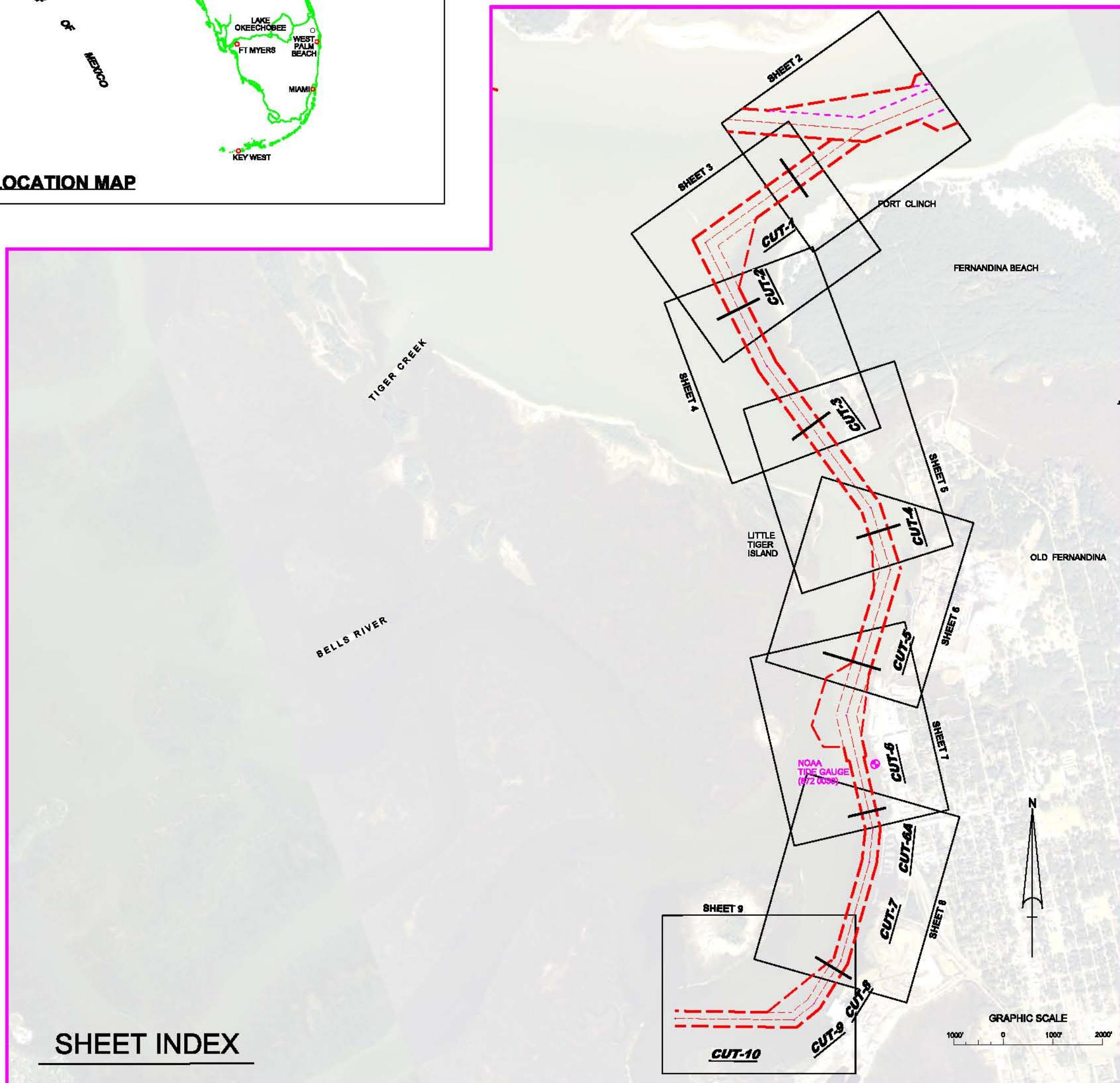




US Army Corps
of Engineers
Jacksonville District
SAFETY ON THIS JOB
DEPENDS ON YOU



FERNANDINA HARBOR PROJECT CONDITION SURVEY

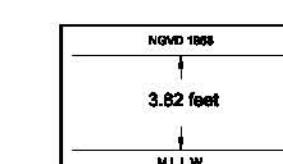


MAP SHEET NOTES:

- REFER TO SURVEY NO. 12-080.
- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER (MLLW) TIDAL DATUM.
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS AND USING A HYACK KINEMATIC TIDAL DATUM (KTD) FILE. FILE NAME: CAMDEN-NASSAU-DUVAL-ST.JOHN-FLAGLER 01FEB2011.KTD.
- ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
- PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
- THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:
REFERENCE BASE LOCATED AT "BATH HOUSE ARP", OPUS PID: BBCB08
TIDE STAFF WAS SET NEAR FERNANDINA MUNICIPAL MARINA FROM "RICHARD E. BONNER", OPUS: BBCB38
- DEPTHs DEPICTED BY THIS SURVEY ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW), TIDAL EPOCH 1983-2001, AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)'S VDATUM MODEL WAS USED AND ADJUSTED TO THE SURVEY EPOCH. DEPTHS ARE THE BENCHMARKS ASSOCIATED WITH THE TIDE GAGE SITE SPECIFIED BELOW:
NOAA TIDE STATION 872-0099, FERNANDINA BEACH, FL
- VERTICAL MEASUREMENTS WERE MADE USING A R2 SONIC 2024 MULTIBEAM SYSTEM AND AN EDGETECH 4800 INTERFEROMETRIC SYSTEM BOTH OPERATING AT 230 kHz. SOUNDINGS SHOWN ARE IN HIGH-FREQUENCY.
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. THIS CHART IS SOLELY FOR THE DISTRIBUTION OF AVAILABLE DEPTHS AT THE TIME OF SURVEY.
- SURVEY ACCURACY STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING, 1 JAN 02.

LEGEND	
*BM	BENCHMARK
■	LIGHTED BEACON
■	GREEN DAYBEACON
▲	RED DAYBEACON
●	RED LIGHTED BUOY
●	GREEN LIGHTED BUOY
△	CAN BUOY
○	NUN BUOY
●	TIDE STAFF
8	PROJECT DEPTH

BENCHMARK	NGVD ELEV. (FT)
FH-28	4.89
872 0099 L TIDAL	6.85



Relationship between NGVD 1988
and 1978 NOAA Mean Lower Low Water
Tidal Datum (1983-2001 epoch)

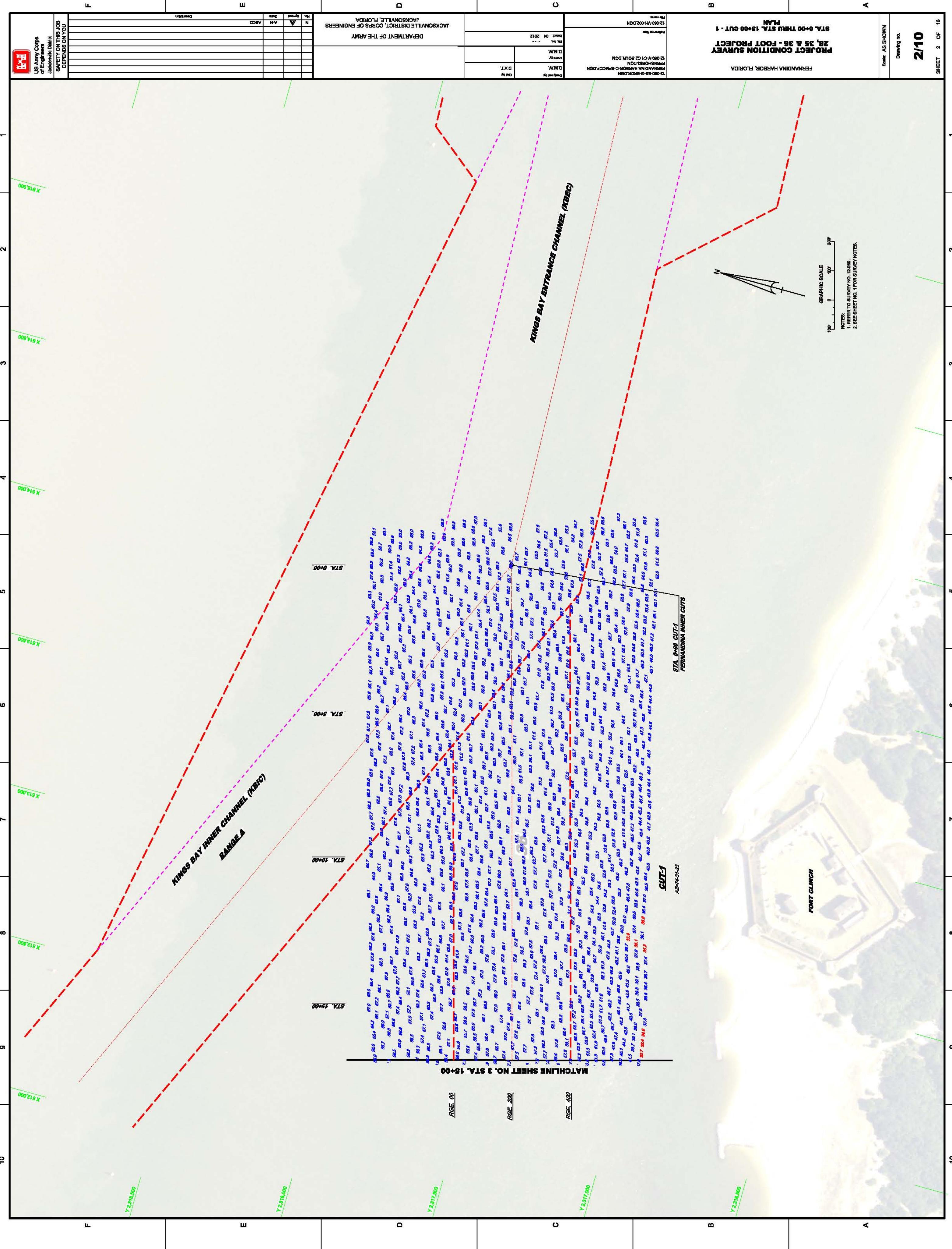
**PROJECT CONDITION SURVEY
28, 35 & 36 - FOOT PROJECT
INNER CHANNEL DESIGN
PLAN**

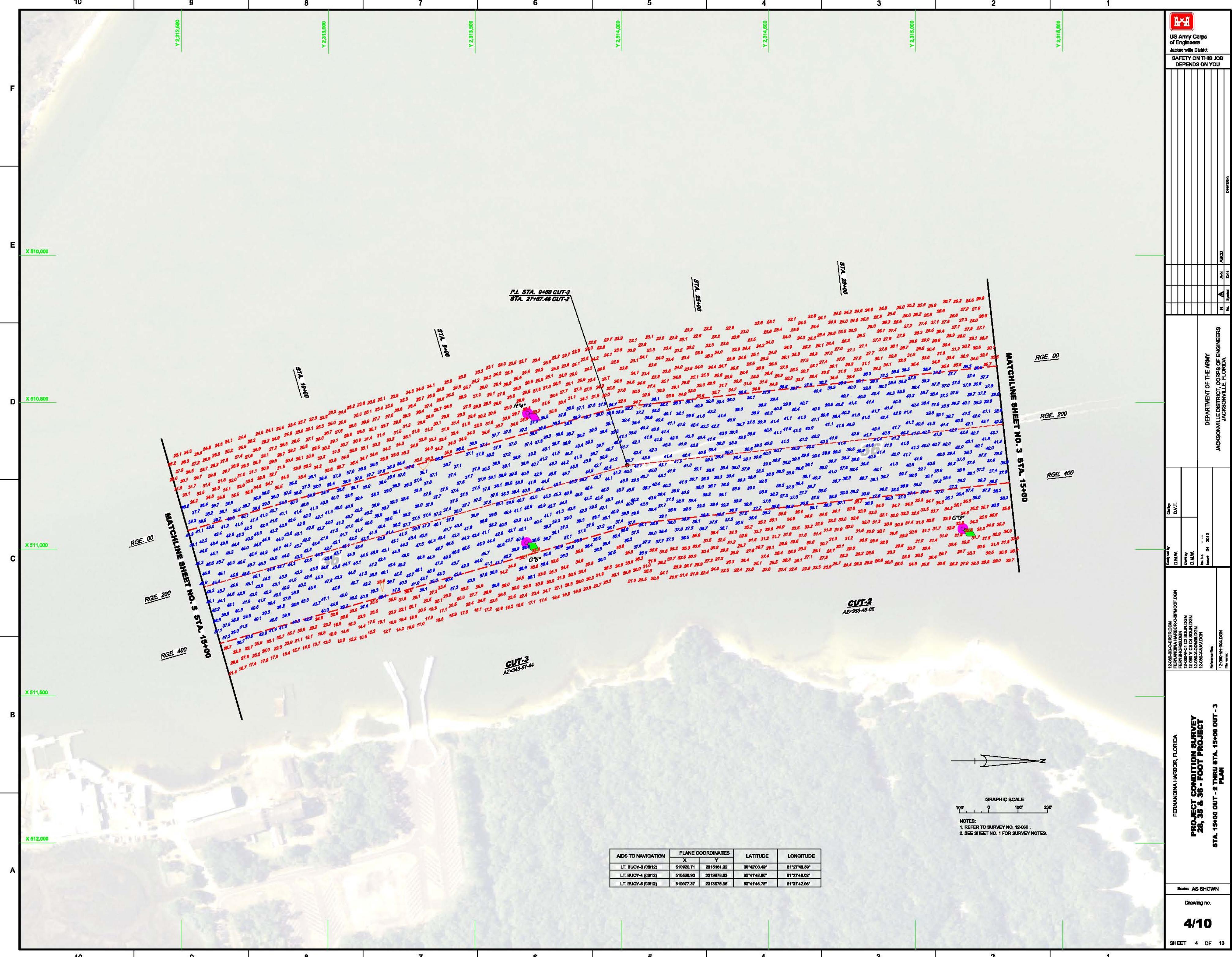
12-080-BS-HAROLDEN
FERNANDINA HARBOR-C-BENCH.DON
FERNANDINA DON
LAYOU16.DON
Ref. No. -- -- Date: 04 2012
D.W.M. D.V.T.
D.M.W. D.M.W.
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

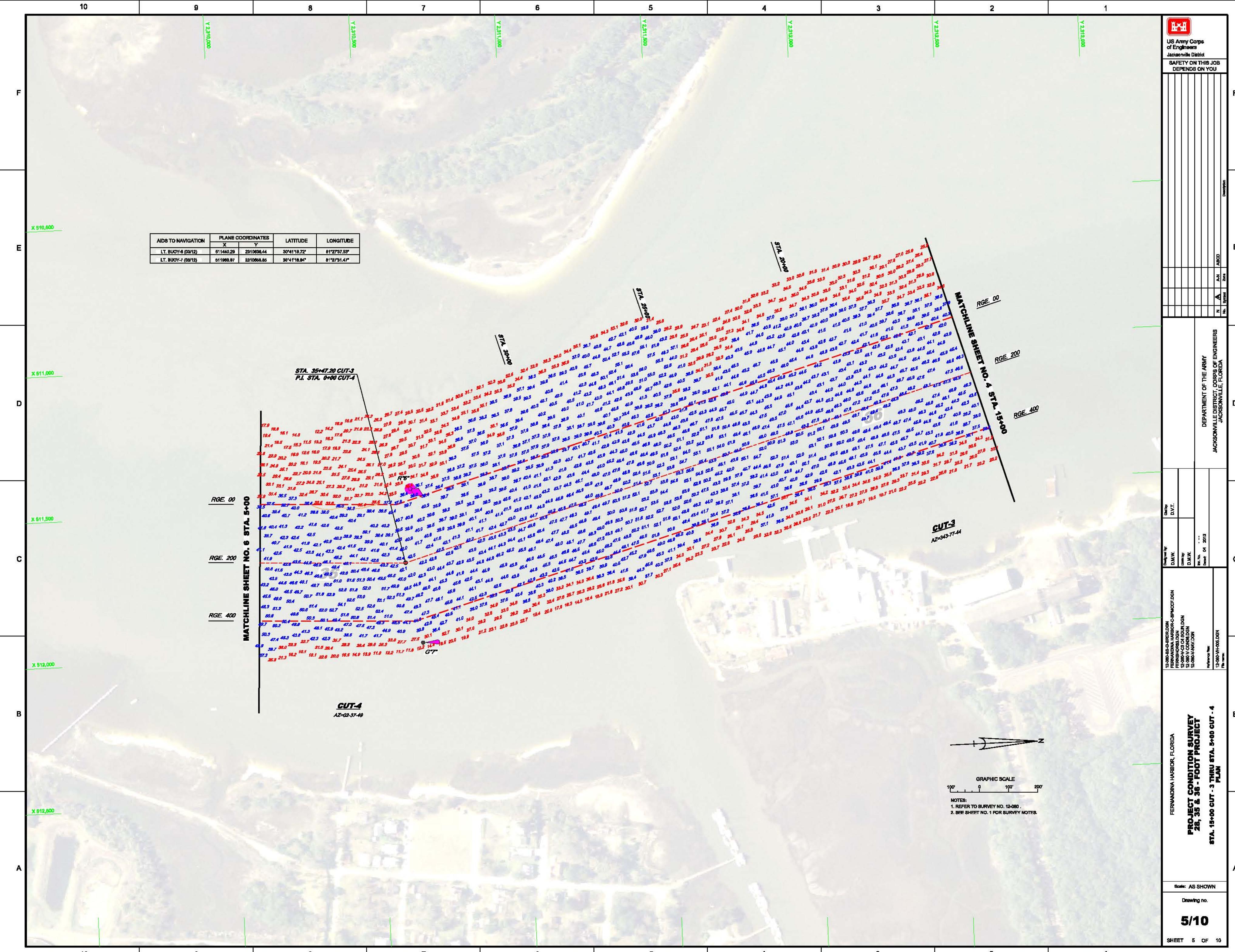
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Drawing no.

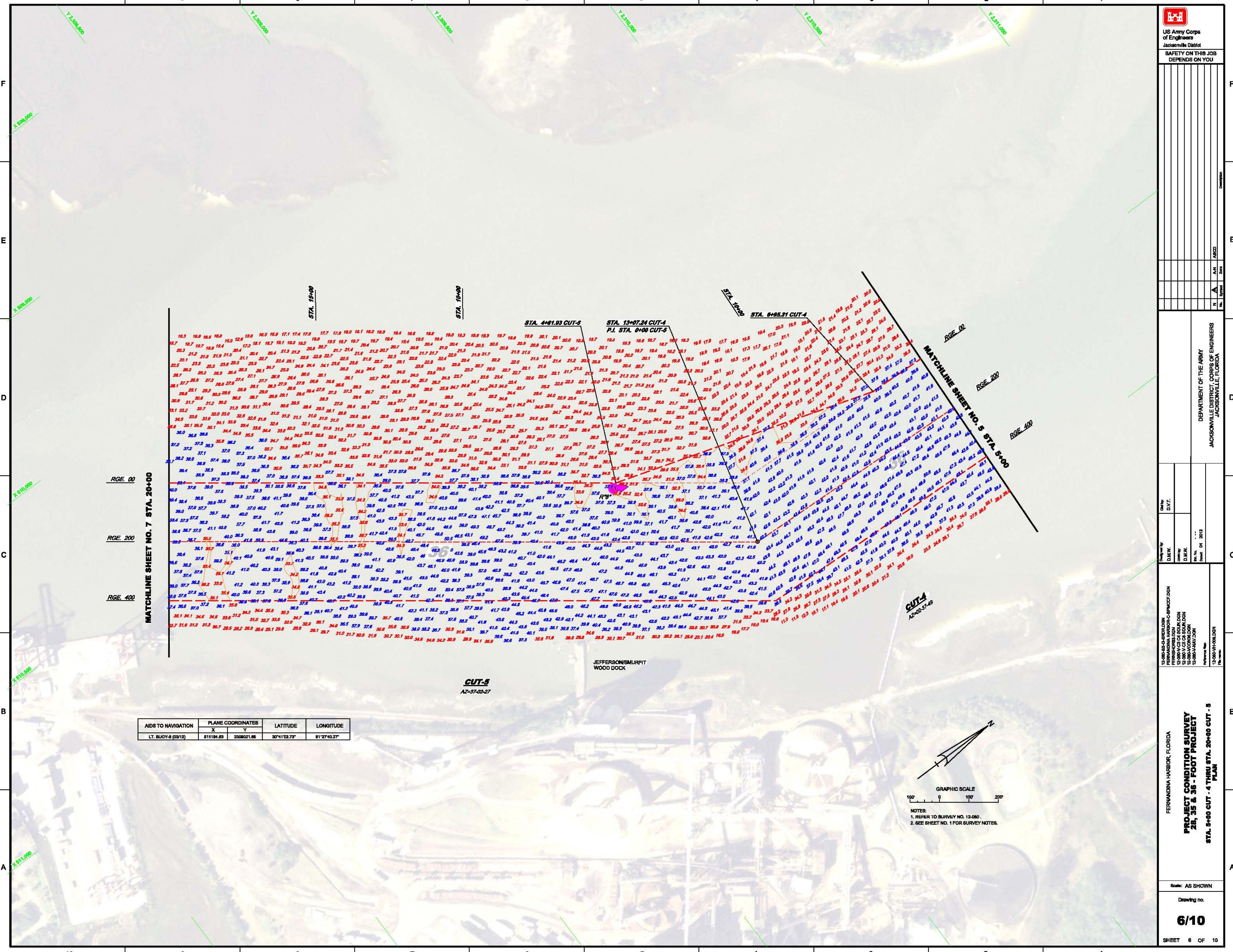
1/10

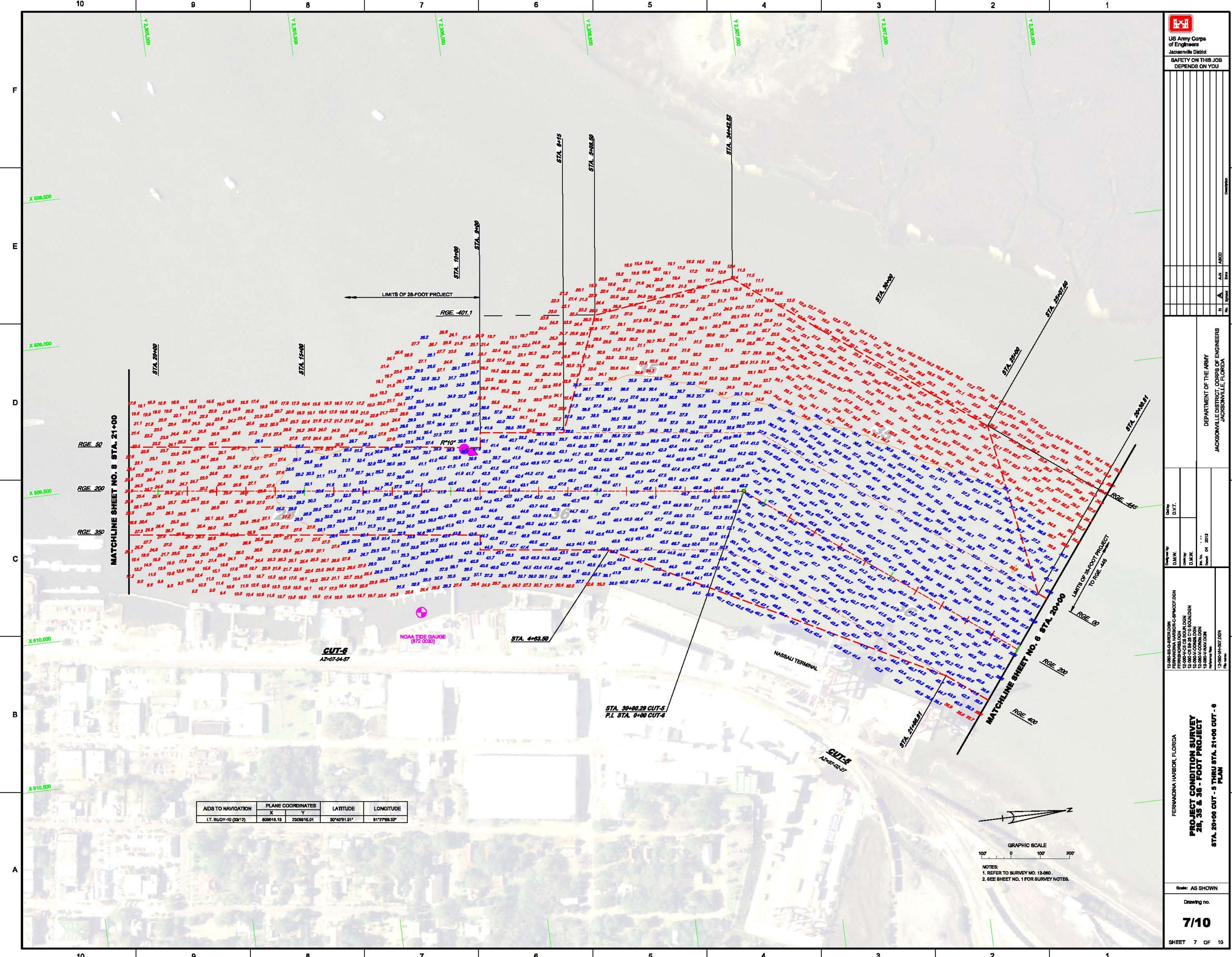
SHEET 1 OF 10

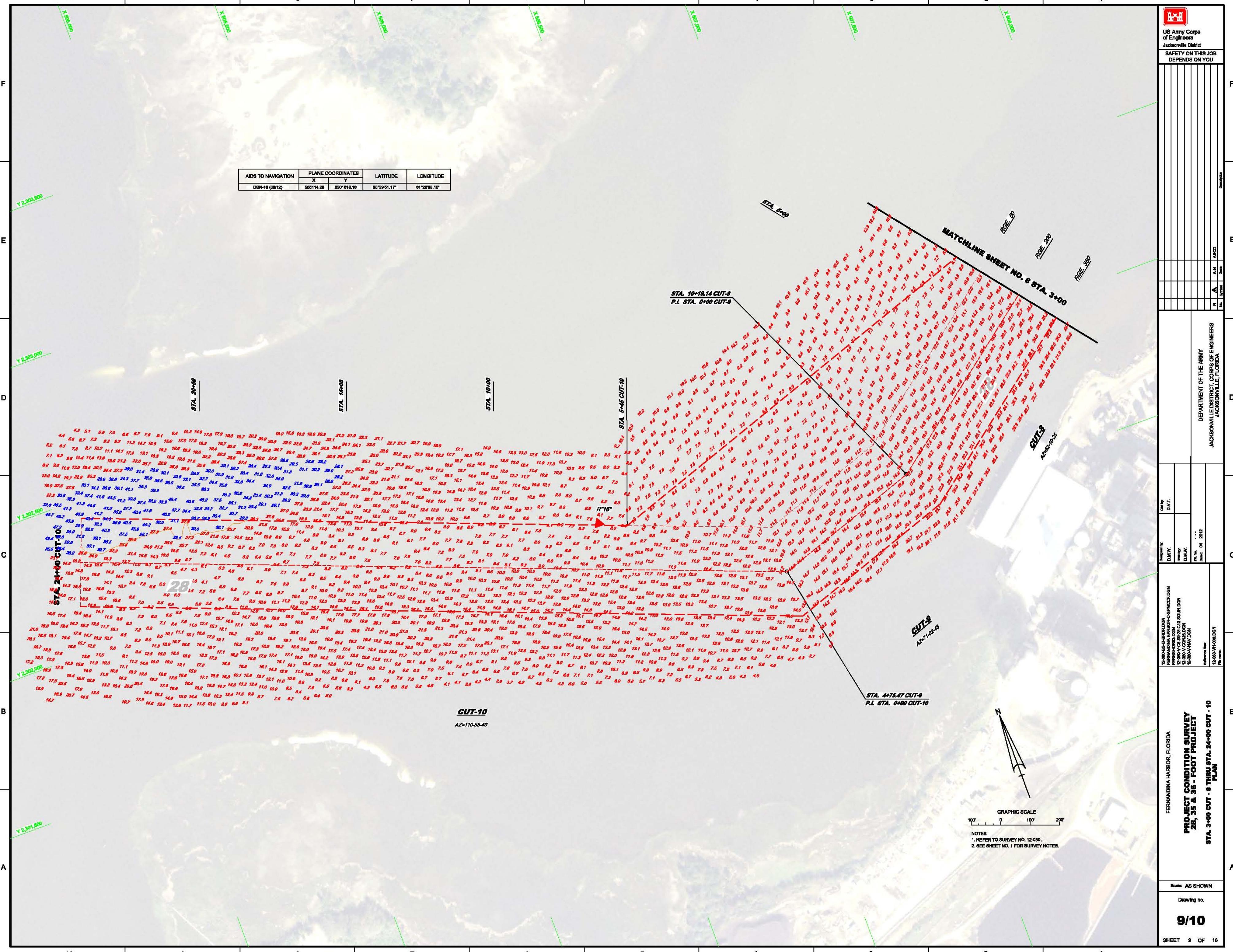






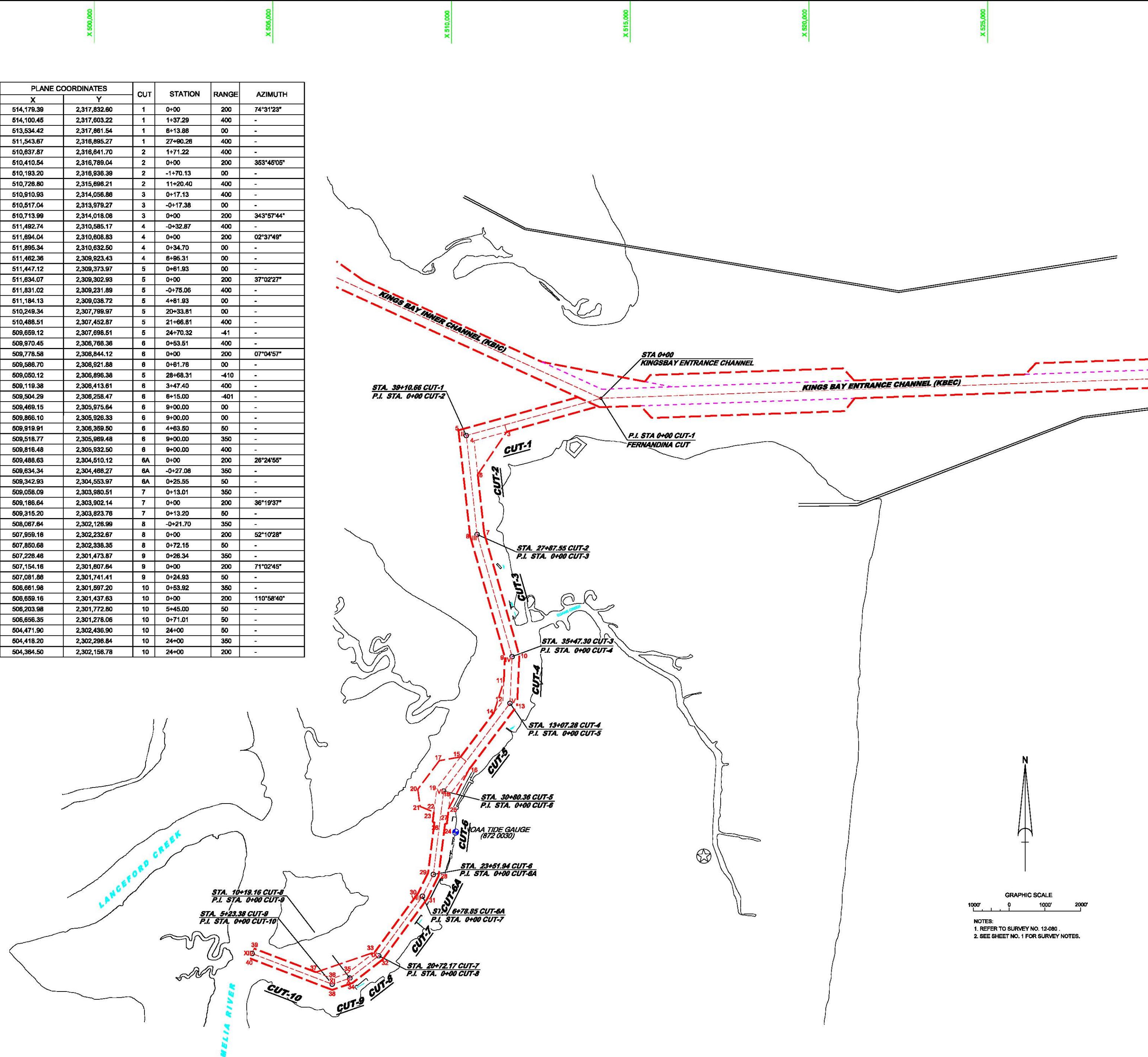








CONTROL POINT	PLANE COORDINATES		CUT	STATION	RANGE	AZIMUTH
	X	Y				
P.I. CUT IN/CUT-1(I)	514,179.39	2,317,832.60	1	0+00	200	74°31'23"
POINT 1	514,100.45	2,317,803.22	1	1+37.29	400	-
POINT 2	513,634.42	2,317,861.54	1	6+13.86	00	-
POINT 3	511,543.67	2,318,895.27	1	27+00.26	400	-
POINT 4	510,637.87	2,316,941.70	2	17+1.22	400	-
P.I. CUT-1/CUT-2(II)	510,410.54	2,316,789.04	2	0+00	200	353°45'05"
POINT 5	510,193.20	2,316,836.39	2	-1+70.13	00	-
POINT 6	510,726.80	2,315,698.21	2	11+20.40	400	-
POINT 7	510,910.93	2,314,956.88	3	0+17.13	400	-
POINT 8	510,517.04	2,313,979.27	3	-0+17.38	00	-
P.I. CUT-2/CUT-3(III)	510,713.99	2,314,018.06	3	0+00	200	343°57'44"
POINT 9	511,492.74	2,310,585.17	4	-0+32.87	400	-
P.I. CUT-3/CUT-4(IV)*	511,694.04	2,310,808.83	4	0+00	200	02°37'49"
POINT 10	511,695.34	2,310,632.50	4	0+34.70	00	-
POINT 11	511,482.36	2,309,923.43	4	6+85.31	00	-
POINT 12	511,447.12	2,309,373.97	5	0+61.93	00	-
P.I. CUT-4/CUT-5(V)	511,634.07	2,309,302.93	5	0+00	200	37°02'27"
POINT 13	511,631.02	2,309,231.89	5	-0+75.06	400	-
POINT 14	511,184.13	2,309,038.72	5	4+81.93	00	-
POINT 15	510,249.34	2,307,799.97	5	20+33.81	00	-
POINT 16	510,486.51	2,307,452.87	5	21+66.81	400	-
POINT 17	509,659.12	2,307,698.51	5	24+70.32	-41	-
POINT 18	509,970.45	2,306,768.36	6	0+53.51	400	-
P.I. CUT-5/CUT-6(VI)	509,776.58	2,306,844.12	6	0+00	200	07°04'57"
POINT 19	509,686.70	2,306,921.88	6	0+61.76	00	-
POINT 20	509,050.12	2,306,896.38	5	28+68.31	-410	-
POINT 21	509,119.38	2,306,413.61	6	3+47.40	400	-
POINT 22	509,504.29	2,306,258.47	6	6+15.00	-401	-
POINT 23	508,469.15	2,305,975.64	6	9+00.00	00	-
POINT 24	509,866.10	2,305,926.33	6	9+00.00	00	-
POINT 25	509,919.91	2,306,359.50	6	4+63.50	50	-
POINT 26	509,518.77	2,305,968.48	6	9+00.00	350	-
POINT 27	509,816.48	2,305,932.50	6	9+00.00	400	-
P.I. CUT-6/CUT-7A(VII)	509,486.63	2,304,810.12	6A	0+00	200	26°24'55"
POINT 28	509,634.34	2,304,466.27	6A	-0+27.08	350	-
POINT 29	509,342.93	2,304,553.97	6A	0+25.55	50	-
POINT 30	509,056.09	2,303,980.51	7	0+13.01	350	-
P.I. CUT-6A/CUT-7(VIII)	509,186.64	2,303,902.14	7	0+00	200	36°19'37"
POINT 31	509,315.20	2,303,823.76	7	0+13.20	50	-
POINT 32	508,087.84	2,302,128.99	8	-0+21.70	350	-
P.I. CUT-7/CUT-8(X)	507,959.16	2,302,232.67	8	0+00	200	52°10'28"
POINT 33	507,850.68	2,302,338.35	8	0+72.15	50	-
POINT 34	507,226.46	2,301,473.87	9	0+26.34	350	-
P.I. CUT-8/CUT-9(X)	507,154.16	2,301,807.64	9	0+00	200	71°02'45"
POINT 35	507,081.88	2,301,741.41	9	0+24.93	50	-
POINT 36	506,661.98	2,301,597.20	10	0+53.92	350	-
P.I. CUT-9/CUT-10(X)	506,659.16	2,301,437.63	10	0+00	200	110°58'40"
POINT 37	506,203.98	2,301,772.80	10	5+45.00	50	-
POINT 38	506,656.35	2,301,278.06	10	0+71.01	50	-
POINT 39	504,471.90	2,302,436.90	10	24+00	50	-
POINT 40	504,418.20	2,302,286.84	10	24+00	350	-
CUT-10 END (XII)	504,364.50	2,302,156.78	10	24+00	200	-



PROJECT: CONDITION SURVEY 28, 35 & 36 - FOOT PROJECT		CHANNEL DESIGN CONTROL DATA	
FERNANDINA HARBOR, FLORIDA		DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	
Reference Sheet No.: 12-080-14-1010-DN	Date: 04-2012	Reference Sheet No.: 12-080-14-1010-DN	Date: 04-2012
Scale: AS SHOWN		Drawing no.:	
NOTES: 1. REFER TO SURVEY NO. 12-080. 2. SEE SHEET NO. 1 FOR SURVEY NOTES.			
GRAPHIC SCALE 1000' 0' 1000' 2000'			
10/10			
SHEET 10 OF 10			