

NOTES:

DRAWINGS NOT TO BE USED AS 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:
24 FEBRUARY 2009 - Stations 0+00 to 56+00
27 FEBRUARY 2009 - Stations 58+00 to 133+49

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. NAVD 88.

VERTICAL CONTROL: OUTER HARBOR
MON. TIDAL B.M., USACOE DISK 13.59FT, NAVD 88 DATUM
THIS ELEVATION WAS CREATED USING MON. 4777A 1994 NOS DISK.
ELEVATION: 13.60FT MLLW, NAVD 88 DATUM, PUBLISHED DATED: 4/21/2003
TIDE GAUGE LOCATION: BERTH 38, CONTRACTOR TIDE GAUGE #40
LINES: 0+00 TO 56+00
MON. GPS-2, PORT OF OAKLAND DISK, 13.85FT MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATION: BERTH 30, TRANSPAC TERMINAL
LINES: 58+00 TO 88+00
MON. HL-18B, USACOE DISK, 13.96FT MLLW, NAVD 88 DATUM
TOWILL DECEMBER 2004 CONTROL SURVEY
TIDE GAUGE LOCATION: BERTH 7
LINES: 90+00 TO 133+49

HORIZONTAL CONTROL:
RTK GPS VIA VRS NETWORK PRIMARILY AND CG D-BEACON.

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

PROJECT DEPTH OF OUTER AND INNER HARBOR IS -50 FEET. PROJECT DEPTH FROM INNER HARBOR TURNING BASIN TO PARK STREET BRIDGE IS 35 FEET. TIDAL CANAL PROJECT DEPTH IS 18 FEET.

PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

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

Mark	Description	Date	Appr.

SUBMITTED:	MC	DESIGNED BY:	TYW	CHECKED BY:	EWC
	Hydro Survey Team Leader	DATE:	2/4/2009	DATE:	2/4/2009
APPROVAL RECOMMENDED:	3 OF 8	SHEET NO.:	2	DRAWING NO.:	2
CHIEF, Technical Support Section	PREPARED UNDER THE DIRECTION OF	DATE:	2/4/2009	DATE:	2/4/2009
APPROVED:	LAURENCE M. FARRELL	DATE:	2/4/2009	DATE:	2/4/2009
Chief, Construction Branch	LT. COLONEL, C.E., DISTRICT ENGINEER	DATE:	2/4/2009	DATE:	2/4/2009

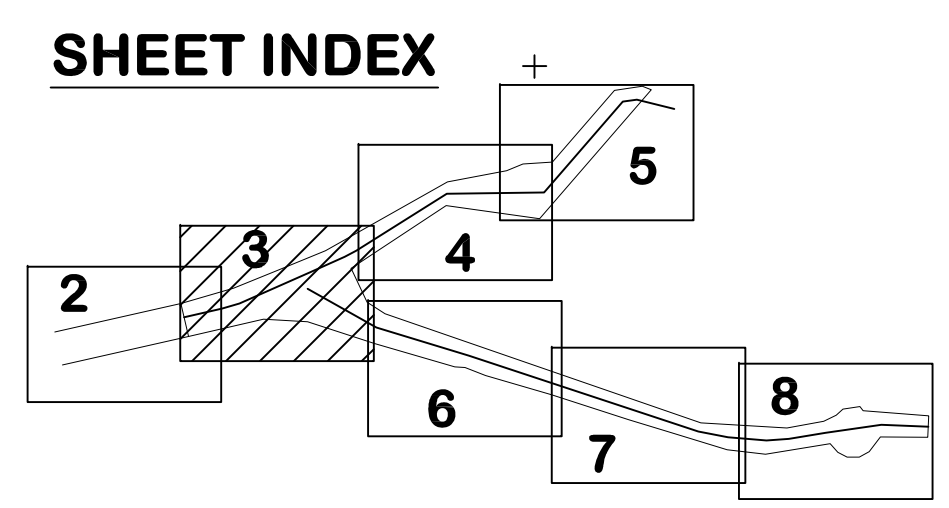
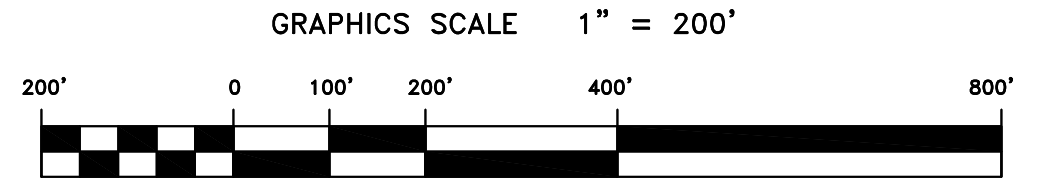
CALIFORNIA
ALAMEDA COUNTY
**OAKLAND HARBOR
ENTRANCE/OUTER CHANNEL
CONDITION SURVEY**
23 & 27 FEBRUARY 2009

Sheet reference
number
C3

TABLE 1
N.A.D. 1983 COORDINATES
ENTRANCE CHANNELS CONTROL LINES

ENTRANCE CHANNEL OUTER			ENTRANCE CHANNEL INNER		
CL PT.	EASTING	NORTHING	CL PT.	EASTING	NORTHING
C1	E 6023646.15	N 2119462.16	C1	E 6027367.99	N 2120782.67
C2	E 6025188.46	N 2119896.23	C2	E 6030203.70	N 2119186.86
C3	E 6025737.33	N 2120062.50	C3	E 6030970.56	N 2118975.22
C4	E 6028997.45	N 2121502.85	C4	E 6032835.95	N 2118274.91
C5	E 6029354.80	N 2121699.81	C5	E 6033407.11	N 2118039.05
C6	E 6032165.53	N 2123462.88	C6	E 6035479.57	N 2117440.87
C7	E 6035180.13	N 2123505.95	C7	E 6037862.88	N 2116685.55
C8	E 6037620.33	N 2126318.15	C8	E 6039110.62	N 2116320.75
C9	E 6038054.24	N 2126382.46	C9	E 6039888.05	N 2116094.59
C10	E 6039210.60	N 2126093.74	C10	E 6040877.20	N 2115906.13
			C11	E 6042074.35	N 2115815.34
			C12	E 6042771.74	N 2115866.56
			C13	E 6043911.04	N 2116070.05
			C14	E 6045424.07	N 2116312.57
			C15	E 6047090.98	N 2116244.72

LLNR 4669: LIGHTED BUOY 4;
100' OUTSIDE CHANNEL LIMIT
(6027847.048, 2119387.609)



LLNR 4660: OAKLAND 7TH STREET
TERMINAL LIGHT 1
(6029791.544, 2120179.441)

