



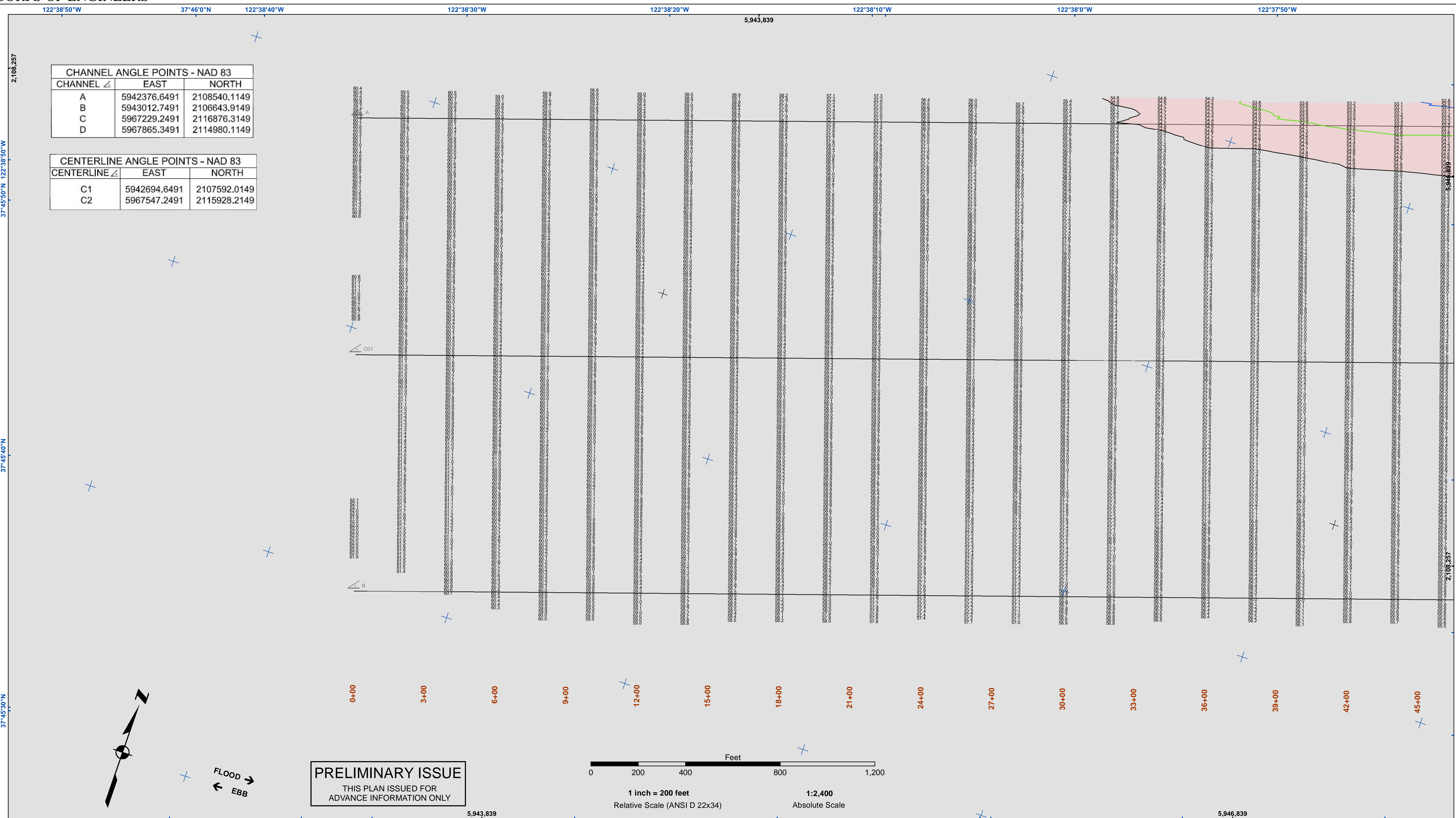
US Army Corps of Engineers
San Francisco District
450 Golden Gate Ave.
San Francisco, CA 94102

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 United States Government shall not be liable for any damages, including consequential damages, arising from the use of this information. The user is responsible for the results of any application of the data for other than its intended purpose. The United States Government shall not be liable for any damages, including consequential damages, arising from the use of this information.

Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT	Chart Date: Apr 20, 2023
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

SAN FRANCISCO BAY
SAN FRANCISCO
CALIFORNIA
SAN FRANCISCO MAINSHIP CHANNEL
CONDITION SURVEY
06-18 APRIL 2023

Sheet Reference Number
1 of 5

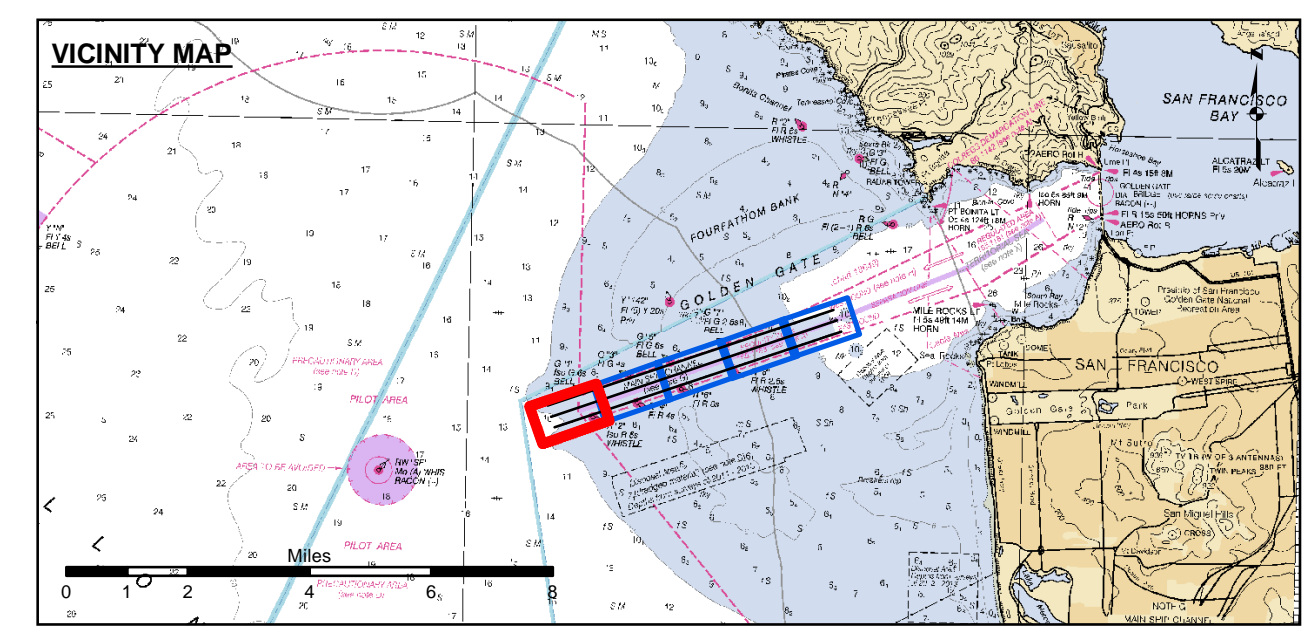


CHANNEL ANGLE POINTS - NAD 83

CHANNEL ∠	EAST	NORTH
A	5942376.6491	2108540.1149
B	5943012.7491	2106643.9149
C	5967229.2491	2116876.3149
D	5967865.3491	2114980.1149

CENTERLINE ANGLE POINTS - NAD 83

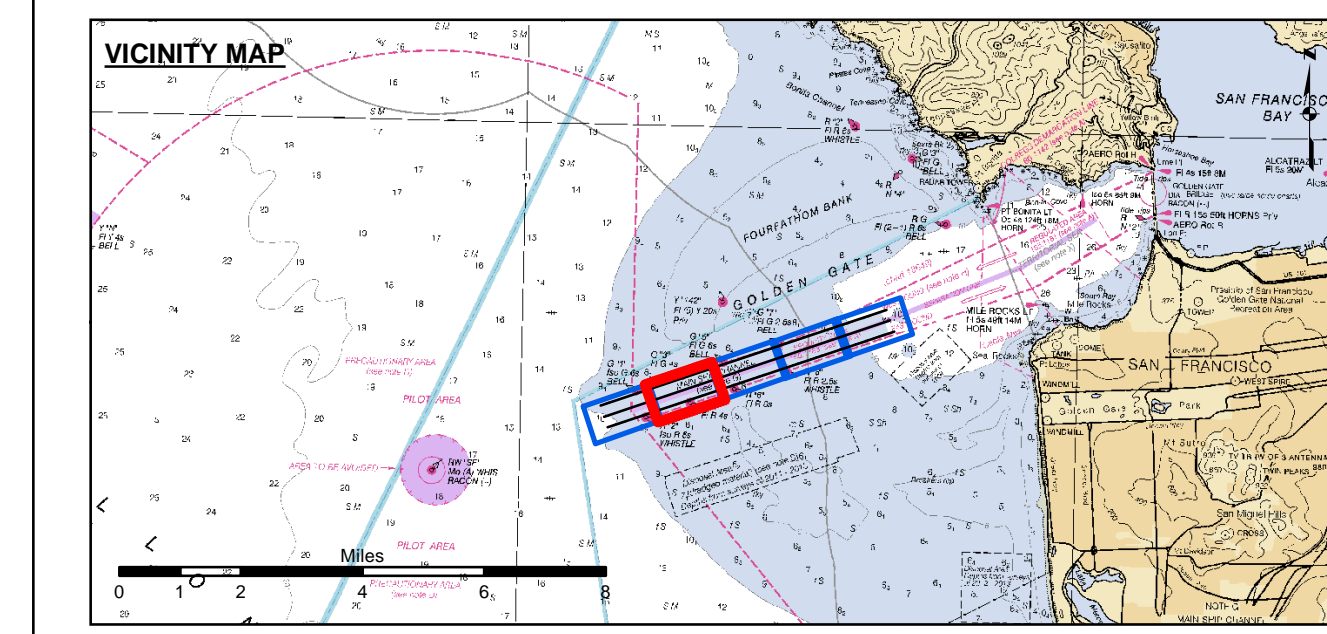
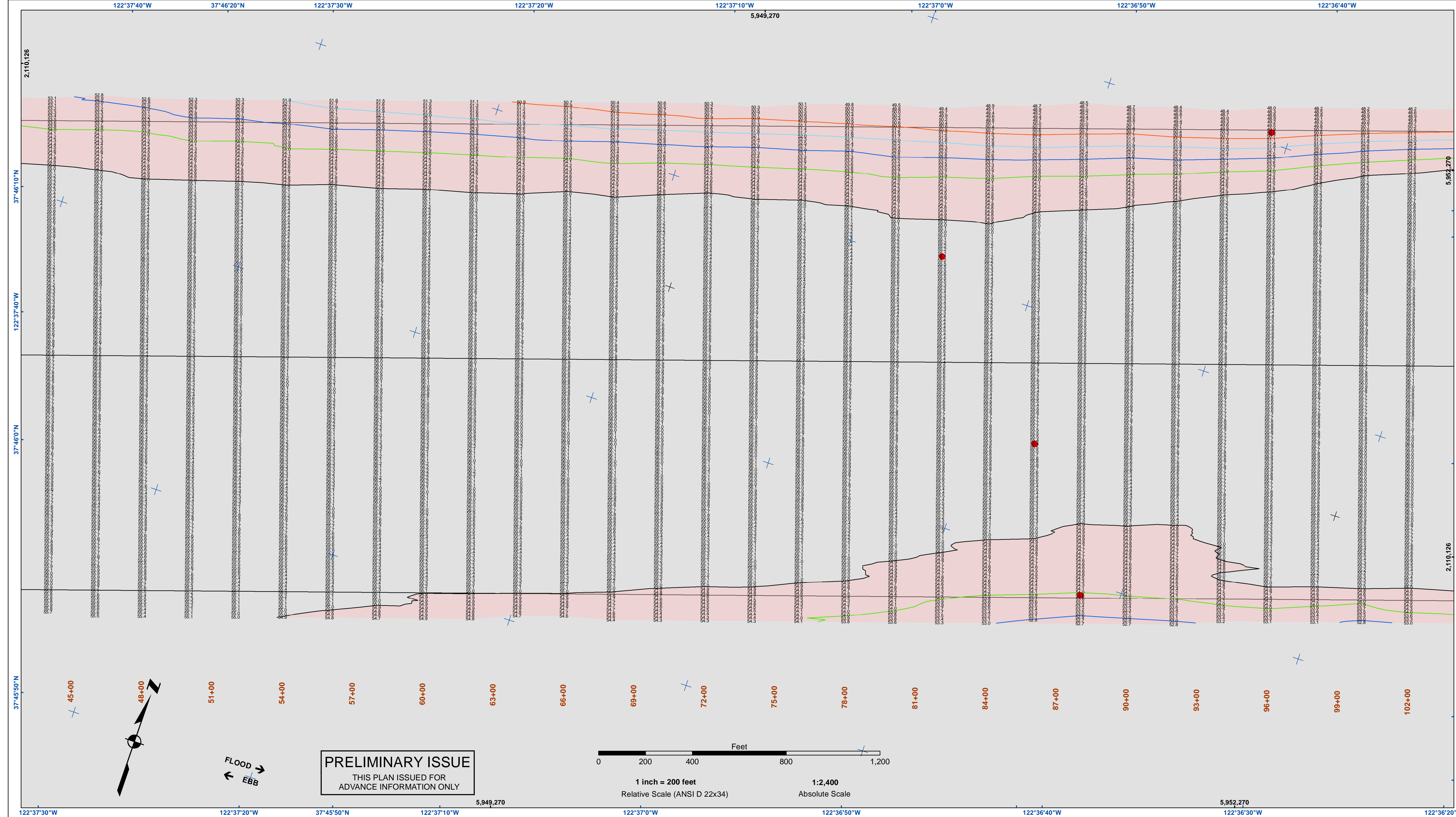
CENTERLINE ∠	EAST	NORTH
C1	5942694.6491	2107592.0149
C2	5967547.2491	2115928.2149



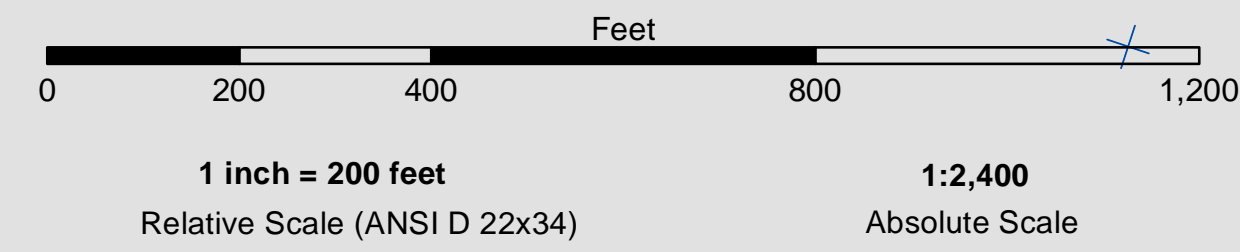
- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding*
- Contour Lines**
- 51
- 52
- 53
- 54
- 55

NOTES:
HORIZONTAL COORDINATE SYSTEM:
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.
VERTICAL DATUM:
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.
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.
*SHOALEST SOUNDING PER QUARTER PER REACH
SOUNDINGS FOR THE CHANNEL MEASURED WITH MULTIBEAM ECHOSOUNDER AND ARE SHOWN TO THE NEAREST TENTH FOOT
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY. NAVD 88.
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.
INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
SURVEYED BY THE CORPS OF ENGINEERS.
PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
THE PROJECT DEPTH IS 55 FEET AT M.L.L.W. SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT THE HYDE STREET PIER, SAN FRANCISCO, CALIFORNIA.
VERTICAL CONTROL:
BENCHMARK "Q-481" US&GS DISK ELEV. 19.54 FT MLLW.
HORIZONTAL CONTROL:
COAST GUARD D-BEACON.



PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



- | | | | | | |
|--|----------------------------|--|--------------------|----------------------|----|
| | Federal Navigation Channel | | Beacon, General | Contour Lines | |
| | Shoaling Area | | Obstruction Point | | 51 |
| | Placement Area | | Navigation Buoy | | 52 |
| | Anchorage Area | | Navigation Buoy | | 53 |
| | Wreck Area | | Shoalest Sounding* | | 54 |
| | Submerged Wreck | | | | 55 |
| | Angle Point | | | | |

NOTES:
HORIZONTAL COORDINATE SYSTEM:
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.
VERTICAL DATUM:
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.
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.
*SHOALEST SOUNDING PER QUARTER PER REACH
SOUNDINGS FOR THE CHANNEL MEASURED WITH MULTIBEAM ECHOSOUNDER AND ARE SHOWN TO THE NEAREST TENTH FOOT
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY, NAVD 88.
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.
INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
SURVEYED BY THE CORPS OF ENGINEERS.
PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
THE PROJECT DEPTH IS 55 FEET AT M.L.L.W. SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT THE HYDE STREET PIER, SAN FRANCISCO, CALIFORNIA.
VERTICAL CONTROL:
BENCHMARK "Q-481" USC&GS DISK ELEV. 19.54 FT MLLW.
HORIZONTAL CONTROL:
COAST GUARD D-BEACON.

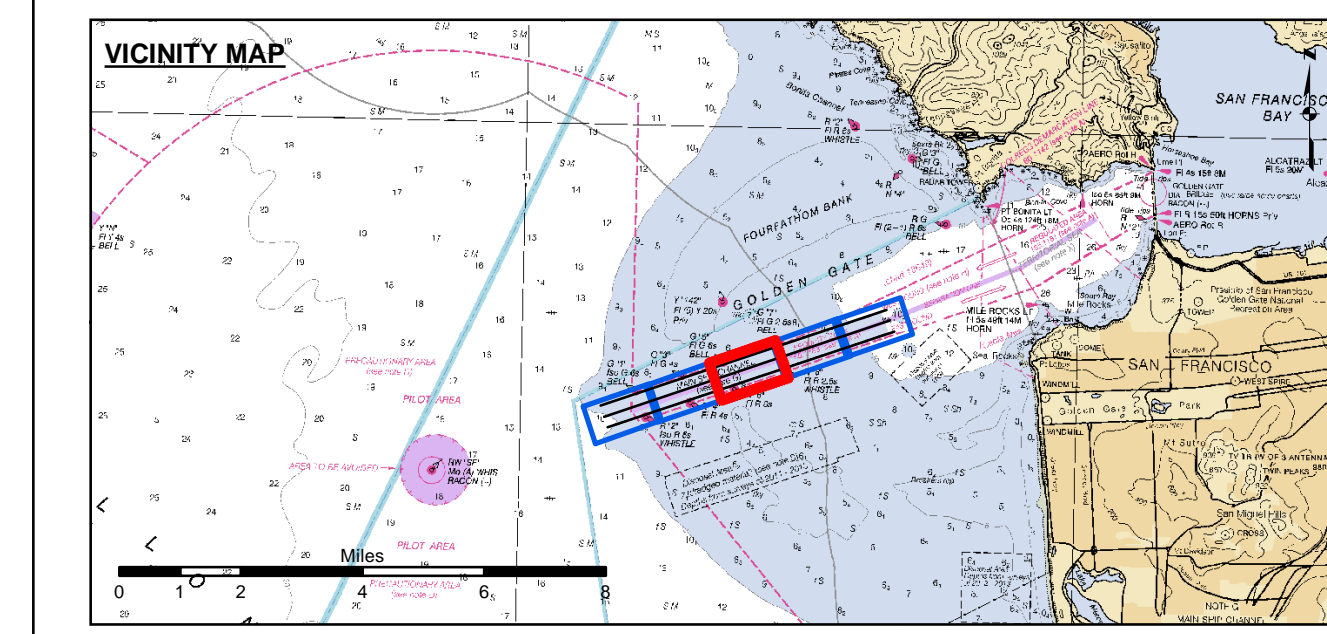
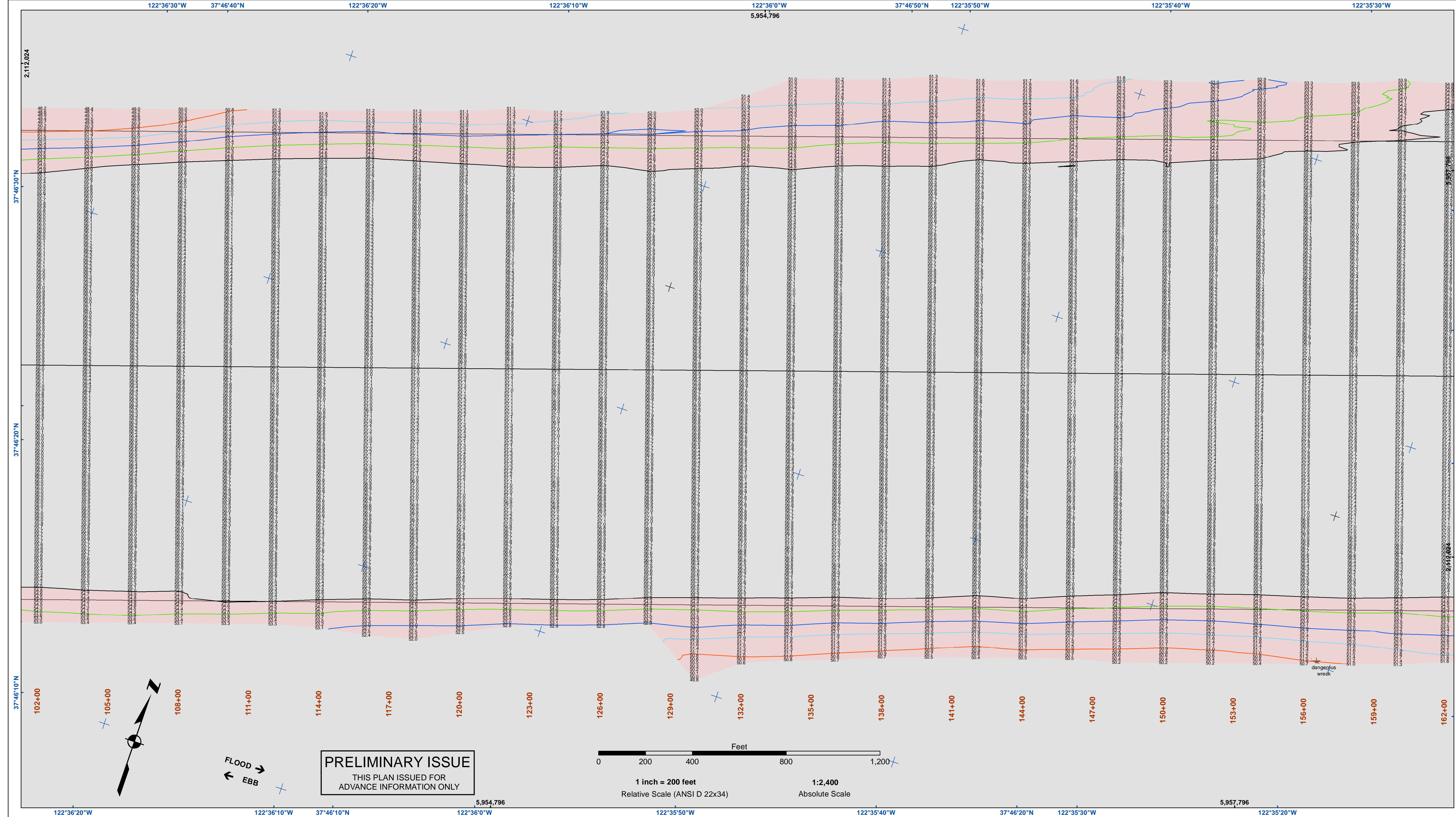


DISCLAIMER
The United States Government furnishes this information as a service to the public. It is not intended to be used for navigation. The user is responsible for the accuracy of the data for their intended purpose. The user is responsible for the accuracy of the data for their intended purpose. The user is responsible for the accuracy of the data for their intended purpose.

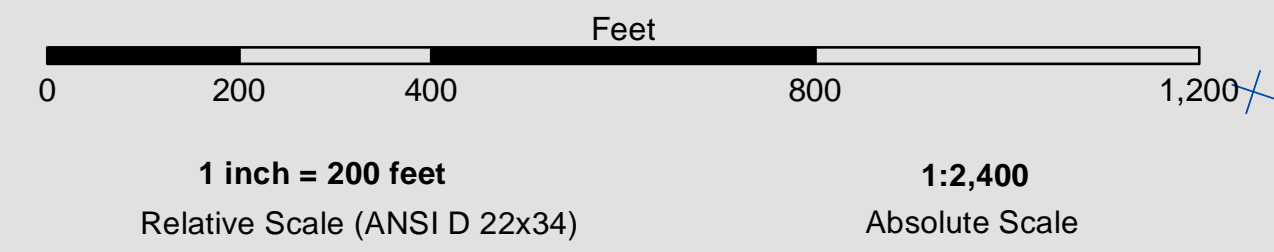
Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER	Surveyed By: PDT	Chart Date: Apr 20, 2023
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

SAN FRANCISCO BAY
SAN FRANCISCO
MAINSHIP CHANNEL
CONDITION SURVEY
06-18 APRIL 2023

Sheet
Reference
Number
2 of 5



PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



- | | | |
|----------------------------|--------------------|----------------------|
| Federal Navigation Channel | Beacon, General | Contour Lines |
| Shoaling Area | Obstruction Point | |
| Placement Area | Navigation Buoy | |
| Anchorage Area | Navigation Buoy | |
| Wreck Area | Shoalest Sounding* | |
| Submerged Wreck | | |
| Angle Point | | |

NOTES:
HORIZONTAL COORDINATE SYSTEM: NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.
VERTICAL DATUM: SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.
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.
*SHOALEST SOUNDING PER QUARTER PER REACH
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY, NAVD 88.
DRAWING NOT TO BE USED FOR NAVIGATION, ONLY CHANNEL CONDITION AT DATE OF SURVEY.

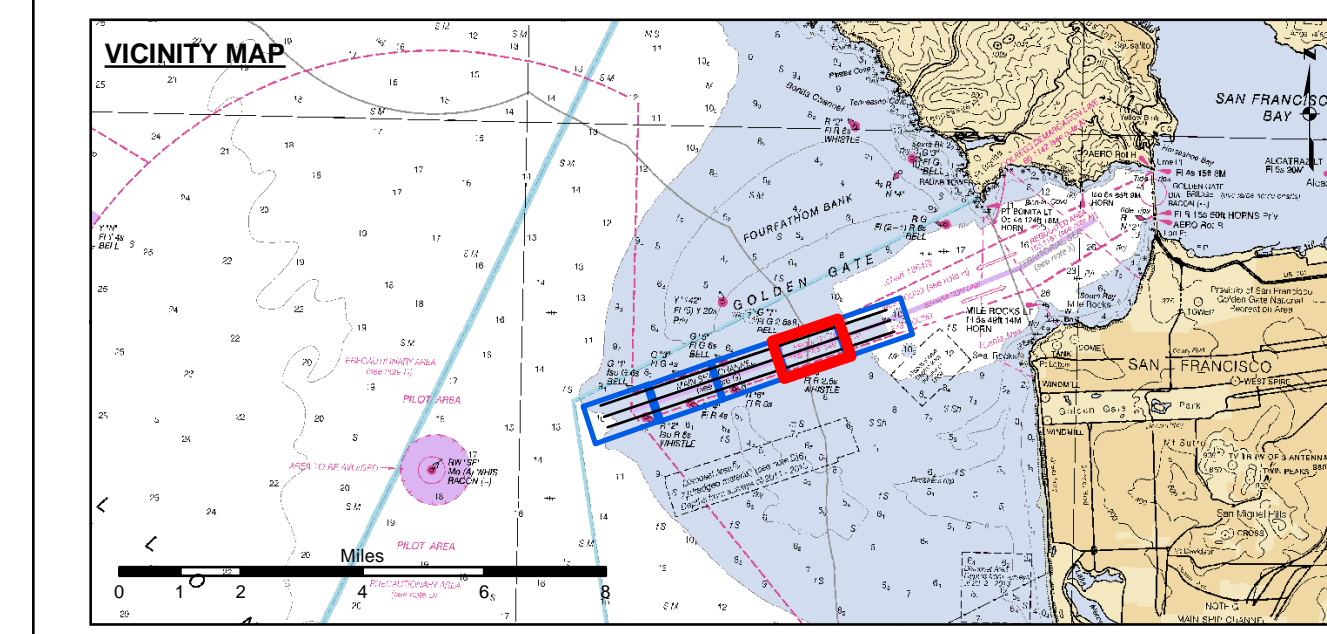
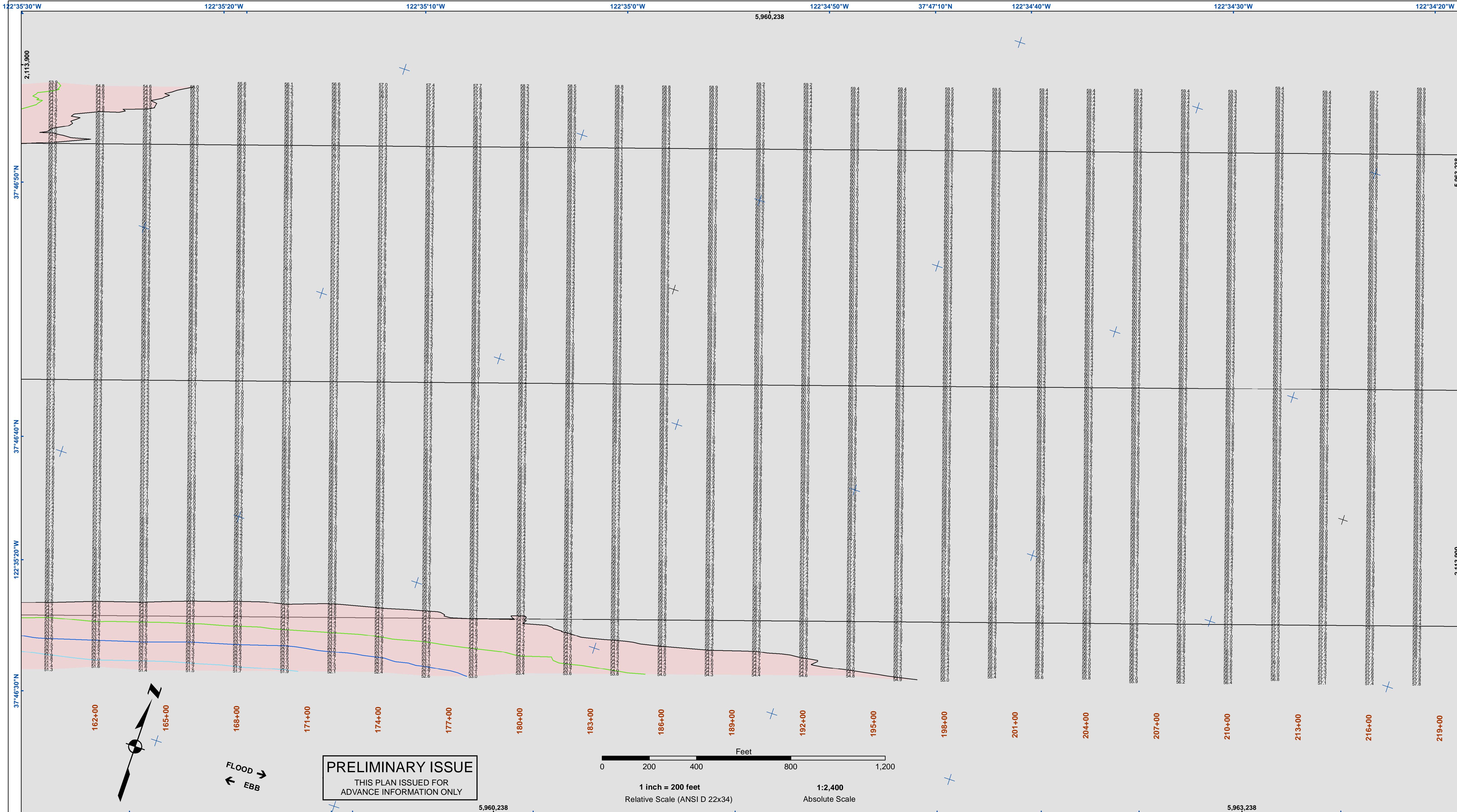
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.
INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
SURVEYED BY THE CORPS OF ENGINEERS.
PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
THE PROJECT DEPTH IS 55 FEET AT M.L.L.W. SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT THE HYDE STREET PIER, SAN FRANCISCO, CALIFORNIA.
VERTICAL CONTROL: BENCHMARK "Q-481" USCG&S DISK ELEV. 19.54 FT MLLW.
HORIZONTAL CONTROL: COAST GUARD D-BEACON.

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 use of the information and the data furnished. The United States Government shall not be liable for any loss or damage, including consequential, special, or exemplary damages, resulting from the use of the information, whether or not such loss or damage could have been reasonably foreseen. These data belong to the Government. Therefore the recipient may not transfer these data to others without also transferring this disclaimer.

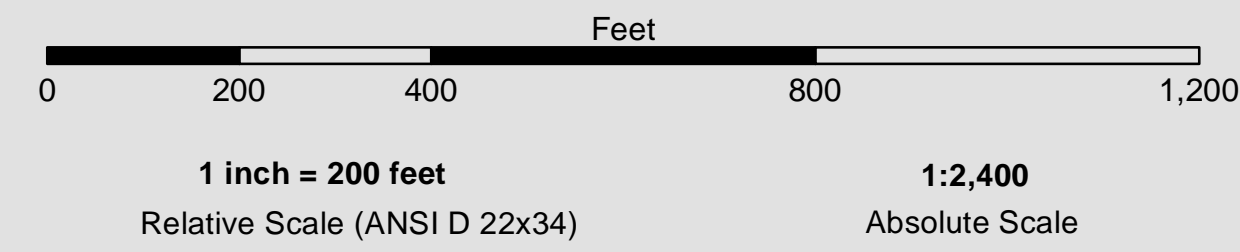
Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer	Chart Date: Apr 20, 2023
Submitted by: Hydro Survey Team Leader	Designed by: PDT
Recommended by: Chief, Hydro Survey Section	Checked by: PDT
Approved by: Chief, Construction Branch	Drawn by: PDT

CALIFORNIA
SAN FRANCISCO BAY
SAN FRANCISCO MAINSHIP CHANNEL
CONDITION SURVEY
06-18 APRIL 2023

Sheet Reference Number
3 of 5



PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



- | | | | | |
|--|----------------------------|--|--------------------|----------------------|
| | Federal Navigation Channel | | Beacon, General | Contour Lines |
| | Shoaling Area | | Obstruction Point | 51 |
| | Placement Area | | Navigation Buoy | 52 |
| | Anchorage Area | | Navigation Buoy | 53 |
| | Wreck Area | | Shoalest Sounding* | 54 |
| | Submerged Wreck | | | 55 |
| | Angle Point | | | |

NOTES:
HORIZONTAL COORDINATE SYSTEM:
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.
VERTICAL DATUM:
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.
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.
*SHOALEST SOUNDING PER QUARTER PER REACH
SOUNDING FOR THE CHANNEL MEASURED WITH MULTIBEAM ECHOSOUNDER AND ARE SHOWN TO THE NEAREST TENTH FOOT
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY, NAVD 88.
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.
INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
SURVEYED BY THE CORPS OF ENGINEERS.
PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
THE PROJECT DEPTH IS 55 FEET AT M.L.L.W. SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT THE HYDE STREET PIER, SAN FRANCISCO, CALIFORNIA.
VERTICAL CONTROL:
BENCHMARK "Q-481" USC&GS DISK ELEV. 19.54 FT MLLW.
HORIZONTAL CONTROL:
COAST GUARD D-BEACON.

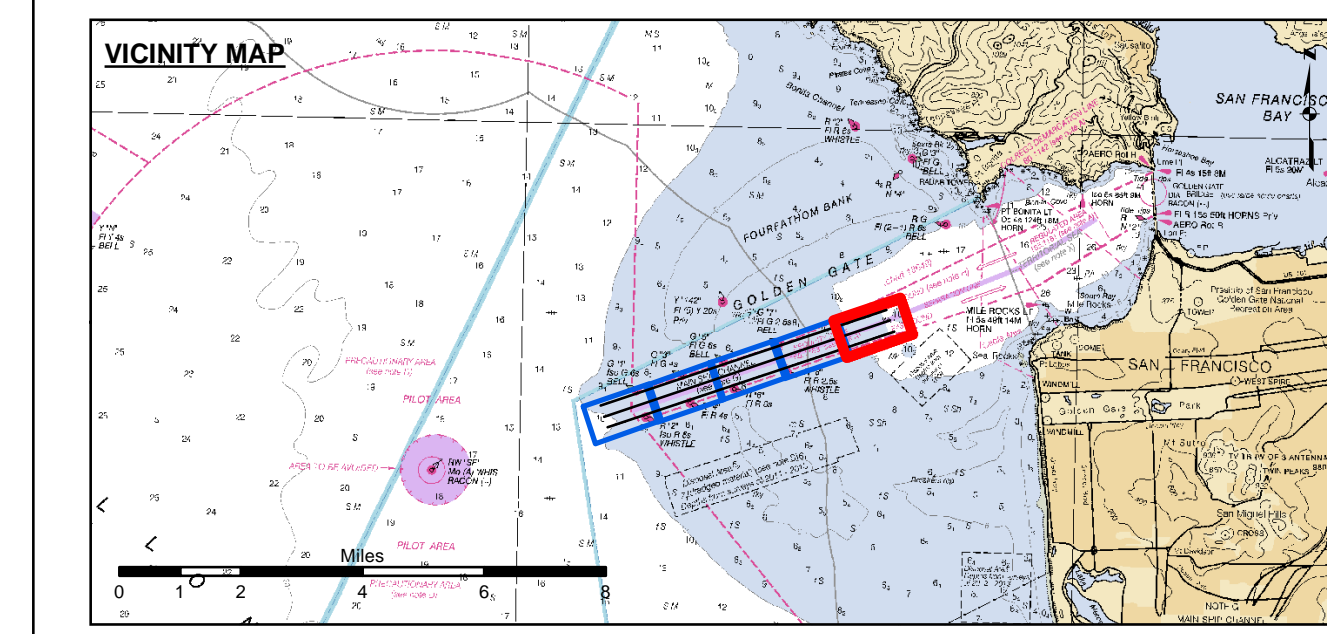
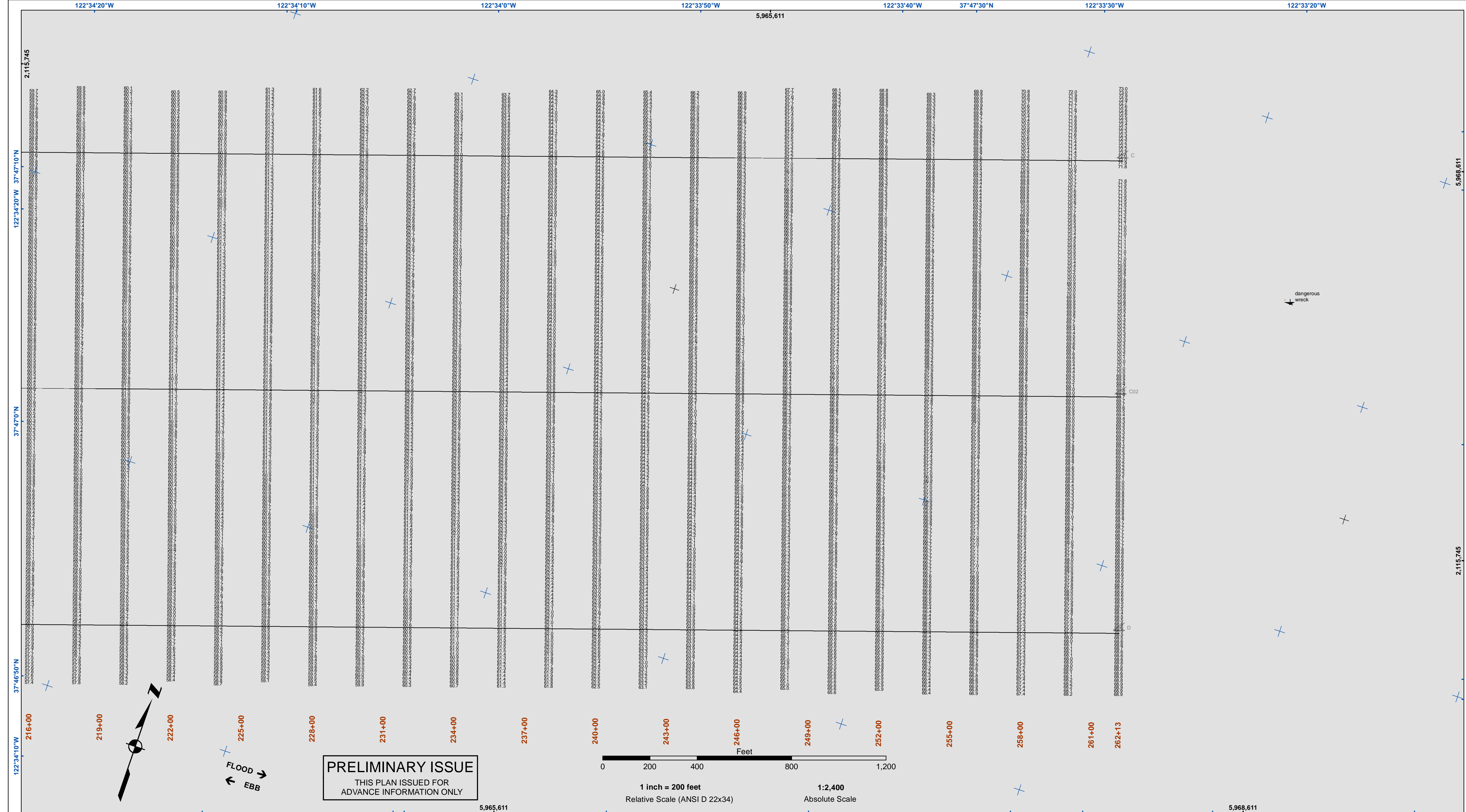


DISCLAIMER
The United States Government furnishes this information as a service to the public. It is not intended to be used for any purpose other than that for which it was prepared. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

Prepared Under the Direction of KEVIN P. ARNETT LT Colonel, C.E., District Engineer	Chart Date: Apr 20, 2023
Submitted: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Drawn by: PDT
Approved: Chief, Construction Branch	

CALIFORNIA
SAN FRANCISCO
MAINSHIP CHANNEL
CONDITION SURVEY
06-18 APRIL 2023

Sheet
Reference
Number
4 of 5



- 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*
- Contour Lines**
- 51
- 52
- 53
- 54
- 55

NOTES:
 HORIZONTAL COORDINATE SYSTEM:
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.
 VERTICAL DATUM:
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.
 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.
 *SHOALEST SOUNDING PER QUARTER PER REACH
 SOUNDING FOR THE CHANNEL MEASURED WITH MULTIBEAM ECHOSOUNDER AND ARE SHOWN TO THE NEAREST TENTH FOOT
 SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY. NAVD 88.
 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.
 INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
 SURVEYED BY THE CORPS OF ENGINEERS.
 PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE III NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
 THE PROJECT DEPTH IS 55 FEET AT M.L.L.W. SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT THE HYDE STREET PIER, SAN FRANCISCO, CALIFORNIA.
 VERTICAL CONTROL:
 BENCHMARK "Q-481" USC&GS DISK ELEV. 19.54 FT MLLW.
 HORIZONTAL CONTROL:
 COAST GUARD D-BEACON.



DISCLAIMER
 The United States Government furnishes this information as a service to the public. It is not intended to be used for any purpose other than that for which it was prepared. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

Prepared Under the Direction of LT COLONEL C.E. DISTRICT ENGINEER KEVIN P. ARNETT	Surveyed By: PDT	Chart Date: Apr 20, 2023
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

CALIFORNIA
 SAN FRANCISCO BAY
SAN FRANCISCO MAINSHIP CHANNEL
 CONDITION SURVEY
 06-18 APRIL 2023

Sheet Number
 5 of 5