

SAN JUAN HARBOR SAN JUAN, PUERTO RICO HYDROGRAPHIC EXAM SURVEY FY21 30 THRU 56-FOOT PROJECT

SURVEY NOTES

- REFER TO SURVEY NO. 21-162.
- 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 5200, 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 GAGE 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	05 MAY 2021	BERTHING AREA
SB-34	06 MAY 2021	SAN ANTONIO APPROACH CH, BULKHEADS
SB-34	07 MAY 2021	BAR CUT-1, 3 THRU 6, ANEGADO CH.
SB-34	08 MAY 2021	BAR CUT-2, ANEGADO CHANNEL
SB-34	10 MAY 2021	ANEGADO CH., SAN ANTONIO CH., WEST BAY
SB-34	11 MAY 2021	GRAVING DOCK CH., PUERTO NUEVO TURNING BASIN, PUERTO NUEVO CH.
SB-34	12 MAY 2021	ARMY TERMINAL CHANNEL, PUERTO NUEVO CHANNEL, MARINA

LEGEND

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

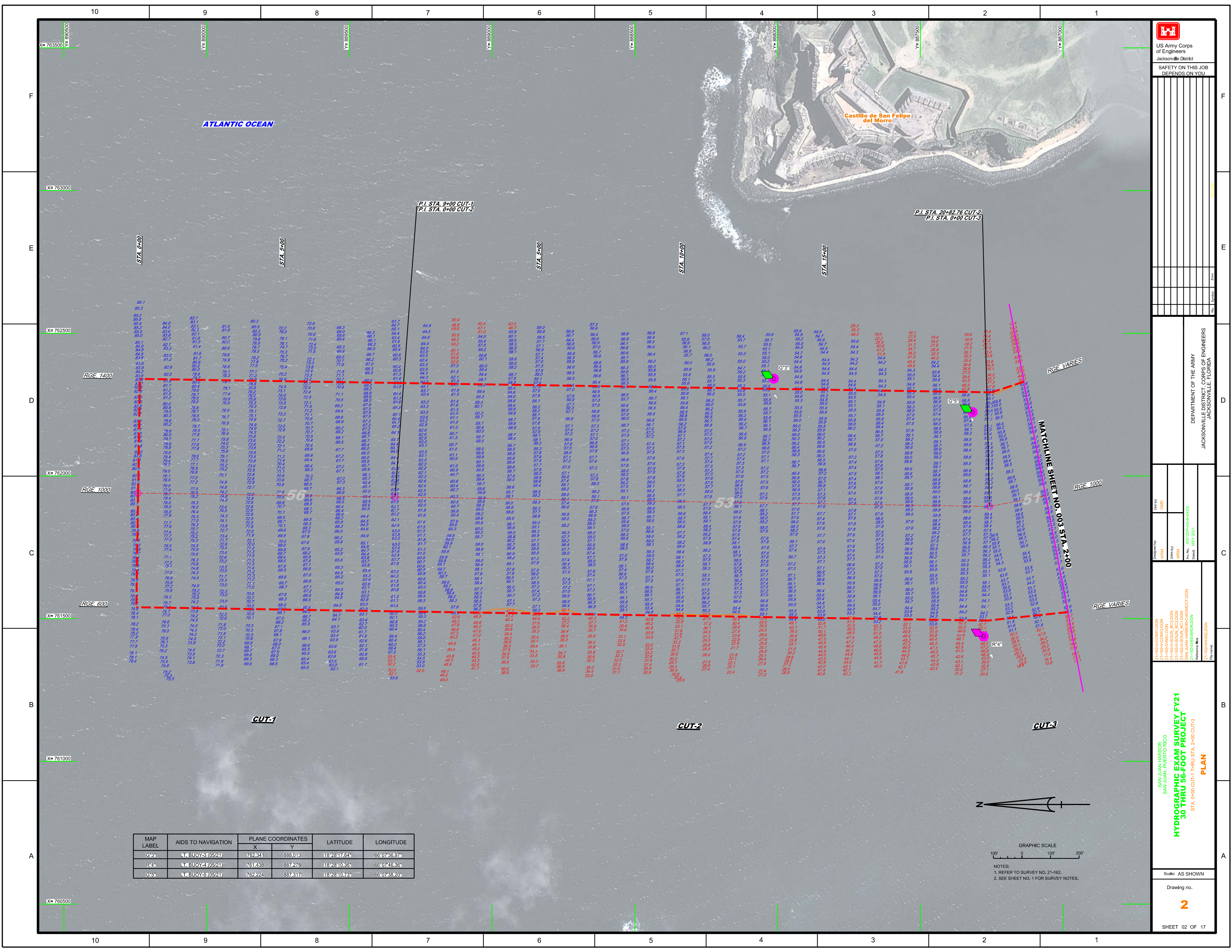
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Jacksonville District
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JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

San Juan Harbor
San Juan, Puerto Rico
Hydrographic Exam Survey FY21
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		
G*3	LT. BUOY-3 (0521)	762,341	888,013	18°28'17.64"	66°07'36.97"
R*4	LT. BUOY-4 (0521)	761,438	887,278	18°28'10.85"	66°07'46.36"
G*5	LT. BUOY-5 (0521)	762,224	887,317	18°28'10.73"	66°07'38.20"



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

Scale: AS SHOWN

Drawing no.

10 9 8 7 6 5 4 3 2 1

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R6	LT BUOY 28 (0521)	761.574	886.503	18°28'02.67"	66°07'44.96"
G7	LT BUOY 27 (0521)	762.681	886.272	18°28'00.37"	66°07'33.47"
R8	LT BUOY 28 (0521)	762.203	885.212	18°27'49.86"	66°07'38.46"
G9	LT BUOY 29 (0521)	763.879	885.270	18°27'50.42"	66°07'26.23"



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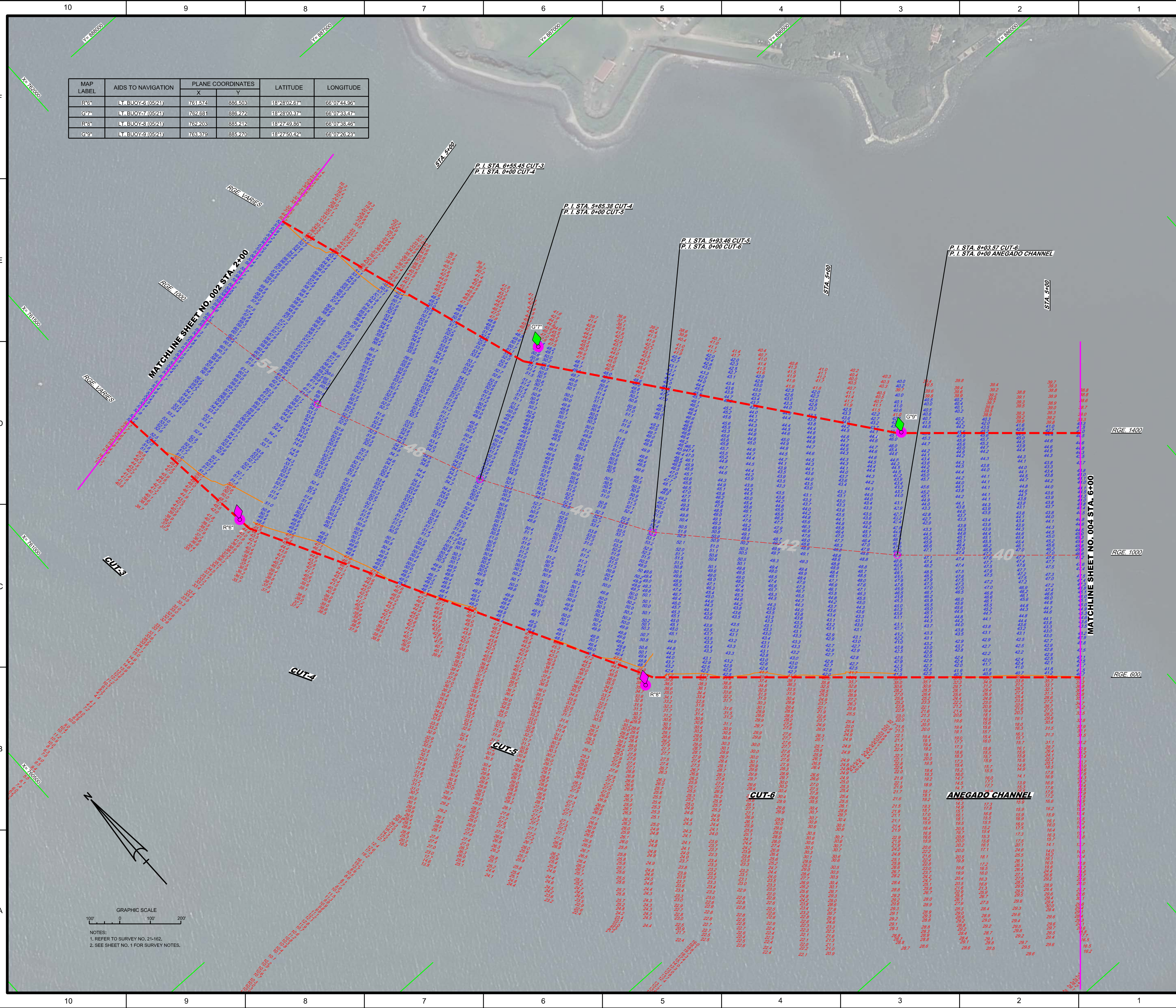
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

Client: GHR
Designed by: WRM
Checked by: WRM
Date: MAY 2021

SAN JUAN HARBOR
SAN JUAN, PUERTO RICO
HYDROGRAPHIC EXAM SURVEY FY21
30 THRU 56-FOOT PROJECT
STA. 2+00 CUT-3 THRU STA. 8+00 ANEGADO CHANNEL

Scale: AS SHOWN
Drawing no. 3

SHEET 03 OF 17



GRAPHIC SCALE
0 100 200

NOTES:
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10 9 8 7 6 5 4 3 2 1

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R'10"	LT. BUOY-10 (0521)	764,127	883,422	18°27'32.08"	66°07'18.50"
G'11"	LT. BUOY-11 (0521)	765,701	883,239	18°27'30.25"	66°07'02.15"

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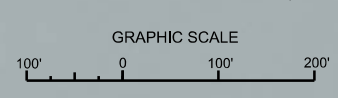
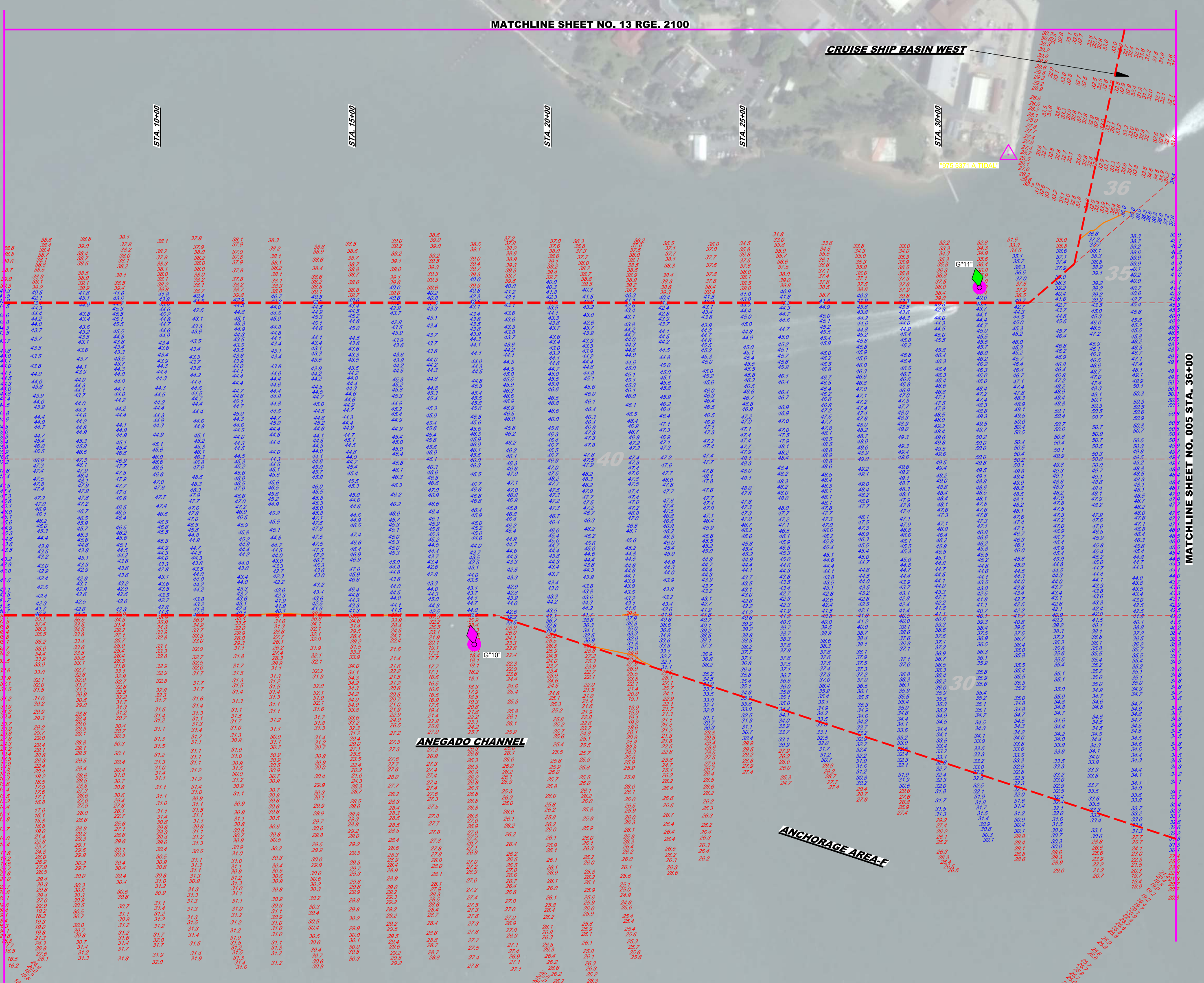
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Scale: AS SHOWN

Drawing no. **4**

SHEET 04 OF 17



NOTES:
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San Juan Harbor
San Juan, Puerto Rico

HYDROGRAPHIC EXAM SURVEY FY21
30 THRU 56-FOOT PROJECT

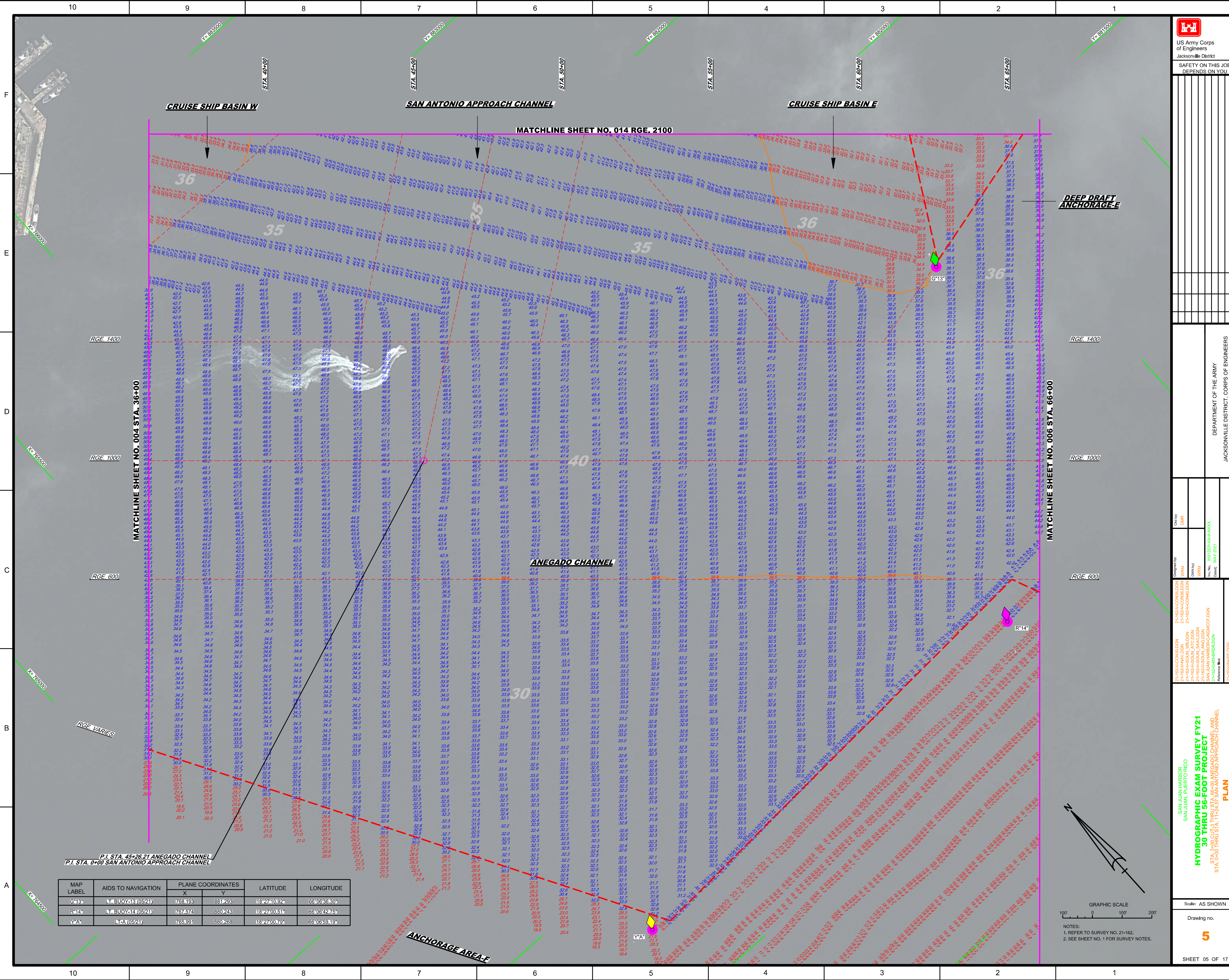
STA. 6+00 OUT-3 THRU STA. 36+00 ANEGADO CHANNEL

PLAN

Scale: AS SHOWN

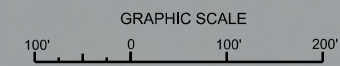
Drawing no. **4**

SHEET 04 OF 17

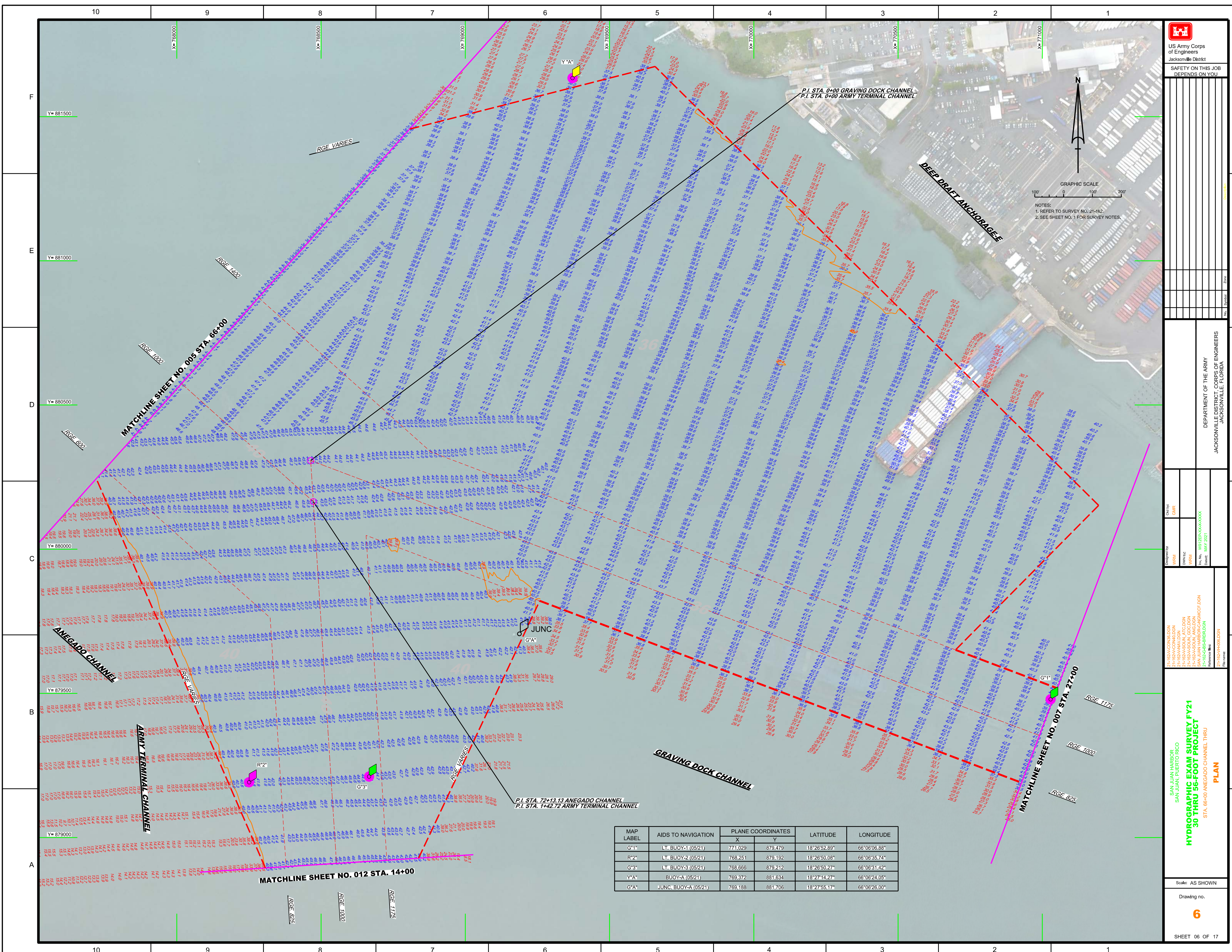


P.I. STA. 45+26.21 ANEGADO CHANNEL
P.I. STA. 0+00 SAN ANTONIO APPROACH CHANNEL

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
C-13	LT BUOY 18 (05/21)	768193	881293	18°21'09.2"	68°08'36.30"
R-14	RB BUOY 14 (05/21)	767574	880243	18°21'00.51"	68°08'24.75"
Y-1	LA (05/21)	765991	880268	18°21'00.79"	68°08'50.19"



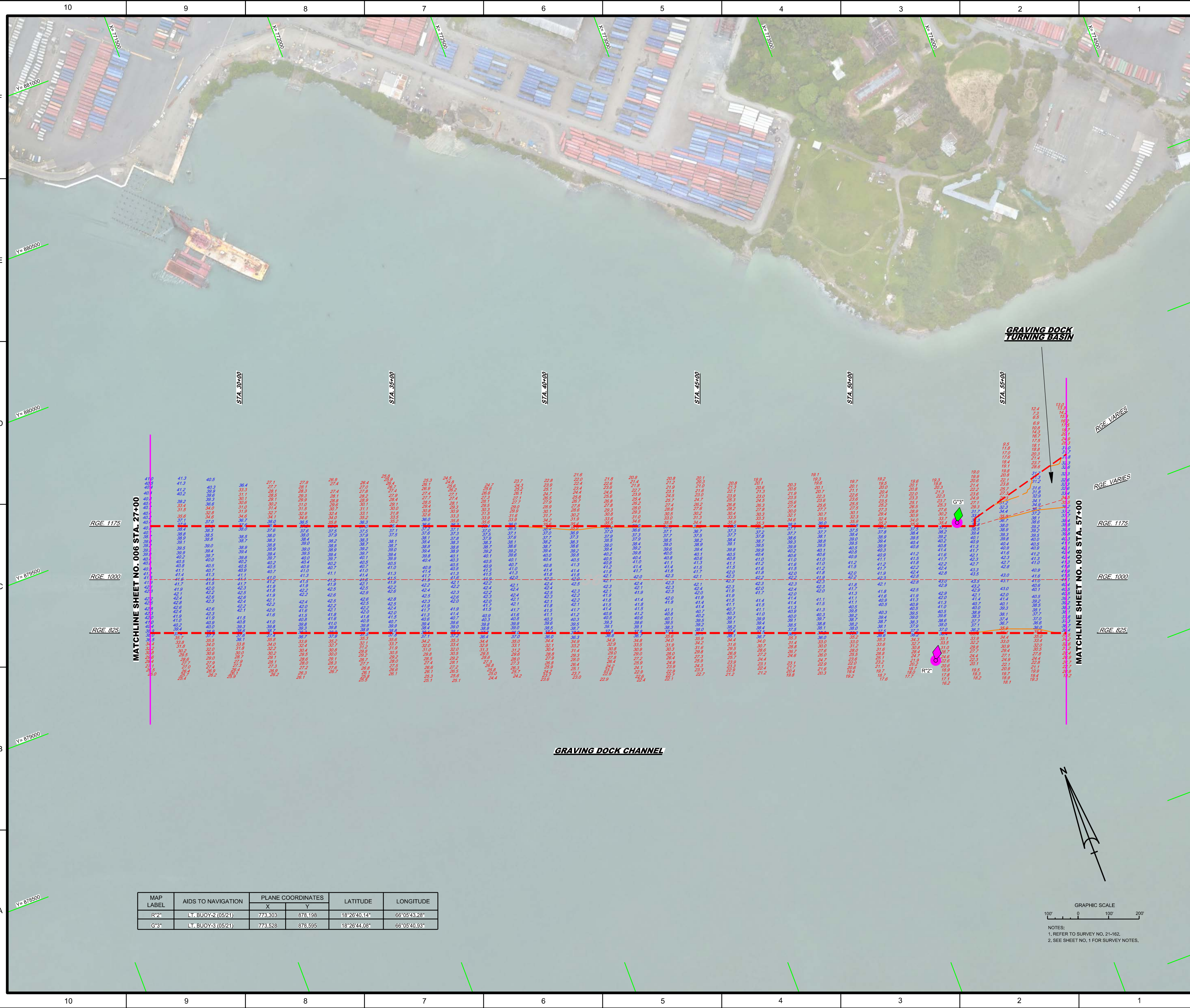
NOTES:
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GRAPHIC SCALE
0 100' 200'

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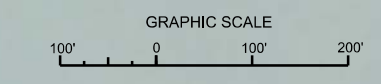
MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G*1	LT. BUOY-1 (05/21)	771,029	879,479	18°26'52.89"	66°06'06.88"
R*2	LT. BUOY-2 (05/21)	768,251	879,192	18°26'50.08"	66°06'35.74"
G*3	LT. BUOY-3 (05/21)	768,666	879,212	18°26'50.27"	66°06'31.42"
Y*A	BUOY-A (05/21)	769,372	881,634	18°27'14.27"	66°06'24.05"
G*A	JUNC. BUOY-A (05/21)	769,188	881,706	18°27'55.17"	66°06'26.00"



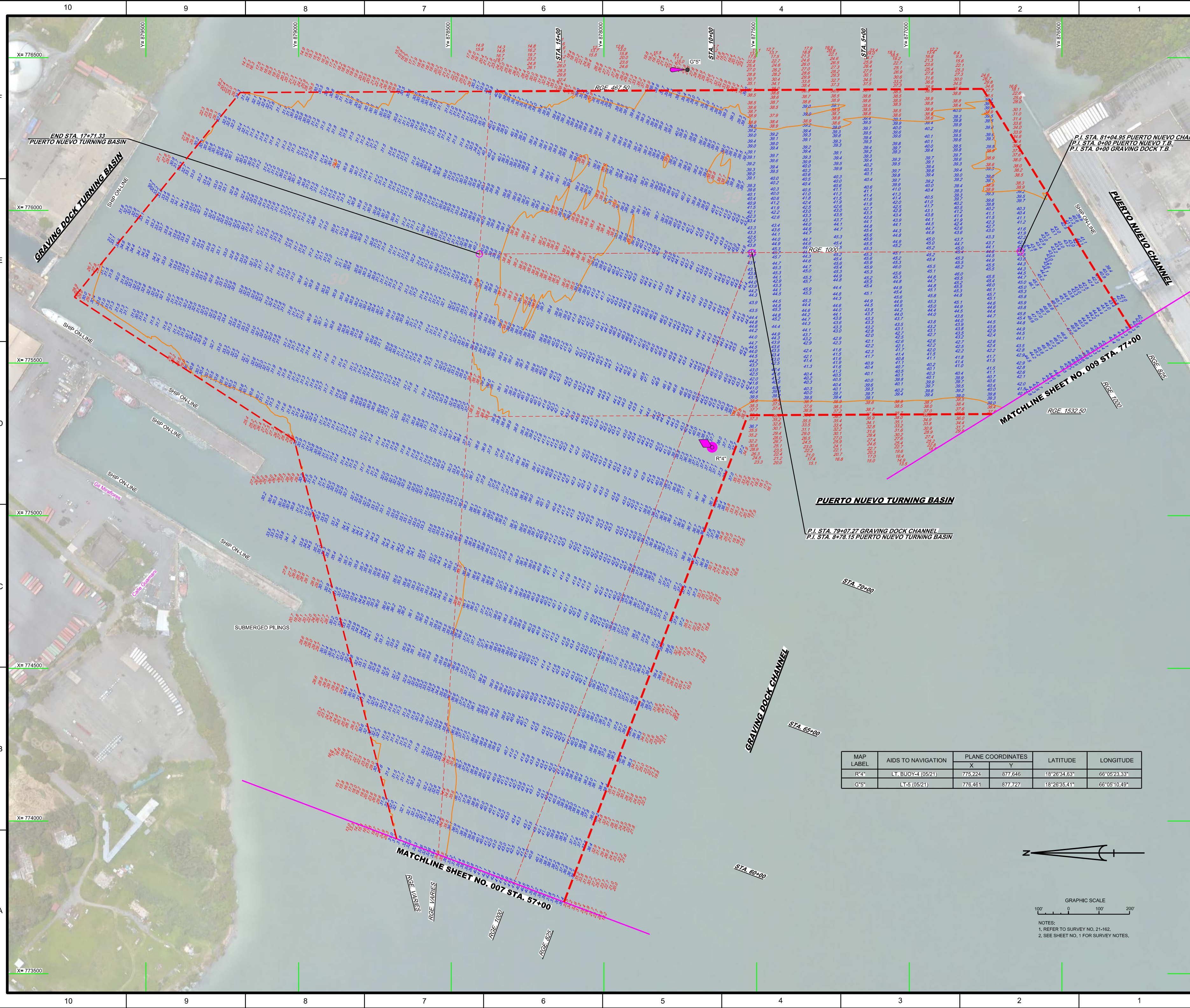
MATCHLINE SHEET NO. 006 STA. 27+00

MATCHLINE SHEET NO. 008 STA. 57+00

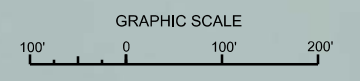
MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R"2"	LT. BUOY-2 (05/21)	773.303	878.198	18°26'40.14"	66°05'43.28"
G"3"	LT. BUOY-3 (05/21)	773.528	878.595	18°26'44.08"	66°05'40.93"



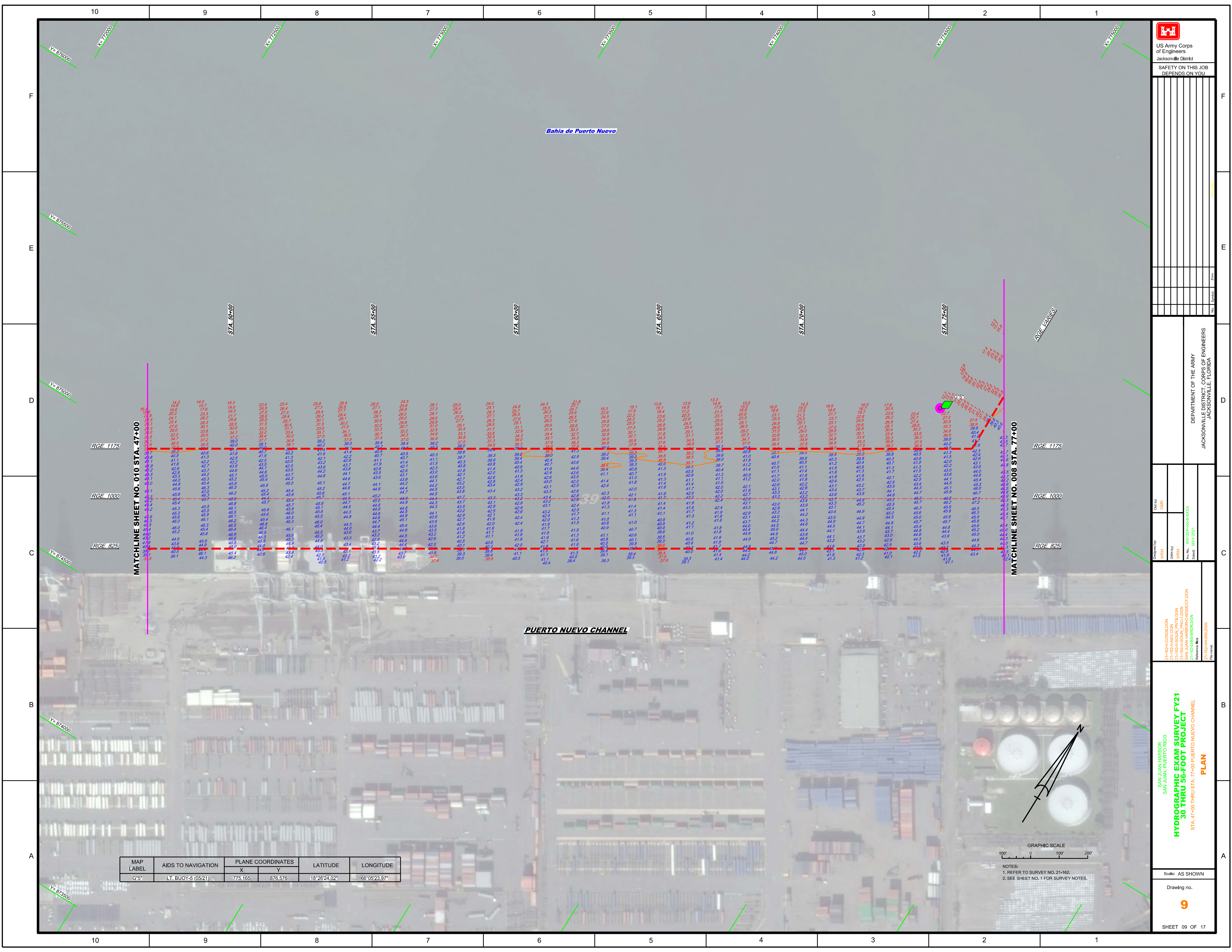
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MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R4	LT. BUOY-4 (0521)	775.224	877.646	18°26'34.63"	66°05'23.33"
G5	LT-5 (0521)	776.461	877.727	18°26'35.41"	66°05'10.49"



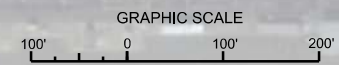
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Bahia de Puerto Nuevo

PUERTO NUEVO CHANNEL

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G*5	LT. BUOY-5 (05/21)	775.165	876.576	18°26'24.02"	66°05'23.97"



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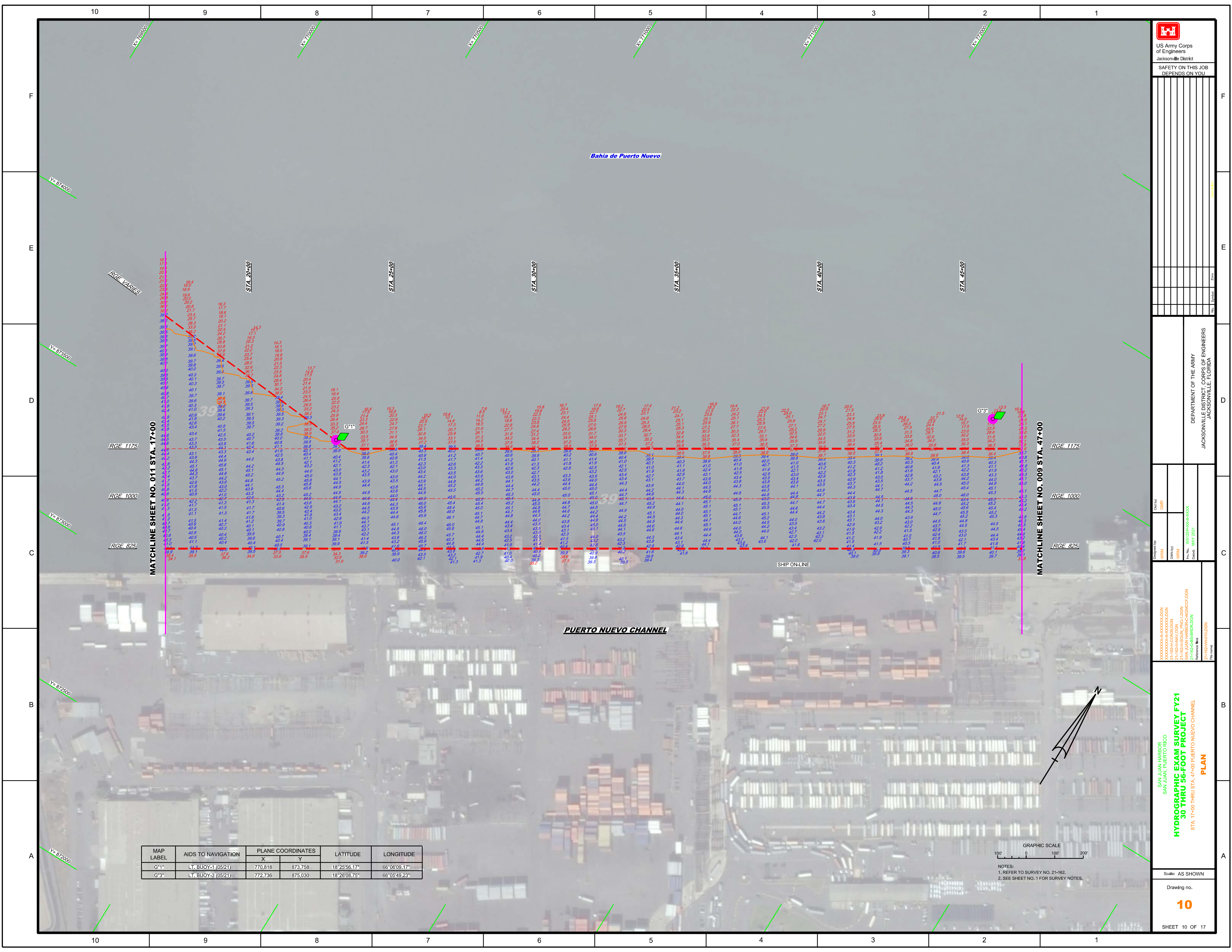
Checked By: GHR
 Drawn By: WRM
 Date: MAY 2021

Project: SAN JUAN HARBOR EXAM SURVEY FY21
 30 THRU 56-FOOT PROJECT
 STA. 47+00 THRU STA. 77+00 PUERTO NUEVO CHANNEL
PLAN

Scale: AS SHOWN

Drawing No. **9**

SHEET 09 OF 17



Bahia de Puerto Nuevo

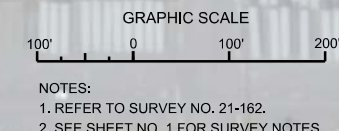
PUERTO NUEVO CHANNEL

SHIP-ON-LINE

MATCHLINE SHEET NO. 011 STA. 17+00

MATCHLINE SHEET NO. 009 STA. 47+00

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G1*	LT. BUOY-1 (05/21)	770.818	873.758	18°25'56.17"	66°06'09.17"
G3*	LT. BUOY-3 (05/21)	772.736	875.030	18°26'08.75"	66°05'49.23"



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San Juan Harbor
San Juan, Puerto Rico

**HYDROGRAPHIC EXAM SURVEY FY21
30 THRU 56-FOOT PROJECT**

STA. 17+00 THRU STA. 47+00 PUERTO NUEVO CHANNEL

PLAN

Scale: AS SHOWN

Drawing no.
10

SHEET 10 OF 17