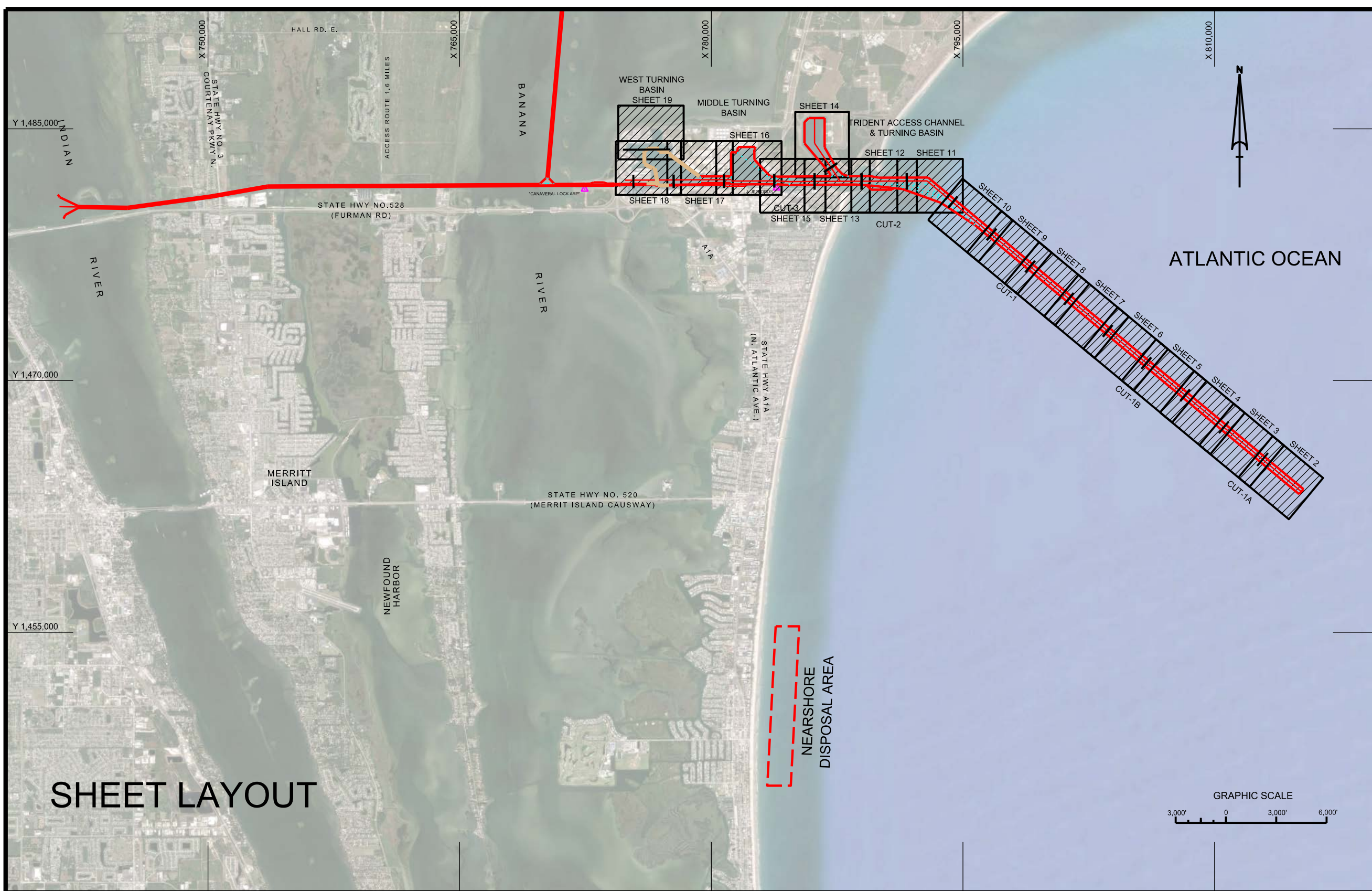
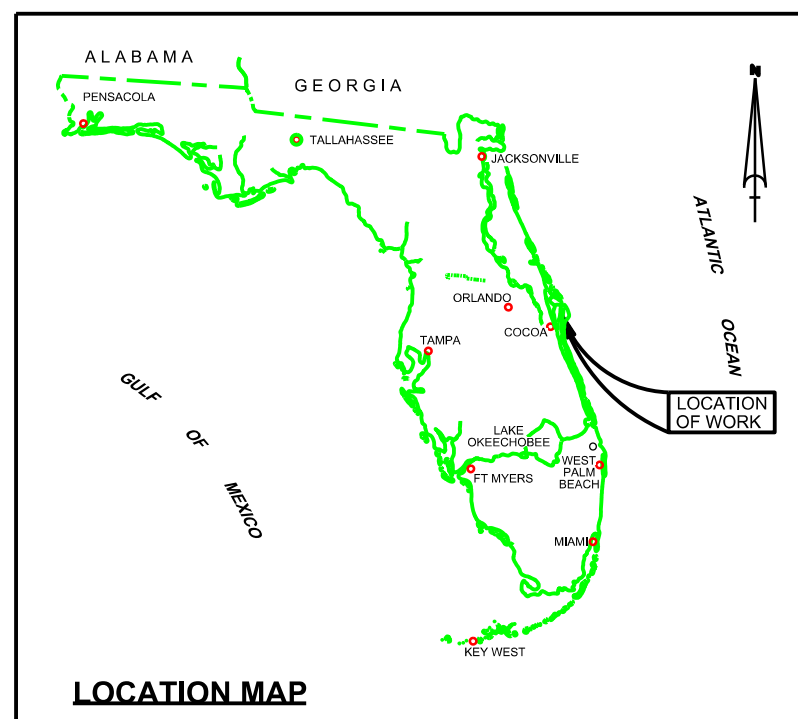


CANAVERAL HARBOR BREVARD COUNTY, FLORIDA 3Q PORT HYDRO EXAM SURVEY FY23



SURVEY NOTES

- REFER TO SURVEY NO. 23-176.
 - 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: "CANAVERAL-HBR-2015 02 20.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 CURRENT REALIZATION OF THE NORTH AMERICAN DATUM OF 1983 (NAD83), BASED ON THE NOAA NATIONAL SPATIAL REFERENCE SYSTEM (NSRS).
 - 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 "CANAVERAL LOCK ARP" (PID: BBCV67)
*TIDE STAFF LOCATED FROM "JEFFORDS" (PID: BBCQ55)
 - DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW. TIDAL EPOCH 1983-2001 AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). A MODIFIED VERSION OF NOAA'S VDATUM MODEL WAS USED TO CALIBRATE TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS BELOW:
NOAA TIDAL STATION 872-1604, TRIDENT PIER, CANAVERAL, FL (PID: BBCQ55)
 - VERTICAL MEASUREMENTS WERE MADE USING AN ECHOTRAC E20 AND AN EDGETECH 6205 MULTI-BEAM OPERATING AT 550 KHZ. HIGH FREQUENCY SOUNDINGS ARE SHOWN FOR CUT-1A, WEST ACCESS CHANNEL, AND THE WEST TURNING BASIN. LOW FREQUENCY SOUNDINGS SHOWN FOR CUTS 1B, 1, 2, 3, MTS, AND THE POSEIDON WHARF.
- | VESSEL | DATE OF SURVEY | CUT |
|-----------|----------------|------------------------------|
| SB-48 | 22 MAY 2023 | CUT-2 |
| SB-48 | 23 MAY 2023 | CUT-3 & MIDDLE TURNING BASIN |
| SB-48 | 24 MAY 2023 | POSEIDON WHARF |
| SB-48 | 25 MAY 2023 | WAC & WTB |
| SV SALZER | 08 JUN 2023 | CUT-1 |
| SV SALZER | 13 JUN 2023 | CUT-1B |
| SV SALZER | 29 JUN 2023 | CUT-1A |
- 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
	NUN 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	DESIGNED BY: WRM DRAWN BY: WRM DATE: JUN 2023	CHECKED BY: GHR	PROJECT NO.: 23-176-HR01-PORTLDN	SHEET NO.: 1 OF 19

CANAVERAL HARBOR
BREVARD COUNTY, FLORIDA

3Q PORT HYDRO EXAM SURVEY FY23

35, 39, 41, 43, 44 AND 46-FOOT PROJECT
INDEX, LOCATION AND VICINITY
PLAN

Scale: AS SHOWN

Drawing no.

1 / 18

SHEET 1 OF 19

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

Drawn by:	WRM
Checked by:	WRM
Date:	JUN 2023

Designed by:	WRM
Checked by:	WRM
Date:	JUN 2023

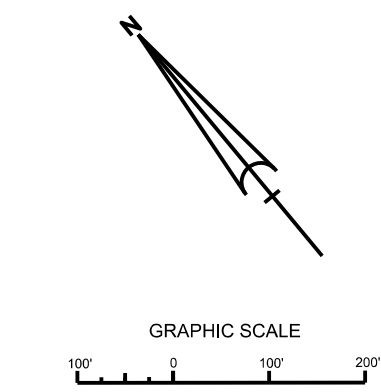
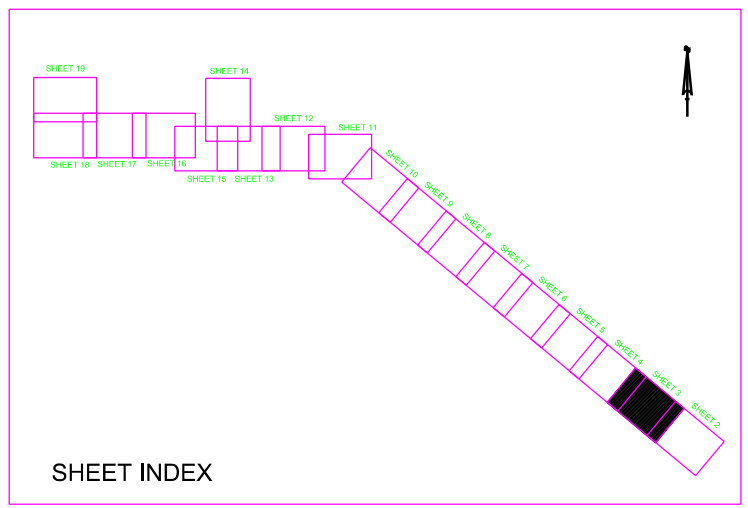
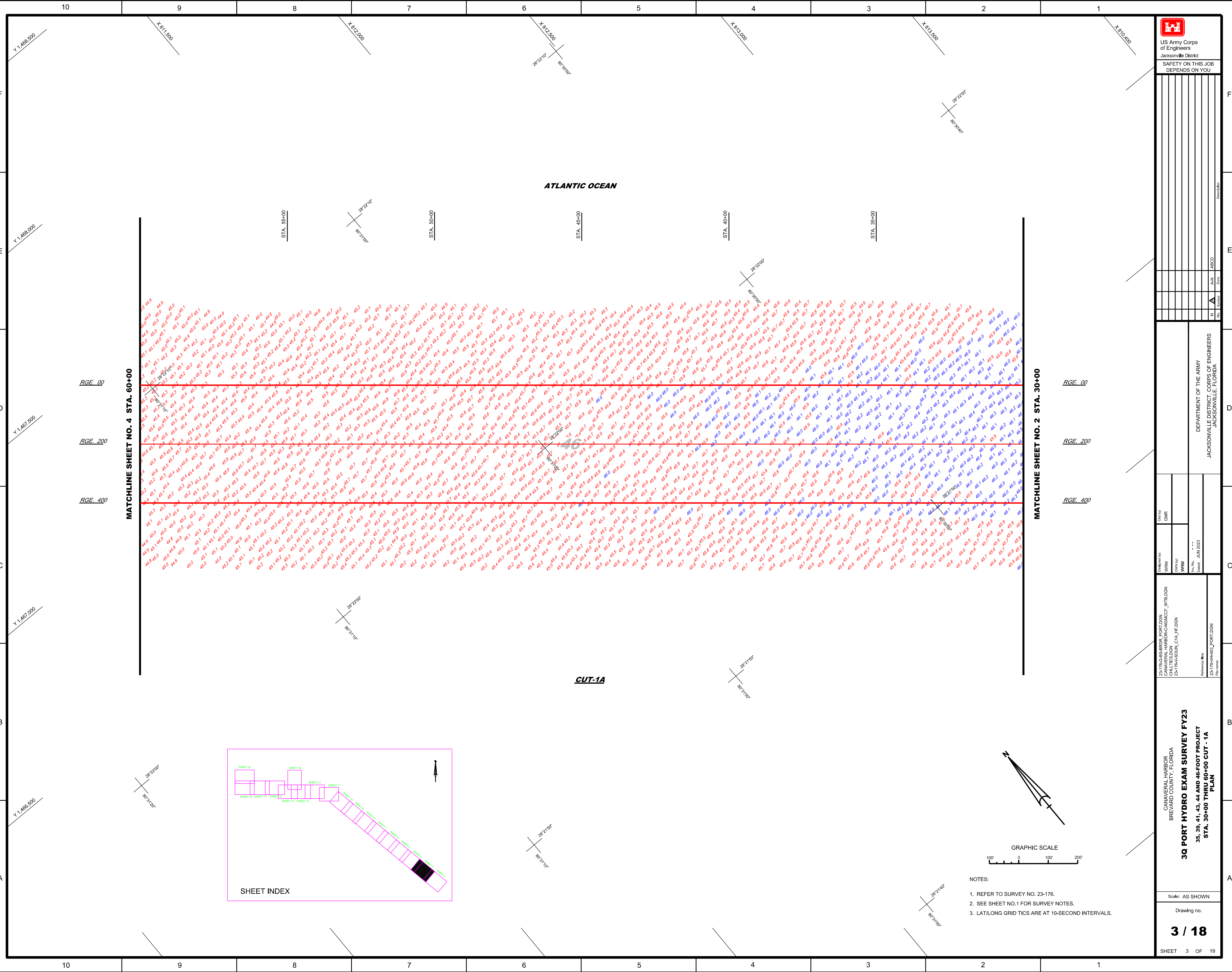
3Q PORT HYDRO EXAM SURVEY FY23
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 30+00 THRU 60+00 CUT - 1A
PLAN

Scale: AS SHOWN

Drawing no.

3 / 18

SHEET 3 OF 19



- NOTES:
1. REFER TO SURVEY NO. 23-176.
 2. SEE SHEET NO.1 FOR SURVEY NOTES.
 3. LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.

10 9 8 7 6 5 4 3 2 1

F
E
D
C
B
A

Y 1 188 300
Y 1 871 900
Y 1 856 900
Y 1 841 900

ATLANTIC OCEAN

STA. 55+00
STA. 50+00
STA. 45+00
STA. 40+00
STA. 35+00

MATCHLINE SHEET NO. 4 STA. 60+00

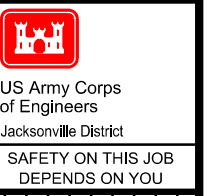
MATCHLINE SHEET NO. 2 STA. 30+00

RGE. 00
RGE. 200
RGE. 400

CUT-1A

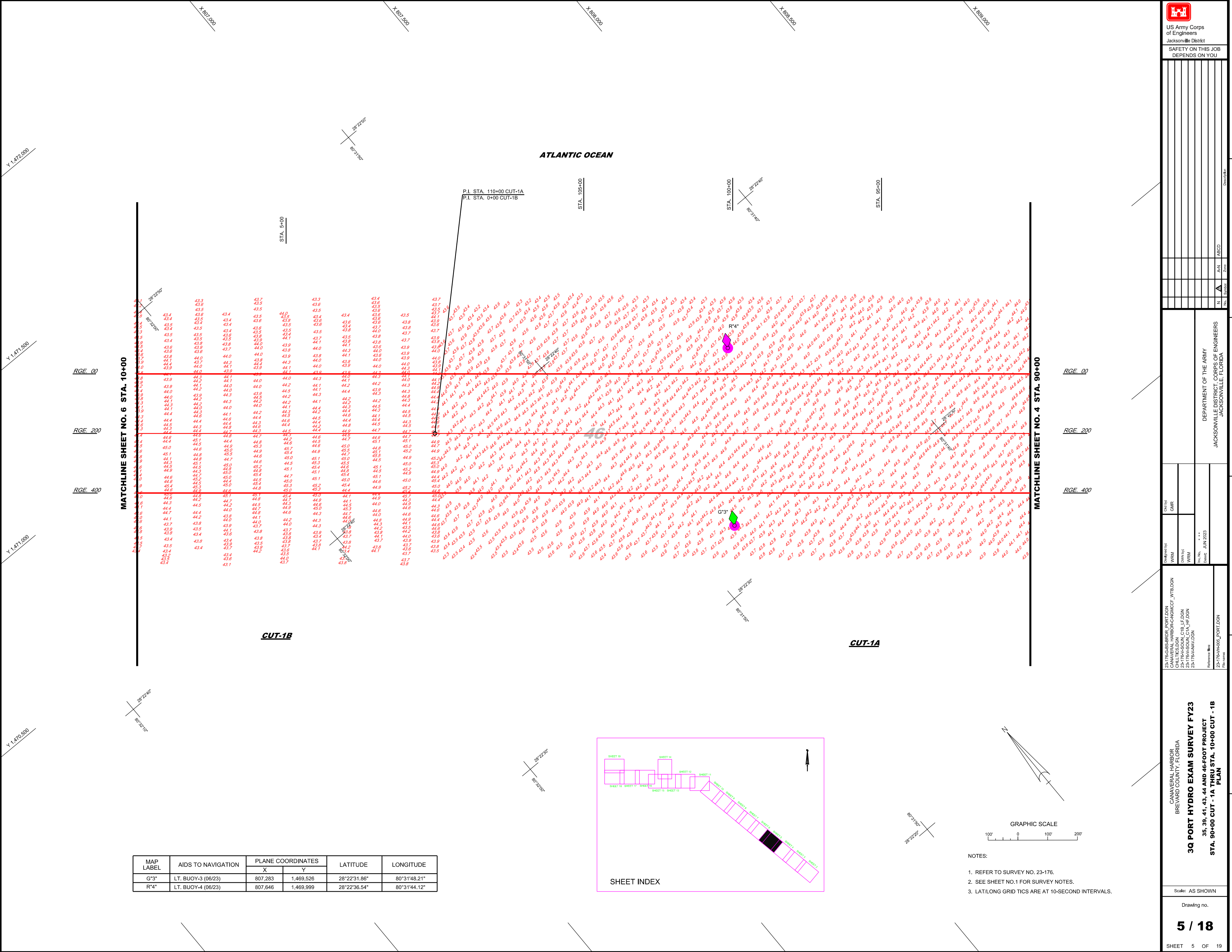
10 9 8 7 6 5 4 3 2 1

F E D C B A



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

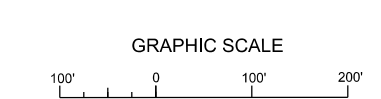
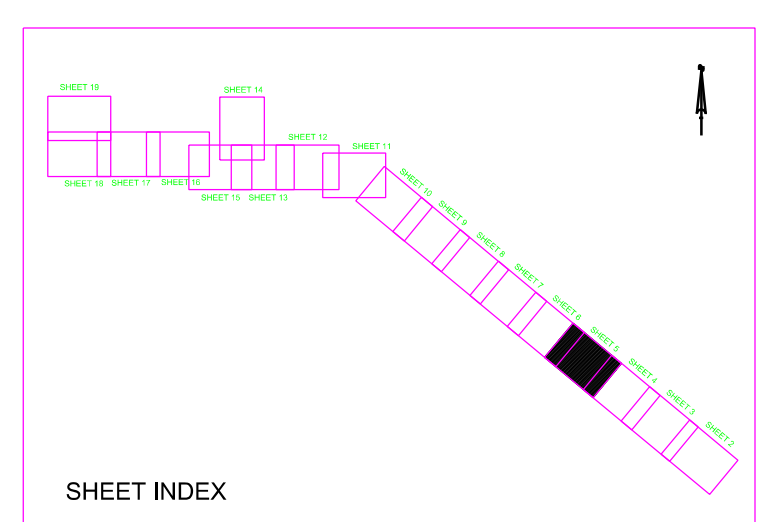
Grid reference table with columns for Zone, N, A-N, ABCD, and symbols.



MATCHLINE SHEET NO. 6 STA. 10+00

MATCHLINE SHEET NO. 4 STA. 90+00

MAP LABEL table with columns for MAP LABEL, AIDS TO NAVIGATION, PLANE COORDINATES (X, Y), LATITUDE, and LONGITUDE.

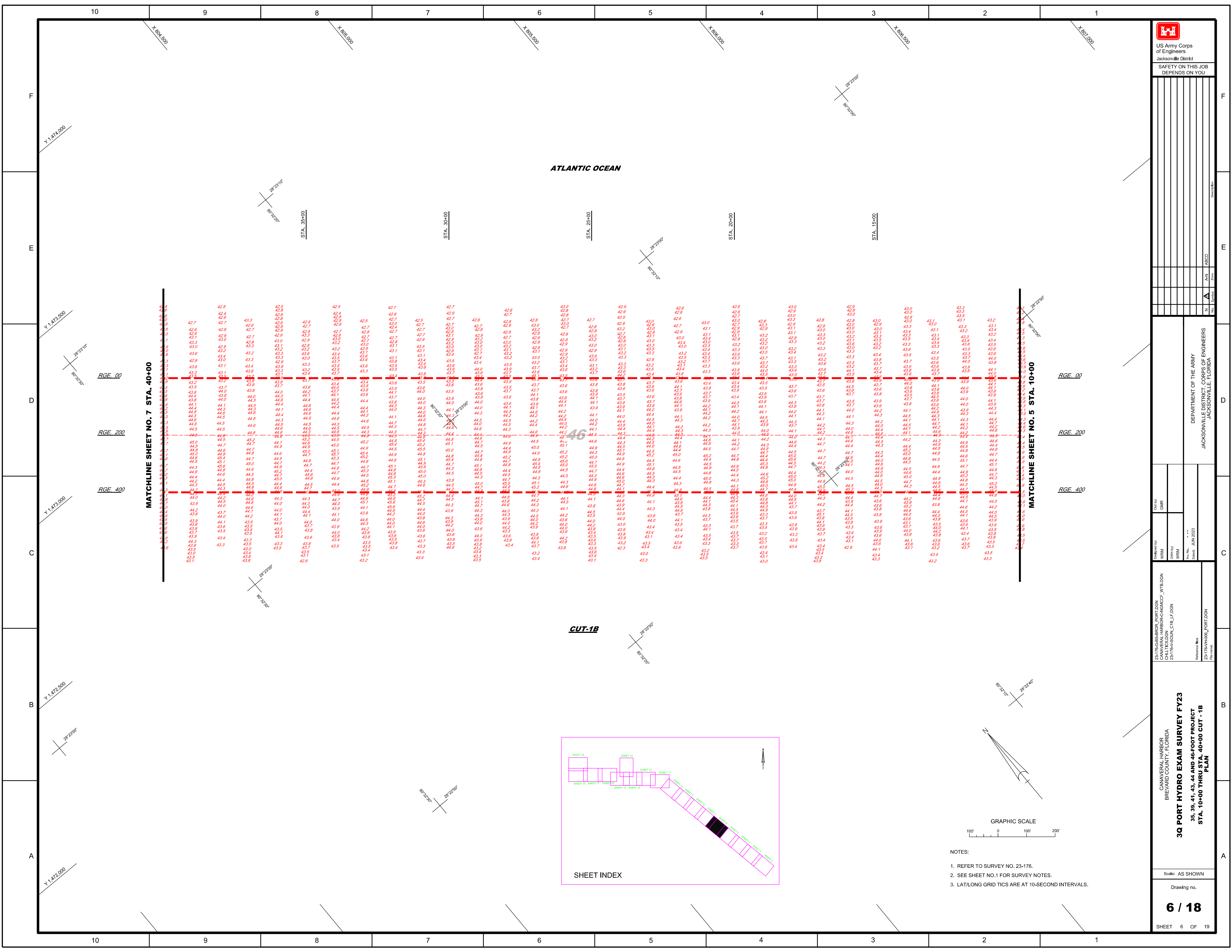


- NOTES: 1. REFER TO SURVEY NO. 23-176. 2. SEE SHEET NO.1 FOR SURVEY NOTES. 3. LAT.LONG GRID TICS ARE AT 10-SECOND INTERVALS.

Designed by: WRM
Checked by: GHR
23-176-35-ERROR_PORTLON
CANAVERAL_HARBOR_PORTLON
BREVARD_COUNTY_FLORIDA
23-176-35-000_C1B_LF.DGN
23-176-35-000_C1A_HF.DGN
23-176-35-000.DGN
Date: JUN 2023

CANAVERAL HARBOR
BREVARD COUNTY, FLORIDA
3Q PORT HYDRO EXAM SURVEY FY23
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 90+00 CUT - 1A THRU STA. 10+00 CUT - 1B
PLAN

Scale: AS SHOWN
Drawing no.
5 / 18
SHEET 5 OF 19



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

23-176-C&S-HRDR_PORTLDON

 CANAVERAL HARBOR-C&S-NCIC_C1B_VTB.DGN

 23-176-A&S-SCU_C1B_LF.DGN

CANAVERAL HARBOR

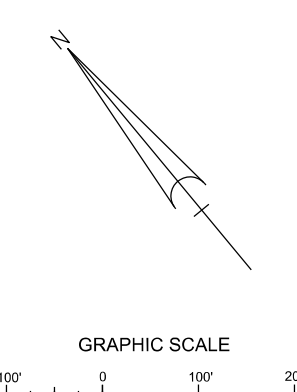
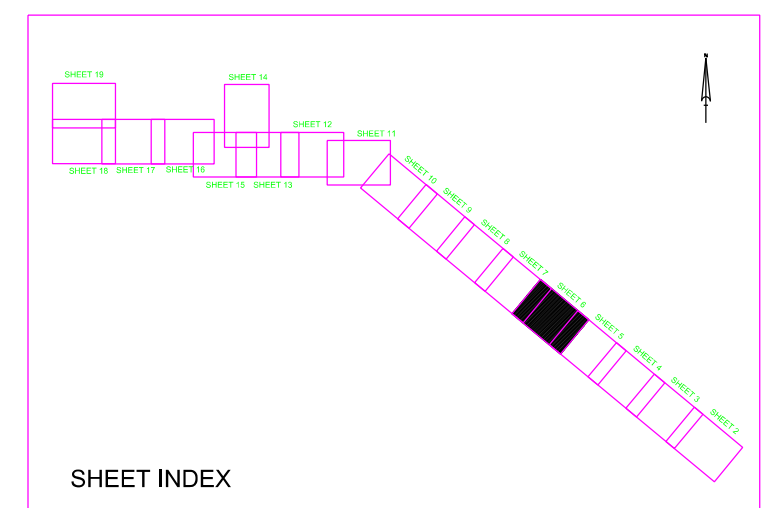
 BREVARD COUNTY, FLORIDA

3Q PORT HYDRO EXAM SURVEY FY23

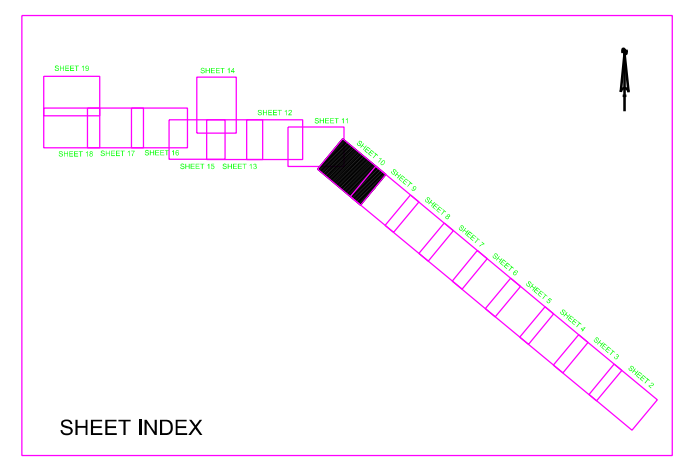
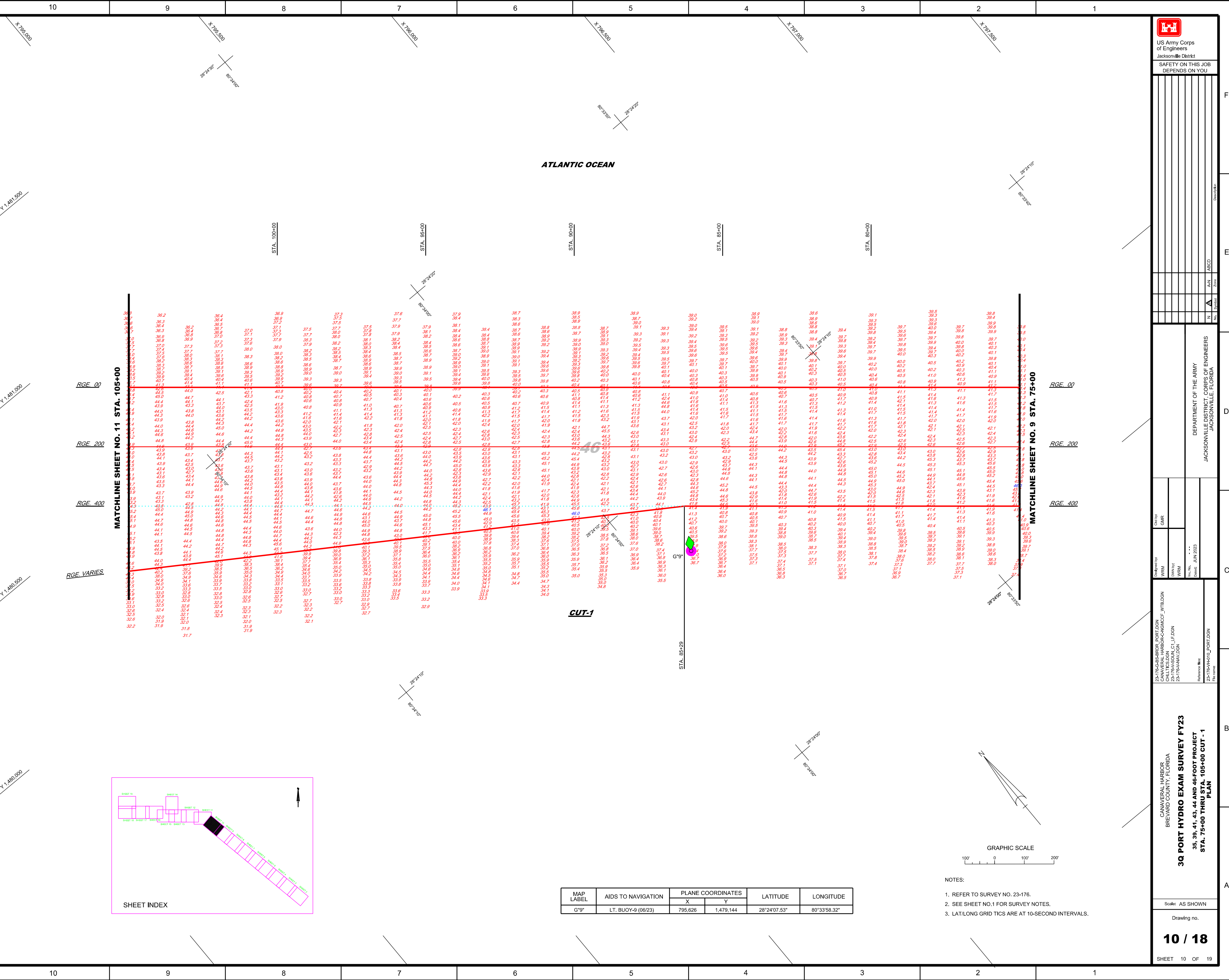
 35, 39, 41, 43, 44 AND 46-FOOT PROJECT

 STA. 10+00 THRU STA. 40+00 CUT - 1B

 PLAN



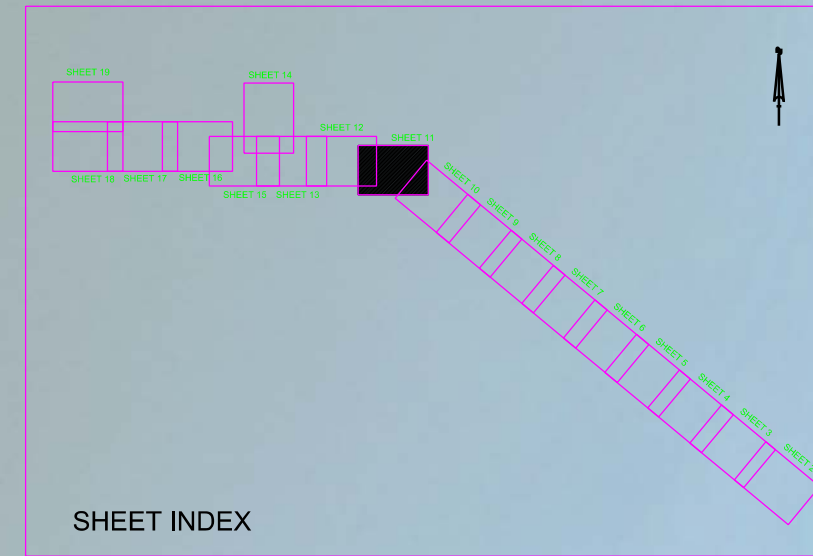
- NOTES:
1. REFER TO SURVEY NO. 23-176.
 2. SEE SHEET NO.1 FOR SURVEY NOTES.
 3. LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G°9	LT. BUOY-9 (06/23)	795,626	1,479,144	28°24'07.53"	80°33'58.32"

- NOTES:
- REFER TO SURVEY NO. 23-176.
 - SEE SHEET NO.1 FOR SURVEY NOTES.
 - LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R*10"	LT. BUOY-10 (06/23)	792,932	1,482,123	28°24'37.12"	80°34'28.37"
G*11"	LT. BUOY-11 (06/23)	793,579	1,480,606	28°24'22.07"	80°34'21.19"



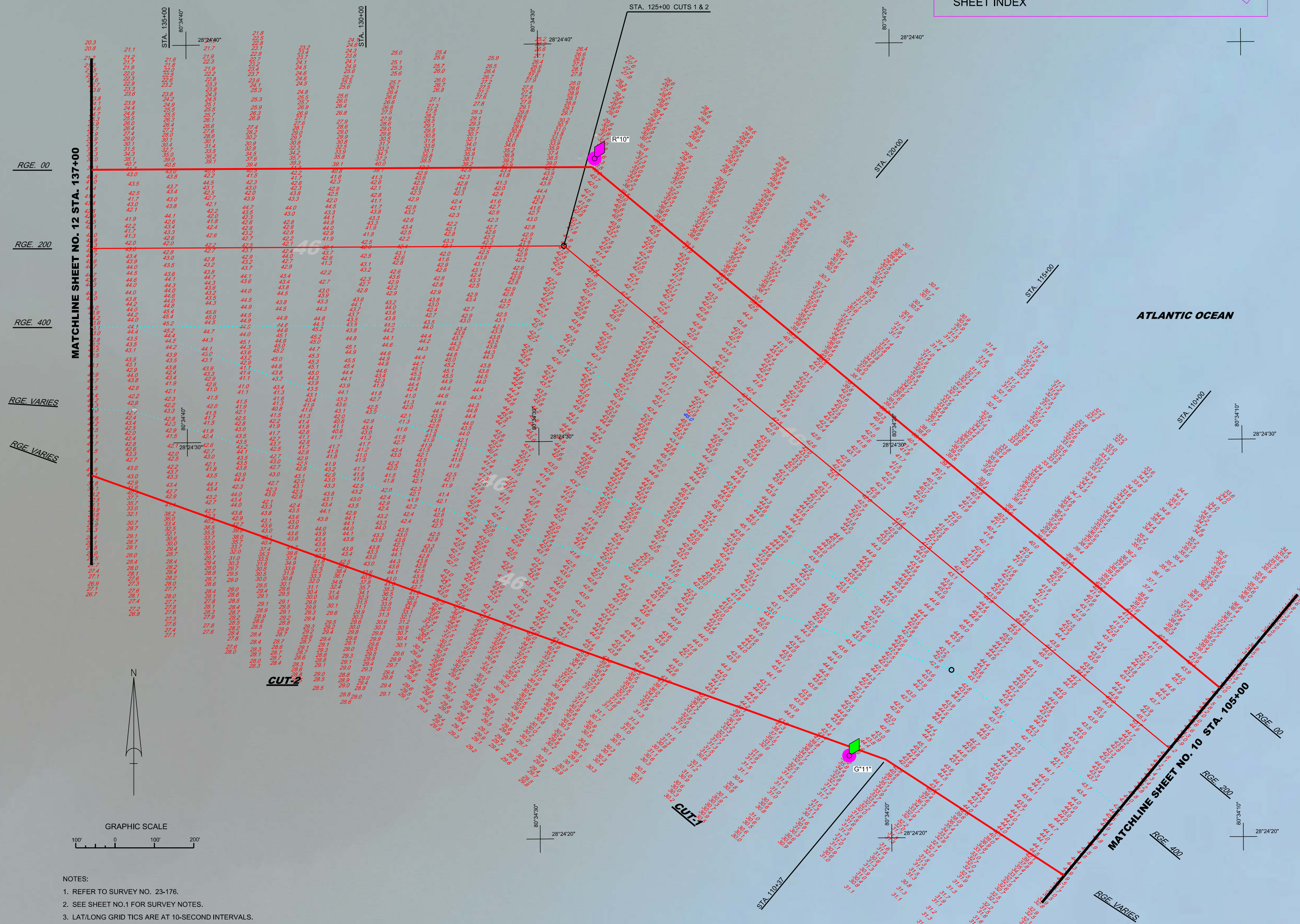
US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

Drawn by: [Blank]
Checked by: [Blank]
Scale: [Blank]

Zone: [Blank]

North Arrow



- NOTES:
1. REFER TO SURVEY NO. 23-176.
 2. SEE SHEET NO.1 FOR SURVEY NOTES.
 3. LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.

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

Drawn by: WRM
Checked by: WRM
Date: JUN 2023

23-176-GS-BRDR_PORTLON
CANAVERAL HARBOR-CNGMCCF_VTB.LDN
23-176-SOUM_C1_L.F.DGN
23-176-SOUM_C2_L.F.DGN
23-176-SOUM_V.LDN

CANAVERAL HARBOR
BREVARD COUNTY, FLORIDA

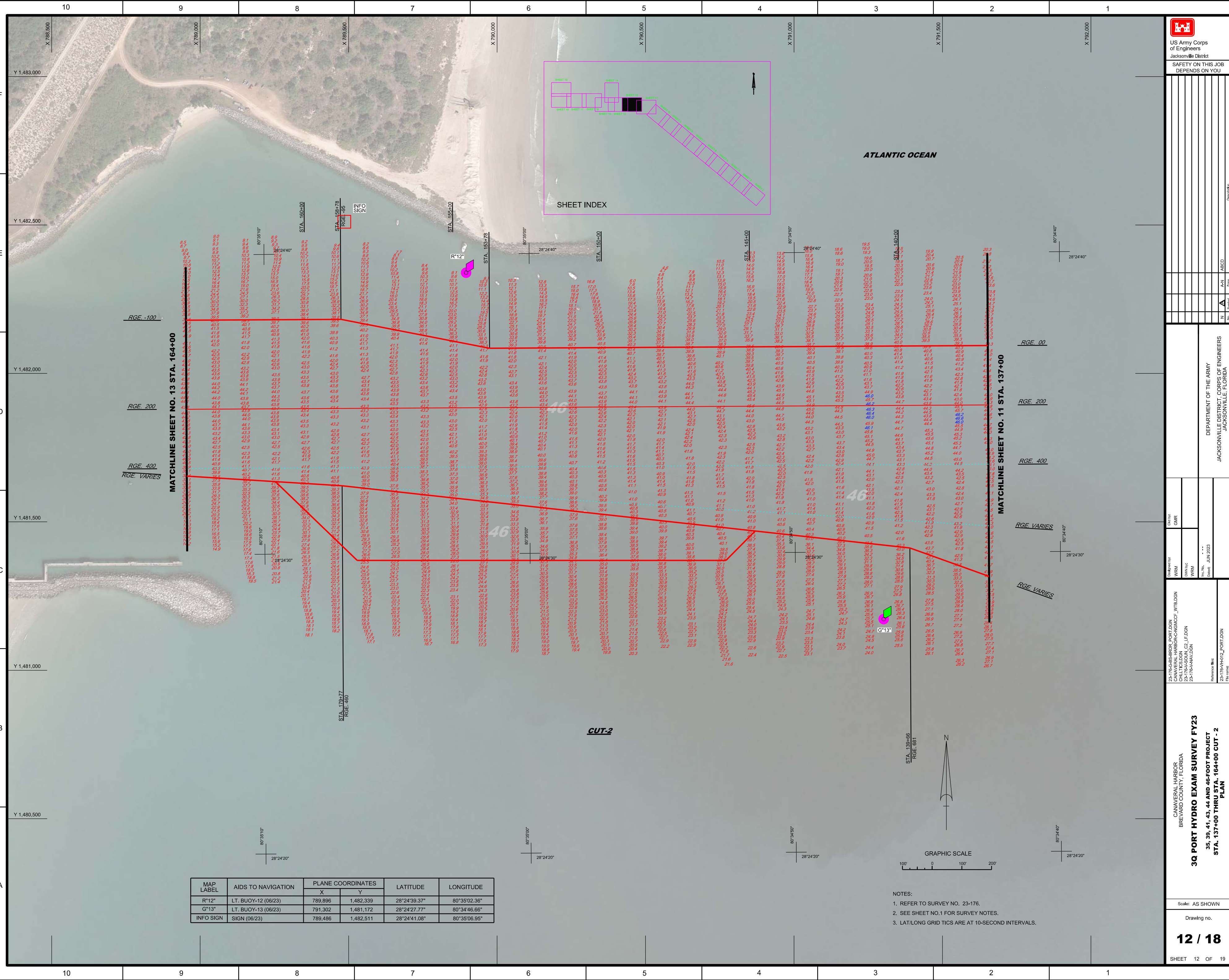
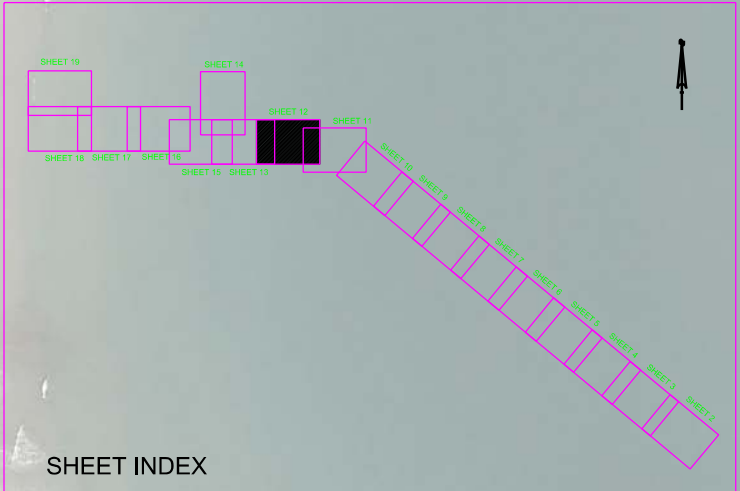
3Q PORT HYDRO EXAM SURVEY FY23
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 105+00 CUT - 1 THRU STA. 137+00 CUT - 2
PLAN

Scale: AS SHOWN

Drawing no.

11 / 18

SHEET 11 OF 19



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R*12"	LT. BUOY-12 (06/23)	789,896	1,482,339	28°24'39.37"	80°35'02.36"
G*13"	LT. BUOY-13 (06/23)	791,302	1,481,172	28°24'27.77"	80°34'46.66"
INFO SIGN	SIGN (06/23)	789,486	1,482,511	28°24'41.08"	80°35'06.95"

- NOTES:
- REFER TO SURVEY NO. 23-176.
 - SEE SHEET NO.1 FOR SURVEY NOTES.
 - LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.

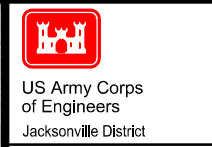
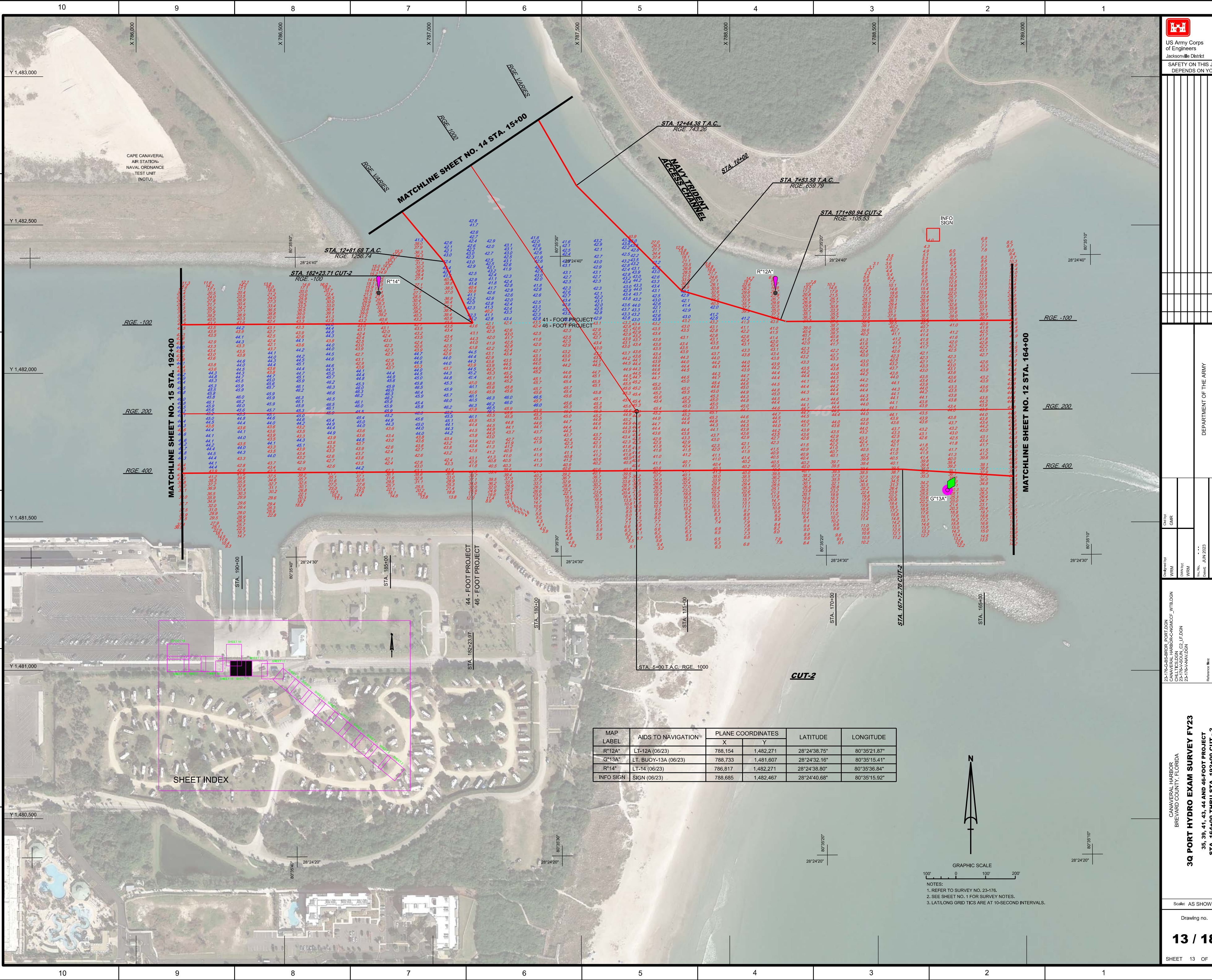
Canal Harbor
Brevard County, Florida
3Q PORT HYDRO EXAM SURVEY FY23
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 137+00 THRU STA. 164+00 CUT - 2
PLAN

23-176-AS-BRDR_PORFDON
CANAL HARBOR-CHNGMCC_VYB.DGN
23-176-AS-SOUN_C2_L1.DGN
23-176-NAV.DGN

Scale: AS SHOWN
Drawing no.
12 / 18
SHEET 12 OF 19

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

Checked by: GHR
Designed by: WRM
Drawn by: WRM
Date: JUN 2023



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

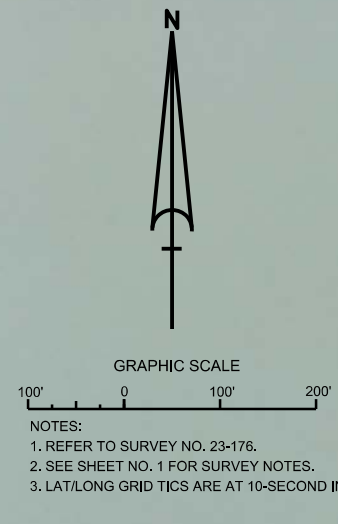
Checked by: GHR
Designed by: WRM
Drawn by: WRM
Reviewed by: WRM
Date: JUN 2023
Scale: AS SHOWN

3Q PORT HYDRO EXAM SURVEY FY23

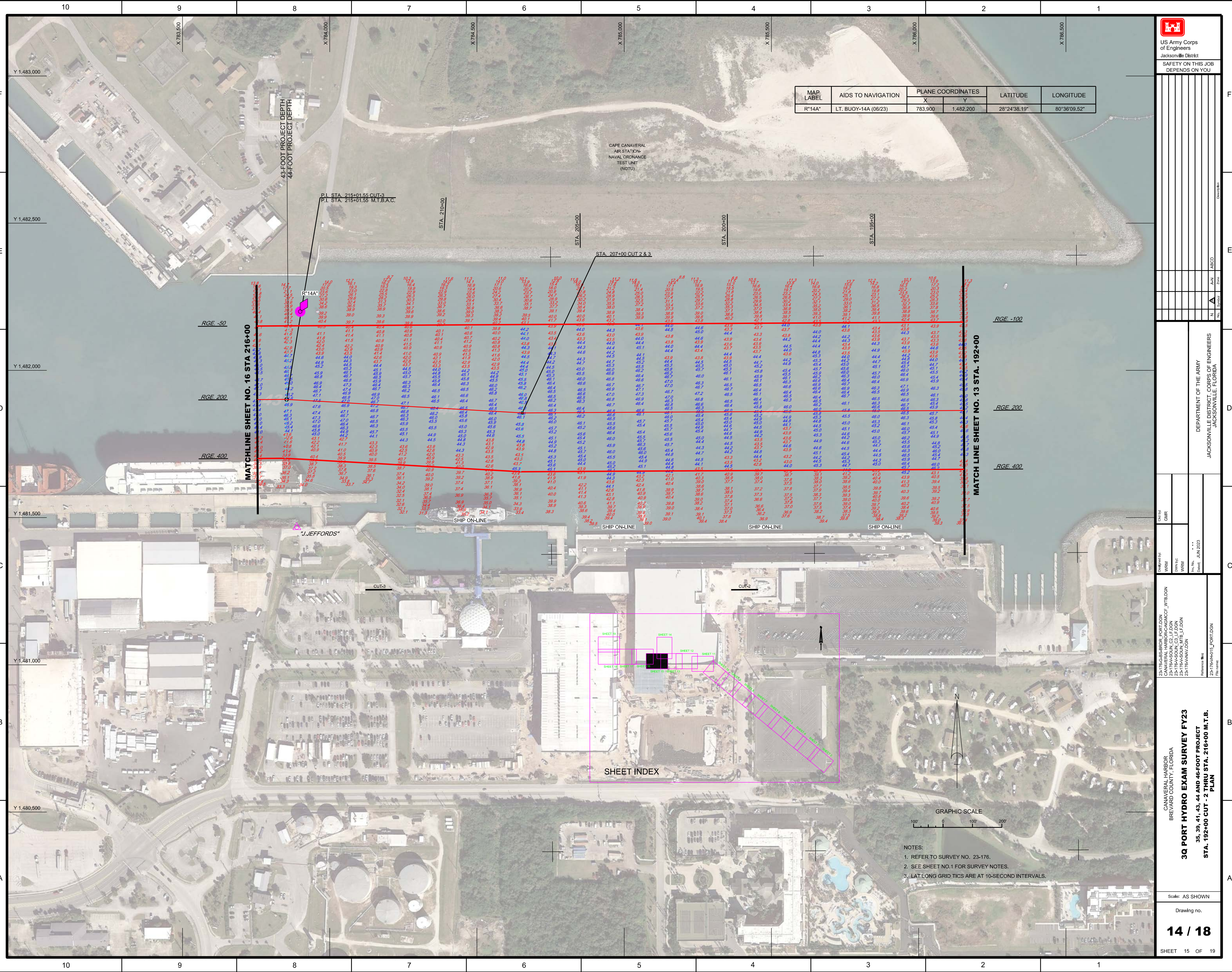
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 1644+00 THRU STA. 192+00 CUT - 2
PLAN

Scale: AS SHOWN
Drawing no.
13 / 18
SHEET 13 OF 19

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R*12A*	LT-12A (06/23)	788,154	1,482,271	28°24'38.75"	80°35'21.87"
G*13A*	LT. BUOY-13A (06/23)	788,733	1,481,607	28°24'32.16"	80°35'15.41"
R*14*	LT-14 (06/23)	786,817	1,482,271	28°24'38.80"	80°35'36.84"
INFO SIGN	SIGN (06/23)	788,685	1,482,467	28°24'40.68"	80°35'15.92"



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R"14A"	L.T. BUOY-14A (06/23)	783,900	1,482,200	28°24'38.19"	80°36'09.52"



Zone	ABCD	N	AN	ABCD	Zone

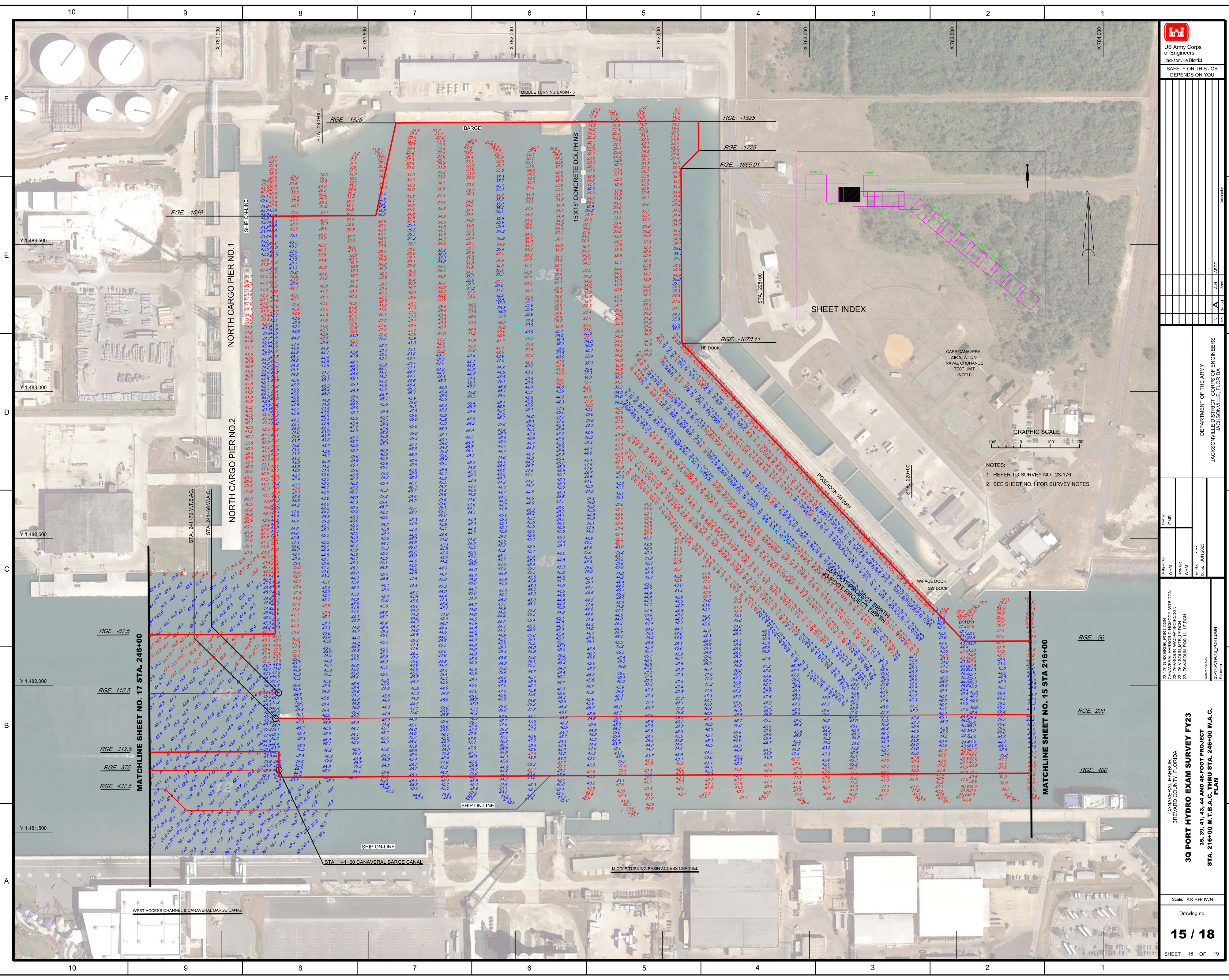
DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

Drawn by: GHR
 Checked: JUN 2023

23-176-GS-BRDR_PORTLDDN
 23-176-GS-GRNDMCCF_WTBDDN
 23-176-GS-SOUL_CLL_FDDN
 23-176-GS-SOUL_MTB_LFDDN
 23-176-GS-ANVDDN

3Q PORT HYDRO EXAM SURVEY FY23
 35, 39, 41, 43, 44 AND 46-FOOT PROJECT
 STA. 192+00 CUT - 2 THRU STA. 216+00 M.T.B. PLAN

- NOTES:
 1. REFER TO SURVEY NO. 23-176.
 2. SEE SHEET NO.1 FOR SURVEY NOTES.
 3. LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.



Zone	North	South	East	West		
Zone	N	S	E	W		
Section	A	B	C	D	E	F

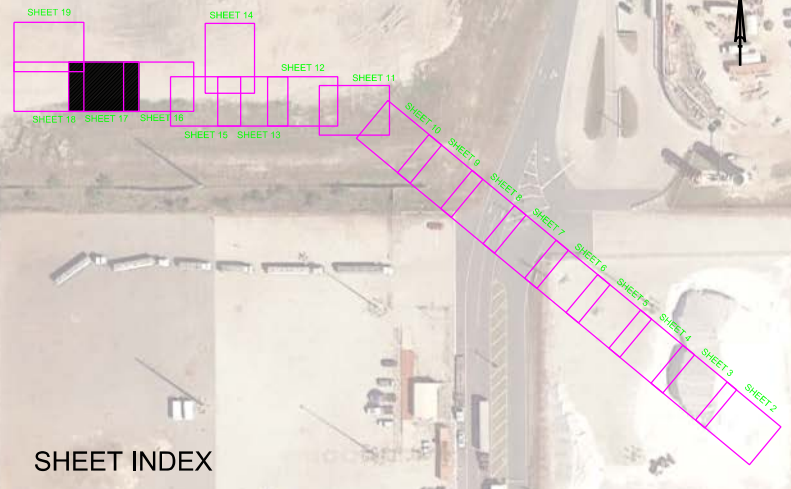
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

Designed by: WRM
Checked by: GHR
Date: JUN 2023

23-176-AS-BRDR_PORFDON
CANAVERAL HARBOR-CANAL-PORT
23-176-AS-SOUL_MTB_LF_DOCK
23-176-AS-SOUL_POS_LF_DOCK

3Q PORT HYDRO EXAM SURVEY FY23
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 216+00 M.T.B.A.C. THRU STA. 246+00 W.A.C.
PLAN

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G*15*	LT. BUOY-15 (06/23)	779,314	1,481,657	28°24'32.96"	80°37'00.89"
G*19*	LT. BUOY-19 (06/23)	778,102	1,481,699	28°24'33.42"	80°37'14.46"



MATCHLINE SHEET NO. 18 STA. 276+00

MATCHLINE SHEET NO. 16 STA. 246+00

RGE. -87.5
RGE. 112.5
RGE. 312.5
RGE. 375
RGE. 400
RGE. 437.5

RGE. -87.5
RGE. 112.5
RGE. 312.5
RGE. 375
RGE. 437.5

STA. 175+00 BARGE CUT-1

STA. 170+00 BARGE CUT-1

STA. 165+00 BARGE CUT-1

STA. 160+00 BARGE CUT-1

STA. 155+00 BARGE CUT-1

STA. 150+00 BARGE CUT-1

- NOTES:
1. REFER TO SURVEY NO. 23-176.
2. SEE SHEET NO.1 FOR SURVEY NOTES.



Scale	AS SHOWN
Drawing no.	16 / 18
SHEET	17 OF 19
Author	WRM
Checked	WRM
Design	WRM
Date	JUN 2023
Project	3Q PORT HYDRO EXAM SURVEY FY23
Location	STATION 246+00 W.A.C. THRU STA. 276+00 W.T.B.
Client	DEPARTMENT OF THE ARMY
Contract	JACKSONVILLE DISTRICT CORPS OF ENGINEERS
Zone	JACKSONVILLE, FLORIDA

3Q PORT HYDRO EXAM SURVEY FY23
35, 39, 41, 43, 44 AND 46-FOOT PROJECT
STA. 246+00 W.A.C. THRU STA. 276+00 W.T.B.
PLAN

DESIGNED BY: WRM
CHECKED BY: WRM
DATE: JUN 2023

CANAVEL HARBOR
BREVARD COUNTY, FLORIDA

Scale: AS SHOWN
Drawing no.
16 / 18
SHEET 17 OF 19

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R-2	DBN-2 (06/23)	776,543	1,481,797	28°24'34.43"	80°37'31.92"

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

DATE: JUN 2023
DRAWN BY: WRM
CHECKED BY: GHR

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

Scale: AS SHOWN

Drawing no. **17 / 18**

SHEET 18 OF 19

MATCH LINE SHEET NO. 19 RGE. -1700

RGE -1608.43

RGE 1414.5181

CRUISE SHIP TERMINAL

RGE -844.22

SHIP ON-LINE

DOLPHIN

RGE -587.50

SHEET INDEX

RGE 112.5

RGE 312.5

RGE 375

RGE 437.5

MATCHLINE SHEET NO. 17 STA. 276+00

GRAPHIC SCALE
1" = 100'

NOTES:
1. REFER TO SURVEY NO. 23-176.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

