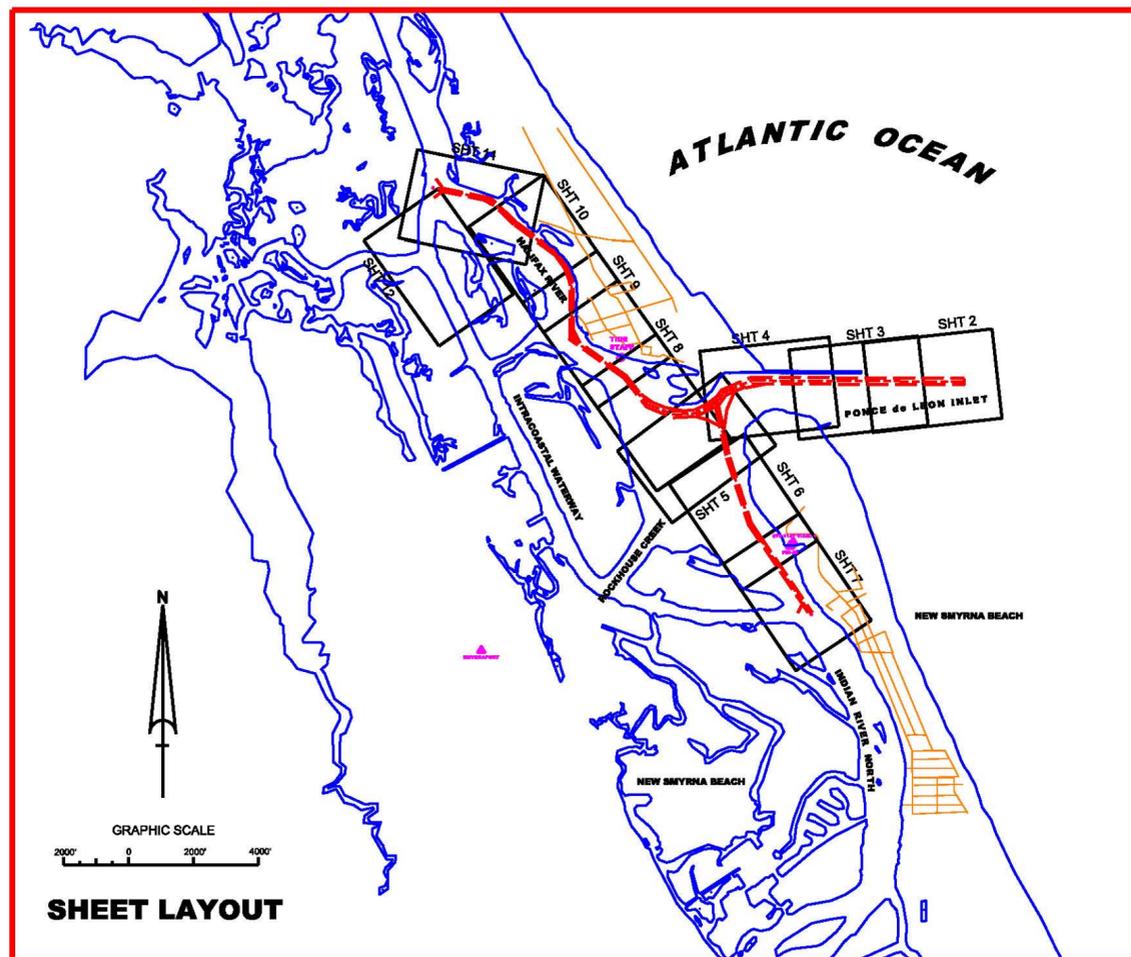
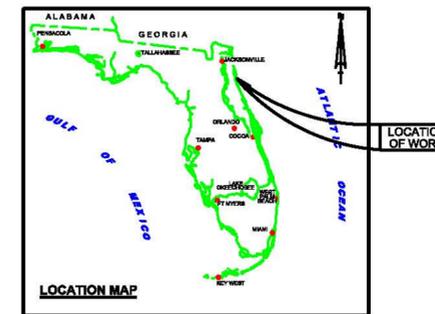


PONCE DE LEON INLET VOLUSIA COUNTY, FLORIDA PROJECT CONDITION SURVEY



MAP SHEET NOTES:

REFER TO SURVEY NUMBER: 10-170

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MLLW OF THE 1983-2001 TIDAL EPOCH.

TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC GPS AND REFERENCED TO MLLW (Volusia-Brevard (wo PortCanaveral)-07June2010.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 (NAD 83).

THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:

*REFERENCE BASE LOCATED AT "872 1147 A"

NORTHING: 1719382.240'
EASTING: 683175.104'
NAVD88 ELEVATION: 2.83'

*TIDE STAFF LOCATED FROM "872 1147 TIDAL 1"(4.90' MLLW)

VERTICAL MEASUREMENTS WERE MADE USING A ROSS SMART SOUNDER 835 FREQUENCY 28 KHZ AND 200 KHZ SINGLE BEAM TRANSDUCER.

SURVEY VESSEL STATION	DATE OF SURVEY	CUT	BASE
SB-32	16 NOV 2010	CUT 13N 5N CUT 3S 1S	872 1147 A
SB-32	17 NOV 2010	CUT 3N 4N CUT1A 3A	872 1147 A
SB-32	18 NOV 2010	CUT LONGITUDINALS	872 1147 A

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, 1 JAN 02.

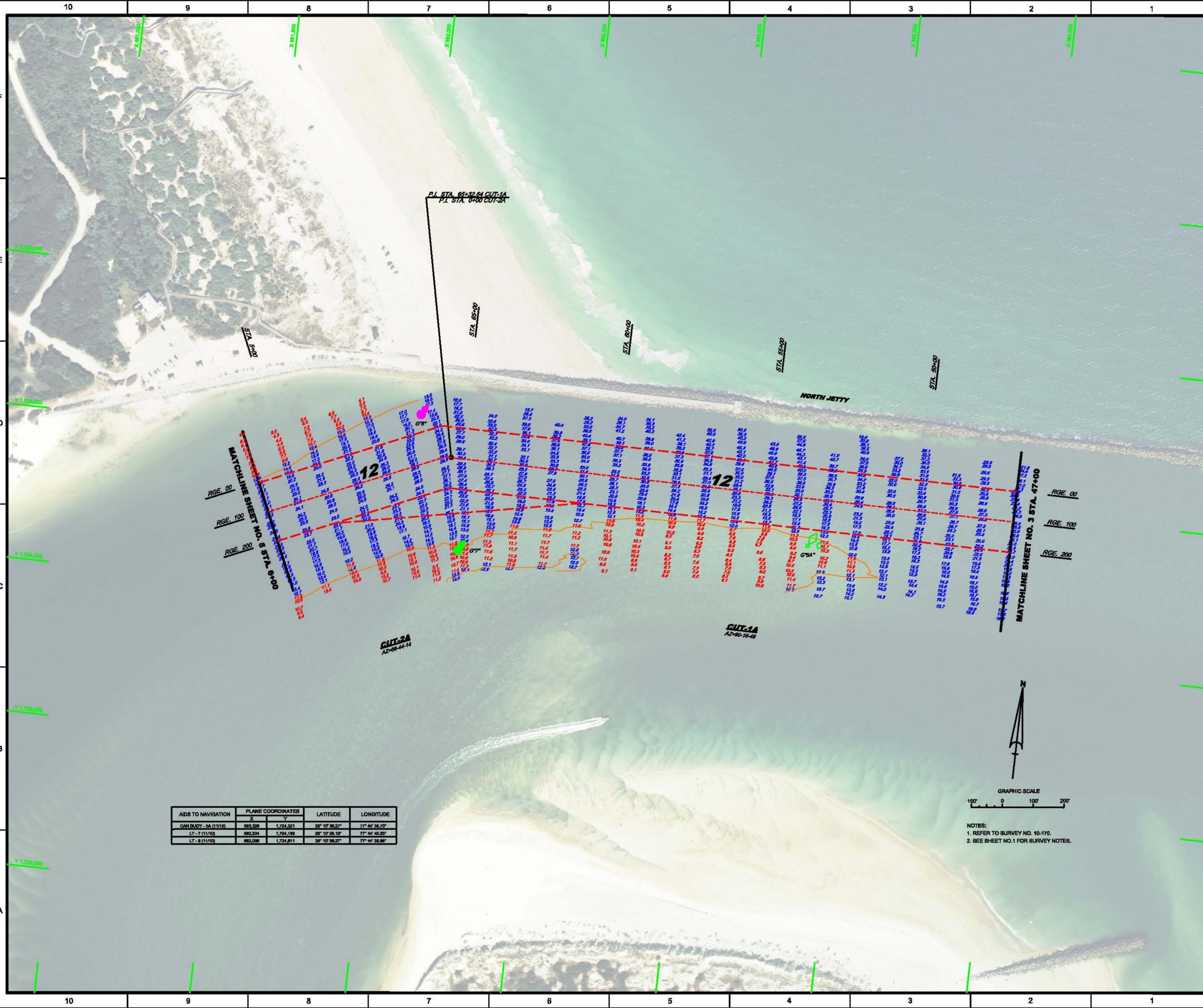
LEGEND	
•BM	BENCHMARK
⊙	LIGHTED BEACON
■	GREEN DAYBEACON
▲	RED DAYBEACON
⊕	RED LIGHTED BUOY
⊕	GREEN LIGHTED BUOY
⊕	CAN BUOY
⊕	NUN BUOY
⊕	TIDE STAFF

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JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

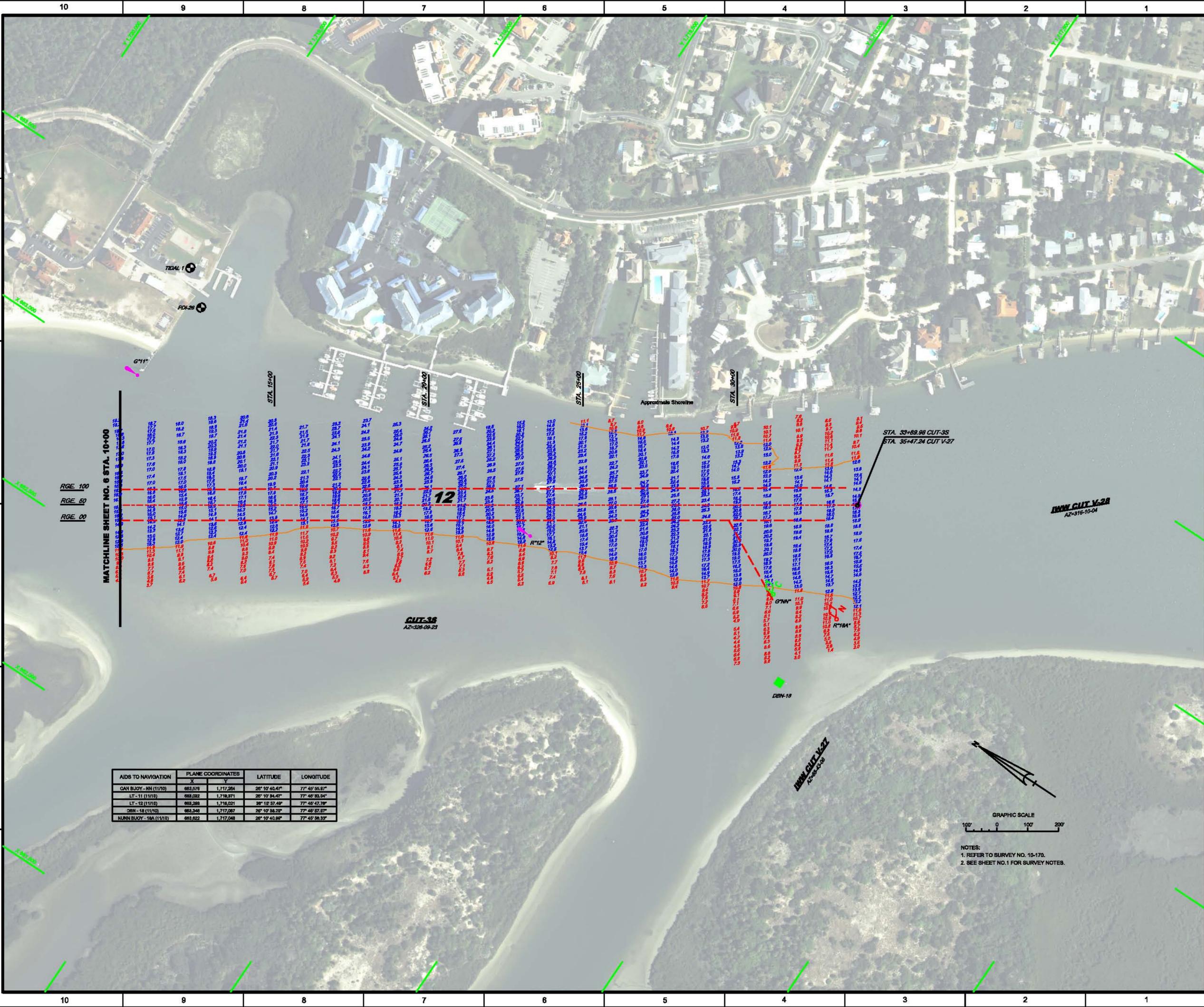
PROJECT CONDITION SURVEY
7, 12 AND 15 - FOOT PROJECT
COVER, LOCATION MAP AND SHEET INDEX
PLAN

Scale: AS SHOWN
Drawing no.
1 / 12
SHEET 1 OF 12



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
GAN BUOY - SA (11/10)	893,306	1,724,261	28° 10' 38.27"	77° 44' 38.70"
LT - 7 (11/10)	892,804	1,724,189	28° 10' 28.19"	77° 44' 40.83"
LT - 8 (11/10)	892,008	1,724,811	28° 10' 38.27"	77° 44' 38.88"

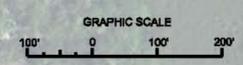
NOTES:
 1. REFER TO SURVEY NO. 10-170.
 2. SEE SHEET NO.1 FOR SURVEY NOTES.



MATCHLINE SHEET NO. 6 STA. 10+00

RGE. 100
RGE. 50
RGE. 00

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
CAN BUOY - NN (11/10)	683,578	1,717,284	28° 10' 40.41"	77° 45' 55.87"
LT - 11 (11/10)	683,022	1,718,371	28° 10' 34.41"	77° 48' 33.54"
LT - 12 (11/10)	683,290	1,718,021	28° 10' 37.49"	77° 48' 47.78"
DBN - 18 (11/10)	683,346	1,717,087	28° 10' 38.25"	77° 48' 57.57"
NUNN BUOY - 18A (11/10)	683,822	1,717,048	28° 10' 40.89"	77° 45' 38.33"



NOTES:
1. REFER TO SURVEY NO. 10-170.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

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

City: W. PALM
Designed by: W. PALM
Drawn by: D. M. W.
In Charge: W. PALM
Checked: D. M. W.

PROJECT CONDITION SURVEY
7, 12 AND 15 - FOOT PROJECT
STA. 10+00 THRU STA. 33+89.98 CUT -35
PLAN

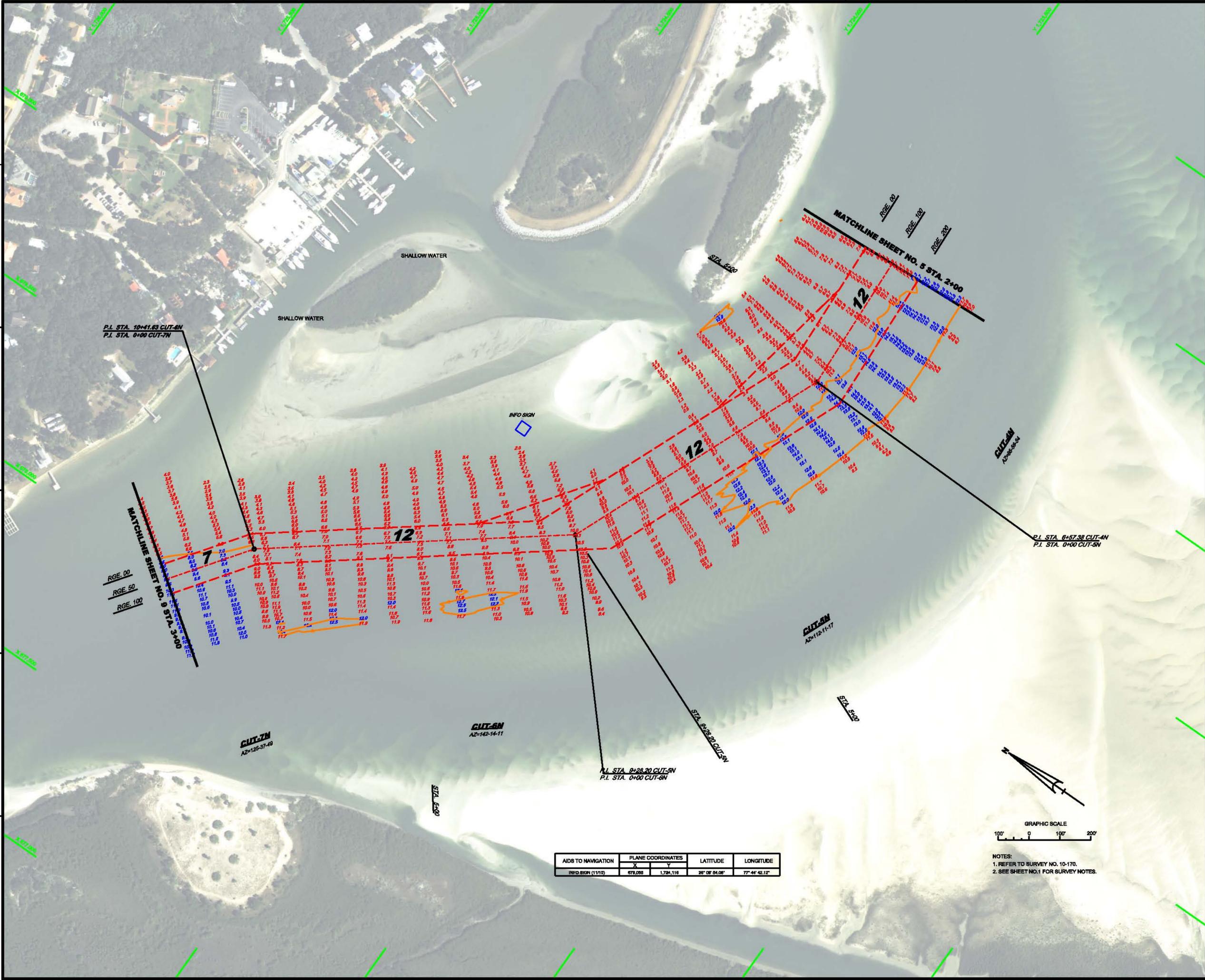
Scale: AS SHOWN

Drawing no.

7 / 12

SHEET 7 OF 12

10-170-C-88-BIRD/DGN
10-170-C-88-LEON/LEON
10-170-C-88-SPROCK-HARRIS/DGN
10-170-C-88-BOUN/DGN
10-170-C-88-BOUN/DGN



P.I. STA. 10+41.63 CUT-6N
P.I. STA. 0+00 CUT-7N

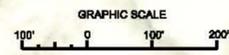
MATCHLINE SHEET NO. 9 STA. 3+00
RGE. 00
RGE. 50
RGE. 100

MATCHLINE SHEET NO. 5 STA. 2+00
RGE. 00
RGE. 100
RGE. 200

P.I. STA. 6+57.38 CUT-6N
P.I. STA. 0+00 CUT-6N

P.I. STA. 9+28.20 CUT-6N
P.I. STA. 0+00 CUT-6N

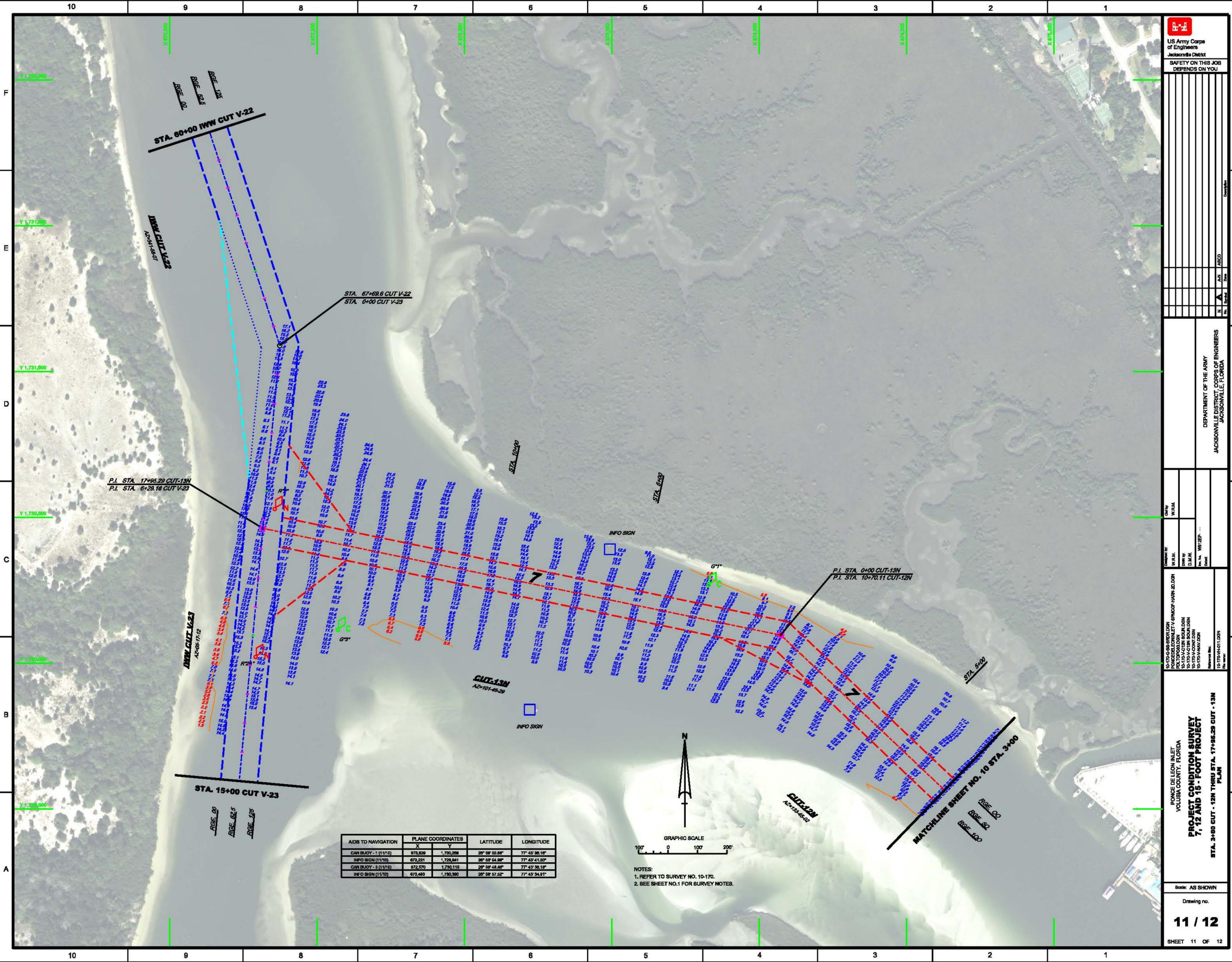
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
INFO SIGN (1/10)	678,085	1,724,116	28° 08' 54.08"	77° 44' 42.12"



NOTES:
1. REFER TO SURVEY NO. 10-170.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

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

City	W. PALM BEACH	State	FL	Project No.	10-170-112-11-17	Sheet No.	8 OF 12	Scale	AS SHOWN
Design By	W. PALM BEACH	Drawn By	D. M. W.	Checked By	W. J. P.	Project Title	PROJECT CONDITION SURVEY 7, 12 AND 15 - FOOT PROJECT	Drawing no.	8 / 12
Design No.	10-170-112-11-17	Drawn No.	10-170-112-11-17	Checked No.	10-170-112-11-17	Project Location	PONCE DE LEON INLET VOLUSIA COUNTY, FLORIDA	SHEET	8 OF 12
Design Date	10/11/17	Drawn Date	10/11/17	Checked Date	10/11/17	Project Description	STA. 1+00 CUT - 6N THRU STA. 3+00 CUT - 7N PLAN	DEPARTMENT OF THE ARMY DISTRICT CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
CAN BUOY - 1 (11'0)	673,829	1,730,298	28° 08' 02.88"	77° 43' 38.18"
INFO SIGN (11'0)	673,221	1,730,841	28° 08' 54.98"	77° 43' 41.00"
CAN BUOY - 3 (11'0)	672,570	1,730,115	28° 08' 48.48"	77° 43' 38.18"
INFO SIGN (11'0)	673,483	1,730,390	28° 08' 57.52"	77° 43' 34.61"

GRAPHIC SCALE
100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 10-170.
2. SEE SHEET NO.1 FOR SURVEY NOTES.



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

City	W. RIAL	Design	W. RIAL	Drawn by	D. M. W.	Checked	W. RIAL	Scale	AS SHOWN
Project	10-170-08-BRIDGON	Project	10-170-08-BRIDGON	Project	10-170-08-BRIDGON	Project	10-170-08-BRIDGON	Project	10-170-08-BRIDGON
PROJECT CONDITION SURVEY 7, 12 AND 15 - FOOT PROJECT									
STA. 3+00 CUT - 12N THRU STA. 17+56.29 CUT - 13N PLAN									
Scale: AS SHOWN Drawing no. 11 / 12 SHEET 11 OF 12									

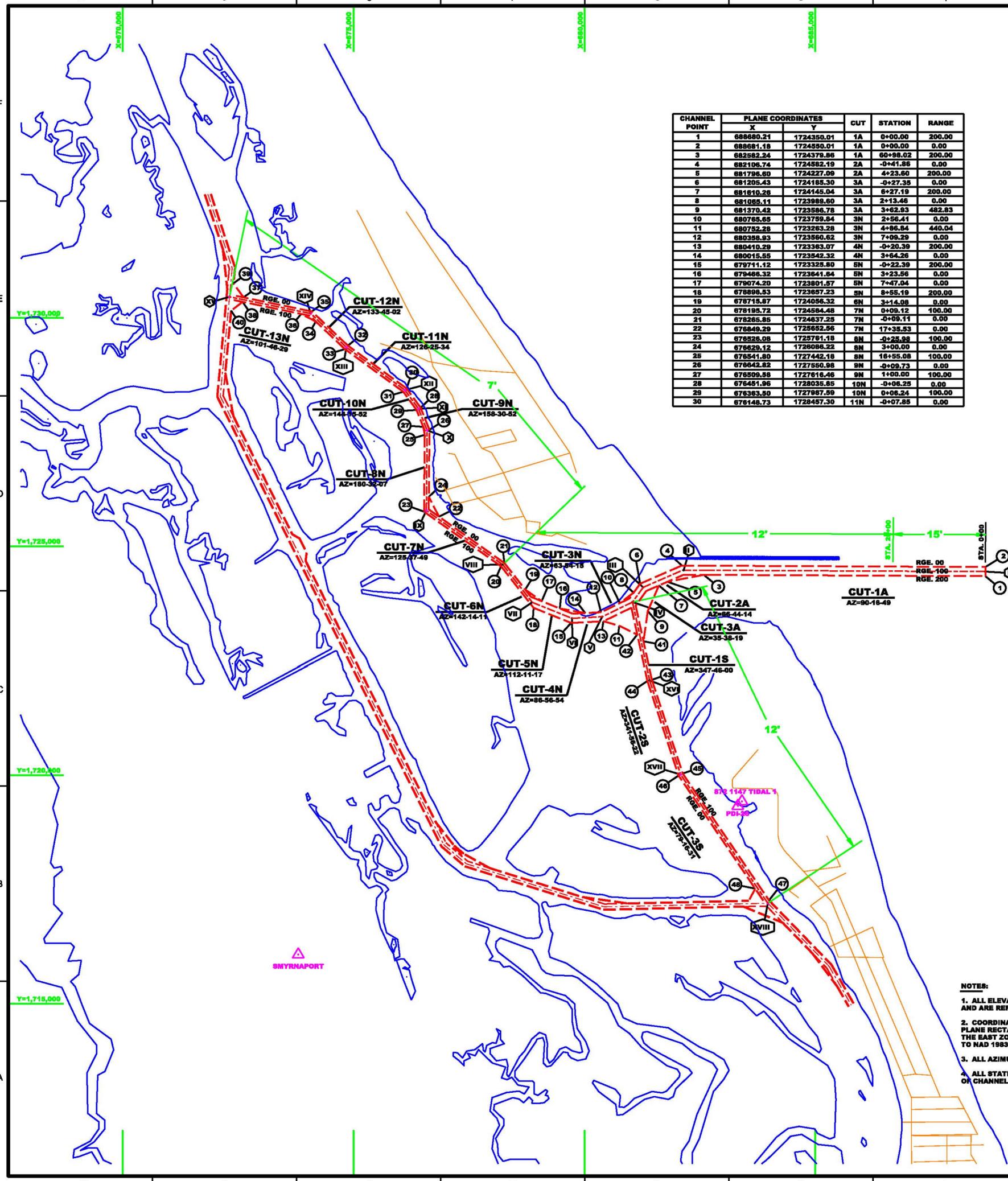
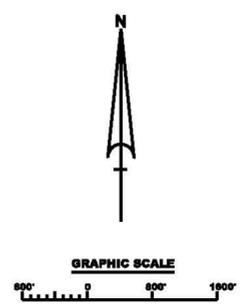
CHANNEL POINT	PLANE COORDINATES		CUT	STATION	RANGE
	X	Y			
1	688680.21	1724350.01	1A	0+00.00	200.00
2	688681.18	1724590.01	1A	0+00.00	0.00
3	682582.24	1724378.86	1A	60+98.02	200.00
4	682106.74	1724582.19	2A	-0+41.86	0.00
5	681796.60	1724227.09	2A	4+23.60	200.00
6	681205.43	1724185.30	3A	-0+27.35	0.00
7	681810.26	1724145.04	3A	6+27.19	200.00
8	681065.11	1723988.60	3A	2+13.46	0.00
9	681370.42	1723586.78	3A	3+62.93	482.83
10	680765.65	1723759.84	3N	2+56.41	0.00
11	680752.28	1723263.28	3N	4+86.84	440.04
12	680388.93	1723560.62	3N	7+09.29	0.00
13	680410.29	1723363.07	4N	-0+20.39	200.00
14	680015.55	1723542.32	4N	3+64.26	0.00
15	679711.12	1723328.80	5N	-0+22.39	200.00
16	679468.32	1723641.64	5N	3+23.56	0.00
17	679074.20	1723801.57	5N	7+47.04	0.00
18	678898.53	1723657.23	5N	8+55.19	200.00
19	678718.87	1724056.32	6N	3+14.08	0.00
20	678193.72	1724584.48	7N	0+09.12	100.00
21	678265.85	1724637.25	7N	-0+09.11	0.00
22	67849.29	1725652.56	7N	17+35.53	0.00
23	678328.08	1725761.18	8N	-0+25.88	100.00
24	678629.12	1726086.22	8N	3+00.00	0.00
25	678541.80	1727442.18	8N	18+55.08	100.00
26	678642.82	1727550.98	9N	-0+09.73	0.00
27	678509.58	1727616.46	9N	1+00.00	100.00
28	676451.96	1728035.85	10N	-0+08.25	0.00
29	676383.50	1727987.59	10N	0+08.24	100.00
30	676148.73	1728457.30	11N	-0+07.85	0.00

PONCE DE LEON INLET - CHANNEL ALIGNMENT CONTROL					
CHANNEL LC P.I.	PLANE COORDINATES		CUT	STATION	RANGE
	X	Y			
I	688680.70	1724480.01	1A	0+00.00	100.00
II	682127.84	1724482.09	1A	65+32.64	100.00
III	681270.76	1724104.81	2A	0+00.00	100.00
IV	681038.91	1723782.82	2A	9+36.17	100.00
V	680384.61	1723461.85	3A	3+95.19	100.00
VI	679728.16	1723426.86	3N	0+00.00	100.00
VII	678868.69	1723777.39	1S	0+00.00	50.00
VIII	678230.79	1724600.86	3N	7+29.68	100.00
IX	678576.32	1725786.69	4N	0+00.00	100.00
X	678592.73	1727541.72	4N	6+57.38	100.00
XI	678407.73	1728011.72	5N	0+00.00	100.00
XII	678112.73	1728421.73	5N	9+28.20	100.00
XIII	674845.73	1729356.74	6N	0+00.00	50.00
XIV	674072.73	1730088.75	6N	10+41.53	50.00
XV	672315.22	1730463.11	7N	0+00.00	50.00
XVI	681410.23	1722074.73	7N	20+35.53	50.00
XVII	682081.72	1720015.49	8N	0+00.00	50.00
XVIII	683969.69	1717199.86	8N	17+55.08	50.00
			9N	0+00.00	50.00
			9N	5+05.10	50.00
			10N	0+00.00	50.00
			10N	5+05.10	50.00
			11N	0+00.00	50.00
			11N	15+74.58	50.00
			12N	0+00.00	50.00
			12N	10+70.11	50.00
			13N	0+00.00	50.00
			13N	17+98.29	50.00
			V-23	6+28.19	62.50
			1S	17+47.74	50.00
			2S	0+00.00	50.00
			2S	21+85.94	50.00
			3S	0+00.00	50.00
			3S	33+89.98	50.00
			V-27	35+47.24	62.50

CHANNEL POINT	PLANE COORDINATES		CUT	STATION	RANGE
	X	Y			
31	678076.73	1728386.16	11N	0+07.85	100.00
32	674878.00	1729395.07	12N	0+03.20	0.00
33	674813.46	1729318.41	12N	-0+03.20	100.00
34	674182.63	1729922.33	12N	8+70.11	100.00
35	674098.96	1730142.78	13N	-0+14.33	0.00
36	673866.74	1730088.81	13N	1+99.99	100.00
37	672819.11	1730450.84	13N	14+95.29	0.00
38	672998.70	1730352.84	13N	14+95.29	100.00
39	672998.10	1730756.13	13N	17+73.84	-253.77
40	672349.81	1730158.62	13N	16+99.29	341.02
41	681277.13	1722924.85	1S	8+85.94	100.00
42	681142.87	1723071.98	1S	7+16.52	0.00
43	681498.56	1722057.83	2S	-0+02.54	100.00
44	681381.91	1722051.65	2S	0+02.54	0.00
45	682127.10	1720037.80	3S	0+06.91	100.00
46	682036.33	1719993.41	3S	-0+06.93	0.00
47	683995.76	1717262.95	3S	33+82.09	100.00
48	683895.17	1717519.49	3S	29+71.63	0.00

BENCHMARKS	NAVD ELEV. (FT)	PLANE COORDINATES	
		X	Y
872 1147 TIDAL 1	2.32	683,410.03	1,719,459.14
SMYRNAPOINT	8.87	673,804.18	1,716,076.73
P81-26	3.486	683,321.38	1,719,328.07

- NOTES:**
- ALL ELEVATIONS ARE IN FEET AND TENTHS AND ARE REFERENCED TO N.A.V.D. 1988
 - COORDINATES ARE BASED ON THE STANDARD PLANE RECTANGULAR COORDINATE SYSTEM FOR THE EAST ZONE OF FLORIDA AND ARE REFERENCED TO NAD 1983.
 - ALL AZIMUTHS (0= SOUTH) ARE GRID AZIMUTHS.
 - ALL STATIONING REFERS TO THE CENTERLINE OF CHANNEL.



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

Scale: AS SHOWN

Drawing no.
12 / 12

SHEET 12 OF 12