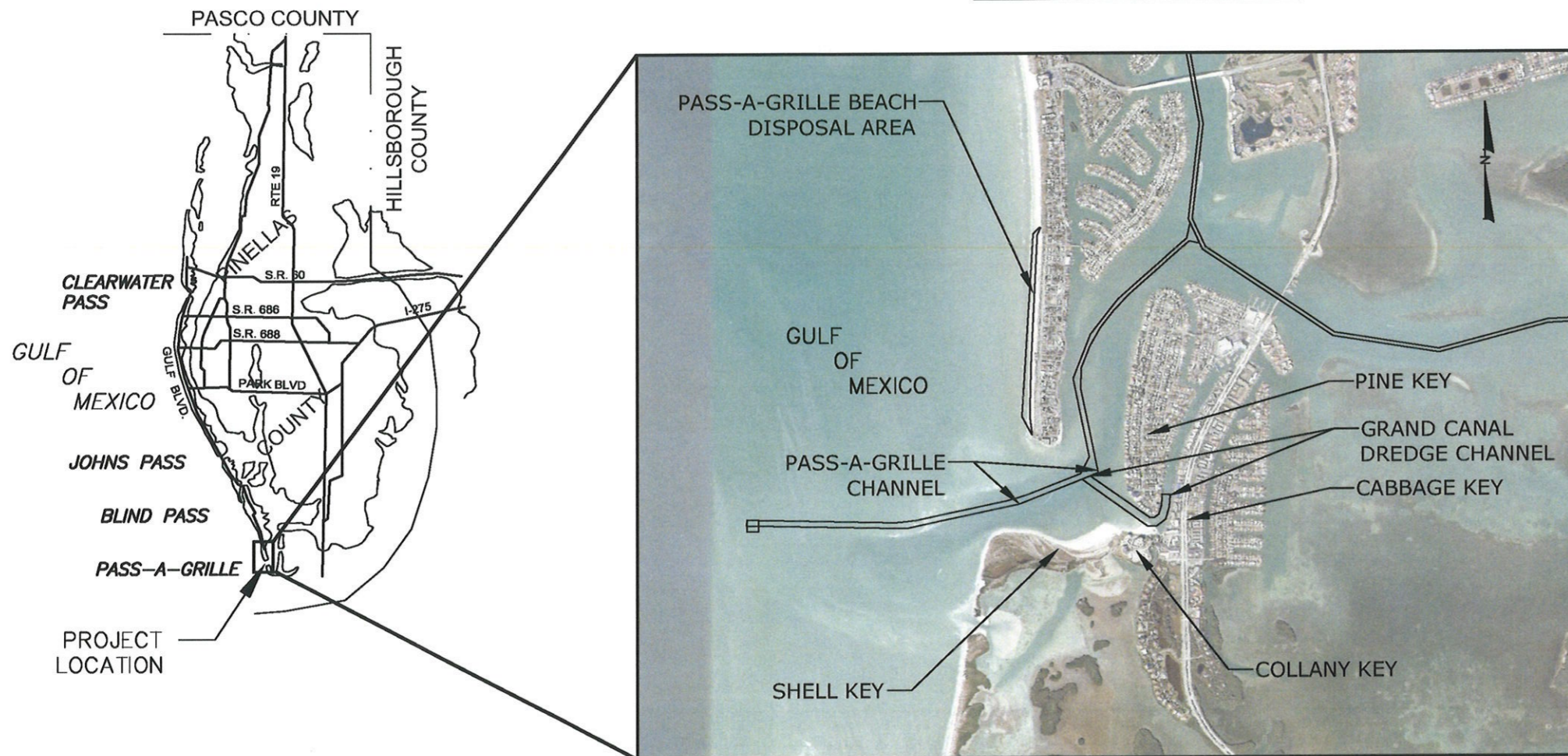




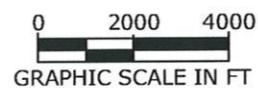
GRAND CANAL MAINTENANCE DREDGING PROJECT AND LONG KEY PASS-A-GRILLE SEGMENT BEACH NOURISHMENT PROJECT, PINELLAS COUNTY, FLORIDA

PID No. 004607A

PID No. 002573A



SECTION 19 TOWNSHIP 32 SOUTH, RANGE 16 EAST
TALLAHASSEE PRINCIPAL MERIDIAN FLORIDA



NOTE:
WORK CONDUCTED UNDER FDEP PERMIT NO. 0221569-020-JM AND
USACE PERMIT No. SAJ-2020-03722.

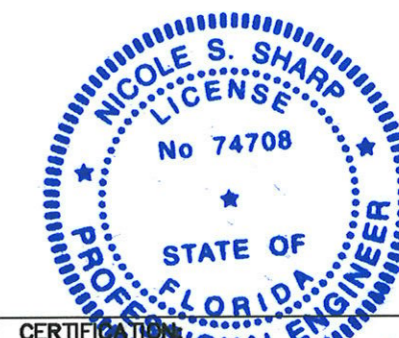
| PINELLAS COUNTY COMMISSION | |
|----------------------------|----------------------------|
| JANET C. LONG | DISTRICT 1 |
| BRIAN SCOTT | DISTRICT 2 2024 VICE CHAIR |
| CHARLIE JUSTICE | DISTRICT 3 |
| DAVE EGGERS | DISTRICT 4 |
| CHRIS LATVALA | DISTRICT 5 |
| KATHLEEN PETERS | DISTRICT 6 2024 CHAIR |
| RENE' FLOWERS | DISTRICT 7 |

| SHEET INDEX | |
|-------------|--|
| NO. | TITLE |
| 1. | COVER SHEET |
| 2. | SURVEY CONTROL DATA |
| 3. | HYDROGRAPHIC AND TOPOGRAPHIC SURVEY |
| 4. | HYDROGRAPHIC AND TOPOGRAPHIC SURVEY |
| 5. | GRAND CANAL DREDGE AREA |
| 6. | GRAND CANAL DREDGE AREA |
| 7. | DREDGE AREA CROSS-SECTIONS |
| 8. | PASS-A-GRILLE AREA OVERVIEW |
| 9. | PASS-A-GRILLE DISPOSAL AREA 1 OF 2 |
| 10. | PASS-A-GRILLE DISPOSAL AREA 2 OF 2 |
| 11. | PASS-A-GRILLE DISPOSAL AREA CROSS-SECTIONS |
| 12. | PASS-A-GRILLE BORROW AREA LIMITS |
| 13. | PASS-A-GRILLE CROSS SECTION |

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FAX (561) 391-9116
C.O.A. FL. #9317
C.O.A. LA. #2531



CERTIFICATION
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE
WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP P.E. NO. 74708

4/30/24
DATE

P:\Projects\2024\24003_Surf_Key_Dred_Canal - Design Permitting Plans and Specs\CAD\CONSTRUCTION-2024\24003-24003-24003.dwg - Apr 23, 2024 @ 12:27pm - Julia Bennett

| BEACH DISPOSAL CONSTRUCTION BASELINE TABLE | | |
|--|------------|-----------|
| STATION | NORTHING | EASTING |
| 0+00 | 1218277.21 | 417186.47 |
| 1+00 | 1218377.11 | 417190.90 |
| 2+00 | 1218477.01 | 417195.32 |
| 3+00 | 1218576.91 | 417199.75 |
| 4+00 | 1218676.81 | 417204.18 |
| 5+00 | 1218776.71 | 417208.61 |
| 6+00 | 1218876.65 | 417212.19 |
| 7+00 | 1218976.61 | 417214.93 |
| 8+00 | 1219076.57 | 417217.67 |
| 9+00 | 1219176.54 | 417220.41 |
| 10+00 | 1219276.50 | 417223.16 |
| 11+00 | 1219376.46 | 417225.90 |
| 12+00 | 1219476.42 | 417228.64 |
| 13+00 | 1219576.39 | 417231.38 |
| 14+00 | 1219676.35 | 417234.12 |
| 15+00 | 1219776.31 | 417236.86 |
| 16+00 | 1219876.27 | 417239.60 |
| 17+00 | 1219976.23 | 417242.34 |
| 18+00 | 1220076.20 | 417245.09 |
| 19+00 | 1220176.16 | 417247.83 |
| 20+00 | 1220276.12 | 417250.57 |
| 21+00 | 1220375.99 | 417255.70 |
| 22+00 | 1220475.86 | 417260.86 |
| 23+00 | 1220575.72 | 417266.01 |
| 24+00 | 1220675.59 | 417271.17 |
| 25+00 | 1220775.46 | 417276.32 |
| 26+00 | 1220875.33 | 417281.48 |
| 27+00 | 1220975.19 | 417286.63 |

| BEACH DISPOSAL CONSTRUCTION BASELINE TABLE | | |
|--|------------|-----------|
| STATION | NORTHING | EASTING |
| 28+00 | 1221075.06 | 417291.78 |
| 29+00 | 1221174.93 | 417296.94 |
| 30+00 | 1221274.79 | 417302.09 |
| 31+00 | 1221374.66 | 417307.25 |
| 32+00 | 1221474.53 | 417312.40 |
| 33+00 | 1221574.39 | 417317.55 |
| 34+00 | 1221674.26 | 417322.71 |
| 35+00 | 1221774.13 | 417327.86 |
| 36+00 | 1221873.99 | 417333.07 |
| 37+00 | 1221973.86 | 417338.28 |
| 38+00 | 1222073.72 | 417343.48 |
| 39+00 | 1222173.59 | 417348.69 |
| 40+00 | 1222273.45 | 417353.89 |
| 41+00 | 1222373.32 | 417359.10 |
| 42+00 | 1222473.18 | 417364.30 |
| 43+00 | 1222573.04 | 417369.51 |
| 44+00 | 1222672.91 | 417374.71 |
| 45+00 | 1222772.78 | 417379.78 |
| 46+00 | 1222872.65 | 417384.85 |
| 47+00 | 1222972.52 | 417389.91 |
| 48+00 | 1223072.40 | 417394.97 |
| 49+00 | 1223172.27 | 417400.03 |
| 50+00 | 1223272.14 | 417405.09 |
| 51+00 | 1223372.01 | 417410.15 |
| 52+00 | 1223472.17 | 417415.51 |
| 53+00 | 1223572.01 | 417421.19 |
| 54+00 | 1223671.91 | 417425.62 |
| 55+00 | 1223771.81 | 417430.04 |

| CHANNEL CONSTRUCTION BASELINE TABLE | | |
|-------------------------------------|------------|-----------|
| STATION | NORTHING | EASTING |
| 0 + 00 | 1217215.32 | 418593.25 |
| 1 + 00 | 1217157.93 | 418675.14 |
| 2 + 00 | 1217100.55 | 418757.03 |
| 3 + 00 | 1217043.16 | 418838.93 |
| 4 + 00 | 1216985.77 | 418920.82 |
| 5 + 00 | 1216928.38 | 419002.71 |
| 6 + 00 | 1216870.99 | 419084.61 |
| 7 + 00 | 1216813.60 | 419166.50 |
| 8 + 00 | 1216756.22 | 419248.40 |
| 9 + 00 | 1216698.83 | 419330.29 |
| 10 + 00 | 1216641.44 | 419412.18 |
| 11 + 00 | 1216584.05 | 419494.08 |
| 12 + 00 | 1216526.66 | 419575.97 |
| 13 + 00 | 1216469.27 | 419657.86 |
| 14 + 00 | 1216411.89 | 419739.76 |
| 15 + 00 | 1216354.50 | 419821.65 |
| 16 + 00 | 1216297.11 | 419903.55 |
| 17 + 00 | 1216239.72 | 419985.44 |
| 18 + 00 | 1216182.33 | 420067.33 |
| 19 + 00 | 1216124.94 | 420149.23 |
| 20 + 00 | 1216067.56 | 420231.12 |

| CHANNEL CONSTRUCTION BASELINE TABLE | | |
|-------------------------------------|------------|-----------|
| STATION | NORTHING | EASTING |
| 21 + 00 | 1216016.08 | 420316.43 |
| 22 + 00 | 1216003.39 | 420415.01 |
| 23 + 00 | 1216015.49 | 420513.16 |
| 24 + 00 | 1216071.54 | 420595.81 |
| 25 + 00 | 1226717.50 | 417459.50 |
| 26 + 00 | 1225686.40 | 417550.60 |
| 27 + 00 | 1224692.10 | 417563.30 |
| 28 + 00 | 1223659.30 | 417550.10 |
| 29 + 00 | 1222677.10 | 417487.30 |
| 30 + 00 | 1221772.00 | 417432.10 |
| 31 + 00 | 1220776.30 | 417371.10 |
| 32 + 00 | 1219774.80 | 417398.00 |
| 33 + 00 | 1218825.60 | 417412.90 |
| 34 + 00 | 1218269.30 | 417364.80 |
| 35 + 00 | 1216133.00 | 420674.39 |
| 36 + 00 | 1216223.52 | 420714.83 |
| 37 + 00 | 1216318.80 | 420745.17 |
| 38 + 00 | 1216414.32 | 420774.69 |
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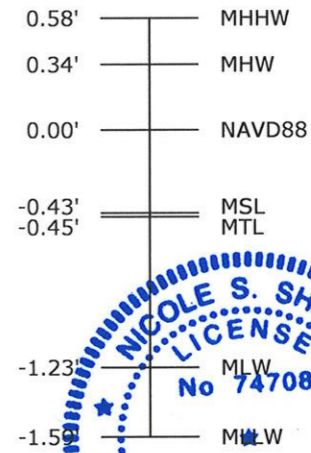
| CHANNEL CONSTRUCTION INFLECTION POINTS | | |
|--|------------|-----------|
| STATION | NORTHING | EASTING |
| POI-1 | 1217186.97 | 418633.78 |
| POI-2 | 1216005.35 | 420319.96 |
| POI-3 | 1216001.98 | 420498.46 |
| POI-4 | 1216137.39 | 420687.17 |
| POI-5 | 1216415.43 | 420775.72 |
| POI-6 | 1216694.10 | 420795.82 |

| PASS-A-GRILL BORROW AREA TABLE | | |
|--------------------------------|------------|-----------|
| NAME | NORTHING | EASTING |
| AA | 1217024.00 | 417391.00 |
| BB | 1216744.00 | 417500.00 |
| CC | 1216488.00 | 416841.00 |
| DD | 1215855.00 | 413837.00 |
| EE | 1215885.00 | 412248.00 |
| FF | 1215734.84 | 412245.16 |
| GG | 1215780.00 | 409846.00 |
| HH | 1215781.84 | 409551.18 |
| II | 1216235.00 | 409554.00 |
| JJ | 1216161.00 | 413526.00 |
| KK | 1216214.00 | 414085.00 |
| LL | 1216717.00 | 416474.00 |
| MM | 1216881.00 | 417024.00 |

| R-MONUMENT TABLE | | | |
|------------------|------------|-----------|---------|
| MONUMENT | NORTHING | EASTING | AZIMUTH |
| R-160 | 1223659.30 | 417550.10 | 270 |
| R-161 | 1222677.10 | 417487.30 | 270 |
| R-162 | 1221772.00 | 417432.10 | 275 |
| R-163 | 1220776.20 | 417371.10 | 275 |
| R-164 | 1219774.80 | 417398.00 | 270 |
| R-165 | 1218825.60 | 417412.90 | 270 |
| R-166 | 1218269.30 | 417364.80 | 270 |

| CHANNEL COORDINATE TABLE | | |
|--------------------------|------------|-----------|
| GC POINT | NORTHING | EASTING |
| a | 1216699.68 | 420721.22 |
| b | 1216688.89 | 420870.83 |
| c | 1216400.98 | 420850.05 |
| d | 1216090.77 | 420751.26 |
| e | 1215926.35 | 420522.12 |
| f | 1215930.66 | 420293.85 |
| g | 1217148.85 | 418536.58 |
| h | 1217215.60 | 418707.84 |
| i | 1216079.69 | 420346.43 |
| j | 1216077.27 | 420475.14 |
| k | 1216183.66 | 420623.42 |
| l | 1216429.54 | 420701.72 |

NOAA TIDES STA. 8726384
(ELEVATIONS IN FEET)



CERTIFICATION:
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
 NICOLE S. SHARP P.E. NO. 74708
 DATE: 4/30/24

| BEACH FILL CONTROL POINTS | | | |
|---------------------------|--------------|--------------|-----------|
| MONUMENT | X COORDINATE | Y COORDINATE | ELEVATION |
| LK BP 3A | 413,102.00 | 1,237,467.59 | 7.12 |
| BLIND P | 415,462.40 | 1,235,743.80 | 6.47 |

| DREDGE CHANNEL CONTROL POINTS | | | |
|-------------------------------|--------------|--------------|-----------|
| MONUMENT | X COORDINATE | Y COORDINATE | ELEVATION |
| TVB-101 | 424,996.57 | 1,223,812.04 | 12.65 |
| TVB-102 | 423,396.17 | 1,220,638.67 | 18.34 |

NOTE:

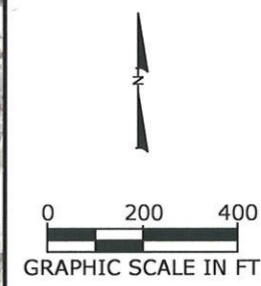
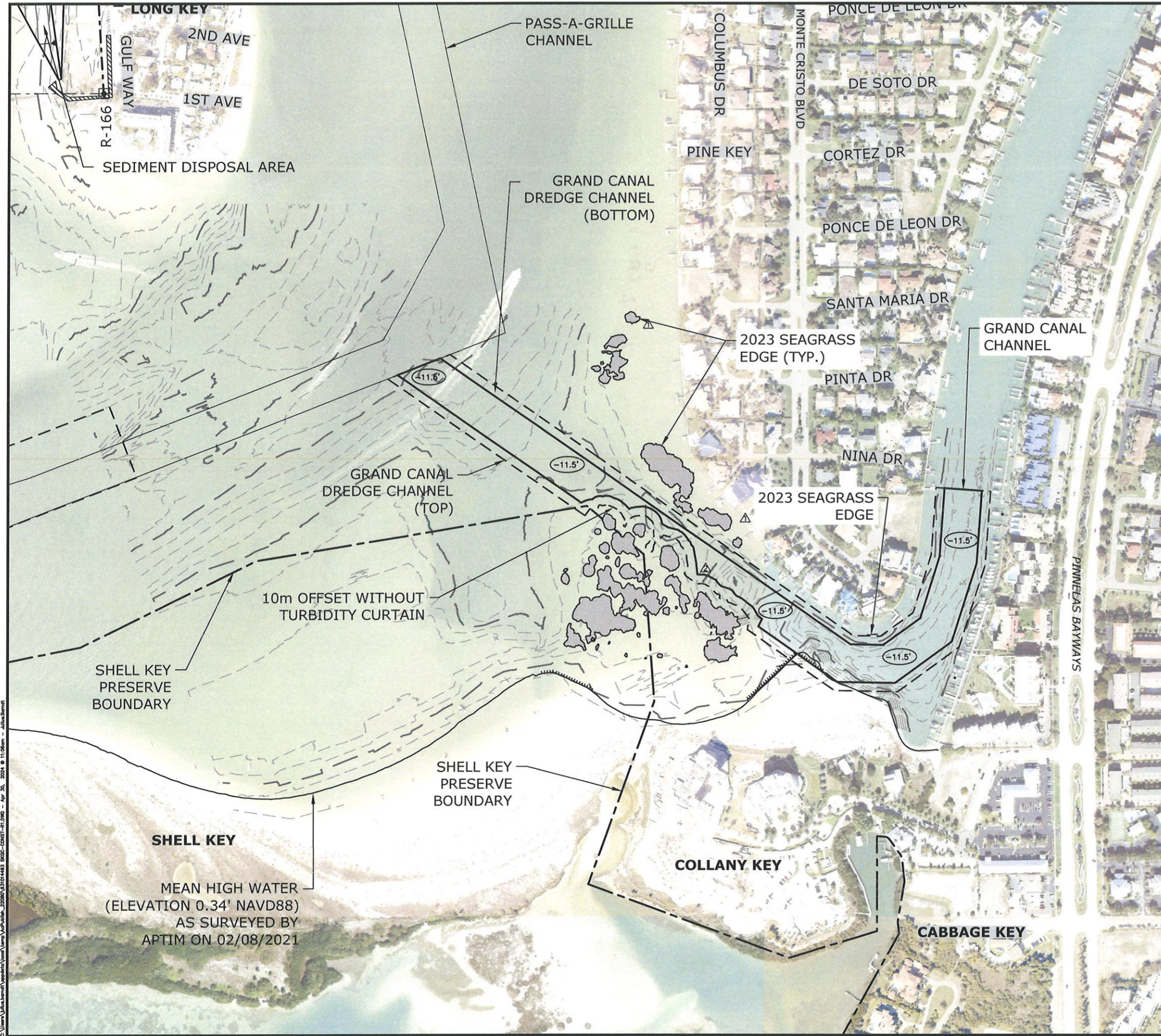
- COORDINATES ARE SHOWN IN US SURVEY FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83. ELEVATIONS ARE FEET BASED ON NAVD88.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SURVEY CONTROL. TIDAL DATUM PROVIDED FOR REFERENCE ONLY.

Aptim Environmental & Infrastructure, LLC
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 FAX: (561) 391-9116
 C.O.A. FL. #9317
 6401 CONGRESS AVENUE, SUITE 140
 BOCA RATON, FLORIDA 33487
 www.apetim.com

| Checked by: | Designed by: | Drawn by: | Date: | Plot Scale: | Comm. No.: |
|---------------|--------------|-----------|----------|-------------|------------|
| ECB | ECB | JEB | 08/08/23 | AS NOTED | 631014493 |
| Reviewed by: | | | | | |
| Submitted by: | | | | | |
| Description | | | | | |

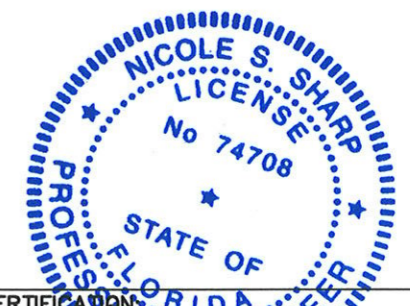
GRAND CANAL MAINTENANCE DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA
 SURVEY CONTROL DATA

DRAWING NO.
CS-1
 SHEET 2 OF 13



- LEGEND:**
- MONUMENT NAME
 - DYNAMIC BOUNDARY
 - 2023 SEAGRASS EDGE
 - DREDGE ELEVATION
 - SLOPE BOUNDARY

- NOTE:**
1. PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE, SEE SHEETS DA-2 AND DA-3.
 2. THE SEAGRASS SURVEY PERFORMED BY APTIM, SEPTEMBER 25 TO OCTOBER 03 2023 AS SHOWN HEREON.
 3. DREDGING ACTIVITIES SHOULD ALWAYS BE 16.4' (5m) OR GREATER FROM SEAGRASS WHEN USING TURBIDITY CURTAINS OR 32.8' (10m) OR GREATER WHEN NOT USING TURBIDITY CURTAINS.



CERTIFICATION:
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

 NICOLE S. SHARP P.E. NO. 74708
 DATE 4/30/24

Aptim Environmental & Infrastructure, LLC

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 FAX: (561) 391-9116
 C.O.A. FL. 99317

6401 CONGRESS AVENUE, SUITE 140
 BOCA RATON, FLORIDA 33487
 www.aptim.com

| Reference File | Designed by | Checked by | Drawn by | Reviewed by | Submitted by | Comm. No. | No. | Date | Description |
|----------------|-------------|------------|----------|-------------|--------------|-----------|-----|------|-------------|
| | ECB | ECB | JEB | TP | TP | 631014493 | | | |

GRAND CANAL MAINTENANCE
 DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA

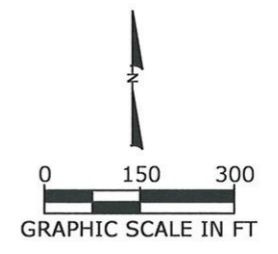
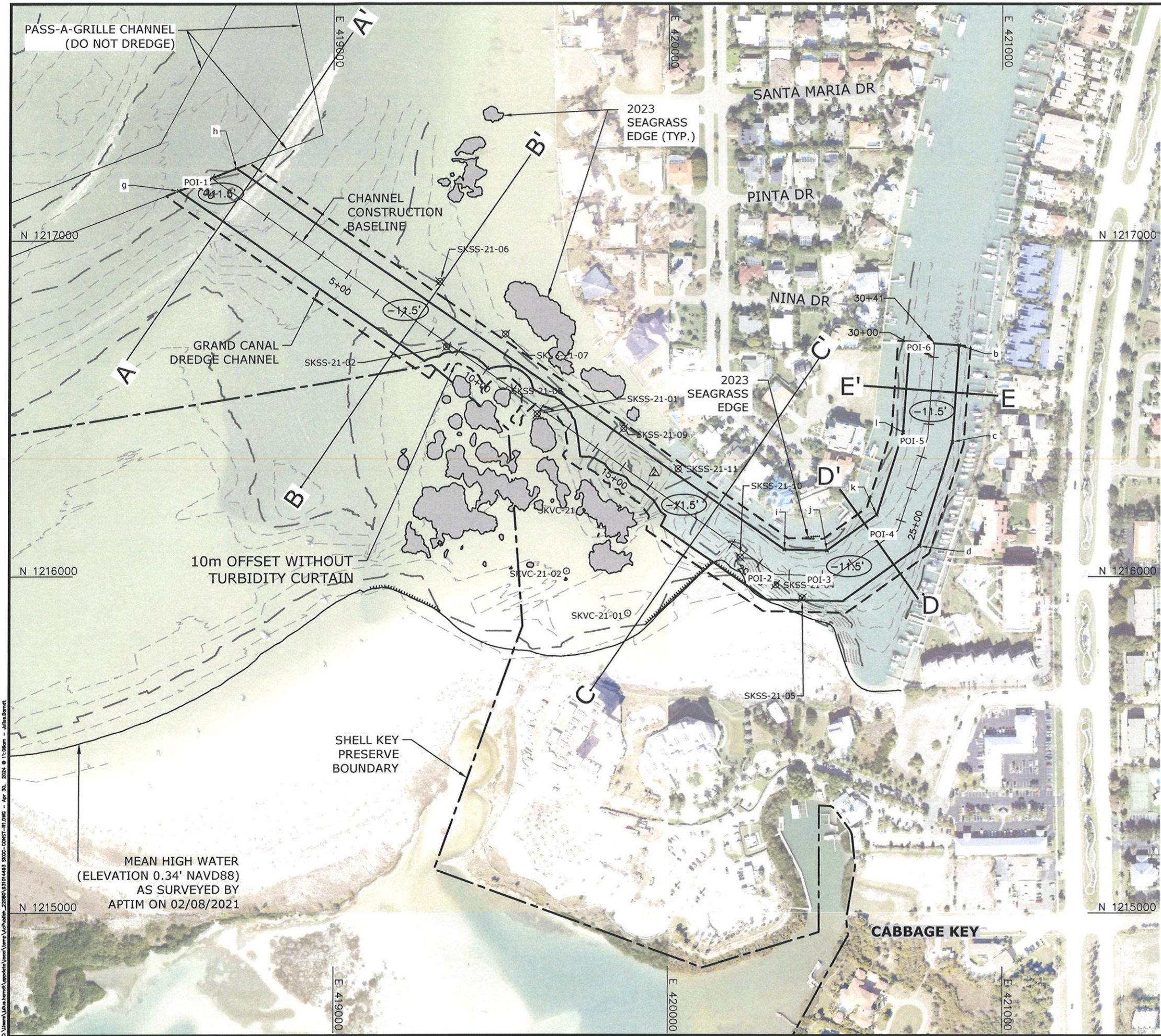
HYDROGRAPHIC AND
 TOPOGRAPHIC SURVEY 10m BUFFER

DRAWING NO.

DA-1

SHEET 3 OF 13

C:\Users\jsharpe\OneDrive\Documents\Projects\20230313101443_9902-CORRECT-01.DWG - Apr 30, 2024 @ 11:05am - Julia Barnett



- LEGEND:**
- ⊗ 2021 GRAB SAMPLE LOCATION
 - 2021 VIBRACORE SAMPLE LOCATION
 - DYNAMIC BOUNDARY
 - ▭ 2023 SEAGRASS EDGE
 - (-8.0') DREDGE ELEVATION
 - SLOPE BOUNDARY
 - CHANNEL CONSTRUCTION BASELINE
 - SEAGRASS BUFFER 32.8' (10m)

- NOTE:**
1. PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE, SEE SHEETS DA-2 AND DA-3.
 2. THE SEAGRASS SURVEY PERFORMED BY APTIM, SEPTEMBER 25 TO OCTOBER 03 2023 AS SHOWN HEREON.
 3. DREDGING ACTIVITIES SHOULD ALWAYS BE 16.4' (5m) OR GREATER FROM SEAGRASS WHEN USING TURBIDITY CURTAINS OR 32.8' (10m) OR GREATER WHEN NOT USING TURBIDITY CURTAINS.



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 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
 NICOLE S. SHARP P.E. NO. 74708
 DATE 4/30/24

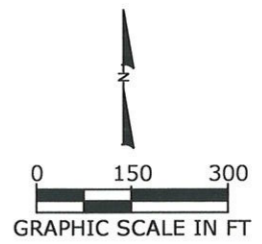
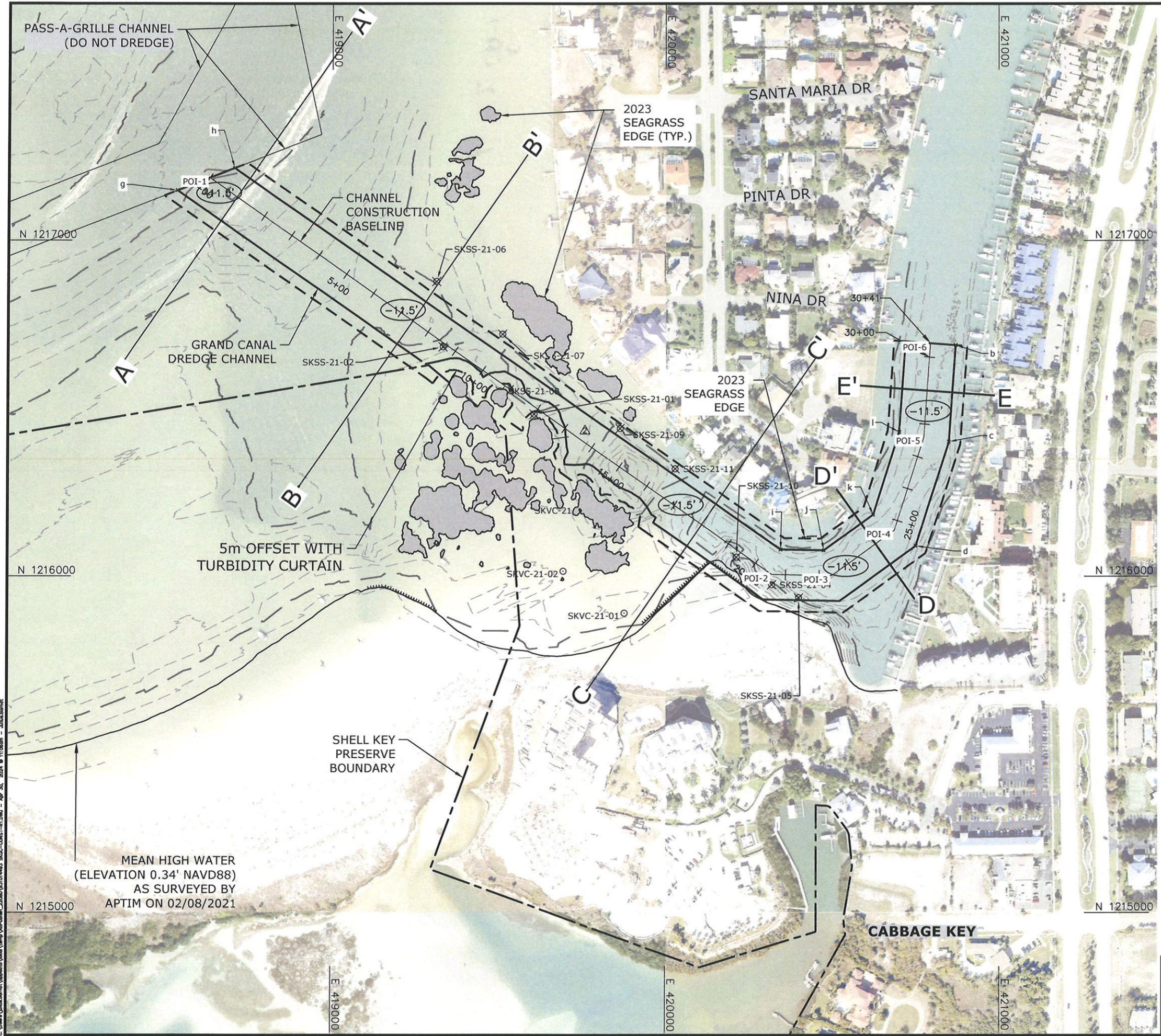
Aptim Environmental & Infrastructure, LLC
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 BOCA RATON, FLORIDA 33487
 PH. (561) 391-8102
 FAX (561) 391-9116
 C.O.A. FL. #9317
 www.aptim.com

| Reference File | Designed by | Checked by | REVISIONS |
|----------------|----------------------|----------------------|--------------------------|
| | ECB | ECB | 04/27/24 SEAGRASS 2023 |
| | JEB | TP | 04/27/24 SEAGRASS BUFFER |
| | Date: 08/08/23 | Submitted by: TP | |
| | Plot Scale: AS NOTED | Comm. No.: 631014493 | |

GRAND CANAL MAINTENANCE DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA
 SEAGRASS 10m BUFFER
 GRAND CANAL DREDGE AREA

DRAWING NO. **DA-3**
 SHEET 5 OF 13

C:\Users\jsharpe\OneDrive\Documents\Projects\Grand Canal\2023\042724\042724_042724_042724_042724_042724.dwg - Apr 28, 2024 @ 11:06am - jsharpe



- LEGEND:**
- ⊗ 2021 GRAB SAMPLE LOCATION
 - ⊙ 2021 VIBRACORE SAMPLE LOCATION
 - DYNAMIC BOUNDARY
 - ▭ 2023 SEAGRASS EDGE
 - ⊖ DREDGE ELEVATION
 - SLOPE BOUNDARY
 - CHANNEL CONSTRUCTION BASELINE
 - 1+00 SEAGRASS BUFFER 16.4' (5m)

- NOTE:**
1. PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE, SEE SHEETS DA-2 AND DA-3.
 2. THE SEAGRASS SURVEY PERFORMED BY APTIM, SEPTEMBER 25 TO OCTOBER 03 2023 AS SHOWN HEREON.
 3. DREDGING ACTIVITIES SHOULD ALWAYS BE 16.4' (5m) OR GREATER FROM SEAGRASS WHEN USING TURBIDITY CURTAINS OR 32.8' (10m) OR GREATER WHEN NOT USING TURBIDITY CURTAINS.

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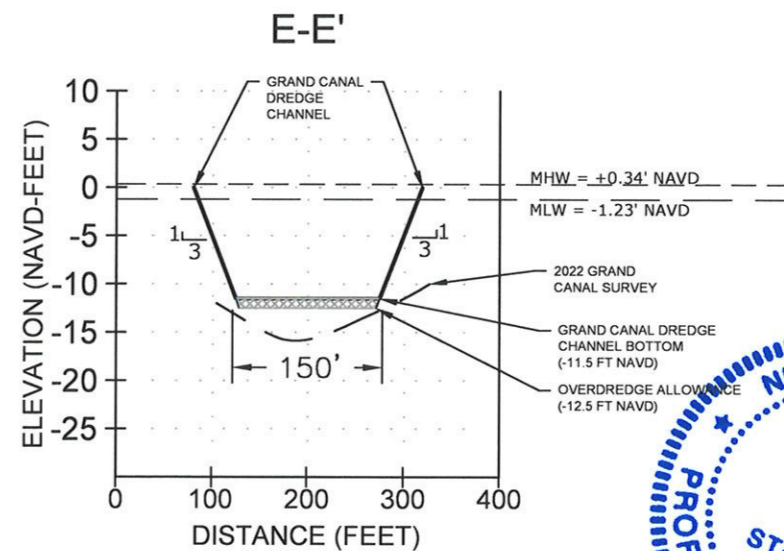
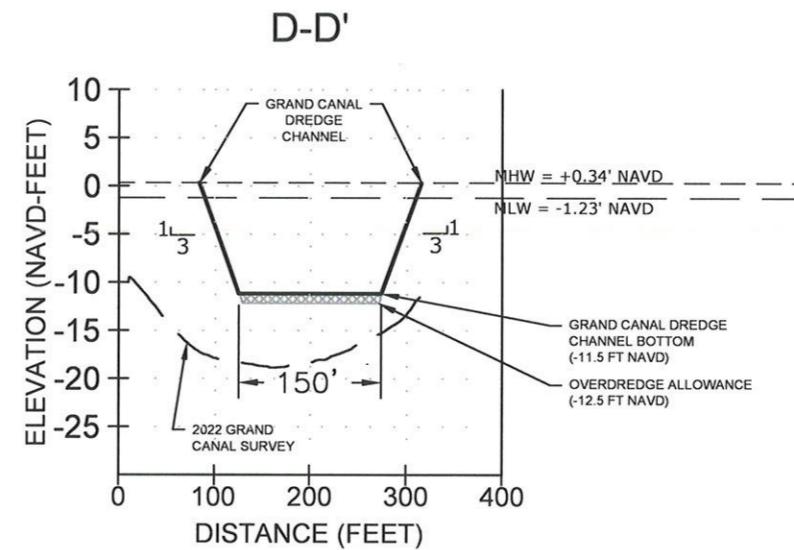
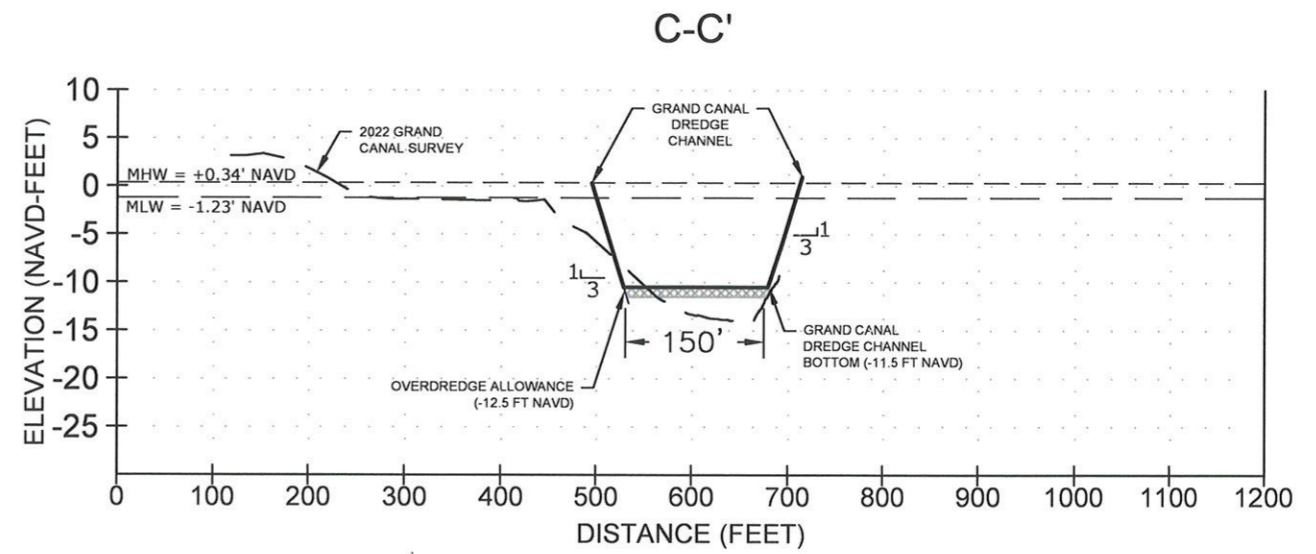
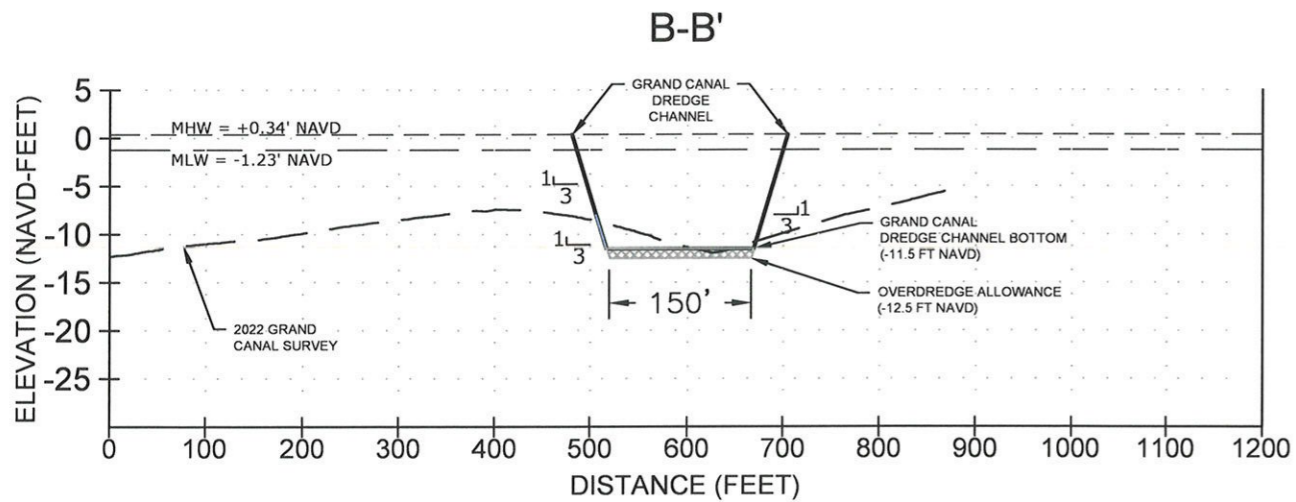
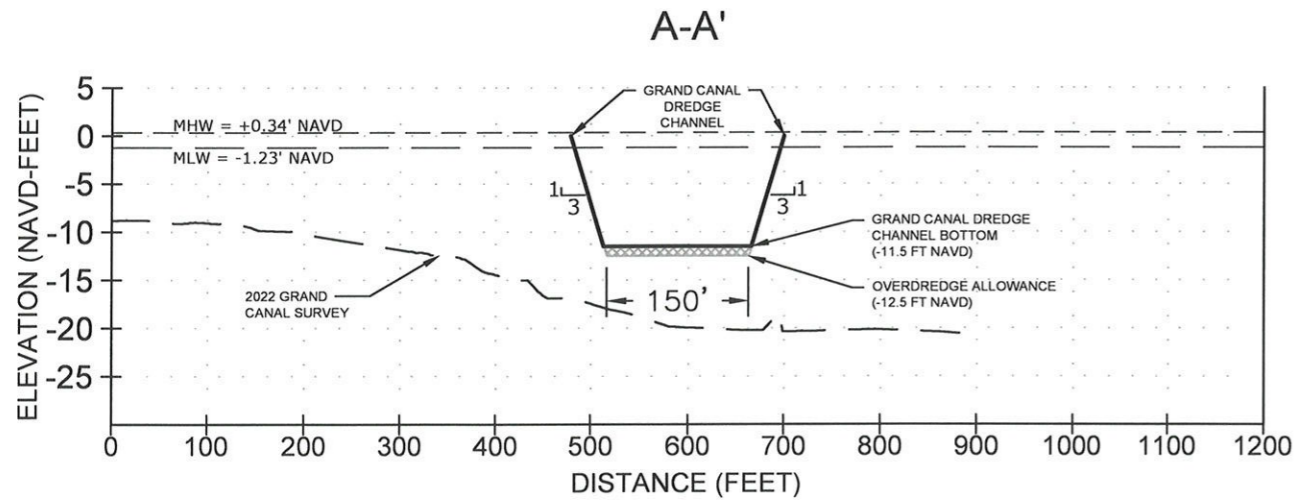
CERTIFICATION
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
 NICOLE S. SHARP P.E. NO. 74708
 4/30/24
 DATE

Aptim Environmental & Infrastructure, LLC
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 BOCA RATON, FLORIDA 33487
 PH. (561) 391-8102
 FAX (561) 391-8116
 C.O.A. FL. #9317
 www.aptim.com

| Reference Files | Designed by | Checked by | REVISIONS |
|-----------------|-------------|------------|-------------------------------|
| JEB | ECB | ECB | 1. 02/08/2021 Initial Survey |
| | | | 2. 09/25/2023 Seagrass Survey |
| | | | 3. 10/03/2023 Seagrass Survey |

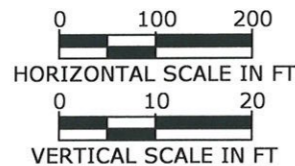
Grand Canal Maintenance Dredging Project, Pinellas County, Florida
 Seagrass 5m Buffer Grand Canal Dredge Area

DRAWING NO.
DA-4
 SHEET 6 OF 13



NOTE:

- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- HYDROGRAPHIC SURVEY COLLECTED SEPTEMBER 2022 BY USACE.



CERTIFICATION:
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
 NICOLE S. SHARP P.E. NO. 74708
 DATE: 4/30/24

| REVISIONS | No. | Date | Description |
|-----------|-----|------|-------------|
| | | | |
| | | | |

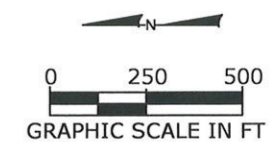
| | |
|--------------|---------------|
| Designed by: | Checked by: |
| ECB | ECB |
| Drawn by: | Reviewed by: |
| JEB | TP |
| Date: | Submitted by: |
| 08/08/23 | TP |
| Plot Scale: | Comm. No.: |
| AS NOTED | 631014493 |

GRAND CANAL MAINTENANCE
 DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA
 DREDGE AREA
 CROSS SECTIONS

DRAWING NO.

DA-5

SHEET 7 OF 13



- LEGEND:**
- ▣ MONUMENT NAME
 - ▭ PLACEMENT AREA
 - ▨ CONSTRUCTION STAGING AND ACCESS AREAS
 - SLOPE DIRECTION
 - - - 1986 EROSION CONTROL LINE

NOTE:

- PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE.
- COORDINATES ARE SHOWN IN US SURVEY FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83. ELEVATIONS ARE IN FEET BASED ON NAVD88.

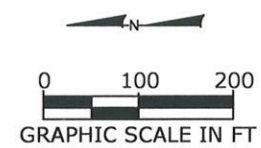
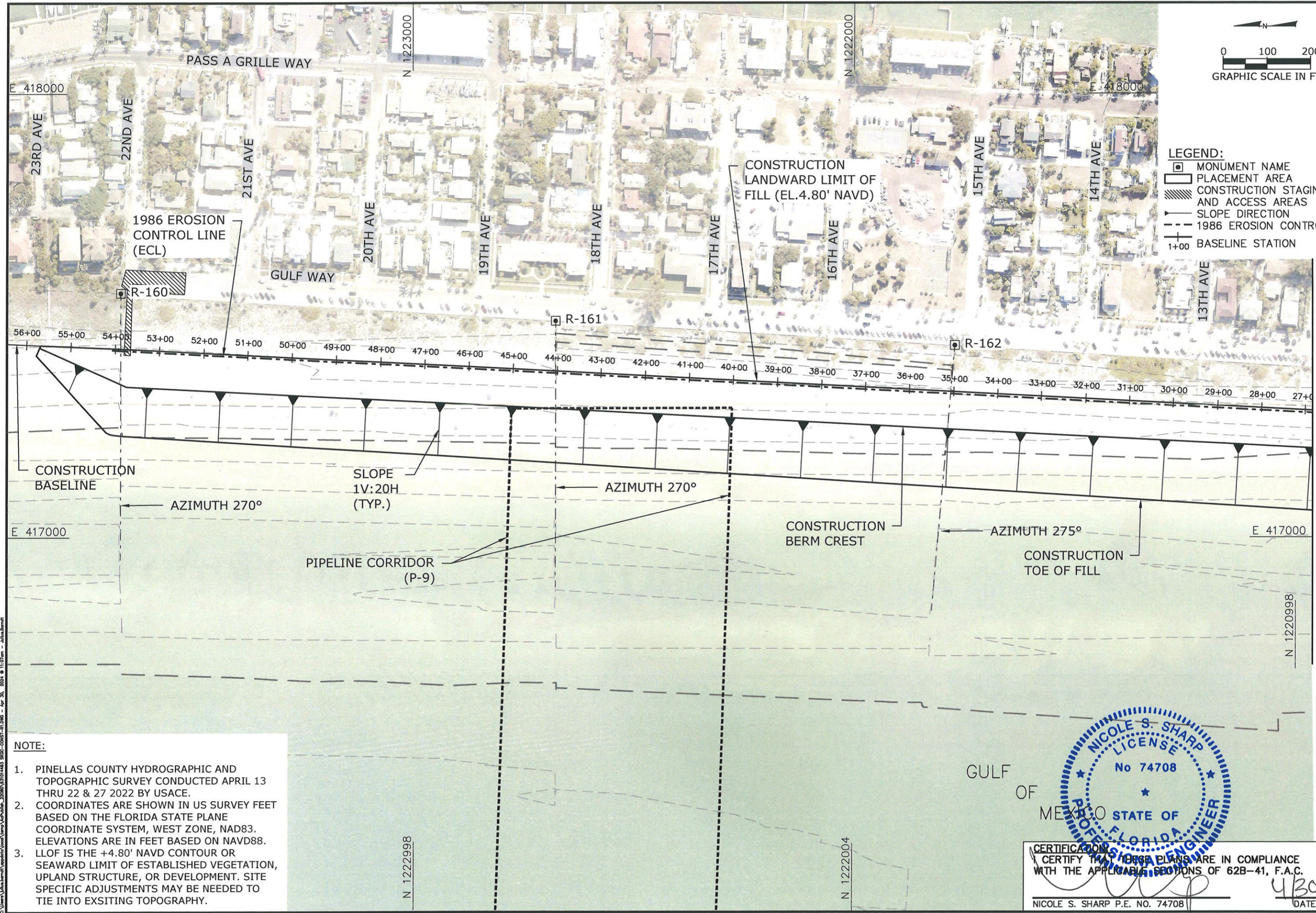
NICOLE S. SHARP
 LICENSE
 No 74708
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

CERTIFICATION:
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE
 WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
 NICOLE S. SHARP P.E. NO. 74708 4/20/24
 DATE

Aptim Environmental & Infrastructure, LLC
 6401 CONGRESS AVENUE, SUITE 140
 BOCA RATON, FLORIDA 33487
 www.apfim.com
 PH: (561) 391-8102
 FAX: (561) 391-9116
 C.O.A. FL. 99317

| Checked by: | Reviewed by: | Submitted by: | Comm. No.: | No. | Date | Description |
|--------------|--------------|---------------|--------------|----------|------|-------------|
| ECB | JP | JP | 631014493 | | | |
| Designed by: | Drawn by: | Date: | Proj. Scale: | AS NOTED | | |
| ECB | JEB | 08/08/23 | | | | |

GRAND CANAL MAINTENANCE
 DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA
 PASS-A-GRILLE
 AREA OVERVIEW
 DRAWING NO.
MS-1
 SHEET 8 OF 13



- LEGEND:**
- MONUMENT NAME
 - PLACEMENT AREA
 - CONSTRUCTION STAGING AND ACCESS AREAS
 - SLOPE DIRECTION
 - 1986 EROSION CONTROL LINE
 - 1+00 BASELINE STATION

- NOTE:**
1. PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE.
 2. COORDINATES ARE SHOWN IN US SURVEY FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83. ELEVATIONS ARE IN FEET BASED ON NAVD88. LLOF IS THE +4.80' NAVD CONTOUR OR SEAWARD LIMIT OF ESTABLISHED VEGETATION, UPLAND STRUCTURE, OR DEVELOPMENT. SITE SPECIFIC ADJUSTMENTS MAY BE NEEDED TO TIE INTO EXSITING TOPOGRAPHY.
 - 3.



CERTIFICATION
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

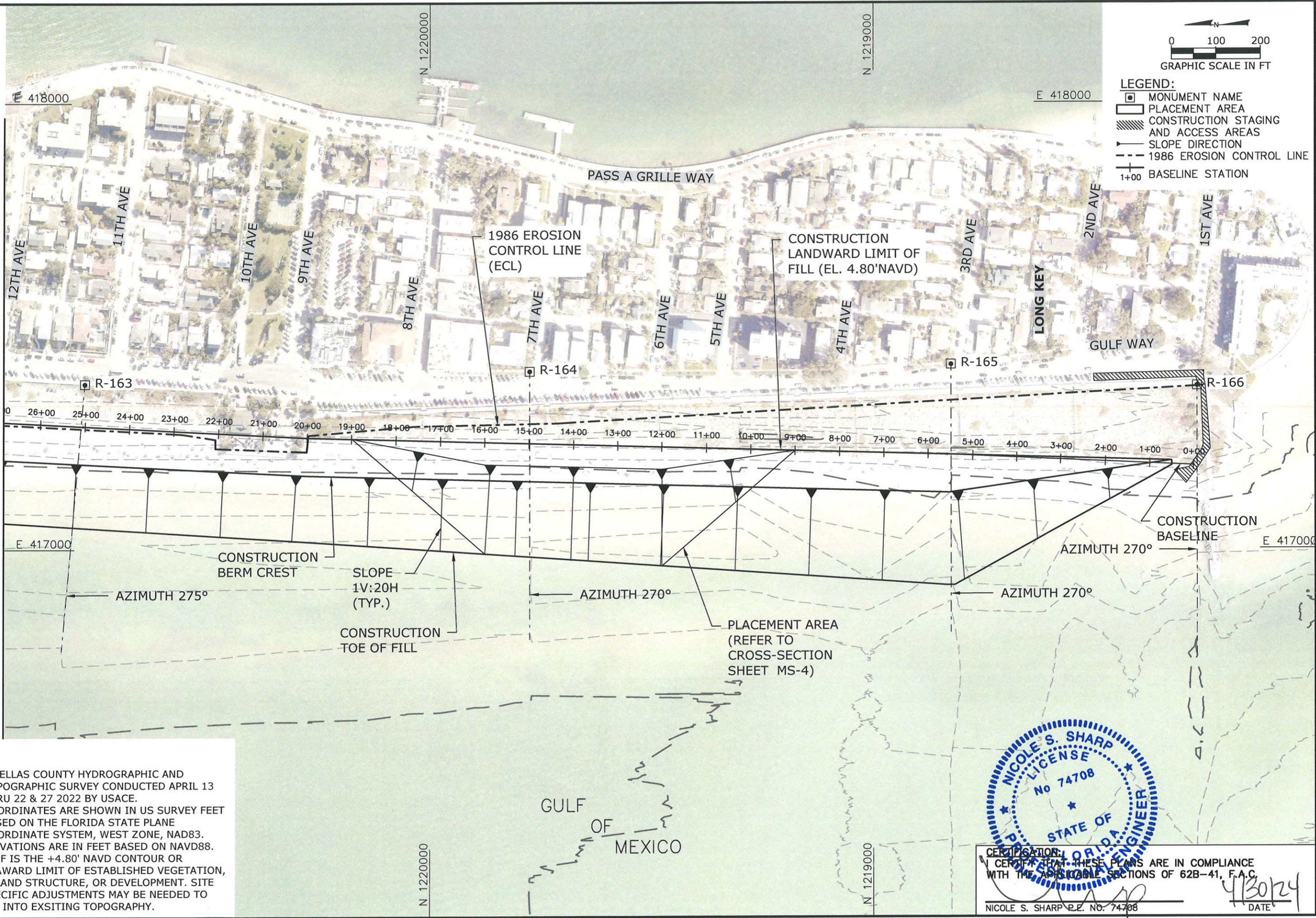
 NICOLE S. SHARP P.E. NO. 74708
 DATE 4/30/24

MATCH LINE SHEET MS-3

| Aptim Environmental & Infrastructure, LLC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------|---------------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--------------|-------------|--------------|---------------|------------|-----|-----|----|----|-----------|-----------|-------|--------------|----------|--|-----|----------|--|--|--|
| 6401 CONGRESS AVENUE, SUITE 140 BOCA RATON, FLORIDA 33487 www.apetim.com | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PH: (561) 391-8102 FAX: (561) 391-9116 C.O.A. FL. 99317 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRAND CANAL MAINTENANCE DREDGING PROJECT PINELLAS COUNTY, FLORIDA PASS-A-GRILLE DISPOSAL AREA 1 OF 2 | DRAWING NO. MS-2 SHEET 9 OF 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">No.</th> <th style="width: 45%;">Description</th> <th style="width: 50%;">Date</th> </tr> </thead> <tbody> <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> </tbody> </table> | No. | Description | Date | | | | | | | | | | | | | | | | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Designed by:</td> <td style="width: 20%;">Checked by:</td> <td style="width: 20%;">Reviewed by:</td> <td style="width: 20%;">Submitted by:</td> <td style="width: 20%;">Comm. No.:</td> </tr> <tr> <td>ECB</td> <td>ECB</td> <td>TP</td> <td>TP</td> <td>631014493</td> </tr> <tr> <td>Drawn by:</td> <td>Date:</td> <td>Proj. Scale:</td> <td colspan="2">AS NOTED</td> </tr> <tr> <td>JEB</td> <td>08/08/23</td> <td> </td> <td colspan="2"> </td> </tr> </table> | Designed by: | Checked by: | Reviewed by: | Submitted by: | Comm. No.: | ECB | ECB | TP | TP | 631014493 | Drawn by: | Date: | Proj. Scale: | AS NOTED | | JEB | 08/08/23 | | | |
| No. | Description | Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| ECB | ECB | TP | TP | 631014493 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drawn by: | Date: | Proj. Scale: | AS NOTED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JEB | 08/08/23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

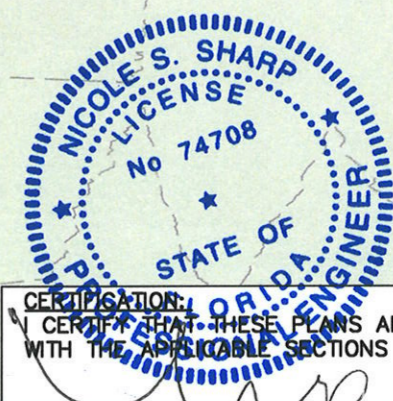
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MATCH LINE SHEET MS-2



- LEGEND:**
- MONUMENT NAME
 - ▭ PLACEMENT AREA
 - ▨ CONSTRUCTION STAGING AND ACCESS AREAS
 - ▲ SLOPE DIRECTION
 - - - 1986 EROSION CONTROL LINE
 - + BASELINE STATION

- NOTE:**
1. PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE.
 2. COORDINATES ARE SHOWN IN US SURVEY FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83. ELEVATIONS ARE IN FEET BASED ON NAVD88.
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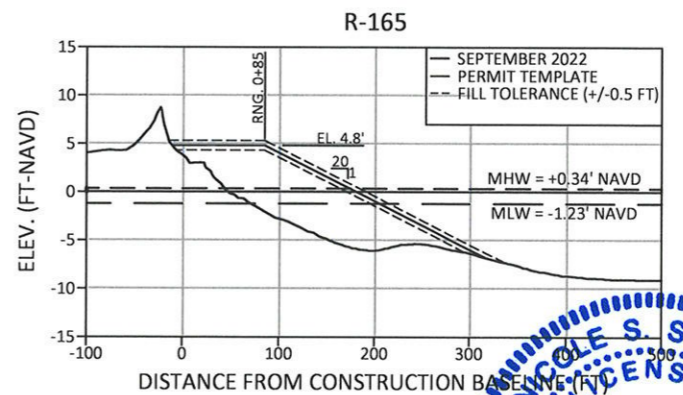
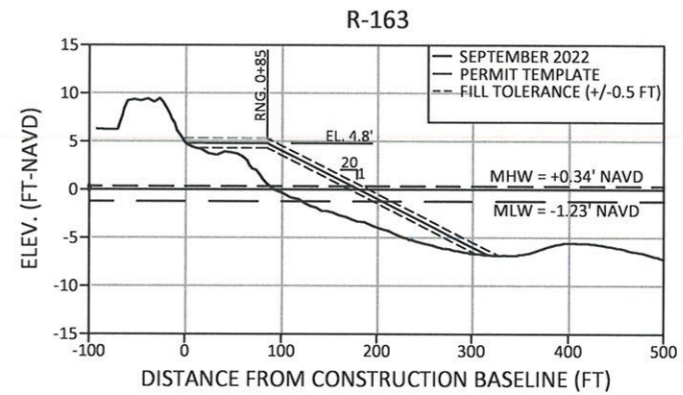
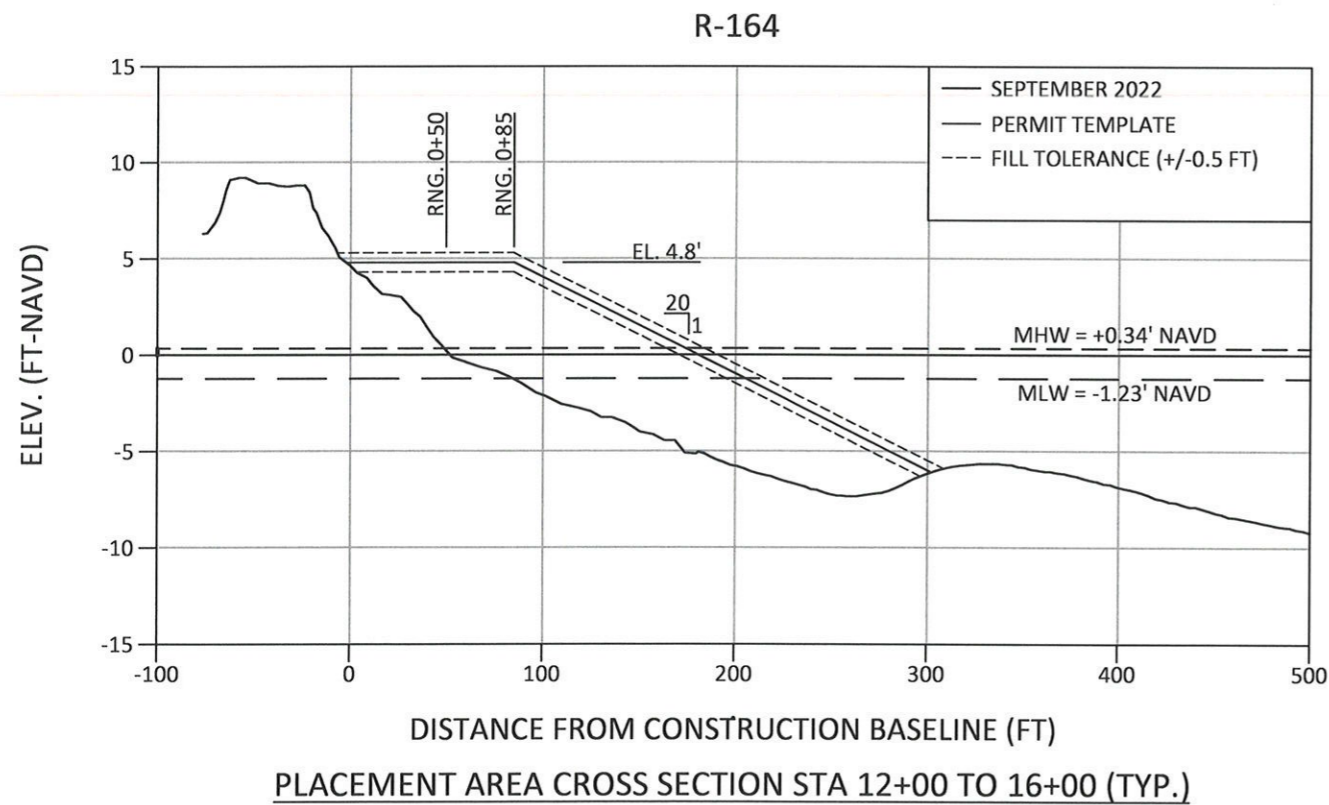
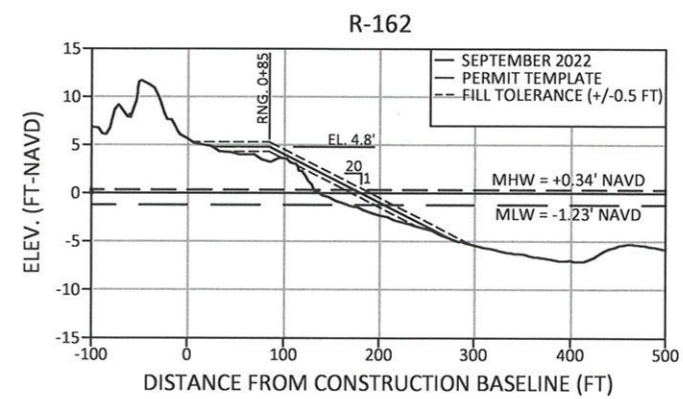
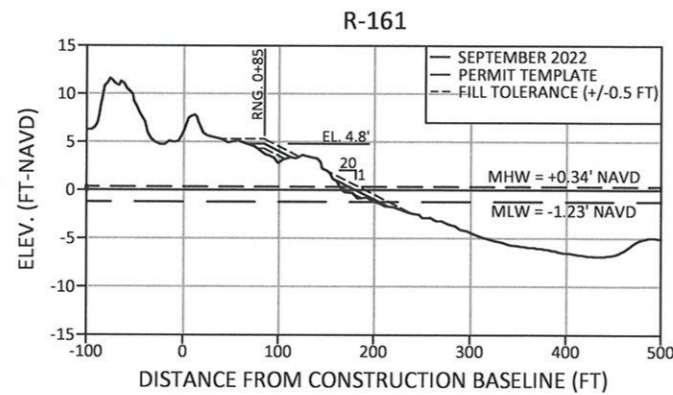
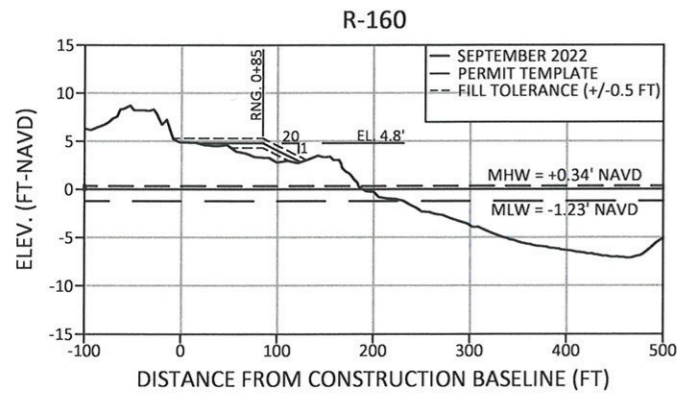
CERTIFICATION:
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
NICOLE S. SHARP P.E. NO. 74708
4/30/24 DATE

| Reference File: | Designed by: | Checked by: | Drawn by: | Reviewed by: | Submitted by: | Comm. No.: | No. | Date | Description |
|-----------------|--------------|-------------|-----------|--------------|---------------|------------|-----|------|-------------|
| | ECB | ECB | JEB | JP | JP | 631014493 | | | |
| | Date: | 08/08/23 | | | | | | | |
| | Plot Scale: | AS NOTED | | | | | | | |

GRAND CANAL MAINTENANCE
DREDGING PROJECT
PINELLAS COUNTY, FLORIDA
PASS-A-GRIFFE
DISPOSAL AREA 2 OF 2

DRAWING NO.
MS-3
SHEET 10 OF 13

Aptim Environmental & Infrastructure, LLC
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FAX (561) 391-8116
C.O.A. FL. #9317



NOTES:

1. ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. BEACH PROFILE SURVEYS CONDUCTED SEPTEMBER 2022 BY USACE.
3. RANGES ARE REFERENCED TO THE CONSTRUCTION BASELINE SHOWN ON THE PLAN SHEET.
4. THE VERTICAL TOLERANCE IS +/- 0.5 FT AS FURTHER DESCRIBED IN THE TECHNICAL SPECIFICATIONS.
5. ALL CROSS SECTIONS SHALL BE SURVEYED AT AN AZIMUTH PERPENDICULAR TO THE CONSTRUCTION BASELINE. REFER TO PLAN SHEET FOR TAPERING INTO EXISTING BEACH.

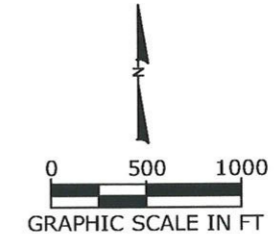
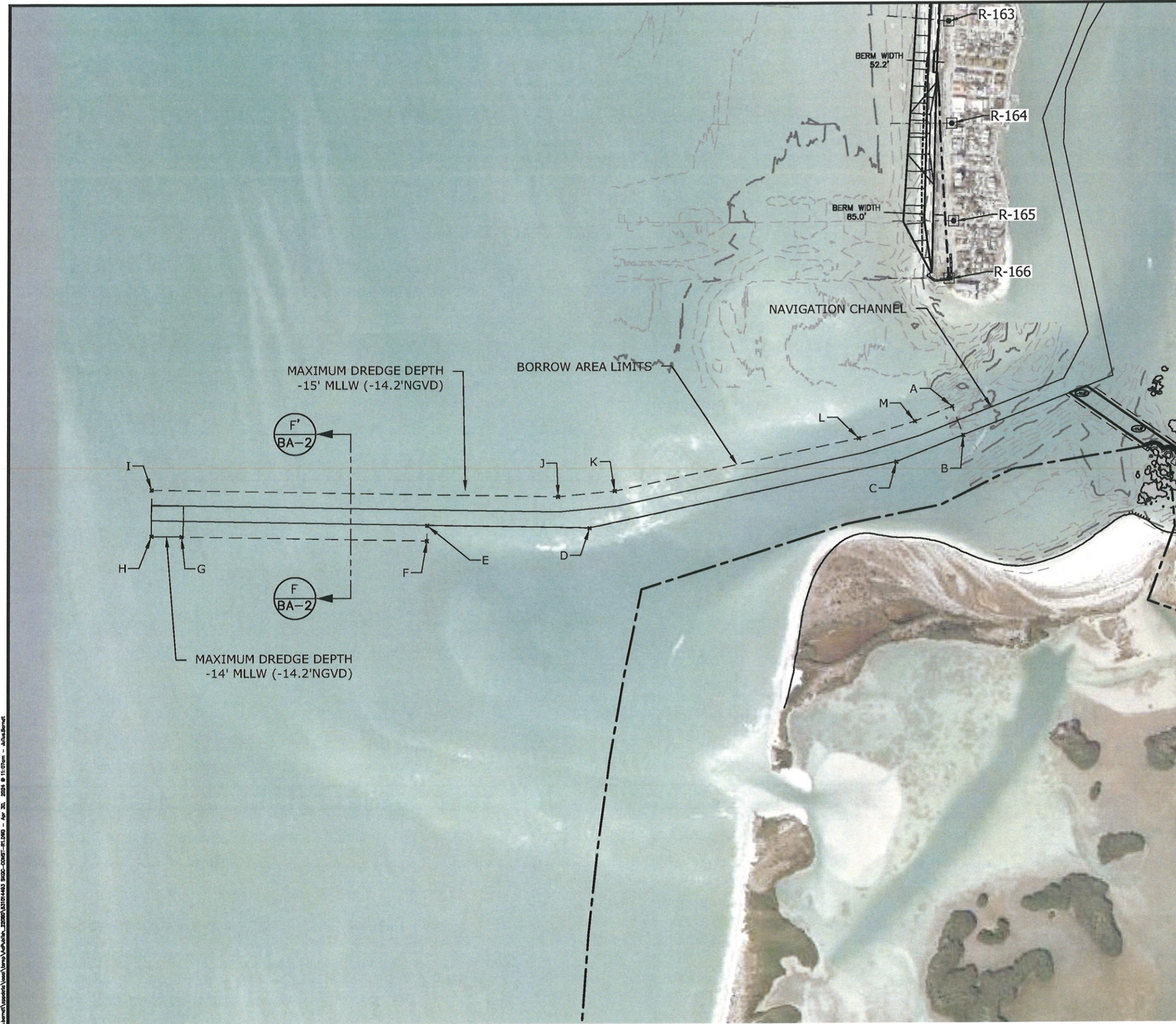
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 NICOLE S. SHARP P.E. NO. 74708
 DATE: 4/30/24

| Checked by: | Reviewed by: | Submitted by: | Comm. No.: |
|--------------|--------------|---------------|--------------|
| ECB | TP | TP | 63101493 |
| Designed by: | Drawn by: | Date: | Print Scale: |
| ECB | CM | 08/08/23 | AS NOTED |

GRAND CANAL MAINTENANCE
 DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA
 PASS-A-GRIFFLE DISPOSAL AREA
 CROSS SECTIONS

DRAWING NO.
MS-4
 SHEET 11 OF 13

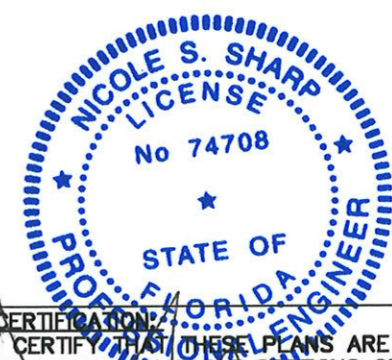
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- LEGEND:**
- NAVIGATION CHANNEL
 - BORROW AREA LIMITS
 - ▭ 2023 SEAGRASS EDGE
 - ⊙ DREDGE ELEVATION

- NOTE:**
- PINELLAS COUNTY HYDROGRAPHIC AND TOPOGRAPHIC SURVEY CONDUCTED APRIL 13 THRU 22 & 27 2022 BY USACE, SEE SHEETS DA-2 AND DA-3.
 - THE SEAGRASS SURVEY PERFORMED BY APTIM, SEPTEMBER 25 TO OCTOBER 03 2023 AS SHOWN HEREON.

- USACE NOTE:**
- REFER TO PLATE 03 FOR GENERAL NOTES AND LEGEND (USACE)



CERTIFICATION:
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

 NICOLE S. SHARP P.E. NO. 74708
 4/30/24
 DATE

Aptim Environmental & Infrastructure, LLC

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PH. (561) 391-9102
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 C.O.A. FL. #9317

| No. | Date | Description |
|-----|----------|-------------|
| 1 | 10/27/24 | REVISIONS |

| | | | |
|-------------------------|---------------------|------------------|--------------------|
| Designed by: ECB | Checked by: ECB | Drawn by: JEB | Reviewed by: JP |
| Date: 08/08/23 | Submitted by: JP | Comm. No.: | 631014493 |
| Plot Scale: AS NOTED | | | |

**GRAND CANAL MAINTENANCE
 DREDGING PROJECT
 PINELLAS COUNTY, FLORIDA
 PASS-A-GRIFFE CHANNEL
 BORROW AREA**

DRAWING NO.
BA-1

SHEET 12 OF 13

