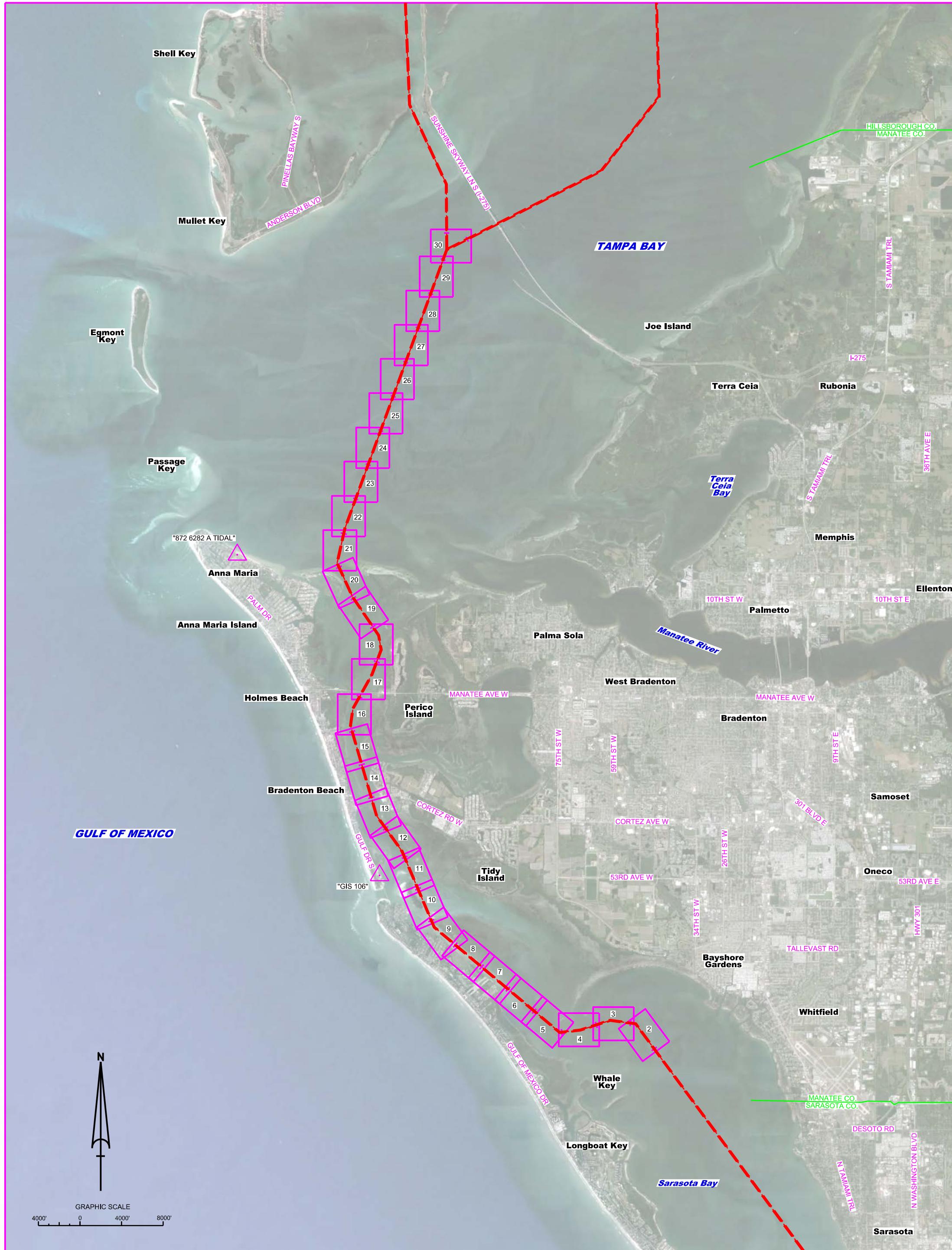


10 9 8 7 6 5 4 3 2 1



GIWW - MANATEE COUNTY, FLORIDA CUTS M-1 THRU M-15 EXAMINATION SURVEY FY16 9-FOOT PROJECT

SURVEY NOTES

- REFER TO SURVEY NO. 16-034.
- OUNDINGS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) OF THE 1983-2001 TIDAL EPOCH.
- 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: "SPC-FL-WEST-2010-12-07.KTD".
- 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 NORTH AMERICAN DATUM OF 1983 (NAD83).
- ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
- THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS FOR POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATIONS: REFERENCE BASE LOCATED AT "872 6282 A TIDAL" (PID: AG7391) REFERENCE BASE LOCATED AT "GIS 106" (PID: AG9211)
- DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, TIDAL EPOCH 1983-2001 AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). NOAA'S VDATUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS ASSOCIATED WITH THE TIDE GAGE SITES SPECIFIED BELOW:

 - NOAA TIDAL STATION 872 6282 A TIDAL FOR CUTS M9 THRU M15 (PID: AG7391)
 - NOAA TIDAL STATION 872 6217 TIDAL 1 FOR CUTS M1 THRU M8 (PID: AG2000)

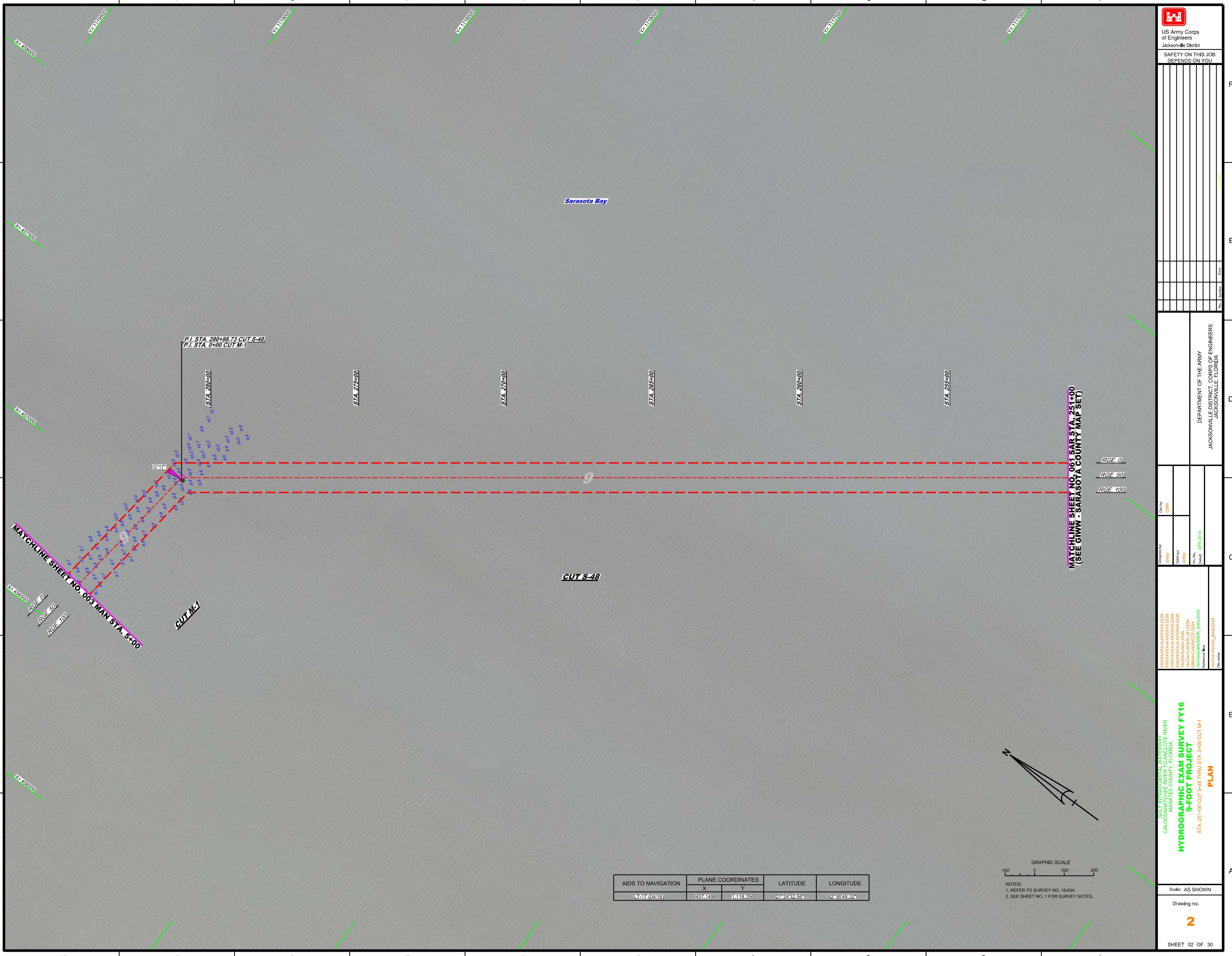
- VERTICAL MEASUREMENTS WERE MADE USING AN EDGETECH 6205 COMBINED MULTI-BEAM SIDESCAN SONAR. ALL SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.
- AIDS TO NAVIGATION WERE LOCATED DURING THIS SURVEY.
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND 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 13.

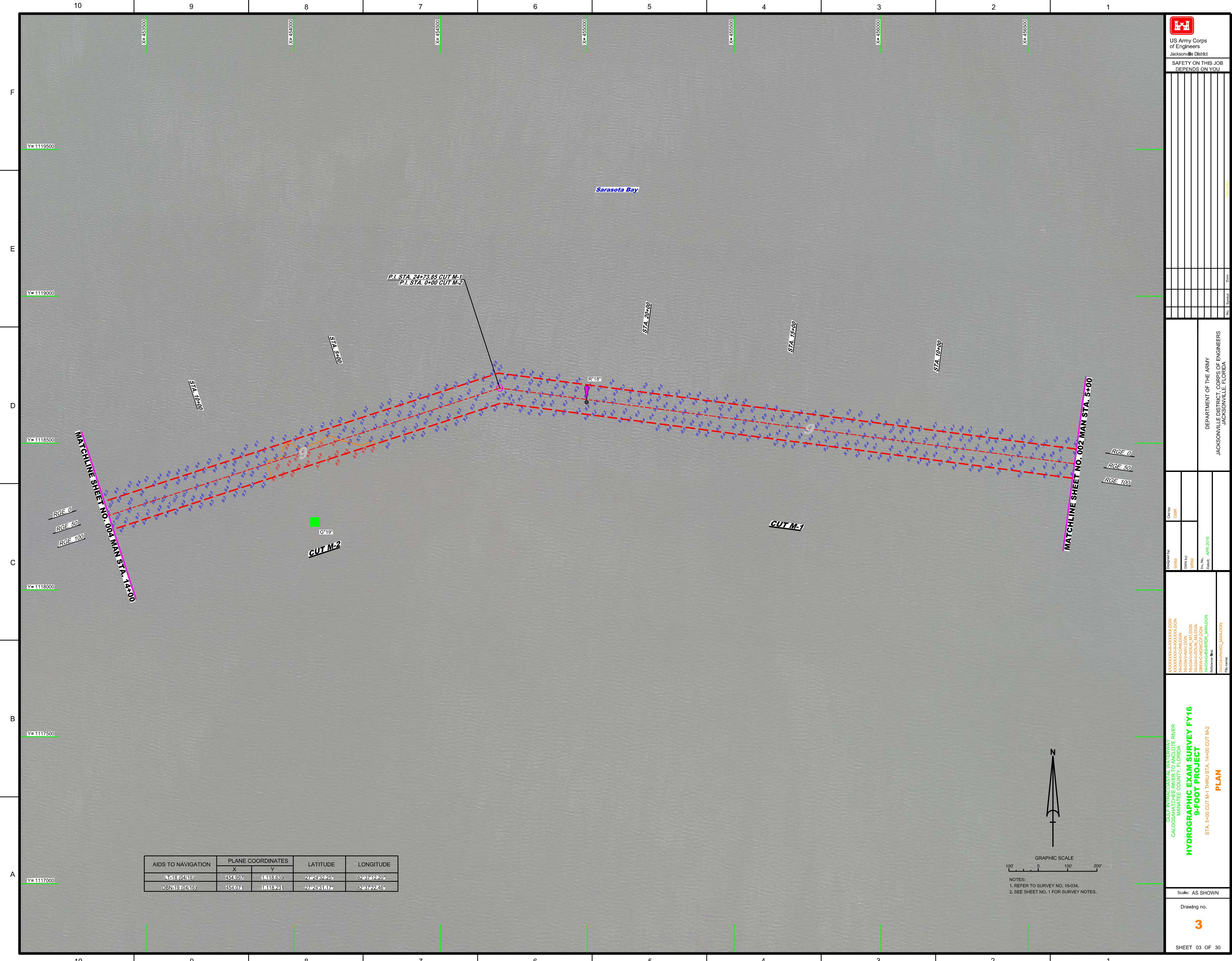
LEGEND	
▲	MONUMENT
■	LIGHTED BEACON
■	GREEN DAYBEACON
▲	RED DAYBEACON
■	RED LIGHTED BUOY
■	GREEN LIGHTED BUOY
■	CAN BUOY
■	NUN BUOY
■	TIDE STAFF
8	PROJECT DEPTH

GULF INTRACOASTAL WATERWAY
CALOOSA-HATCHETT RIVER TO ANGLO RIVER
MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT
INDEX, LOCATION AND VICINITY
MAP

Scale: AS SHOWN
Drawing no.
1
SHEET 01 OF 30

US Army Corps of Engineers Jacksonville District	
SAFETY ON THIS JOB DEPENDS ON YOU	
LOCATION OF WORK	Map
DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	Map
Designated By: WRM	Calibr By: GMR
Drawn By: WRM	Drawn On: WRM
Rev. No.: AGP-2016	Date: 27 APR 2016
File Name: 16-034-0-28-B100, MANDON	Map Name: 16-034-0-28-B100, MANDON







US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

Matchline Sheet No. 005 Man STA. 18+00

Scale: AS SHOWN

Drawing no.

4

SHEET 04 OF 30

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

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10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

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Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

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Y= 1118500

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Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

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Y= 1118500

Y= 1118000

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Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

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Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000

Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

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Y= 1118500

Y= 1118000

Y= 1117500

Y= 1117000

Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000
Y= 1118500
Y= 1118000
Y= 1117500
Y= 1117000
Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000
Y= 1118500
Y= 1118000
Y= 1117500
Y= 1117000
Y= 1116500

10 9 8 7 6 5 4 3 2 1

F E D C B A

1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000
Y= 1118500
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Y= 1117500
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Y= 1116500

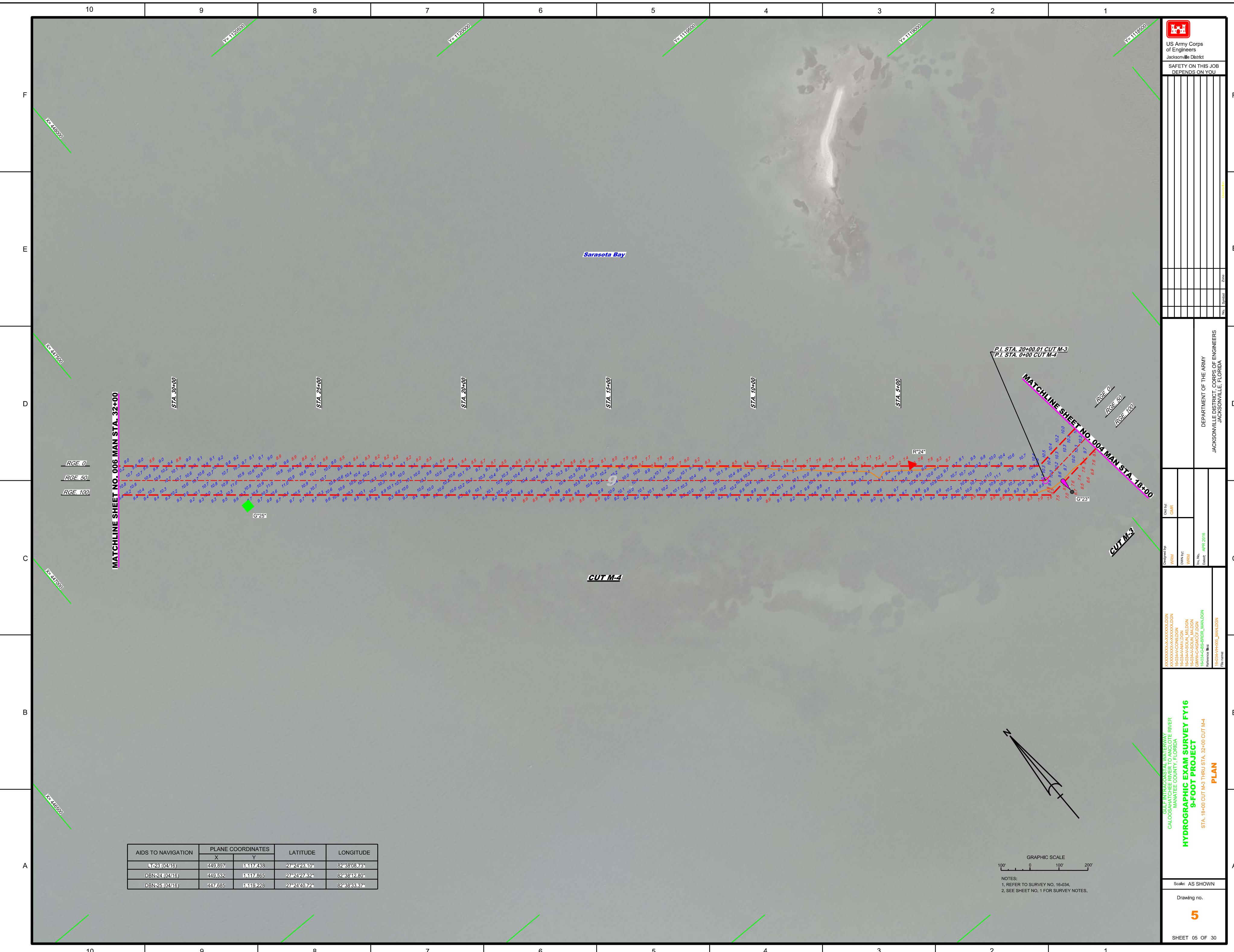
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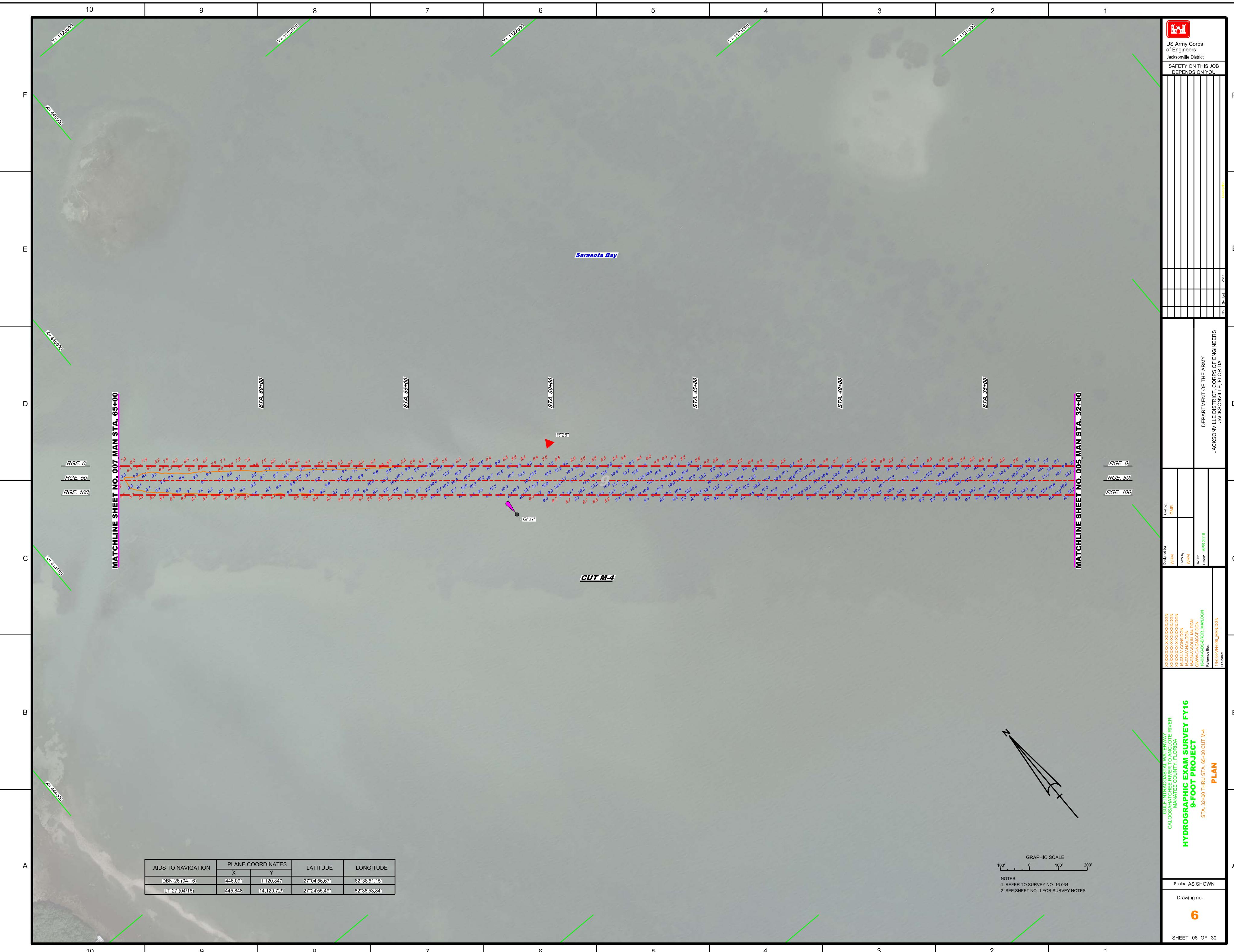
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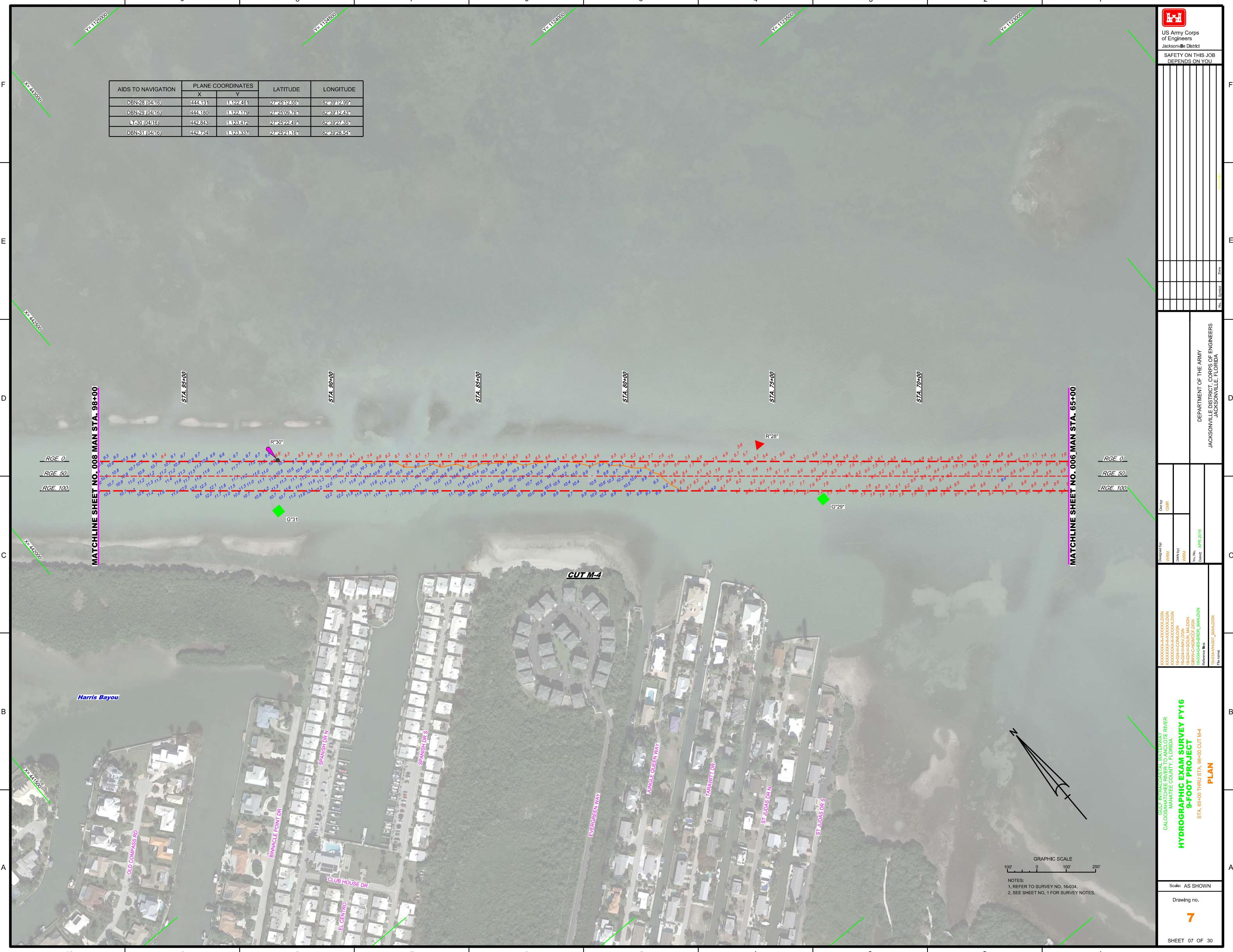
1 2 3 4 5 6 7 8 9 10

RGE. 0 RGE. 50 RGE. 100

Y= 1119000
Y= 1118500
Y= 1118000
Y= 1117500
Y= 1117000
Y= 1116500









US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
DBN-32 (04/16)	441.141	1,124.893	27°25'36.48"	82°39'46.32"
DBN-33 (04/16)	441.057	1,124.788	27°25'35.43"	82°39'47.24"

Sister Keys

MATCHLINE SHEET NO. 009 MAN STA. 131+00

STA. 130+00

STA. 129+00

STA. 128+00

STA. 127+00

STA. 126+00

STA. 125+00

STA. 124+00

STA. 123+00

RGE. 0

RGE. 50

RGE. 100

X-4305+00

X-4405+00

Y-1127000

Y-1126500

Y-1126000

Y-1125500

Y-1125000

Y-1125000

Y-1125000

Y-1125000

CUT M-4

G"33"

R"32"

Millar Bay

Harris Bayou

HIDE AWAY DR
HIDE AWAY BAY LN

DREAM ISLAND RD
EMERALD HARBOR DR

PLAN

GULF INTRACOASTAL WATERWAY
CALOOSA HATCHET RIVER TO ANCOLTE RIVER
MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT

STA. 98+00 THRU STA. 131+00 CUT M-4

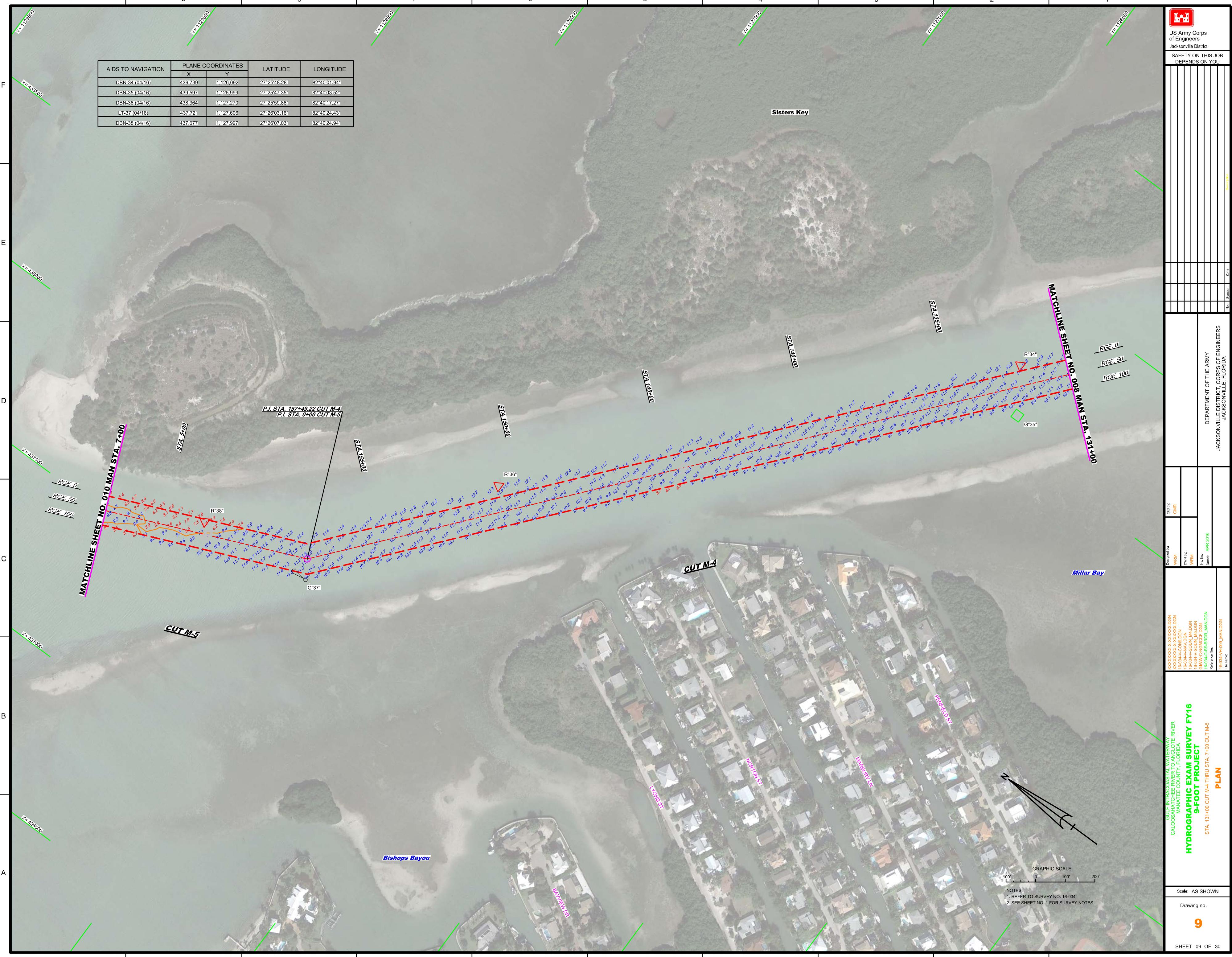
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Drawing no.
8
SHEET 08 OF 30

NOTES:
1. REFER TO SURVEY NO. 16-034.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Graphic Scale
100' 0' 100' 200'

Designated By:
WRM
Drawn By:
WRM
File No.: AFB-2016
Date: 10/20/2016

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





US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

MATCHLINE SHEET NO. 011 MAN STA. 40+00

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
NUN BUOY-38A (04/16)	437,361	1,128,750	27°26'14.46"	82°40'28.50"
CAN BUOY-39 (04/16)	437,398	1,128,543	27°26'12.42"	82°40'28.07"
DBN-40 (04/16)	436,973	1,129,680	27°26'23.65"	82°40'32.85"
LT-41 (04/16)	436,235	1,131,103	27°26'37.71"	82°40'41.14"
DBN-42 (04/16)	436,404	1,131,080	27°26'37.49"	82°40'39.26"

E

D

C

B

A

F

STA. 35+00

STA. 30+00

STA. 25+00

STA. 20+00

STA. 15+00

STA. 10+00

MATCHLINE SHEET NO. 009 MAN STA. 7+00

Matchline Sheet No.	009	Scale:	AS SHOWN
Designated By:	WRM	Drawn By:	WRM
Date:	APR 2016	Rev. No.:	
Reference:	MANSON	File name:	
GULF INTRACOASTAL WATERWAY CALOOSA HATCHET RIVER TO ANCLOTE RIVER MANatee COUNTY, FLORIDA HYDROGRAPHIC EXAM SURVEY FY16 9-FOOT PROJECT STA. 7+00 THRU STA. 40+00 CUT M-5 PLAN			

E

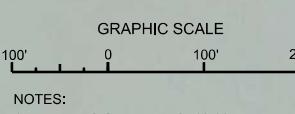
D

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NOTES:
1. REFER TO SURVEY NO. 16-034.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Drawing no.

10

SHEET 10 OF 30

BAYSIDE DR

10

9

8

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1

0



US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

MATCHLINE SHEET NO. 012 MAN STA. 73+00

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
DBN-43 (04/16)	435,777	1,132,363	27°26'50.16"	82°40'46.29"
DBN-44 (04/16)	435,774	1,132,583	27°26'52.33"	82°40'46.34"

X= 435000

Y= 113500

STA. 70+00

STA. 65+00

STA. 60+00

STA. 55+00

STA. 50+00

STA. 45+00

GULF INTRACOASTAL WATERWAY
CALOOSA HATCHET RIVER TO ANCLOTE RIVER
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT
STA. 40+00 THRU STA. 73+00 CUT M-5

PLAN

RGE. 0
RGE. 50
RGE. 100

X= 436000
Y= 113600

X= 435500
Y= 113550

X= 435000
Y= 113500

X= 434500
Y= 113450

X= 434000
Y= 113400

X= 433500
Y= 113350

X= 433000
Y= 113300

X= 432500
Y= 113250

X= 432000
Y= 113200

X= 431500
Y= 113150

X= 431000
Y= 113100

X= 430500
Y= 113050

X= 430000
Y= 113000

X= 429500
Y= 112950

X= 429000
Y= 112900

X= 428500
Y= 112850

X= 428000
Y= 112800

X= 427500
Y= 112750

X= 427000
Y= 112700

X= 426500
Y= 112650

X= 426000
Y= 112600

X= 425500
Y= 112550

X= 425000
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Y= 112450

X= 424000
Y= 112400

X= 423500
Y= 112350

X= 423000
Y= 112300

X= 422500
Y= 112250

X= 422000
Y= 112200

X= 421500
Y= 112150

X= 421000
Y= 112100

X= 420500
Y= 112050

X= 420000
Y= 112000

X= 419500
Y= 111950

X= 419000
Y= 111900

X= 418500
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Y= 110300

X= 402500
Y= 110250

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Y= 110200

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Y= 110150

X= 401000
Y= 110100

X= 400500
Y= 110050

X= 400000
Y= 110000

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X= 377500
Y= 107750

X= 377000
Y= 107700

X=



US Army Corps
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Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

MATCHLINE SHEET NO. 013 MAN STA. 27+00

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
DBN-45 (04/16)	434,838	1,134,505	27°27'11.32"	82°40'56.85"
LT-46 (04/16)	434,894	1,134,711	27°27'13.36"	82°40'56.24"
LT-47 (04/16)	434,251	1,135,426	27°27'20.40"	82°41'03.42"

00+27 STA

STA. 20+00

STA. 15+00

STA. 10+00

STA. 5+00

P.I. STA. 70+35.32 CUT M-5
P.I. STA. 0+00 CUT M-6

STA. 75+00

CUT M-5

MATCHLINE SHEET NO. 011 MAN STA. 73+00

GULF INTRACOASTAL WATERWAY
CALOOSA HATCHET RIVER TO ANCLOTE RIVER
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT
STA. 73+00 CUT M-6 THRU STA. 27+00 CUT M-6

PLAN

Scale: AS SHOWN

Drawing no.

12

Sheet 12 OF 30

Designated By: GMR
WBM
WRI

File No.: 4P2-2016

Date: 04/04/2016

Reference Blk:

16-05-04-B-8102, MANDON

Reference Blk:

16-05-04-B-8102, MANDON

File name:



US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT-48 (04/16)	432,570	1,138,400	27°27'49.76"	82°41'22.27"
DBN-49 (04/16)	431,963	1,139,021	27°27'55.88"	82°41'29.04"
SIGN (04/16)	432,191	1,139,379	27°27'59.44"	82°41'26.53"

No. 13 OF 30

Scale: AS SHOWN

Drawing no.

Notes:

1. REFER TO SURVEY NO. 16-034.

2. SEE SHEET NO. 1 FOR SURVEY NOTES.

13

Sheet 13 of 30

GULF INTRACOASTAL WATERWAY
CALOOSA HATCHIE RIVER TO ANCOLTE RIVER
MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT
STA. 27+00 CUT M-7 THRU STA. 18+00 CUT M-7

PLAN

GRAPHIC SCALE
100' 0' 100' 200'

NOTES:
1. REFER TO SURVEY NO. 16-034.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Scale: AS SHOWN

Drawing no.

13

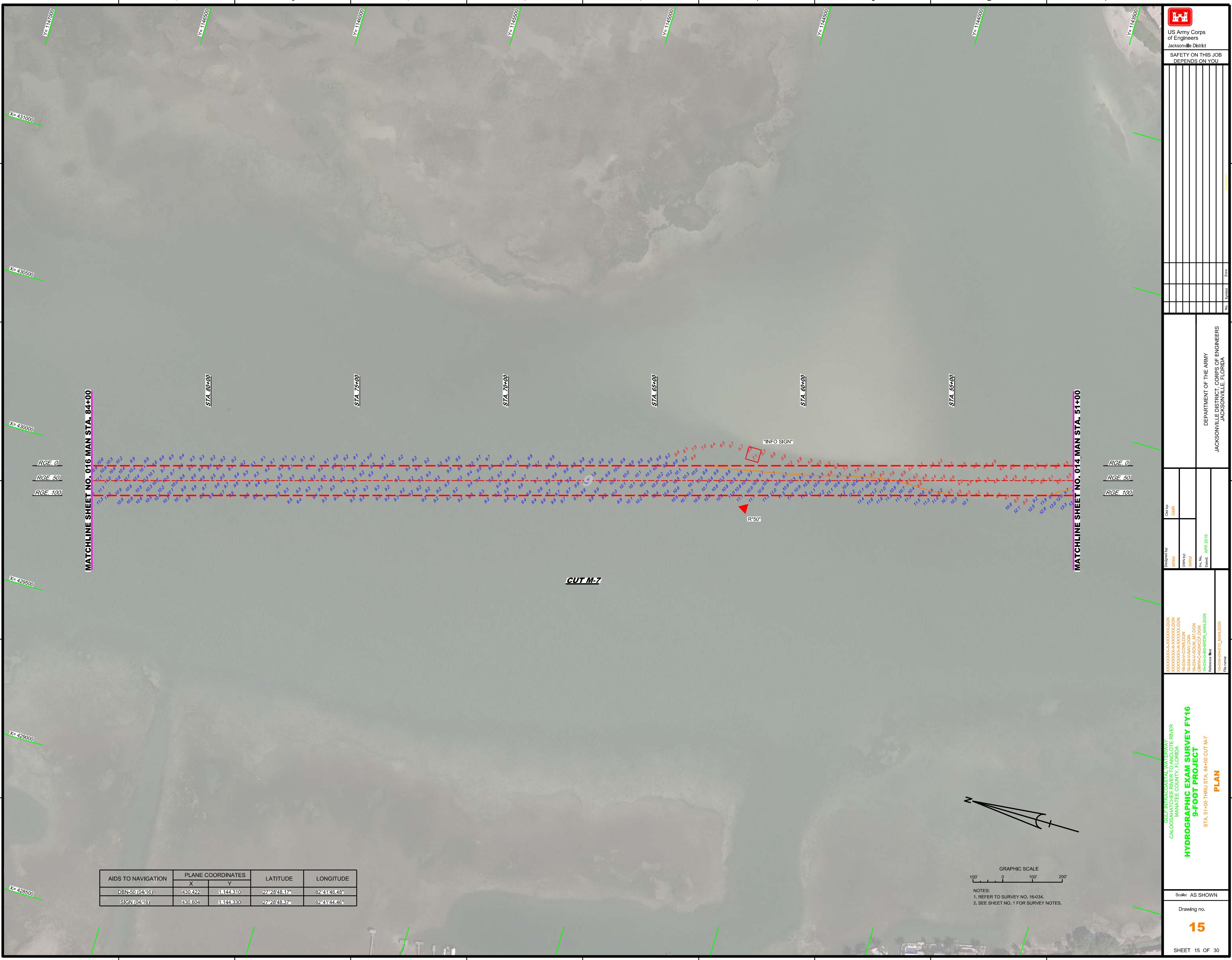
Sheet 13 of 30

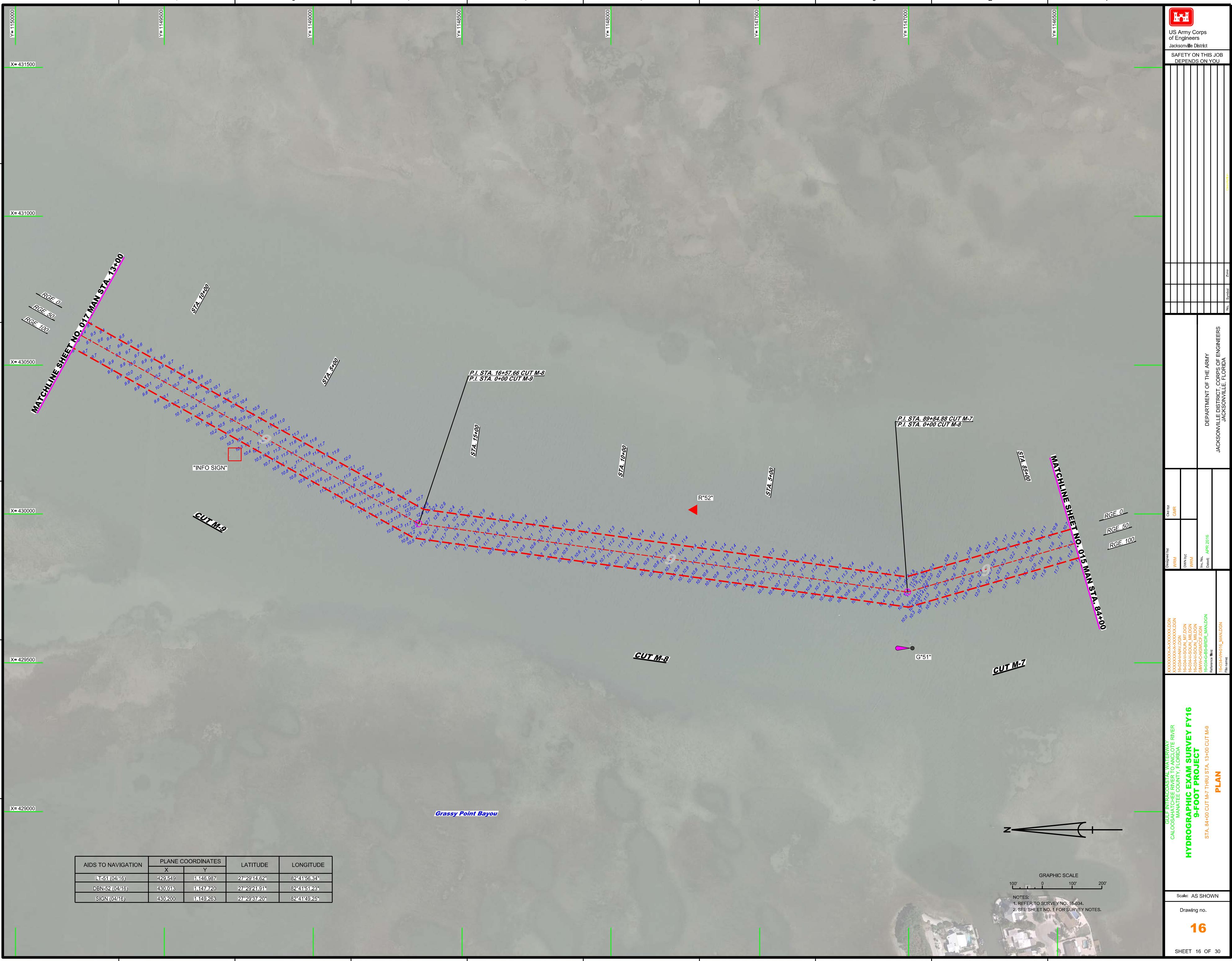


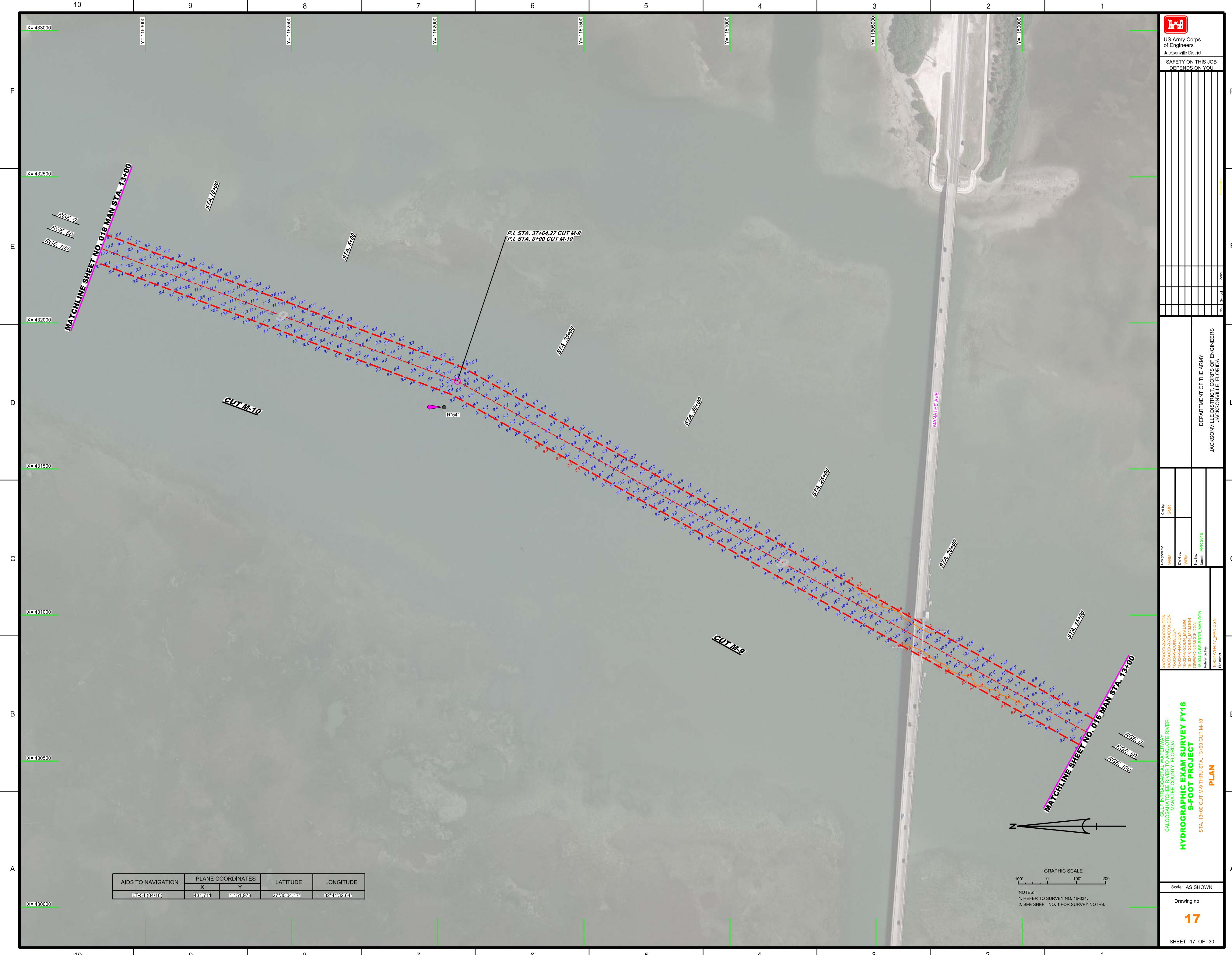


US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU









US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

1

Y=1155000

2

Y=1155500

3

Y=1154000

4

Y=1154500

5

Y=1155000

6

Y=1155500

7

Y=1154000

8

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10

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F

E

D

C

B

A

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F

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D

C

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US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

Matchline Sheet No. 020 Man STA. 43+00

Matchline Sheet No. 018 Man STA. 10+00

CUT M-12

PLAN

Scale: AS SHOWN

Drawing no.

19

Sheet 19 OF 30

MATCHLINE SHEET NO. 020 MAN STA. 43+00

STA. 43+00

STA. 35+00

STA. 30+00

STA. 26+00

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STA. 15+00

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STA. 5+00

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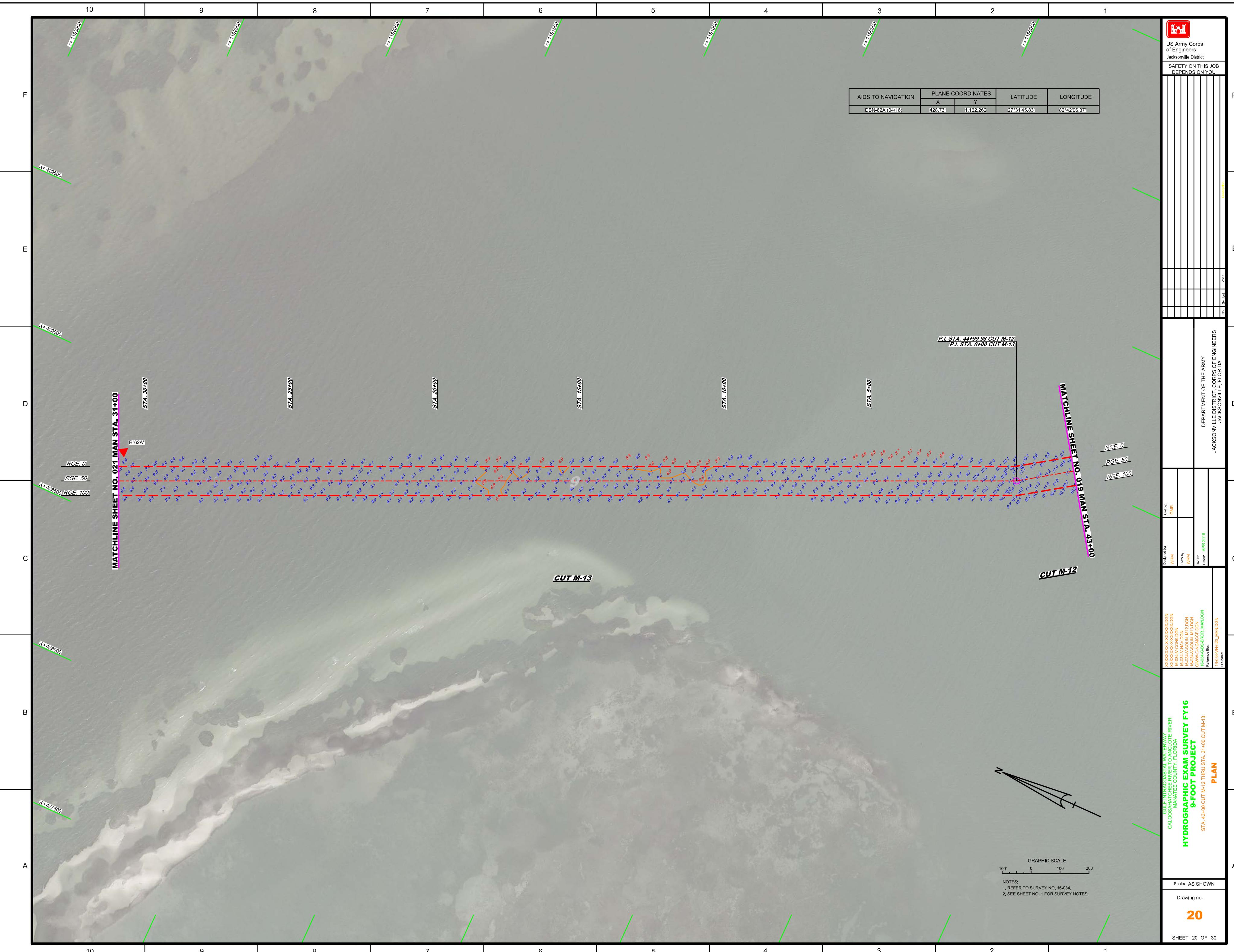
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STA. -765+00

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US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

10 9 8 7 6 5 4 3 2 1

F E D C B A

JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

RGE 0
RGE 50
RGE 100

D C B A

PLAN

GULF INTRACOASTAL WATERWAY
CALOOSA-HATCHET RIVER TO ANCLOTE RIVER
MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT

STA. 31+00 CUT M-13 THRU STA. 29+00 CUT M-14

Scale: AS SHOWN

NOTES:

1. REFER TO SURVEY NO. 16-034.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Drawing no.

21

Sheet 21 OF 30



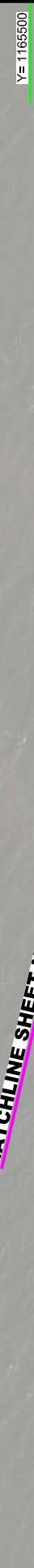
Graphic Scale
100' 0' 100' 200'

NOTES:
1. REFER TO SURVEY NO. 16-034.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Scale: AS SHOWN

Drawing no.

21



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT-61 (04/16)	428,740	1,164,315	27°32'06.17"	82°42'06.41"
DBN-63 (04/16)	428,196	1,162,512	27°31'48.28"	82°42'12.34"
LT-64 (04/16)	428,507	1,162,914	27°31'52.28"	82°08.91"
DBN-66 (04/16)	428,816	1,163,996	27°32'03.01"	82°42'05.54"
DBN-68 (04/16)	429,089	1,164,789	27°32'10.88"	82°42'02.56"

10 9 8 7 6 5 4 3 2 1

F E D C B A

RGE 0
RGE 50
RGE 100

D C B A

PLAN

Scale: AS SHOWN

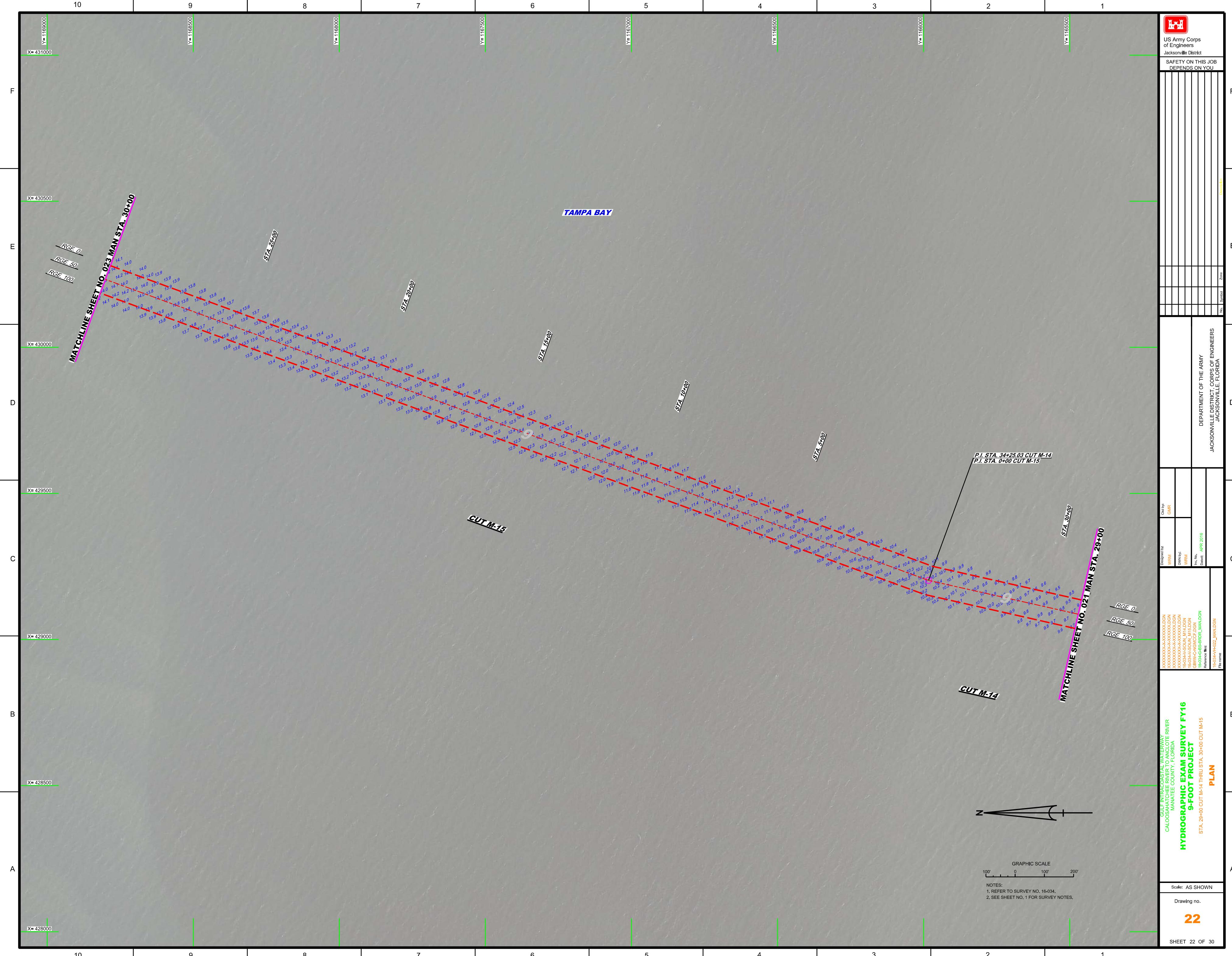
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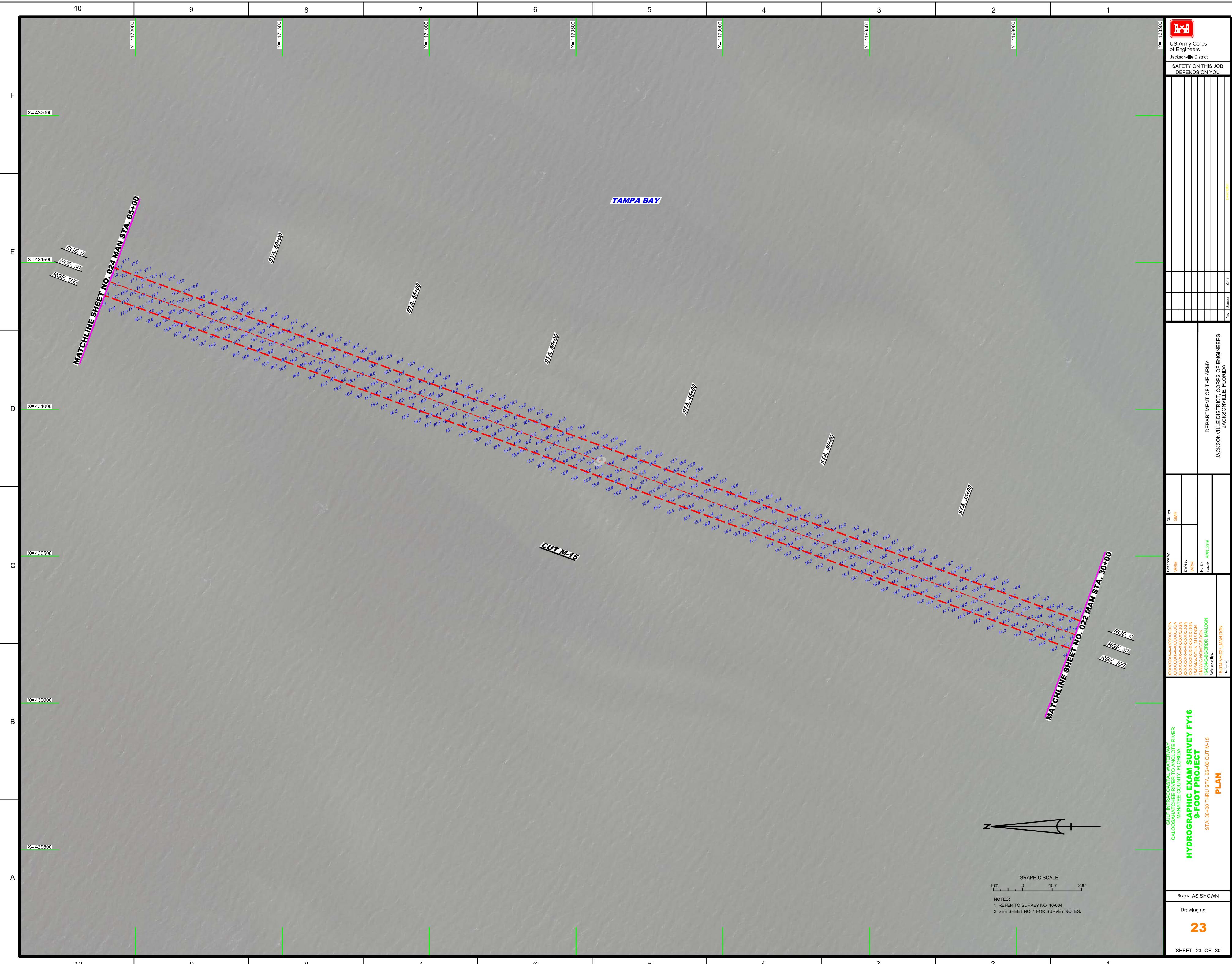
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2. SEE SHEET NO. 1 FOR SURVEY NOTES.

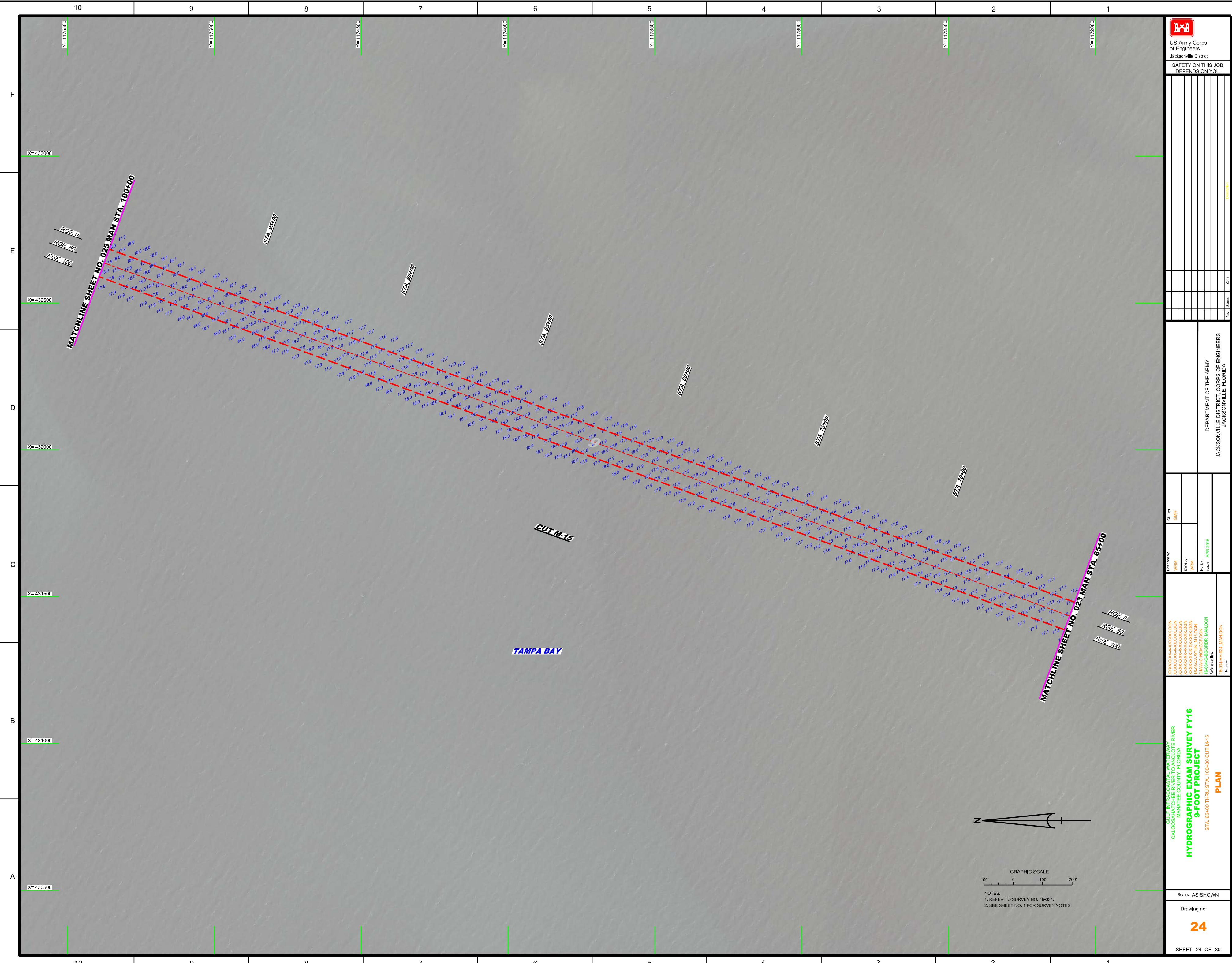
Drawing no.

21

Sheet 21 OF 30











US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

MATCHLINE SHEET NO. 027 MAN STA. 170+00

Y=1182000

X=435500

RGE 0

RGE 50

RGE 100

Y=1181500

X=435000

Y=1181000

X=435000

Y=1180500

X=435000

Y=1175000

X=435000

Y=1175000

X=435000

Y=1175000

X=435000

RGE 0

RGE 50

RGE 100

GULF INTRACOASTAL WATERWAY
CALOOSA-HATCHET RIVER TO ANCLOTE RIVER
MANATEE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY16
9-FOOT PROJECT

STA. 135+00 THRU STA. 170+00 CUT M-16

PLAN

Scale: AS SHOWN

Drawing no.

26

Sheet 26 OF 30

TAMPA BAY

CUT M-15

STA. 165+00

STA. 155+00

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US Army Corps
of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

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Y= 1185000

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