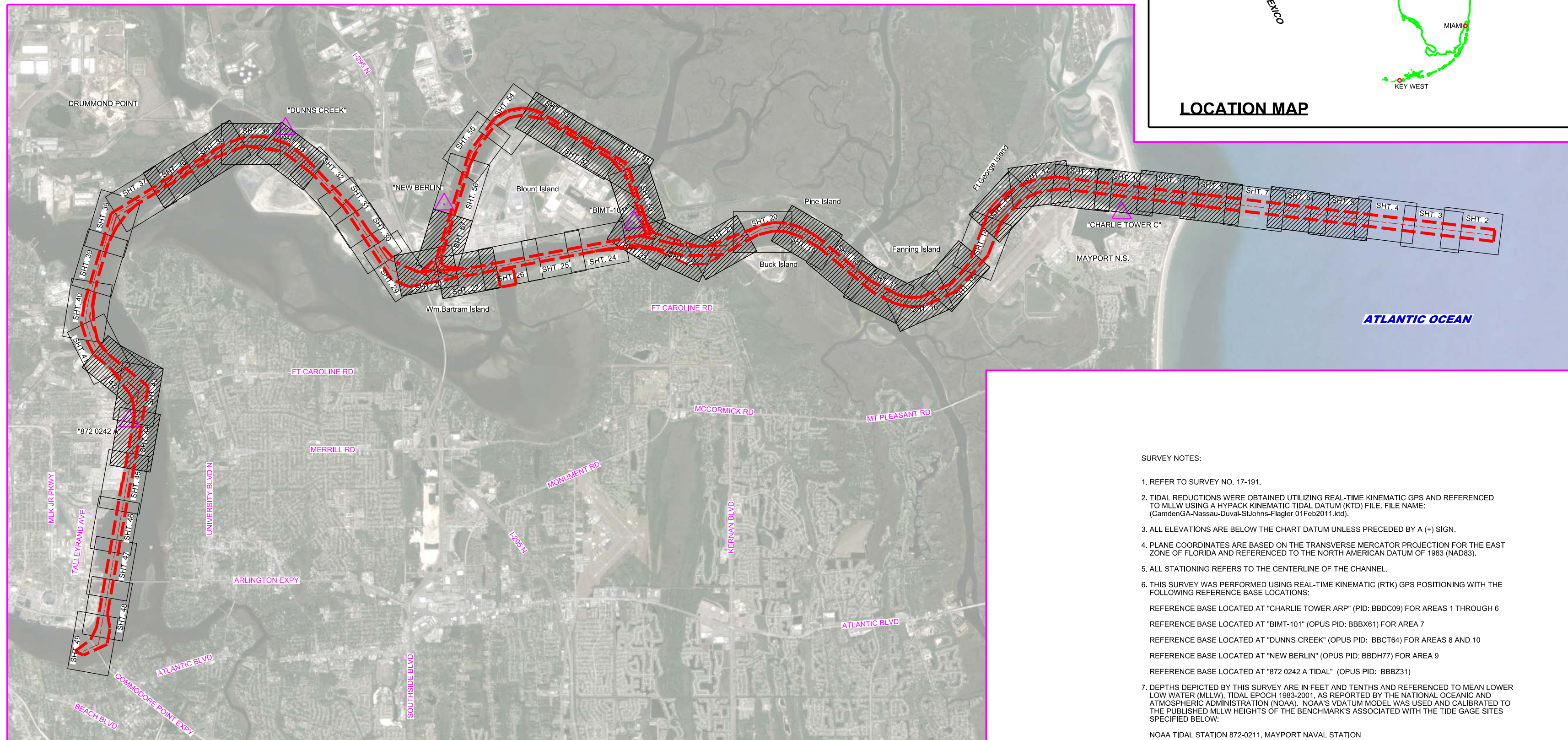


JACKSONVILLE HARBOR, FLORIDA 4th QUARTER EXAM SURVEY FY17 30, 34, 38, 40 & 42-FOOT PROJECT



SURVEY NOTES:

- REFER TO SURVEY NO. 17-191.
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC GPS AND REFERENCED TO MLLW USING A HYPACK KINEMATIC TIDAL DATUM (KTD) FILE. FILE NAME: (CamdenGA-Nassau-Dival-Stations-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 (NAD83).
- 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 LOCATIONS:
 - REFERENCE BASE LOCATED AT "CHARLIE TOWER ARP" (PID: BBDC09) FOR AREAS 1 THROUGH 6
 - REFERENCE BASE LOCATED AT "BIMT-101" (OPUS PID: BBBX61) FOR AREA 7
 - REFERENCE BASE LOCATED AT "DUNNS CREEK" (OPUS PID: BBTC64) FOR AREAS 8 AND 10
 - REFERENCE BASE LOCATED AT "NEW BERLIN" (OPUS PID: BBDH77) FOR AREA 9
 - REFERENCE BASE LOCATED AT "872 0242 A TIDAL" (OPUS PID: BBBZ31)

- DEPTHS DEPICTED BY THIS SURVEY ARE IN FEET AND TENTHS AND REFERENCED TO MEAN LOWER LOW WATER (MLLW), TIDAL EPOCH 1983-2001, 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 SITES SPECIFIED BELOW:
 - NOAA TIDAL STATION 872-0211, MAYPORT NAVAL STATION
 - NOAA TIDAL STATION 872-0218, BAR PILOTS DOCK
 - NOAA TIDAL STATION 872-0219, DAMES POINT
 - NOAA TIDAL STATION 872-0215, NAVY FUEL DEPOT
 - NOAA TIDAL STATION 872-0242, LONGBRANCH

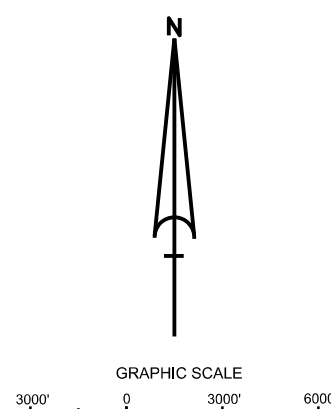
- VERTICAL MEASUREMENTS WERE MADE USING AN R2 SONIC MODEL 2024 MULTI-BEAM SYSTEM OPERATING AT 240 KHZ, AN EDGETECH 6205 AND A ROSS MODEL 535C SMART SOUNDER WITH A DUAL-FREQUENCY (28 & 200 KHZ) SINGLE-BEAM TRANSDUCER. ALL SOUNDINGS SHOWN IN HIGH FREQUENCY.

VESSEL	DATE OF SURVEY	AREA SURVEYED
SB-46	18 SEP 2017	AREA-4, BAR CUT-3, STA 239+00 TO 300+00
SB-46	19 SEP 2017	AREA-2 & 3, BAR CUT-3, STA 188+00 TO 240+00
SB-46	19 SEP 2017	AREA-4, CUT-5 THRU CUT-6
SB-46	21 SEP 2017	AREA-5 & 6, CUT-7 THRU CUT-13
SB-46	10 OCT 2017	AREA-7, CUT-40 THRU CUT-41
SB-46	10 OCT 2017	AREA-11, CUT-A
SB-46	11 OCT 2017	AREA-11, CUT-B
SB-46	11 OCT 2017	AREA-8 & 12, CUT-55 THRU TERM CH.
SB-46	12 OCT 2017	AREA-9, CUT-G
SB-46	12 OCT 2017	AREA-8, CUT-50
SB-46	12 OCT 2017	AREA-10, CUT-47 THRU CUT-48, STA 188+00 TO 197+00
SB-46	07 NOV 2017	AREA-1, BAR CUT-3, STA 90+00 TO 140+00

- AIDS TO NAVIGATION WERE LOCATED FOR 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 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, 30 NOV 2013.

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

AUTHORIZED PROJECT DEPTH	
42 FT	CUT - 3 (BAR CUT), STA. 0+00 THRU STA. 210+00
40 FT	CUT - 3 (BAR CUT) STA. 210+00 THRU TERMINAL CHANNEL STA. 65+00
34 FT	TERMINAL CHANNEL, STA. 65+00 THRU STA. 186+21 (APPROX. 1200 FEET UPSTREAM FROM THE HART BRIDGE NEAR COMMODORE POINT).
30 FT	CUT-A, STA. 0+00 THRU 53+10.21
38 FT	OLD RIVER BLOUNT ISLAND (WESTSIDE) CHANNEL CUT-F, STA. 10+00 - NEAR WOODEN FISHING BRIDGE PIER THRU INTERSECTION OF CUT - 42 (DAMES PT. - FULTON CUT - OFF

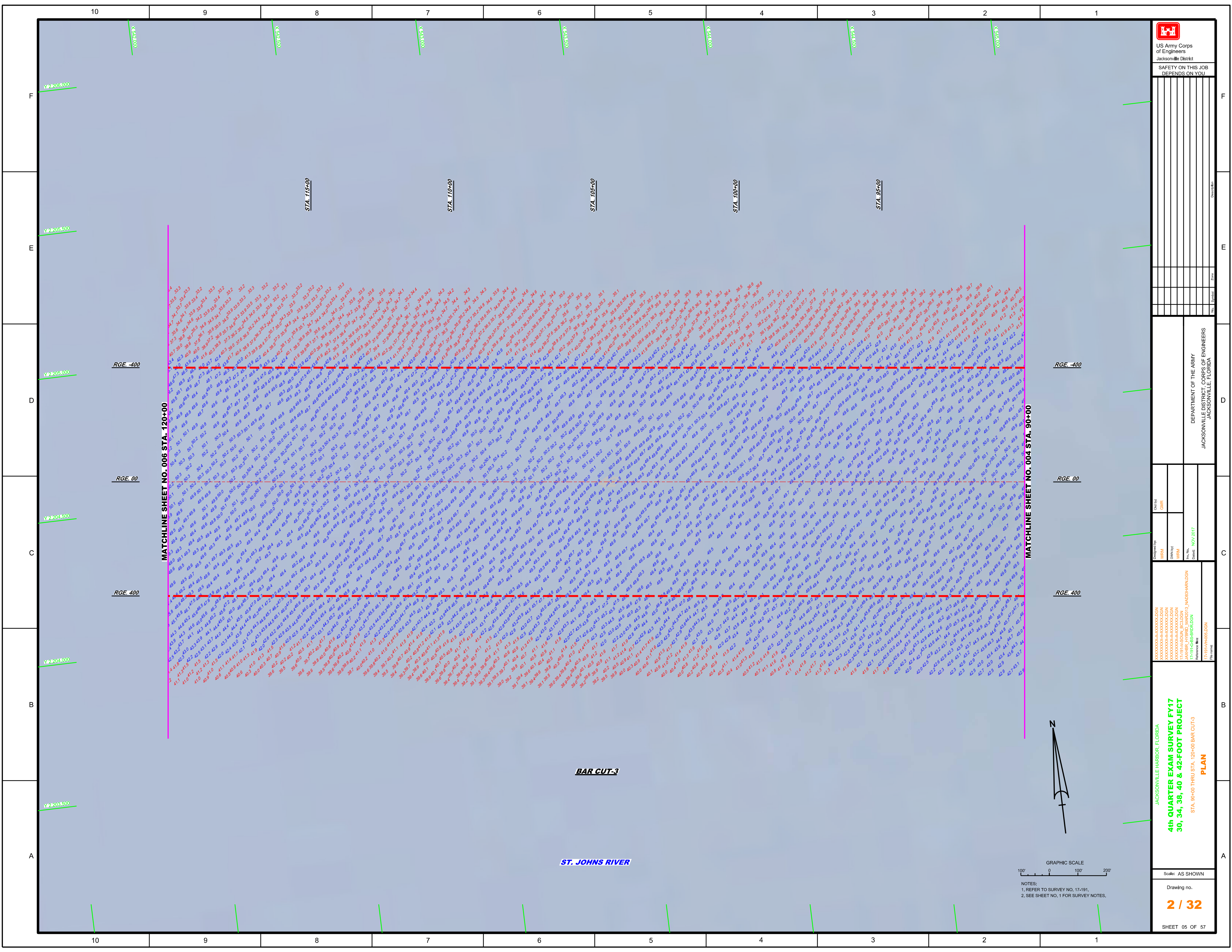


US Army Corps of Engineers
Jacksonville District
SAFETY ON THIS JOB
DEPENDS ON YOU

DESIGNED BY: GMR
CHECKED BY: WRM
DRAWN BY: WRM
DATE: NOV 2017

JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT
INDEX, LOCATION AND VICINITY MAP

Scale: AS SHOWN
Drawing no.
1 / 32
SHEET 01 OF 57



No.	Symbol	Zone	Description

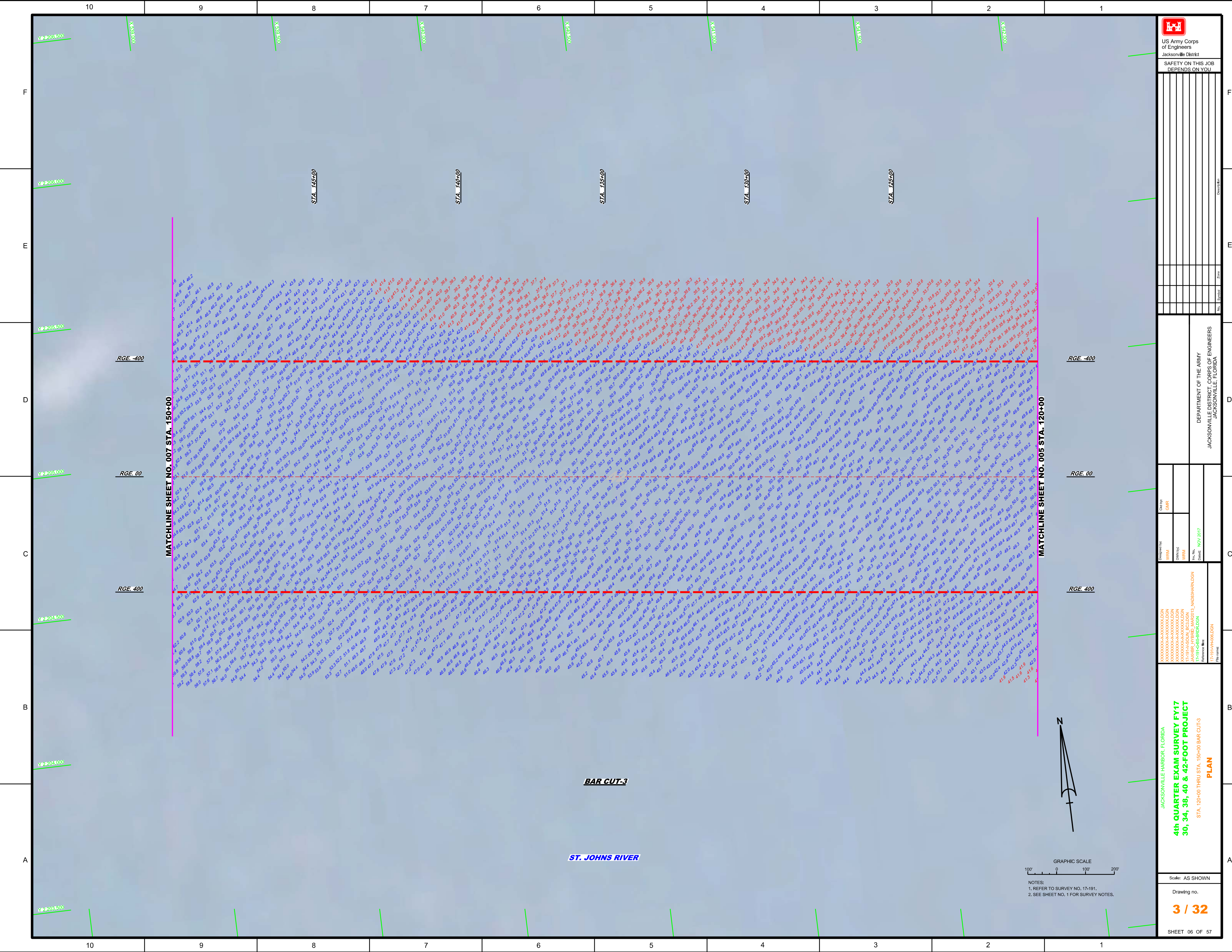
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

Checked By: GHR
Designed By: WRM
Drawn By: WRM
Project Name: 17-19-FH-040-0013
Date: NOV 2017

JACKSONVILLE HARBOR, FLORIDA
**4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT**
STA. 90+00 THRU STA. 120+00 BAR CUT-3
PLAN

GRAPHIC SCALE
Scale: AS SHOWN

NOTES:
1. REFER TO SURVEY NO. 17-191.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



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

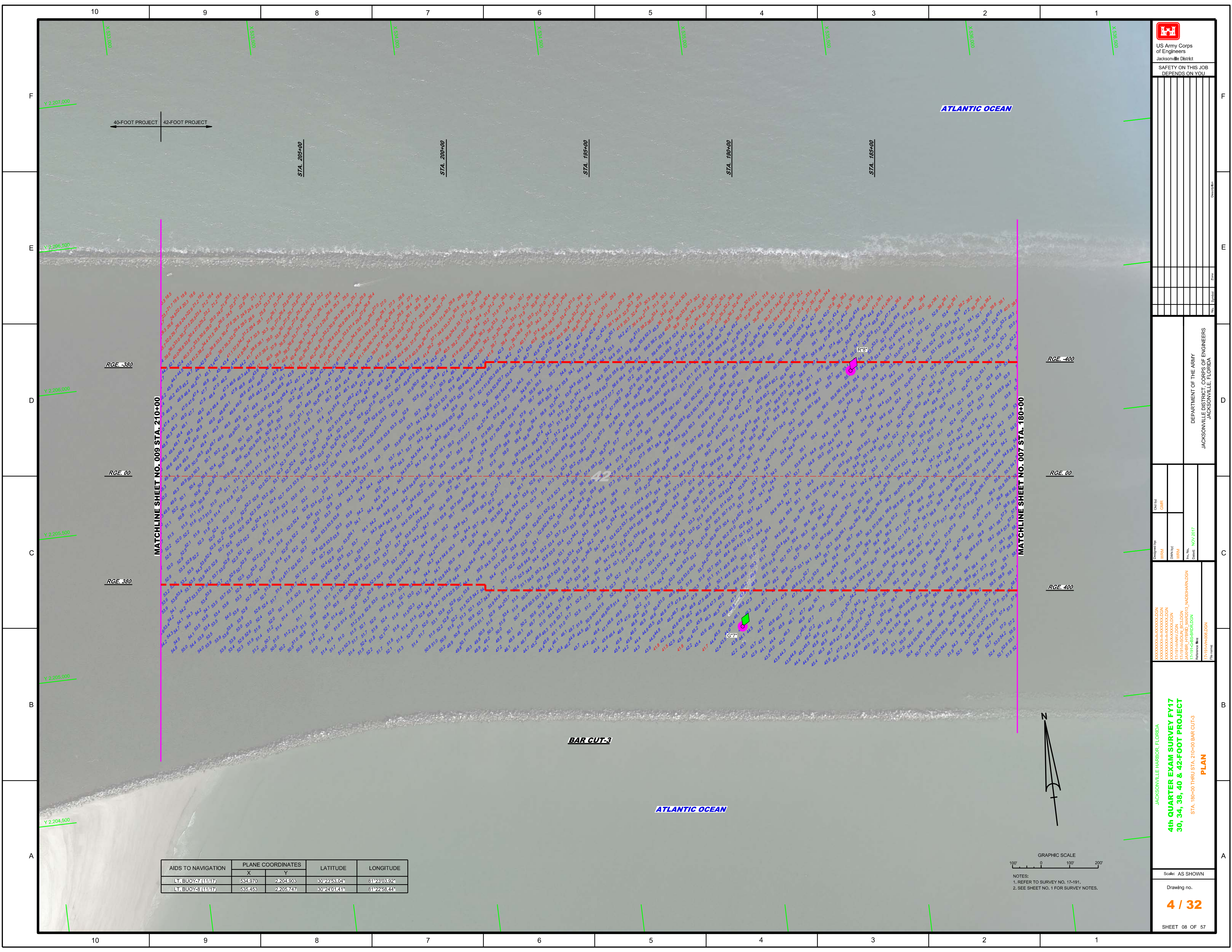
Drawn by: **WRM**
Checked by: **GHR**
Date: **NOV 2017**


PROJECT: **4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT**
SHEET NO: **3 / 32**

JACKSONVILLE HARBOR, FLORIDA



NOTES:
1. REFER TO SURVEY NO. 17-191.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.





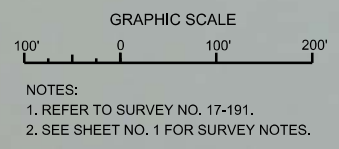
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 Jacksonville District
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DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

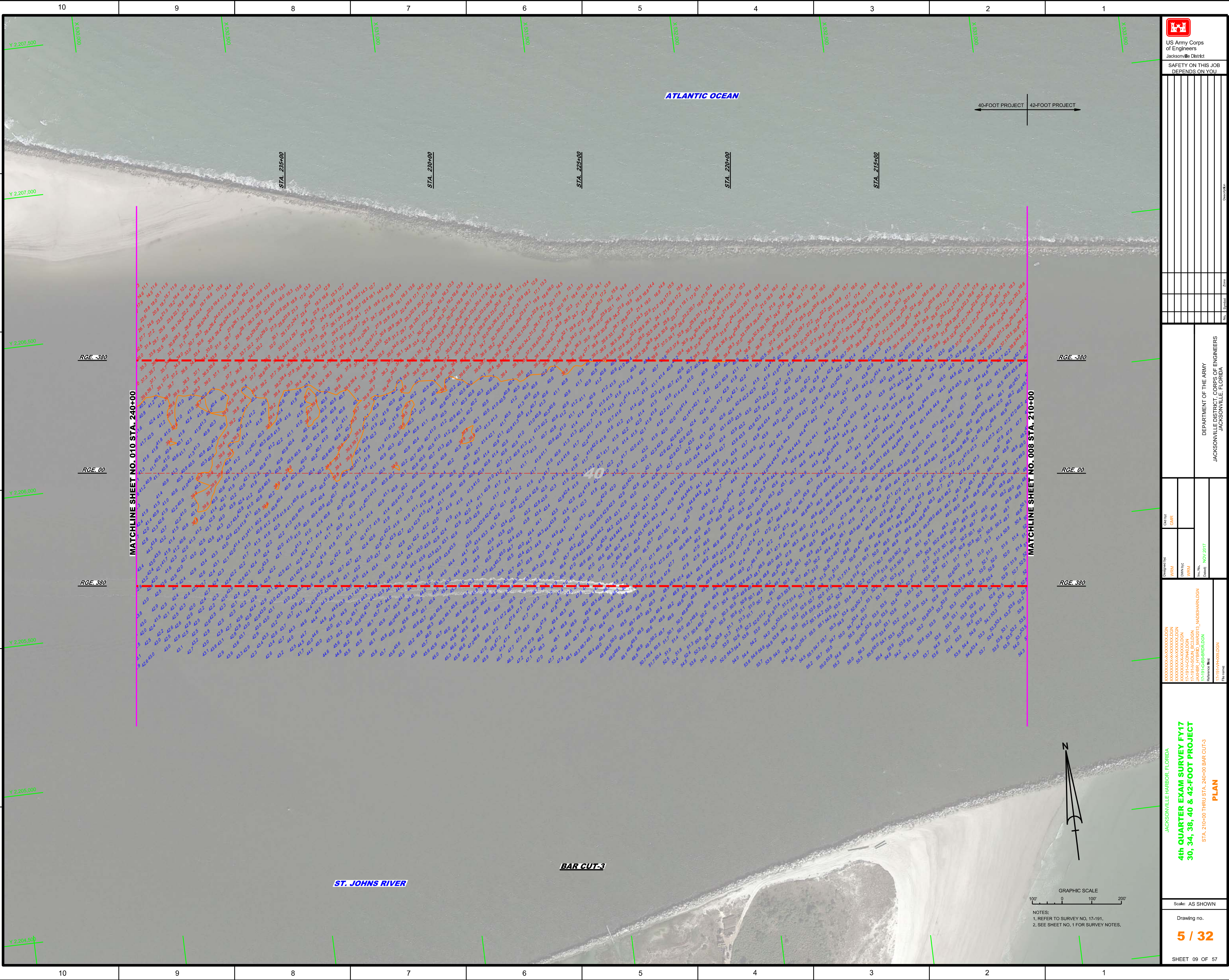
Designed by: **WRM**
 Checked by: **GHR**
 Drawn by: **WRM**
 Title: **PLAN**
 Date: **NOV 2017**

JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT
 STA. 190+00 THRU STA. 210+00 BAR CUT-3
PLAN
 Scale: AS SHOWN
 Drawing no.
4 / 32
 SHEET 08 OF 57

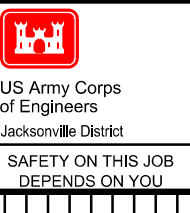
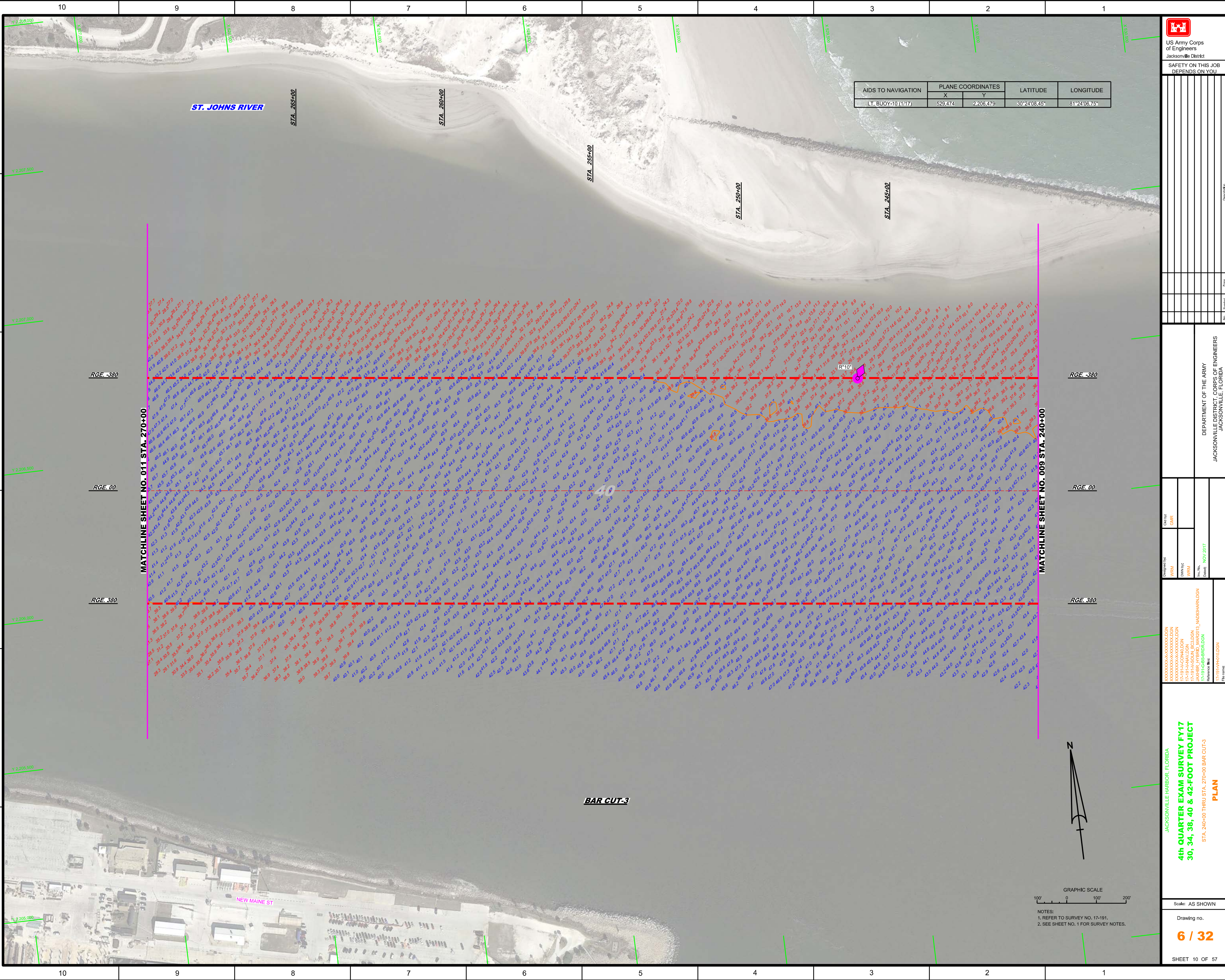
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-7 (1117)	534,970	2,204,903	30°23'53.04"	81°23'03.92"
LT. BUOY-8 (1117)	535,453	2,205,747	30°24'01.41"	81°22'58.44"



NOTES:
 1. REFER TO SURVEY NO. 17-191.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.



 US Army Corps of Engineers Jacksonville District SAFETY ON THIS JOB DEPENDS ON YOU	
DESIGNED BY WRM CHECKED BY WRM DATE NOV 2017	DRAWN BY WRM DATE NOV 2017
JACKSONVILLE HARBOR, FLORIDA 4th QUARTER EXAM SURVEY FY17 30, 34, 38, 40 & 42-FOOT PROJECT PLAN STA. 210+00 THRU STA. 240+00 BAR CUT-3	
DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	
SHEET 09 OF 57	

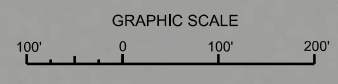


DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

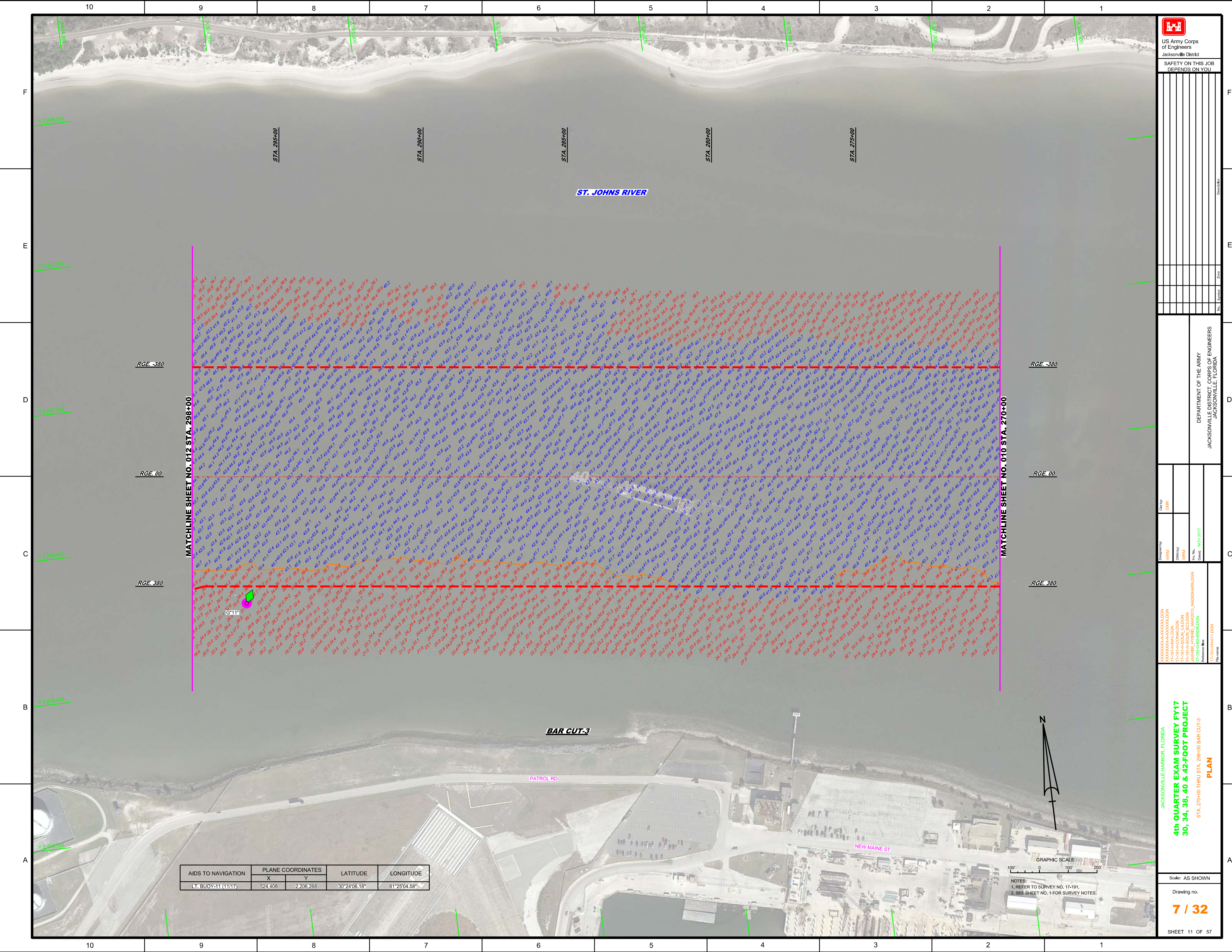
DESIGNED BY: WRM, DWM, WRM
CHECKED BY: GHR, WRM, WRM
DATE: NOV 2017


JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT
STA. 240+00 THRU STA. 270+00 BAR CUT-3
PLAN

Scale: AS SHOWN
Drawing no. **6 / 32**
SHEET 10 OF 57



NOTES:
1. REFER TO SURVEY NO. 17-191.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.




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

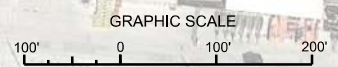
DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

Designed by: WRM
 Drawn by: WRM
 Checked by: WRM
 Date: NOV 2017

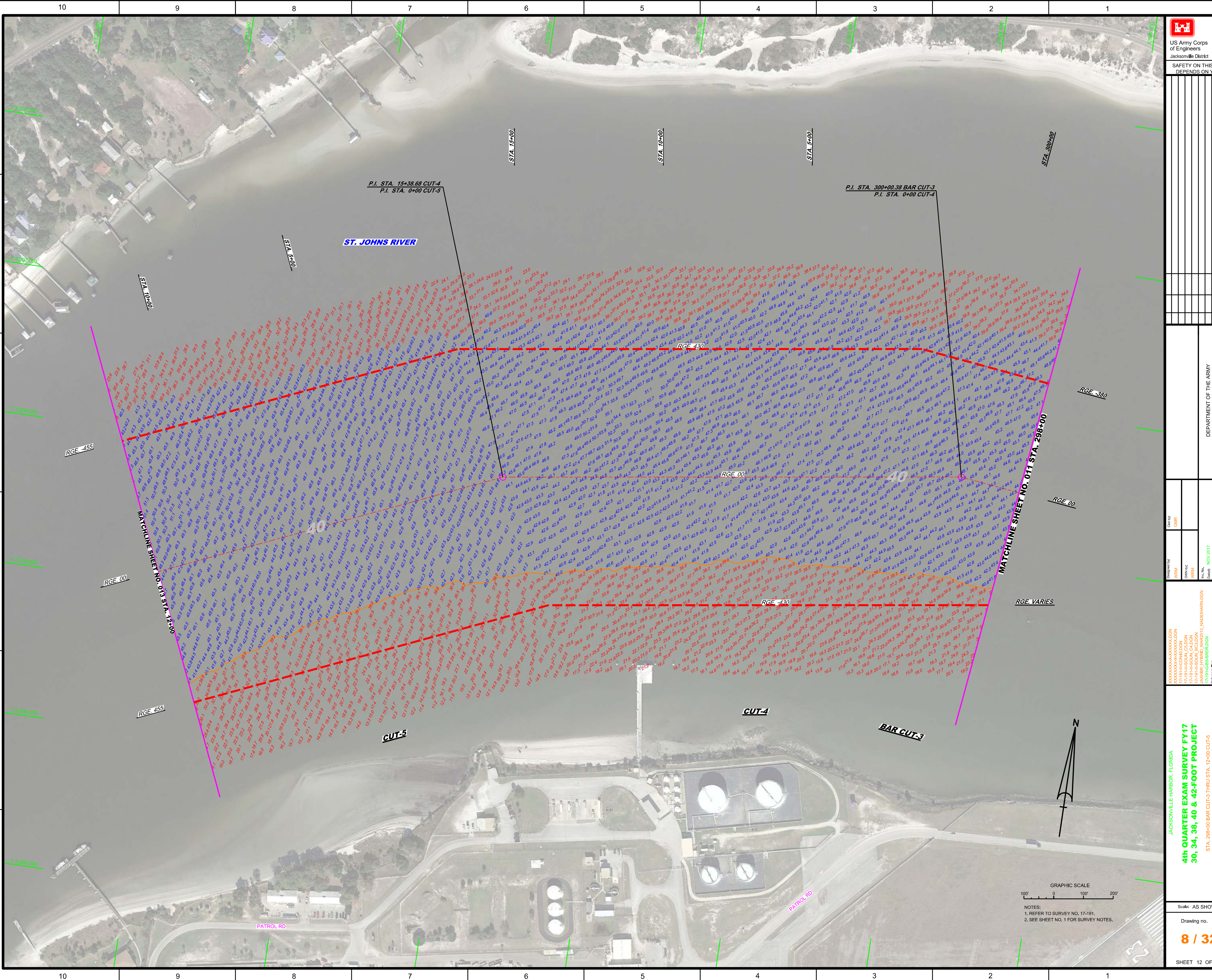
JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT
 STA. 270+00 THRU STA. 298+00 BAR CUT-3
PLAN

Scale: AS SHOWN
 Drawing no. **7 / 32**
 SHEET 11 OF 57

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-11 (11/17)	524,408	2,206,268	30°24'06.18"	81°25'04.58"



NOTES:
 1. REFER TO SURVEY NO. 17-191.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.



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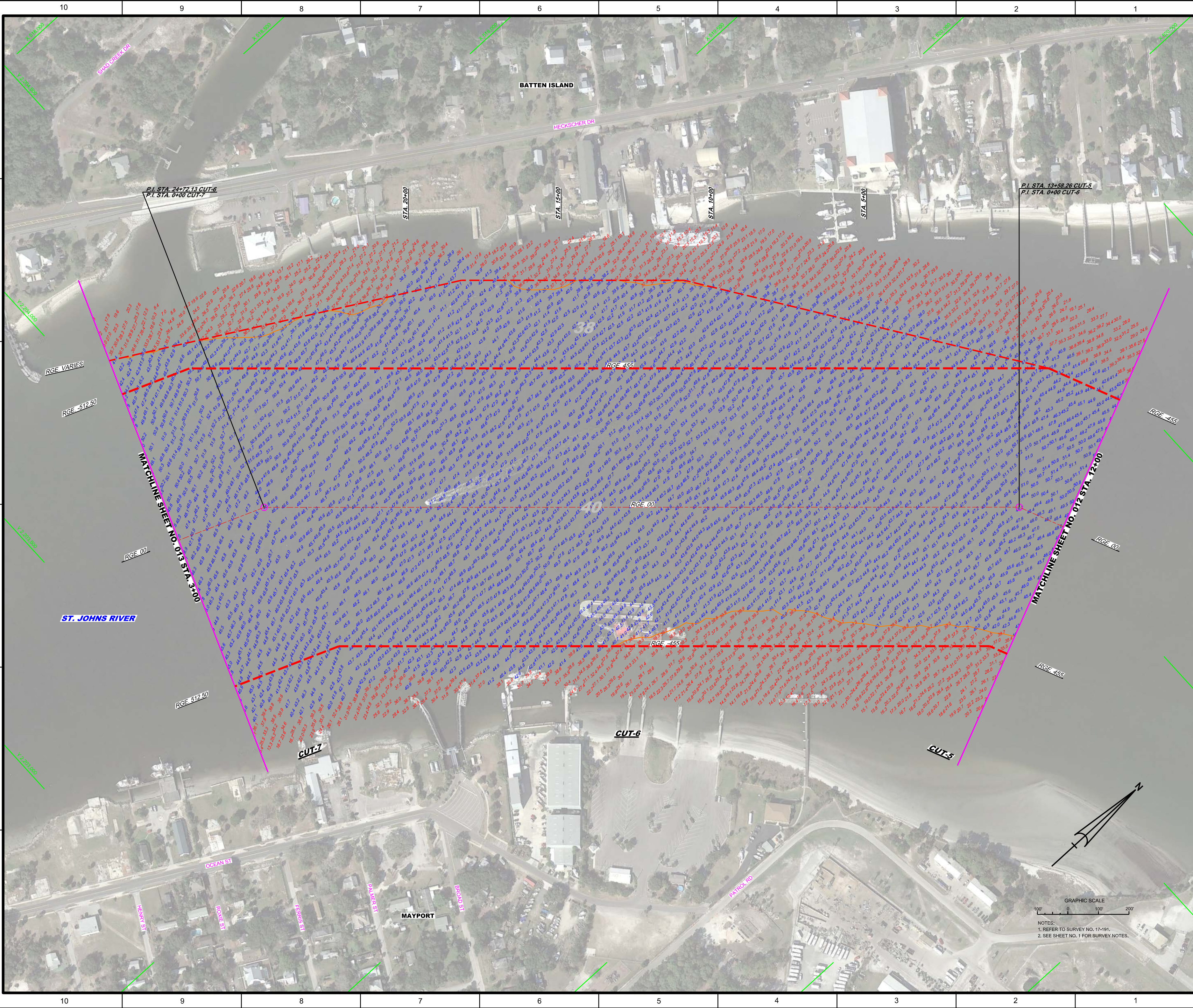
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

Checked By: GHR
Designed By: WRM
Drawn By: WRM
Reviewed By: JAWHR, TPFRD, MAR2013, NA03BHARDGN
Reference: 17-19-PMH4102GN
Date: NOV 2017

JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT
STA. 298+00 BAR CUT-3 THRU STA. 12+00 CUT-5
PLAN
Scale: AS SHOWN
Drawing no. 8 / 32
SHEET 12 OF 57

GRAPHIC SCALE
Scale: 1" = 100'
100' 0 100' 200'

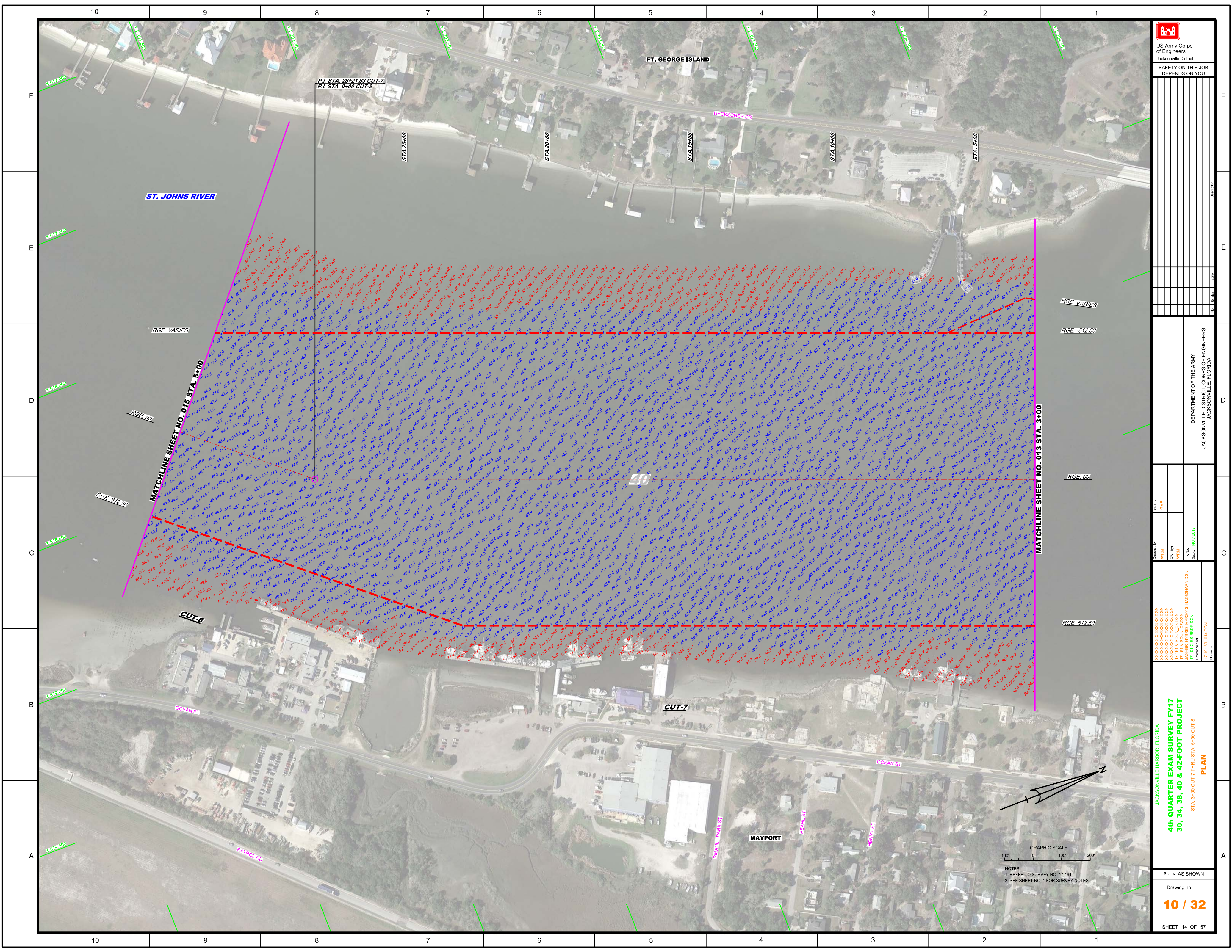
NOTES:
1. REFER TO SURVEY NO. 17-191.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.




<p>US Army Corps of Engineers Jacksonville District</p>	
<p>SAFETY ON THIS JOB DEPENDS ON YOU</p>	
<p>DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA</p>	
<p>Checked By: GHR</p>	<p>Drawn By: WRM</p>
<p>Designed By: WRM</p>	<p>Field Date: NOV 2017</p>
<p>XXXXXXXXXXXXXXXXXXXX 171918ACONBILDN 171918ANCONBILDN 171918ASOUN_C72DN 171918ASOUN_C73DN 171918ASOUN_C74DN 171918ASOUN_C75DN 171918ASOUN_C76DN 171918ASOUN_C77DN 171918ASOUN_C78DN 171918ASOUN_C79DN 171918ASOUN_C80DN 171918ASOUN_C81DN 171918ASOUN_C82DN 171918ASOUN_C83DN 171918ASOUN_C84DN 171918ASOUN_C85DN 171918ASOUN_C86DN 171918ASOUN_C87DN 171918ASOUN_C88DN 171918ASOUN_C89DN 171918ASOUN_C90DN 171918ASOUN_C91DN 171918ASOUN_C92DN 171918ASOUN_C93DN 171918ASOUN_C94DN 171918ASOUN_C95DN 171918ASOUN_C96DN 171918ASOUN_C97DN 171918ASOUN_C98DN 171918ASOUN_C99DN 171918ASOUN_C00DN</p>	
<p>JACKSONVILLE HARBOR, FLORIDA 4th QUARTER EXAM SURVEY FY17 30, 34, 38, 40 & 42-FOOT PROJECT STA. 12+00 CUT-5 THRU STA. 3+00 CUT-7 PLAN</p>	
<p>Scale: AS SHOWN Drawing no. 9 / 32 SHEET 13 OF 57</p>	

GRAPHIC SCALE
 100' 0 100' 200'

NOTES:
 1. REFER TO SURVEY NO. 17-191.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.





 US Army Corps of Engineers
 Jacksonville District
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DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

Drawn by: **WRM**
 Checked by: **WRM**
 Date: **NOV 2017**

JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY17
30, 34, 38, 40 & 42-FOOT PROJECT
 STA. 3+00 CUT-7 THRU STA. 5+00 CUT-8
PLAN

Scale: AS SHOWN
 Drawing No. **10 / 32**
 SHEET 14 OF 57