

US Army Corps of Engineers
 San Francisco District
 450 Market Street
 San Francisco, CA 94102

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Chart Date: Mar 27, 2023
Designed by: P.D.T.
Plotted by: P.D.T.
Checked by: P.D.T.
Drawn by: P.D.T.

PREPARED UNDER THE DIRECTION OF
 LT COLONEL C.E. DISTRICT ENGINEER
 NAPA COUNTY
NAPA RIVER
 UPPER NAPA
 POST-DREDGE SURVEY
 19 OCTOBER 2022
 18 & 23 NOVEMBER 2022

Sheet Reference Number
 1 of 25

NAD 83 CENTERLINE ANGLE POINTS											
Δ PT	X	Y	Δ PT	X	Y	Δ PT	X	Y	Δ PT	X	Y
1	6049841.27	2300026.94	49	6049415.67	2285525.34						
2	6049996.07	2298832.24	50	6049450.57	2285335.44						
3	6050201.77	2298606.14	51	6049447.87	2284552.54						
4	6050271.37	2298603.04	52	6049174.77	2283887.14						
5	6050311.17	2299391.54	53	6049217.17	2281356.14						
6	6050292.17	2299310.24	54	6049187.67	2281161.14						
7	6050197.07	2299199.14	55	6048772.57	2278988.04						
8	6050127.97	2299090.24	56	6048459.07	2276600.14						
9	6050092.67	2298961.04	57	6048330.67	2276710.44						
10	6050118.87	2298884.14	58	6048284.17	2276638.34						
11	6050338.87	2298188.84	59	6048169.37	2276408.44						
12	6050401.67	2297999.54	60	6047894.27	2276160.84						
13	6050367.67	2297903.34	61	6047622.37	2275655.44						
14	6049910.47	2296568.44	62	6046811.77	2276063.44						
15	6049815.77	2296196.14	63	6046383.37	2275853.54						
16	6049676.67	2295893.84	64	6046485.07	2275332.84						
17	6049882.67	2295148.94	65	6045988.17	2274481.04						
18	6049882.67	2294828.44	66	6045667.37	2274290.34						
19	6049085.27	2294466.14	67	6045282.97	2274015.64						
20	6049513.87	2294370.84	68	6045249.37	2273848.24						
21	6049687.17	2293288.84	69	6045159.97	2273799.04						
22	6049758.67	2293221.34	70	6045147.37	2273653.54						
23	6050063.67	2292989.34	71	6045083.67	2273525.24						
24	6050148.17	2292728.04	72	6045231.97	2273401.14						
25	6050106.67	2292401.94	73	6045248.77	2273303.34						
26	6050023.87	2292331.94	74	6045242.57	2273252.44						
27	6049973.57	2291537.54	75	6045192.87	2272627.34						
28	6049713.07	2291370.44	76	6045076.77	2272470.24						
29	6049386.07	2291051.84	77	6045108.57	2272379.14						
30	6049403.67	2290942.14	78	6045006.57	2272326.34						
31	6049813.27	2290730.94	79	6045038.97	2272189.24						
32	6049871.07	2290599.84	80	6045089.57	2272145.14						
33	6049887.47	2290334.04	81	6045087.07	2272032.14						
34	6048640.67	2290111.84	82	6045058.77	2271888.24						
35	6048868.27	2289308.84	83	6045071.47	2271857.64						
36	6048944.67	2288995.24	84	6045158.77	2271811.14						
37	6048861.77	2288529.84	85	6045103.77	2271586.34						
38	6048265.67	2288221.44	86	6044851.27	2271690.04						
39	6049301.67	2288140.84	87	6045612.07	2271515.04						
40	6049313.67	2287847.84	88	6046343.47	2271524.44						
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44	6048666.17	2286782.04	92	6048819.87	2274329.54						
45	6048621.67	2286523.44									
46	6048702.07	2286224.34									
47	6048899.87	2285997.74									
48	6049258.67	2285762.84									

Legend

- 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

- 9
- 8
- 7
- 6
- 5

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.

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 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.

SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

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BASE MAPS ARE USDA NAIP 2010.

*SHOALEST SOUNDING PER QUARTER PER REACH

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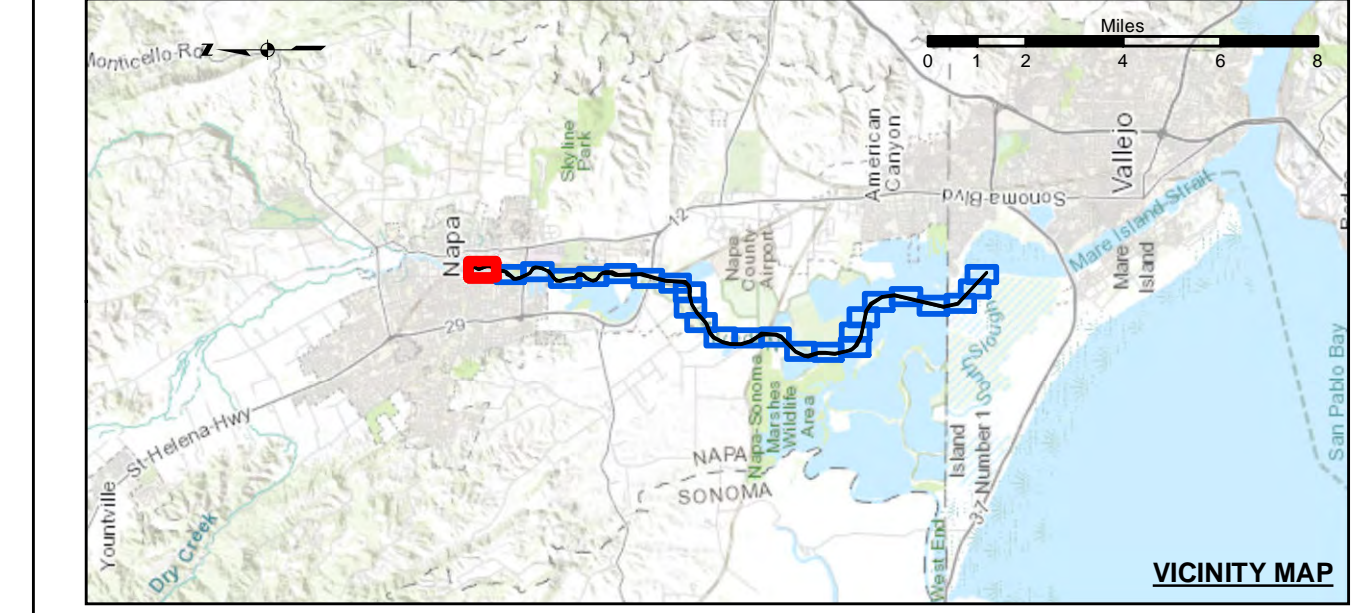
THE PROJECT DEPTH IS 15 FEET FROM ENTRANCE AT THE MARE ISLAND CAUSEWAY TO ASYLUM SLOUGH, THENCE 10 FEET TO HEAD OF NAVIGATION.

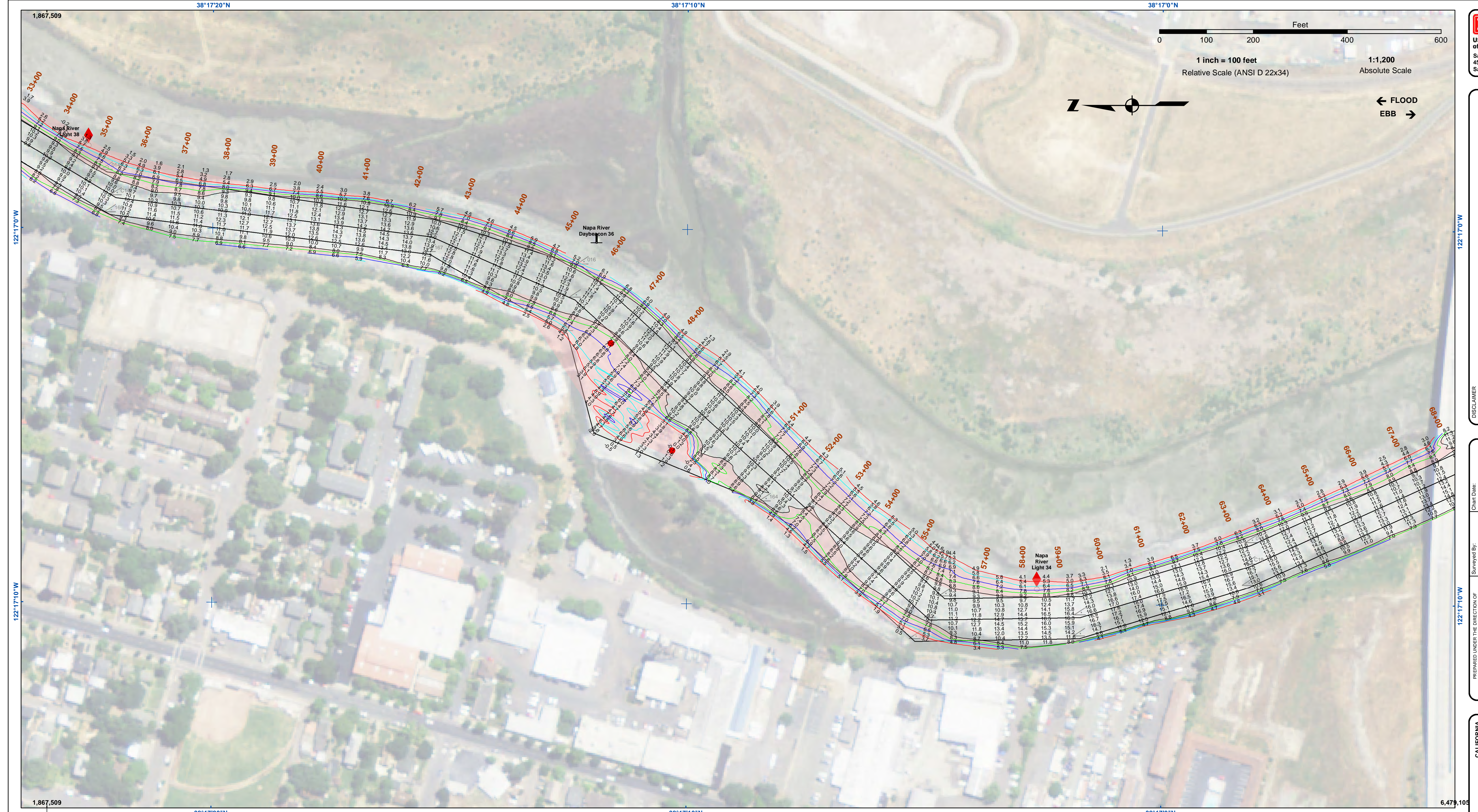
VERTICAL CONTROLS:
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176+00 TO 224+00 - NAPA01 - 2.652m MLLW, 29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED FROM TRANSECT 11 AND NRRP4 USING RTK OBSERVATIONS PID PENDING.

225+00 TO 640+00 - NAPA02 - 3.653m MLLW - 28.241m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.

641+00 TO 692+00 - NAPA03 - 3.553m MLLW - 28.416m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. TRANSFERRED FROM BM 5218 J 1976 VIA RTK ON 4/10/2012 PID PENDING.





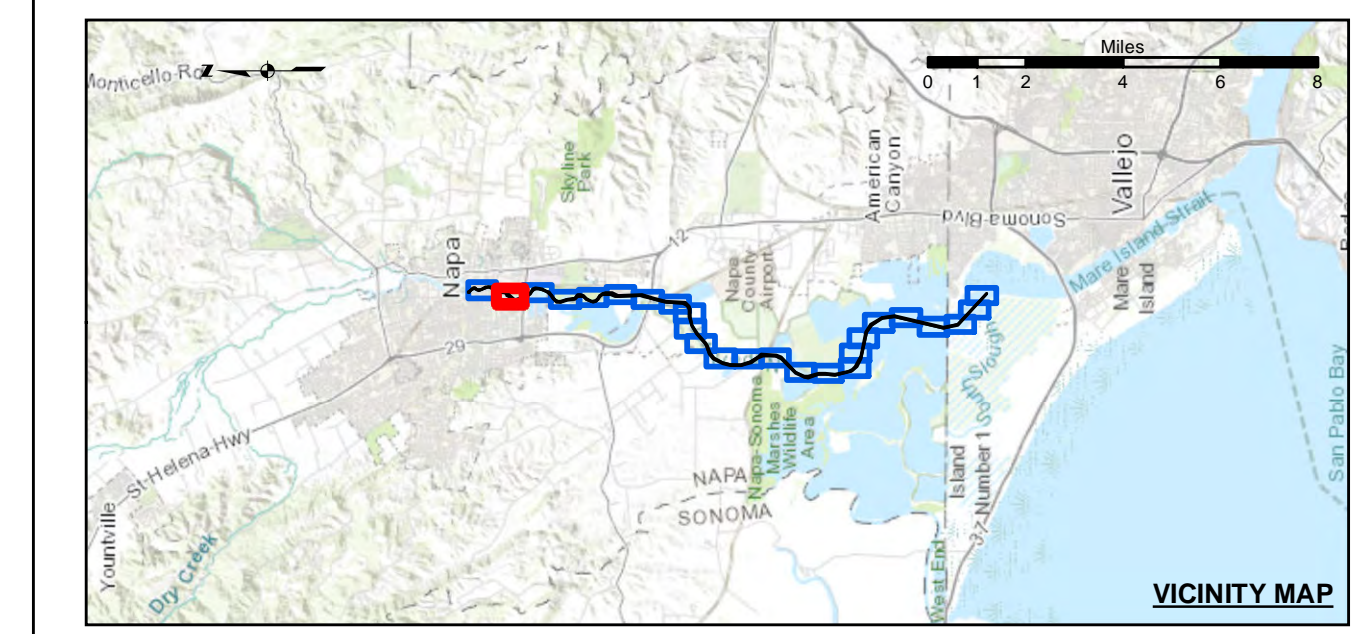
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Chart Date:	Mar 27, 2023
Designed by:	PDT
Drawn by:	PDT
Surveyed by:	KEVIN P. ARNETT
Plotted by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch

CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 UPPER NAPA
 POST-DREDGE SURVEY
 19 OCTOBER 2022
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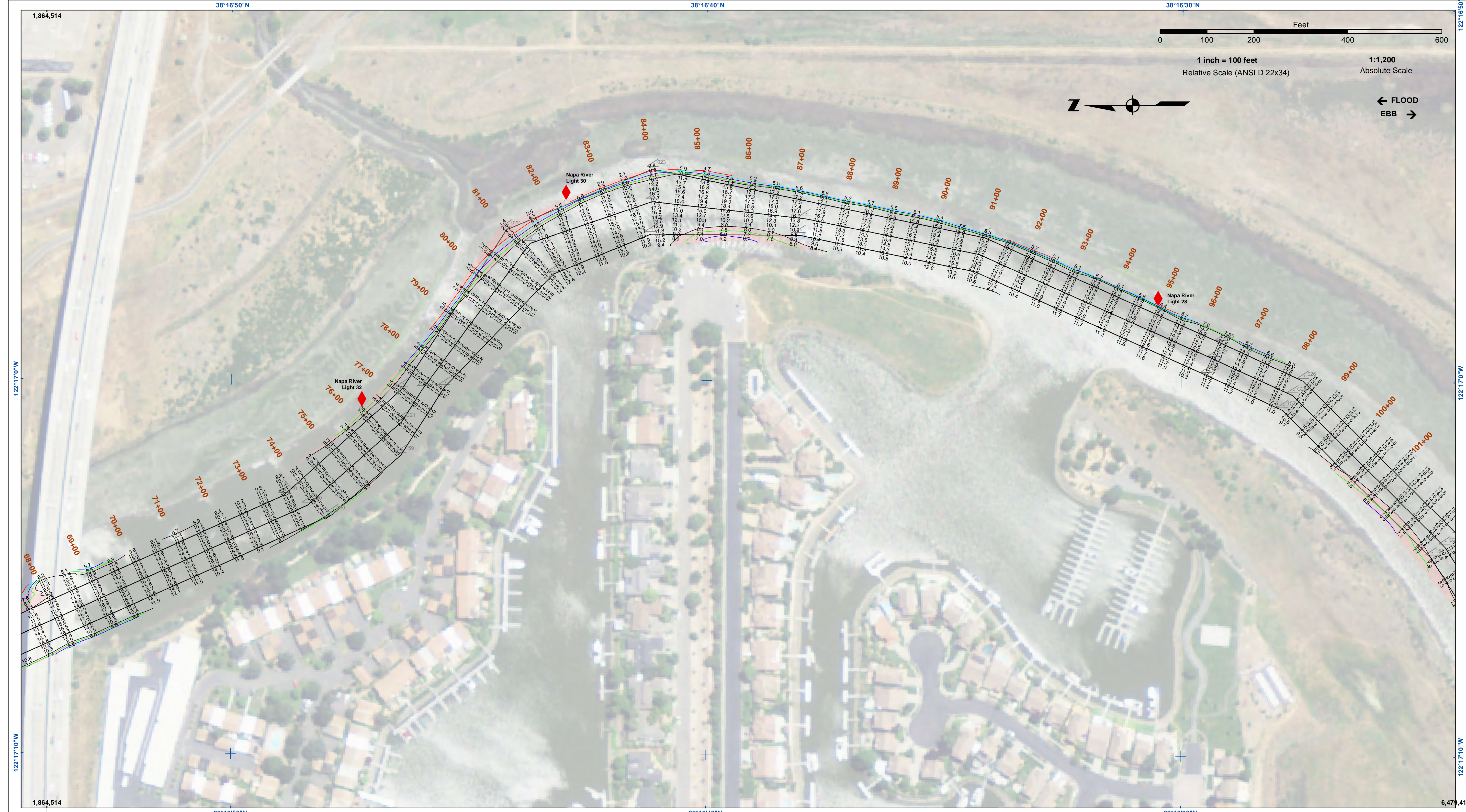
**Sheet
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Federal Navigation Channel	Shoaling Area	Beacon, General	-9
Placement Area	Obstruction Point	Navigation Buoy	-8
Anchorage Area	Navigation Buoy	Navigation Buoy	-7
Wreck Area	Navigation Buoy	Shoalest Sounding*	-6
Submerged Wreck	Shoalest Sounding*		-5
Angle Point			

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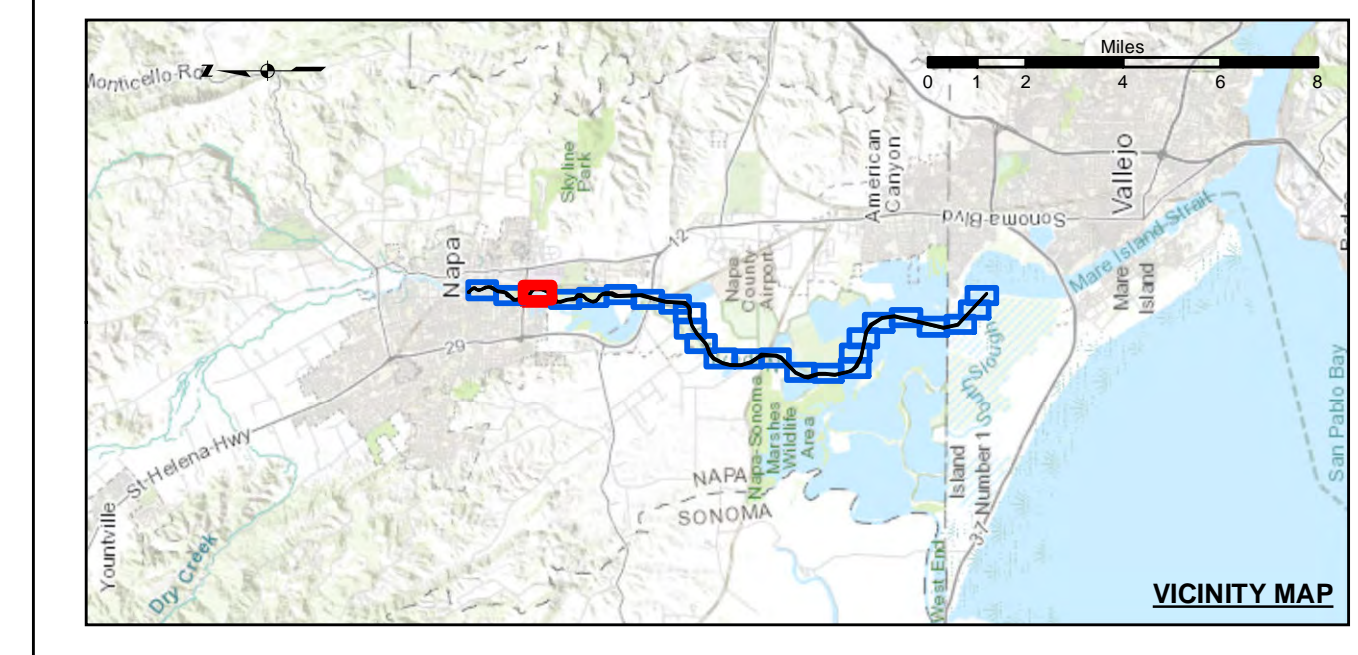
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Surveyed By:	PDT	Designed by:	PDT
Plotted By:	PDT	Checked By:	PDT
Drawn by:	PDT	Approved:	Chief, Construction Branch

CALIFORNIA
NAPA RIVER
 UPPER NAPA
 POST-DREDGE SURVEY
 19 OCTOBER 2022
 18 & 23 NOVEMBER 2022

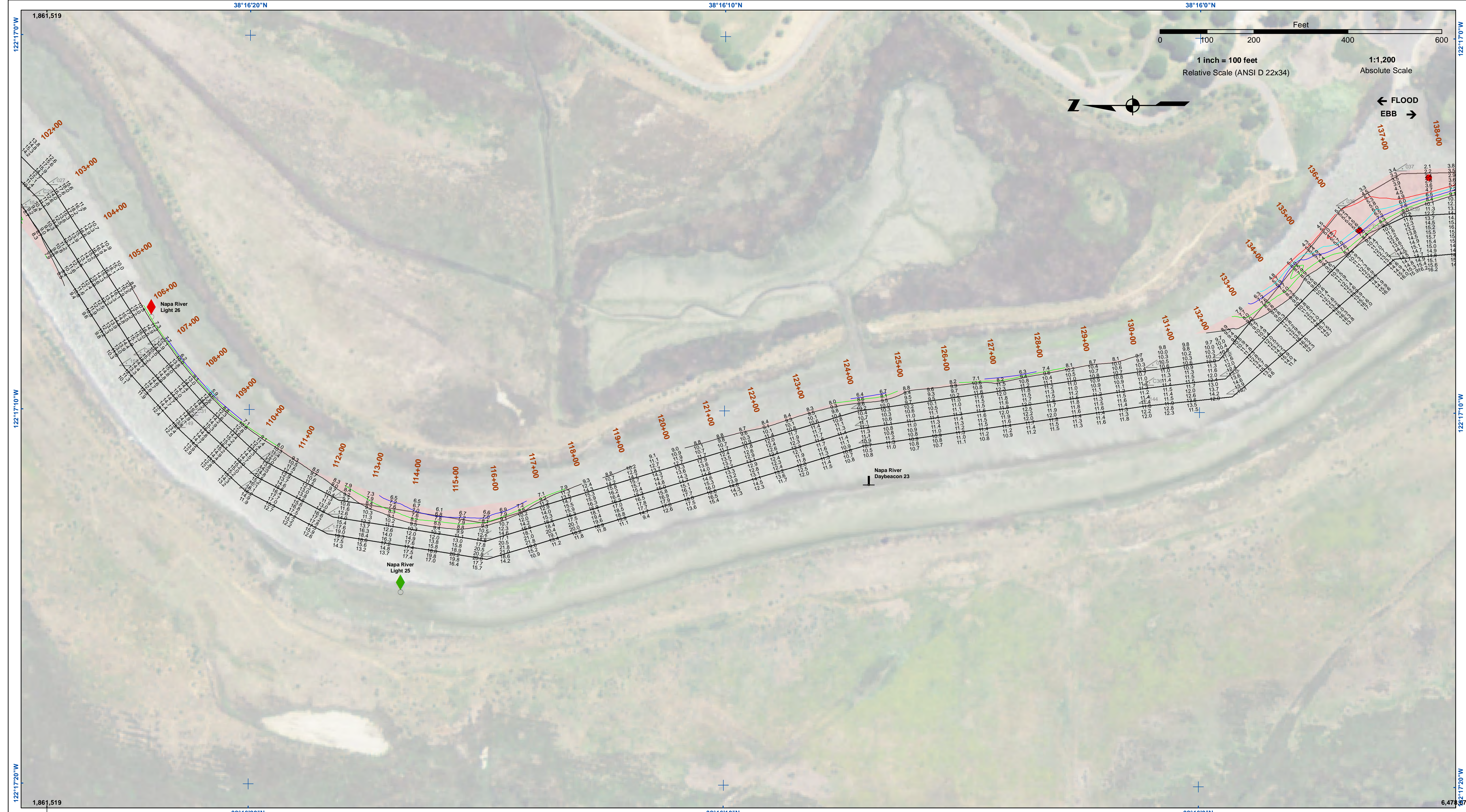
Sheet
Reference
Number
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Federal Navigation Channel	Contours
Shoaling Area	-9
Placement Area	-8
Anchorage Area	-7
Wreck Area	-6
Submerged Wreck	-5
Angle Point	
Beacon, General	
Obstruction Point	
Navigation Buoy	
Navigation Buoy	
Shoalest Sounding*	

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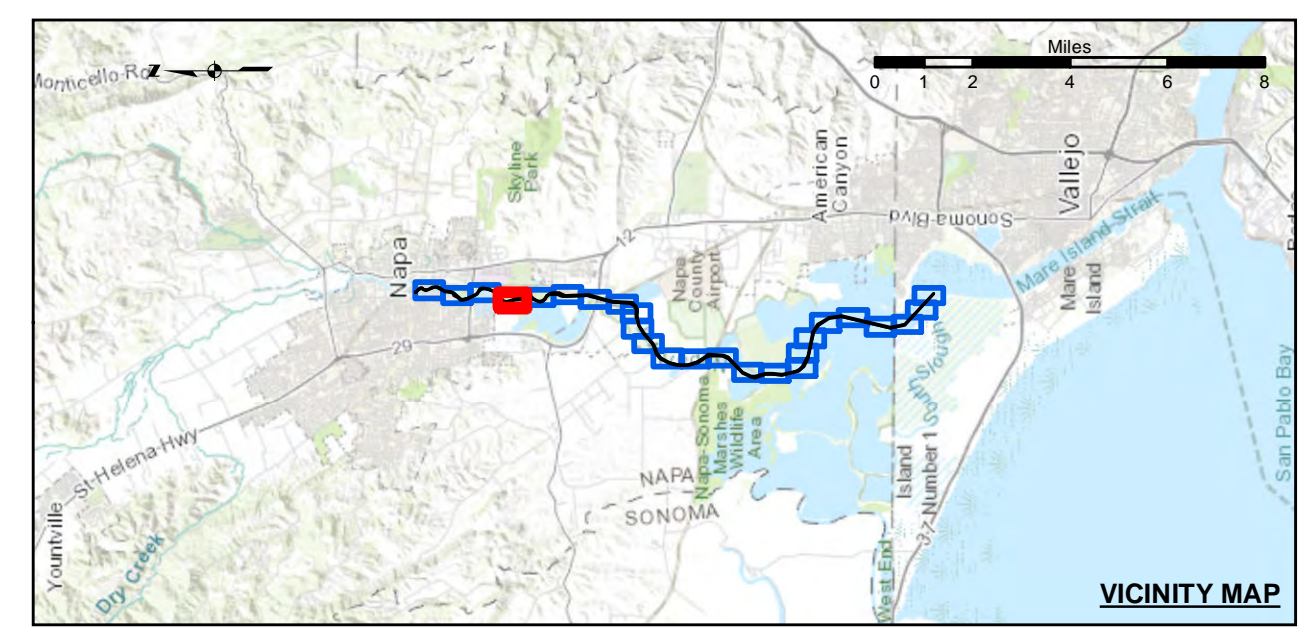
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Chart Date:	Mar 27, 2023
Surveyed By:	KEVIN P. ARNETT
Plotted By:	PDT
Checked By:	PDT
Drawn by:	PDT

CALIFORNIA
 NAPA COUNTY
**NAPA RIVER
 UPPER NAPA
 POST-DREDGE SURVEY**
 19 OCTOBER 2022
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Federal Navigation Channel	Shoaling Area	Beacon, General	-9
Placement Area	Anchorage Area	Obstruction Point	-8
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Angle Point			-5

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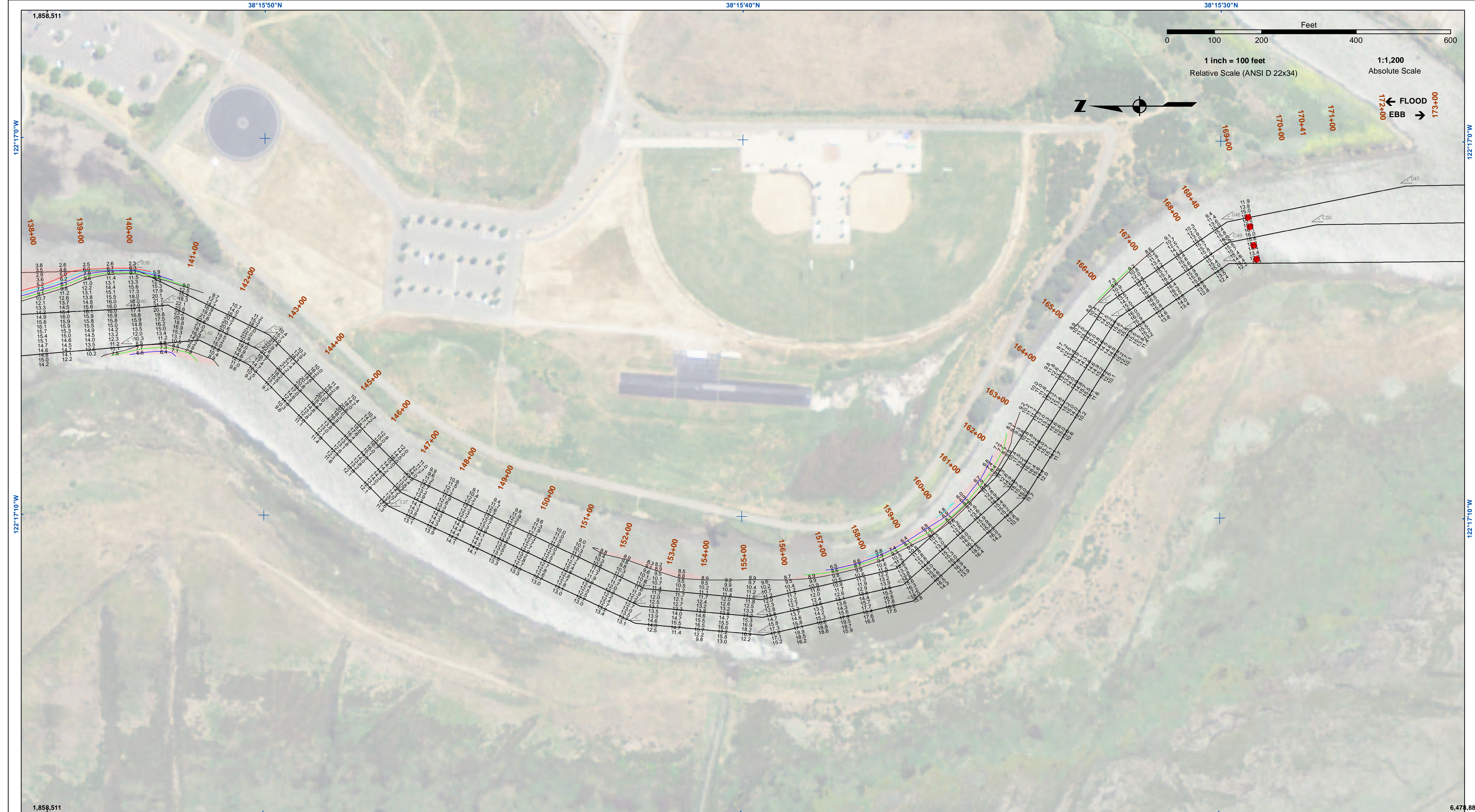
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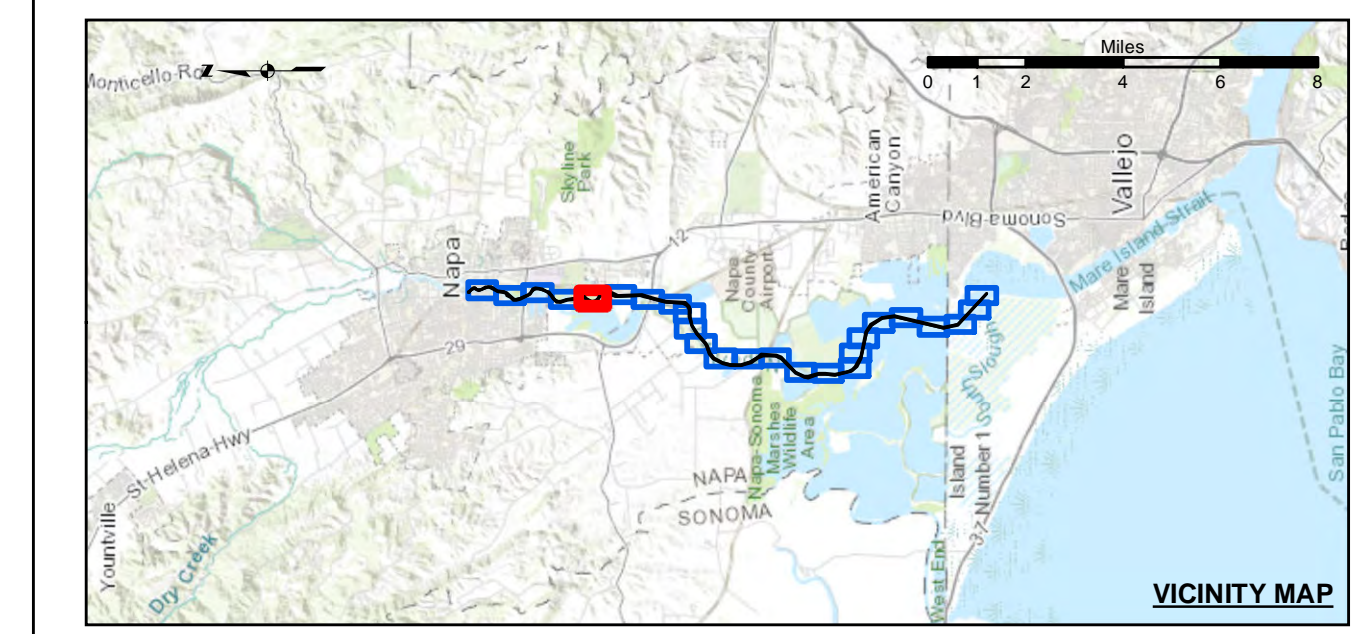
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KEVIN P. ARNETT	Mar 27, 2023
Surveyed By	Plotted By
PDT	PDT
Checked By	Drawn by
PDT	PDT

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Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
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Submerged Wreck		-9
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 0+00 TO 175+00 - NRFP4 - 30.54ft - USACE - RTK BASE STATION TRANSECT 11 - 6.593m MLLW - USACE - MLLW LEVELED FROM 20 AND TIDAL 5 FROM TIDE STATION 941 5623 ON 3/29/2012.

176+00 TO 224+00 - NAPA01 - 2.652m MLLW - 29.111m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED FROM TRANSECT 11 AND NRFP4 USING RTK OBSERVATIONS PID PENDING.

225+00 TO 640+00 - NAPA02 - 3.653m MLLW - 28.241m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. CALCULATED BY INTERPOLATING ELEVATIONS BETWEEN NOAA TIDE STATIONS 941 5623 AND 941 5218 PID PENDING.

641+00 TO 692+00 - NAPA03 - 3.553m MLLW - 28.416m WGS-84 - USACE - RTK BASE STATION WGS-84 ELEVATION FROM OPUS SOLUTION MLLW ELEV. TRANSFERRED FROM BM 5218 J 1976 VIA RTK ON 4/10/2012 PID PENDING.