

MANATEE HARBOR (TAMPA HARBOR ZONE 10) MANATEE COUNTY, FLORIDA HYDROGRAPHIC EXAM SURVEY FY22 40-FOOT PROJECT



SURVEY NOTES

- REFER TO SURVEY NO. 22-003.
- ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
- PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83).
- 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). NOAA'S VDATUM MODEL AND PUBLISHED TIDE STATION DATA, WERE USED TO GENERATE A HYPACK KINEMATIC TIDE DATUM (KTD) MODEL. THIS KTD MODEL, BEING A COMBINATION OF THOSE TWO SOURCES, CANNOT BE CONSIDERED EQUIVALENT TO THE VDATUM MODEL BECAUSE OF POSSIBLE ADDITIONS OR EDITS THERETO. DO NOT USE VDATUM MODEL IN PLACE OF THE KTD FILE. THE KTD MODEL USED FOR THIS SURVEY IS: "SPC-FL-WEST-2010-12-07.KTD".
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW UTILIZING THE KTD FILE REFERENCED ABOVE, AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARK ASSOCIATED WITH THE TIDE GAGE SITE SPECIFIED BELOW:
 NOAA TIDAL STATION 872-6384, PORT MANATEE, TAMPA BAY, FL
- ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
- THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:
 REFERENCE BASE LOCATED AT "872 6384 K 2004" (OPUS PID: 8BBT27)
 TIDE STAFF WAS SET IN THE NORTHERN MOST BILKHEAD OF MANATEE HARBOR FROM NOS BM "872 6384 C" (PID: AG7340)
- VERTICAL MEASUREMENTS WERE MADE USING A TELEDYNE RESON T20 MULTI-BEAM AND A ROSS MODEL 835C SMARTSOUNDER SINGLE-BEAM SYSTEM OPERATING AT 28 AND 200 KHZ FOR SINGLE-BEAM CHECK LINES. ALL SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.
- VESEL DATE OF SURVEY CUT
 SB-52 22, 27-28 JAN 2022 MANATEE HARBOR
- AIDS TO NAVIGATION WERE LOCATED DURING THIS SURVEY.
- 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.
- 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, 30 NOV 2013.

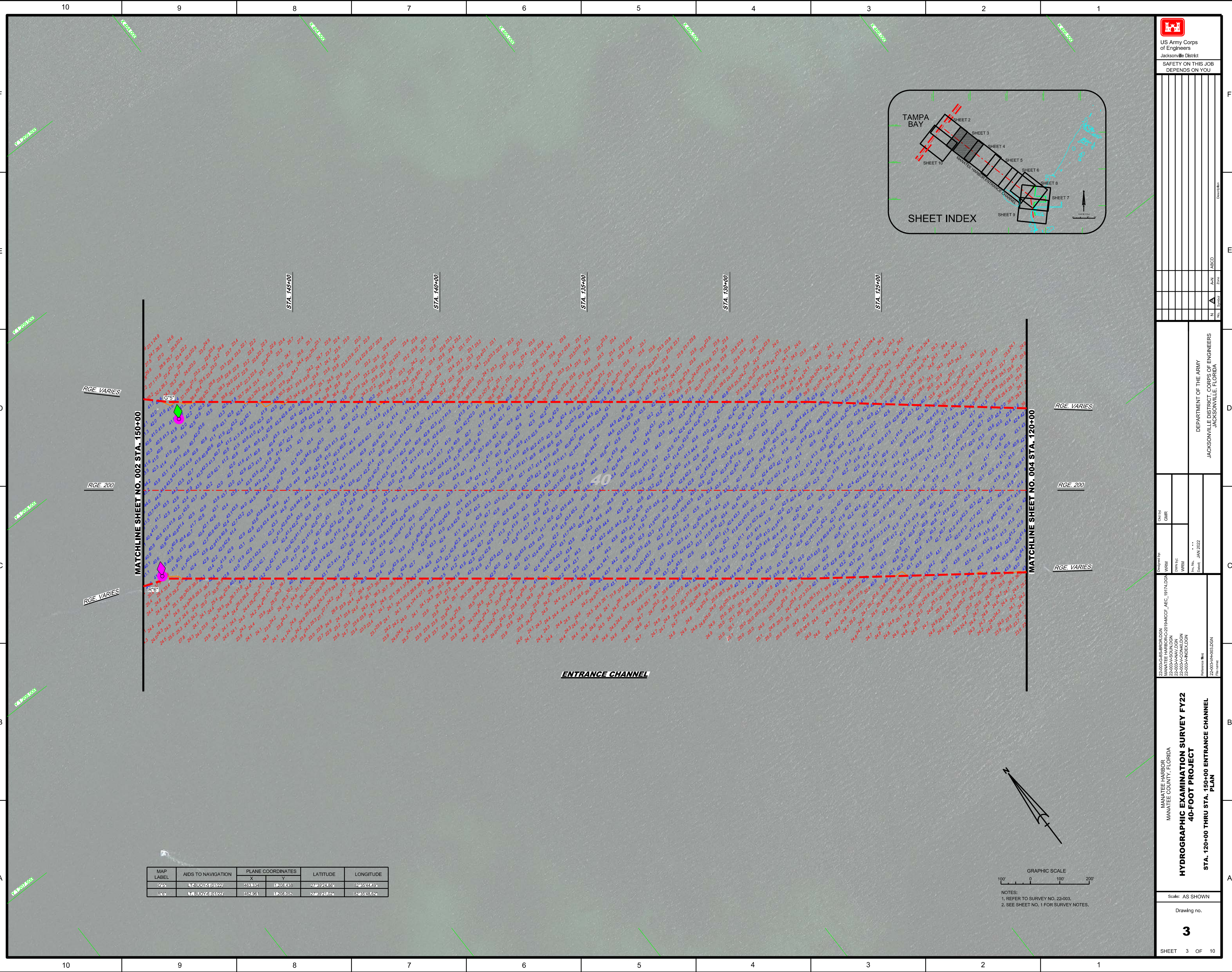
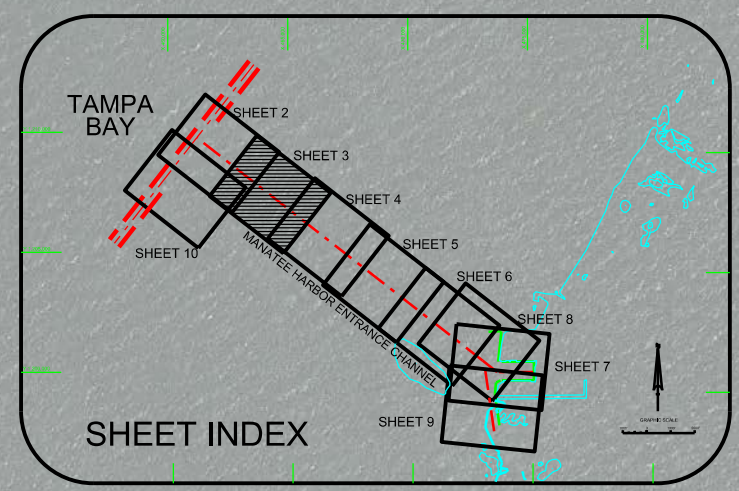
LEGEND	
	MONUMENT
	LIGHTED BEACON
	GREEN DAYBEACON
	RED DAYBEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
	CAN BUOY
	NUM BUOY
	TIDE STAFF
	PROJECT DEPTH

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

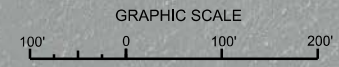
DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

MANATEE HARBOR
 MANATEE COUNTY, FLORIDA
**HYDROGRAPHIC EXAMINATION SURVEY FY22
 40-FOOT PROJECT**
 INDEX, LOCATION AND VICINITY
 MAP

Scale: AS SHOWN
 Drawing no.
1
 SHEET 01 OF 10



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G5*	LE BUOY-5 (1122)	483,434	1,208,433	27°39'24.86"	82°35'44.25"
R6*	RE BUOY-6 (1122)	482,461	1,208,052	27°39'21.02"	82°35'43.62"



NOTES:
 1. REFER TO SURVEY NO. 22-003.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.

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

Drawn by: GHR
 Checked by: GHR
 Date: JAN 2022

Project: 22-003-HARBOR-001-HARBOUR_ENTRANCE_CHANNEL_AEC_19174.DGN
 Title: 22-003-HARBOR-001-HARBOUR_ENTRANCE_CHANNEL_AEC_19174.DGN
 Author: GHR
 Date: JAN 2022

Scale: AS SHOWN

Drawing no.
3

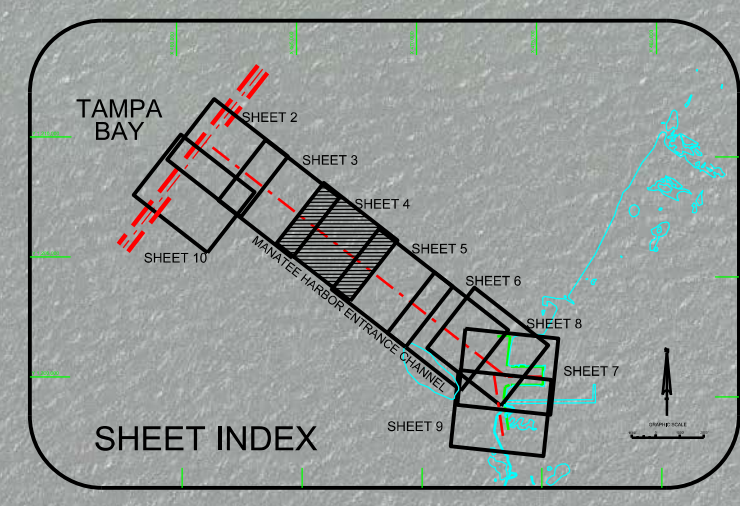
SHEET 3 OF 10

F
E
D
C
B
A

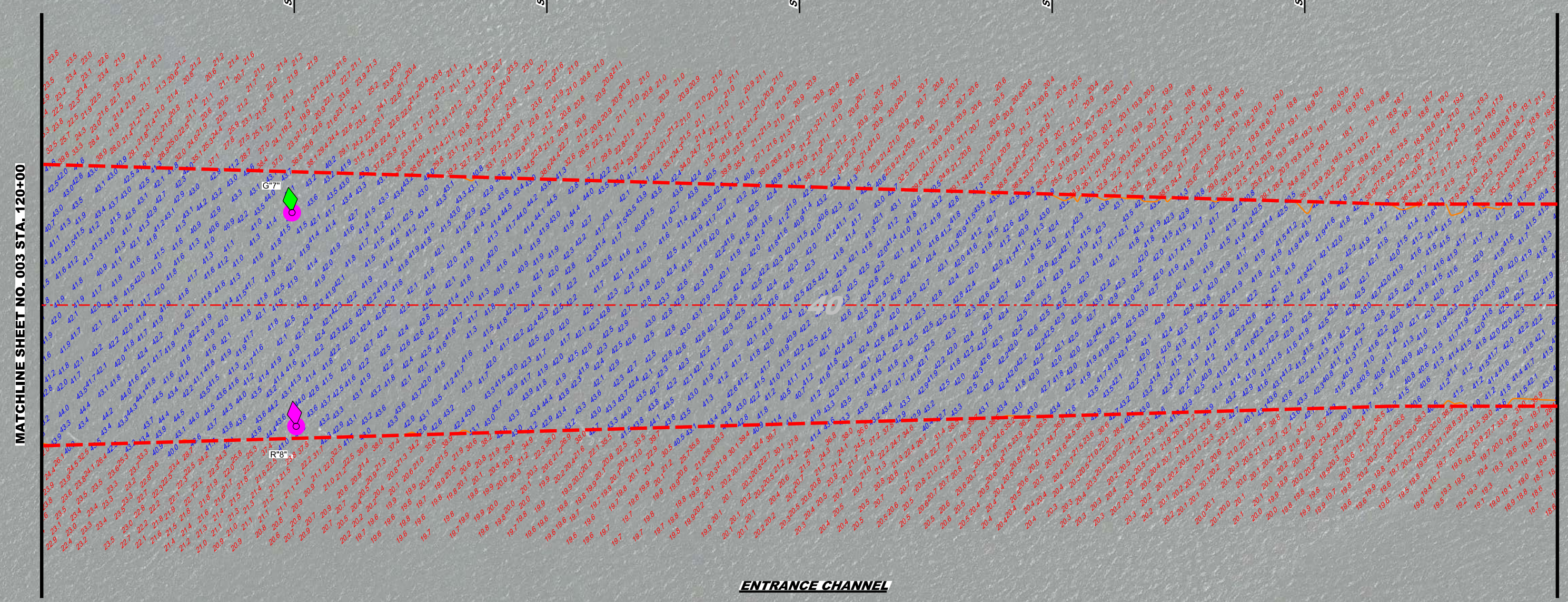


US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

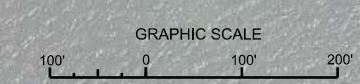


10 9 8 7 6 5 4 3 2 1



ENTRANCE CHANNEL

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G7	A-BUOY-2 (0122)	465.858	1126.815	27°39'03.50"	82°35'15.21"
R6	A-BUOY-3 (0122)	465.704	1126.977	27°39'00.80"	82°35'18.01"



- NOTES:
 1. REFER TO SURVEY NO. 22-003.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.

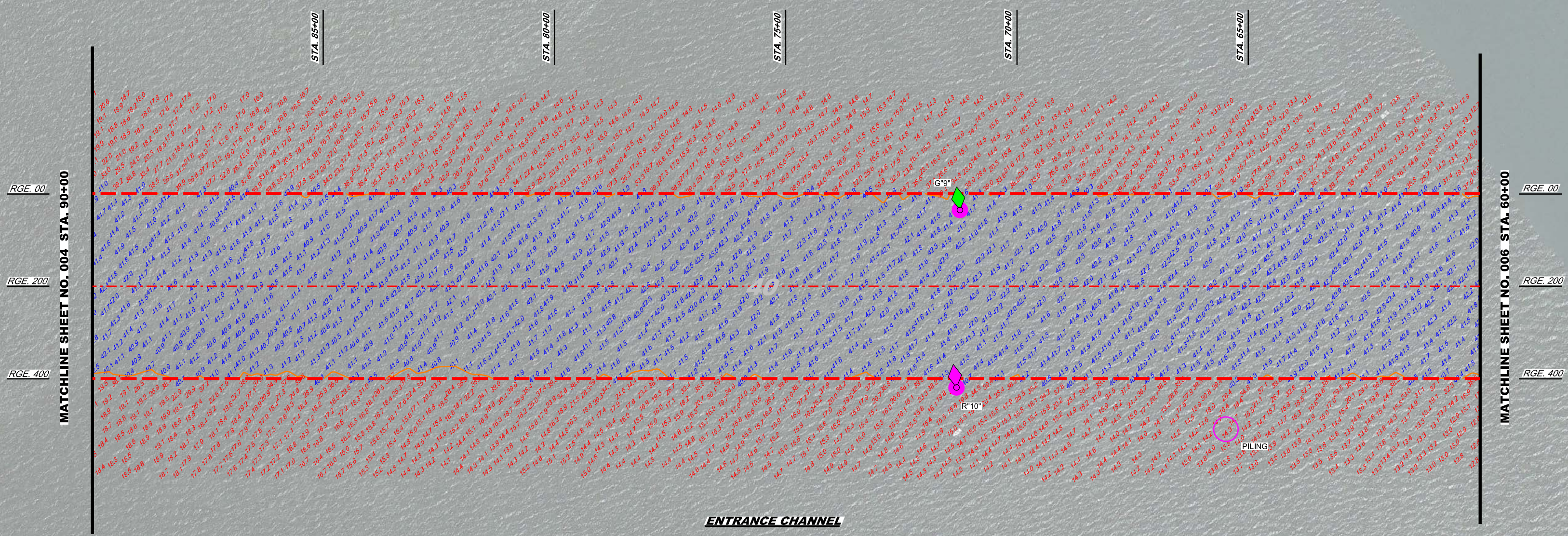
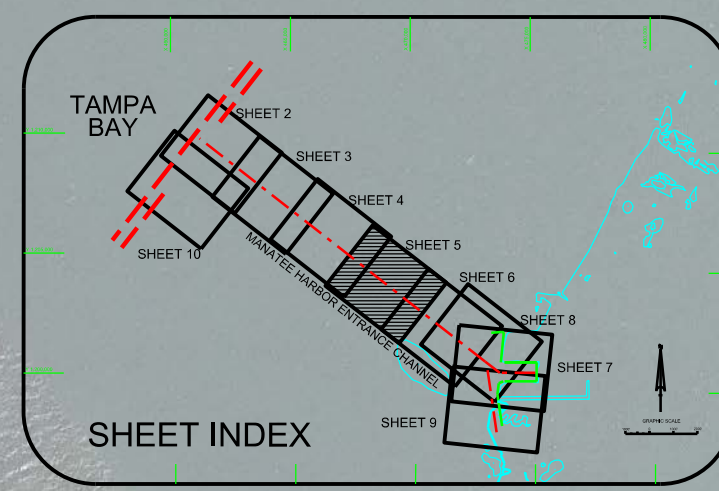
Zone	Symbol	Scale
N	A	AS SHOWN
A	B	AS SHOWN
C	C	AS SHOWN
D	D	AS SHOWN
E	E	AS SHOWN
F	F	AS SHOWN

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

Designed by	WRM
Checked by	WRM
Date	JAN 2022
Drawn by	WRM
Scale	AS SHOWN
File name	22-003-V-HR04.DGN
Reference files	22-003-V-HR04.DGN

MANATEE HARBOR
 MANATEE COUNTY, FLORIDA
**HYDROGRAPHIC EXAMINATION SURVEY FY22
 40-FOOT PROJECT**
 STA. 90+00 THRU STA. 120+00 ENTRANCE CHANNEL
 PLAN

Scale: AS SHOWN
 Drawing no.

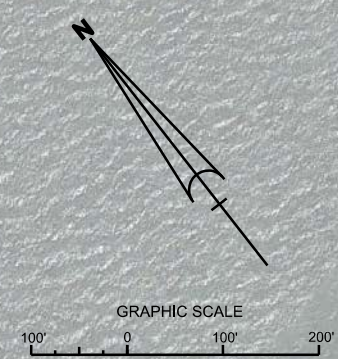


MATCHLINE SHEET NO. 004 STA. 90+00

MATCHLINE SHEET NO. 006 STA. 60+00

ENTRANCE CHANNEL

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G9	LT BUOY 9 (0172)	489.339	1203.605	27°38'37.23"	82°34'36.80"
R4	LT BUOY 4 (0172)	489.157	1203.307	27°38'43.33"	82°34'39.48"
PILING	PILING (0172)	489.551	1202.876	27°38'30.09"	82°34'45.99"

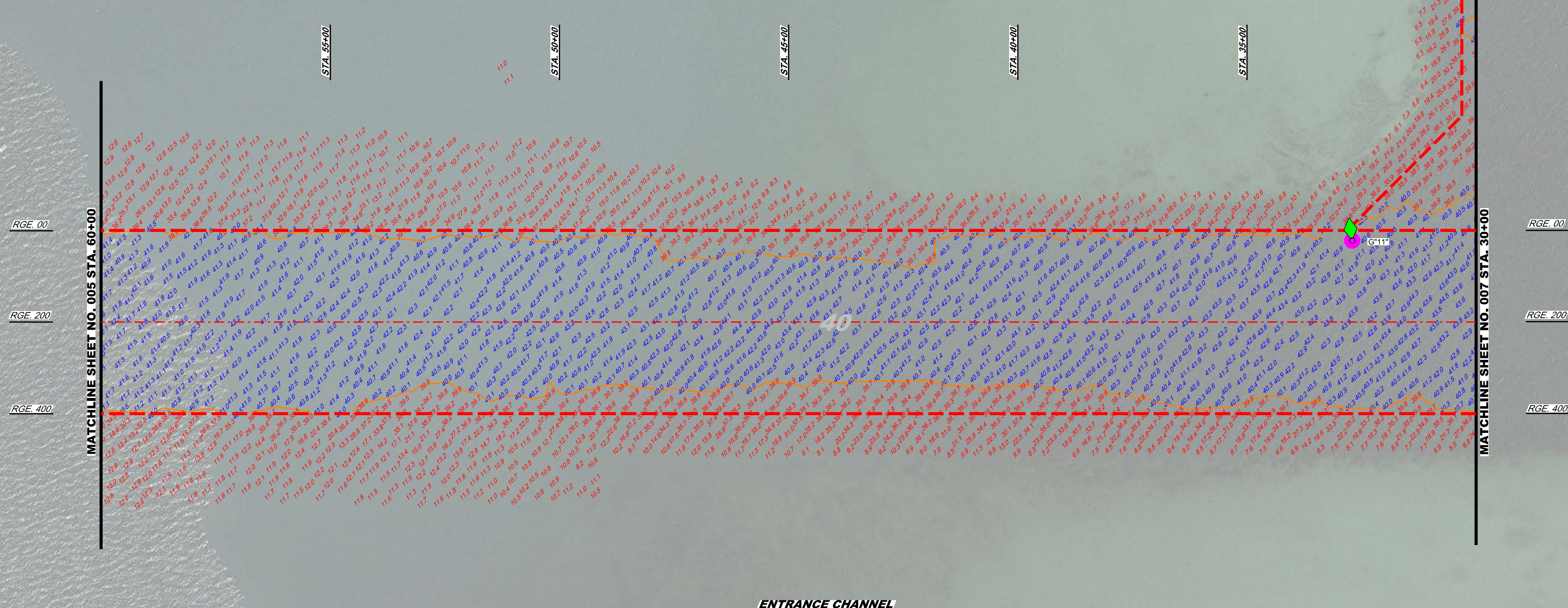
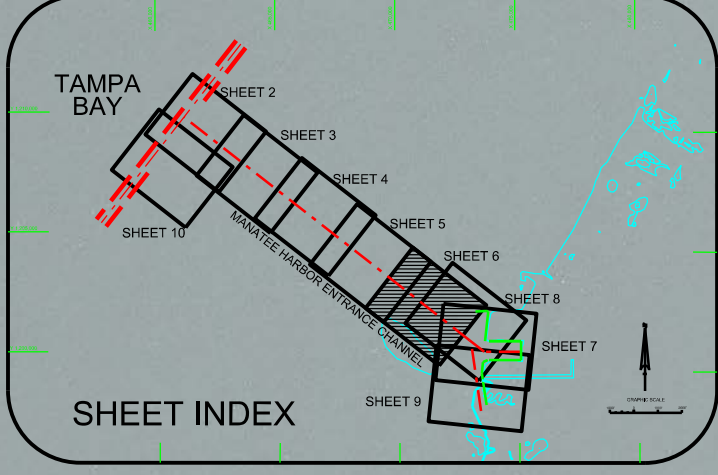


Zone	Symbol	Use
N	A	ABCD

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

Drawn by: GHR
Checked by: GHR
Designed by: WRM
Drawn by: WRM
Date: JAN 2022
Reference files: 22-003-CB-BRDLDGN, MANATEE HARBOR-C-2019-IMPCC_AEC_19174.DGN, 22-003-A-NAV-DGN, 22-003-A-INDEX-DGN, 22-003-C-COM-DGN

MANATEE HARBOR
MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAMINATION SURVEY FY22
40-FOOT PROJECT
STA. 60+00 THRU STA. 90+00 ENTRANCE CHANNEL PLAN



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G111	1A BUOY (110122)	472445	1201244	27°38'14.05"	82°31'02.81"

GRAPHIC SCALE
100' 0 100' 200'
NOTES:
1. REFER TO SURVEY NO. 22-003.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

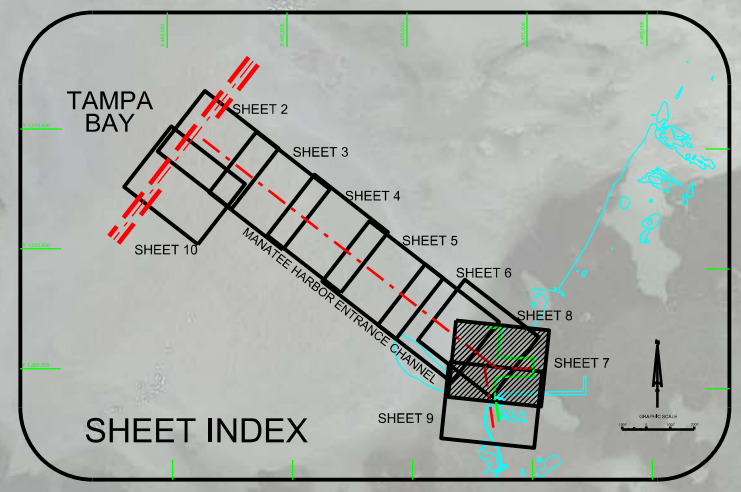
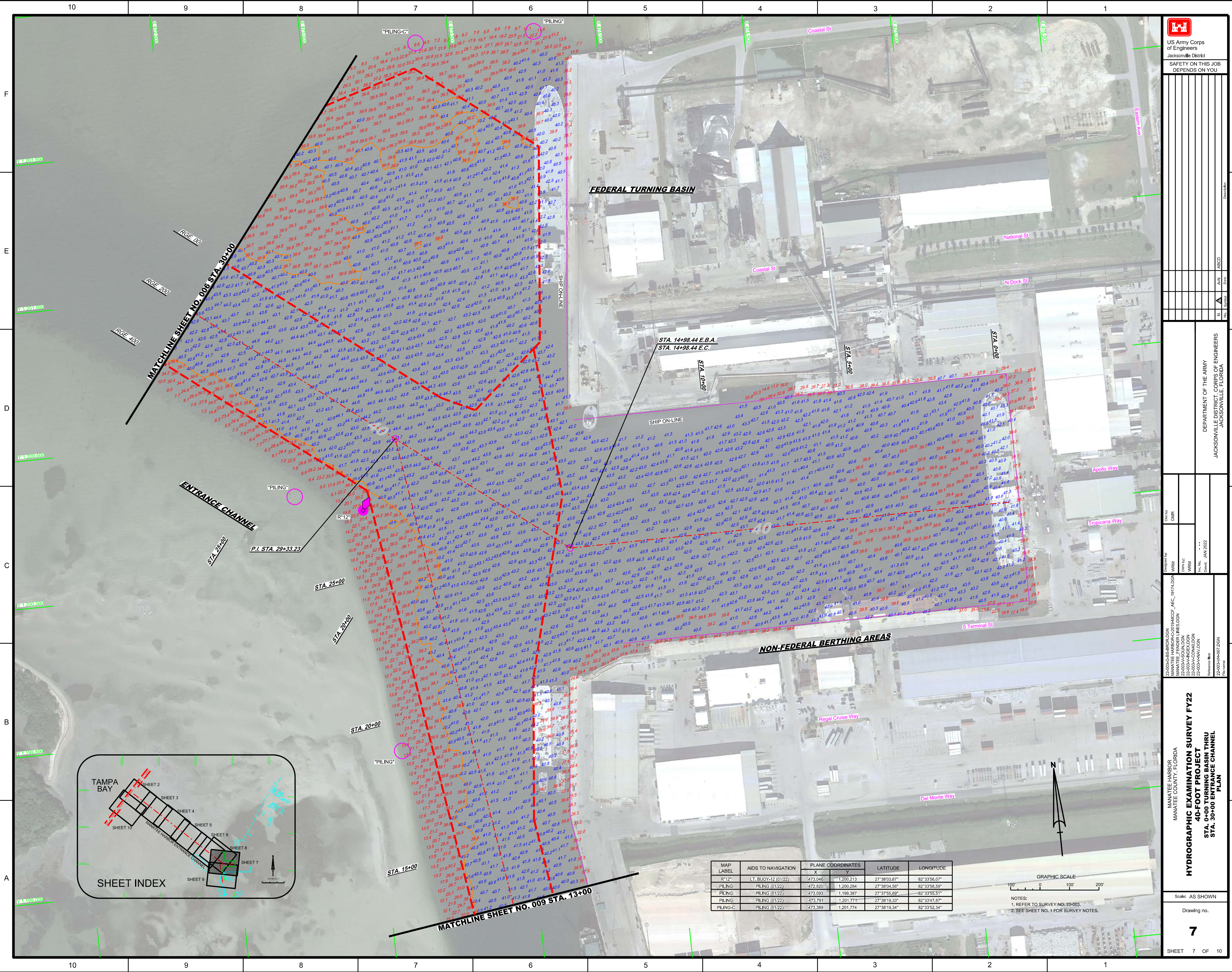
US Army Corps of Engineers
Jacksonville District
SAFETY ON THIS JOB
DEPENDS ON YOU

Name	No.	Sym.	Zone

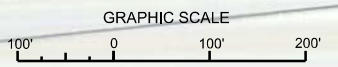
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

Designed by: WRM	Checked by: GHR
Drawn by: WRM	
Scale: AS SHOWN	
Date: JAN 2022	
Drawn by: WRM	
Checked by: GHR	
Scale: AS SHOWN	
Date: JAN 2022	
Drawn by: WRM	
Checked by: GHR	
Scale: AS SHOWN	
Date: JAN 2022	


MANATEE HARBOR
MANATEE COUNTY, FLORIDA
**HYDROGRAPHIC EXAMINATION SURVEY FY22
40-FOOT PROJECT**
STA. 30+00 THRU STA. 60+00 ENTRANCE CHANNEL
PLAN
Scale: AS SHOWN
Drawing no.
6
SHEET 6 OF 10



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R"12"	LT. BUOY-12 (01/22)	473.046	1,200.213	27°38'03.87"	82°33'56.07"
PILING	PILING (01/22)	472.820	1,200.284	27°38'04.56"	82°33'58.59"
PILING	PILING (01/22)	473.093	1,200.387	27°37'55.69"	82°33'55.51"
PILING	PILING (01/22)	473.791	1,201.771	27°38'19.33"	82°33'47.87"
PILING-C	PILING (01/22)	473.389	1,201.774	27°38'19.34"	82°33'52.34"



NOTES:
 1. REFER TO SURVEY NO. 22-003.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.



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

22-003-CAS-BROLD/DGN
 MANATEE HARBOR-C2019/INCCS_AEC_19174.DGN
 22-003-A-SOUND/DGN
 22-003-A-HDR/DGN
 22-003-A-HAV/DGN

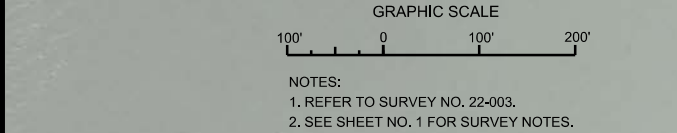
Drawn by: GHR
 Checked by: GHR
 Date: JAN 2022

MANATEE HARBOR
 MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAMINATION SURVEY FY22
40-FOOT PROJECT
STA. 0+00 TURNING BASIN THRU
STA. 30+00 ENTRANCE CHANNEL
PLAN

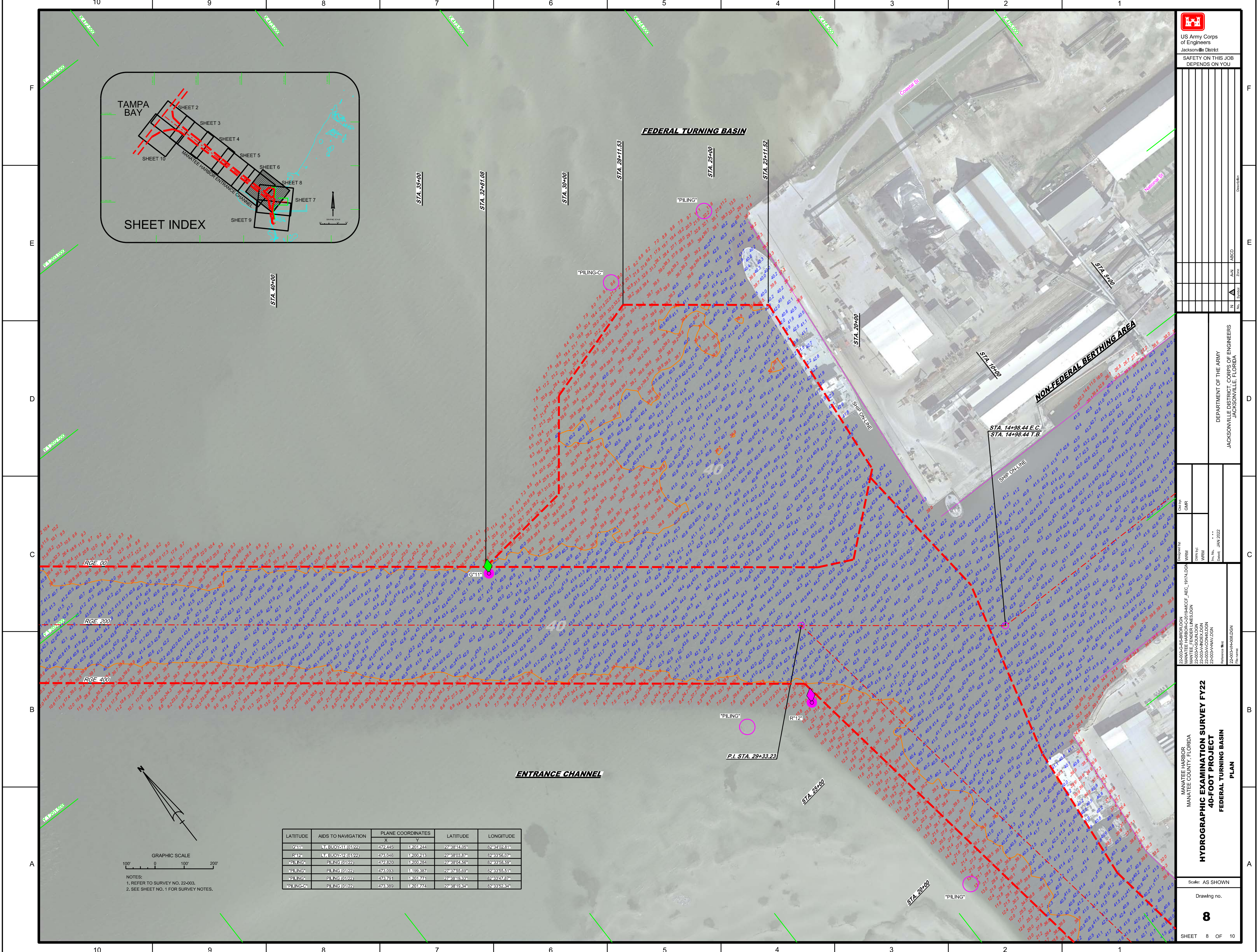
Scale: AS SHOWN

Drawing no.

SHEET 7 OF 10



LATITUDE	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G11	BUOY 411 (0122)	472,445	1,201,244	27°38'14.05"	82°34'02.41"
R12	BUOY 42 (0122)	473,845	1,200,213	27°38'03.67"	82°33'56.07"
PILING	PILING (0122)	472,620	1,200,284	27°38'04.56"	82°33'58.59"
PILING	PILING (0122)	472,093	1,199,387	27°37'55.69"	82°33'55.51"
PILING	PILING (0122)	473,791	1,201,771	27°38'19.33"	82°33'47.67"
PILING-C	PILING (0122)	473,359	1,201,774	27°38'19.34"	82°33'52.24"



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

DATE	BY

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

22-003-GIS-HRDLDN
 MANATEE HARBOR-30101003_AEC_19174.DGN
 22-003-A-SOUNDLN
 22-003-INDEX.DGN
 22-003-NAV.DGN

DATE: JAN 2022

MANATEE HARBOR
 MANATEE COUNTY, FLORIDA

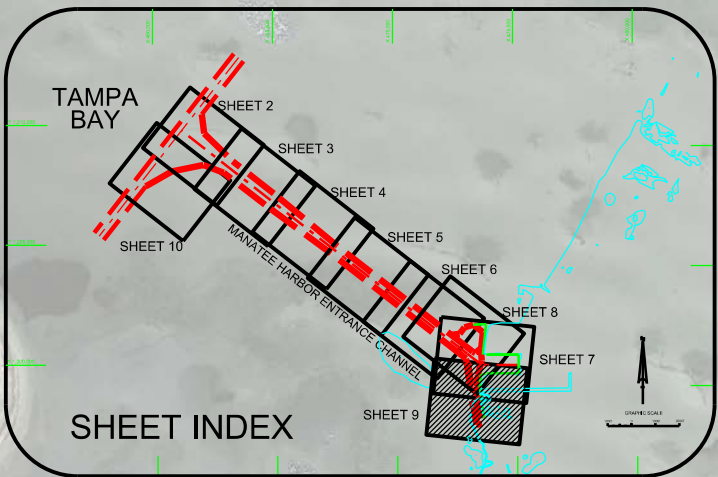
HYDROGRAPHIC EXAMINATION SURVEY FY22
40-FOOT PROJECT
FEDERAL TURNING BASIN
PLAN

Scale: AS SHOWN

Drawing no.

8

SHEET 8 OF 10



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
"PILING-B"	PILING (01/22)	473,173	14,98,698	27°37'48.87"	82°33'54.58"
"PILING-C"	PILING (01/22)	473,295	14,98,118	27°37'43.09"	82°33'53.19"
"PILING-D"	PILING (01/22)	473,395	14,97,416	27°37'37.20"	82°33'52.05"

MATCHLINE SHEET NO. 007 STA. 13+00

"PILING-B"
"PILING-C"
"PILING-D"
MOORING PILING

STA. 10+00


STA. 5+00

STA. 0+00



GRAPHIC SCALE
100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 22-003.
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

Check By: GHR	Drawn By: GHR
Designed By: WRM	Checked: JAN 2022
File Name: 22-003-V-HARBOR-DGN	

**HYDROGRAPHIC EXAMINATION SURVEY FY22
40-FOOT PROJECT
SOUTH BERTHING AREA**

PLAN

Scale: AS SHOWN

