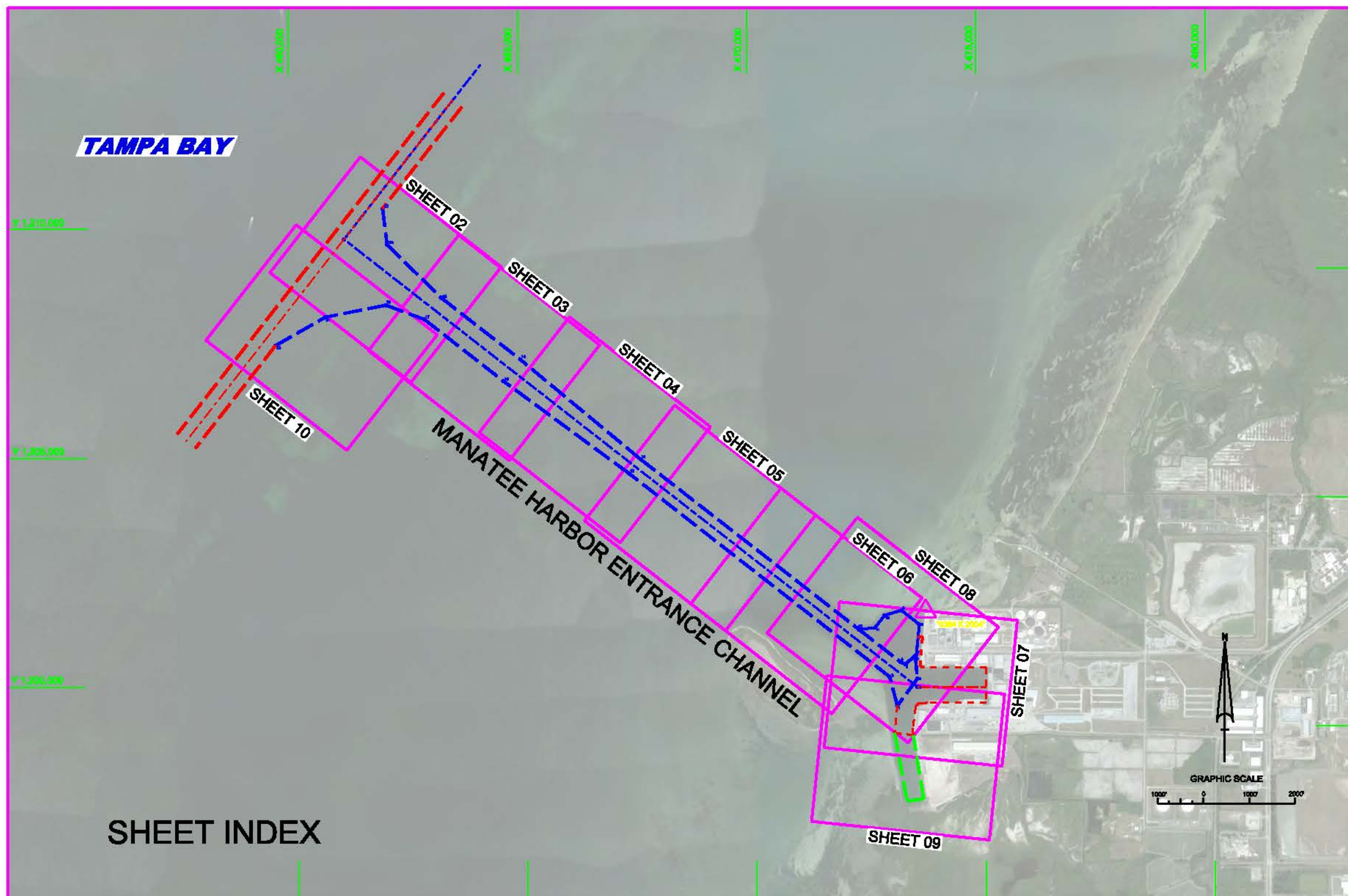




MANATEE HARBOR MANATEE COUNTY, FLORIDA EXAMINATION SURVEY FY13 40-FOOT PROJECT



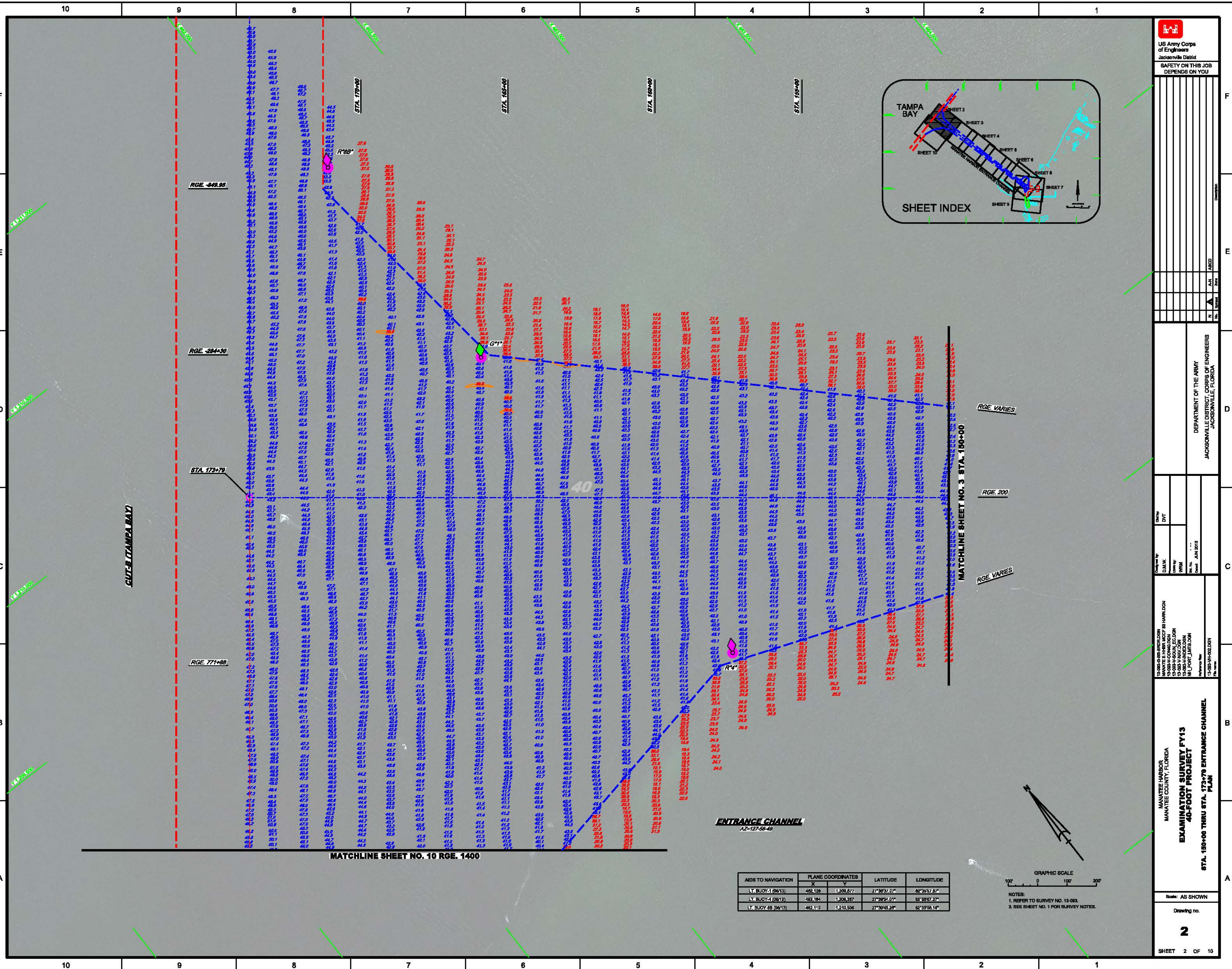
SURVEY NOTES

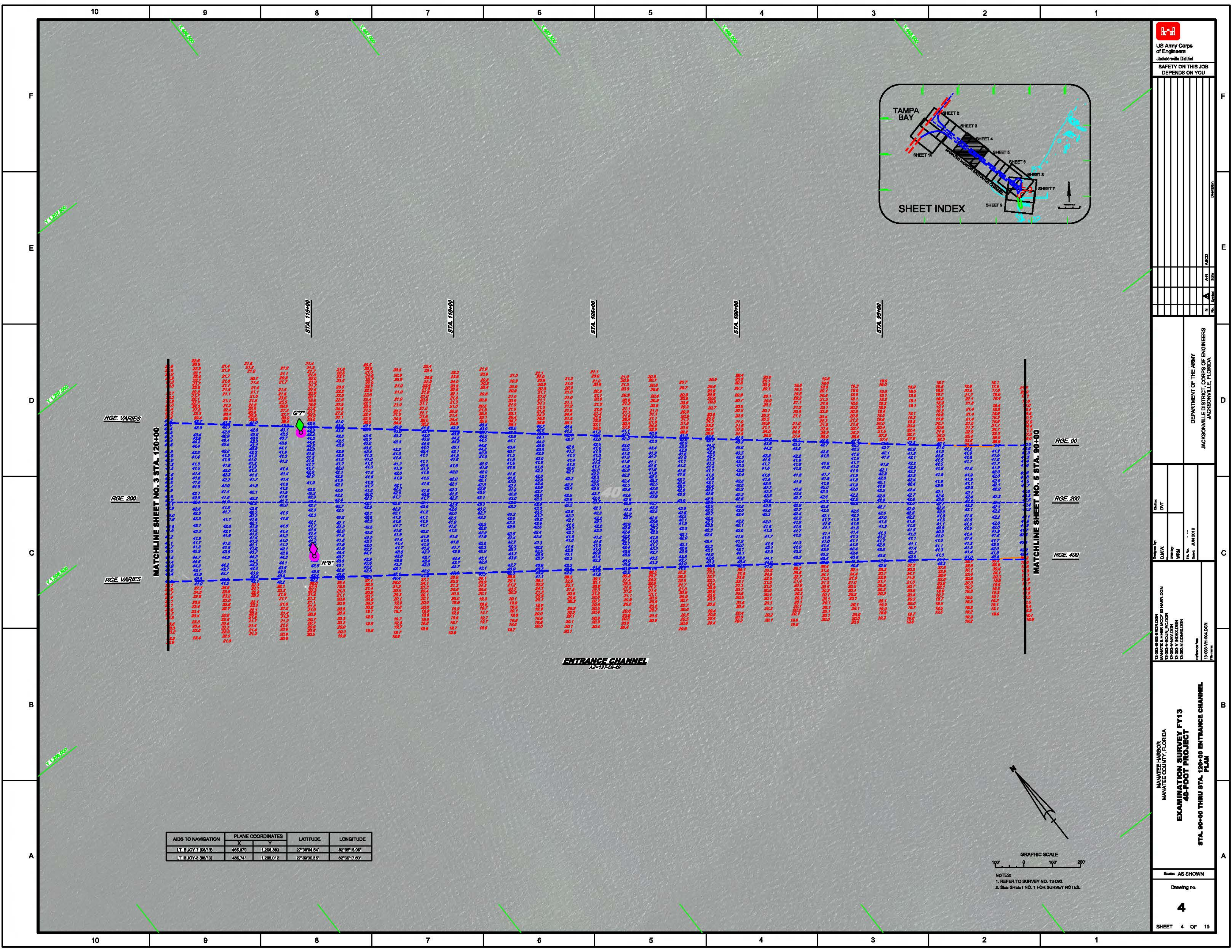
1. REFER TO SURVEY NO. 13-088.
2. SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) OF THE 1989-2001 TIDE EPOCH.
3. TIDAL REDUCTIONS WERE OBTAINED UTILIZING A REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW UTILIZING A HYPACK KINEMATIC TIDE DATUM (KTD) MODEL. KTD FILE NAME IS: "8PC-FL-WEST-2010-12-07.KTD".
4. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
5. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83).
6. ALL AZIMUTHS ARE GRID; RECKONED CLOCKWISE FROM SOUTH.
7. ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
8. THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:
REFERENCE BASE LOCATED AT "8384 K 2004" (DUPUS PID: 888727)
TIDE STAFF WAS SET IN THE NORTHERN MOST BULKHEAD OF MANATEE HARBOR
9. DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, TIDE EPOCH 1989-2001 AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). NOAA'S DATUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS ASSOCIATED WITH THE TIDE GAGE SITE SPECIFIED BELOW:
NOAA TIDAL STATION 872-8584, PORT MANATEE, TAMPA BAY, FL
VERTICAL MEASUREMENTS WERE MADE USING A ROSS 835 SMART SOUNDER SINGLE BEAM SONAR OPERATING AT 28 AND 200 KHZ. ALL SOUNDINGS SHOWN ARE IN FEET FREQUENCY.
10. 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 THE SURVEY AND IS NOT TO BE USED FOR NAVIGATION.
11. SURVEY ACCURACY PERFORMANCE 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.

VESSEL	DATE OF SURVEY	CUT
WB-34	10, 12 JUNE 2013	TURNING BASIN & SOUTH TURNING BASIN ENTRANCE CHANNEL
WB-34	12-13 JUNE 2013	

LEGEND	
	MONUMENT
	LIGHTED BEACON
	GREEN DAYBEACON
	RED DAYBEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
	CAN BUOY
	NUN BUOY
	TIDE STAFF
	PROJECT DEPTH

US Army Corps of Engineers Jacksonville District	
SAFETY ON THIS JOB DEPENDS ON YOU	
Description	
Date	
Scale	
Drawing no.	
SHEET 01 OF 10	
MANATEE HARBOR MANATEE COUNTY, FLORIDA EXAMINATION SURVEY FY13 40-FOOT PROJECT INDEX LOCATION AND VICINITY MAP	
Scale: AS SHOWN	
Drawing no.	
1	
SHEET 01 OF 10	





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

Station	AS	AN	ABCD	Zone	Description
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

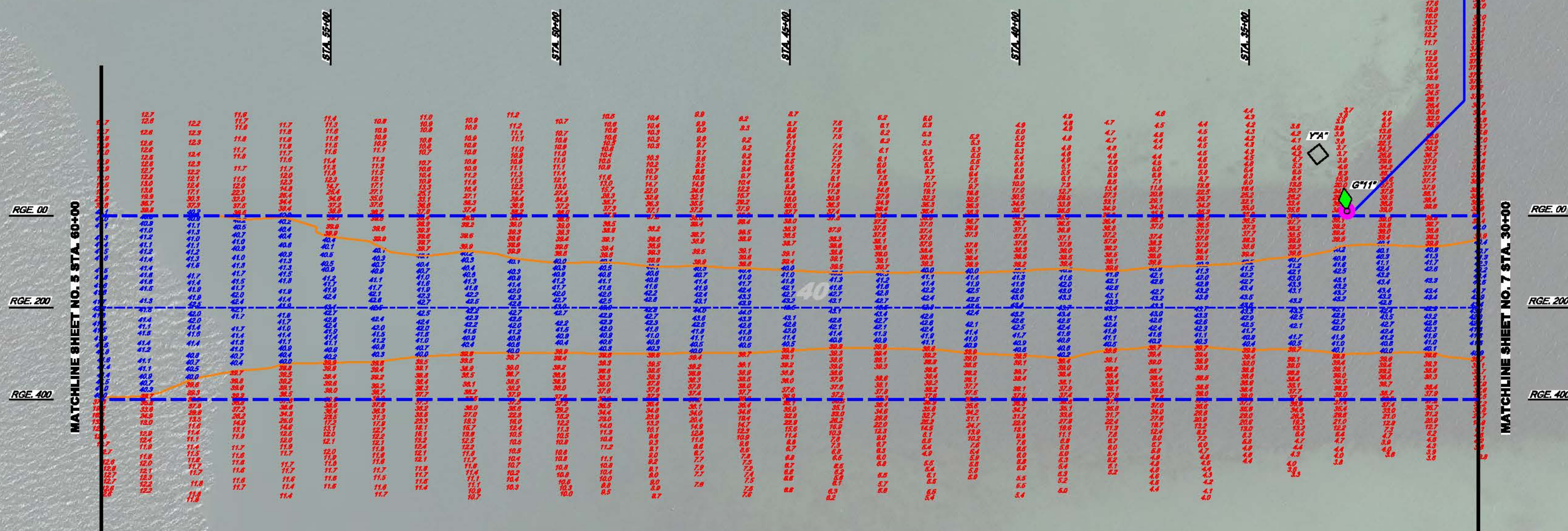
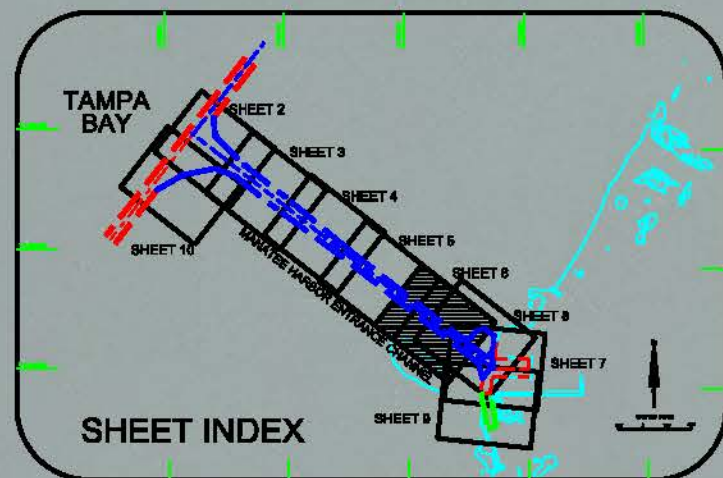
Drawn by: DWT
Checked by: WPM
Date: JUN 2018

MANATEE HARBOR
MANATEE COUNTY, FLORIDA
EXAMINATION SURVEY FY13
40-FOOT PROJECT
STA. 90+00 THRU STA. 120+00 ENTRANCE CHANNEL
PLAN

Scale: AS SHOWN
Drawing no.
4
SHEET 4 OF 10

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-7 (06/13)	485,970	1,206,363	27°39'04.84"	82°35'15.06"
LT. BUOY-8 (06/13)	486,741	1,206,012	27°39'00.85"	82°35'17.80"

GRAPHIC SCALE
100' 0 100 200'
NOTES:
1. REFER TO SURVEY NO. 13-083.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
LT BUOY 11 (0613)	472.451	1,201.278	27°38'14.20"	82°34'02.73"
DBN 4 (0613)	472.478	1,201.414	27°38'16.74"	82°34'02.48"
DBN 5 (0613)	472.949	1,201.884	27°38'18.24"	82°33'57.22"



NOTES:
1. REFER TO SURVEY NO. 13-083.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

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

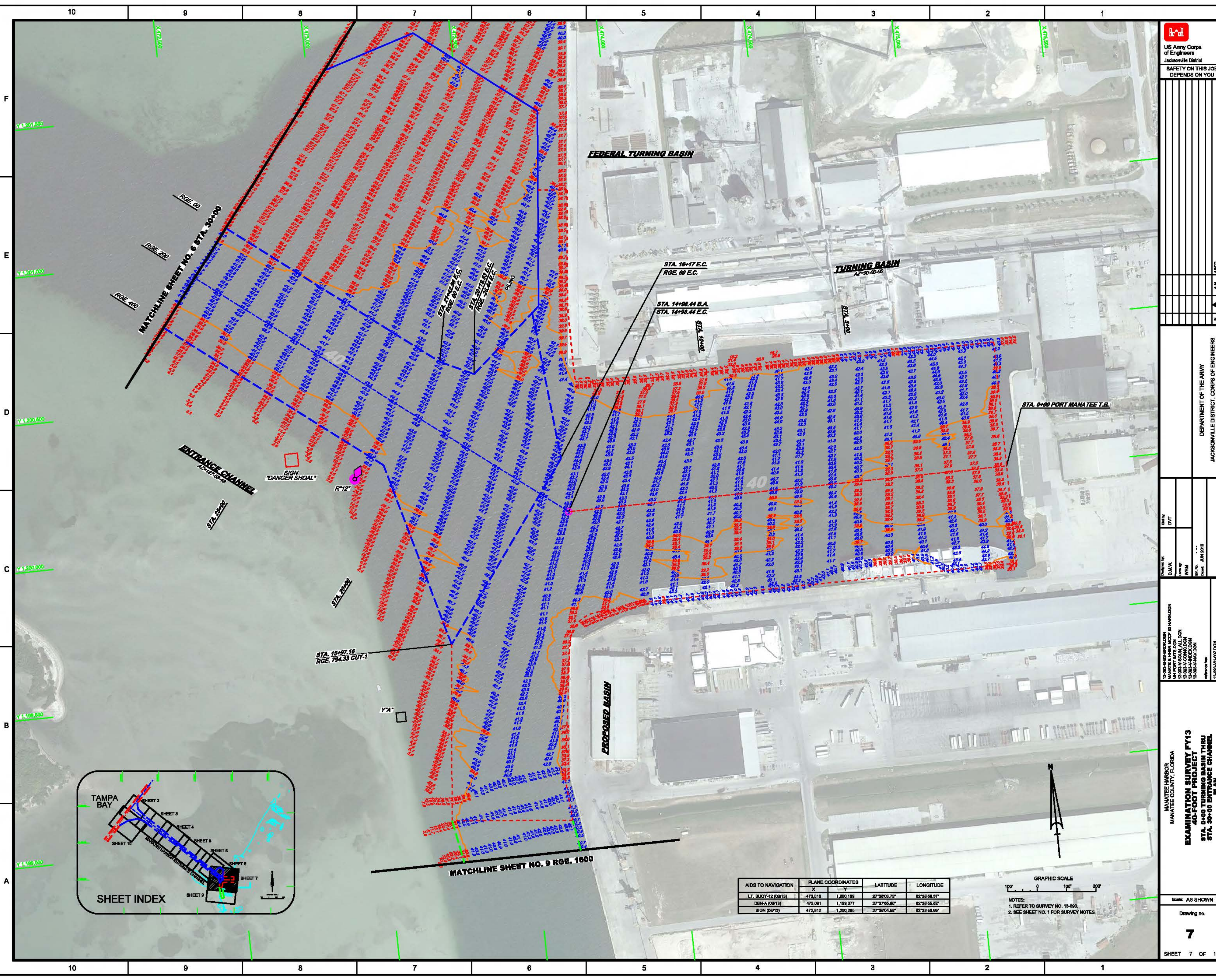
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

MANATEE HARBOR
MANATEE COUNTY, FLORIDA
**EXAMINATION SURVEY FY13
40-FOOT PROJECT**
STA. 30+00 THRU STA. 60+00 ENTRANCE CHANNEL
PLAN

Scale: AS SHOWN

Drawing no.
6

SHEET 6 OF 10



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

Revision	Description	By	Date
1	AS SHOWN		

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

MANATEE HARBOR
MANATEE COUNTY, FLORIDA

**EXAMINATION PROJECT FY13
40-FOOT PROJECT
STA. 0+00 TURNING BASIN THRU
STA. 30+00 ENTRANCE CHANNEL
PLAN**

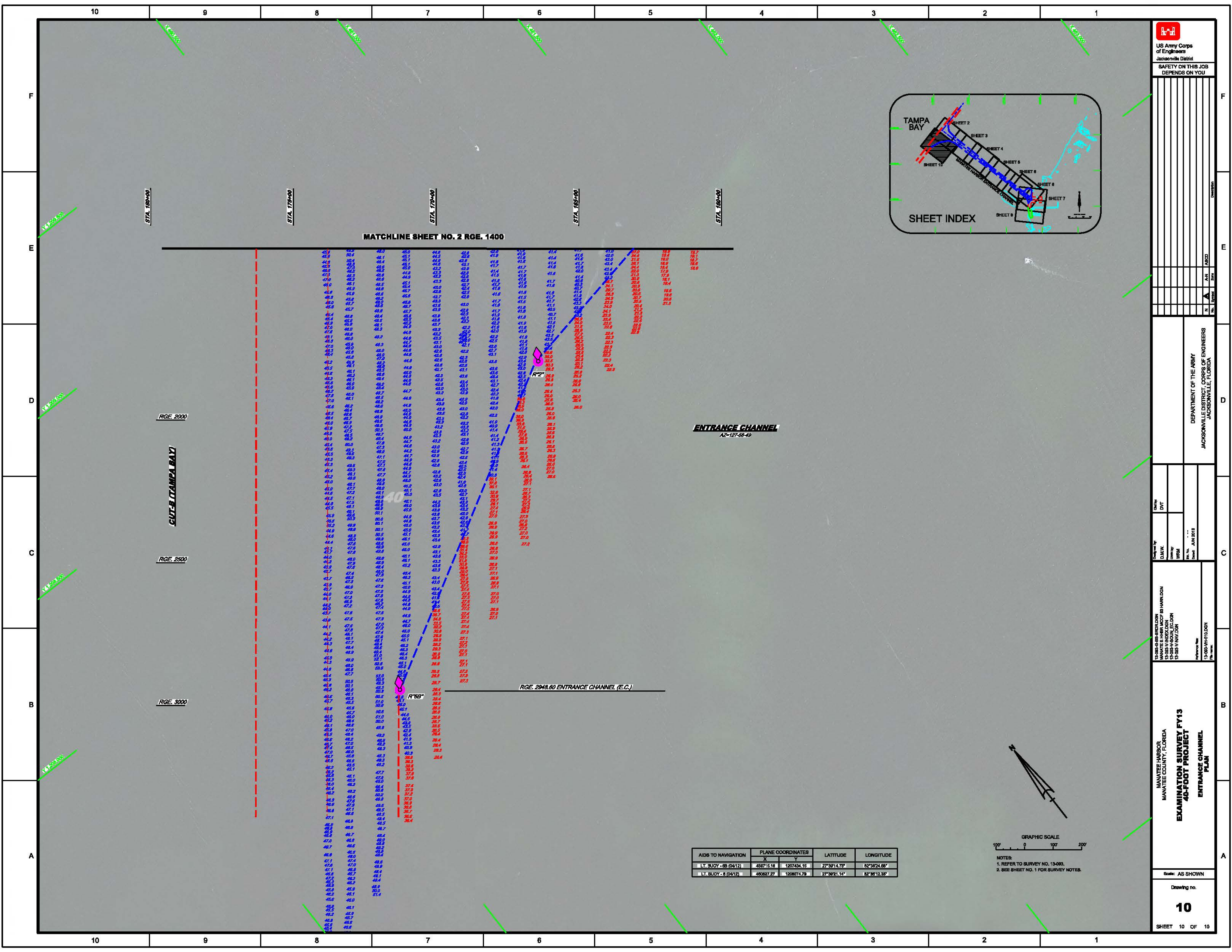
Scale: AS SHOWN

Drawing no.
7

SHEET 7 OF 10

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-12 (08/13)	475,018	1,200,195	27°38'03.73"	82°33'06.27"
DBN-A (08/13)	475,001	1,199,377	27°37'55.60"	82°33'55.62"
SIGN (08/13)	472,812	1,200,785	27°38'04.58"	82°33'53.58"

NOTES:
1. REFER TO SURVEY NO. 13-083.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



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

Sheet No.	Scale	Author	Checker	Reviewer	Date
10	AS SHOWN	MANATEE HARBOR	MANATEE HARBOR	MANATEE HARBOR	MANATEE HARBOR

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

13-083-0-08-BROLDON
MANATEE HARBOR, FLORIDA
13-083-0-08-BROLDON
13-083-0-08-BROLDON
13-083-0-08-BROLDON

EXAMINATION SURVEY FY13
40-FOOT PROJECT
ENTRANCE CHANNEL
PLAN

Scale: AS SHOWN

Drawing no.
10

SHEET 10 OF 10

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY - 68 (0412)	459715.10	1207434.15	27°39'14.75"	82°38'24.88"
LT. BUOY - 6 (0412)	460827.27	1208074.78	27°38'21.14"	82°38'12.35"

GRAPHIC SCALE
100' 0 100' 200'
NOTES:
1. REFER TO SURVEY NO. 13-083.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.