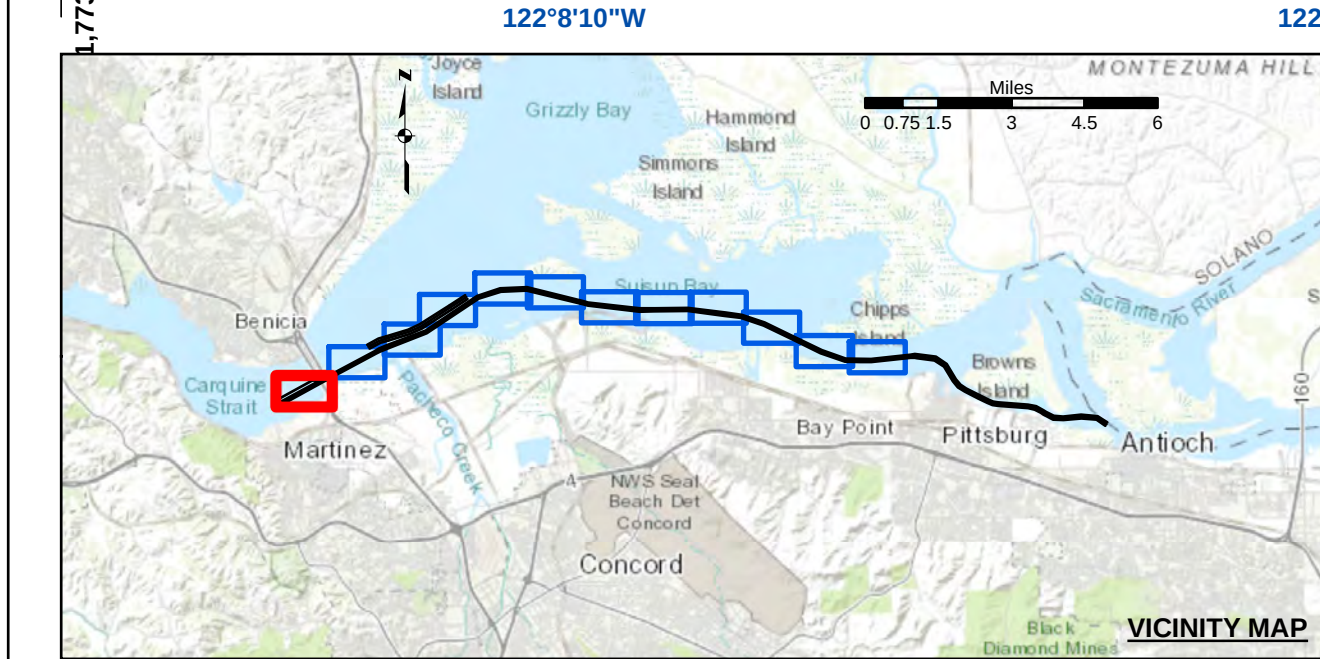




Federal Navigation Channel

Shoaling Area

Placement Area

Anchorage Area

Wreck Area

Submerged Wreck

Angle Point

Beacon, General

Obstruction Point

Navigation Buoy

Navigation Buoy

Shoalest Sounding*

Contours

-35

-34

-33

-32

-31

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.

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.

PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY, BASE MAPS ARE USDA NAIP 2010.

*SHOALEST SOUNDING PER QUARTER PER REACH

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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.

THE PROJECT DEPTH IS 35 FEET.

VERTICAL CONTROL:
SUISUN BAY CHANNEL
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK
ELEV 14.875 FT MLLW., NAVD 88 DATUM.
TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.

(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997),
(LINES 500+00 TO 660+00) BENCHMARK "5144-P" (1990 RESET 1997),
USC&GS DISK, ELEV 11.83 FT MLLW., NAVD 88 DATUM.
TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.

(LINES 660+00 TO 733+45) BENCHMARK "5096-B",
USC&GS DISK, ELEV 21.76 FT MLLW., NAVD 88 DATUM.
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.

HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

US Army Corps
of Engineers

San Francisco District
1455 Market Street
San Francisco, CA 94103

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PREPARED UNDER THE DIRECTION OF LT COLONEL J. RAYFIELD C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Jun 13, 2018
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Designed by:
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

CALIFORNIA

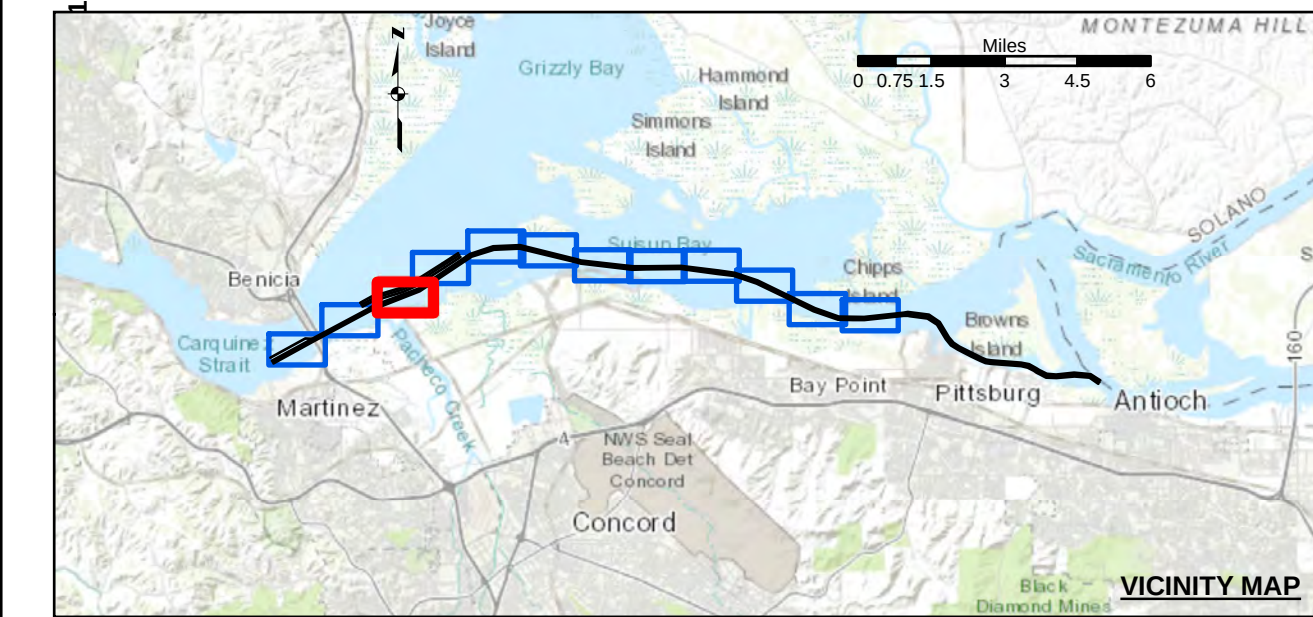
CONTRA COSTA COUNTY

SUISUN BAY CHANNEL

CONDITION SURVEY

31 MAY AND 01 JUNE 2018

Sheet
Reference
Number
1 of 12



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

-35

-34

-33

-32

-31

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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USC&GS DISK, ELEV 21.76 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.

HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

CALIFORNIA

CONTRA COSTA COUNTY

SUISUN BAY CHANNEL

CONDITION SURVEY

31 MAY AND 01 JUNE 2018

PREPARED UNDER THE DIRECTION OF LT COLONEL C.E. DISTRICT ENGINEER TRAVIS J. RAYFIELD	Surveyed By:	Chart Date: Jun 13, 2018
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Designed by:
Recommended: Chief Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief Construction Branch		

US Army Corps
of Engineers

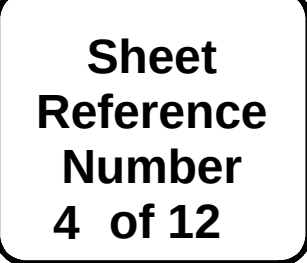
San Francisco District
1455 Market Street
San Francisco, CA 94103

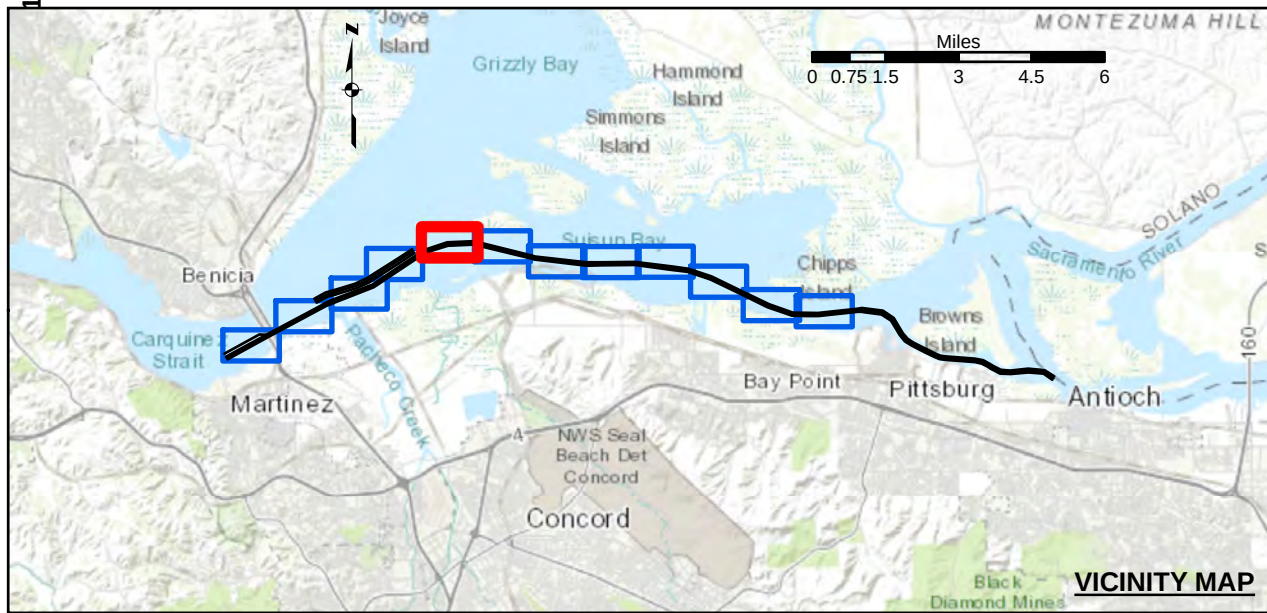
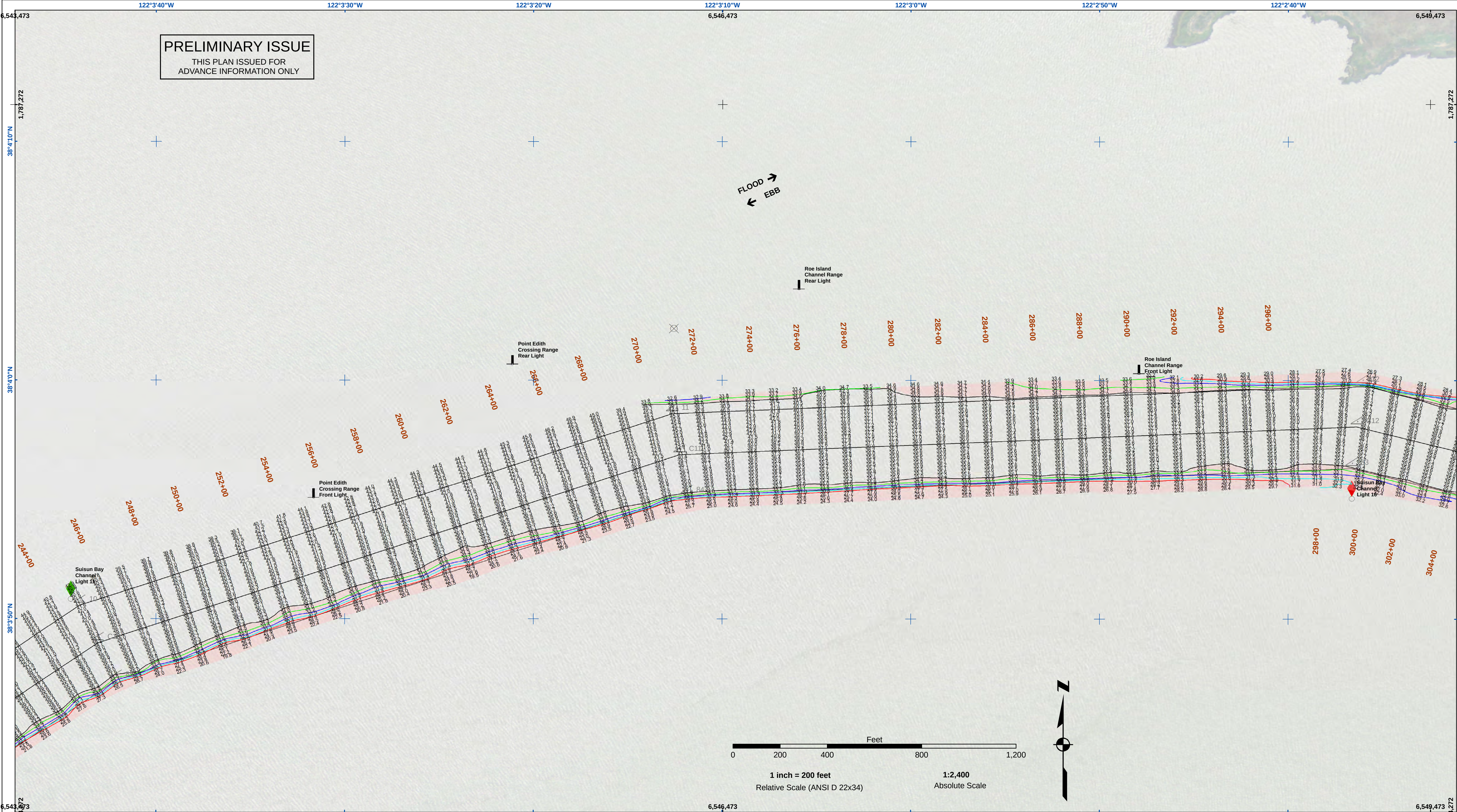
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Sheet
Reference
Number

3 of 12





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

-35

-34

-33

-32

-31

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.

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

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SURVEYED BY THE CORPS OF ENGINEERS.

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THE PROJECT DEPTH IS 35 FEET.

VERTICAL CONTROL:
SUISUN BAY CHANNEL
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK
ELEV 14.875 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.

(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997),
(LINES 500+00 TO 660+00) BENCHMARK "5144-P" (1990 RESET 1997),
USC&GS DISK, ELEV 11.83 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.

(LINES 660+00 TO 733+45) BENCHMARK "5096-B",
USC&GS DISK, ELEV 21.76 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.

HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

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PREPARED UNDER THE DIRECTION OF TRAVIS J. RAYFIELD LT COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By:	Designed By:
Recommended: Chief Hydro Survey Section	Checked By:	Drawn by:
Approved: Chief Construction Branch	PDT	PDT

CALIFORNIA

CONTRA COSTA COUNTY

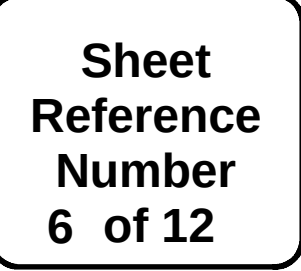
SUISUN BAY CHANNEL

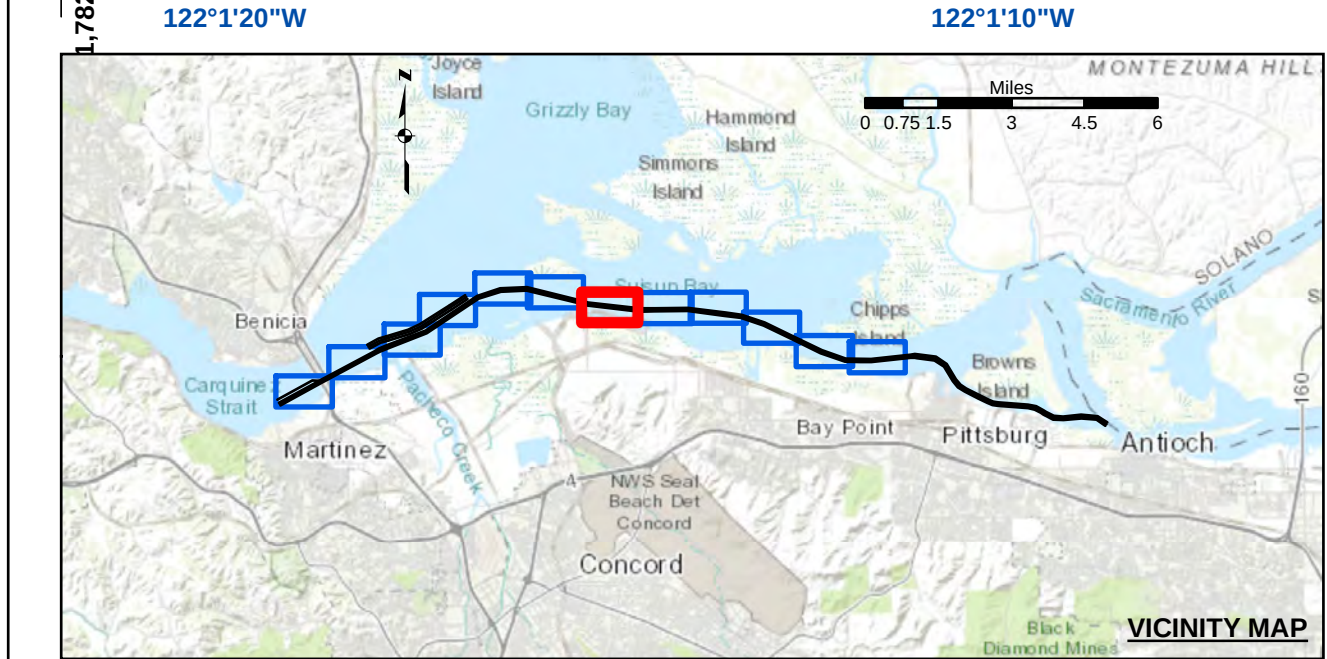
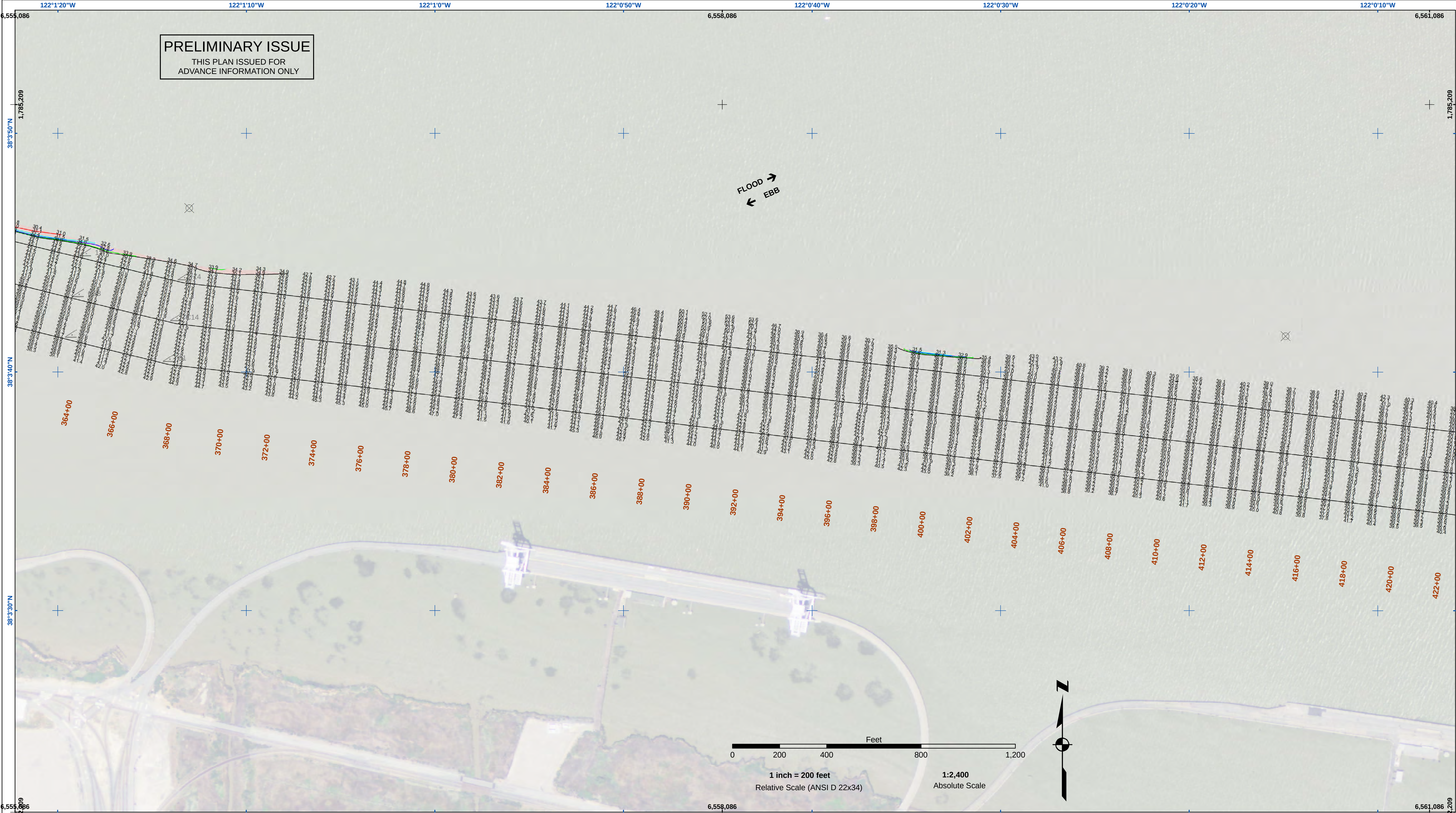
CONDITION SURVEY

31 MAY AND 01 JUNE 2018

Sheet Reference

Number 5 of 12





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

-35

-34

-33

-32

-31

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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*SHOALEST SOUNDING PER QUARTER PER REACH

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THE PROJECT DEPTH IS 35 FEET.

VERTICAL CONTROL:
SUISUN BAY CHANNEL
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK ELEV 14.875 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.

(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997), (LINES 500+00 TO 660+00) BENCHMARK "5144-P" (1990 RESET 1997), USC&GS DISK, ELEV 11.83 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.

(LINES 660+00 TO 733+45) BENCHMARK "5096-B", USC&GS DISK, ELEV 21.76 FT MLLW, NAVD 88 DATUM.
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.

HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

US Army Corps
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San Francisco, CA 94103

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PREPARED UNDER THE DIRECTION OF LT COLONEL J. RAYFIELD DISTRICT ENGINEER	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By:	Jun 13, 2018
Recommended: Chief, Hydro Survey Section	Checked By:	Designed by:
Approved: Chief, Construction Branch	PDT	Drawn by:
	PDT	PDT

CALIFORNIA

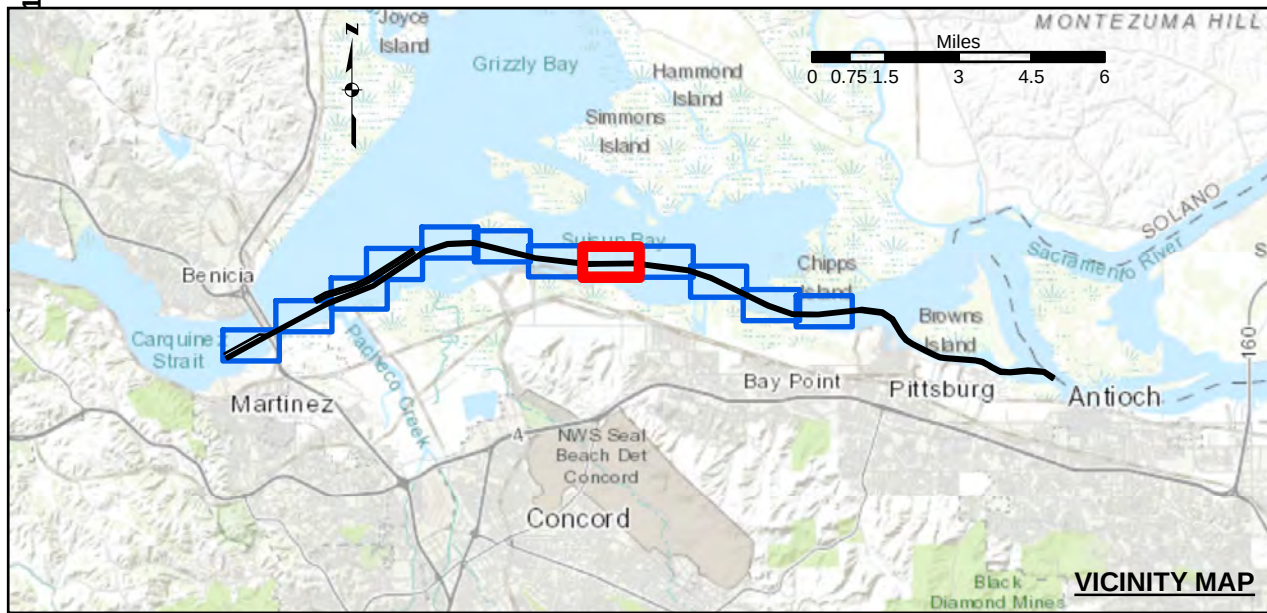
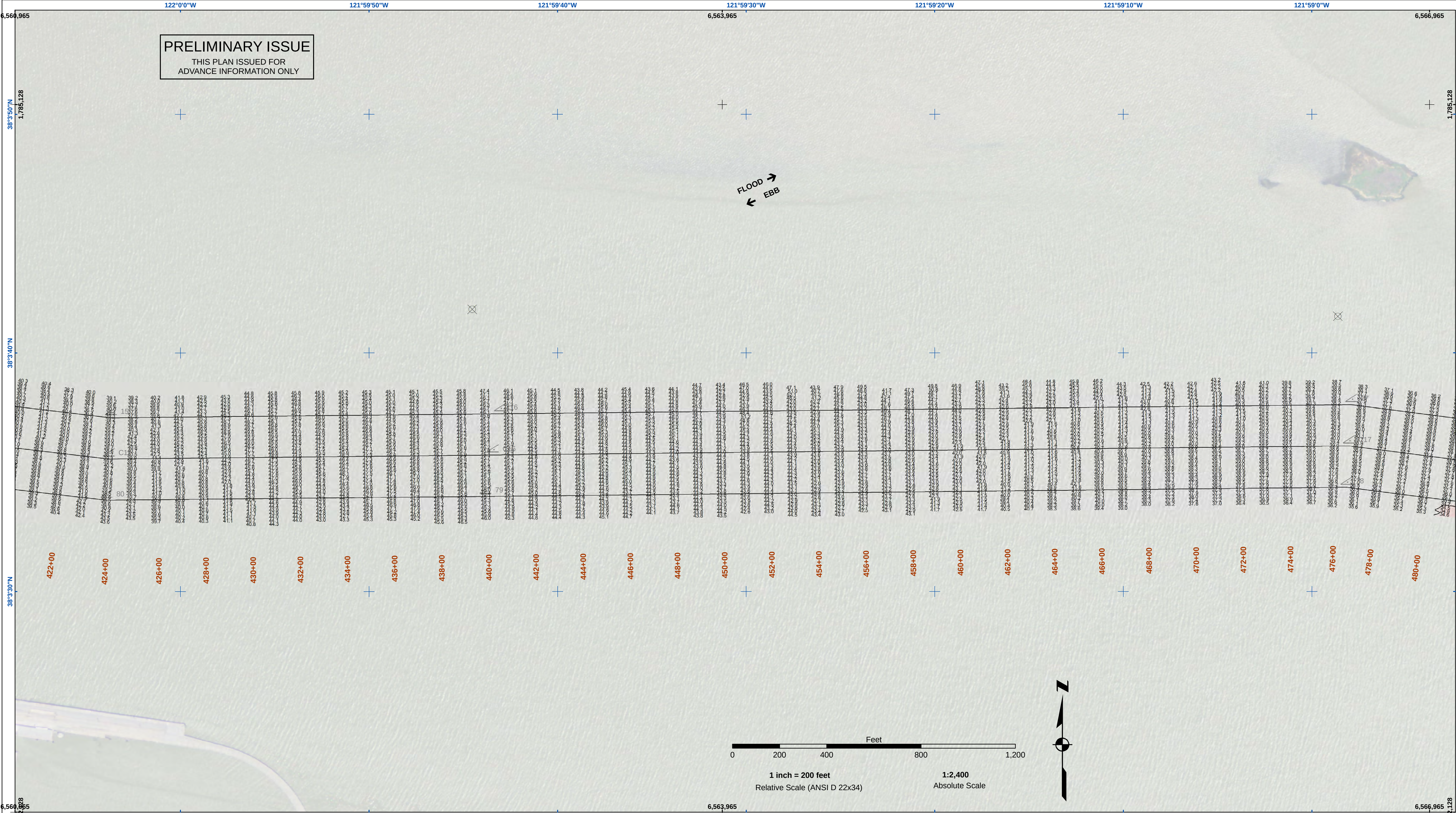
CONTRA COSTA COUNTY

SUISUN BAY CHANNEL

CONDITION SURVEY

31 MAY AND 01 JUNE 2018

Sheet
Reference
Number
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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*

Contours

-35

-34

-33

-32

-31

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.

VERTICAL DATUM:
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BASE MAPS ARE USDA NAIP 2010.

*SHOALEST SOUNDING PER QUARTER PER REACH

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VERTICAL CONTROL:
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HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

US Army Corps
of Engineers

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PREPARED UNDER THE DIRECTION OF LT COLONEL J. RAYFIELD	Chart Date: Jun 13, 2018
Submitted: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Checked By: PDT
Approved: Chief, Construction Branch	Drawn by: PDT

CALIFORNIA

CONTRA COSTA COUNTY

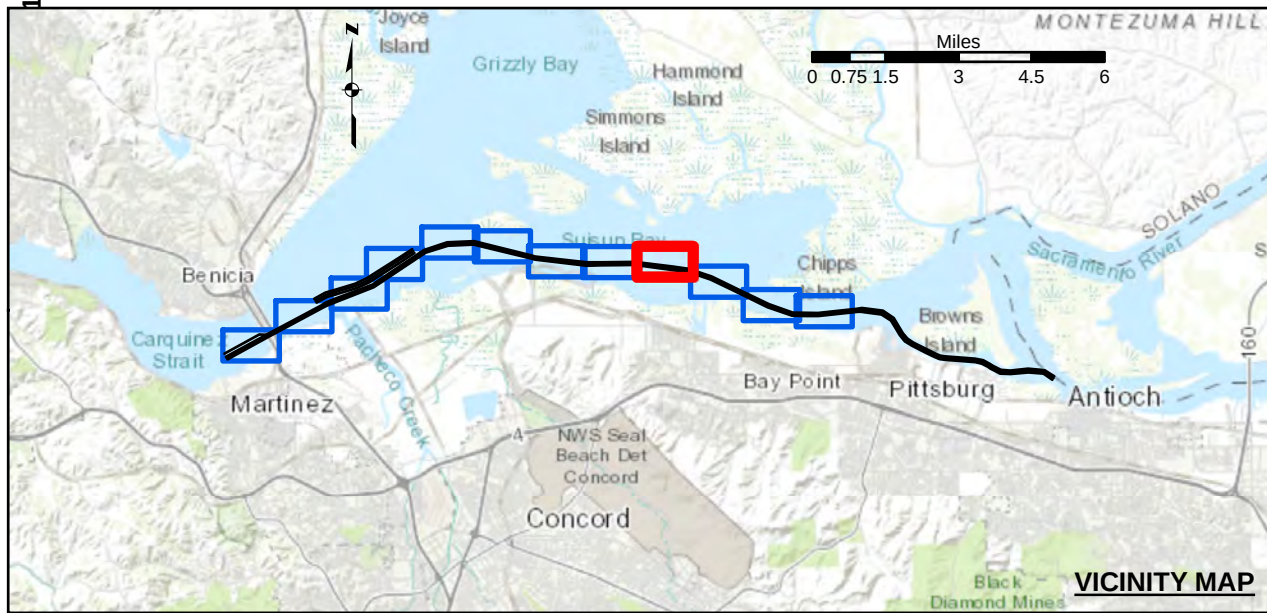
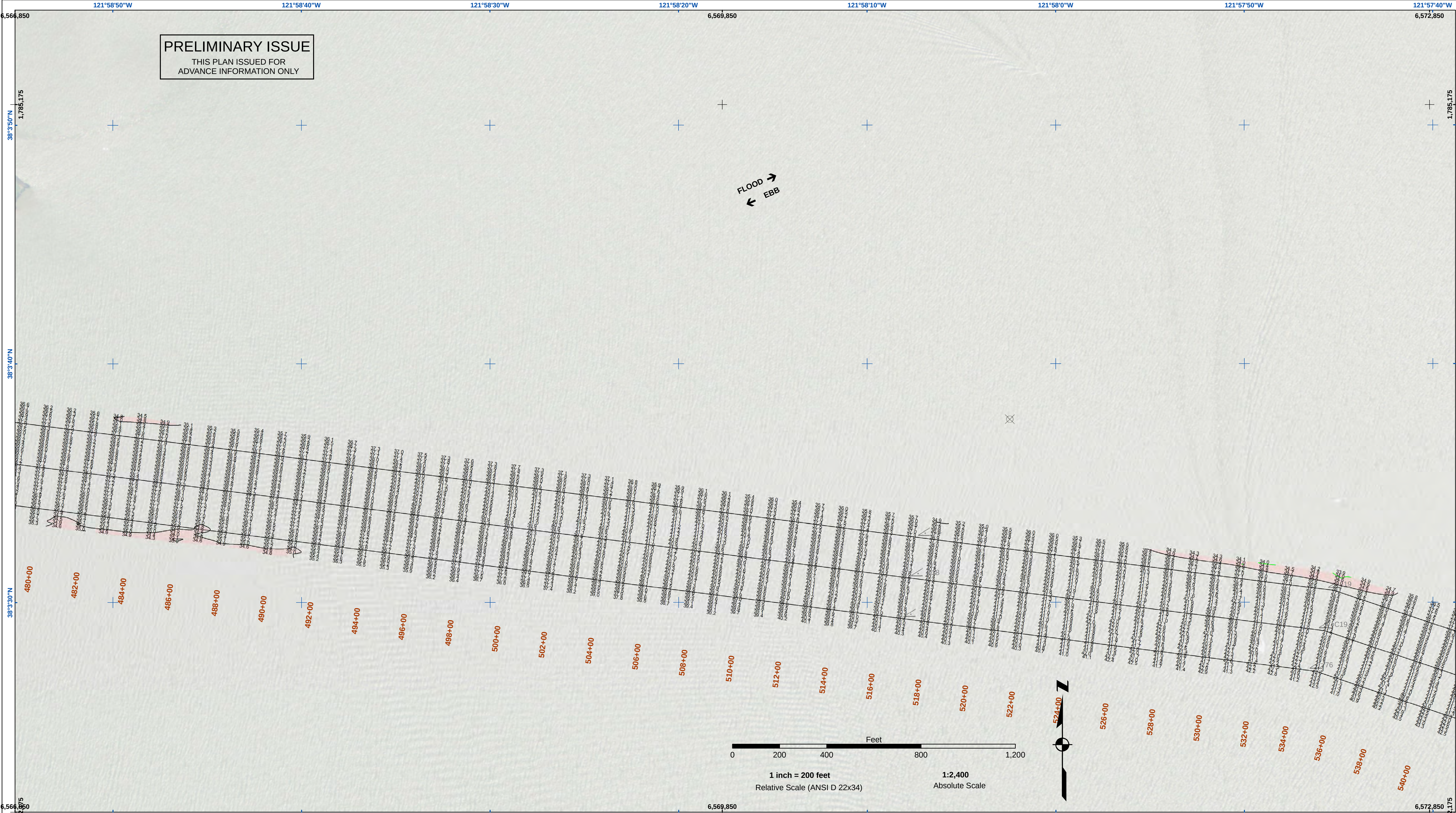
SUISUN BAY CHANNEL

CONDITION SURVEY

31 MAY AND 01 JUNE 2018

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Reference
Number

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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*

Contours

-35

-34

-33

-32

-31

NOTES:

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HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

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PREPARED UNDER THE DIRECTION OF LT COLONEL J. RAYFIELD	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By:	Jun 13, 2018
Recommended: Chief Hydro Survey Section	Checked By:	Designed by:
Approved: Chief Construction Branch	PDT	Drawn by:
	PDT	PDT

CALIFORNIA

CONTRA COSTA COUNTY

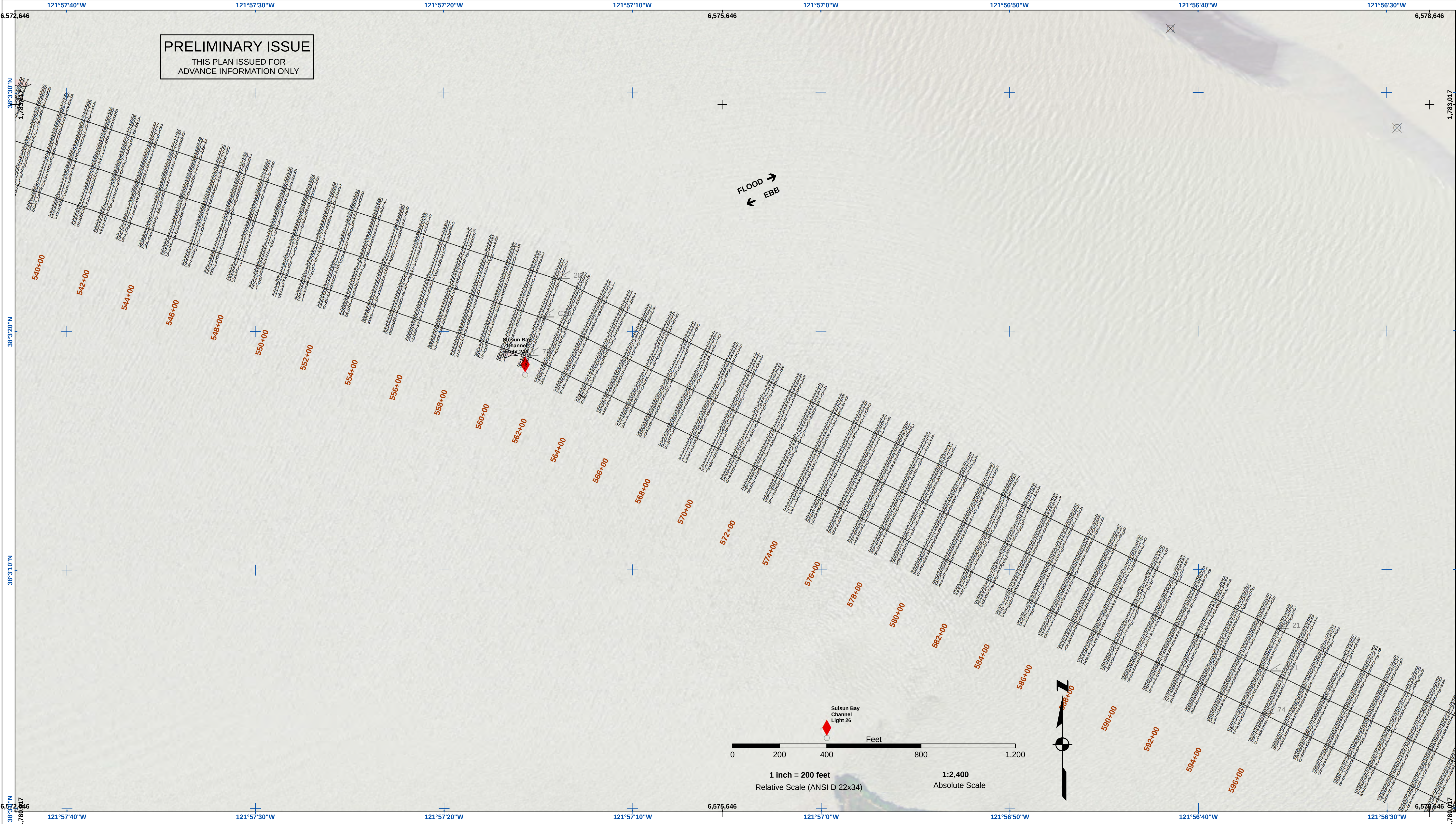
SUISUN BAY CHANNEL

CONDITION SURVEY

31 MAY AND 01 JUNE 2018

Sheet
Reference
Number

9 of 12



PRELIMINARY ISSUE
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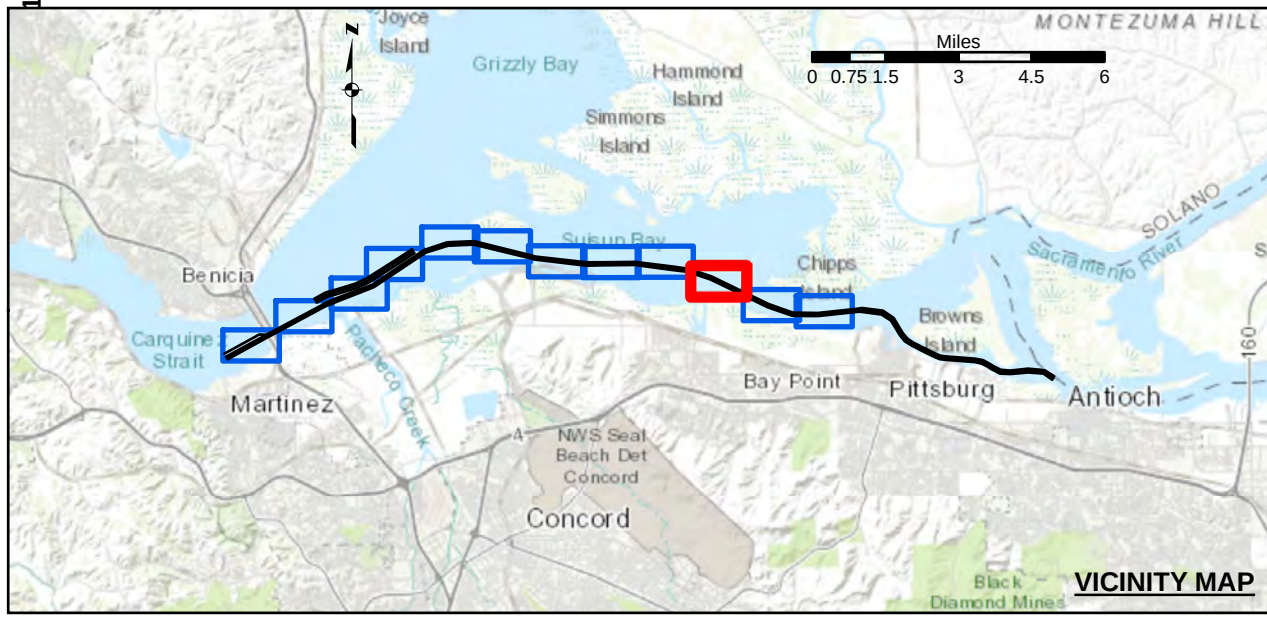
**US Army Corps
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San Francisco District
1455 Market Street
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PREPARED UNDER THE DIRECTION OF LT COLONEL J. RAYFIELD	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By:	Jun 13, 2018
Recommended: Chief, Hydro Survey Section	Checked By:	Designed by:
Approved: Chief, Construction Branch	PDT	Drawn by:
	PDT	PDT

CALIFORNIA
SUISUN BAY CHANNEL
CONDITION SURVEY
31 MAY AND 01 JUNE 2018

**Sheet
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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*
- Contours

-35

-34

-33

-32

-31

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.

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.

PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY, BASE MAPS ARE USDA NAIP 2010.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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.

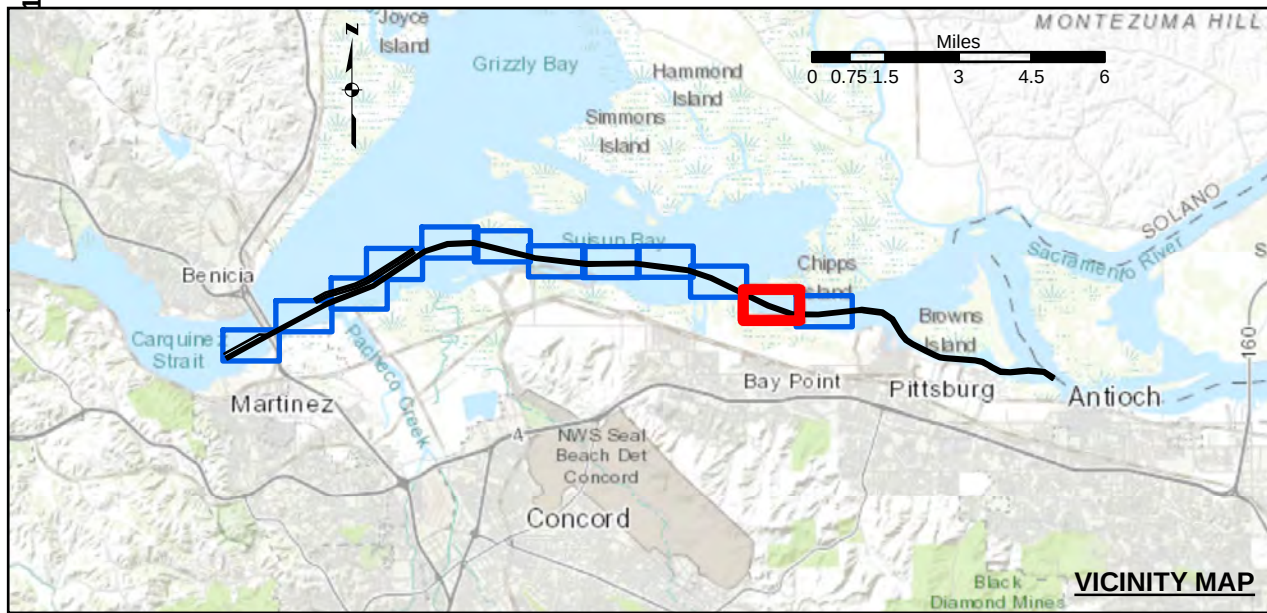
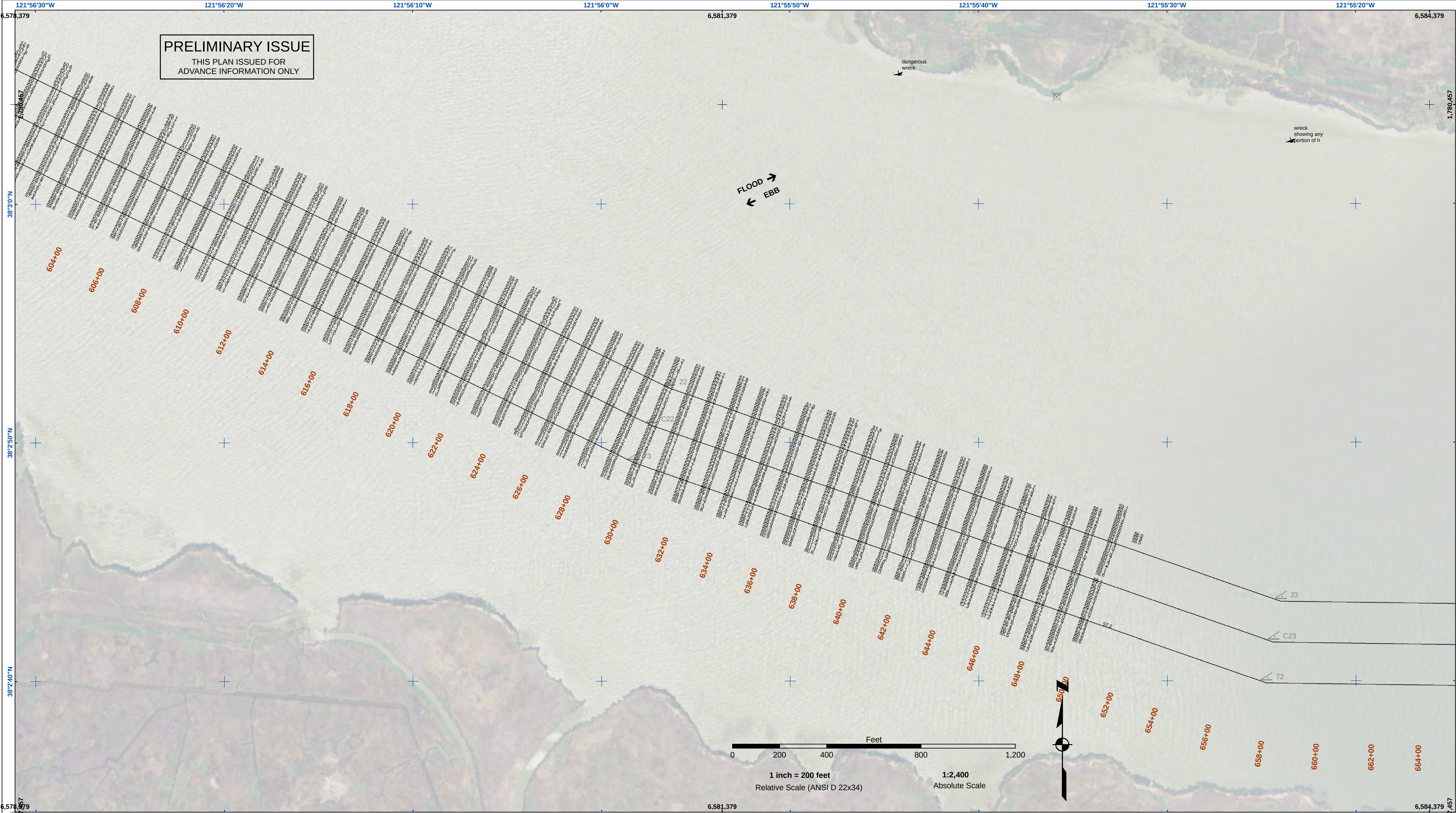
THE PROJECT DEPTH IS 35 FEET.

VERTICAL CONTROL:
SUISUN BAY CHANNEL
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK
ELEV 14.875 FT MLLW., NAVD 88 DATUM.
TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.

(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997),
(LINES 500+00 TO 660+00) BENCHMARK "5144-P" (1990 RESET 1997),
USC&GS DISK, ELEV 11.83 FT MLLW., NAVD 88 DATUM.
TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.

(LINES 660+00 TO 733+45) BENCHMARK "5096-B",
USC&GS DISK, ELEV 21.76 FT MLLW., NAVD 88 DATUM.
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.

HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON



- 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

-35

-34

-33

-32

-31

NOTES:

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HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

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Submitted: Hydro Survey Team Leader	Plotted By:	Jun 13, 2018
Recommended: Chief Hydro Survey Section	Checked By:	Designed by:
Approved: Chief Construction Branch	PDT	Drawn by:
		PDT

CALIFORNIA

CONTRA COSTA COUNTY

SUISUN BAY CHANNEL

CONDITION SURVEY

31 MAY AND 01 JUNE 2018