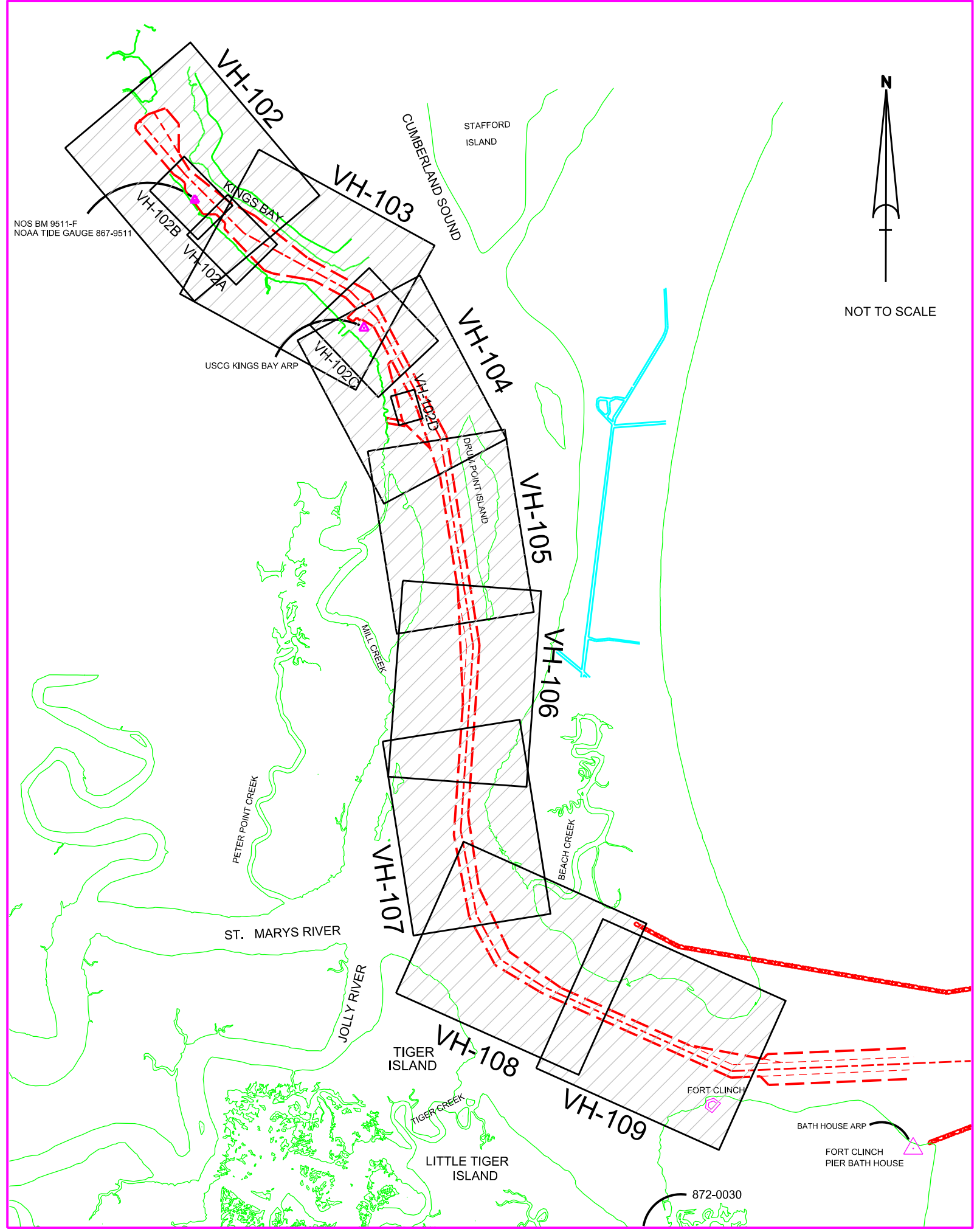


# U.S. NAVY SUBMARINE BASE KINGS BAY, GEORGIA KINGS BAY INNER CHANNEL BIMONTHLY EXAMINATION SURVEY - OCT 2017



LEGEND	
	MONUMENT
	LIGHTED BEACON
	GREEN DAY BEACON
	RED DAY BEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
	CAN BUOY
	NUN BUOY
	TIDE STAFF
	MAJOR CONTOUR
	MINOR CONTOUR
	MAJOR DEPRESSION
	MINOR DEPRESSION

DEPTH COLOR CODE	
≤ 39.9	
40.0 - 41.9	
42.0 - 45.9	
46.0 - 48.9	
≥ 49.0	



- SURVEY NOTES:**
- REFER TO SURVEY NO. 17-252.
  - SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER (MLLW) TIDAL DATUM.
  - ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
  - TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS USING A HYPACK KINEMATIC TIDAL DATUM MODEL (KINGSBAY-2013 06 26.KTD).
  - PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF GEORGIA 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 POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATIONS:  
 REFERENCE BASE LOCATED AT "BATH HOUSE ARP" (OPUS PID # BBBC08), FOR RANGE-A THRU RANGE-C.  
 REFERENCE BASE LOCATED AT "USCG KINGS BAY ARP" (OPUS PID # BBDK29), FOR RANGE-D THRU RANGE-I.
  - DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, 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 BENCH MARKS ASSOCIATED WITH THE TIDE GAUGE SITES SPECIFIED BELOW:  
 NOAA TIDAL STATION 872-0030, FERNANDINA, FL, FOR RANGE-A THRU RANGE-G (OUTSIDE WRA)  
 NOAA TIDAL STATION 867-9511, KINGS BAY, GA, FOR RGE-G THRU RGE-I (INSIDE WRA)
  - VERTICAL MEASUREMENTS WERE MADE USING A RESON MODEL T20P MULTIBEAM SYSTEM AND A ROSS MODEL 835C SMARTSOUNDER WITH A DUAL-FREQUENCY (28/200KHZ) TRANSDUCER. SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.
- | VESSEL | DATE OF SURVEY | AREA SURVEYED   |
|--------|----------------|---|
| SB-36  | 3 OCT 2017     | RGE-C & RGE-D   |
| SB-36  | 4 OCT 2017     | RGE A-2 & RGE-B   |
| SB-36  | 6 OCT 2017     | RGE-E, STA 32+700-35+900, RGE-F, RGE-G, STA 37+504-39+100 |
| SB-36  | 7 OCT 2017     | SITE-6, MSF, RGE-E, STA 30+747-32+700 & RGE-A1            |
| SB-36  | 8 OCT 2017     | RGE-A & LONGITUDINAL SB CHECK LINES                       |
| SB-36  | 18 OCT 2017    | EHW-1, EHW-2 & WARPING WHARF                              |
| SB-36  | 19 OCT 2017    | RGE-G, STA 39+200-42+217, RGE-H & RGE-I                   |
- 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 AND IS NOT TO BE USED FOR NAVIGATION.
  - SURVEY ACCURACY PERFORMANCE STANDARDS, QUALITY CONTROL AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING, 30 NOV 2013 AND EM 1110-2-6056, STANDARDS AND PROCEDURES FOR REFERENCING PROJECT ELEVATION GRADES TO NATIONWIDE VERTICAL DATUMS, 31 DEC 2010.

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

---

INDEX LOGBOOK  
17-252-GB-BR18-03N  
Reference Sheet  
17-252-ABC-VH-101.DGN  
File Name

---

U.S. NAVY INNER CHANNEL  
KINGS BAY, GEORGIA

**BIMONTHLY EXAMINATION SURVEY - OCT 2017**  
44, 45 & 46-FOOT PROJECT

INDEX, LOCATION AND VICINITY  
**MAP**

---

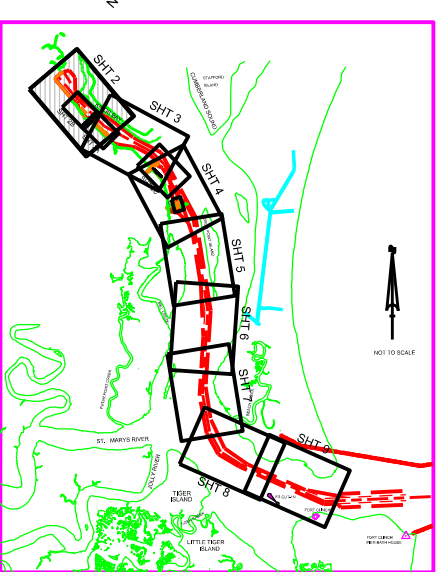
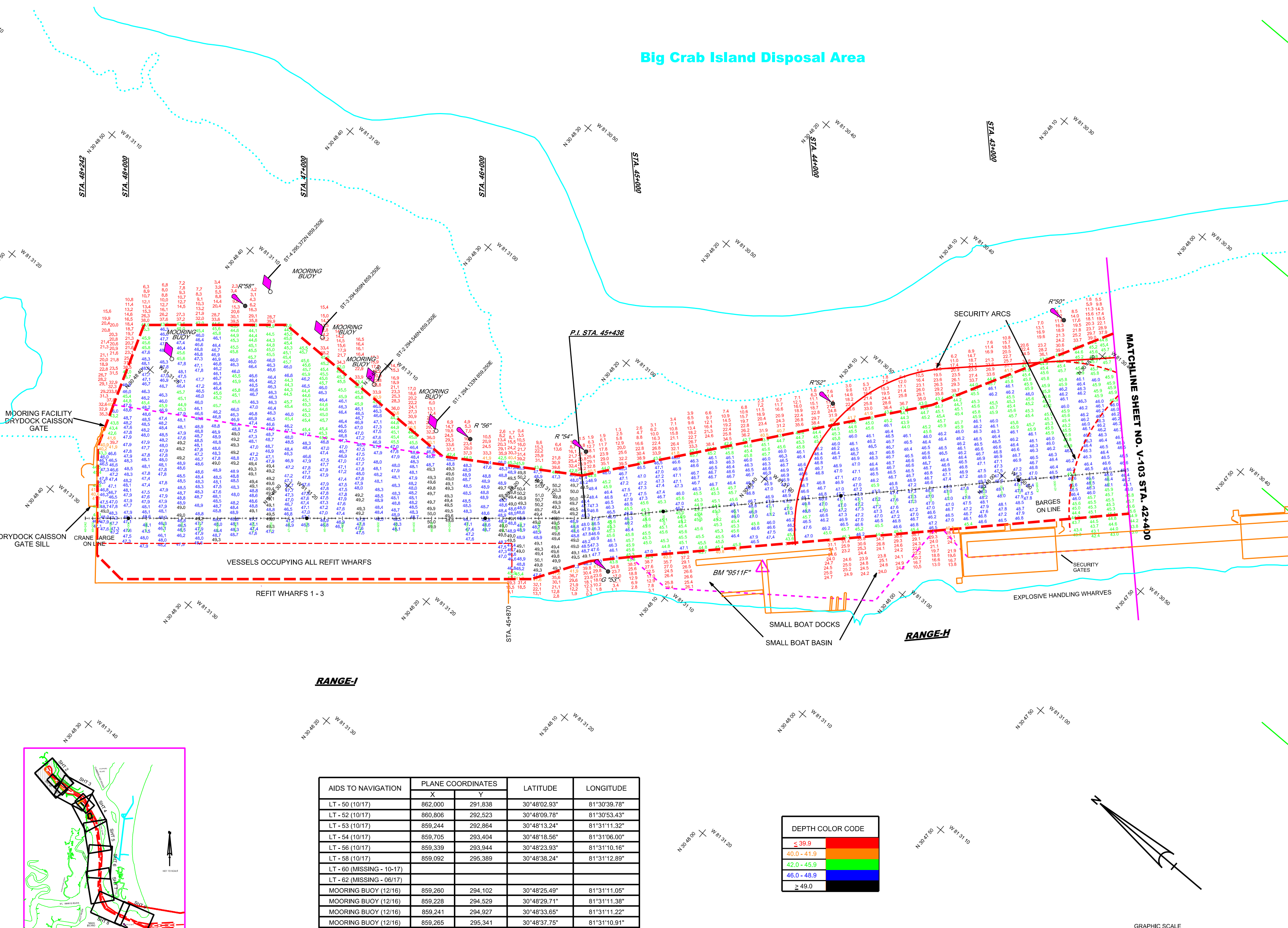
Scale: AS SHOWN

Drawing no.  
**V-101**

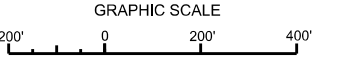
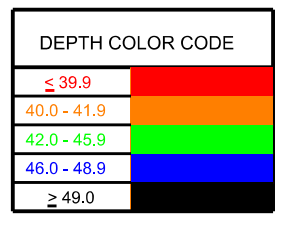
SHEET 01 OF 12



**Big Crab Island Disposal Area**



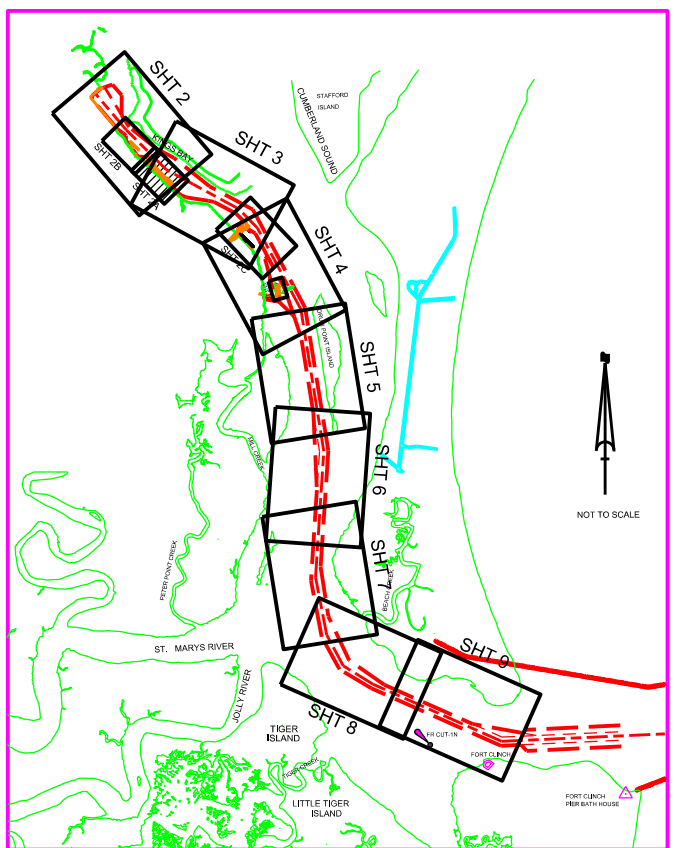
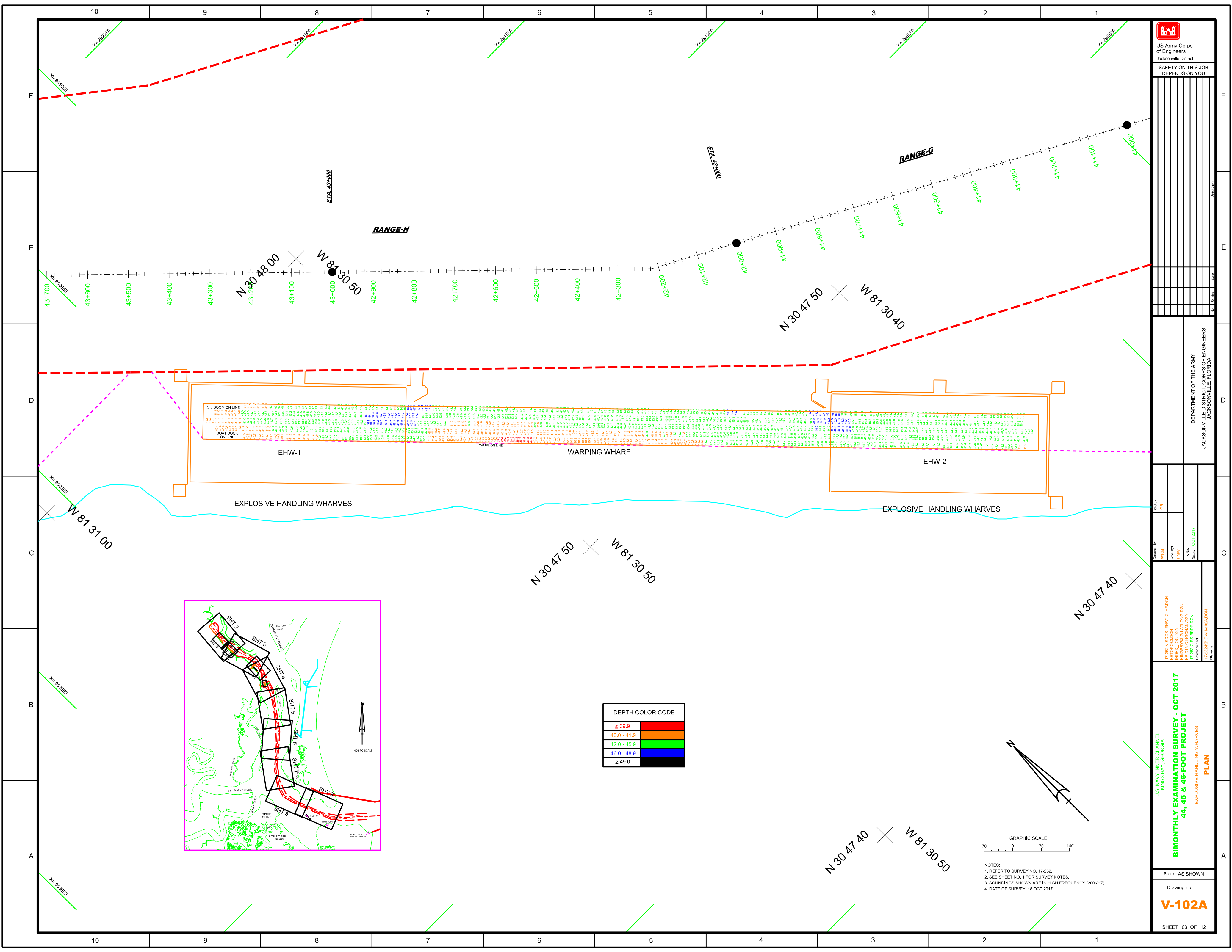
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT- 50 (10/17)	862,000	291,838	30°48'02.93"	81°30'39.78"
LT- 52 (10/17)	860,806	292,523	30°48'09.78"	81°30'53.43"
LT- 53 (10/17)	859,244	292,864	30°48'13.24"	81°31'11.32"
LT- 54 (10/17)	859,705	293,404	30°48'18.56"	81°31'06.00"
LT- 56 (10/17)	859,339	293,944	30°48'23.93"	81°31'10.16"
LT- 58 (10/17)	859,092	295,389	30°48'38.24"	81°31'12.89"
LT- 60 (MISSING - 10/17)				
LT- 62 (MISSING - 06/17)				
MOORING BUOY (12/16)	859,260	294,102	30°48'25.49"	81°31'11.05"
MOORING BUOY (12/16)	859,228	294,529	30°48'29.71"	81°31'11.38"
MOORING BUOY (12/16)	859,241	294,927	30°48'33.65"	81°31'11.22"
MOORING BUOY (12/16)	859,265	295,341	30°48'37.75"	81°31'10.91"
MOORING BUOY (12/16)	858,627	295,487	30°48'39.24"	81°31'18.22"



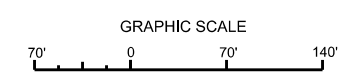
NOTES:  
 1. REFER TO SURVEY NO. 17-252.  
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.  
 3. LAT/LONG GRID TICS ARE AT 10-SECOND INTERVALS.

U.S. NAVY INNER CHANNEL  
 KINGS BAY, GEORGIA  
**BIMONTHLY EXAMINATION SURVEY - OCT 2017**  
**44, 45 & 46-FOOT PROJECT**  
 STA. 42+00 RANGE-H THRU STA. 49+242 RANGE-I  
**PLAN**


Checked by	GR
Designed by	WRM
Drawn by	WRM
Date	OCT 2017
Reference Note	17-252-ARBC-WH-102.DGN



DEPTH COLOR CODE	
≤ 39.9	Red
40.0 - 41.9	Orange
42.0 - 45.9	Green
46.0 - 48.9	Blue
≥ 49.0	Black

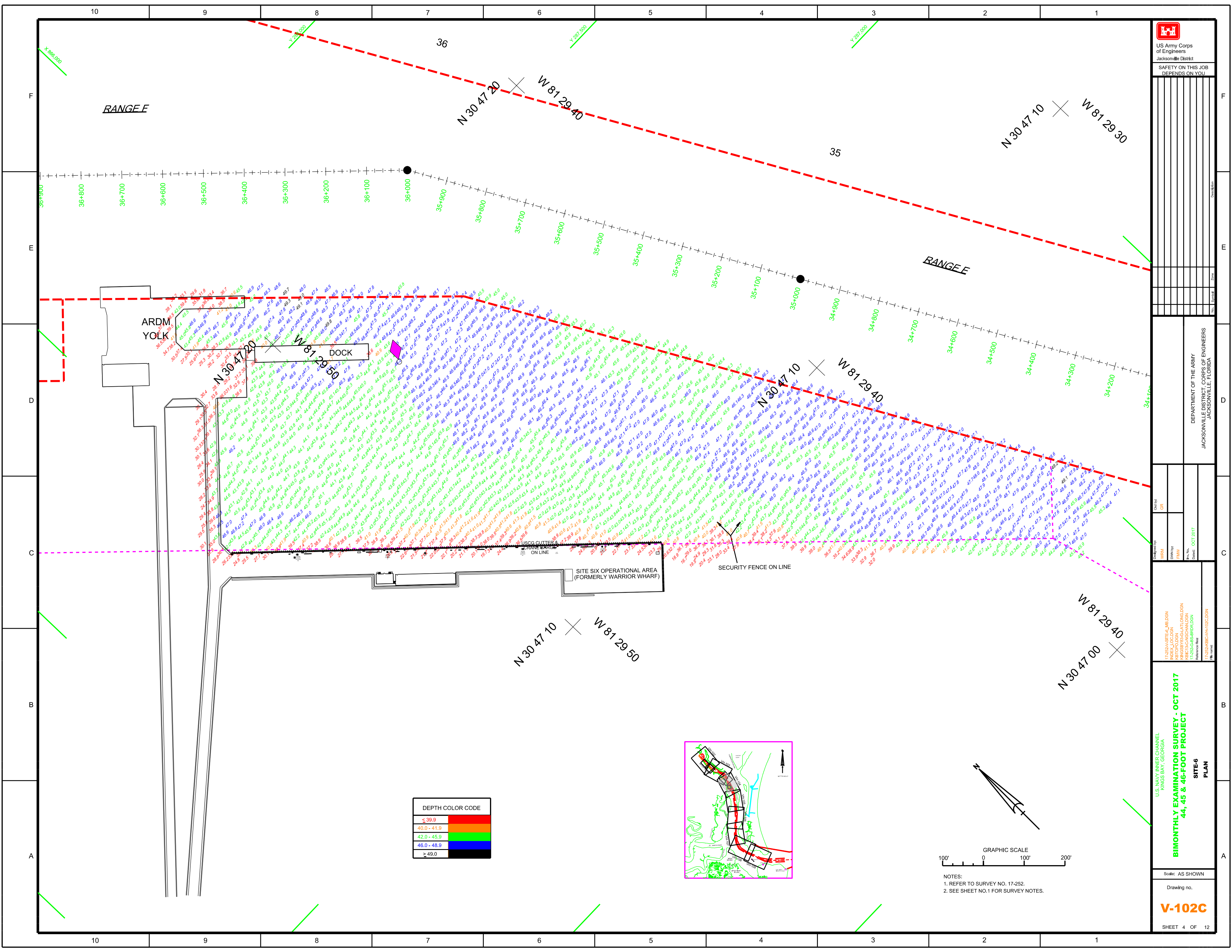


NOTES:  
 1. REFER TO SURVEY NO. 17-252.  
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.  
 3. SOUNDINGS SHOWN ARE IN HIGH FREQUENCY (200KHZ).  
 4. DATE OF SURVEY: 16 OCT 2017.

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

---

DESIGNED BY WRM DRAWN BY FHW DATE OCT 2017	DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA
PROJECT NO. 17-252-AS-03-01-01 PROJECT NAME BIMONTHLY EXAMINATION SURVEY - OCT 2017 PROJECT LOCATION KINGS BAY, GEORGIA DRAWING NO. V-102A	EXPLOSIVE HANDLING WHARVES <b>PLAN</b>
SHEET 03 OF 12	



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: GRL  
Checked by: GRL  
Date: OCT 2017

17-252A-SITE-6-JOB-DON  
INDEX LOCATION  
17-252A-SITE-6-JOB-DON  
17-252A-SITE-6-JOB-DON  
17-252A-SITE-6-JOB-DON

U.S. NAVY INNER CHANNEL  
KINGS BAY, GEORGIA  
**BIMONTHLY EXAMINATION SURVEY - OCT 2017**  
**44, 45 & 46-FOOT PROJECT**  
SITE-6  
PLAN

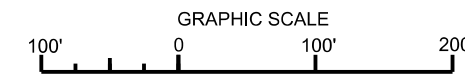
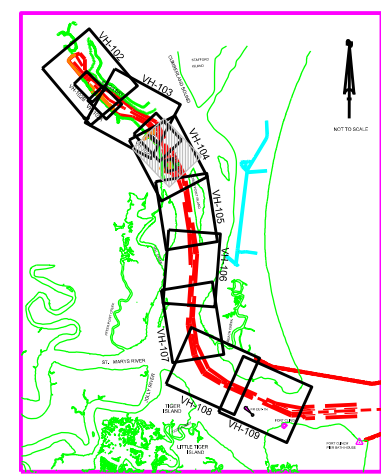
Scale: AS SHOWN

Drawing no.

**V-102C**

SHEET 4 OF 12

DEPTH COLOR CODE	
≤ 39.9	Red
40.0 - 41.9	Orange
42.0 - 45.9	Green
46.0 - 48.9	Blue
≥ 49.0	Black



NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO.1 FOR SURVEY NOTES.

10 9 8 7 6 5 4 3 2 1

F

E

D

C

B

A

10 9 8 7 6 5 4 3 2 1

**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

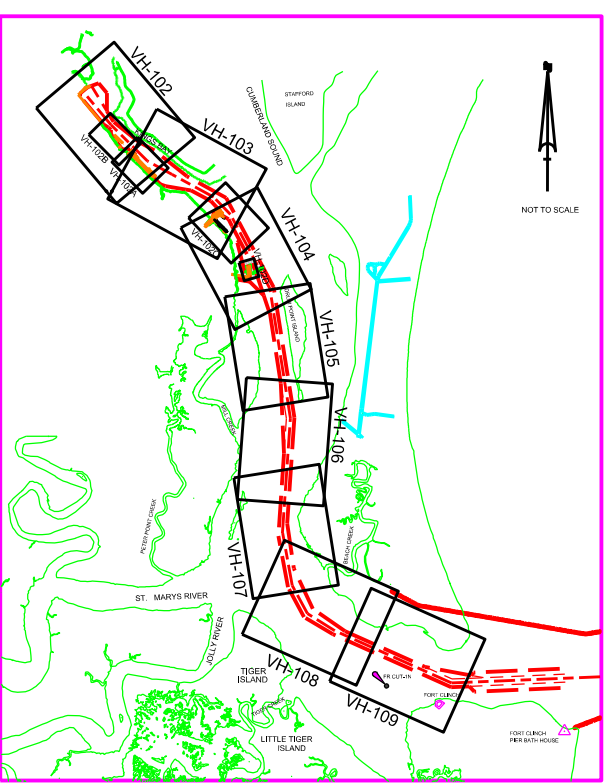
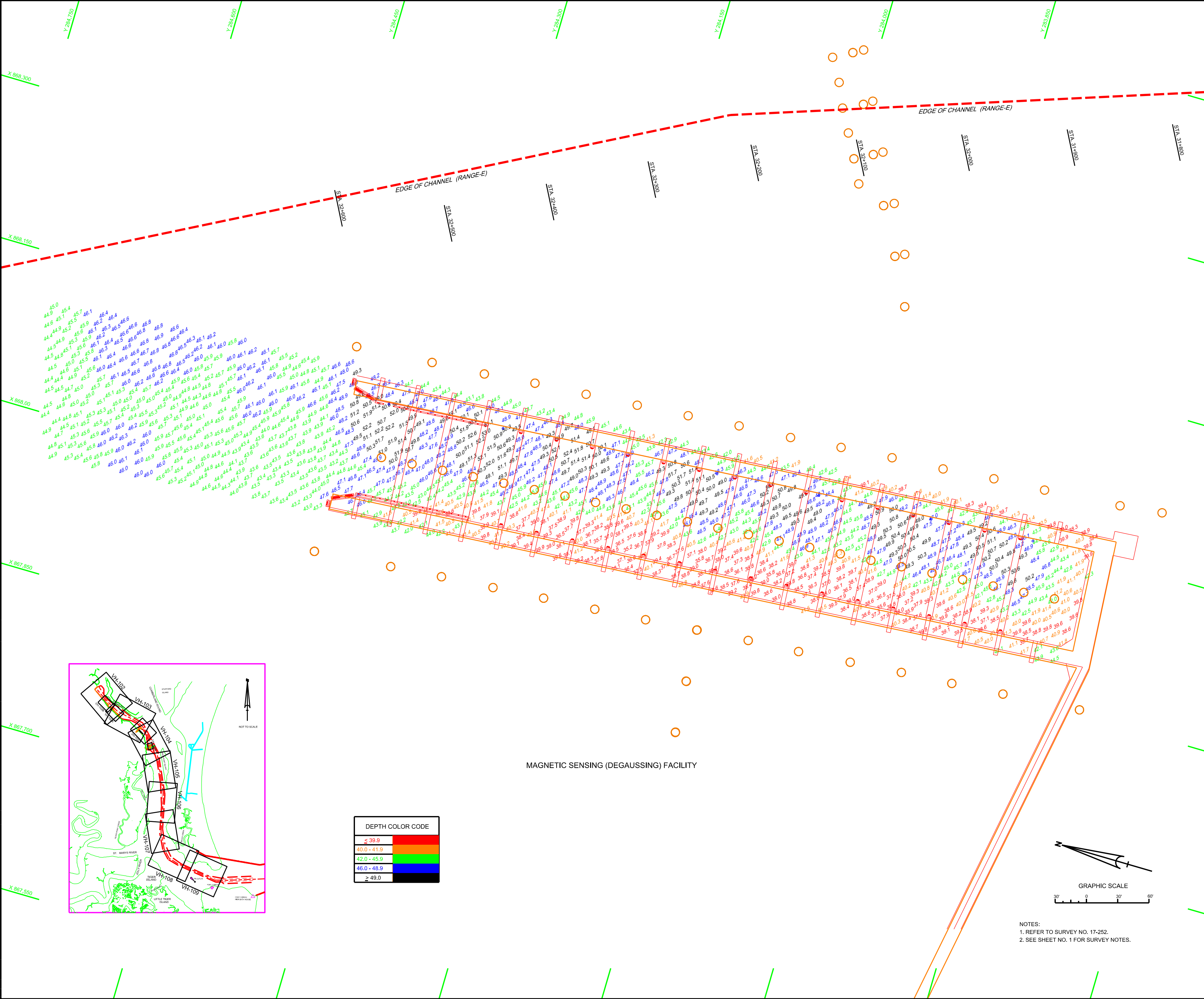
Checked By: GRL  
 Drawn By: FHW  
 Date: OCT 2017

17-252A-ASFAIRDON  
 17-252A-IBL000N  
 17-252A-IBR000N  
 17-252A-IBR000N

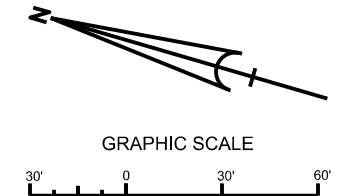
U.S. NAVY INNER CHANNEL  
 KINGS BAY, GEORGIA

**BIMONTHLY EXAMINATION SURVEY - OCT 2017**  
**44, 45 & 46-FOOT PROJECT**

Scale: AS SHOWN  
 Drawing no.  
**VH-102D**  
 SHEET 5 OF 12



DEPTH COLOR CODE	
< 39.9	Red
40.0 - 41.9	Orange
42.0 - 43.9	Yellow
44.0 - 45.9	Green
46.0 - 48.9	Blue
> 49.0	Dark Blue



NOTES:  
 1. REFER TO SURVEY NO. 17-252.  
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.

MAGNETIC SENSING (DEGAUSSING) FACILITY

FT

MT

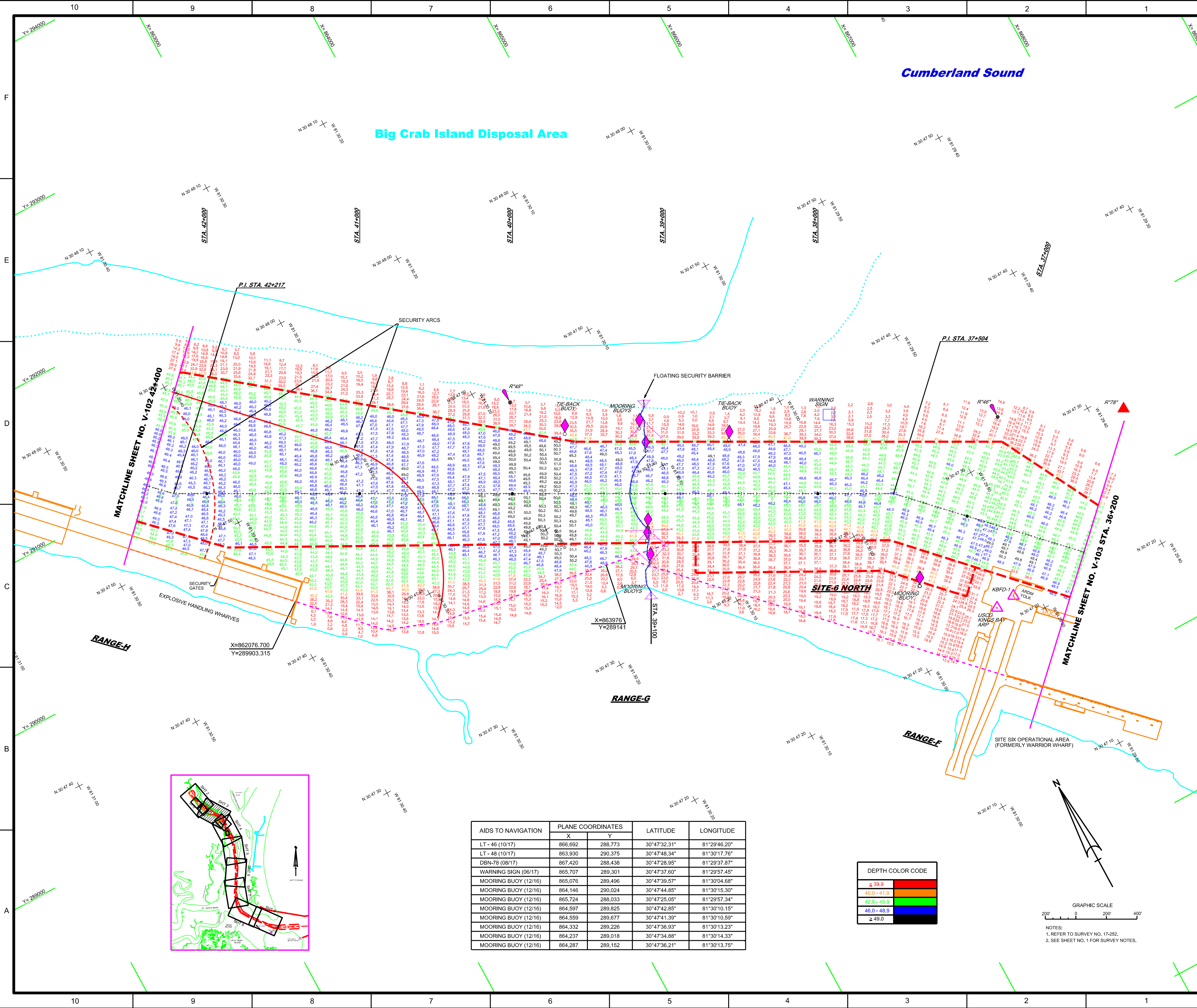
D

C

B

A

1



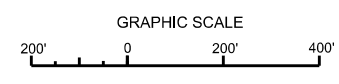
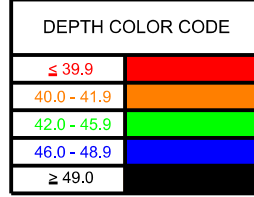
**Big Crab Island Disposal Area**

**Cumberland Sound**

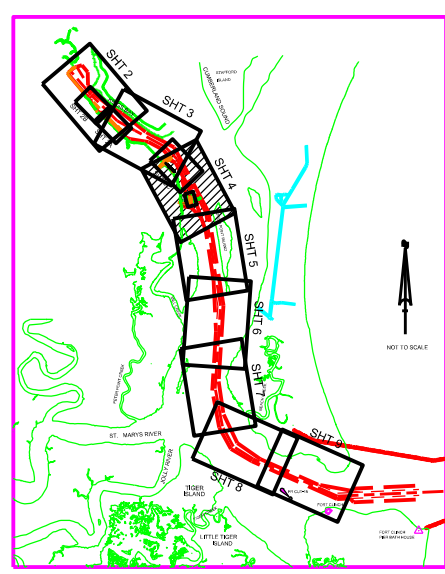
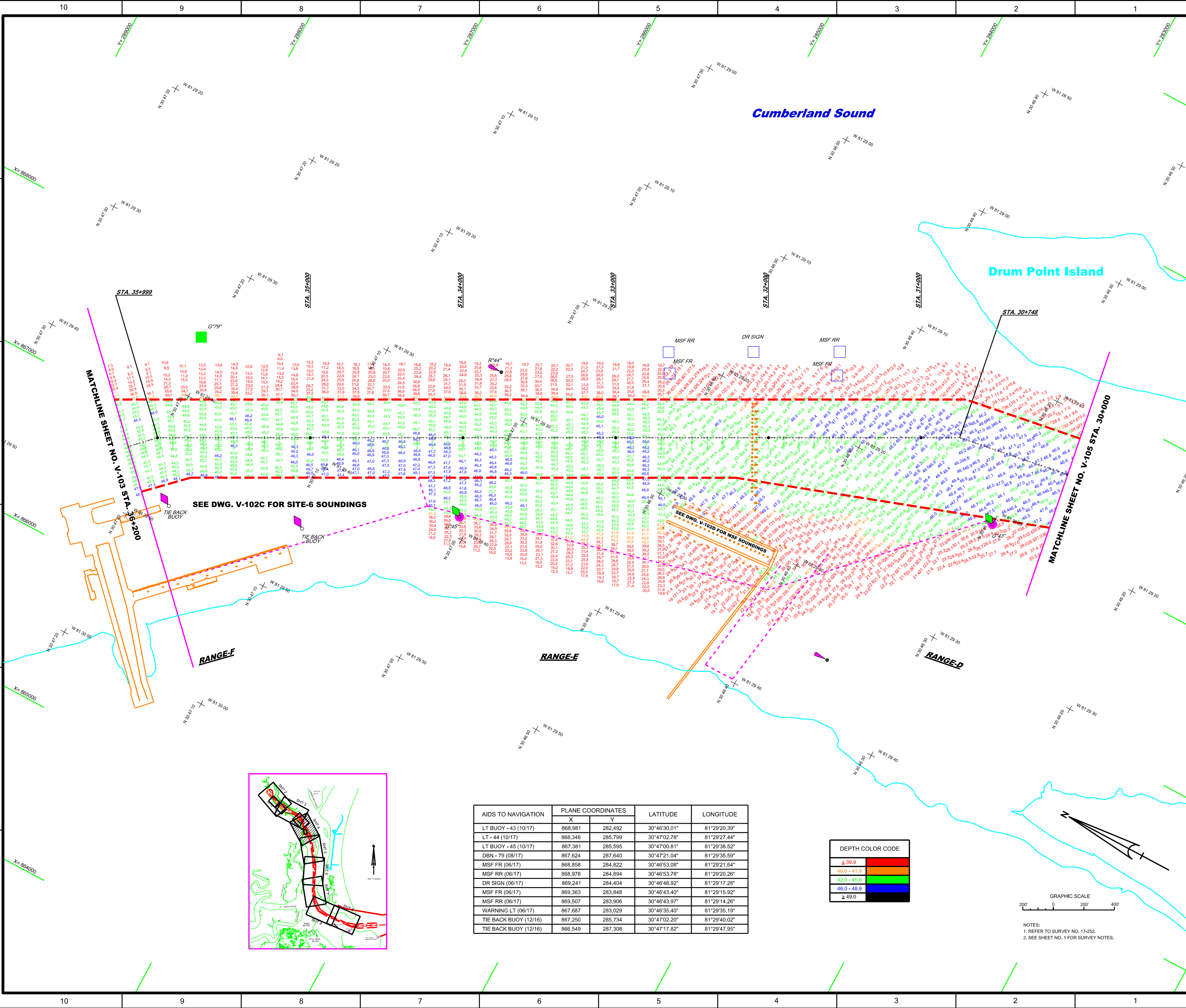
**MATCHLINE SHEET NO. V-102 STA. 42+400**

**MATCHLINE SHEET NO. V-103 STA. 36+200**

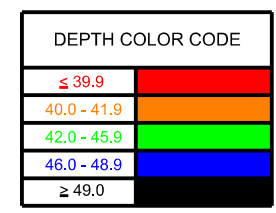
AIDS TO NAVIGATION	PLANE COORDINATES	LATITUDE	LONGITUDE	
	X	Y		
LT - 46 (10/17)	866,692	288,773	30°47'32.31"	81°29'46.20"
LT - 48 (10/17)	863,930	290,375	30°47'48.34"	81°30'17.76"
DBN-78 (08/17)	867,420	288,438	30°47'28.95"	81°29'37.87"
WARNING SIGN (06/17)	865,707	289,301	30°47'37.60"	81°29'57.45"
MOORING BUOY (12/16)	865,076	289,496	30°47'39.57"	81°30'04.68"
MOORING BUOY (12/16)	864,146	290,024	30°47'44.85"	81°30'15.30"
MOORING BUOY (12/16)	865,724	288,033	30°47'25.05"	81°29'57.34"
MOORING BUOY (12/16)	864,597	289,825	30°47'42.85"	81°30'10.15"
MOORING BUOY (12/16)	864,559	289,677	30°47'41.39"	81°30'10.59"
MOORING BUOY (12/16)	864,332	289,226	30°47'36.93"	81°30'13.23"
MOORING BUOY (12/16)	864,237	289,018	30°47'34.88"	81°30'14.33"
MOORING BUOY (12/16)	864,287	289,152	30°47'36.21"	81°30'13.75"



NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

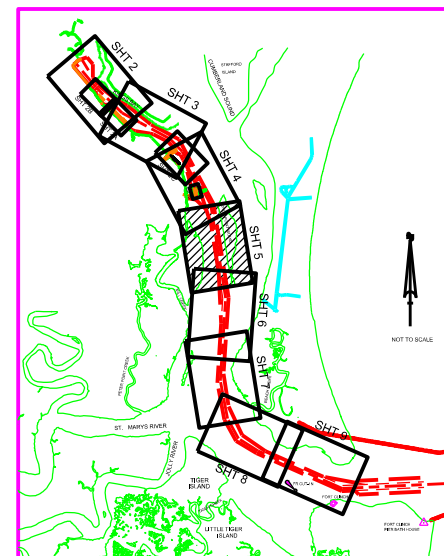
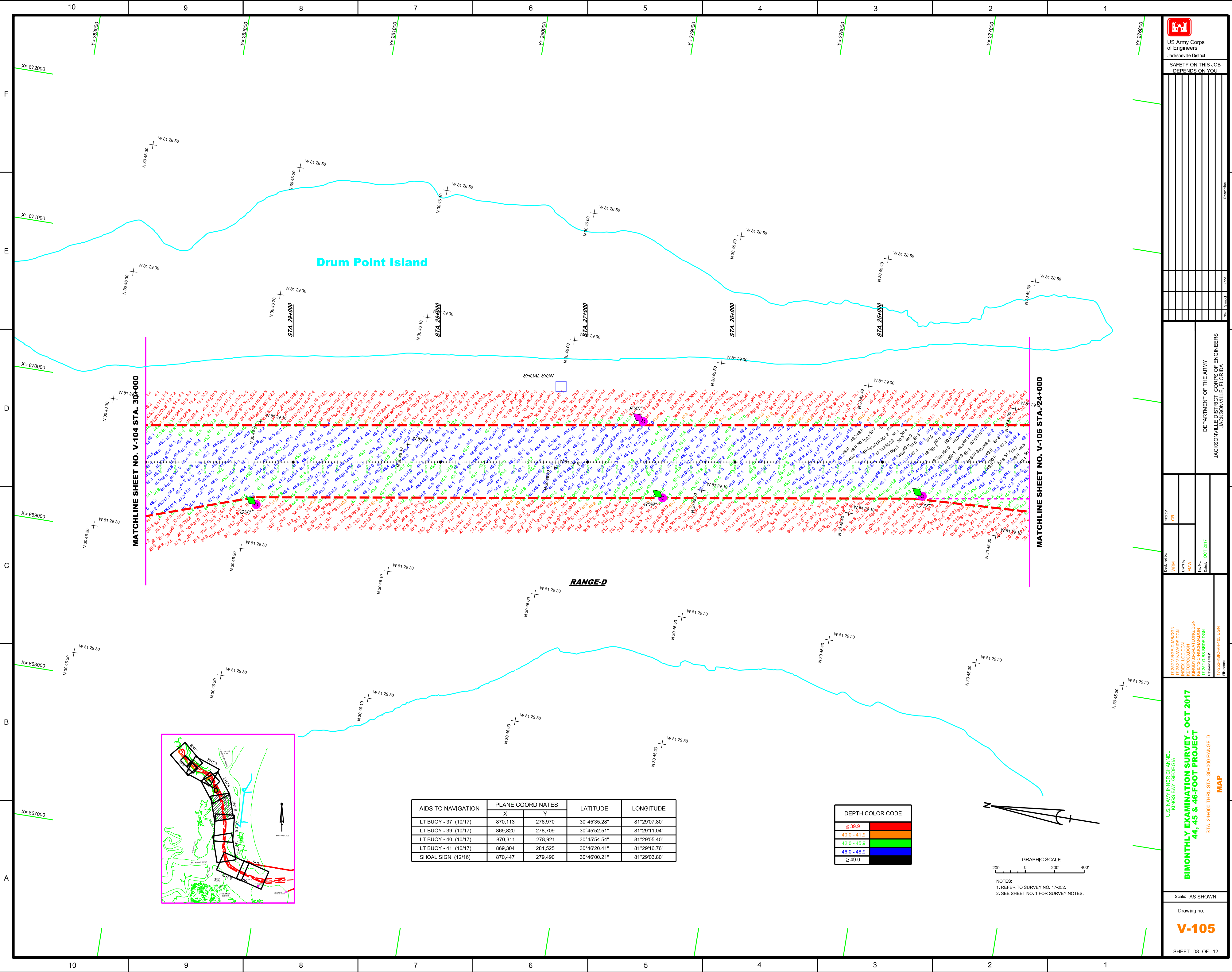


AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 43 (10/17)	868,981	282,492	30°46'30.01"	81°29'20.39"
LT - 44 (10/17)	868,346	285,799	30°47'02.78"	81°29'27.44"
LT BUOY - 45 (10/17)	867,381	285,595	30°47'00.81"	81°29'38.52"
DBN - 79 (08/17)	867,624	287,640	30°47'21.04"	81°29'35.59"
MSF RR (06/17)	868,858	284,822	30°46'53.08"	81°29'21.64"
MSF RR (06/17)	868,978	284,894	30°46'53.78"	81°29'20.26"
DR SIGN (06/17)	869,241	284,404	30°46'48.92"	81°29'17.28"
MSF RR (06/17)	869,363	283,848	30°46'43.40"	81°29'15.92"
MSF RR (06/17)	869,507	283,906	30°46'43.97"	81°29'14.26"
WARNING LT (06/17)	867,687	283,029	30°46'35.40"	81°29'35.19"
TIE BACK BUOY (12/16)	867,250	285,734	30°47'02.20"	81°29'40.02"
TIE BACK BUOY (12/16)	866,549	287,308	30°47'17.82"	81°29'47.95"



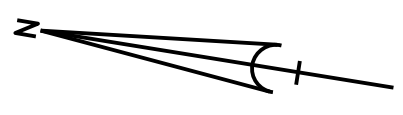
GRAPHIC SCALE  
0 200' 400'

NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 37 (10/17)	870,113	276,970	30°45'35.28"	81°29'07.80"
LT BUOY - 39 (10/17)	869,820	278,709	30°45'52.51"	81°29'11.04"
LT BUOY - 40 (10/17)	870,311	278,921	30°45'54.54"	81°29'05.40"
LT BUOY - 41 (10/17)	869,304	281,525	30°46'20.41"	81°29'16.76"
SHOAL SIGN (12/16)	870,447	279,490	30°46'00.21"	81°29'03.80"

DEPTH COLOR CODE	
≤ 39.9	Light Blue
40.0 - 41.9	Blue
42.0 - 45.9	Green
46.0 - 48.9	Yellow
≥ 49.0	Orange

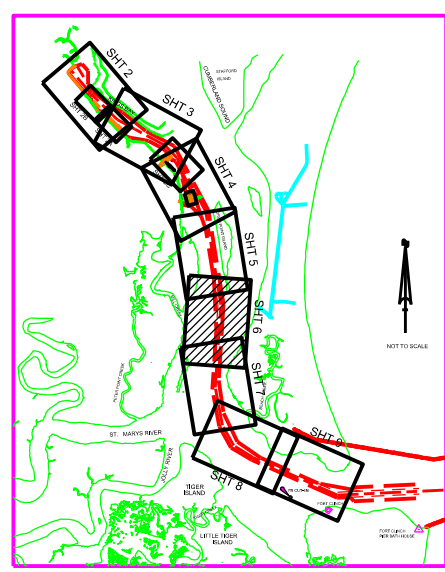
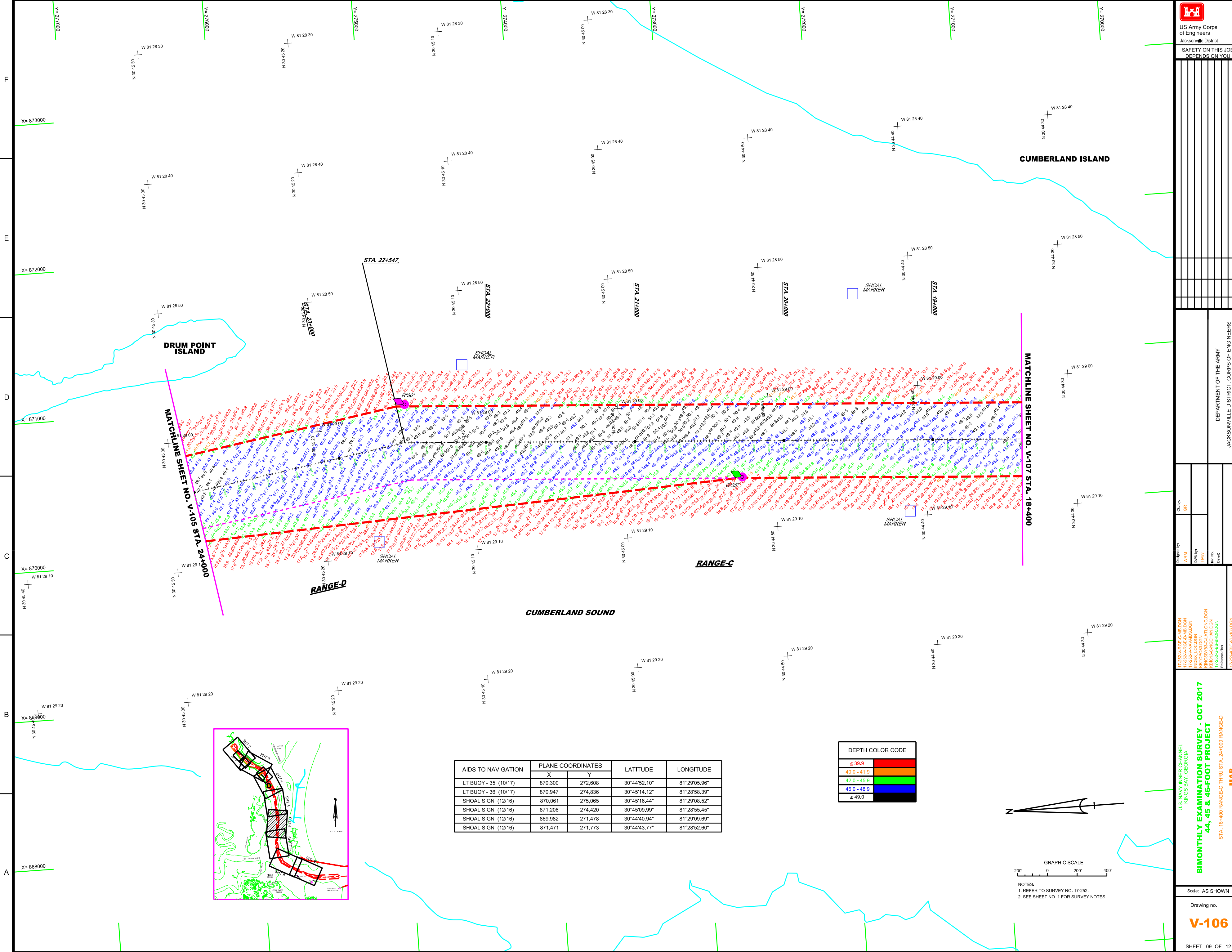


GRAPHIC SCALE  
0 200' 400'

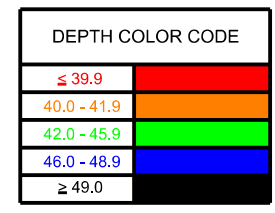
NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

DESIGNED BY: WRM	CHECKED BY: GR
DRAWN BY: FHW	DATE: OCT 2017
U.S. NAVY INNER CHANNEL, KINGS BAY, GEORGIA	
BIMONTHLY EXAMINATION SURVEY - OCT 2017	
44, 45 & 46-FOOT PROJECT	
MAP	
STA. 24+000 THRU STA. 30+000 RANGE-D	
DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	
Scale: AS SHOWN	
Drawing no. V-105	

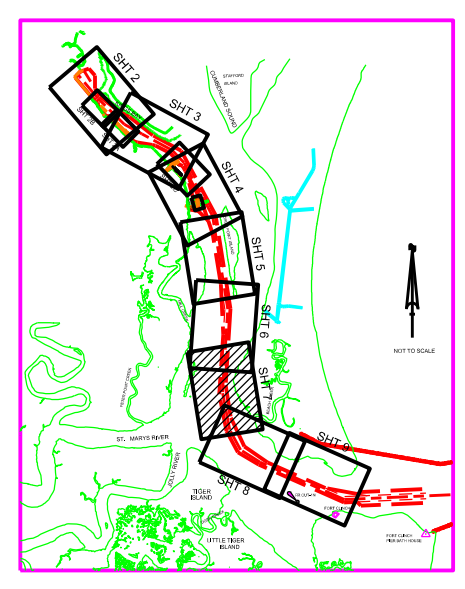
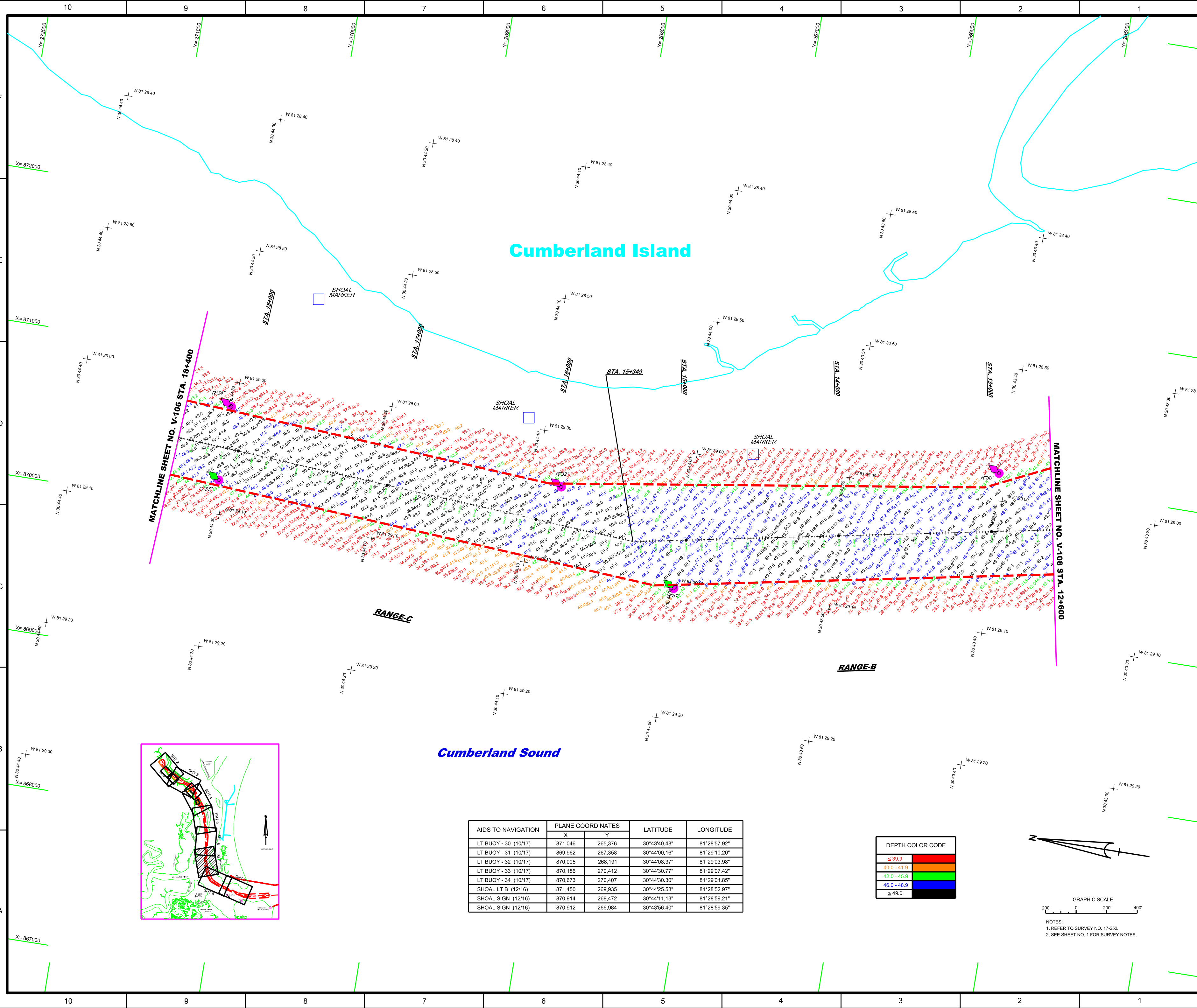




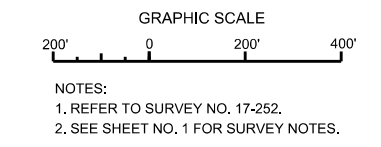
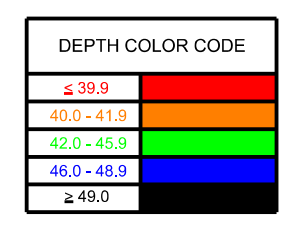
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 35 (10/17)	870,300	272,608	30°44'52.10"	81°29'05.96"
LT BUOY - 36 (10/17)	870,947	274,836	30°45'14.12"	81°28'58.39"
SHOAL SIGN (12/16)	870,061	275,065	30°45'16.44"	81°29'08.52"
SHOAL SIGN (12/16)	871,206	274,420	30°45'09.99"	81°28'55.45"
SHOAL SIGN (12/16)	869,982	271,478	30°44'40.94"	81°29'09.69"
SHOAL SIGN (12/16)	871,471	271,773	30°44'43.77"	81°28'52.60"



NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 30 (10/17)	871,046	265,376	30°43'40.48"	81°28'57.92"
LT BUOY - 31 (10/17)	869,962	267,358	30°44'00.16"	81°29'10.20"
LT BUOY - 32 (10/17)	870,005	268,191	30°44'08.37"	81°29'03.98"
LT BUOY - 33 (10/17)	870,186	270,412	30°44'30.77"	81°29'07.42"
LT BUOY - 34 (10/17)	870,673	270,407	30°44'30.30"	81°29'01.85"
SHOAL LT B (12/16)	871,450	269,935	30°44'25.58"	81°28'52.97"
SHOAL SIGN (12/16)	870,914	268,472	30°44'11.13"	81°28'59.21"
SHOAL SIGN (12/16)	870,912	266,984	30°43'56.40"	81°28'59.35"



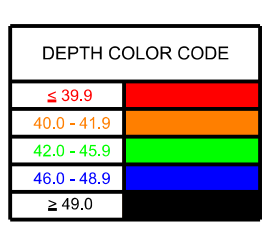
NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

### Cumberland Island

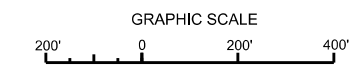
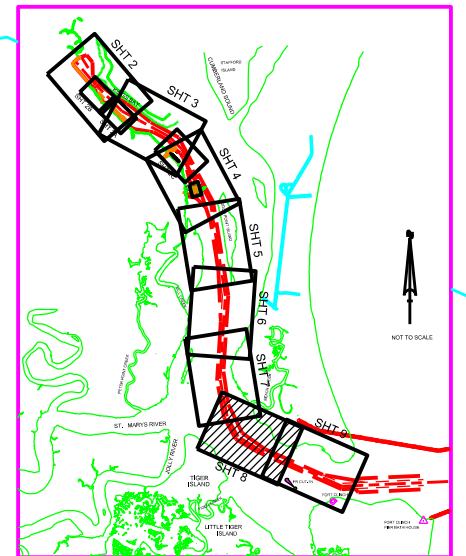
### Cumberland Sound

MATCHLINE SHEET NO. V-107 STA. 12+600

MATCHLINE SHEET NO. V-109 STA. 6+200



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 26 (10/17)	874,091	261,644	30°43'03.35"	81°28'23.30"
LT BUOY - 27 (10/17)	873,299	261,337	30°43'00.36"	81°28'32.39"
LT BUOY - 28 (10/17)	872,174	262,968	30°43'16.58"	81°28'45.16"
LT BUOY - 29 (10/17)	870,561	264,204	30°43'28.91"	81°29'03.56"



NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Worked By	GR
Checked By	GR
Reviewed By	GR
Drawn By	GR
Date	OCT 2017

U.S. NAVY INNER CHANNEL  
KINGS BAY, GEORGIA  
**BIMONTHLY EXAMINATION SURVEY - OCT 2017**  
44, 45 & 46-FOOT PROJECT  
STA. 6+200 RANGE-A THRU STA. 12+600 RANGE-B  
**PLAN**

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

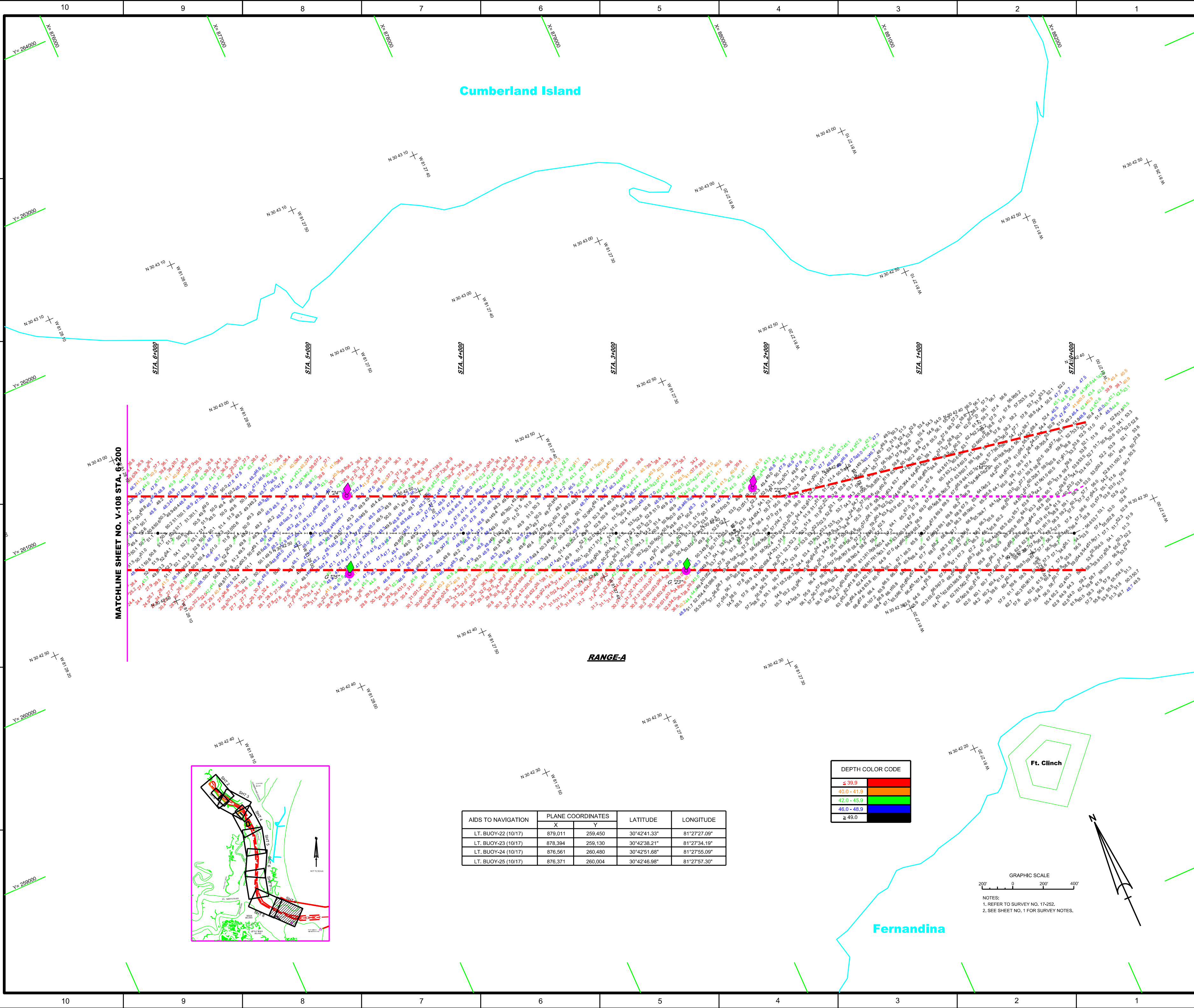
DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
JACKSONVILLE, FLORIDA

Checked By: GRL  
Drawn By: FHW  
Field Date: OCT 2017

17-252A-BIC-CH-108.DGN  
17-252A-BIC-CH-108.DGN  
17-252A-BIC-CH-108.DGN

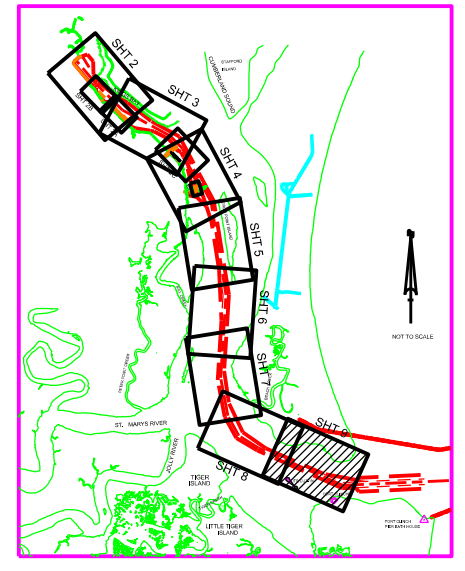
U.S. NAVY INNER CHANNEL  
KINGS BAY, GEORGIA  
**BIMONTHLY EXAMINATION SURVEY - OCT 2017**  
**44, 45 & 46-FOOT PROJECT**  
STA. 0+00 THRU STA. 6+200 RANGE-A  
**PLAN**

Scale: AS SHOWN  
Drawing no. **V-109**  
SHEET 12 OF 12



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-22 (10/17)	879,011	259,450	30°42'41.33"	81°27'27.09"
LT. BUOY-23 (10/17)	878,394	259,130	30°42'38.21"	81°27'34.19"
LT. BUOY-24 (10/17)	876,561	260,480	30°42'51.68"	81°27'55.09"
LT. BUOY-25 (10/17)	876,371	260,004	30°42'46.98"	81°27'57.30"

DEPTH COLOR CODE	
≤ 39.9	Red
40.0 - 41.9	Orange
42.0 - 45.9	Yellow
46.0 - 48.9	Green
≥ 49.0	Blue



NOTES:  
1. REFER TO SURVEY NO. 17-252.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

**Cumberland Island**

**RANGE-A**

**Fernandina**

**Ft. Clinch**

Matchline SHEET NO. V-108 STA. 6+200

STA. 0+00 STA. 1+000 STA. 2+000 STA. 3+000 STA. 4+000 STA. 5+000 STA. 6+200

N 30 43 10 W 81 27 26  
N 30 43 00 W 81 27 26  
N 30 42 50 W 81 27 26  
N 30 42 40 W 81 27 26  
N 30 42 30 W 81 27 26  
N 30 42 20 W 81 27 26  
N 30 42 10 W 81 27 26  
N 30 42 00 W 81 27 26

Y=264000  
Y=263000  
Y=262000  
Y=261000  
Y=260000  
Y=259000

DEPTH COLOR CODE

GRAPHIC SCALE  
0 200 400