

SAN JUAN HARBOR SAN JUAN, PUERTO RICO HYDROGRAPHIC EXAM SURVEY FY20 30 THRU 56-FOOT PROJECT

SURVEY NOTES

- REFER TO SURVEY NO. 20-137.
- SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) TIDAL DATUM RELATIVE TO 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 "SANJUAN-2011APRIL06.KTD".
- ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
- PLANE COORDINATES ARE BASED ON THE LAMBERT CONFORMAL CONIC PROJECTION FOR PUERTO RICO & THE VIRGIN ISLANDS, ZONE 1, 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 LOCATION:
REFERENCE BASE LOCATED AT "USCG SAN JUAN ARP" (PID: BBN06)
TIDE STAFF LOCATED FROM "975 5371 A TIDAL" (PID: TV1513)
MLLW ELEVATION: 5.14'
A MEASURE DOWN POINT WAS SET FROM SURVEY MONUMENT "975 5371 A TIDAL", LOCATED ON THE EDGE OF USCG BULKHEAD ADJACENT TO THE BASE STATION POINT.
- DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, TIDAL EPOCH 1983-2001 AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). THE NOAA TIDAL STATION LISTED BELOW WAS USED TO CALIBRATE TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS ASSOCIATED WITH THE TIDE GAUGE SITE SPECIFIED BELOW:
NOAA TIDAL STATION 975-5371 A TIDAL USED FOR ALL CUTS. (PID: TV1513)
VERTICAL MEASUREMENTS WERE MADE USING A ROSS 835 SMARTSOUNDER DUAL-FREQUENCY 28/200 KHZ SINGLE-BEAM TRANSDUCER. ALL SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.

VESSEL	DATE OF SURVEY	CUT
SB-34	26-27 JUN 2020	SAN ANTONIO APPROACH CH., BERTHING AREA
SB-34	01 AUG 2020	SAN ANTONIO CHANNEL, BULKHEADS
SB-34	02 AUG 2020	BAR CUTS 1 THRU 3
SB-34	03 AUG 2020	WEST BAY
SB-34	06 AUG 2020	BAR CUTS 4 THRU 6
SB-34	28 AUG 2020	ANEGADO CHANNEL
SB-34	29, 31 AUG 2020	GRAVING DOCK CHANNEL
SB-34	31 AUG 2020	PUERTO NUEVO TURNING BASIN
SB-34	31 AUG, 01 SEP 2020	ARMY TERMINAL CHANNEL
SB-34	01 SEP 2020	PUERTO NUEVO CHANNEL

LEGEND

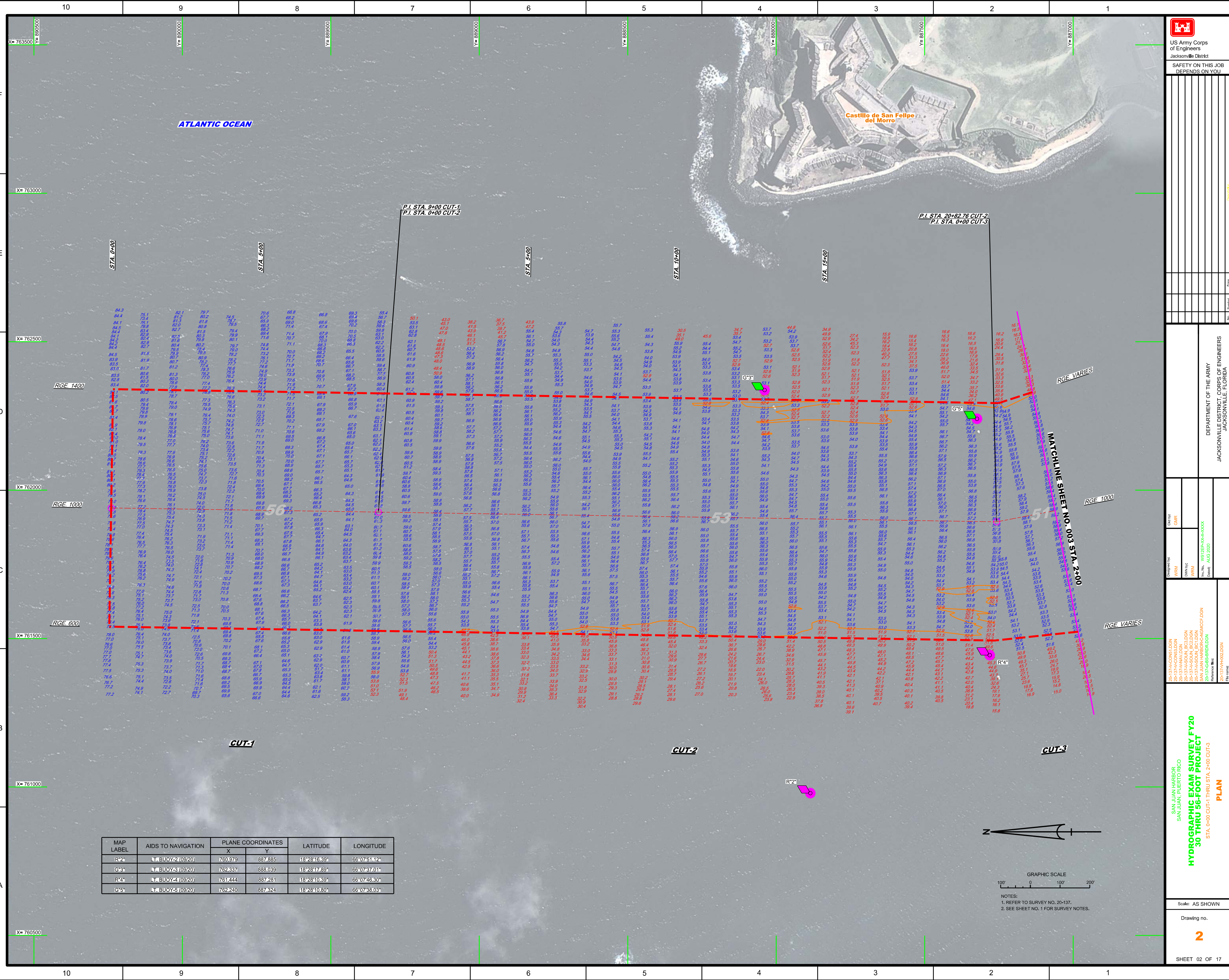
	MONUMENT
	LIGHTED BEACON
	GREEN DAYBEACON
	RED DAYBEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
	CAN BUOY
	NUN BUOY
	TIDE STAFF
	PROJECT DEPTH

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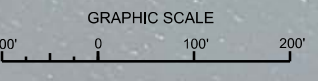
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JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

San Juan Harbor
San Juan, Puerto Rico
Hydrographic Exam Survey FY20
30 Thru 56-Foot Project
Index, Location and Vicinity
MAP

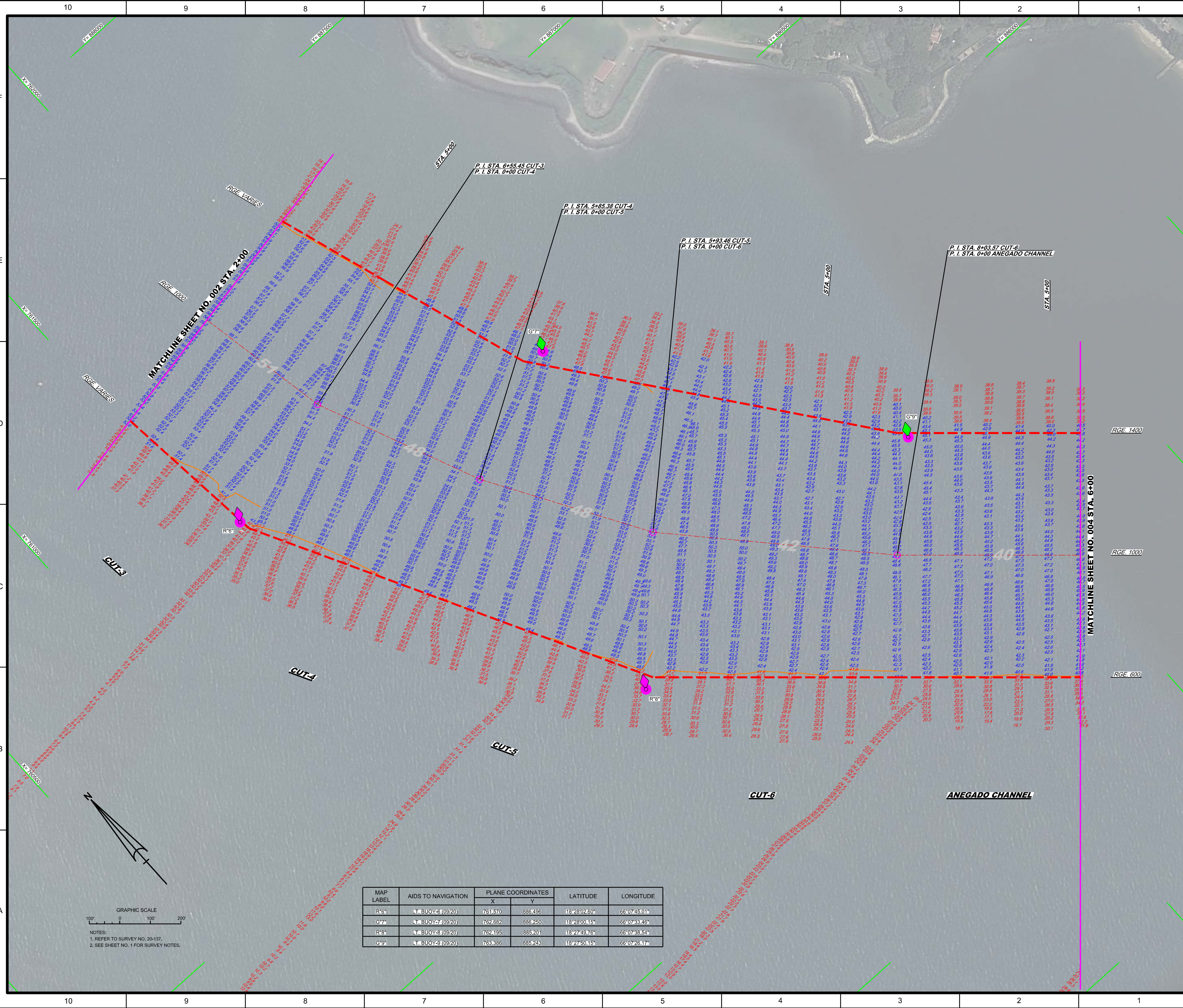
Scale: AS SHOWN
Drawing no. 1
SHEET 01 OF 17



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R2a	BUOY-2 (920)	760.979	887.885	18°28'16.39"	66°07'51.12"
G3a	BUOY-3 (920)	762.837	888.039	18°28'17.89"	66°07'37.01"
R4a	BUOY-4 (920)	761.444	887.281	18°28'10.89"	66°07'46.30"
G5a	BUOY-5 (920)	762.240	887.324	18°28'10.80"	66°07'38.03"



NOTES:
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2. SEE SHEET NO. 1 FOR SURVEY NOTES.



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R6	LT BUOY4 (09/20)	761.570	886.496	18°28'02.60"	66°07'45.01"
G7	LT BUOY2 (09/20)	762.682	886.260	18°28'00.15"	66°07'43.46"
R8	LT BUOY3 (09/20)	762.195	885.201	18°27'49.76"	66°07'38.54"
G9	LT BUOY9 (09/20)	763.886	885.243	18°27'50.15"	66°07'26.17"

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R*10*	LT. BUOY-10 (09/20)	764.151	883.462	18°27'32.48"	66°07'18.25"
G*11*	LT. BUOY-11 (09/20)	765.722	883.233	18°27'30.19"	66°07'01.94"

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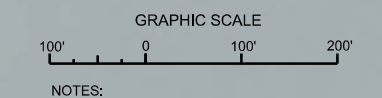
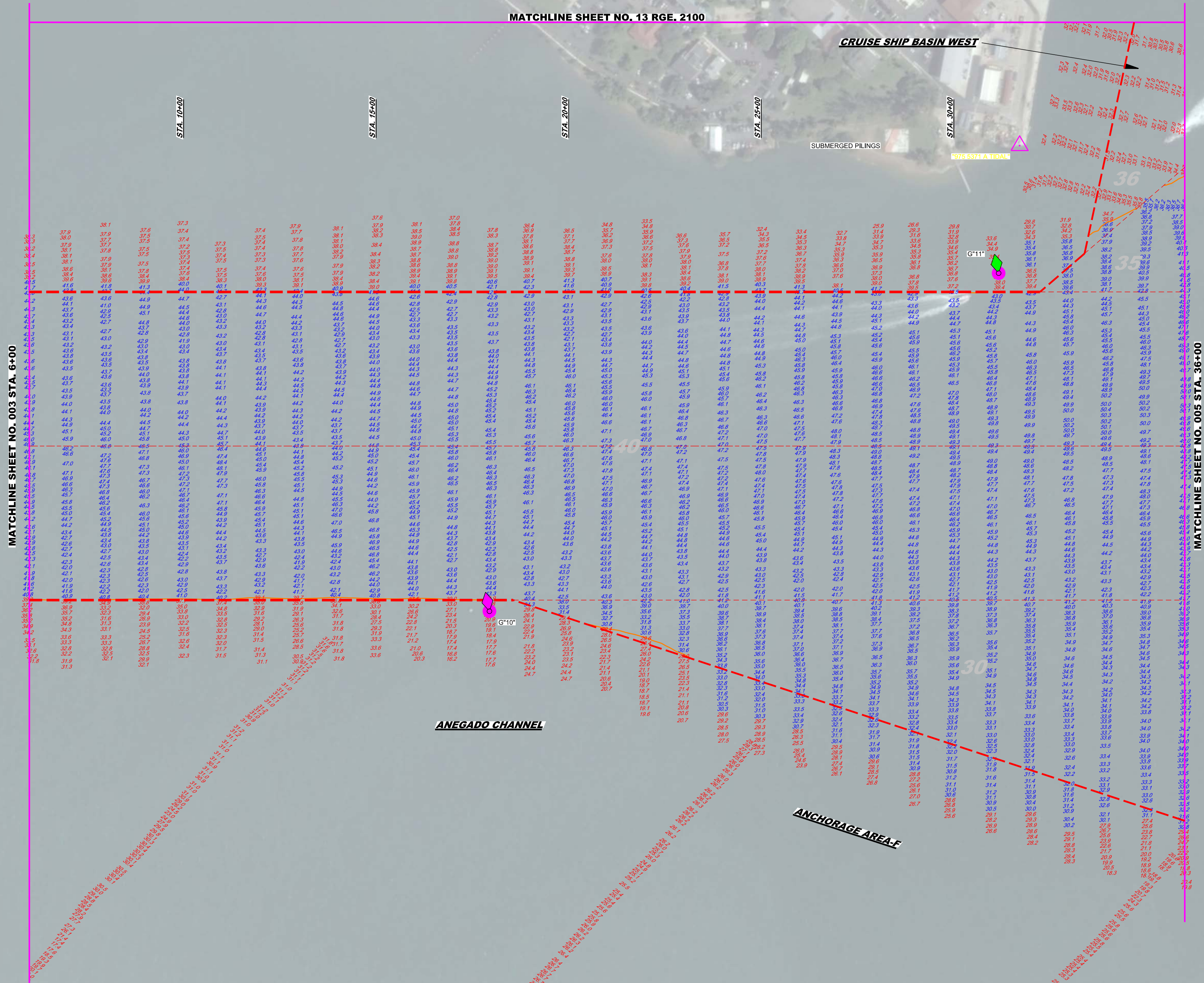
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JACKSONVILLE, FLORIDA

Scale: AS SHOWN

Drawing no. **4**

SHEET 04 OF 17



NOTES:
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San Juan Harbor
San Juan, Puerto Rico

**HYDROGRAPHIC EXAM SURVEY FY20
30 THRU 56-FOOT PROJECT**

STA. 6+00 OUT-3 THRU STA. 36+00 ANEGADO CHANNEL

PLAN

Scale: AS SHOWN

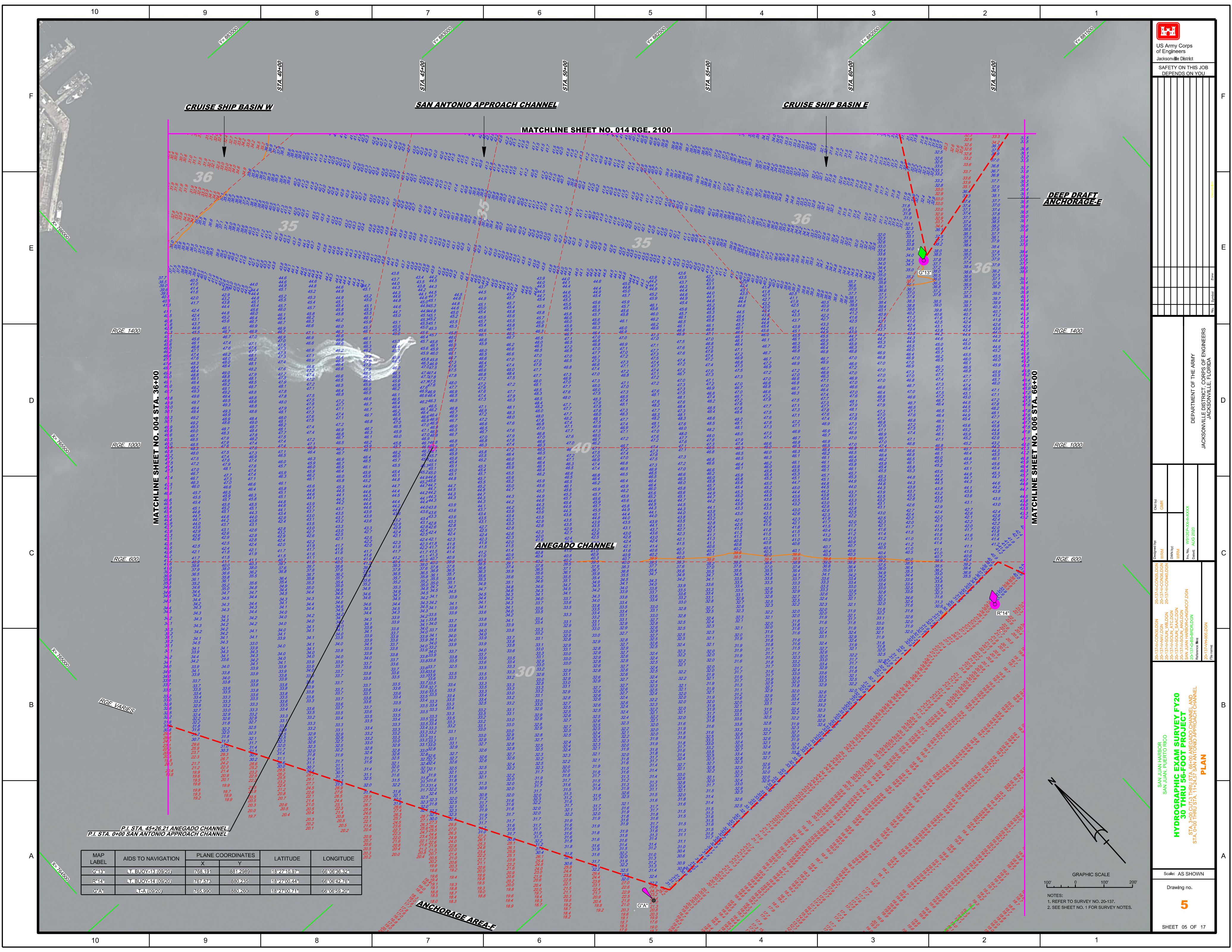
Drawing no. **4**

SHEET 04 OF 17

1	2	3	4	5	6	7	8	9	10
A	B	C	D	E	F				

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Scale: AS SHOWN
Drawing No.
5



CRUISE SHIP BASIN W SAN ANTONIO APPROACH CHANNEL CRUISE SHIP BASIN E

MATCHLINE SHEET NO. 014 RGE. 2100

DEEP DRAFT ANCHORAGE

ANEGADO CHANNEL

ANCHORAGE AREA

RGE. 1400

RGE. 1400

RGE. 1000

RGE. 1000

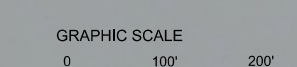
RGE. 600

RGE. 600

RGE. VARIES

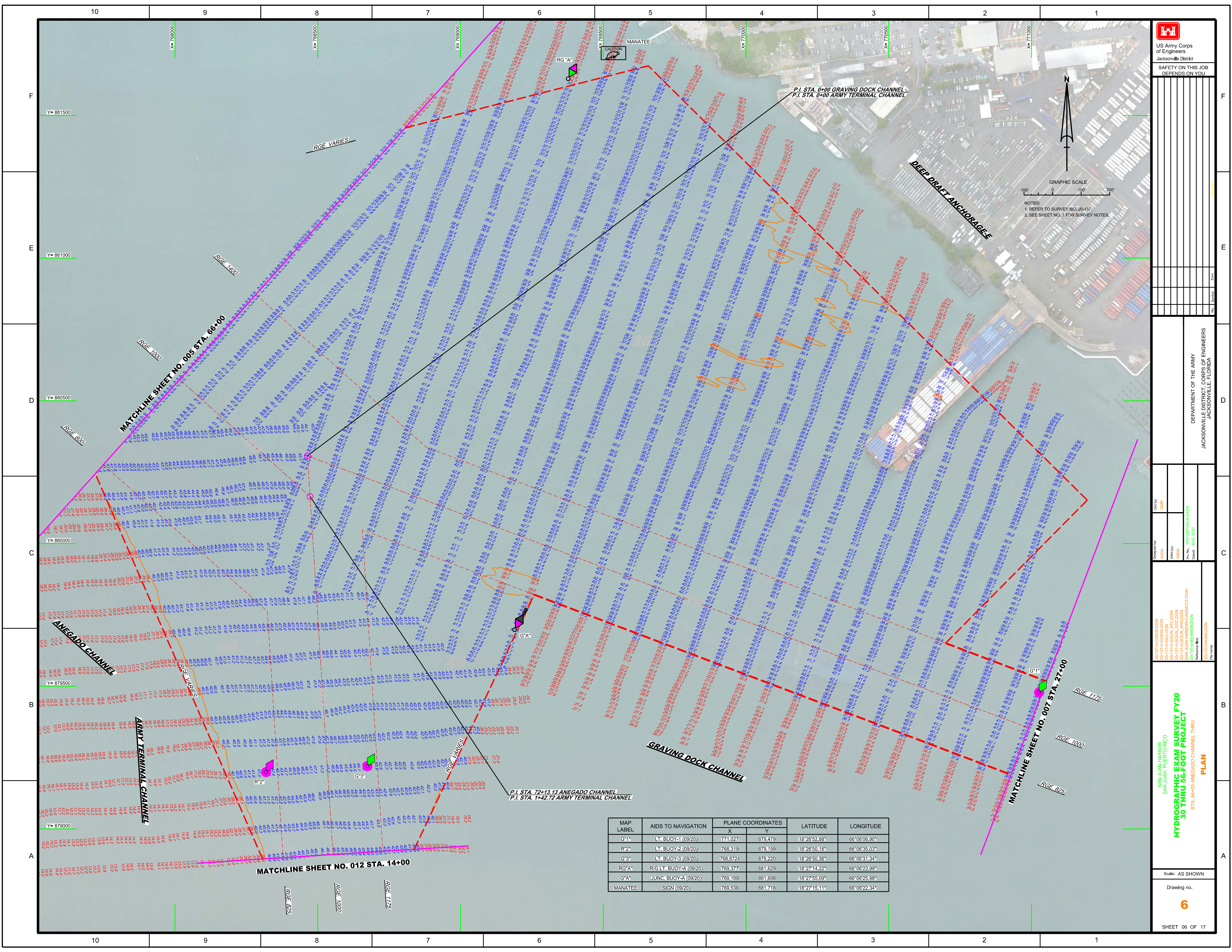
P.I. STA. 45+26.21 ANEGADO CHANNEL
P.I. STA. 0+00 SAN ANTONIO APPROACH CHANNEL

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G-13	LT BUOY 418 (09/20)	768.191	881.2985	18°27'40.97"	68°08'36.32"
R-14	LT BUOY 414 (09/20)	767.576	880.245	18°27'00.24"	68°08'24.76"
G-14	LT A (09/20)	765.950	880.260	18°27'00.71"	68°08'59.20"



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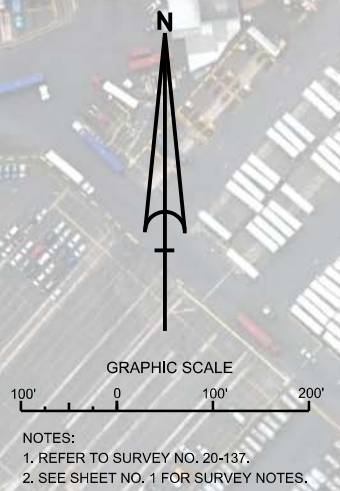
**HYDROGRAPHIC EXAM SURVEY FY20
30 THRU 56-FOOT PROJECT**
STA. 3+00 CUTS 3 THRU STA. 86+00 ANEGADO CHANNEL AND
STA. 0+00 THRU STA. 112+50 SAN ANTONIO APPROACH CHANNEL
PLAN



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JACKSONVILLE, FLORIDA



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G1*	LT. BUOY-1 (09/20)	771,027	879,479	18°26'52.88"	66°06'06.90"
R2*	LT. BUOY-2 (09/20)	768,319	879,199	18°26'50.16"	66°06'35.03"
G3*	LT. BUOY-3 (09/20)	768,6724	879,220	18°26'50.36"	66°06'31.34"
RG*A	R/G LT. BUOY-A (09/20)	769,377	881,629	18°27'14.22"	66°06'23.99"
G*A	JUNC. BUOY-A (09/20)	769,189	881,698	18°27'55.09"	66°06'25.98"
MANATEE	SIGN (09/20)	769,536	881,718	18°27'15.11"	66°06'22.34"

San Juan Harbor
San Juan, Puerto Rico

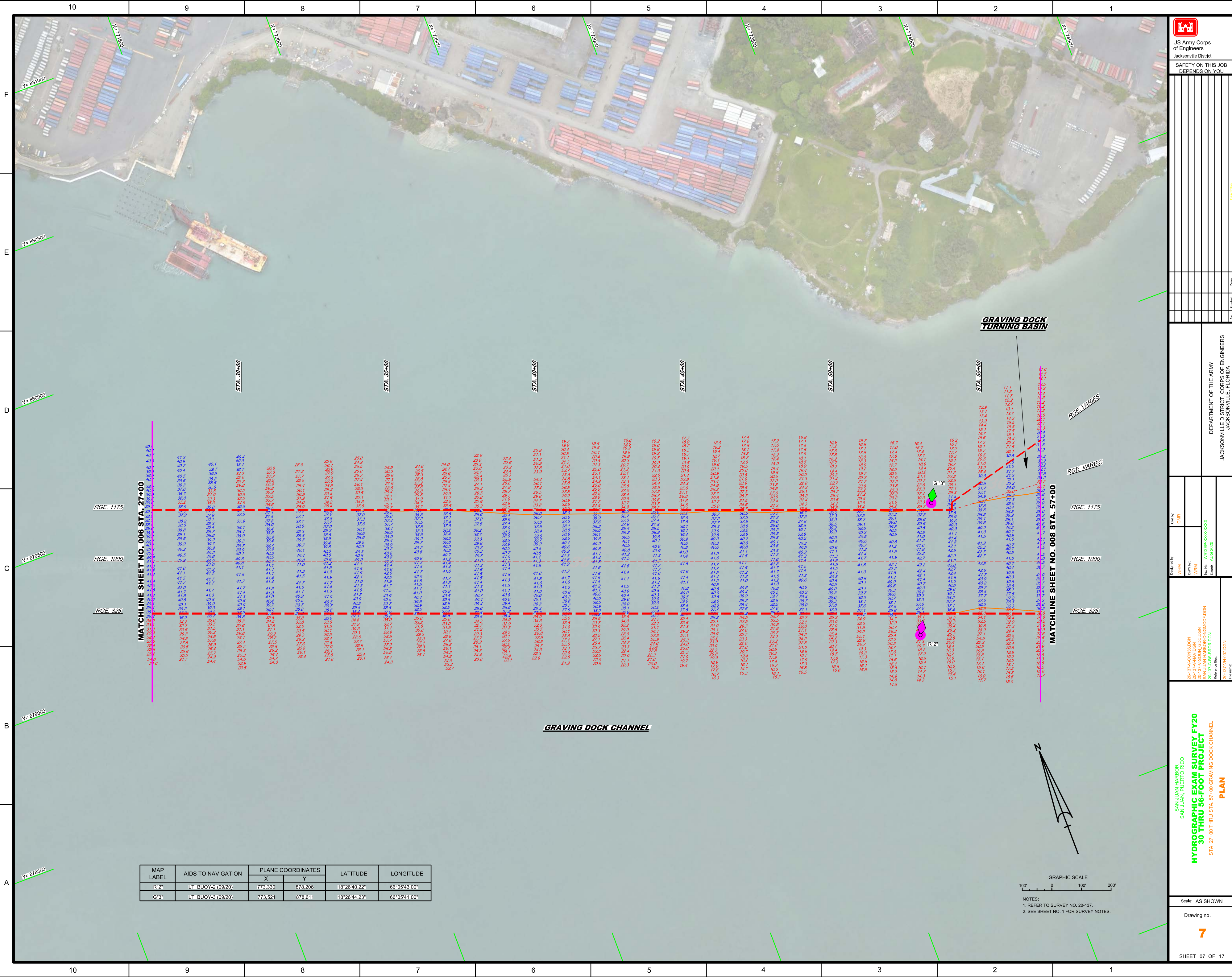
HYDROGRAPHIC EXAM SURVEY FY20
30 THRU 56-FOOT PROJECT
STA. 66+00 ANEGADO CHANNEL THRU

PLAN

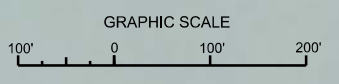
Scale: AS SHOWN

Drawing no. **6**

SHEET 06 OF 17



MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R-2	LT. BUOY-2 (09/20)	773.330	878.206	18°26'40.22"	66°05'43.00"
G-3	LT. BUOY-3 (09/20)	773.521	878.611	18°26'44.23"	66°05'41.00"



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