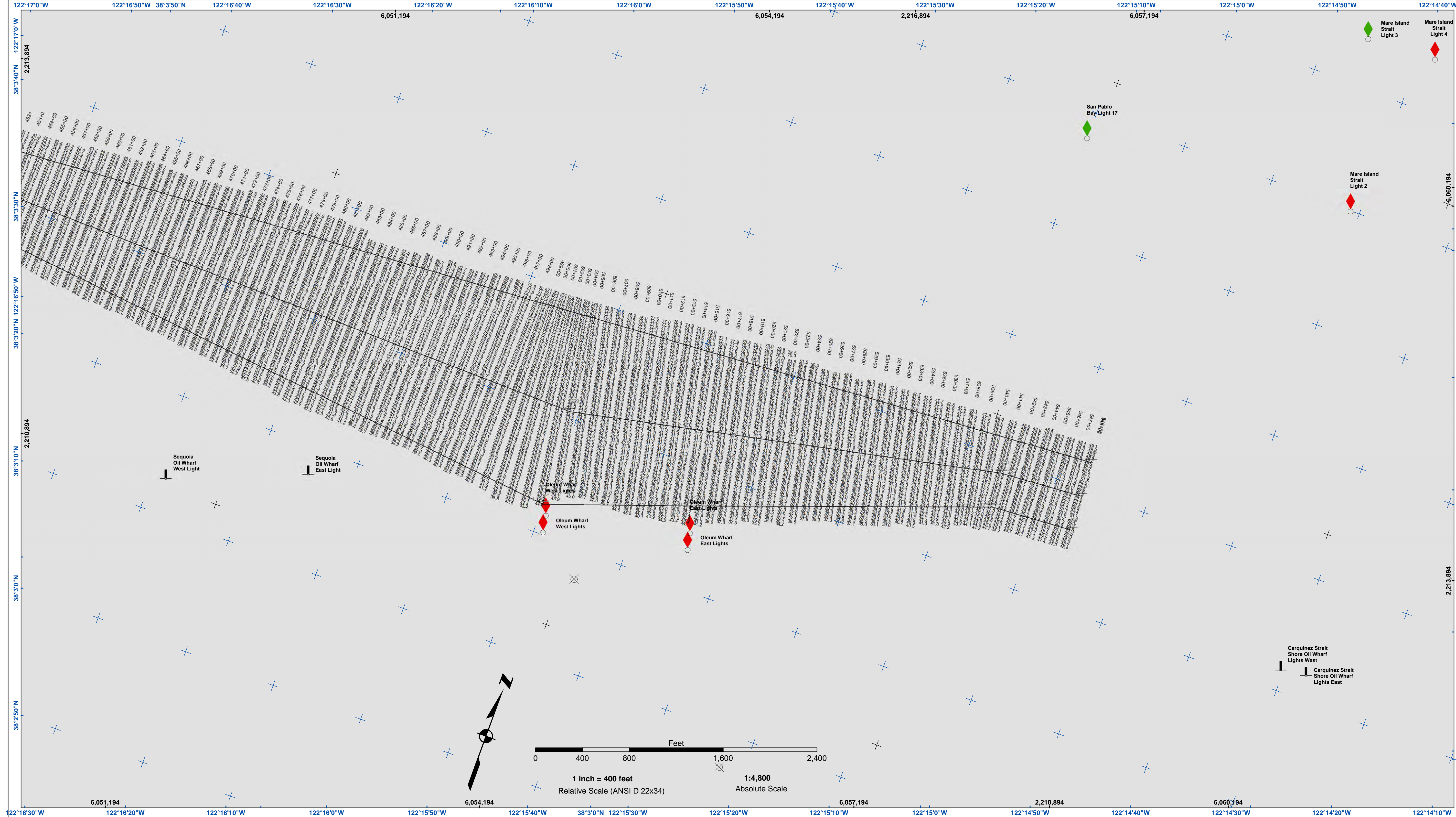
**Sheet Reference Number**  
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- |                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  | -35             |
| Placement Area             | Navigation Buoy    | -34             |
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| Angle Point                |                    |                 |

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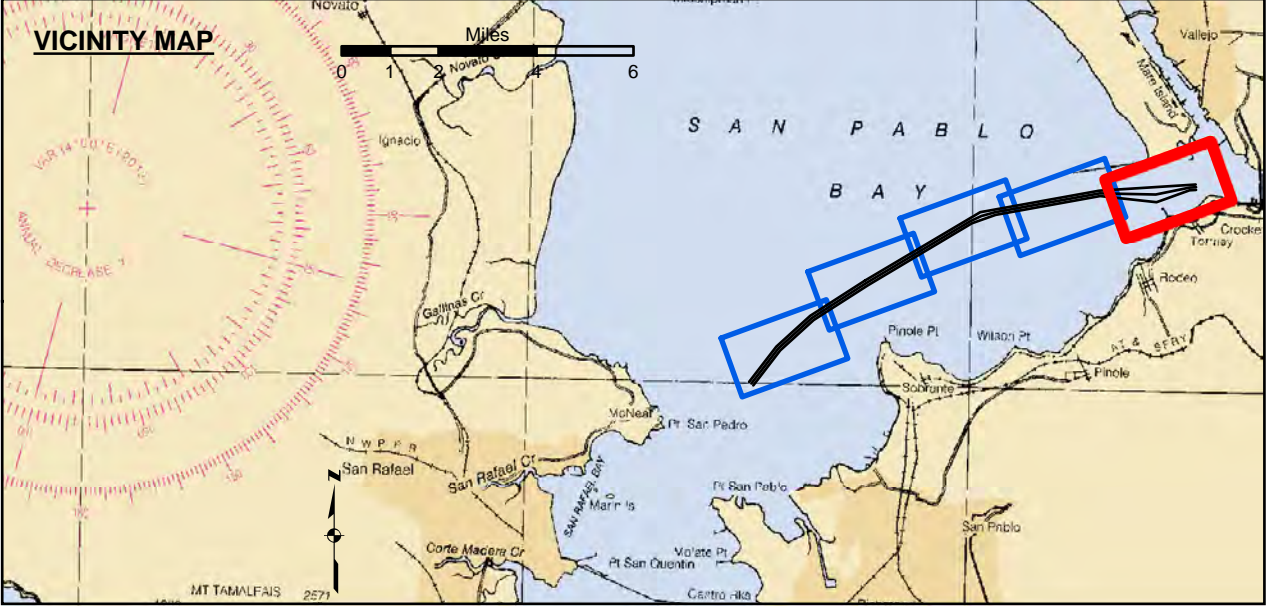


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Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

CALIFORNIA  
**PINOLE SHOALS**  
 PRE-DREDGE SURVEY  
 8-10 OCTOBER 2017  
 SAN PABLO BAY



Federal Navigation Channel	Beacon, General	Countours
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		

**NOTES:**  
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**Sheet Reference Number**  
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