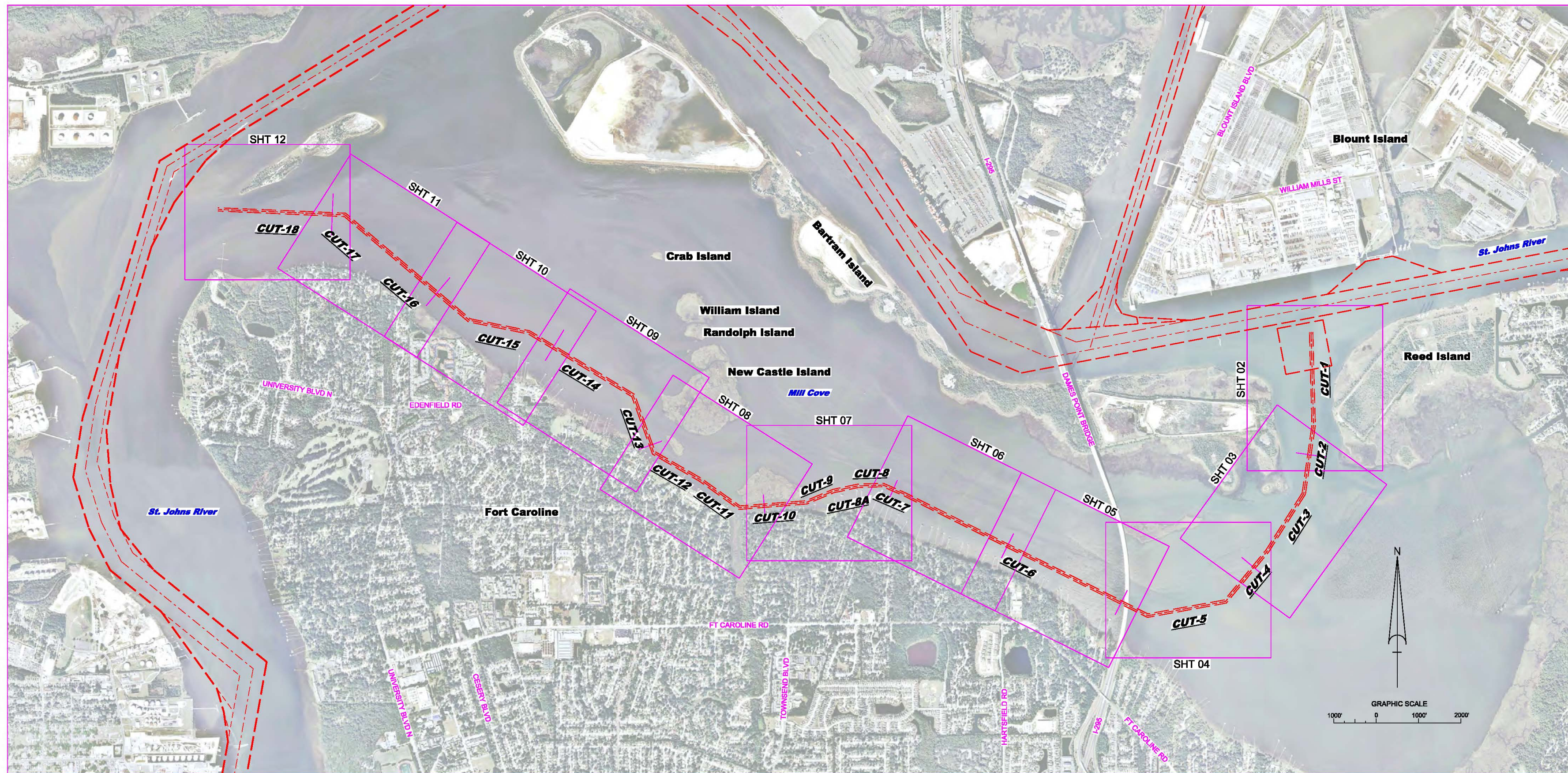


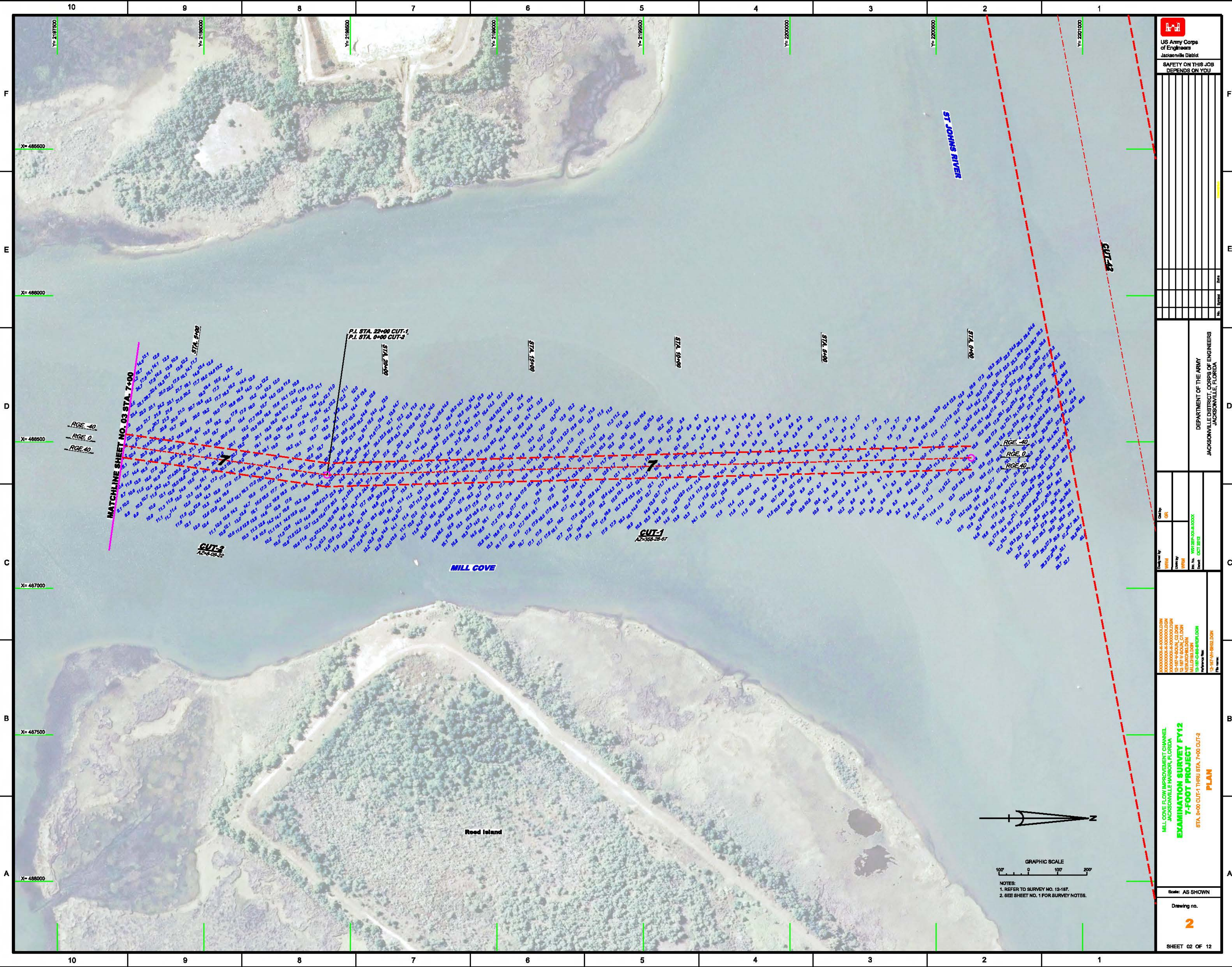
JACKSONVILLE HARBOR MILL COVE CIRCULATION AND FLOW IMPROVEMENT CHANNEL HYDRO EXAMINATION SYRVEY FY12 7-FOOT PROJECT DUVAL COUNTY, FLORIDA

SURVEY NOTES

1. REFER TO SURVEY NO. 12-187.
 2. 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: "CAMDENG-NASSAU-DUVAL-STJOHNS-FLAGLER_01FEB2011.KTD".
 3. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
 4. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND REFERENCED TO NORTH AMERICAN DATUM OF 1983, REALIZATION OF 2007 (NAD83 (2007)).
 5. ALL AZIMUTHS ARE GRID; RECKONED CLOCKWISE FROM SOUTH.
 6. ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
 7. 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 VDUTUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS ASSOCIATED WITH THE TIDE GAUGE SITES SPECIFIED BELOW:
NOAA TIDAL STATION 872-0221, FULTON, ST. JOHNS RIVER FOR ALL CUTS.
 8. THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:
REFERENCE BASE LOCATED AT "BIMT-101" (OPUS PID: B9BX81)
TIDE STAFF SET FROM "BIMT-101" (OPUS PID: B9BX81)
 9. VERTICAL MEASUREMENTS WERE MADE USING AN EDGETECH 4600 INTERFEROMETRIC SYSTEM OPERATING AT 230 KHZ. LONGITUDINAL CHECK LINE MEASUREMENTS WERE MADE USING A ROSS SMART SOUNDER DUAL-FREQUENCY TRANSDUCER OPERATING AT 28/200 KHZ. ALL SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.
- | VESSEL | DATE OF SURVEY | CUT |
|--------|---------------------|---------------------|
| SB-32 | 11, 15, 16 OCT 2012 | MILL COVE CUTS 1-18 |
10. AIDS TO NAVIGATION WERE NOT LOCATED DURING THIS SURVEY.
 11. 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.
 12. 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.



 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
Drawn by: WRN Checked by: GRL Date: OCT 2012 File Name: 12-187-14-H-SHT01.DGN
MILL COVE FLOW IMPROVEMENT CHANNEL JACKSONVILLE HARBOR, FLORIDA EXAMINATION SURVEY FY12 7-FOOT PROJECT INDEX, LOCATION AND VICINITY MAP
Scale: AS SHOWN Drawing no. 1
SHEET 01 OF 12



US Army Corps of Engineers
Jacksonville District
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DEPENDS ON YOU

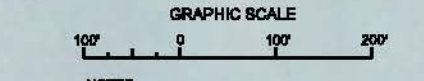
NO.	DATE	REVISION

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

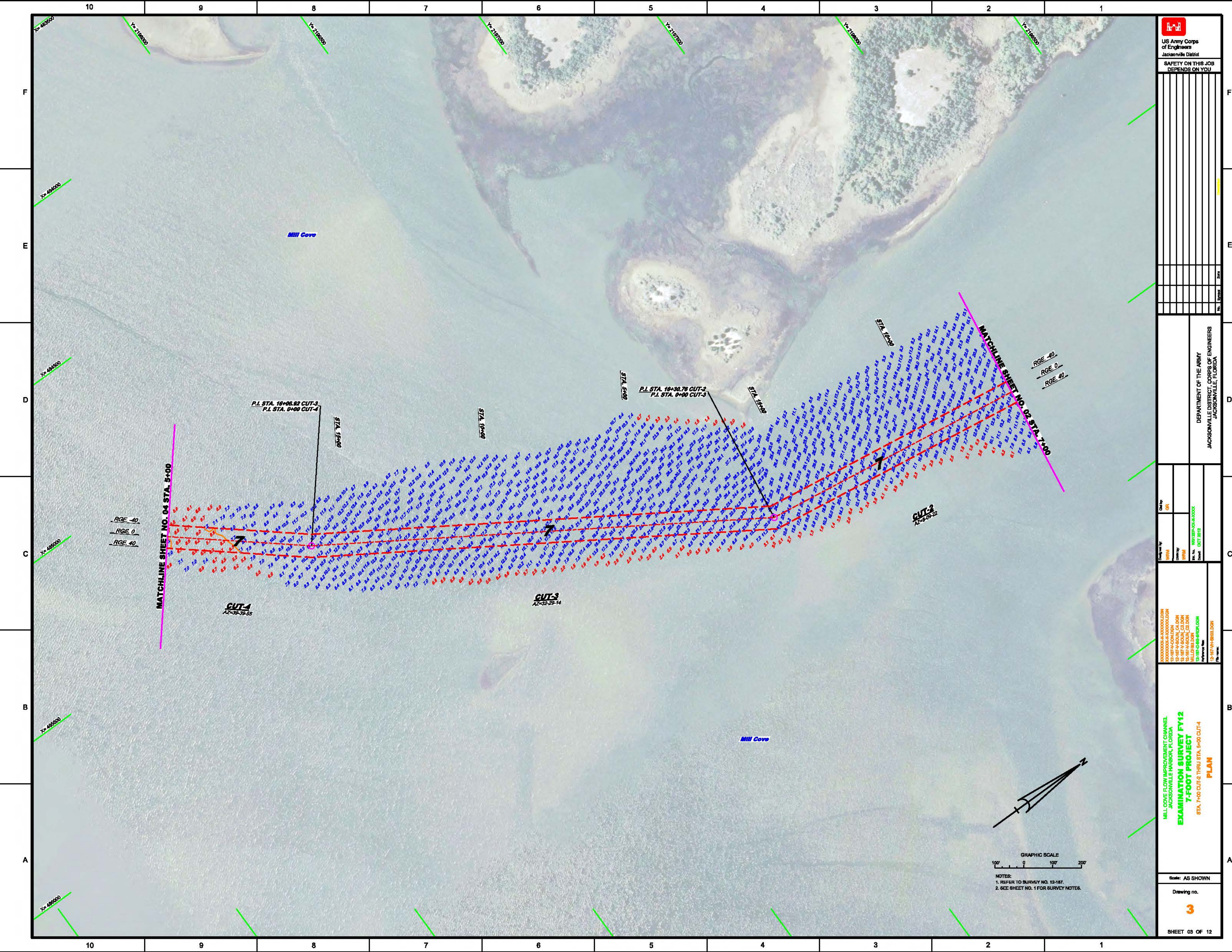
Checked by: GRL
Designed by: WRM
Drawn by: WRM
Scale: 1"=400'
Date: OCT 2018

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MILL COVE FLOW IMPROVEMENT CHANNEL
JACKSONVILLE HARBOR, FLORIDA
EXAMINATION SURVEY FY12
7-FOOT PROJECT
PLAN
STA. 0+00 CUT-1 THRU STA. 7+00 CUT-3



- NOTES:
1. REFER TO SURVEY NO. 12-187.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



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

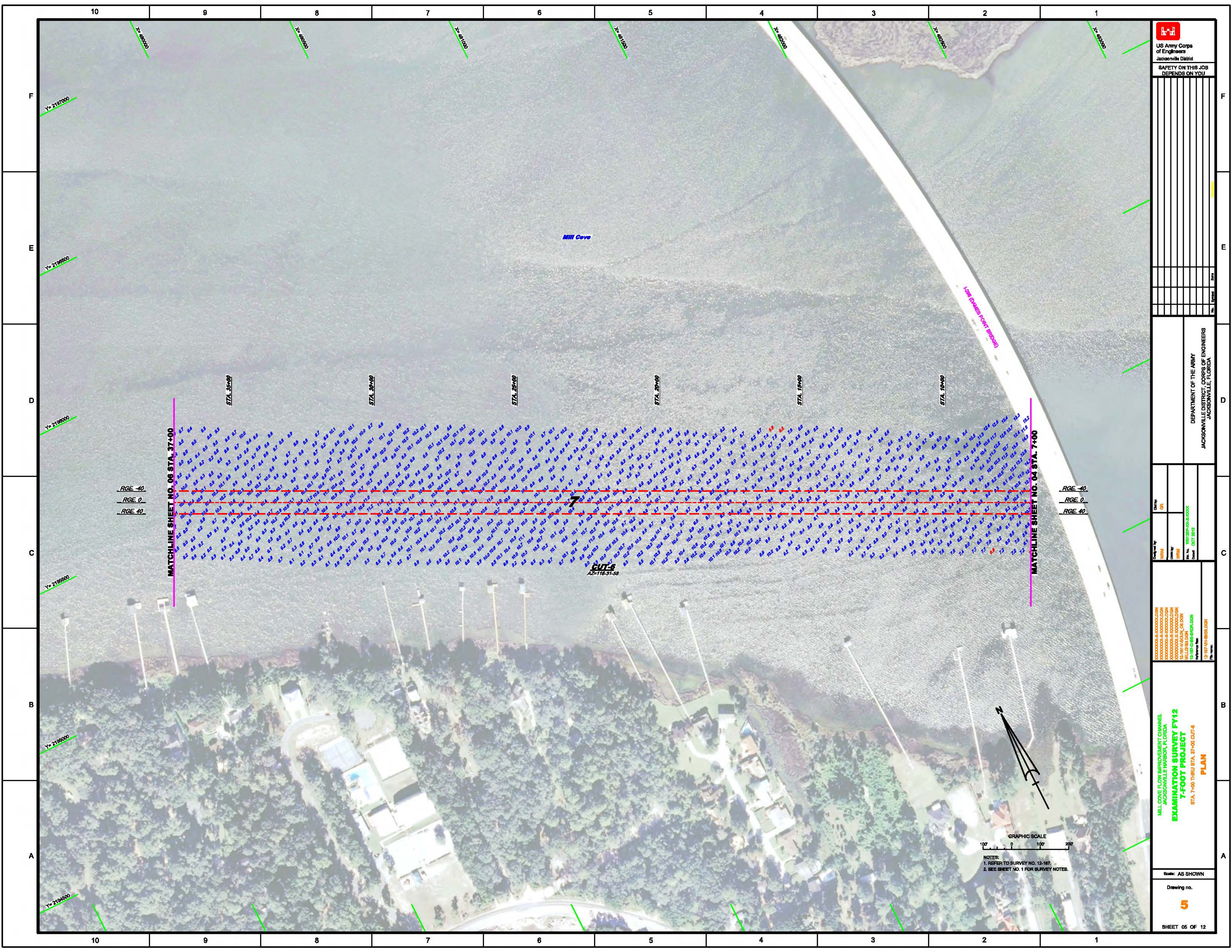
Checked by: GFL
Designed by: WPM
Drawn by: WPM
File No: 12-187-001-003-003
Date: OCT 2012

MILL COVE FLOW IMPROVEMENT CHANNEL
JACKSONVILLE HARBOR, FLORIDA
**EXAMINATION SURVEY FY12
7-FOOT PROJECT**
STA. 7+00 CUT-2 THRU STA. 5+00 CUT-4
PLAN

Scale: AS SHOWN
Drawing no.
3
SHEET 03 OF 12



NOTES:
1. REFER TO SURVEY NO. 12-187.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



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

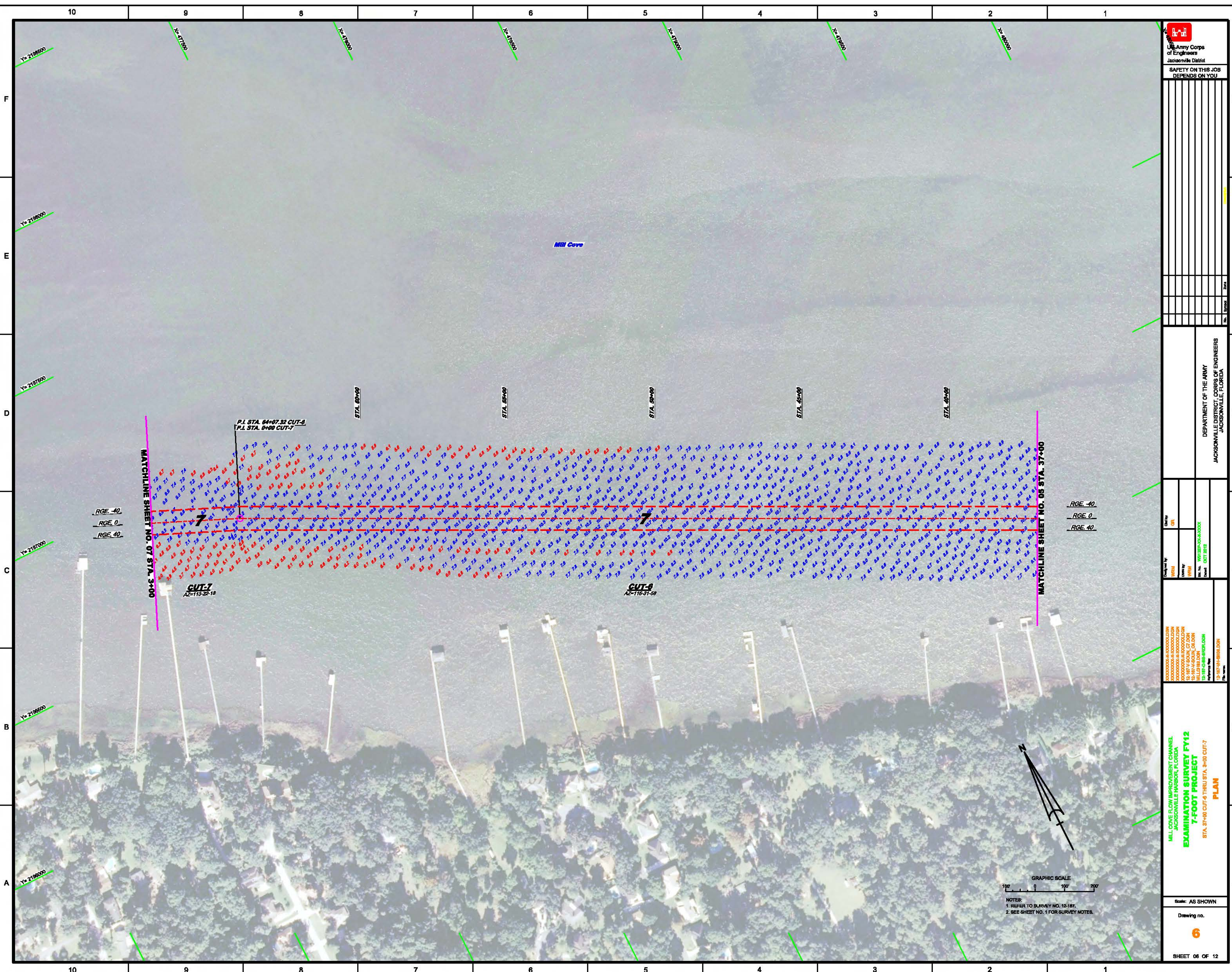
DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, OFFICE OF ENGINEERS
 JACKSONVILLE, FLORIDA

Checked by: **GR**
 Drawn by: **WM**
 Date: **10/18/2011**
 Scale: **AS SHOWN**

PROJECT: **MILL COVE FLOW IMPROVEMENT CHANNEL**
JACKSONVILLE HARBOR, FLORIDA
EXAMINATION SURVEY FY12
7-FOOT PROJECT
STA. 7+00 THRU STA. 37+00 CUT-F
PLAN

NOTES:
 1. REFER TO SURVEY NO. 12-187.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Scale: **AS SHOWN**
 Drawing no. **5**

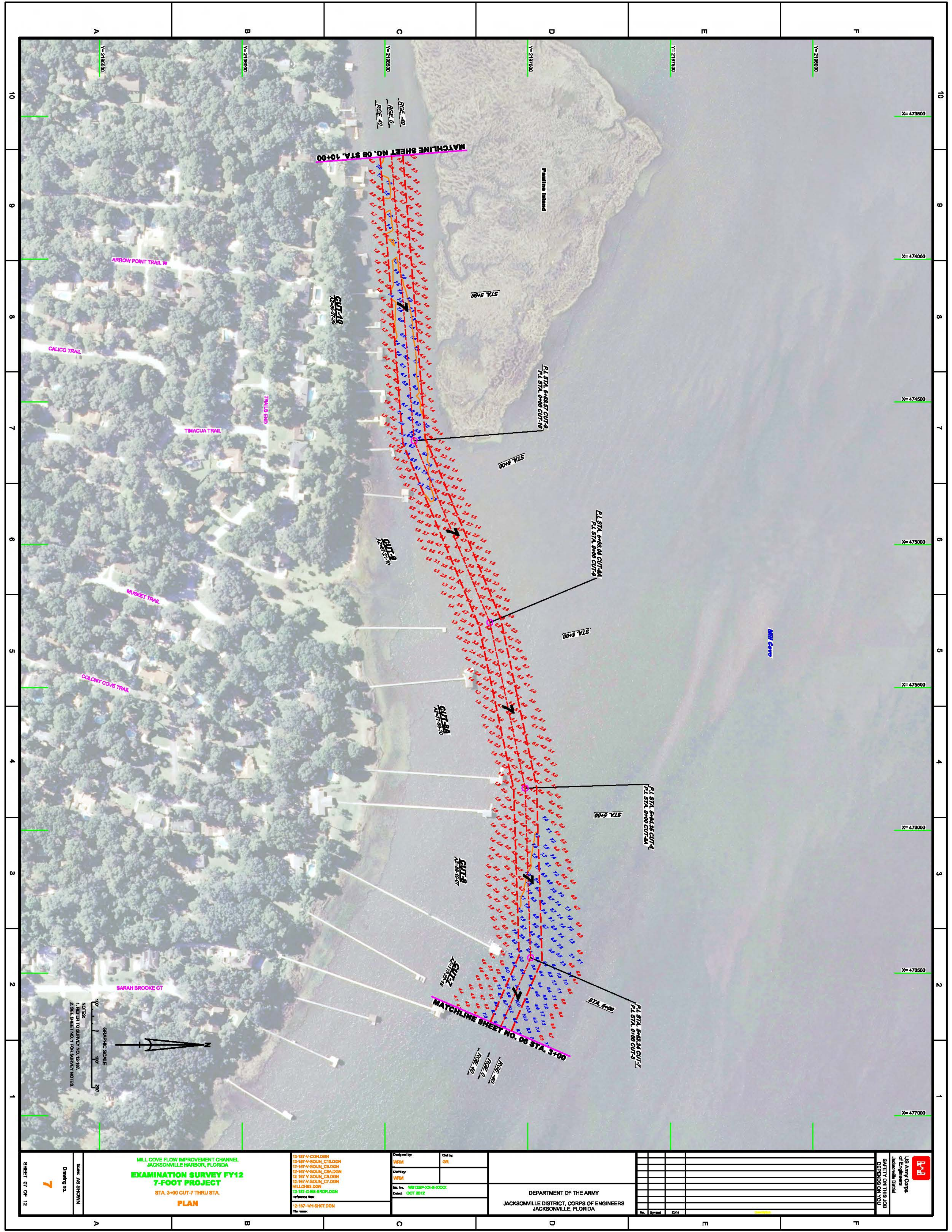


Checked by:	GRL
Drawn by:	WPM
Checked by:	WPM
Drawn by:	WPM
File No.:	101710-00-0000
Check:	OCT 18/18

MILL COVE FLOW IMPROVEMENT CHANNEL
 JACKSONVILLE HARBOR, FLORIDA
EXAMINATION SURVEY FY12
7-FOOT PROJECT
 STA. 87+00 CUT-6 THRU STA. 40+00 CUT-7
PLAN



NOTE:
 1. REFER TO SURVEY NO. 12-167.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.



MATCHLINE SHEET NO. 08 STA. 10+00

MATCHLINE SHEET NO. 06 STA. 3+00

MILL COVE FLOW IMPROVEMENT CHANNEL
 JACKSONVILLE HARBOR, FLORIDA
**EXAMINATION SURVEY Y12
 7-FOOT PROJECT**
 STA. 3+00 CUT-7 THRU STA.
PLAN

12-187-V-CONDGN
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 12-187-A-SOUN_C3.DGN
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 12-187-Q-88-88R.DGN
 Reference File:
 12-187-VH-SH07.DGN
 File name:

Designed by: WPM
 Checked by: GR
 Drawn by: WPM
 No. No: 100128P-100-100000
 Date: OCT 2012

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

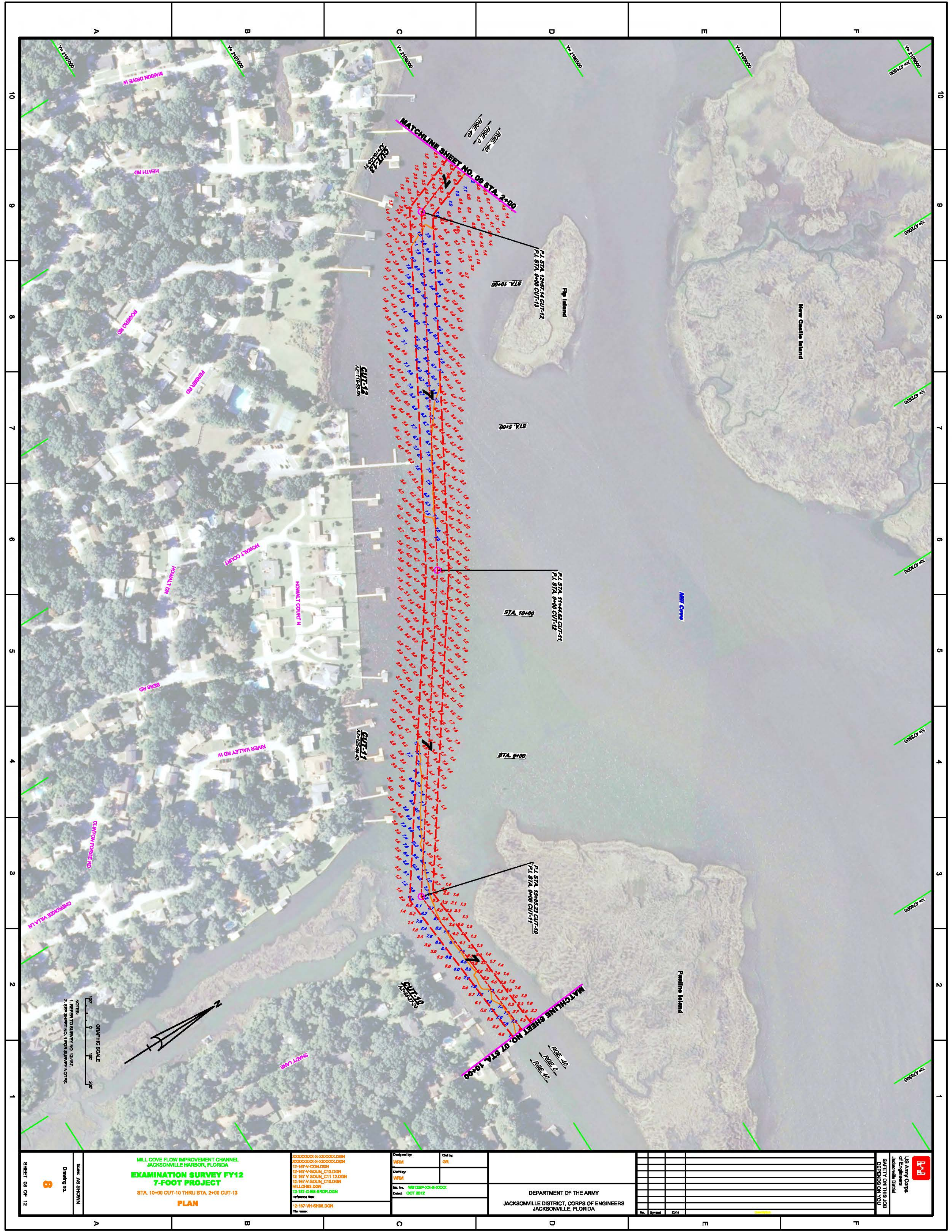
No.	Issued	Date

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

NOTES:
 1. REFER TO SURVEY NO. 12-187.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.



Sheet: AS SHOWN
 Drawing No. **7**
 SHEET 07 OF 12



MILL COVE FLOW IMPROVEMENT CHANNEL
 JACKSONVILLE HARBOR, FLORIDA
**EXAMINATION SURVEY FY12
 7-FOOT PROJECT**
 STA. 10+00 CUT-10 THRU STA. 2+00 CUT-13
PLAN

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Designed by: WPM	Checked by: GR
Drawn by: WPM	
File No: 12-187-V-COULN_C10	Date: OCT 2012

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

No.	Revised	Date

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

GRAPHIC SCALE
 1" = 200'
 NOTES:
 1. REFER TO SURVEY NO. 12-187-V-COULN_C10 THROUGH C100 FOR SURVEY NOTES.
 2. REFER TO SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

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DATE: _____

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

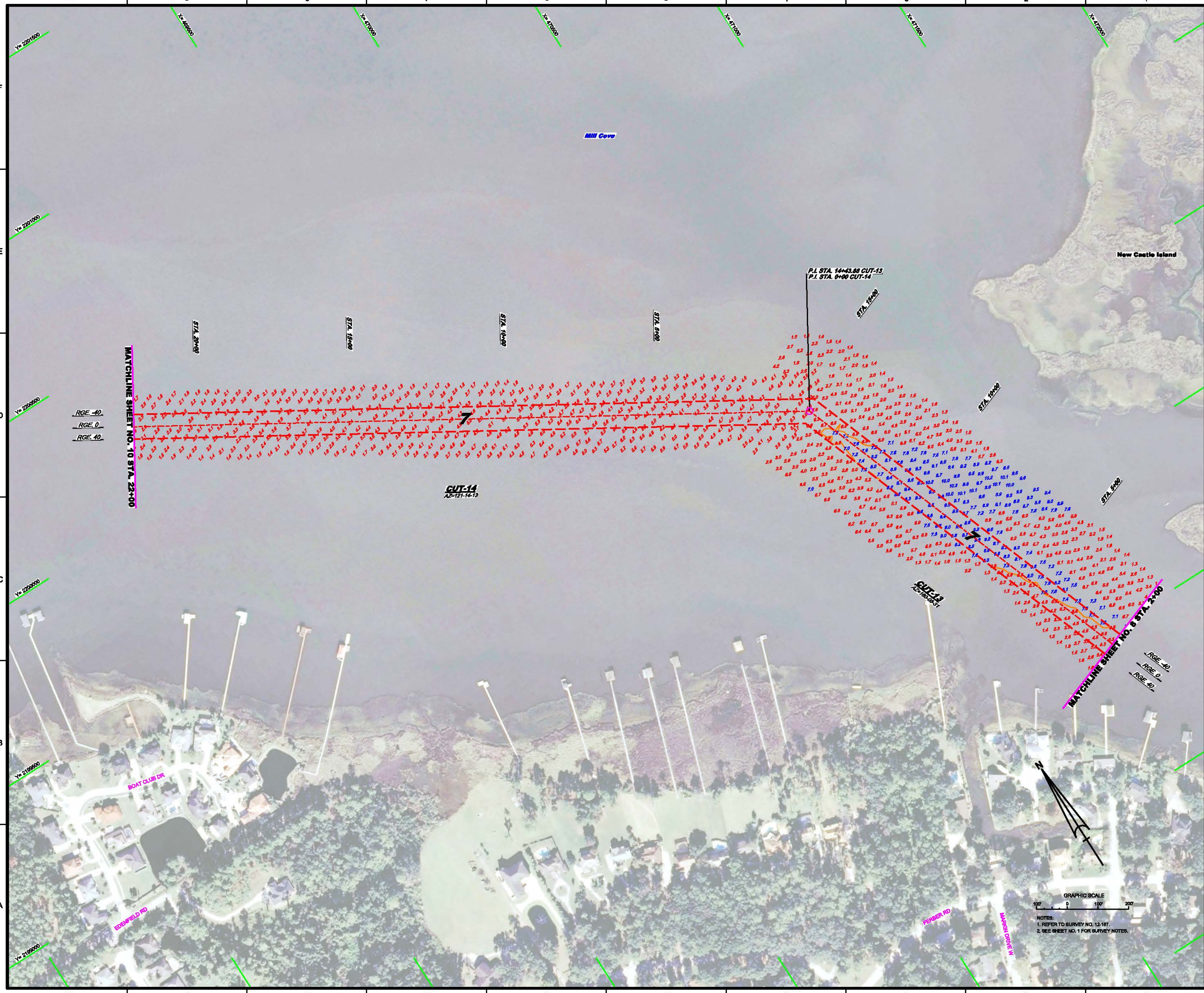
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Drawn by: WMH
In the field by: MLL/SBS/CHL/CJL/MLL/MS/LDN
Reference No.: 12-187-V-H-8468.LDN
Plan No.: 12-187-V-H-8468.LDN

**MILL COVE FLOW IMPROVEMENT CHANNEL
JACKSONVILLE HARBOR, FLORIDA
EXAMINATION SURVEY FY12
7-FOOT PROJECT
STA. 2+00 CUT-13 THROUGH STA. 23+00 CUT-14
PLAN**

Scale: AS SHOWN

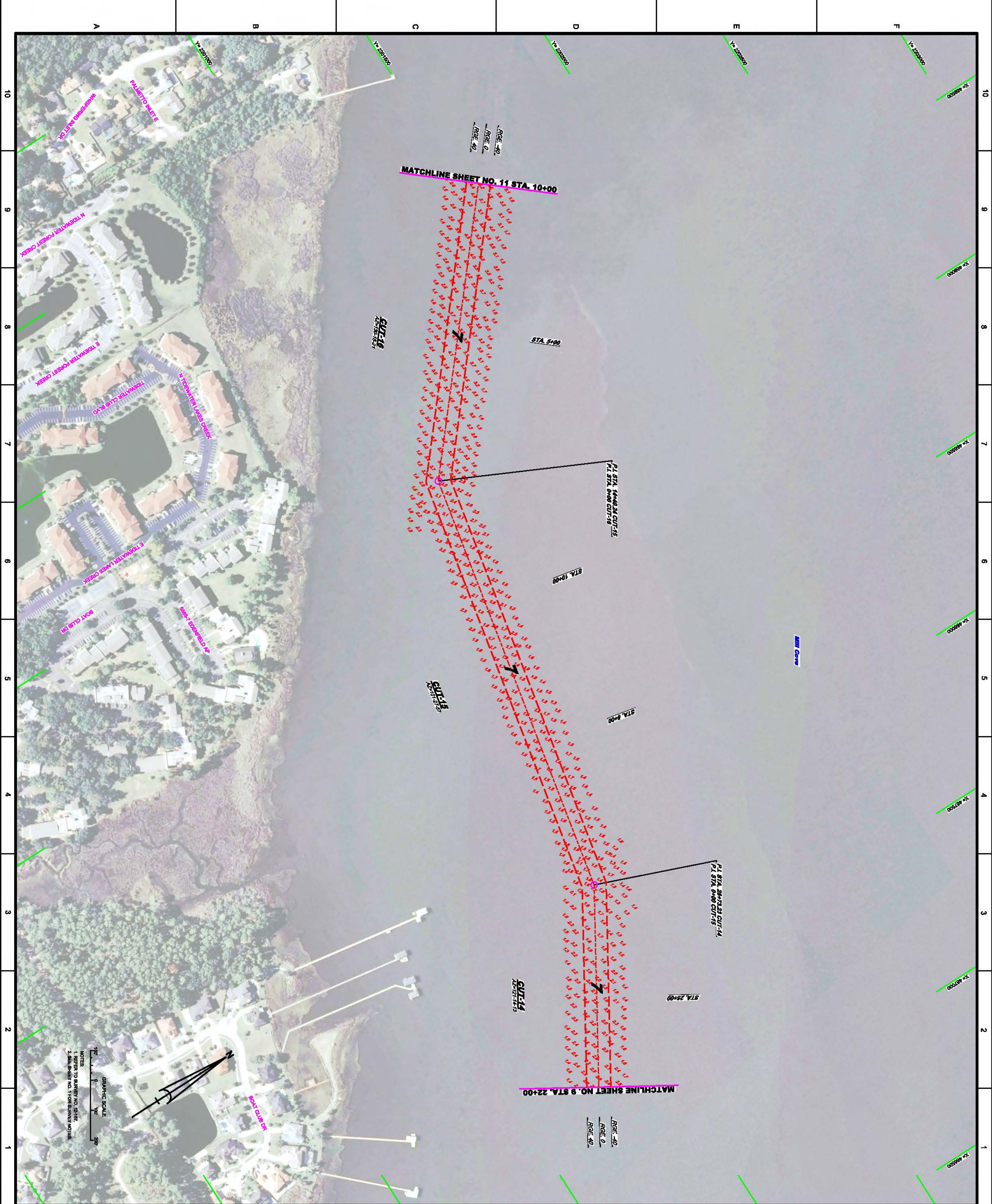
Drawing no.
9

SHEET 08 OF 12

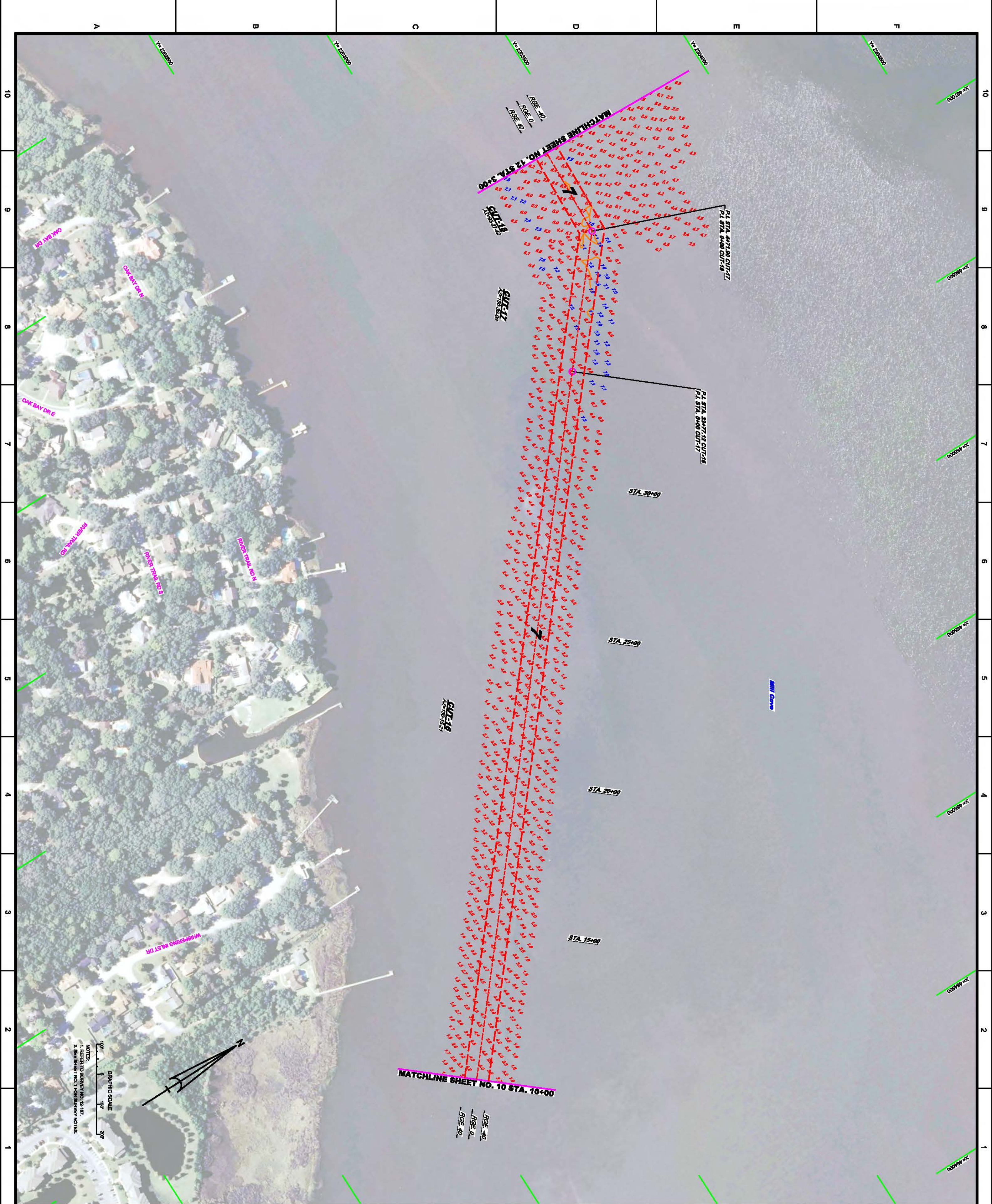


GRAPHIC SCALE
0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 12-187.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



SHEET 10 OF 12 Drawing No. 10 Scale: AS SHOWN	MILL COVE FLOW IMPROVEMENT CHANNEL JACKSONVILLE HARBOR, FLORIDA EXAMINATION SURVEY FY12 7-FOOT PROJECT STA. 22+00 CUT-14 THRU STA. 10+00 CUT-16 PLAN	Designed by: WPRM Drawn by: WPRM No. 1001281-100-100000 Date: OCT 2012 Reference File: 12-187-VH-SH10.DGN File name:	Checked by: GR Design: OCT 2012	DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>No.</td><td>Issued</td><td>Date</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	No.	Issued	Date																															US Army Corps of Engineers Jacksonville District SAFETY ON THIS JOB DEPENDS ON YOU
No.	Issued	Date																																					



GRAPHIC SCALE
 1" = 200'
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NOTES:
 1. REFER TO DRAWING NO. 12-107.
 2. REFER SHEET NO. 11 FOR ADJACENT NOTES.

MILL COVE FLOW IMPROVEMENT CHANNEL
 JACKSONVILLE HARBOR, FLORIDA
**EXAMINATION SURVEY FY12
 7-FOOT PROJECT**
 STA. 10+00 CUT-16 THRU STA. 3+00 CUT-18
PLAN

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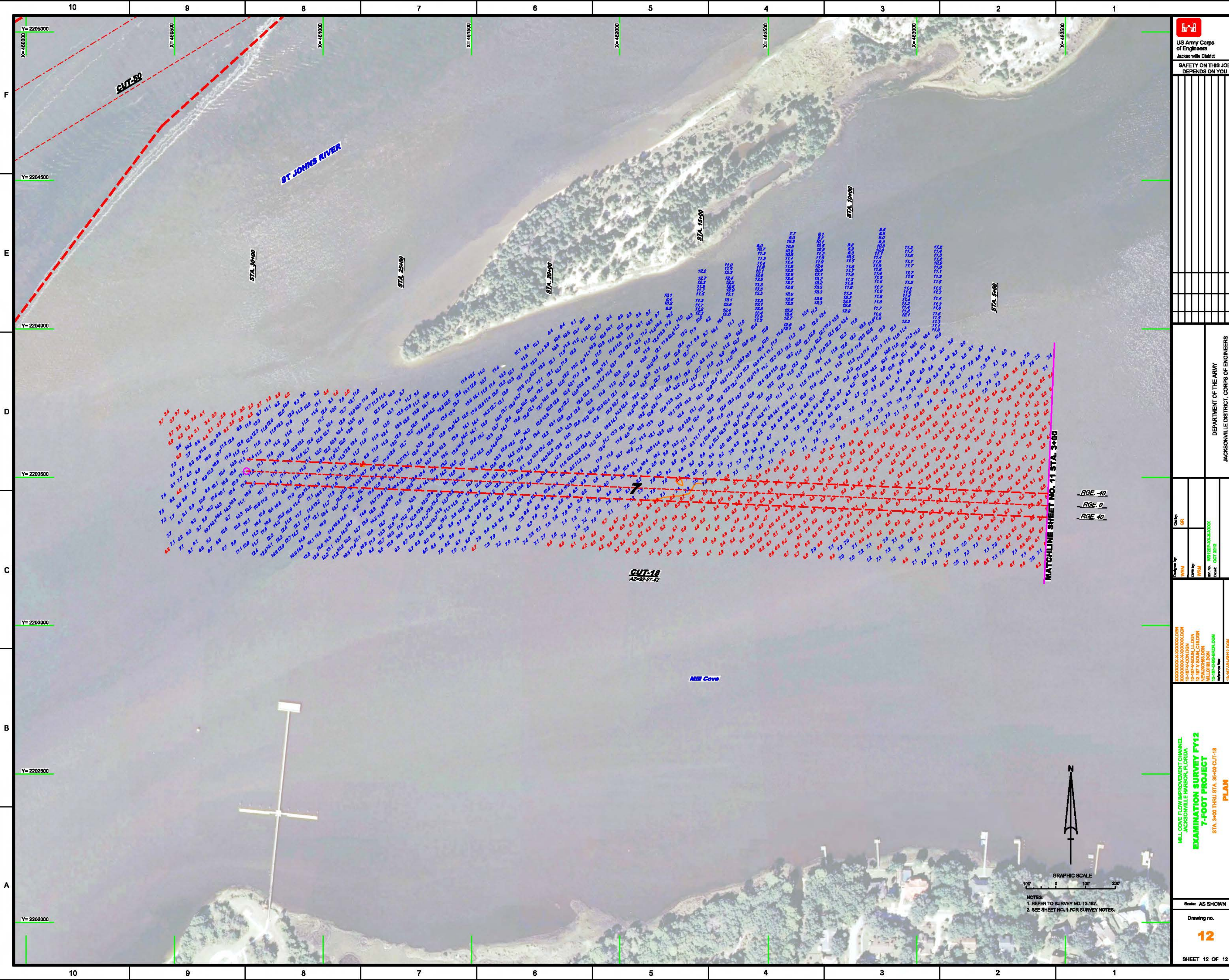
Designed by: WPM
 Drawn by: WPM
 No. No: 100128P-100-10000
 Date: OCT 2012

Checked by: GR
 DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

No.	Approved	Date

US Army Corps of Engineers
 Jacksonville District
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Sheet: AS SHOWN
 Drawing no. 11
 SHEET 11 OF 12



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

Checked by: GFL
Drawn by: WPM
Date: 10/26/12
Scale: AS SHOWN

MILL COVE FLOW IMPROVEMENT CHANNEL
JACKSONVILLE HARBOR, FLORIDA
EXAMINATION SURVEY FY12
7-FOOT PROJECT
STA. 3+00 THRU STA. 35+00 CUT-16
PLAN

Drawing no. **12**
SHEET 12 OF 12