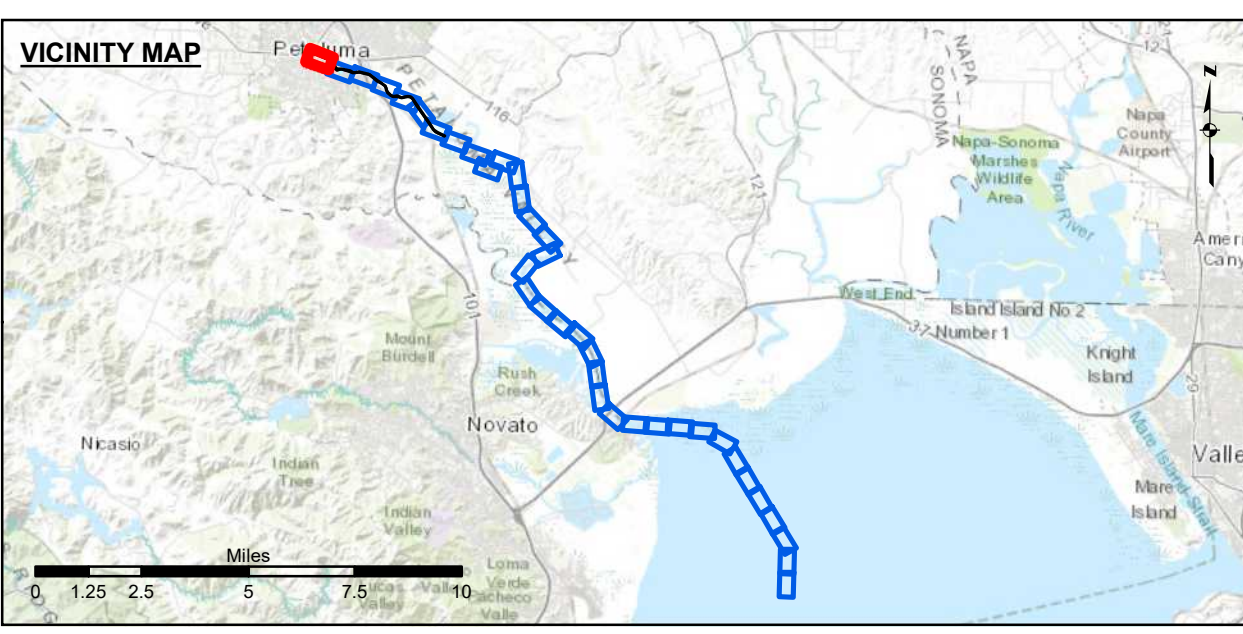




NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.95	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276569.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275112.45	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277202.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
Δ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947589.22	2279022.85
4	5947610.92	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.52	2278963.85
9	5948292.92	2278963.85
10	5948328.82	2278952.85
11	5948876.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.02	2277558.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950989.62	2277159.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953495.12	2276800.85
23	5953589.72	2276792.85
24	5954176.82	2276918.85
25	5954274.82	2276508.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276578.85
29	5954483.22	2276575.85
30	5954495.02	2276582.85
31	5954601.52	2276539.85
32	5954705.42	2276482.85
33	5955751.32	2275718.85
34	5956198.42	2275455.85
35	5956971.52	2275084.85
36	5957888.22	2274868.85
37	5958731.12	2274515.85
38	5957001.32	2274289.85
39	5957359.02	2273914.85
40	5957704.82	2273783.85
41	5958189.42	2273821.85
42	5958725.42	2273635.85
43	5959095.42	2273805.85
44	5959358.42	2273707.85
45	5959098.92	2273498.85
46	5959548.52	2272735.85
47	5962183.02	2270453.85
48	5962668.22	2269999.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	-8
Anchorage Area	Navigation Buoy	-7
Wreck Area	Shoalest Sounding*	-6
Submerged Wreck		-5
Angle Point		-4

NOTES:
 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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.
 SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
 SURVEY CONTROL:
 NOAA TIDE STATION:
 941584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016
 PRIMARY PROJECT CONTROL POINT
 5584 F 2014
 PID: BBDJ93

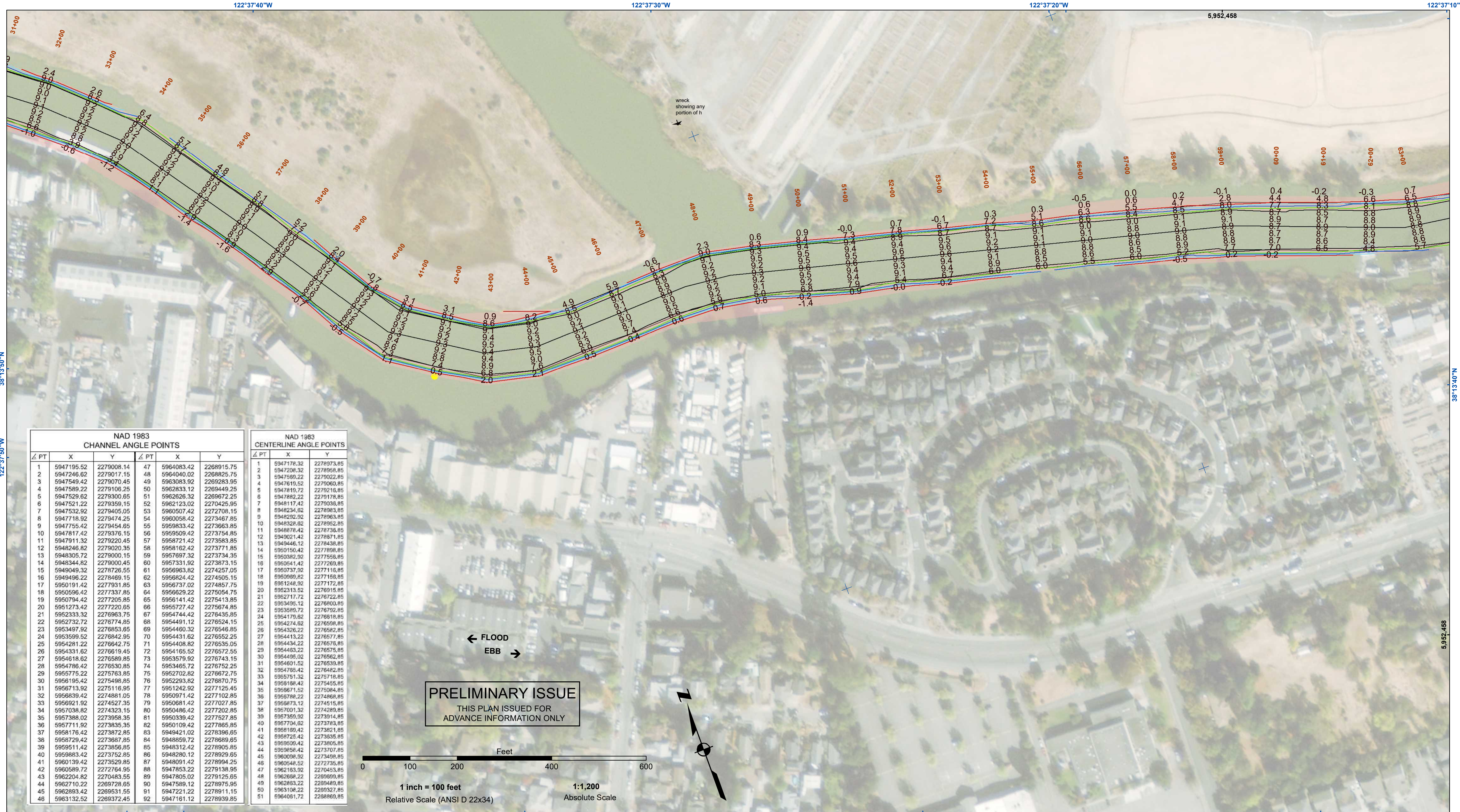
PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
 PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.
 ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004



DISCLAIMER:
 The United States Government furnishes this information for your use only. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose.

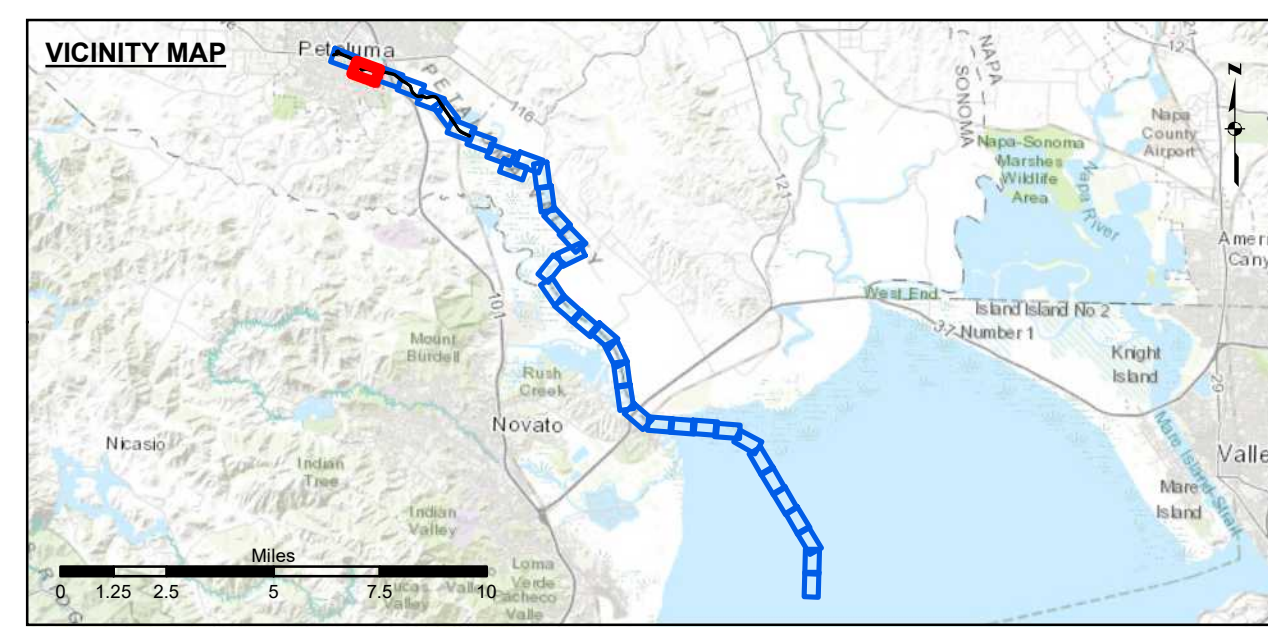
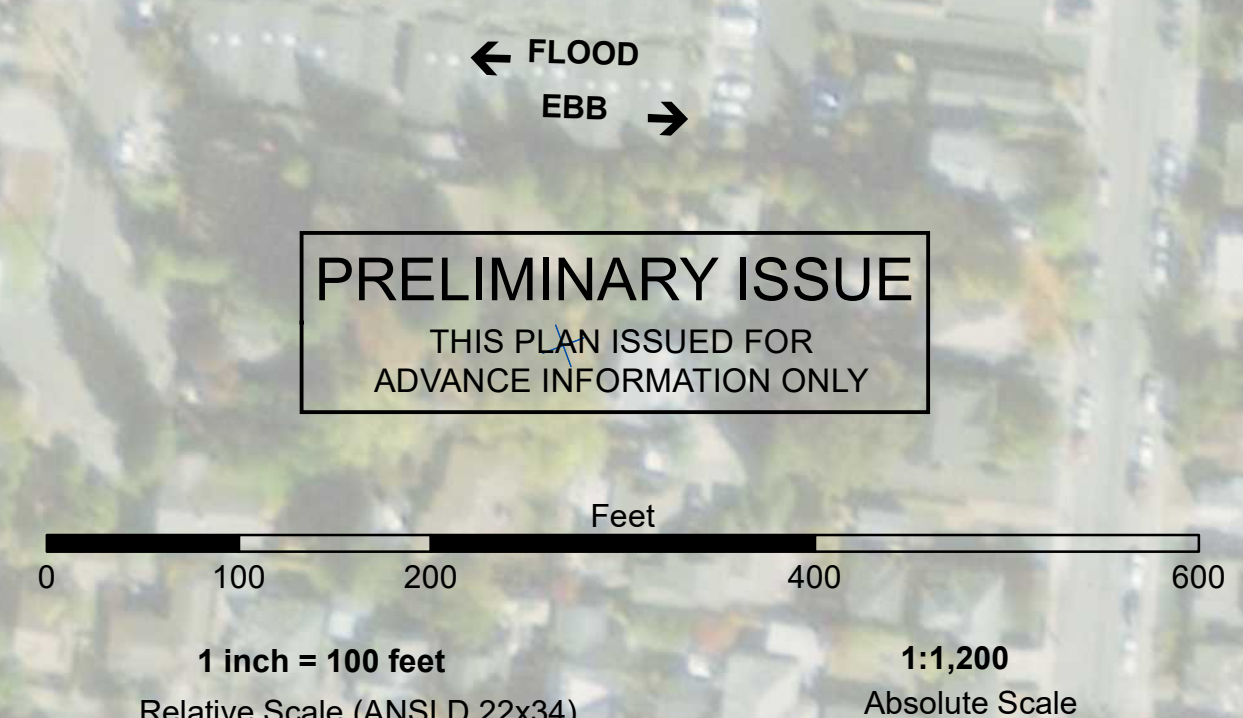
Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed By:	
Plotted By:	
Checked By:	PDT

SONOMA COUNTY
 CALIFORNIA
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020



NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963803.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.95	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277937.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.52	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275783.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.65
39	5959511.42	2273856.85	85	5948312.42	2279005.85
40	5959883.42	2273752.85	86	5948280.12	2279292.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.82	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947178.32	2278973.85	1	5947178.32	2278973.85
2	5947208.32	2278958.85	2	5947208.32	2278958.85
3	5947589.22	2279022.85	3	5947589.22	2279022.85
4	5947610.52	2279060.85	4	5947610.52	2279060.85
5	5947819.72	2279216.85	5	5947819.72	2279216.85
6	5947882.22	2279178.85	6	5947882.22	2279178.85
7	5948117.42	2279038.85	7	5948117.42	2279038.85
8	5948234.52	2278963.85	8	5948234.52	2278963.85
9	5948292.92	2278963.85	9	5948292.92	2278963.85
10	5948328.82	2278952.85	10	5948328.82	2278952.85
11	5948876.42	2278738.85	11	5948876.42	2278738.85
12	5949021.42	2278671.85	12	5949021.42	2278671.85
13	5949446.12	2278438.85	13	5949446.12	2278438.85
14	5950150.42	2277898.85	14	5950150.42	2277898.85
15	5950382.92	2277558.85	15	5950382.92	2277558.85
16	5950541.42	2277269.85	16	5950541.42	2277269.85
17	5950737.02	2277116.85	17	5950737.02	2277116.85
18	5950989.62	2277159.85	18	5950989.62	2277159.85
19	5951248.92	2277172.85	19	5951248.92	2277172.85
20	5952313.52	2276915.85	20	5952313.52	2276915.85
21	5952717.72	2276722.85	21	5952717.72	2276722.85
22	5953495.12	2276800.85	22	5953495.12	2276800.85
23	5953589.72	2276792.85	23	5953589.72	2276792.85
24	5954176.82	2276918.85	24	5954176.82	2276918.85
25	5954274.82	2276598.85	25	5954274.82	2276598.85
26	5954326.22	2276582.85	26	5954326.22	2276582.85
27	5954413.22	2276577.85	27	5954413.22	2276577.85
28	5954434.22	2276578.85	28	5954434.22	2276578.85
29	5954483.22	2276575.85	29	5954483.22	2276575.85
30	5954495.02	2276582.85	30	5954495.02	2276582.85
31	5954601.52	2276539.85	31	5954601.52	2276539.85
32	5954705.42	2276482.85	32	5954705.42	2276482.85
33	5955751.32	2275718.85	33	5955751.32	2275718.85
34	5956198.42	2275455.85	34	5956198.42	2275455.85
35	5956871.52	2275084.85	35	5956871.52	2275084.85
36	5956788.22	2274868.85	36	5956788.22	2274868.85
37	5956873.12	2274515.85	37	5956873.12	2274515.85
38	5957001.32	2274289.85	38	5957001.32	2274289.85
39	5957359.02	2273914.85	39	5957359.02	2273914.85
40	5957704.82	2273783.85	40	5957704.82	2273783.85
41	5958189.42	2273821.85	41	5958189.42	2273821.85
42	5958725.42	2273635.85	42	5958725.42	2273635.85
43	5959095.42	2273805.85	43	5959095.42	2273805.85
44	5959358.42	2273707.85	44	5959358.42	2273707.85
45	5960008.92	2273498.85	45	5960008.92	2273498.85
46	5960548.52	2272735.85	46	5960548.52	2272735.85
47	5962183.92	2270453.85	47	5962183.92	2270453.85
48	5962668.22	2269999.85	48	5962668.22	2269999.85
49	5962863.22	2269489.85	49	5962863.22	2269489.85
50	5963108.22	2269327.85	50	5963108.22	2269327.85
51	5964091.72	2268869.85	51	5964091.72	2268869.85



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
Anchorage Area	Navigation Buoy	
Wreck Area	Shoalest Sounding*	
Submerged Wreck		-8
Angle Point		-7
		-6
		-5
		-4

NOTES:

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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

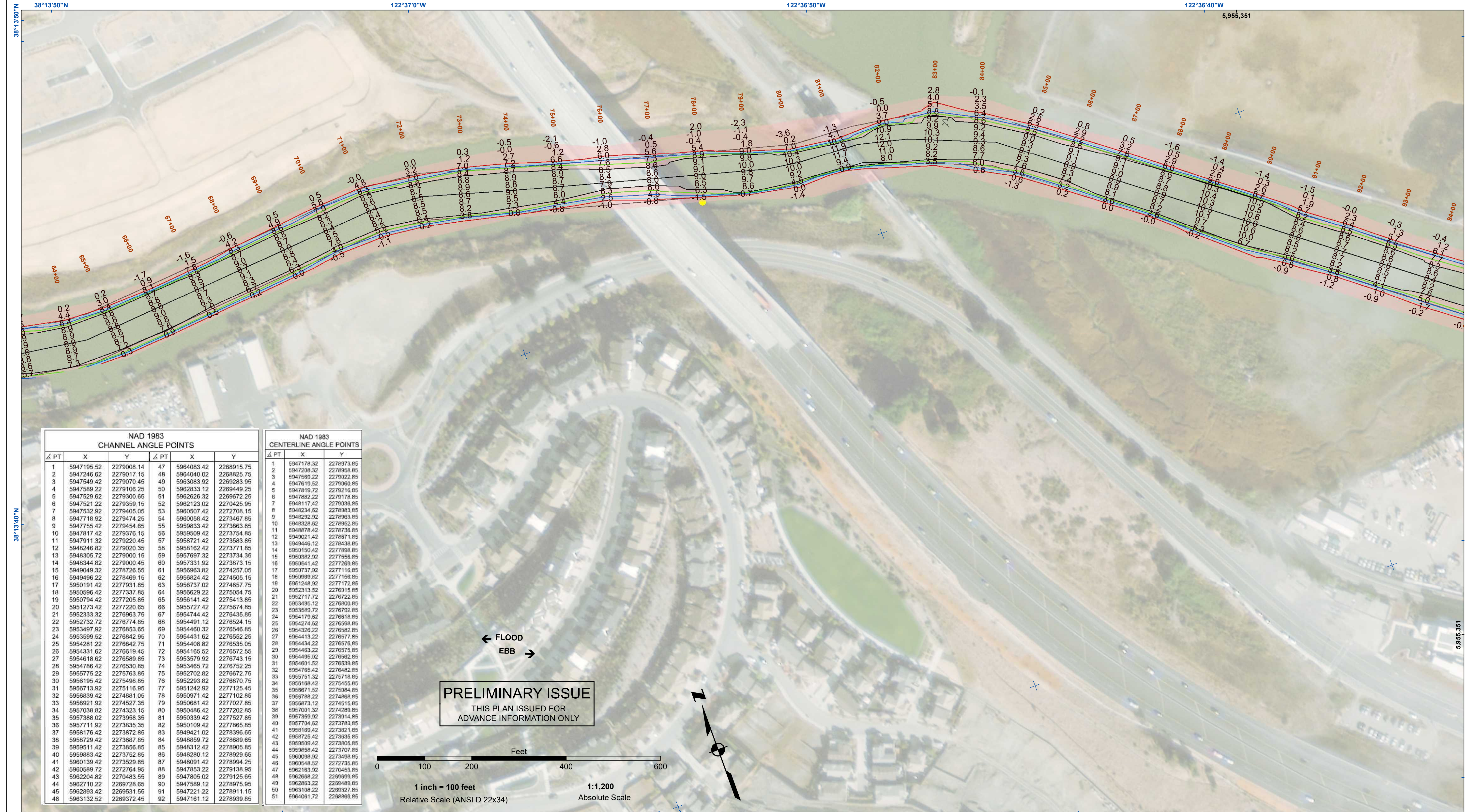
US Army Corps of Engineers
San Francisco District
450 Market Street
San Francisco, CA 94102

DISCLAIMER
The United States Government furnishes this information as a service to the public and does not warrant, express or implied, the accuracy, completeness, or reliability of the information. The user is responsible for the results of any application of the data for other than its intended purpose. The data represents the results of data collection and processing activities and does not represent the general existing conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed By:	
Plotted By:	
Checked By:	PDT

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

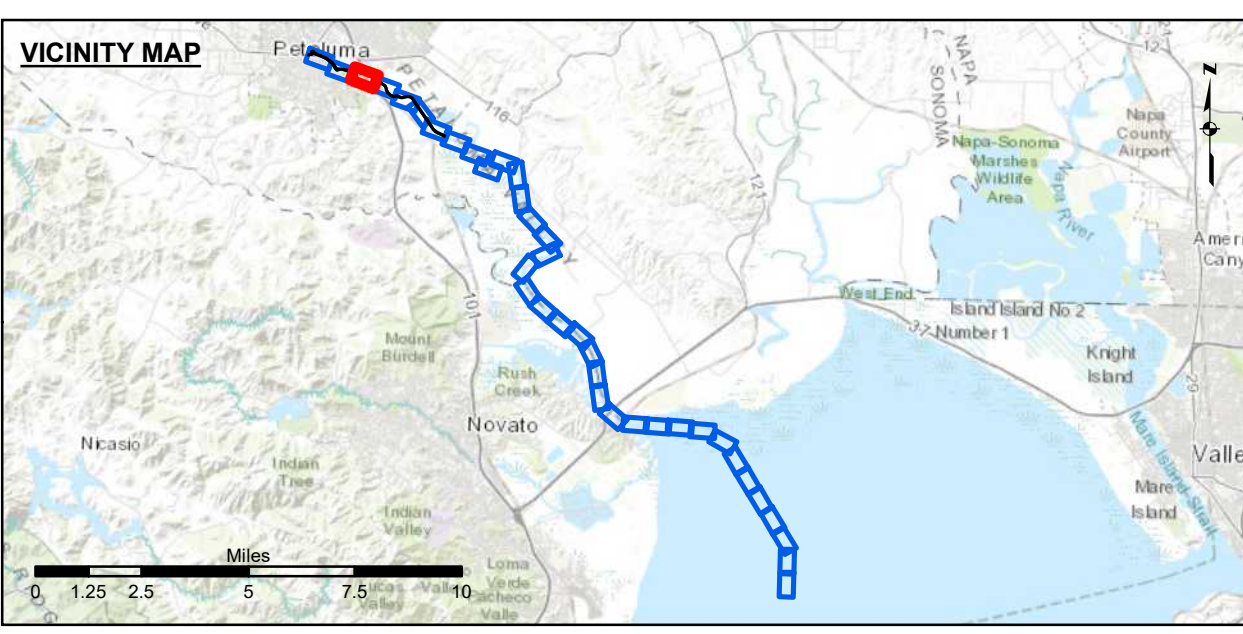
Sheet Reference Number
2 of 9



NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.05
17	5950191.42	2277931.65	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276569.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
Δ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947599.22	2279022.85
4	5947610.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.52	2278963.85
9	5948292.92	2278963.85
10	5948328.82	2278952.85
11	5948876.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.92	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950989.62	2277159.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953495.12	2276800.85
23	5953589.72	2276792.85
24	5954176.82	2276918.85
25	5954274.82	2276598.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276578.85
29	5954483.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276539.85
32	5954705.42	2276482.85
33	5955751.32	2275718.85
34	5956198.42	2275455.85
35	5956971.52	2275084.85
36	5957882.22	2274868.85
37	5958783.12	2274815.85
38	5957001.32	2274289.85
39	5957359.92	2273914.85
40	5957704.82	2273763.85
41	5958189.42	2273621.85
42	5958725.42	2273635.85
43	5959095.42	2273805.85
44	5959358.42	2273707.85
45	5959098.92	2273498.85
46	5959548.52	2272735.85
47	5962183.92	2270453.85
48	5962688.22	2269999.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



- 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**
- 8
- 7
- 6
- 5
- 4

NOTES:

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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

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

DISCLAIMER
The United States Government furnishes this information for general information only. The user is responsible for the results of any application of the information. The user is responsible for the results of any application of the information. The user is responsible for the results of any application of the information. The user is responsible for the results of any application of the information.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed By:	
Plotted By:	
Checked By:	PDT

SONOMA COUNTY CALIFORNIA
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

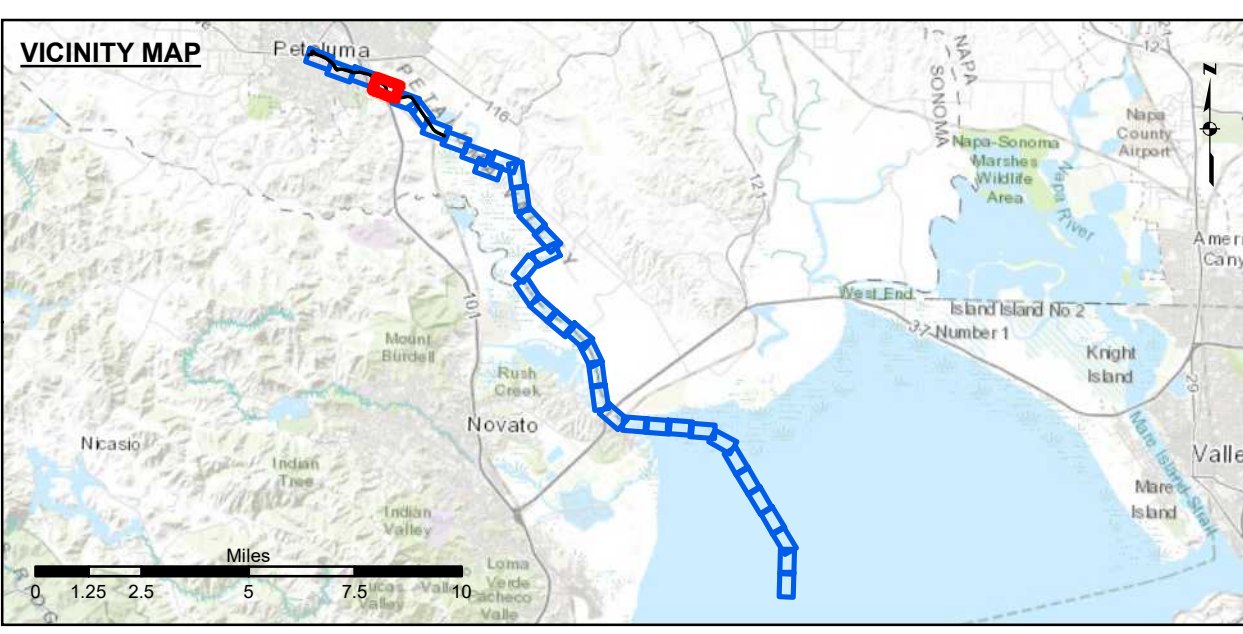
Sheet Reference Number
3 of 9



NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.85	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277737.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.85	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	595431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953485.72	2276752.25
29	5955775.22	2275783.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.85	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277125.45
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948589.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947178.32	2278973.85	2	5947208.32	2278958.85
2	5947589.22	2279022.85	3	5947619.52	2279060.85
3	5947819.72	2279216.85	4	5947882.22	2279178.85
4	5948117.42	2279038.85	5	5948234.52	2278963.85
5	5948328.82	2278952.85	6	5948482.42	2278736.85
6	5949021.42	2278711.85	7	5949446.12	2278438.85
7	5949446.12	2278698.85	8	5950150.42	2278582.85
8	5950382.02	2278558.85	9	5950541.42	2278269.85
9	5950737.02	2278116.85	10	5950989.82	2277712.85
10	5951248.92	2277712.85	11	5951544.82	2277698.85
11	5952133.52	2276915.85	12	5952177.72	2276722.85
12	5953495.12	2276800.85	13	5953589.72	2276792.85
13	5954434.22	2276578.85	14	5954178.82	2276918.85
14	5954495.02	2276582.85	15	5954274.82	2276598.85
15	5954601.52	2276539.85	16	5954326.22	2276582.85
16	5954785.42	2276482.85	17	5954413.22	2276577.85
17	595518.32	2275718.85	18	5954434.22	2276578.85
18	595591.42	2275455.85	19	5954483.22	2276575.85
19	5956196.42	2275084.85	20	5954495.02	2276582.85
20	5956713.92	2274527.35	21	5954601.52	2276539.85
21	5956839.42	2274202.85	22	5954785.42	2276482.85
22	5956921.92	2274527.35	23	595518.32	2275718.85
23	5957038.82	2274323.15	24	595591.42	2275455.85
24	5957388.02	2273958.35	25	5956196.42	2275084.85
25	5957711.92	2273835.35	26	5956713.92	2274527.35
26	5958176.42	2273872.85	27	5956839.42	2274202.85
27	5958729.42	2273867.85	28	5956921.92	2274527.35
28	5959511.42	2273856.85	29	5957038.82	2274323.15
29	5959883.42	2273752.85	30	5957388.02	2273958.35
30	5960139.42	2273529.85	31	5957711.92	2273835.35
31	5960589.72	2272764.95	32	5958176.42	2273872.85
32	5962204.82	2270483.55	33	5958729.42	2273867.85
33	5962710.22	2269728.65	34	5959511.42	2273856.85
34	5962893.42	2269531.55	35	5959883.42	2273752.85
35	5963132.52	2269372.45	36	5960139.42	2273529.85
36			37	5960589.72	2272764.95
37			38	5962204.82	2270483.55
38			39	5962710.22	2269728.65
39			40	5962893.42	2269531.55
40			41	5963132.52	2269372.45
41			42		
42			43		
43			44		
44			45		
45			46		

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	-8
Anchorage Area	Navigation Buoy	-7
Wreck Area	Shoalest Sounding*	-6
Submerged Wreck		-5
Angle Point		-4

NOTES:
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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
SURVEY CONTROL:
NOAA TIDE STATION:
941584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016
PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93
PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SERVICE.
PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

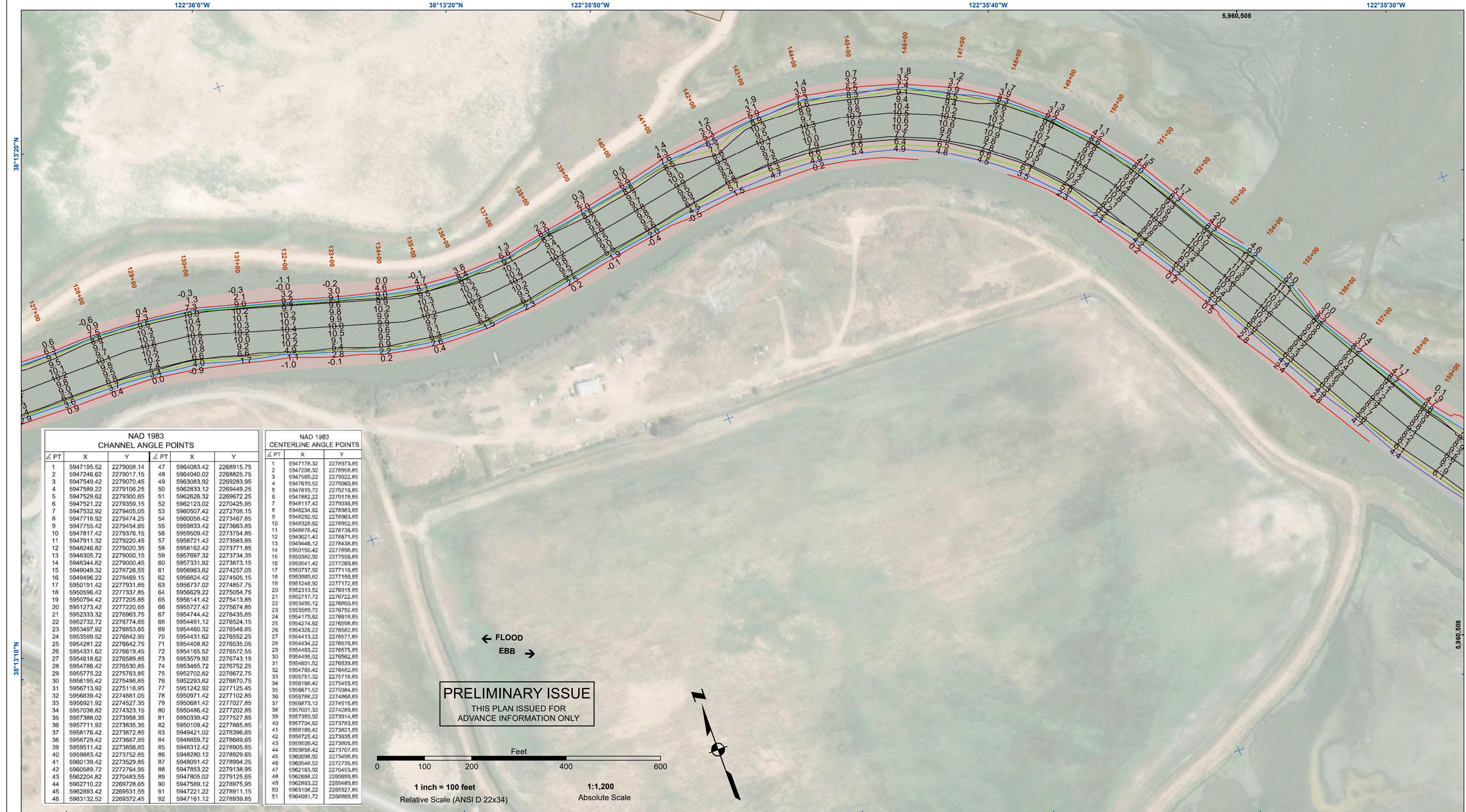


DISCLAIMER
The United States Government furnishes this information for the general information of the user. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed by:	JOHN D. CUNNINGHAM
Flatted by:	PDT
Checked by:	PDT

CALIFORNIA
SONOMA COUNTY
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

Sheet
Reference
Number
4 of 9



NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.85	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954918.62	2276569.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953485.72	2276752.25
29	5955775.22	2276783.85	75	5952702.82	2276672.75
30	5956195.42	2276498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277202.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.42	2278929.85
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS		
Δ PT	X	Y
1	5947178.32	2278973.85
2	5947208.32	2278958.85
3	5947589.22	2279022.85
4	5947610.52	2279060.85
5	5947819.72	2279216.85
6	5947882.22	2279178.85
7	5948117.42	2279038.85
8	5948234.52	2278963.85
9	5948292.92	2278963.85
10	5948328.82	2278952.85
11	5948876.42	2278736.85
12	5949021.42	2278671.85
13	5949446.12	2278438.85
14	5950150.42	2277898.85
15	5950382.02	2277556.85
16	5950541.42	2277269.85
17	5950737.02	2277116.85
18	5950989.82	2277159.85
19	5951248.92	2277172.85
20	5952313.52	2276915.85
21	5952717.72	2276722.85
22	5953495.12	2276800.85
23	5953895.72	2276792.85
24	5954179.52	2276918.85
25	5954274.82	2276508.85
26	5954326.22	2276582.85
27	5954413.22	2276577.85
28	5954434.22	2276578.85
29	5954463.22	2276575.85
30	5954495.02	2276562.85
31	5954601.52	2276553.85
32	5954705.42	2276482.85
33	5955751.32	2276718.85
34	5956198.42	2276455.85
35	5956871.52	2275084.85
36	5956788.22	2274868.85
37	5956873.12	2274515.85
38	5957001.32	2274289.85
39	5957359.02	2273914.85
40	5957704.82	2273783.85
41	5958189.42	2273821.85
42	5958725.42	2273635.85
43	5959095.42	2273805.85
44	5959358.42	2273707.85
45	5959008.92	2273408.85
46	5960548.52	2272735.85
47	5962183.92	2270453.85
48	5962668.22	2269999.85
49	5962863.22	2269489.85
50	5963108.22	2269327.85
51	5964091.72	2268869.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
Anchorage Area	Navigation Buoy	
Wreck Area	Shoalest Sounding*	
Submerged Wreck		-8
Angle Point		-7
		-6
		-5
		-4

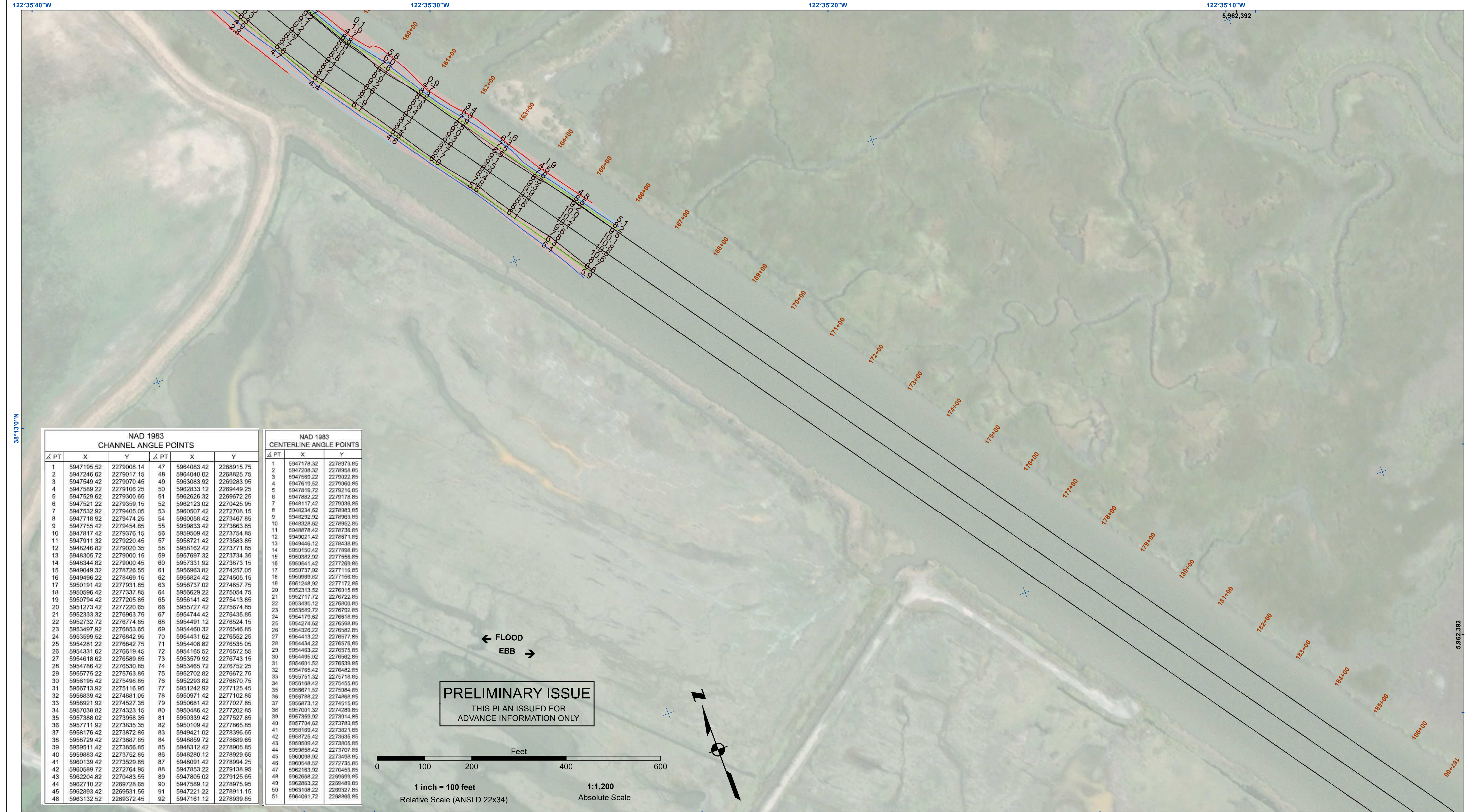
NOTES:
DRAWING NOT TO BE USED FOR NAVIGATION, ONLY CHANNEL CONDITION AT DATE OF SURVEY.
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.
SURVEYED BY THE CORPS OF ENGINEERS.
SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016
PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93
PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004



DISCLAIMER
The United States Government furnishes this information for the general public and does not express any opinion or endorsement of the accuracy, completeness, or reliability of the data. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed By:	
Plotted By:	
Checked By:	PDT

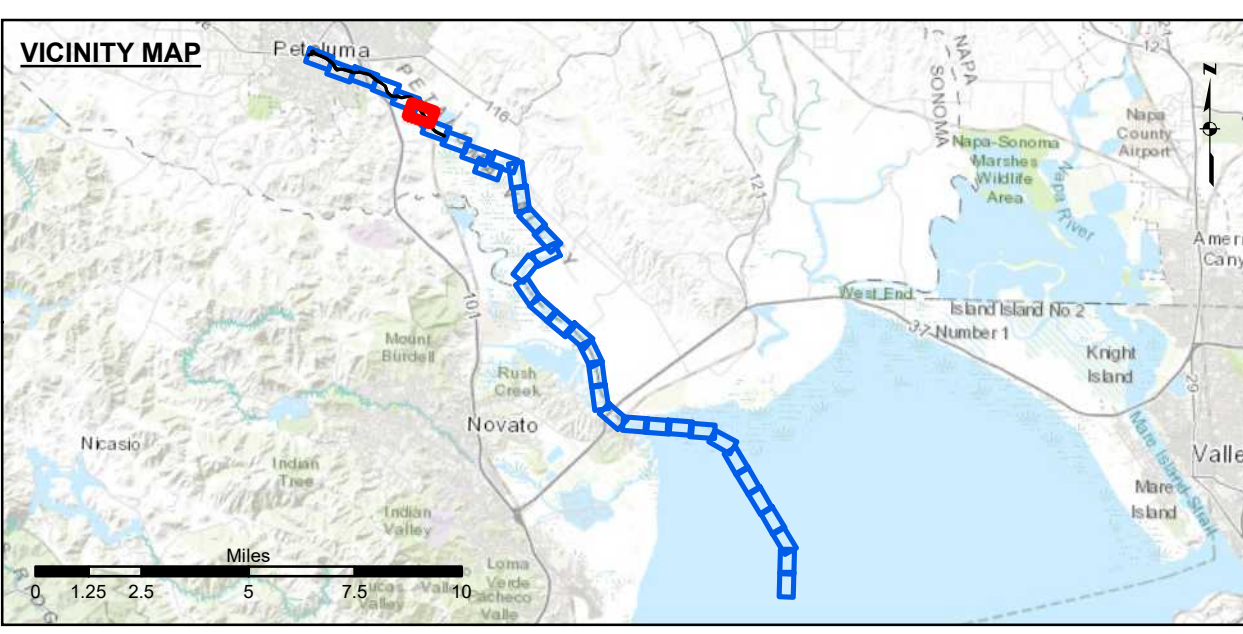
SONOMA COUNTY
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020



NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	Y	
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274851.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953485.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277202.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS					
Δ PT	X	Y	Δ PT	Y	
1	5947178.32	2278973.85	1	5947178.32	2278973.85
2	5947208.32	2278958.85	2	5947208.32	2278958.85
3	5947589.22	2279022.85	3	5947589.22	2279022.85
4	5947610.52	2279060.85	4	5947610.52	2279060.85
5	5947819.72	2279218.85	5	5947819.72	2279218.85
6	5947882.22	2279178.85	6	5947882.22	2279178.85
7	5948117.42	2279038.85	7	5948117.42	2279038.85
8	5948234.52	2278963.85	8	5948234.52	2278963.85
9	5948292.92	2278963.85	9	5948292.92	2278963.85
10	5948328.82	2278952.85	10	5948328.82	2278952.85
11	5948876.42	2278738.85	11	5948876.42	2278738.85
12	5949021.42	2278671.85	12	5949021.42	2278671.85
13	5949446.12	2278438.85	13	5949446.12	2278438.85
14	5950150.42	2277898.85	14	5950150.42	2277898.85
15	5950382.92	2277558.85	15	5950382.92	2277558.85
16	5950541.42	2277269.85	16	5950541.42	2277269.85
17	5950737.02	2277116.85	17	5950737.02	2277116.85
18	5950989.82	2277159.85	18	5950989.82	2277159.85
19	5951248.92	2277172.85	19	5951248.92	2277172.85
20	5952313.52	2276915.85	20	5952313.52	2276915.85
21	5952717.72	2276722.85	21	5952717.72	2276722.85
22	5953495.12	2276800.85	22	5953495.12	2276800.85
23	5953589.72	2276792.85	23	5953589.72	2276792.85
24	5954178.62	2276918.85	24	5954178.62	2276918.85
25	5954274.82	2276598.85	25	5954274.82	2276598.85
26	5954326.22	2276582.85	26	5954326.22	2276582.85
27	5954413.22	2276577.85	27	5954413.22	2276577.85
28	5954434.22	2276578.85	28	5954434.22	2276578.85
29	5954483.22	2276575.85	29	5954483.22	2276575.85
30	5954495.02	2276582.85	30	5954495.02	2276582.85
31	5954601.52	2276539.85	31	5954601.52	2276539.85
32	5954705.42	2276482.85	32	5954705.42	2276482.85
33	5955751.32	2275718.85	33	5955751.32	2275718.85
34	5956198.42	2275455.85	34	5956198.42	2275455.85
35	5956871.52	2275084.85	35	5956871.52	2275084.85
36	5956988.22	2274868.85	36	5956988.22	2274868.85
37	5956873.12	2274515.85	37	5956873.12	2274515.85
38	5957001.32	2274289.85	38	5957001.32	2274289.85
39	5957359.92	2273914.85	39	5957359.92	2273914.85
40	5957704.82	2273783.85	40	5957704.82	2273783.85
41	5958189.42	2273821.85	41	5958189.42	2273821.85
42	5958725.42	2273635.85	42	5958725.42	2273635.85
43	5959095.42	2273805.85	43	5959095.42	2273805.85
44	5959584.42	2273707.85	44	5959584.42	2273707.85
45	5960098.92	2273498.85	45	5960098.92	2273498.85
46	5960548.52	2272735.85	46	5960548.52	2272735.85
47	5962183.92	2270453.85	47	5962183.92	2270453.85
48	5962688.22	2269999.85	48	5962688.22	2269999.85
49	5962863.22	2269489.85	49	5962863.22	2269489.85
50	5963108.22	2269327.85	50	5963108.22	2269327.85
51	5964091.72	2268869.85	51	5964091.72	2268869.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
Anchorage Area	Navigation Buoy	
Wreck Area	Shoalest Sounding*	
Submerged Wreck		-8
Angle Point		-7
		-6
		-5
		-4

NOTES:
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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004
SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016
PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

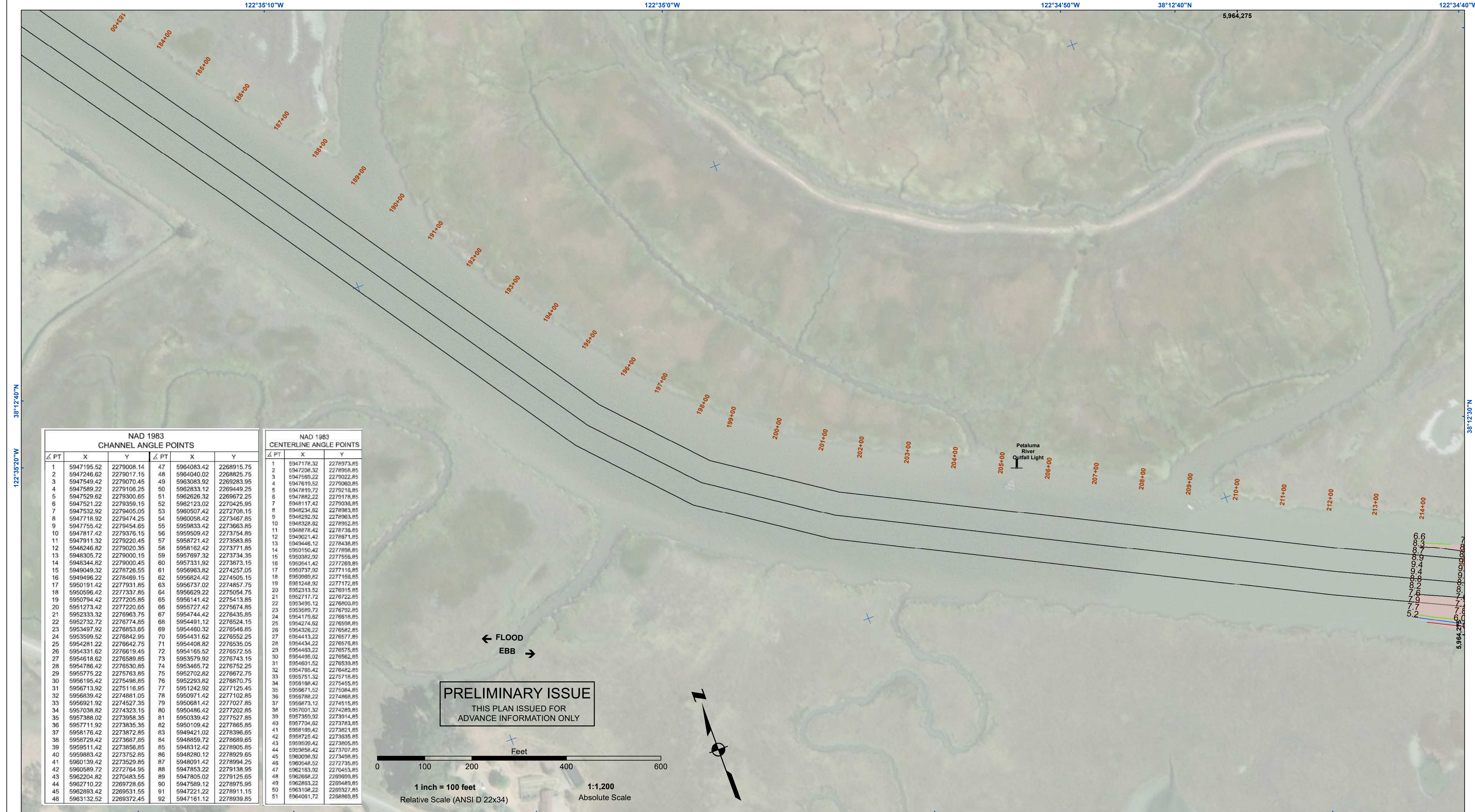


DISCLAIMER
The United States Government furnishes this information for the general public and does not warrant, express or implied, the accuracy, completeness, or reliability of the information. The user is responsible for the results of any application of the data for other than its intended purpose. The United States Government assumes no liability whatsoever to any person by reason of any use of the information furnished hereunder. These data belong to the Government. Therefore, the recipient may not transfer these data to others without also transferring this disclaimer.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed By:	
Flatted By:	
Checked By:	PDT
Prepared Under the Direction of:	LT COLONEL C.E. DISTRICT ENGINEER
Submittal:	PDT
Hydro Survey Team Leader:	
Recommendation:	
Chief, Hydro Survey Section:	
Approver:	Chief, Construction Branch

SONOMA COUNTY
CALIFORNIA
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

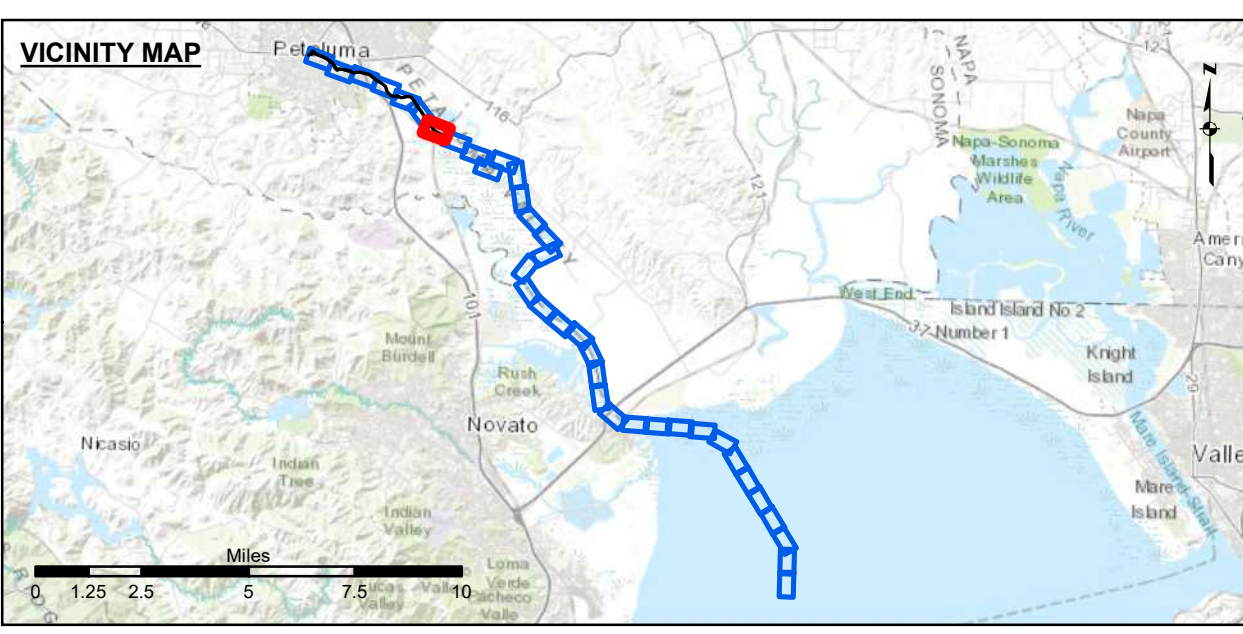
Sheet Reference Number
6 of 9



NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.95	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274851.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954911.12	2276524.15
23	5953497.92	2276853.65	69	5954603.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277027.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947178.32	2278973.85	1	5947178.32	2278973.85
2	5947208.32	2278958.85	2	5947208.32	2278958.85
3	5947599.22	2279022.85	3	5947599.22	2279022.85
4	5947610.52	2279060.85	4	5947610.52	2279060.85
5	5947819.72	2279218.85	5	5947819.72	2279218.85
6	5947882.22	2279178.85	6	5947882.22	2279178.85
7	5948117.42	2279038.85	7	5948117.42	2279038.85
8	5948234.52	2278963.85	8	5948234.52	2278963.85
9	5948292.92	2278963.85	9	5948292.92	2278963.85
10	5948328.82	2278952.85	10	5948328.82	2278952.85
11	5948876.42	2278736.85	11	5948876.42	2278736.85
12	5949021.42	2278671.85	12	5949021.42	2278671.85
13	5949446.12	2278438.85	13	5949446.12	2278438.85
14	5950150.42	2277898.85	14	5950150.42	2277898.85
15	5950382.02	2277558.85	15	5950382.02	2277558.85
16	5950541.42	2277269.85	16	5950541.42	2277269.85
17	5950737.02	2277116.85	17	5950737.02	2277116.85
18	5950989.82	2277159.85	18	5950989.82	2277159.85
19	5951248.92	2277172.85	19	5951248.92	2277172.85
20	5952133.52	2276915.85	20	5952133.52	2276915.85
21	5952717.72	2276722.85	21	5952717.72	2276722.85
22	5953495.12	2276800.85	22	5953495.12	2276800.85
23	5953589.72	2276792.85	23	5953589.72	2276792.85
24	5954176.82	2276918.85	24	5954176.82	2276918.85
25	5954274.82	2276508.85	25	5954274.82	2276508.85
26	5954326.22	2276582.85	26	5954326.22	2276582.85
27	5954413.22	2276577.85	27	5954413.22	2276577.85
28	5954434.22	2276578.85	28	5954434.22	2276578.85
29	5954463.22	2276575.85	29	5954463.22	2276575.85
30	5954495.02	2276582.85	30	5954495.02	2276582.85
31	5954601.52	2276539.85	31	5954601.52	2276539.85
32	5954705.42	2276482.85	32	5954705.42	2276482.85
33	5955751.32	2275718.85	33	5955751.32	2275718.85
34	5956198.42	2275455.85	34	5956198.42	2275455.85
35	5956871.52	2275084.85	35	5956871.52	2275084.85
36	5956788.22	2274868.85	36	5956788.22	2274868.85
37	5956873.12	2274515.85	37	5956873.12	2274515.85
38	5957001.32	2274289.85	38	5957001.32	2274289.85
39	5957359.02	2273914.85	39	5957359.02	2273914.85
40	5957704.82	2273763.85	40	5957704.82	2273763.85
41	5958189.42	2273621.85	41	5958189.42	2273621.85
42	5958725.42	2273635.85	42	5958725.42	2273635.85
43	5959095.42	2273805.85	43	5959095.42	2273805.85
44	5959358.42	2273707.85	44	5959358.42	2273707.85
45	5959098.92	2273498.85	45	5959098.92	2273498.85
46	5959548.52	2272735.85	46	5959548.52	2272735.85
47	5962183.02	2270453.85	47	5962183.02	2270453.85
48	5962668.22	2269999.85	48	5962668.22	2269999.85
49	5962863.22	2269489.85	49	5962863.22	2269489.85
50	5963108.22	2269327.85	50	5963108.22	2269327.85
51	5964091.72	2268869.85	51	5964091.72	2268869.85

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	
Anchorage Area	Navigation Buoy	
Wreck Area	Shoalest Sounding*	
Submerged Wreck		-8
Angle Point		-7
		-6
		-5
		-4

NOTES:
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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016
PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SERVICE.
PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

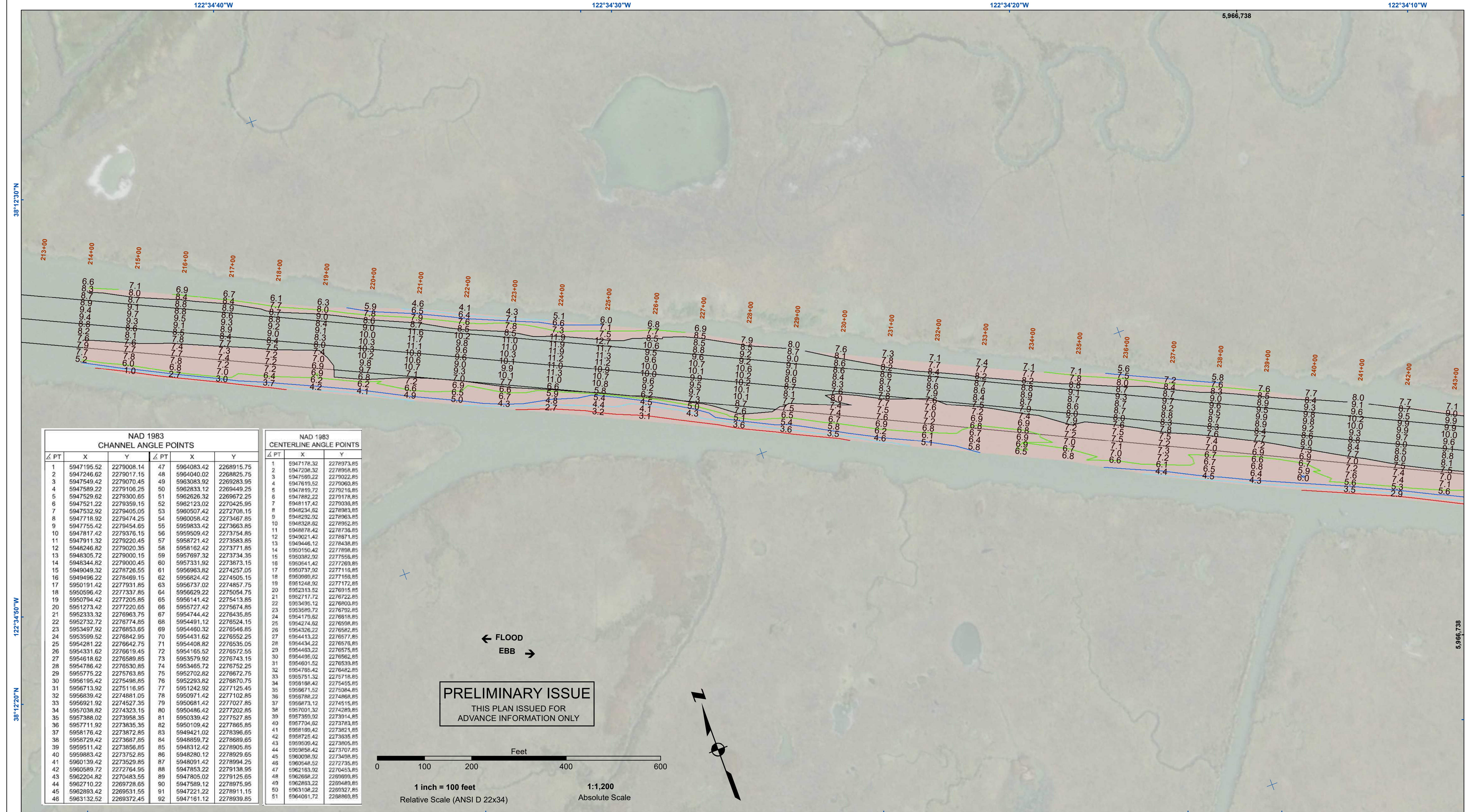


DISCLAIMER
The United States Government furnishes this information for the general information of the recipient. The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or reliability of the information. The user is responsible for the results of any application of the data for other than its intended purpose. The recipient may not transfer these data to others without also transferring this disclaimer.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed by:	JOHN D. CUNNINGHAM
Plotted by:	
Checked by:	PDT

SONOMA COUNTY
CALIFORNIA
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

Sheet Reference Number
7 of 9

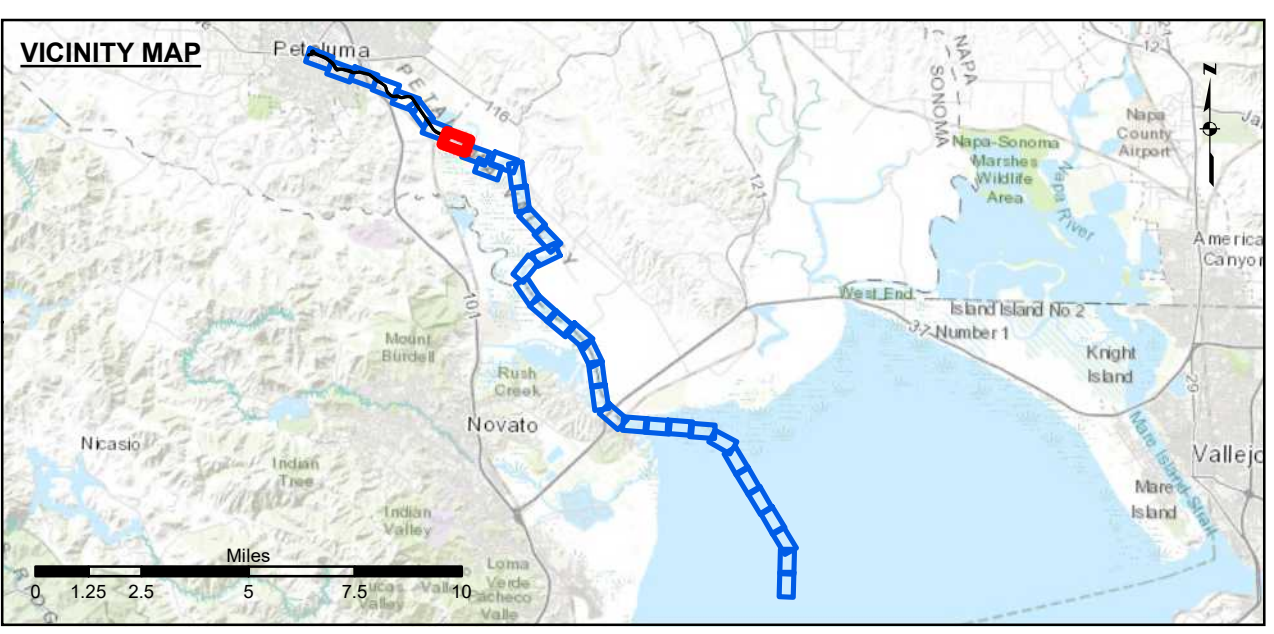
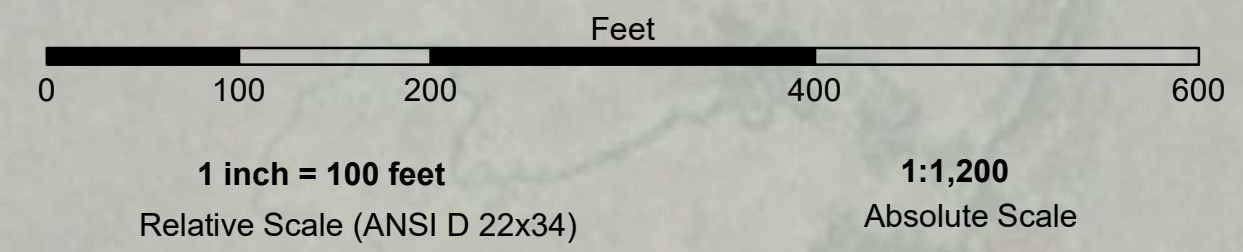


NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.65	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954911.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276546.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954918.62	2276569.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953465.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277202.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273867.85	84	5948859.72	2278889.65
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947178.32	2278973.85	1	5947178.32	2278973.85
2	5947208.32	2278958.85	2	5947208.32	2278958.85
3	5947589.22	2279022.85	3	5947589.22	2279022.85
4	5947610.52	2279060.85	4	5947610.52	2279060.85
5	5947819.72	2279216.85	5	5947819.72	2279216.85
6	5947882.22	2279178.85	6	5947882.22	2279178.85
7	5948117.42	2279038.85	7	5948117.42	2279038.85
8	5948234.62	2278963.85	8	5948234.62	2278963.85
9	5948292.92	2278963.85	9	5948292.92	2278963.85
10	5948328.82	2278952.85	10	5948328.82	2278952.85
11	5948876.42	2278736.85	11	5948876.42	2278736.85
12	5949021.42	2278671.85	12	5949021.42	2278671.85
13	5949446.12	2278438.85	13	5949446.12	2278438.85
14	5950150.42	2277898.85	14	5950150.42	2277898.85
15	5950382.02	2277556.85	15	5950382.02	2277556.85
16	5950541.42	2277269.85	16	5950541.42	2277269.85
17	5950737.02	2277116.85	17	5950737.02	2277116.85
18	5950989.62	2277159.85	18	5950989.62	2277159.85
19	5951248.92	2277172.85	19	5951248.92	2277172.85
20	5952313.52	2276915.85	20	5952313.52	2276915.85
21	5952717.72	2276722.85	21	5952717.72	2276722.85
22	5953495.12	2276800.85	22	5953495.12	2276800.85
23	5953589.72	2276792.85	23	5953589.72	2276792.85
24	5954176.62	2276918.85	24	5954176.62	2276918.85
25	5954274.62	2276598.85	25	5954274.62	2276598.85
26	5954326.22	2276582.85	26	5954326.22	2276582.85
27	5954413.22	2276577.85	27	5954413.22	2276577.85
28	5954434.22	2276578.85	28	5954434.22	2276578.85
29	5954463.22	2276575.85	29	5954463.22	2276575.85
30	5954495.02	2276582.85	30	5954495.02	2276582.85
31	5954601.52	2276539.85	31	5954601.52	2276539.85
32	5954705.42	2276482.85	32	5954705.42	2276482.85
33	5955751.32	2275718.85	33	5955751.32	2275718.85
34	5956198.42	2275455.85	34	5956198.42	2275455.85
35	5956871.52	2275084.85	35	5956871.52	2275084.85
36	5956788.22	2274868.85	36	5956788.22	2274868.85
37	5956873.12	2274515.85	37	5956873.12	2274515.85
38	5957001.32	2274289.85	38	5957001.32	2274289.85
39	5957359.02	2273914.85	39	5957359.02	2273914.85
40	5957704.82	2273763.85	40	5957704.82	2273763.85
41	5958189.42	2273621.85	41	5958189.42	2273621.85
42	5958725.42	2273635.85	42	5958725.42	2273635.85
43	5959095.42	2273805.85	43	5959095.42	2273805.85
44	5959584.42	2273707.85	44	5959584.42	2273707.85
45	5960098.92	2273498.85	45	5960098.92	2273498.85
46	5960548.52	2272735.85	46	5960548.52	2272735.85
47	5962183.92	2270453.85	47	5962183.92	2270453.85
48	5962668.22	2269999.85	48	5962668.22	2269999.85
49	5962863.22	2269489.85	49	5962863.22	2269489.85
50	5963108.22	2269027.85	50	5963108.22	2269027.85
51	5964091.72	2268869.85	51	5964091.72	2268869.85

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	-8
Anchorage Area	Navigation Buoy	-7
Wreck Area	Shoalest Sounding*	-6
Submerged Wreck		-5
Angle Point		-4

NOTES:
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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016
PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93
PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.
ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

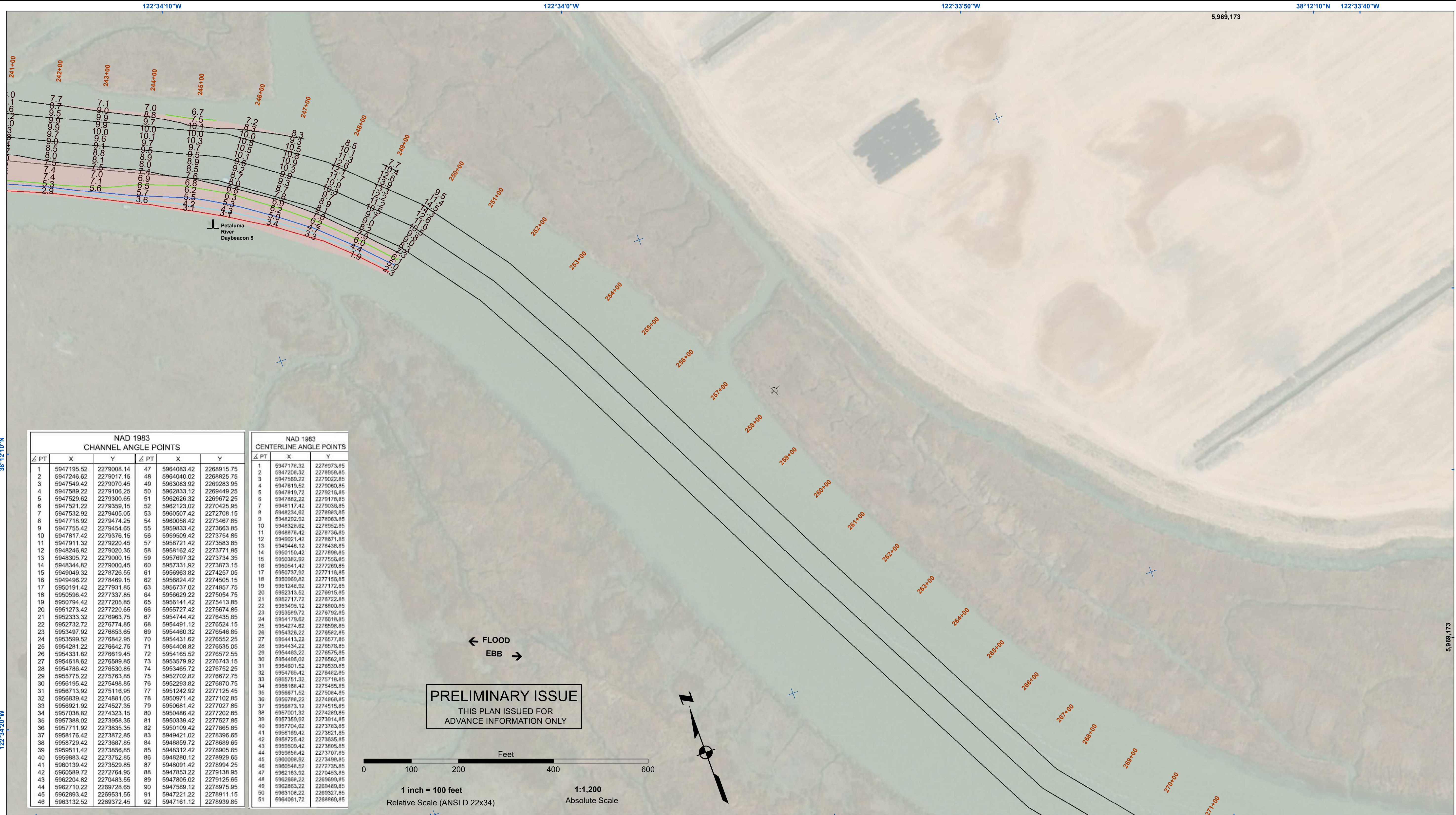


DISCLAIMER
The United States Government furnishes this information for the general information of the user. The user assumes all responsibility for the use of the information. The user is responsible for the results of any application of the data for other than its intended purpose.
Distribution Liability: The data represents the results of data collection and processing. The user is responsible for the accuracy, completeness, and timeliness of the data. The user is responsible for the results of any application of the data for other than its intended purpose.
The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or timeliness of the data. The user is responsible for the results of any application of the data for other than its intended purpose.
The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or timeliness of the data. The user is responsible for the results of any application of the data for other than its intended purpose.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT
Surveyed by:	
Plotted by:	
Checked by:	PDT

SONOMA COUNTY
CALIFORNIA
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

Sheet Reference Number
8 of 9

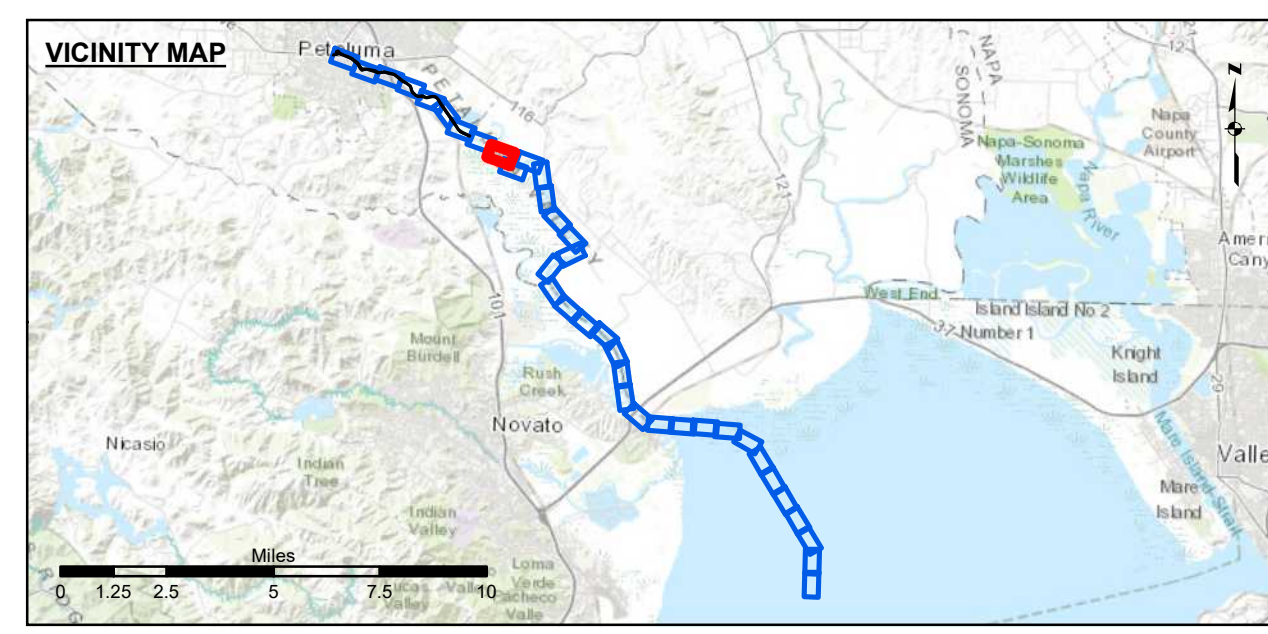
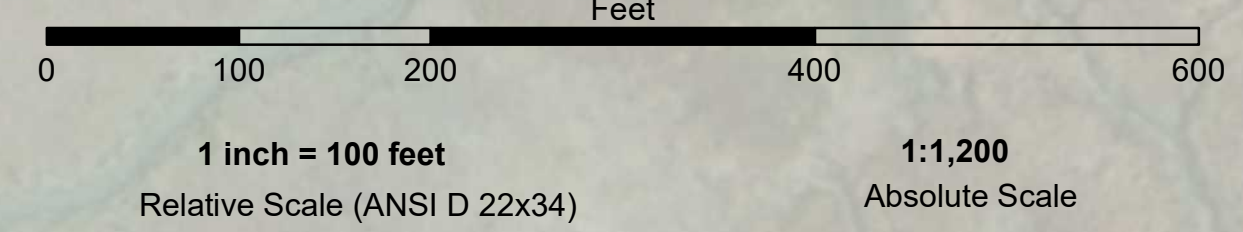


NAD 1983 CHANNEL ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947195.52	2279008.14	47	5964083.42	2268915.75
2	5947246.62	2279017.15	48	5964040.02	2268825.75
3	5947549.42	2279070.45	49	5963083.92	2269283.95
4	5947589.22	2279106.25	50	5962833.12	2269449.25
5	5947529.62	2279300.65	51	5962626.32	2269672.25
6	5947521.22	2279359.15	52	5962123.02	2270425.95
7	5947532.92	2279405.05	53	5960507.42	2272708.15
8	5947718.92	2279474.25	54	5960056.42	2273467.85
9	5947755.42	2279454.95	55	5959833.42	2273663.85
10	5947817.42	2279376.15	56	5959509.42	2273754.85
11	5947911.32	2279220.45	57	5958721.42	2273583.85
12	5948246.82	2279020.35	58	5958162.42	2273771.85
13	5948305.72	2279000.15	59	5957697.32	2273734.35
14	5948344.82	2279000.45	60	5957331.92	2273873.15
15	5949049.32	2278726.55	61	5956963.82	2274257.05
16	5949496.22	2278469.15	62	5956824.42	2274505.15
17	5950191.42	2277931.85	63	5956737.02	2274857.75
18	5950596.42	2277337.85	64	5956629.22	2275054.75
19	5950794.42	2277205.85	65	5956141.42	2275413.85
20	5951273.42	2277220.65	66	5955727.42	2275674.85
21	5952333.32	2276963.75	67	5954744.42	2276435.85
22	5952732.72	2276774.85	68	5954491.12	2276524.15
23	5953497.92	2276853.65	69	5954460.32	2276548.85
24	5953599.52	2276842.95	70	5954431.62	2276552.25
25	5954281.22	2276642.75	71	5954408.82	2276535.05
26	5954331.62	2276619.45	72	5954165.52	2276572.55
27	5954618.62	2276589.85	73	5953579.92	2276743.15
28	5954786.42	2276530.85	74	5953485.72	2276752.25
29	5955775.22	2275763.85	75	5952702.82	2276672.75
30	5956195.42	2275498.85	76	5952293.82	2276870.75
31	5956713.92	2275116.95	77	5951242.92	2277125.45
32	5956839.42	2274881.05	78	5950971.42	2277102.85
33	5956921.92	2274527.35	79	5950681.42	2277202.85
34	5957038.82	2274323.15	80	5950486.42	2277202.85
35	5957388.02	2273958.35	81	5950339.42	2277527.85
36	5957711.92	2273835.35	82	5950109.42	2277865.85
37	5958176.42	2273872.85	83	5949421.02	2278396.85
38	5958729.42	2273687.85	84	5948859.72	2278889.85
39	5959511.42	2273856.85	85	5948312.42	2278905.85
40	5959883.42	2273752.85	86	5948280.12	2278929.65
41	5960139.42	2273529.85	87	5948091.42	2278994.25
42	5960589.72	2272764.95	88	5947853.22	2279138.95
43	5962204.82	2270483.55	89	5947805.02	2279125.65
44	5962710.22	2269728.65	90	5947589.12	2278975.95
45	5962893.42	2269531.55	91	5947221.22	2278911.15
46	5963132.52	2269372.45	92	5947161.12	2278939.85

NAD 1983 CENTERLINE ANGLE POINTS					
Δ PT	X	Y	Δ PT	X	Y
1	5947178.32	2278973.85	1	5947178.32	2278973.85
2	5947208.32	2278958.85	2	5947208.32	2278958.85
3	5947599.22	2279022.85	3	5947599.22	2279022.85
4	5947610.52	2279060.85	4	5947610.52	2279060.85
5	5947819.72	2279216.85	5	5947819.72	2279216.85
6	5947882.22	2279178.85	6	5947882.22	2279178.85
7	5948117.42	2279038.85	7	5948117.42	2279038.85
8	5948234.52	2278963.85	8	5948234.52	2278963.85
9	5948292.92	2278963.85	9	5948292.92	2278963.85
10	5948328.82	2278952.85	10	5948328.82	2278952.85
11	5948876.42	2278736.85	11	5948876.42	2278736.85
12	5949021.42	2278671.85	12	5949021.42	2278671.85
13	5949446.12	2278438.85	13	5949446.12	2278438.85
14	5950150.42	2277898.85	14	5950150.42	2277898.85
15	5950382.02	2277558.85	15	5950382.02	2277558.85
16	5950541.42	2277269.85	16	5950541.42	2277269.85
17	5950737.02	2277116.85	17	5950737.02	2277116.85
18	5950989.82	2277159.85	18	5950989.82	2277159.85
19	5951248.92	2277172.85	19	5951248.92	2277172.85
20	5952313.52	2276915.85	20	5952313.52	2276915.85
21	5952717.72	2276722.85	21	5952717.72	2276722.85
22	5953495.12	2276800.85	22	5953495.12	2276800.85
23	5953589.72	2276792.85	23	5953589.72	2276792.85
24	5954178.82	2276918.85	24	5954178.82	2276918.85
25	5954274.82	2276508.85	25	5954274.82	2276508.85
26	5954326.22	2276582.85	26	5954326.22	2276582.85
27	5954413.22	2276577.85	27	5954413.22	2276577.85
28	5954434.22	2276578.85	28	5954434.22	2276578.85
29	5954483.22	2276575.85	29	5954483.22	2276575.85
30	5954495.02	2276582.85	30	5954495.02	2276582.85
31	5954601.52	2276539.85	31	5954601.52	2276539.85
32	5954705.42	2276482.85	32	5954705.42	2276482.85
33	5955751.32	2276718.85	33	5955751.32	2276718.85
34	5956198.42	2276455.85	34	5956198.42	2276455.85
35	5956871.52	2275084.85	35	5956871.52	2275084.85
36	5956788.22	2274868.85	36	5956788.22	2274868.85
37	5956873.12	2274515.85	37	5956873.12	2274515.85
38	5957001.32	2274289.85	38	5957001.32	2274289.85
39	5957359.02	2273914.85	39	5957359.02	2273914.85
40	5957704.82	2273763.85	40	5957704.82	2273763.85
41	5958189.42	2273821.85	41	5958189.42	2273821.85
42	5958725.42	2273635.85	42	5958725.42	2273635.85
43	5959095.42	2273805.85	43	5959095.42	2273805.85
44	5959358.42	2273707.85	44	5959358.42	2273707.85
45	5959098.92	2273408.85	45	5959098.92	2273408.85
46	5960548.52	2272735.85	46	5960548.52	2272735.85
47	5962183.92	2270453.85	47	5962183.92	2270453.85
48	5962688.22	2269999.85	48	5962688.22	2269999.85
49	5962863.22	2269489.85	49	5962863.22	2269489.85
50	5963108.22	2269327.85	50	5963108.22	2269327.85
51	5964091.72	2268869.85	51	5964091.72	2268869.85

← FLOOD
EBB →

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	
Placement Area	Navigation Buoy	-8
Anchorage Area	Navigation Buoy	-7
Wreck Area	Shoalest Sounding*	-6
Submerged Wreck		-5
Angle Point		-4

NOTES:

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 ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

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

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.

PROJECT DEPTH IS 8 FEET FROM THE MOUTH OF PETALUMA CREEK TO WESTERN AVE., THEN 4 FOOT DEPTH TO THE HEAD OF NAVIGATION.

ELEVATIONS ARE BASED ON TIDAL BENCH MARK 941 5584 BOLT C, NATIONAL OCEAN SERVICE BOLT, ELEV. 13.69, NAVD 88 DATUM, PUBLICATION DATE: AUGUST 9, 2004

SURVEY CONTROL:
NOAA TIDE STATION:
9415584, PETALUMA RIVER, UPPER DRAWBRIDGE CA Published September 2016

PRIMARY PROJECT CONTROL POINT
5584 F 2014
PID: BBDJ93

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

DISCLAIMER
The United States Government furnishes this information for the general public and does not warrant, express or implied, the accuracy, completeness, or reliability of the information. The user is responsible for the results of any application of the data for other than its intended purpose. These data belong to the Government. Therefore, the recipient may not transfer these data to others without also transferring this disclaimer.

Chart Date:	Dec 22, 2020
Designed by:	
Drawn by:	PDT

Surveyed By:	JOHN D. CUNNINGHAM
Plotted By:	PDT
Checked By:	PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
Approved: Chief, Construction Branch

CALIFORNIA
PETALUMA RIVER
POST-DREDGE SURVEY
10, 12 & 16 OCTOBER 2020

SONOMA COUNTY
Sheet Reference Number
9 of 9