DREDGING ORDER 2026-01

A DREDGE ORDER OF THE TOWN OF LONGBOAT KEY, FLORIDA, APPROVING A DREDGE APPLICATION FOR PROPERTY LOCATED AT 5630 GULF OF MEXICO DRIVE, ALLOWING FOR DREDGING OF A CANAL AND THE CREATION OF A NEW BOAT BASIN; REPEALING ALL PRIOR DEVELOPMENT ORDERS IN CONFLICT; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, WB Longboat Key Residences LLC (hereinafter the "Owner") owns certain real property located at 5630 Gulf of Mexico Drive (hereinafter "Property"); and

WHEREAS, the Owner has given Bruce Franklin (hereinafter the "Applicant") authorization to act on its behalf for the submittal of a certain Dredge application; and

WHEREAS, the Property is zoned R-4MX Medium Density Single-Family/ Mixed Residential (4 DU/A); and

WHEREAS, on January 17, 2023, the Applicant was approved for a Site Development Plan to construct a new 8-unit condominium and associated amenities on the Property but did not submit an associated Dredge application to permit a proposed 8-slip boat basin on the Property; and

WHEREAS, on October 18, 2025, the Applicant submitted an application pursuant to Chapter 152 of the Town's Land Development Code to seek authorization from the Town to allow dredging of a canal and the creation of a new boat basin to accommodate 8 boat slips; and

WHEREAS, the Planning and Zoning Official has, in a timely fashion, accepted a Dredge Permit application for the Property and referred same to the Town along with the support documentation and staff recommendations; and

WHEREAS, the Town Commission is authorized by the Land Development Code to approve the application as submitted, approve the application with changes or special conditions, or disapprove the application, if the application meets the applicable provisions of the Land Development Code; and

WHEREAS, at a duly noticed public hearing held on September 14, 2026, the Town Commission makes these conclusions and findings of fact:

(a) The work proposed does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.

(b) Harmful obstruction will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.

(c) Harmful or increased erosion, shoaling of channels, or stagnant areas of water will not be created thereby.

(d) Material injury or monetary damage to adjoining land will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.

(e) Material injury or monetary damage will not occur to beaches and shores to such an extent as to be contrary to the public interest, or result in the destruction of oyster beds, clam beds, or marine productivity.

(f) Material injury or monetary damage will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest.

NOW, THEREFORE, BE IT ORDERED BY THE TOWN OF LONGBOAT KEY, FLORIDA, THAT:

SECTION 1. The above recitals are true and correct and are fully incorporated herein by reference.

SECTION 2. The Dredge Permit application to allow dredging of a canal and the creation of a new boat basin to accommodate 8 boat slips located at 5630 Gulf of Mexico Drive, Longboat Key, Florida 34228, is hereby approved subject to the conditions attached hereto marked Exhibit A, Conditions Requisite for Approval, and dated concurrently with this Order.

SECTION 3. Any portion of previously issued Development Orders for the Property in conflict with the authorization herein provided are repealed.

SECTION 4. If any section, subsection, sentence, clause, or provision of this Dredging Order is held invalid, the remainder of the Order shall not be affected.

SECTION 5. This Dredging Order shall become effective immediately upon adoption.

ADOPTED at a meeting of the Town Commission of the Town of Longboat Key on the 14th day of September, 2026.

Debra Williams, Mayor

ATTEST:

Celine Kidwell, Town Clerk

Attachment: Exhibit A, Conditions Requisite for Approval

EXHIBIT A

DREDGE ORDER 2026-01

CONDITIONS REQUISITE FOR APPROVAL

DREDGE

5630 GULF OF MEXICO DRIVE

1. The provisions of the Dredge Permit application for the above-referenced subject property, dated October 18, 2025, as amended, shall be complied with unless waived or modified by the following conditions or by written agreement between the Town and the Owner or amended pursuant to Town Code.
2. The Dredge Permit development/construction plans shall conform to all applicable Town Code and Ordinances and all other applicable regulations, including but not limited to, FEMA standards/regulations, accessibility, fire code, and life/safety requirements.
3. Upon Town Commission approval and receipt of a permit from the state and/or federal agency having jurisdiction, the Town Manager or designee shall issue a Dredge Permit for the work proposed in the application, which shall be an authorization for the Owner to perform and complete the work described in the application within a period of two years after the date of the issuance of the permit. The Town Manager or designee may extend the time for completion of the work for good cause, upon a showing that all due efforts and diligence toward completion of the work have been made.
4. Prior to the commencement of any phase of construction, the Owner shall submit to the Town a proposed Dredge Construction Management Plan stating how construction traffic, noise, hours of construction, and other construction-related impacts on existing businesses and residents will be minimized.
5. Approval of the proposed Dredge Permit application shall be subject to payment of all staff review charges. Such charges shall be paid within 90 days of the Dredge Order's issuance.
6. Approval of the proposed Dredge Permit does not authorize approval of the proposed seawall, dock structures, or boat lifts which require Building Permits.
7. Prior to Building Permit final inspection and closure, the Engineer of record shall provide final record drawings and certify that the Dredge has been completed in accordance with the approved Dredge Permit.

Town of Longboat Key
Planning, Zoning and Building Department
501 Bay Isles Road
Longboat Key, Florida 34228
941-316-1966
941-316-1970 FAX

DREDGE AND FILL PERMIT APPLICATION

Application must be completed in ink or typed. Please submit three copies of the application and supporting documentation, along with one (1) digital copy of materials. License holder or owner signatures must be notarized. All sections of the application must be accurately completed including the Work Description with a thorough description of all work proposed by this application. All required supporting documents, engineering, plans, etc., must be submitted for the application to be valid for review (refer to Chapter 152, Town of Longboat Key Code of Ordinances).

OFFICE USE ONLY:

Permit No. _____ Fees Due _____ Receipt No. _____

IF PAYING BY CREDIT CARD, PLEASE COMPLETE A CREDIT CARD AUTHORIZATION FORM

JOB SITE

PROJECT/COMPLEX NAME (IF ANY): EVOLVE MARINA BASIN/BOAT DOCKS

STREET ADDRESS: 5630 GULF OF MEXICO DR. UNIT # _____

COUNTY: ☑ MANATEE ☐ SARASOTA LOT(s) # _____ PARCEL ID #: 7938400059

OWNER OF RECORD WB LONGBOAT KEY RESIDENCES, LLC

CONTRACTOR/APPLICANT OR OWNER AS CONTRACTOR

☑ If Property Owner is applicant, please skip to Property Owner Information

LICENSES: STATE # _____

MANATEE CO: _____ SARASOTA CO: _____

APPLICANT/QUALIFIER NAME: _____

COMPANY NAME: _____

STREET/MAILING ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE #: _____ CELL #: _____ FAX: # _____

EMAIL ADDRESS: _____

PROPERTY OWNER (Required)

NAME AS ON PROPERTY RECORDS: WB LONGBOAT KEY RESIDENCES, LLC

COMPANY NAME: _____

STREET/MAILING ADDRESS: 5630 GULF OF MEXICO DR.

CITY: LONGBOAT KEY STATE: FL ZIP: 34228

PHONE #: 941-586-8906 CELL #: _____ FAX: # _____

EMAIL ADDRESS: KATERINA@111GOLDENGATEPOINT.COM

PROJECT DESCRIPTION:

Site Is: Single Family ☐ Multi Family ☑ Duplex ☐ Commercial ☐

Total linear feet: 398.83 Total Cubic Yards: 1,325 Total Upland Square Feet: 6,098.4

Provide brief description of scope of work (application materials, plans and drawings are required to be provided pursuant to Chapter 152, Town Code): DREDGE & FILL SMALL MARINA BASIN W/DOCKS. REFER TO CONSTRUCTION PLANS

ARCHITECT/ENGINEER (Required)

Licensed Architect ☐ Licensed Engineer ☑

Florida License No. 60077

NAME OF PROFESSIONAL ELIZABETH A. FOUNTAIN

COMPANY NAME: JR. EVANS ENGINEERING, P.A.

STREET/MAILING ADDRESS: 5589 MARQUESAS CIRCLE STE. 102

CITY: SARASOTA STATE: FL ZIP: 34233

PHONE #: 941-355-6636 CELL #: 239-253-9137 FAX: # _____

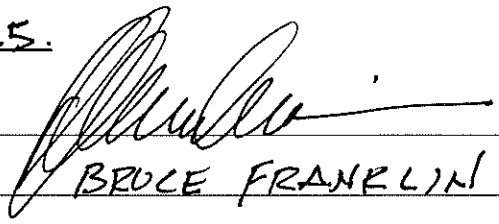
EMAIL ADDRESS: ELIZABETH@JREENG.COM

CONTRACTOR/AGENT/OWNER AFFIDAVIT:

Application is hereby made to obtain a permit to the work and installation as indicated. I certify that all the information is accurate and complete. I certify that where required, all plans have been prepared by, or under the direct supervision of, an engineer registered and licensed by the state. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. I further certify that I have entered into a contract with the owner/agent of the subject property to make the specified improvements to, or perform the contracting at, the real property specified in this application. I certify that all the foregoing information is accurate and that the work will be done in compliance with all applicable laws regulating construction and zoning. I acknowledge and accept responsibility for compliance with the correct Town Code, regulations, and ordinances, as well as the payment of all legally constituted fees regarding this application including but not limited to ALL REVIEW FEES AND PERMIT FEES. **NOTICE**: In addition to the requirements for this permit, there may be additional restrictions to this property that may be found in the public records of the county or that may be required from other governmental entities such as water management district, state agencies or federal agencies.

OWNERS AFFIDAVIT: I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning. I agree to allow any authorized employee of the Town of Longboat Key to enter upon the premises associated with this project for the purpose of ascertaining compliance with the terms and conditions of the application, or permit, and/or permit stipulations.

I hereby acknowledge that I have read and understood the above affidavit on this 20 **day of** OCTOBER, 2025.

Signature 

Print Name BRUCE FRANKLIN

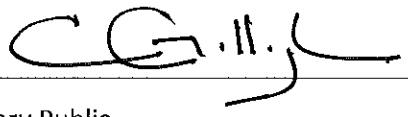
NOTARIZATION OF SIGNATURE

State of FLORIDA

County of SARASOTA

The foregoing instrument was acknowledged before me by means of physical presence ☑ or online notarization ☐, this 20TH day of OCTOBER 2025 By BRUCE FRANKLIN

as (type of authority) AGENT for (name of party on behalf) OWNER

Signature of Notary Public 

Printed/Stamped Name of Notary Public

CHRIS GALLAGHER
Notary Public
State of Florida
Comm# HH441535
Expires 11/2/2027

Personally known ☑ OR produced identification ☐ Type of ID.

OWNER'S SUBMISSION STATEMENT: Under penalty of perjury, I declare that all the information contained in this permit application is true and correct.

Revised 02/22/2024

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

REPLY TO
ATTENTION OF

March 31, 2026

Regulatory Division
West Permits Branch
Tampa Permits Section
SAJ-2024-00519 (LP-EWG)

Wojciech Zukiewicz
WB Longboat Key Residences, LLC
1819 Main Str. Ste. 107
Sarasota, FL 34236
Email: wzukiewicz@wbfinance.cz

Dear Wojciech Zukiewicz:

This is in reference to your request for a Department of the Army (DA) permit to perform work in or affecting waters of the United States (US). If you determine the permit provided is acceptable in its entirety and you have chosen to proceed with the authorized activity, then upon recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), you are authorized under a Letter of Permission (LOP).

to:

1. Excavate 6,150 square feet of dryland to remove 918 cubic yards (CY) of material down to -4-foot mean low water (MLW), and remove 340 linear feet of seawall.

2. Conduct maintenance dredging on 3,533 square feet of the canal to -4-foot MLW, removing 417 CY of sediment using a mechanical dredger.

3. Install turbidity curtains anchored to the bottom of the channel along the property boundary, which will remain in place during all in-water work to minimize water quality impacts during the dredging activities.

4. Store the dredged material in a staging area measuring 50 feet by 50 feet, which will be surrounded by silt fencing and dewater.

5. Install 395 linear feet (LF) of 8 inch thick concrete seawall to replace the existing seawall structure and to compensate for the seawall removed during the creation of the inland boat basin.

6. Pile drive 48 ten-inch wooden pilings to support four docks, each measuring 4 feet by 32 feet, along with eight boat lifts, each measuring 12 feet by 12 feet, within the newly created inland boat basin of 123 feet by 50 feet.

7. Transport the dredged material to an upland disposal location at the Manatee County landfill, situated at 3333 Lena Rd, Bradenton, FL.

at: Sarasota Bay, in Section 26, Township 35 South, Range 16 East, at 5630 Gulf of Mexico Dr., Longboat Key, Manatee County, Florida.

Geographic Position: Latitude: 27.415515°N
Longitude: -82.659801°W

The project must be completed in accordance with the seven (7) page project drawings (Attached) and the general and special conditions which are incorporated in, and made a part of, the permit.

Should any other agency require and/or approve changes to the work authorized or obligated by this permit, it is the responsibility of the Permittee to submit a modification request to the Tampa Permits Section. The Corps will evaluate the request and determine whether it is appropriate to modify the terms and conditions of the permit. The Permittee must obtain written approval of the requested modifications from the Corps prior to initiation of those changes.

General Conditions:

1. The time limit for completing the work authorized ends on **Five (5) years for the date of this letter**. If the work authorized is not completed on or before that date, authorization, if not previously revoked or specifically extended, shall cease and be null and void. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity, or should you desire to abandon it without a good faith

transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort of if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization (Attached).

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.

6. You must allow a representative from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

The following project-specific special conditions are included with this authorization:

1) **Reporting Addresses:** The Permittee shall submit all reports, notifications, documentation, and correspondence required by the general and special conditions of this permit to either (not both) of the following addresses:

   a. For electronic mail (preferred): SAJ-RD-Enforcement@usace.army.mil (not to exceed 15 MB).

   b. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019.

   c. The Permittee shall reference this permit number, SAJ-2024-00519, on all submittals.

2) **Pre-Construction Meeting:** The Permittee will schedule a pre-construction meeting with a Corps representative no later than 30 days prior to the start of work to review the special conditions of the permit. The Permittee shall not start work prior to the pre-construction meeting.

3) **Commencement Notification:** Within ten (10) days from the date of initiating the work authorized by this permit, the Permittee shall submit a completed "Commencement Notification" form (Attached).

4) **Notice of Permit:** The Permittee shall complete and record the "Notice of Department of the Army Authorization" form (Attached) with the Clerk of the County Court, Registrar of Deeds or other appropriate official charged with the responsibility of maintaining records of title to or interest in real property within the county of the authorized activity. No later than 90 days from the effective date of this permit, the Permittee shall provide a copy of the recorded Notice of Permit to the Corps clearly showing a stamp from the appropriate official indicating the book and page at which the Notice of Permit is recorded in the official records and the date of recording.

5) **As-Built Certification:** Within 60 days of completion of the work authorized by this permit, the Permittee shall submit as-built drawings of the authorized work and a completed "As-Built Certification by Professional Engineer or Surveyor" form (Attached) to the Corps. The as-built drawings shall be signed and sealed by a registered professional engineer or surveyor and include the following:

   a. A plan view drawing of the location of the authorized work footprint, as shown on the permit drawings, with an overlay of the work as constructed. The plan view drawing should show all existing water management structures and the completed structures, dredge/fill activities, and wetland impacts.

   b. A list of any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the attached "As-Built Certification by Professional Engineer" form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or "As-Built Certification by Professional Engineer" form does not constitute approval of any deviations by the Corps.

   c. The Department of the Army permit number on all sheets submitted.

6) **Posting of Permit:** The Permittee shall have available and maintain for review a copy of this permit and approved plans at the construction site.

7) **Turbidity Barriers**: Prior to the initiation of any of the work authorized by this permit, the Permittee shall install floating turbidity barriers with weighted skirts that extend within 1-foot of the bottom around all work areas that are in, or adjacent to, surface waters. The turbidity barriers shall remain in place and be maintained daily until the authorized work has been completed and turbidity within the construction area has

returned to ambient levels. Turbidity barriers shall be removed upon stabilization of the work area.

8) **Permit Conditions Prevail:** If information in the permit attachments conflict with the special conditions of this permit, the requirements of the permit special conditions shall prevail.

9) **Agency Changes/Approvals:** Should any other agency require and/or approve changes to the work authorized or obligated by this permit, the Permittee is advised a modification to this permit instrument is required prior to initiation of those changes. It is the Permittee's responsibility to request a modification of this permit from the Tampa Permits Section. The Corps reserves the right to fully evaluate, amend, and approve or deny the request for modification of this permit.

10) **Cultural Resources/Historic Properties:**

a. No structure or work shall adversely affect impact or disturb properties listed in the National Register of Historic Places (NRHP) or those eligible for inclusion in the NRHP.

b. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps at the addresses listed in the Reporting Address Special Condition within the same business day (8 hours). The Corps shall coordinate with the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.

c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the special condition above and, if deemed necessary by the SHPO, THPO(s), or Corps, in accordance with 36 Code of Federal Regulations (CFR) 800 or 33 CFR 325, Appendix C (5). Based on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend, or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume on non-federal lands without

written authorization from the SHPO for finds under his or her jurisdiction, and from the Corps.

d. In the unlikely event that unmarked human remains are identified on non-federal lands; they will be treated in accordance with Section 872.05 Florida Statutes. All work and ground disturbing activities within a 100-meter diameter of the unmarked human remains shall immediately cease, and the Permittee shall immediately notify the medical examiner, Corps, and State Archeologist within the same business day (8-hours). The Corps shall then notify the appropriate SHPO and THPO(s). Based on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend, or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume without written authorization from the State Archeologist and from the Corps.

11) **Jacksonville District Programmatic Biological Opinion (JAXBO):** Structures and activities authorized under this permit will be constructed and operated in accordance with all applicable PDCs contained in the JAXBO, based on the permitted activity. Johnson's seagrass and its critical habitat were delisted from the Endangered Species Act on 16 May 2022. Therefore, JAXBO PDCs required to minimize adverse effects to Johnson's seagrass and its critical habitat are no longer applicable to any project. Failure to comply with applicable PDCs will constitute noncompliance with this permit. In addition, failure to comply with the applicable PDCs, where a take of listed species occurs, would constitute an unauthorized take. The NMFS is the appropriate authority to determine compliance with the Endangered Species Act. The most current version of JAXBO can be accessed at the Jacksonville District Regulatory Division website in the Endangered Species section of the Sourcebook located at:
http://www.saj.usace.army.mil/Missions/Regulatory/SourceBook.aspx

JAXBO may be subject to revision at any time. The most recent version of the JAXBO must be utilized during the design and construction of the permitted work.

12) **Manatee Conditions:** The Permittee shall comply with the "Standard Manatee Conditions for In-Water Work – 2011" (Attached). The most recent version of the Manatee Conditions must be utilized.

13) **Required Signage:** The permittee shall install and permanently maintain Manatee Educational Signs as indicated on the Florida Fish and Wildlife Conservation Commission (FWCC) - "Manatee Educational Signs Required by Permit or Submerged Lands Lease March 2011".

14) **Assurance of Navigation and Maintenance:** The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structures or work herein authorized, or if in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

15) **Dredged Material Disposal:** The Permittee shall ensure that the intermediate dredged material collection in dump trucks prevents any discharge of dredged material and associated effluent into the waters of the United States. Additionally, the Permittee is required to place all dredged material at the upland disposal site.

Instructions for Objecting to Permit Terms and Conditions: This letter contains an initial proffered permit for your proposed project/permit application. If you object to certain terms and conditions contained within the permit, you may request that the permit be modified. Enclosed you will find a Notification of Administrative Appeal Options and Process fact sheet and Request for Appeal (RFA) form (Attached). If you choose to object to certain terms and conditions of the permit, you must follow the directions provided in Section 1, Part A and submit the completed RFA form to the Tampa Permits Section at the address listed at the bottom of this letter. For an RFA to be accepted by the Corps, the Corps must determine that it is complete and that it has been received within 60 days of the date of the RFA. Should you decide to submit an RFA form, it must be received by the Tampa Permits Section by **June 1, 2026.**

Floodplain Information: This Department of the Army permit does not give absolute authority to perform the work as specified on your application. The proposed work may be subject to local building restrictions. You should contact the local office in your area that issues building permits to determine if your site is located in a flood-prone or floodway area, and if you must comply with the local building requirements mandated by the National Flood Insurance Program. If your local office cannot provide you the necessary information, you may request a flood hazard evaluation of the site by providing this office with a letter and a small-scale map showing the location of the site. The request should be addressed to the **Chief, Flood Control and Floodplain Management Branch, Jacksonville District, U.S. Army Corps of Engineers, P.O. Box 4970, Jacksonville, Florida 32232-0019**. Phone inquiries may be made at 904-232-2515.

Should you have any questions, please contact Edgar W. Garcia by email Edgar.W.Garcia@usace.army.mil, in writing at the Tampa Permits Office at 10117 Princess Palm Avenue, Suite 120, Tampa, Florida 33610, or by telephone at 813-769-7062.

The Corps Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to take a few minutes to visit http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

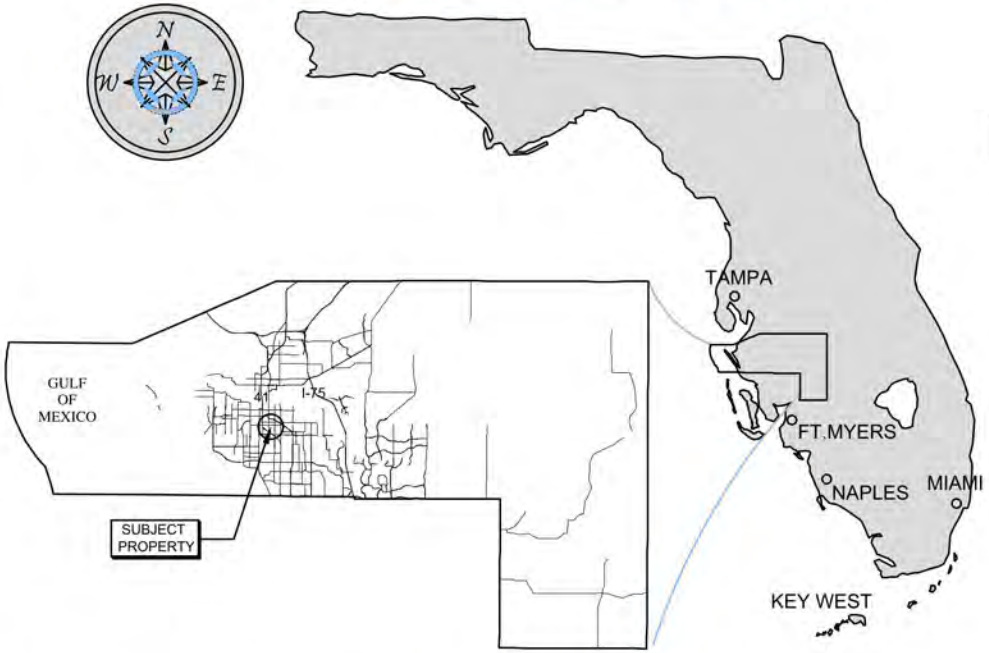
For:
Brandon L. Bowman
Colonel, U.S. Army
District Commander

Enclosures:
1. Project Drawings (7 pages)
2. Commencement Notification (1 page)
3. As-Built Certification: (1 page)
4. Notice of Permit (2 Pages)
5. Permit Transfer Request (1 page)
6. Request for Appeal Form (3 pages)
7. Standard Manatee Conditions (2 pages)
8. Manatee Educational Signs (2 pages)
9. Protected Species Construction Conditions (2 pages)

cc: CESAJ-RD-RE

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg LOCATION MAP 4/28/2025

STATE OF FLORIDA



MANATEE COUNTY



VICINITY MAP



COUNTY AERIAL

SITE ADDRESS:
<> 5630 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

<> LATITUDE: N 27.415609
<> LONGITUDE: W -82.659969

NOTES:
<> THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

Turrell, Hall & Associates, Inc.
Marine & Environmental Consulting
3584 Exchange Ave. Naples, FL 34104-3732
Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

LOCATION MAP

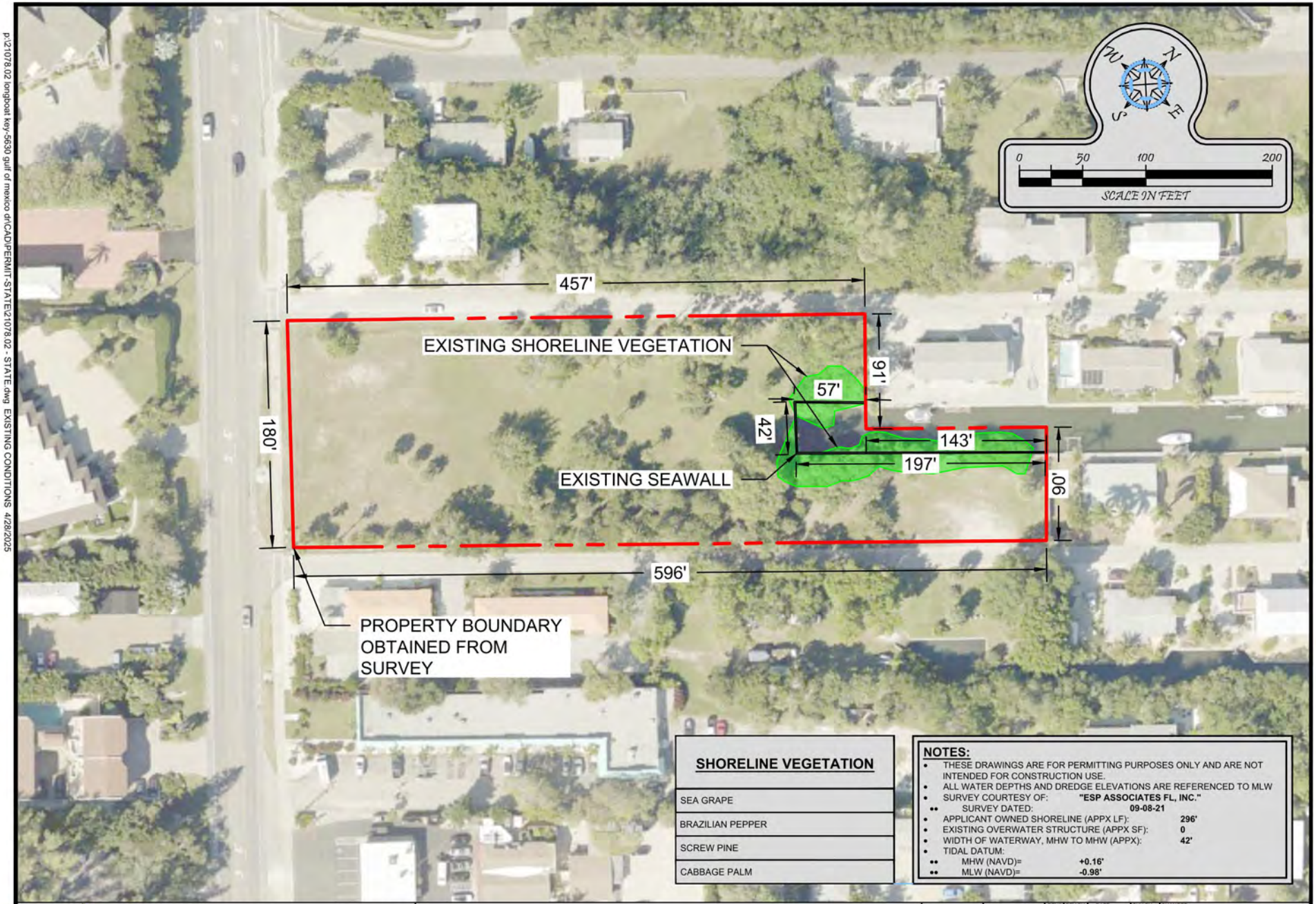
RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	RMJ	02-24-25	CH	SHEET 04
DRAWN BY:	RMJ	2.	RMJ	04-28-25	CH	SHEET04, 07
CREATED:	10-17-24	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	01 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg EXISTING CONDITIONS 4/28/2025



SHORELINE VEGETATION
SEA GRAPE
BRAZILIAN PEPPER
SCREW PINE
CABBAGE PALM

NOTES:

- THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.
- ALL WATER DEPTHS AND DREDGE ELEVATIONS ARE REFERENCED TO MLW
- SURVEY COURTESY OF: **"ESP ASSOCIATES FL, INC."**
  - SURVEY DATED: **09-08-21**
- APPLICANT OWNED SHORELINE (APPX LF): **296'**
- EXISTING OVERWATER STRUCTURE (APPX SF): **0**
- WIDTH OF WATERWAY, MHW TO MHW (APPX): **42'**
- TIDAL DATUM:
  - MHW (NAVD)= **+0.16'**
  - MLW (NAVD)= **-0.98'**

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Marine & Environmental Consulting
3584 Exchange Ave. Naples, FL 34104-3732
Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

EXISTING CONDITIONS

RY NO. 5875

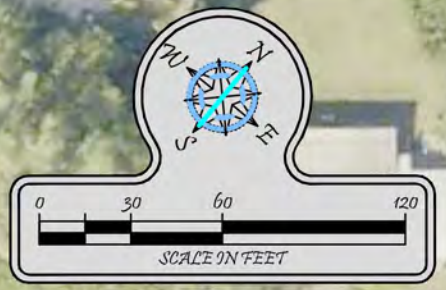
THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REVS	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	10-17-24	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	02 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg 4/28/2025 SITE 4/28/2025

PILE COUNT		
TYPE	SIZE	QUANTITY
WOOD PILE	10"	48
PILES IN WATER IMPACTS = 105 SF (QTY: 48)		



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5630 GULF OF MEXICO DR

OVERALL SITE

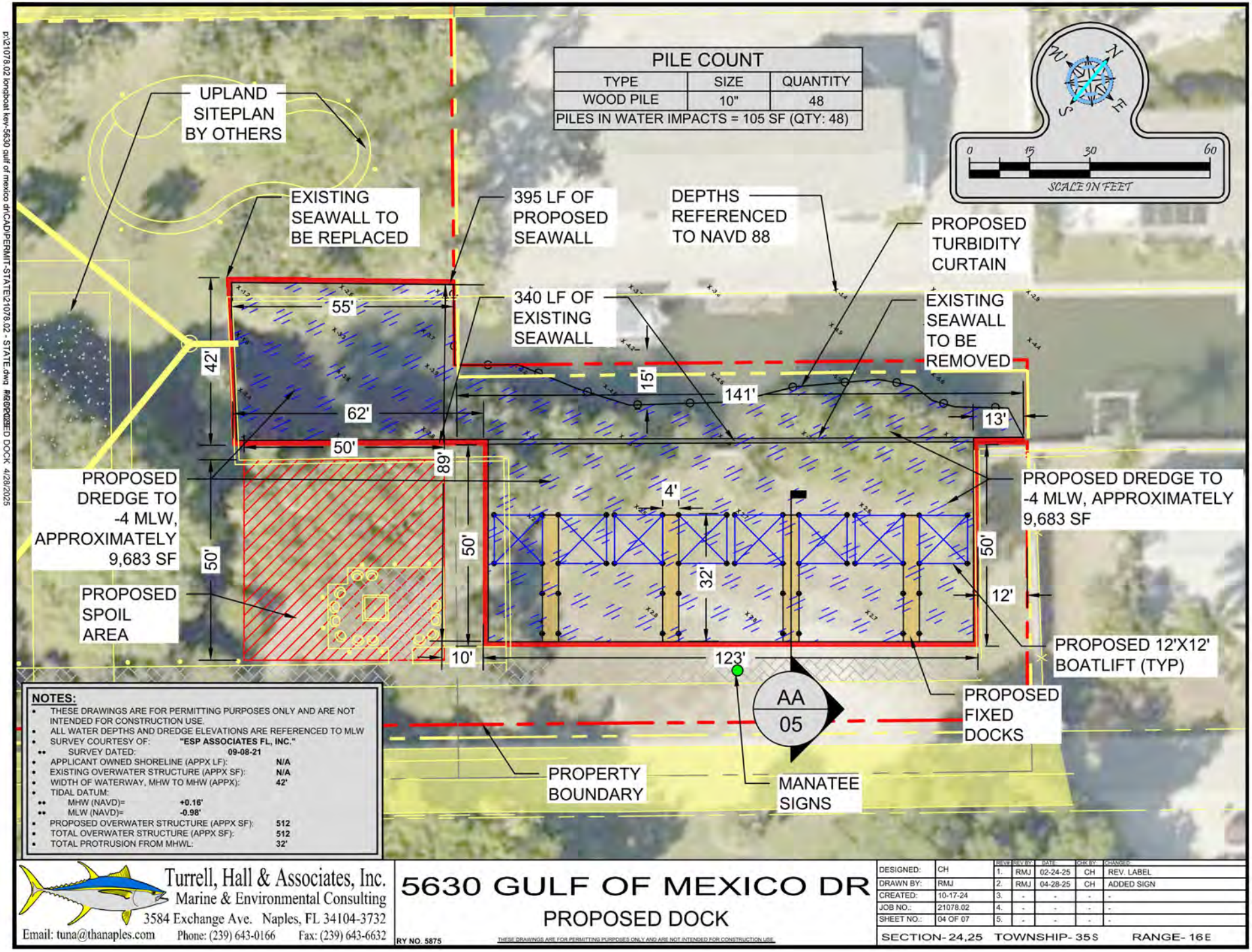
RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REVS	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	10-17-24	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	03 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg REPROPOSED DOCK 4/28/2025



NOTES:

- THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.
- ALL WATER DEPTHS AND DREDGE ELEVATIONS ARE REFERENCED TO MLW
- SURVEY COURTESY OF: **"ESP ASSOCIATES FL, INC."**
  - SURVEY DATED: **09-08-21**
- APPLICANT OWNED SHORELINE (APPX LF): **N/A**
- EXISTING OVERWATER STRUCTURE (APPX SF): **N/A**
- WIDTH OF WATERWAY, MHW TO MHW (APPX): **42'**
- TIDAL DATUM:
  - MHW (NAVD)= **+0.16'**
  - MLW (NAVD)= **-0.98'**
- PROPOSED OVERWATER STRUCTURE (APPX SF): **512**
- TOTAL OVERWATER STRUCTURE (APPX SF): **512**
- TOTAL PROTRUSION FROM MHWL: **32'**

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5630 GULF OF MEXICO DR

PROPOSED DOCK

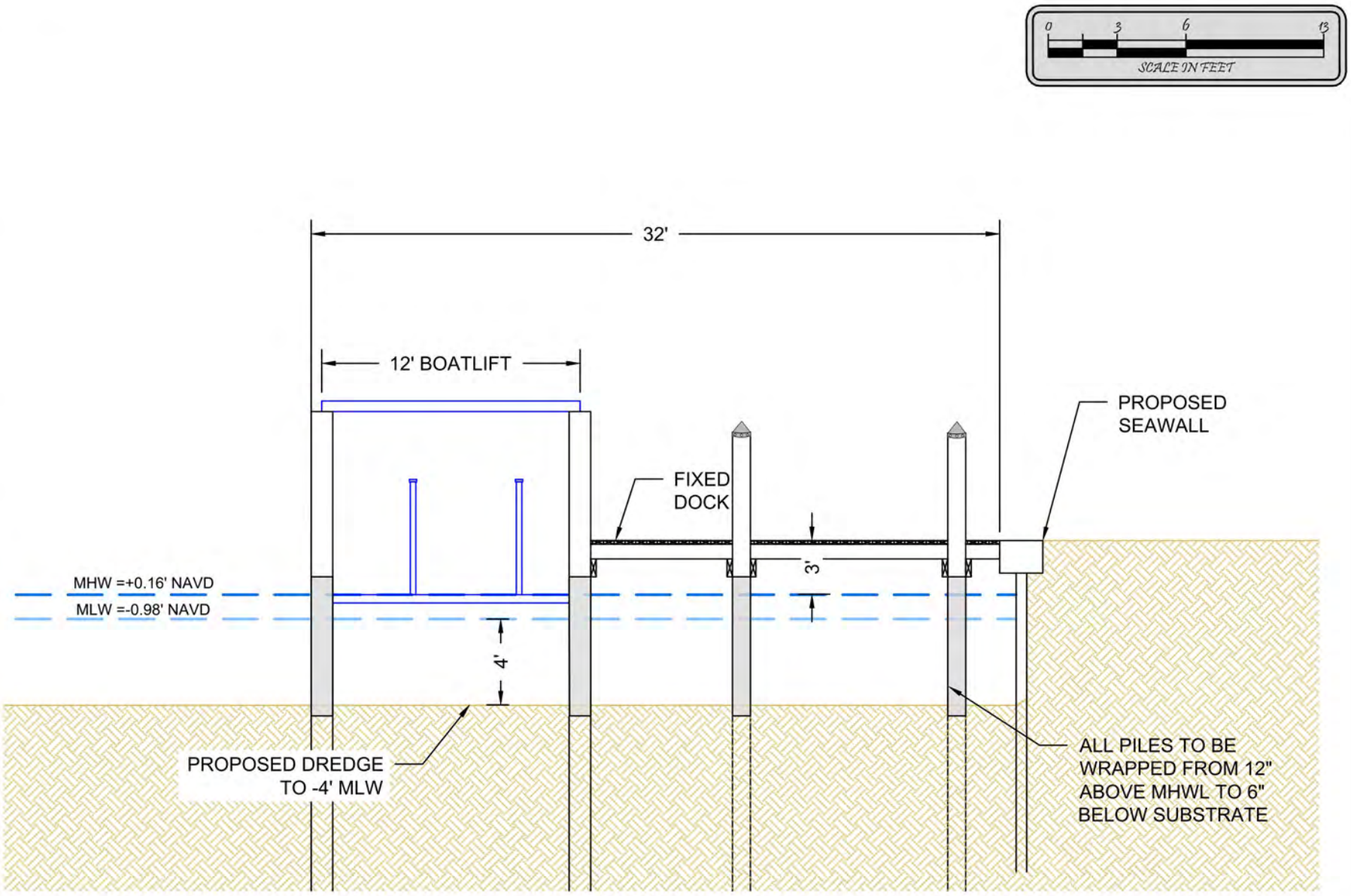
RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	RMJ	02-24-25	CH	REV. LABEL
DRAWN BY:	RMJ	2.	RMJ	04-28-25	CH	ADDED SIGN
CREATED:	10-17-24	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	04 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg CROSS SECTION 4/28/2025



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5630 GULF OF MEXICO DR

CROSS SECTION AA

RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

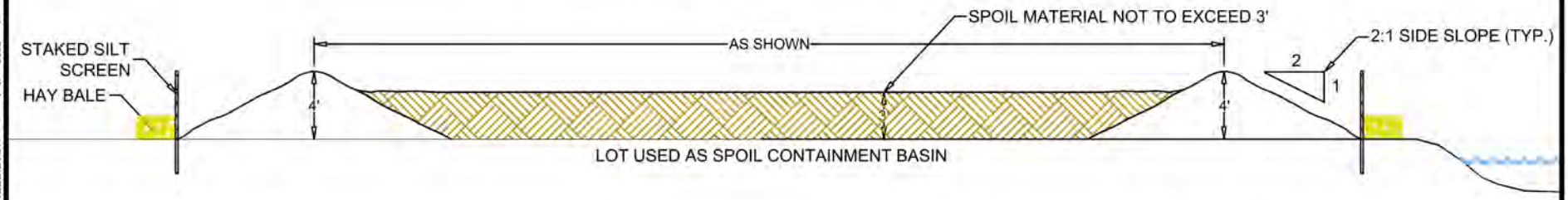
		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	10-17-24	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	05 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg SPOIL AND TURBIDITY DETAILS 4/28/2025

CROSS SECTION A-A'

N.T.S.



NOTES:

NO SPOIL RUNOFF INTO STATE WATERS

BOTH ENDS OF THE TURBIDITY CURTAIN SHOULD EXTEND FROM THE SHORELINE O COLUMN. PLACE THE APPROPRIATE # OF ANCHORS TO HOLD THE CURTAIN IN PLACE BASED ON THE VELOCITY OF THE WATERBODY AT THE TIME OF CONSTRUCTION AND ALLOW ENOUGH SLACK FOR BOTH FLOOD AND EBB CONDITIONS.

THE BARGE WILL BE WITHIN THE CONSTRUCTION AREA SURROUNDED BY THE TURBIDITY CURTAIN. TURBIDITY (NTU) WILL BE MONITORED TWICE DAILY, AT LEAST 4 HRS APART DURING ANY IN WATER WORK AT THE SITE. TURBIDITY STATIONS WILL BE LOCATED AT THE WATER'S SURFACE AND 1' ABOVE THE BOTTOM WITHIN THE CONSTRUCTION AREA, WITHIN ANY VISIBLE TURBIDITY PLUMES AND AT LEAST 150' DOWN CURRENT FROM THE WORK AREA. A BACKGROUND STATION WILL BE LOCATED AT LEAST 100 YARDS UP-CURRENT OR AGAINST THE TIDE FROM THE SAMPLES WITHIN THE CONSTRUCTION AREA AT THE WATER'S SURFACE AND 1' FROM THE BOTTOM.

ALL TURBIDITY DATA SHALL BE DOCUMENTED AND SUBMITTED TO DEP.

IF TURBIDITY LEVELS IN THE CONSTRUCTION AREA ARE 29 NTU'S GREATER THAN THOSE OF THE BACKGROUND STATION, ALL WORK MUST BE STOPPED AND DEP NOTIFIED.

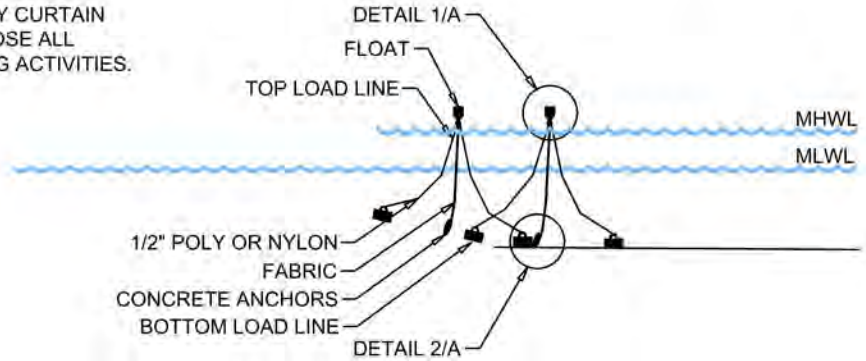
DEP STAFF WILL NOTIFY WHEN WORK MAY CONTINUE.

CURTAIN WILL REMAIN IN PLACE UNTIL TURBIDITY LEVELS ARE NORMAL. SPOIL TO BE OFFLOADED FROM BARGE TO TEMPORARY HOLDING AREA VIA BARGE MOUNTED BACKHOE. SPOIL WILL BE MOVED TO PERMANENT SPOIL FIELD VIA UT TO THE WORK AREA FROM THE TOP TO THE BOTTOM OF THE WATERFRONT END LOADER.

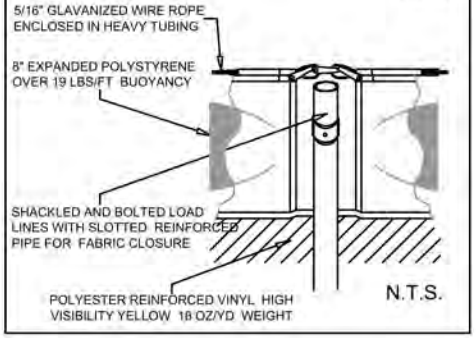
TYPICAL TURBIDITY CURTAIN DETAIL

N.T.S.

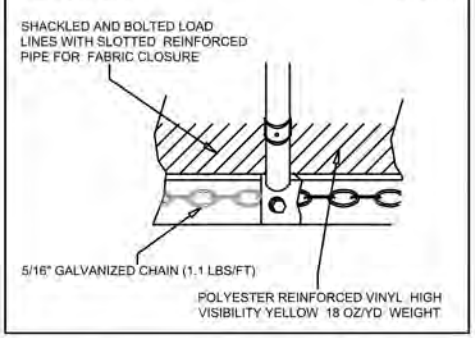
TURBIDITY CURTAIN TO ENCLOSE ALL DREDGING ACTIVITIES.



DETAIL 1/A N.T.S.



DETAIL 2/A N.T.S.



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5630 GULF OF MEXICO DR

SPOIL AND TURBIDITY DETAILS

RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY	DATE	CHK'D	CHANGES
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	10-17-24	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	06 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

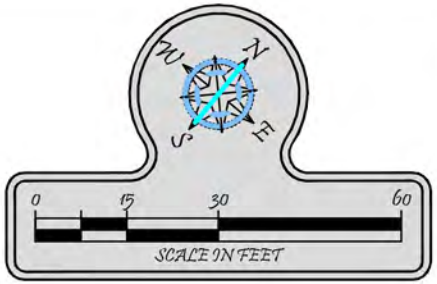
p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\PERMIT-STATE\21078.02 - STATE.dwg MANATEE SIGNS PLAN 4/28/2025

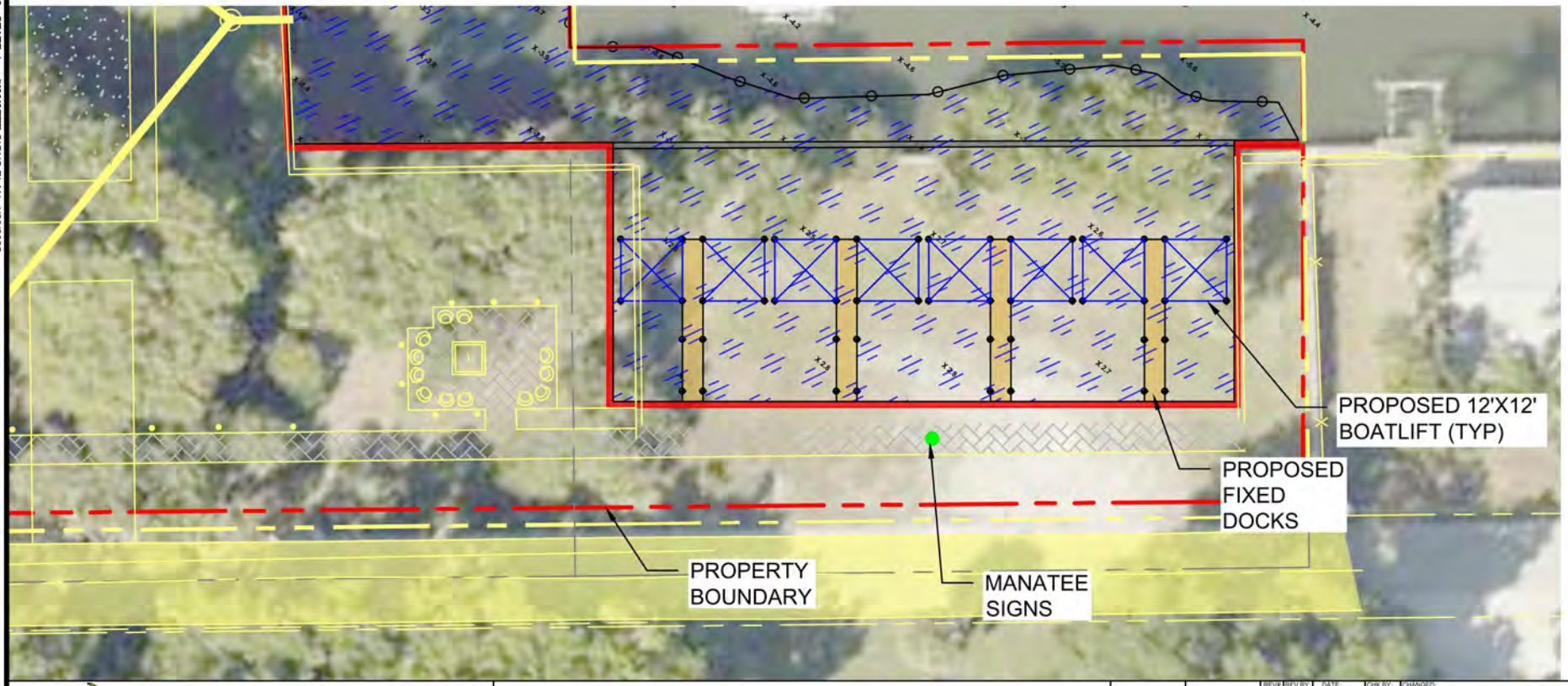


MANATEE EDUCATIONAL SIGN



MANATEE CAUTION SIGN





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RY NO. 5875

5630 GULF OF MEXICO DR

MANATEE SIGNS PLAN

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	04-28-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	07 OF 07	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

COMMENCEMENT NOTIFICATION

Within 10 days of initiating the authorized work, submit this form via electronic mail to saj-rd-enforcement@usace.army.mil (preferred, not to exceed 15 MB) ***or*** *by standard mail to U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019.*

1. **Department of the Army Permit Number**: SAJ-2024-00519

2. **Permittee Information**:

   Name: _____

   Email: _____

   Address: _____

   _____

   Phone: _____

3. **Construction Start Date**: _____

4. **Contact to Schedule Inspection**:

   Name: _____

   Email: _____

   Phone: _____

_____
Signature of Permittee

_____
Printed Name of Permittee

_____
Date

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineering drawings to the U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019. For electronic mail saj-rd-enforcement@usace.army.mil *(not to exceed 15 MB).*

1. Department of the Army Permit Number: SAJ-2024-00519

2. Permittee Information:

Name: _____

Address: _____

_____

3. Project Site Identification (physical location/address):

_____

_____

_____

4. As-Built Certification: I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled, and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

_____ _____

Signature of Engineer Name (*Please type*)

_____ _____

(FL, PR, or VI) Reg. Number Company Name

_____ _____ _____

City State ZIP

(Affix Seal)

_____ _____

Date Telephone Number

Date Work Started:_____ Date Work Completed:_____

Identify any deviations from the approved permit drawings and/or special conditions (attach additional pages if necessary):

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ENCLOSURE 4

Prepared by:
Permittee: _____
Address: _____
_____
Phone:_____

NOTICE OF DEPARTMENT OF THE ARMY PERMIT

TAKE NOTICE the U.S. Army Corps of Engineers (Corps) has issued Department of the Army Permit SAJ- - to (Permittee) on , 20 , authorizing impacts to waters of the United States (including wetlands) in accordance with Section 404 of the Clean Water Act on a parcel of land known as Folio/Parcel ID: _____ encompassing _____ acres located within a portion of Section _____, Township _____ south, Range _____ east, _____, _____ County, Florida.

Within 30 days of any transfer of interest or control of that portion of the premises containing the area authorized to be filled (or any portion thereof), the Permittee must notify the Corps in writing of the property transfer by submitting the completed permit transfer page of the permit. Notification of the transfer does not by itself constitute a permit transfer. Therefore, purchasers of that portion of the premises containing the area authorized to be filled (or any portion thereof) are notified that it is unlawful for any person to construct, alter, operate, maintain, remove or abandon any works, including dredging or filling, without first having obtained a permit from the Corps in the purchaser's name.

The subject Permit concerns only that portion of the property determined to fall within the jurisdiction of the Corps and this notice is applicable only to those portions of the subject property containing areas authorized to be filled and wetland mitigation/conservation areas subject to the Permit.

Conditions of the Permit: The Permit is subject to General Conditions and Special Conditions which may affect the use of the subject property. Accordingly, interested parties should closely examine the entire Permit, all associated applications, and any subsequent modifications.

To obtain a copy of the permit in its entirety submit a written request to:
U.S. Army Corps of Engineers
Regulatory Division - Special Projects & Enforcement Branch
Post Office Box 4970
Jacksonville, Florida 32232-0019

Questions regarding compliance with these conditions should be directed to:
U.S. Army Corps of Engineers
Enforcement Section
Post Office Box 4970
Jacksonville, Florida 32232-0019

Conflict Between Notice and Permit
This Notice of Permit is not a complete summary of the Permit. Provisions in this Notice of Permit shall not be used in interpreting the Permit provisions. In the event of conflict between this Notice of Permit and the Permit, the Permit shall control.

This Notice is Not an Encumbrance
This Notice is for informational purposes only. It is not intended to be a lien, encumbrance, or cloud on the title of the premises.

Release
This Notice may not be released or removed from the public records without the prior written consent of the Corps.

This Notice of Permit is executed on this _____ day of _____, 20____. This document is being submitted for recordation in the Public Records of _____ County, Florida as part of the requirement imposed by Department of the Army Permit No SAJ- - issued by the Corps.

Permittee:
_____
Address:
_____
_____
____
Phone:_____
___

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 20____, by _____, who is personally known to me or has produced _____ as identification.

_____
Notary Public

(seal)

_____
Print

My Commission Expires_____

ENCLOSURE 5

DEPARTMENT OF THE ARMY PERMIT TRANSFER REQUEST

DA PERMIT NUMBER: SAJ-2024-00519 (LOP-EWG)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. Although the construction period for works authorized by Department of the Army permits is finite, the permit itself, with its limitations, does not expire.

To validate the transfer of this permit and the associated responsibilities associated with compliance with its terms and conditions, have the transferee sign and date below and mail to the U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019 or by electronic mail at SAJ-RD-Enforcement@usace.army.mil .

_____
(TRANSFEREE-SIGNATURE)

_____
(DATE)

_____
(NAME-PRINTED)

_____

_____
(MAILING ADDRESS)

_____
(CITY, STATE, ZIP CODE)

_____
(SUBDIVISION)

_____ _____
(LOT) **(BLOCK)**

_____
(STREET ADDRESS)

U.S. Army Corps of Engineers (USACE)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.

Form Approved -
OMB No. 0710-0003
Expires 2027-10-31

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority The authorities for requesting this information are Sections 9, 10, 13, and 14, Rivers and Harbors Act of March 3, 1899; Section 404, Clean Water Act; and Section 103 Marine Protection Research and Sanctuaries Act of 1972.

Principal Purpose This information serves as notification to affected parties regarding the USACE administrative appeal options and process, as well as to facilitate requests for appeal of USACE decisions with which they disagree.

Routine Uses Routine uses will include: (a) To serve as notification to affected parties of the Corps administrative appeal options and process and to facilitate requests for appeal of Corps decisions with which they disagree. (b) Records may be referred to the Department of Justice for possible criminal prosecution. (c) Records may be referred to other Federal, State, and local agencies for evaluation and enforcement purposes.

Disclosure Disclosure of this information is voluntary on your part. However, failure of individual to provide requested information could result in inability to determine all pertinent information regarding a Department of the Army permit matter.

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0003, is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PURPOSE: This form is used to facilitate the initiation of the administrative appeals process. The appeals process allows an affected party to pursue an administrative appeal of certain Corps of Engineers decisions with which they disagree.

Upon release, this form will also be available on the Corps website https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/

Applicant: Wojciech Zukiewicz	File Number: SAJ-2024-00519	Date: 30-Mar-2026

Documents Attached (*select all that apply*):	Form Reference Section:
☐ INITIAL PROFFERED PERMIT (*Standard Permit or Letter of Permission*)	A
☑ PROFFERED PERMIT (*Standard Permit or Letter of Permission*)	B
☐ PERMIT DENIAL WITHOUT PREJUDICE	C
☐ PERMIT DENIAL WITH PREJUDICE	D
☐ APPROVED JURISDICTIONAL DETERMINATION	E
☐ PRELIMINARY JURISDICTIONAL DETERMINATION	F

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/ or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: *You may accept or object to the permit*

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: *You may accept or appeal the permit*

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: *Not appealable*

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: *You may appeal the permit denial*

You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: *You may accept or appeal the approved JD or provide new information for reconsideration*

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

- RECONSIDERATION: You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: *Not appealable*

You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:		If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:	
Name:	Project Manager as noted in the letter.	Name:	Krista Sabin, Regulatory Appeals Review Officer
Street Address, City, State:	Project Manager as noted in the letter.	Street Address, City, State:	USACE South Atlantic Division 60 Forsyth Street SW Atlanta, Georgia 30303-8801
Phone:	Project Manager as noted in the letter.	Phone:	904-314-9631
Email:	Project Manager as noted in the letter.	Email:	CESAD-Regulatory@usace.army.mill

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (*Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.*)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

Email address of appellant and/or agent	Telephone number
Signature of appellant or agent	Date

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

ENCLOSURE 8

Florida Fish and Wildlife Conservation Commission

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600

MyFWC.com

Manatee Educational Signs

Required by Permit or Submerged Lands Lease
March 2011

In order to obtain FWC approval for the manatee educational signs required by state permit or submerged lands lease, requests should be sent to:

ImperiledSpecies@myfwc.com
or:
Florida Fish and Wildlife Conservation Commission
Imperiled Species Management Section 6-A
620 South Meridian Street Tallahassee, FL 32399-1600.

The FWC requests that the permittee propose and submit a plan for installing signs based on the guidelines discussed below. FWC will review the sign placement proposal and notify the permittee within 60 days of receiving the plan if the signs and locations are unacceptable. Modifications to the type, location and number of proposed signs may be required. All sign proposals should follow the general guidelines in this document. The following information should be included in this plan and forwarded to FWC for review:

- A detailed upland project site plan with proposed sign locations, types, and proposed numbers of manatee signs. Include which way the signs are proposed to face.
- The project address or a location map of the facility in relation to waterways.
- The project permit or submerged lands lease number.
- Your name, email address, mailing address and a phone number.

Guidelines for the installation of signs

- Signs must be placed in a prominent location for maximum visibility. Areas that are recommended include: dock walkways, dock master offices, near restrooms or other high patron foot traffic areas.
- Signs must be replaced when faded, damaged or outdated.
- If the facility is large or has multiple docks with separate walkways that are a considerable distance apart, multiple signs should be installed.
- These signs must not face the water, must never be attached to pilings or navigational markers in the water. One exception to signs facing the water exists for the temporary sign, "Caution Boaters" during in-water work.

FWC Approved Signs and Sign Specifications

The FWC designs manatee educational signs, which can be produced by most sign companies. Signs other than depicted may be considered, but must be pre-approved by FWC's Imperiled Species Management Section. There is a list of known sign vendors who produce FWC signs on our Manatee Sign Vendor webpage as well as downloadable files for sign companies not on this list who may want to produce these signs.

Manatee Educational Signs

February 2011

For durability, all signs should be fiberglass or metal with rounded corners (hand-sanded to remove all sharp edges and burrs), constructed of 0.08 Gauge 5052-H38 Aluminum with an Alodine 1200 conversion coating and Engineer Grade Type I reflective sheeting. Signs constructed to other specifications may not provide durability acceptable to the consumer.

The approved signs must meet the following specifications:

Florida Friendly Boating (2009)	Caution: Boaters (2009)	Entanglement (2010)	Caution: Shut Down (2009)
Minimum size should be 30" tall x 36" wide with rounded corners	Minimum size should be 30" tall x 24" wide with rounded corners	Minimum size should be 15" tall X 12" wide with rounded corners	Minimum size should be 8½" tall by 11" wide metal with rounded corners
			
This sign is considered the manatee educational sign. In 2009, it replaced the older manatee educational sign called "Manatee Basics for Boaters".	This sign is sometimes referred to as an awareness sign. In 2009, it replaced the "Caution: Manatee Area" sign. These signs are also frequently used as temporary signs for construction purposes.	This entanglement sign is typically placed near recycling bins or trash containers.	This temporary sign is required as part of the standard manatee construction conditions and is intended to be placed near dredge, tugboat and work boat operators.

The size and type of signs required by permit or lease may vary from those depicted in this guide. If you have any questions, please contact FWC's Imperiled Species Management Section.

NOAA FISHERIES | Southeast Regional Office

PROTECTED SPECIES CONSTRUCTION CONDITIONS, NOAA FISHERIES SOUTHEAST REGIONAL OFFICE

The action agency and any permittee shall comply with the following construction conditions for protected species under the jurisdiction of NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD):[1]

Protected Species Sightings–The action agency and any permittee shall ensure that all personnel associated with the project are instructed about the potential presence of species protected under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). All on-site project personnel are responsible for observing water-related activities for the presence of protected species. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing listed species and all marine mammals. To determine which protected species and critical habitat may be found in the transit area, please review the relevant marine mammal and ESA-listed species at Find A Species (https://www.fisheries.noaa.gov/find-species) and the consultation documents that have been completed for the project.

1. **Equipment**–Turbidity curtains, if used, shall be made of material in which protected species cannot become entangled and be regularly monitored to avoid protected species entrapment. All turbidity curtains and other in-water equipment shall be properly secured with materials that reduce the risk of protected species entanglement and entrapment.

    a. In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) shall be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, shall be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line shall be allowed in the water. All anchoring shall be in areas free from hardbottom and seagrass.

    b. Turbidity curtains and other in-water equipment shall be placed in a manner that does not entrap protected species within the project area and minimizes the extent and duration of their exclusion from the project area.

    c. Turbidity barriers shall be positioned in a way that minimizes the extent and duration of protected species exclusion from important habitat (e.g. critical habitat, hardbottom, seagrass) in the project area.

2. **Operations**–For construction work that is generally stationary (e.g., barge-mounted equipment dredging a berth or section of river, or shore-based equipment extending into the water):

    a. Operations of moving equipment shall cease if a protected species is observed within 150 feet of operations.

[1] Manatees are managed under the jurisdiction of the U.S. Fish and Wildlife Service.

b. Activities shall not resume until the protected species has departed the project area of its own volition (e.g., species was observed departing or 20 minutes have passed since the animal was last seen in the area).

3. **Vessels**–For projects requiring vessels, the action agency, and any permittee shall ensure conditions in the Vessel Strike Avoidance Measures are implemented as part of the project/permit issuance (https://www.fisheries.noaa.gov/southeast/consultations/regulations-policies-and-guidance).

4. **Consultation Reporting Requirements**–Any interaction with a protected species shall be reported immediately to NOAA Fisheries SERO PRD and the local authorized stranding/rescue organization.

   To report to NOAA Fisheries SERO PRD, send an email to takereport.nmfsser@noaa.gov. Please include the species involved, the circumstances of the interaction, the fate and disposition of the species involved, photos (if available), and contact information for the person who can provide additional details if requested. Please include the project's Environmental Consultation Organizer (ECO) number and project title in the subject line of email reports.

   To report the interaction to the local stranding/rescue organization, please see the following website for the most up to date information for reporting sick, injured, or dead protected species:

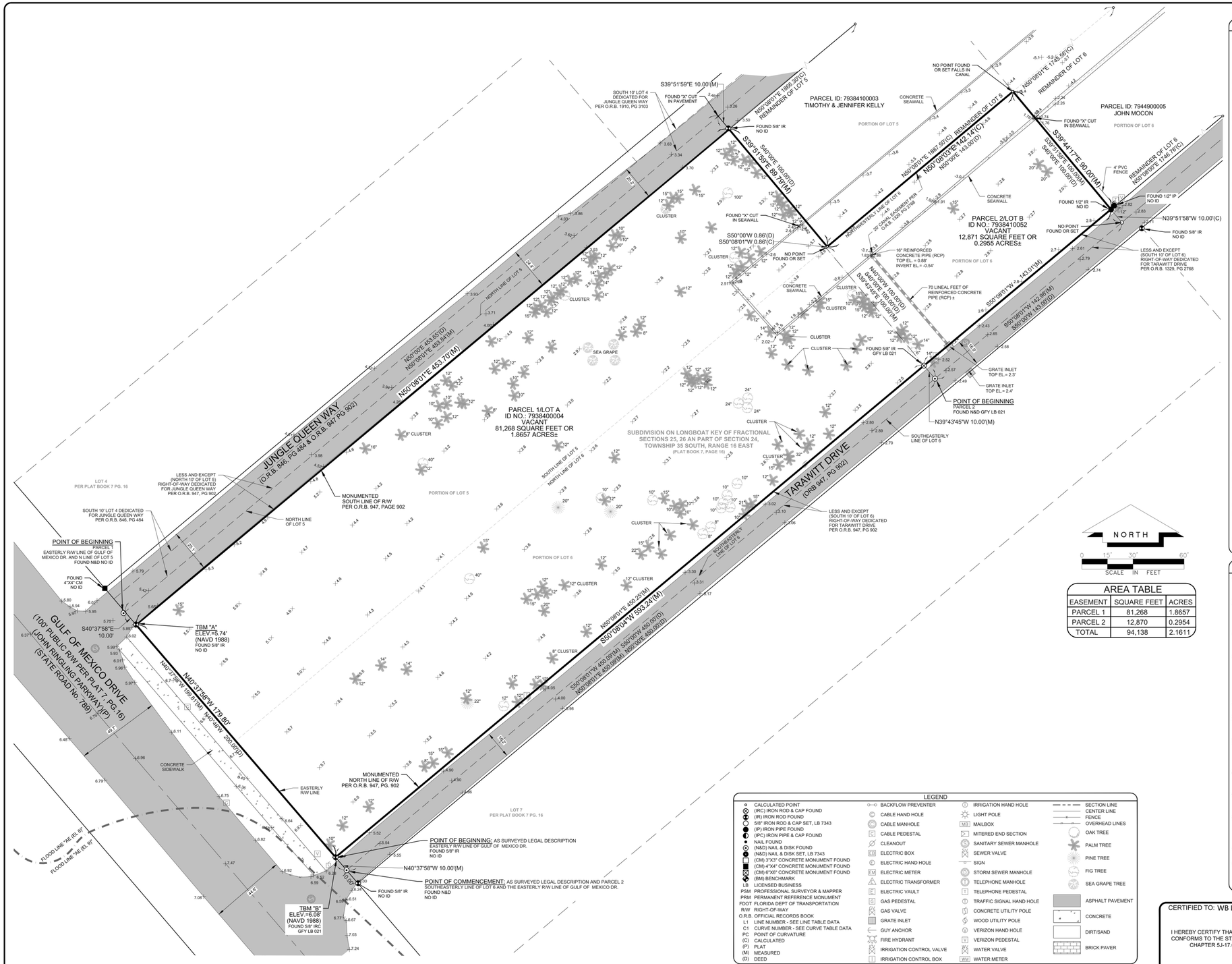
   Reporting Violations–To report an ESA or MMPA violation, call the NOAA Fisheries Enforcement Hotline. This hotline is available 24 hours a day, 7 days week for anyone in the United States.

   NOAA Fisheries Enforcement Hotline (800) 853-1964

5. **Additional Conditions**–Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the project consultation and must also be complied with.

For additional information, please contact NOAA Fisheries SERO PRD at:
NOAA Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
Tel: (727) 824-5312
Visit us on the web at Protected Marine Life in the Southeast
(https://www.fisheries.noaa.gov/region/southeast#protected-marine-life)

Revised: May 2021



LEGAL DESCRIPTION

PARCEL 1 (OFFICIAL RECORDS BOOK 1671, PAGE 2983)

BEGIN AT THE INTERSECTION OF THE EASTERLY R/W LINE OF GULF OF MEXICO DRIVE (100.00 FEET WIDE) AND THE NORTH LINE OF LOT 5, SUBDIVISION ON LONGBOAT KEY OF FRACTIONAL SECTIONS 25, 26 AND PART OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST, RECORDED IN PLAT BOOK 7, PAGE 16, PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA; THENCE N. 50 DEGREES 00' E., ALONG THE NORTH LINE OF SAID LOT 5, 453.65 FEET; THENCE S. 40 DEGREES 00' E., 100.00 FEET TO THE SOUTH LINE OF SAID LOT 5, THENCE S. 50 DEGREES 00' W., ALONG SAID SOUTH LINE OF LOT 5, 0.86 FEET; THENCE S. 40 DEGREES 00' E., 100.00 FEET TO THE SOUTH LINE OF LOT 6, THENCE S. 50 DEGREES 00' W., ALONG SAID SOUTH LINE OF LOT 6, 450.00 FEET TO THE EASTERLY R/W LINE OF GULF OF MEXICO DRIVE; THENCE N. 40 DEGREES 48' W., ALONG SAID R/W LINE. 200.00 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH:

PARCEL 2 (OFFICIAL RECORDS BOOK 1329, PAGE 2768)

A PORTION OF LOT 6 OF A SUBDIVISION ON LONGBOAT KEY OF FRACTIONAL SECTIONS 25, 26 AND PART OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST, RECORDED IN PLAT BOOK 7, PAGE 16, OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTHEASTERLY LINE OF SAID LOT 6 AND THE EASTERLY RIGHT-OF-WAY LINE OF GULF OF MEXICO DRIVE (STATE ROAD NO. 780) (100 FEET R/W); THENCE N 50°00' E ALONG THE SAID SOUTHEASTERLY LINE OF LOT 6, 450.0 FEET FOR A POINT OF BEGINNING; THENCE N 40°00' W, 100.0 FEET TO THE NORTHWESTERLY LINE OF SAID LOT 6; THENCE N 50°00' E ALONG SAID NORTHWESTERLY LINE OF LOT 6, 143.0 FEET; THENCE S 40°00' E, 100.0 FEET TO SAID SOUTHEASTERLY LINE OF LOT 6; THENCE S 50°00' WEST ALONG SAID SOUTHEASTERLY LINE OF LOT 6, 143.0 FEET TO THE POINT OF BEGINNING; LESS AND EXCEPT RIGHT-OF-WAY FOR TARAWITT DRIVE OVER THE SOUTHEASTERLY 10 FEET THEREOF, AND SUBJECT TO EASEMENT FOR CANAL OVER THE NORTHWESTERLY 20 FEET THEREOF.

LESS AND EXCEPT:

LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 947, PAGE 902, BEING DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE EASTERLY R/W LINE OF GULF OF MEXICO DRIVE (100.00 FEET WIDE) AND THE NORTH LINE OF LOT 5, SUBDIVISION ON LONGBOAT KEY OF FRACTIONAL SECTIONS 25, 26 AND PART OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST, RECORDED IN PLAT BOOK 7, PAGE 16, PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA; THENCE N. 50 DEGREES 00' E., ALONG THE NORTH LINE OF SAID LOT 5, 453.65 FEET; THENCE S. 40 DEGREES 00' E., 100.00 FEET TO THE SOUTH LINE OF SAID LOT 5, THENCE S. 50 DEGREES 00' W., ALONG SAID SOUTH LINE OF LOT 5, 0.86 FEET; THENCE S. 40 DEGREES 00' E., 100.00 FEET TO THE SOUTH LINE OF LOT 6, THENCE S. 50 DEGREES 00' W., ALONG SAID SOUTH LINE OF LOT 6, 450.00 FEET TO THE EASTERLY R/W LINE OF GULF OF MEXICO DRIVE; THENCE N. 40 DEGREES 48' W., ALONG SAID R/W LINE. 200.00 FEET TO THE POINT OF BEGINNING, LESS AND EXCEPT THE NORTH 10 FEET OF SAID LOT 5 FOR JUNGLE QUEEN WAY AND THE SOUTH 10 FEET OF SAID LOT 6 FOR TARAWITT DRIVE.

(PARCEL 1 & 2 COMBINED)

AS SURVEYED LEGAL DESCRIPTION BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A FOUND NAIL AND DISK WITH NO IDENTIFICATION, BEING ON THE SOUTHEASTERLY LINE OF LOT 6 OF A SUBDIVISION ON LONGBOAT KEY OF FRACTIONAL SECTIONS 25, 26 AND PART OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST, RECORDED IN PLAT BOOK 7, PAGE 16, OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, AND ITS INTERSECTION WITH THE EASTERLY RIGHT OF WAY LINE OF GULF OF MEXICO DRIVE; THENCE N40°37'58"W ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 10.00 FEET TO A FOUND 5/8" IRON ROD AND CAP STAMPED "GFY LB 021" FOR THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID EASTERLY RIGHT OF WAY LINE N40°37'58"W, 179.80 FEET TO A FOUND 5/8" IRON ROD WITH NO IDENTIFICATION, SAID POINT BEING AT THE INTERSECTION OF SAID EASTERLY RIGHT OF WAY AND JUNGLE QUEEN WAY PER OFFICIAL RECORDS BOOK 947, PAGE 902, PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA; THENCE N50°08'01"E ALONG THE SOUTH RIGHT OF WAY LINE OF JUNGLE QUEEN WAY, A DISTANCE OF 453.70 FEET TO A FOUND IRON ROD WITH NO IDENTIFICATION; THENCE S39°51'59"E, 89.79 FEET TO A POINT ON THE NORTHWESTERLY LINE OF SAID LOT 6; THENCE N50°08'01"E ALONG SAID NORTHWESTERLY LINE, 142.14 FEET; THENCE S39°44'17"E, 90.00 FEET TO A FOUND 1/2" IRON ROD WITH NO IDENTIFICATION, SAID POINT BEING ON THE NORTH RIGHT OF WAY LINE AS DESCRIBED IN OFFICIAL RECORDS BOOK 1329, PAGE 2768, PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA; THENCE S50°08'01"W ALONG SAID NORTH RIGHT OF WAY LINE, 593.24 FEET TO THE POINT OF BEGINNING.

AREA TABLE

EASEMENT	SQUARE FEET	ACRES
PARCEL 1	81,268	1.8657
PARCEL 2	12,870	0.2954
TOTAL	94,138	2.1611

SURVEYOR'S NOTES

1. THE PURPOSE OF THIS SURVEY IS TO DEPICT THE VACANT BOUNDARY, TOPOGRAPHY AND TREES OF PARCELS 1 AND 2 COMMINED.
2. BEARINGS SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT), DERIVING A BEARING OF N40°37'58"W ALONG THE EASTERLY RIGHT-OF-WAY LINE OF GULF OF MEXICO DRIVE.
3. HORIZONTAL DATA SHOWN HEREON IS BASED THE FLORIDA STATE PLANE COORDINATE SYSTEM (NAD 83/2011 ADJUSTMENT) UTILIZING A GPS NETWORK FROM BOTH FPRN AND TRIMBLE VRS NETWORKS.
4. VERTICAL DATA SHOWN HEREON IS BASED ON NGS BENCHMARK DESIGNATION X 689, WITH A PUBLISHED ELEVATION OF 8.07' (NAVD 1988) REFERENCED WITH A GPS NETWORK FROM BOTH FPRN AND TRIMBLE VRS NETWORKS, AND TWO SITE TEMPORARY BENCHMARKS (TBM) "A", A FOUND 5/8" IRON ROD WITH NO ID WITH AN ELEVATION OF 5.74' (NAVD 1988) AND TBM "B", A 1/2" IRON ROD AND CAP "GFY LB 021" WITH AN ELEVATION OF 6.08' (NAVD1988).
5. UNDERGROUND FOUNDATIONS AND UTILITIES WERE NOT LOCATED AS A PART OF THIS SURVEY.
6. NORTH-SOUTH AND EAST-WEST TIES TO FOUND MONUMENTATION AND IMPROVEMENTS ARE BASED ON CARDINAL DIRECTION.
7. THE INFORMATION DEPICTED ON THIS SURVEY REPRESENTS THE RESULT OF A SURVEY PERFORMED ON THE INDICATED DATE AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
8. HORIZONTAL ACCURACY - THE HORIZONTAL ACCURACY OF THE SURVEY CONTROL USED MEETS OR EXCEEDS 1:10,000 OR A POSITIONAL EQUIVALENT.
9. VERTICAL ACCURACY - THE EXPECTED ACCURACY OF THE VERTICAL CONTROL USED TO LOCATE THE ELEVATIONS DEPICTED HEREON IS WITHIN 0.05 FEET.
10. THIS PROPERTY LIES IN FLOOD ZONES "AE" (EL 8) AND "AE" (EL 9) AS PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM): MAP NUMBER 12081C0291F, EFFECTIVE DATE: AUGUST 10, 2021.
11. THERE WAS NO EVIDENCE OF ANY EXISTING BUILDINGS OBSERVED ON SITE WHILE IN THE FIELD.
12. THERE WAS NO TITLE REPORT PROVIDED TO SURVEYOR AT THE TIME THE SURVEY WAS WAS PERFORMED, THEREFOR THE EXISTENCE OF, OR ABSENCE OF ANY EASEMENTS IS UNKNOWN.

LEGEND

CALCULATED POINT	BACKFLOW PREVENTER	IRRIGATION HAND HOLE	SECTION LINE
(IRC) IRON ROD & CAP FOUND	CABLE HAND HOLE	LIGHT POLE	CENTER LINE
(IR) IRON ROD FOUND	CABLE MANHOLE	MAILBOX	FENCE
5/8" IRON ROD & CAP SET, LB 7343	CABLE PEDESTAL	MITERED END SECTION	OVERHEAD LINES
(IP) IRON PIPE FOUND	CLEANOUT	SANITARY SEWER MANHOLE	OAK TREE
(IPC) IRON PIPE & CAP FOUND	ELECTRIC BOX	SEWER VALVE	PALM TREE
NAIL FOUND	ELECTRIC HAND HOLE	SIGN	PINE TREE
(N&D) NAIL & DISK FOUND	ELECTRIC METER	STORM SEWER MANHOLE	FIG TREE
(N&D) NAIL & DISK SET, LB 7343	ELECTRIC TRANSFORMER	TELEPHONE MANHOLE	SEA GRAPE TREE
(CM) 3"X3" CONCRETE MONUMENT FOUND	ELECTRIC VAULT	TELEPHONE PEDESTAL	ASPHALT PAVEMENT
(CM) 4"X4" CONCRETE MONUMENT FOUND	GAS PEDESTAL	TRAFFIC SIGNAL HAND HOLE	CONCRETE
(CM) 6"X6" CONCRETE MONUMENT FOUND	GAS VALVE	CONCRETE UTILITY POLE	DIRT/SAND
(BM) BENCHMARK	GRATE INLET	WOOD UTILITY POLE	BRICK PAVER
LICENSED BUSINESS	GUY ANCHOR	VERIZON HAND HOLE	
PROFESSIONAL SURVEYOR & MAPPER	FIRE HYDRANT	VERIZON PEDESTAL	
PERMANENT REFERENCE MONUMENT	IRRIGATION CONTROL VALVE	WATER VALVE	
FLORIDA DEPT OF TRANSPORTATION	IRRIGATION CONTROL BOX	WATER METER	
RIGHT-OF-WAY			
OFFICIAL RECORDS BOOK			
LINE NUMBER - SEE LINE TABLE DATA			
CURVE NUMBER - SEE CURVE TABLE DATA			
POINT OF CURVATURE			
CALCULATED			
PLAT			
MEASURED			
DEED			

NO.	DATE	DESCRIPTION	BY / CHK
5	02/17/2025	ADDED 16 INCH DRAINAGE PIPE INFORMATION AT CANAL END	DB / TWS
4	09/11/2023	ADDED ELEVATIONS IN CANAL	RLW / RLW
3	06/27/2023	REVISED PER LONGBOAT KEY PLANNING, ZONING & BUILDING COMMENTS	DB / TS
2	03/16/2023	REVISED PER CLIENT COMMENTS	RLW / RLW
1	03/21/2022	REVISED PER CLIENT COMMENTS	RLW / RLW
NO.	DATE	DESCRIPTION	BY / CHK

REVISIONS

NO.	DATE	DESCRIPTION	BY / CHK
10			
9			
8			
7			
6			

BOUNDARY, TOPOGRAPHIC AND TREE SURVEY

FOR LOT CONSOLIDATION OF

5630 GULF OF MEXICO DRIVE

PARCEL ID
7938400059

SECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST
MANATEE COUNTY, FLORIDA

ESP
ESP Associates FL, Inc.
518 13th Street West
Bradenton, FL 34205
Phone: 813-314-2664
www.espassociates.com
PROFESSIONAL SURVEYORS AND MAPPERS
LB. #7343

CERTIFIED TO: WB LONGBOAT KEY RESIDENCES, LLC

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED UNDER MY DIRECT SUPERVISION ON THE DATE SHOWN AND CONFORMS TO THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN THE STATE OF FLORIDA IN ACCORDANCE WITH CHAPTER 5J-17.052, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES.

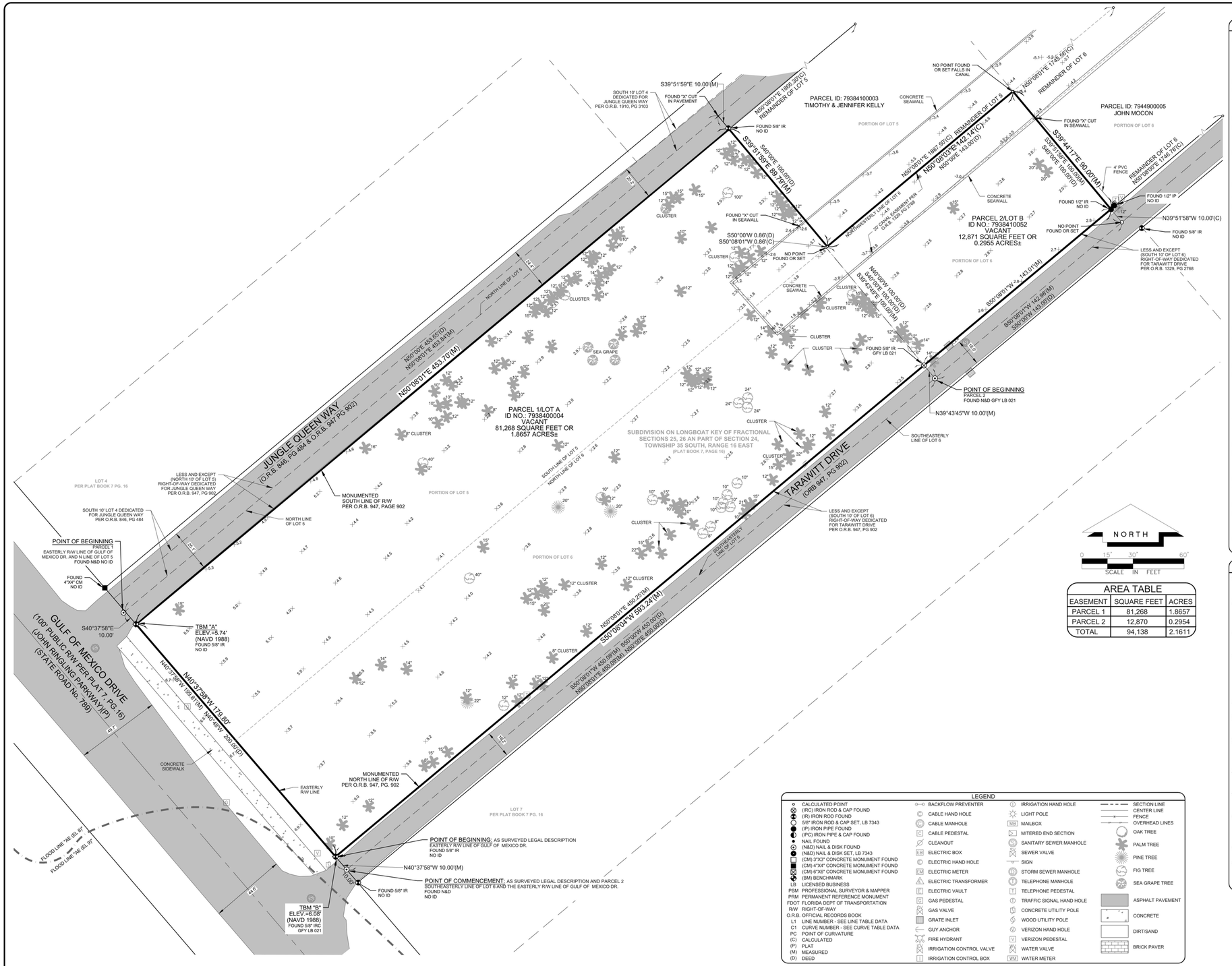
DRAFT FOR REVIEW
TIMOTHY W. SUTHERLAND
FLORIDA CERTIFICATE NO. 7470
02/17/2025
DATE

DOCUMENT NOT VALID WITHOUT THE ELECTRONIC SIGNATURE AND SEAL OF TIMOTHY W. SUTHERLAND
FLORIDA PROFESSIONAL SURVEYOR AND MAPPER.

PREPARED FOR:
WB LONGBOAT KEY RESIDENCES, LLC

PROJECT NUMBER:	JT89.800.000		
DATE OF FIELD SURVEY:	09/08/2021		
DRAWN BY: YAZ	DATE:	09/13/2021	
CHECKED BY: PJT	DATE:	09/14/2021	

SHEET 1 OF 1


JUNGLE QUEEN WAY
(O.R.B. 846, PG 484 & O.R.B. 947 PG 902)
GULF OF MEXICO DRIVE
(100' PUBLIC R/W PER PLAT 7, PG 16)
(JOHN RINGLING PARKWAY) (P)
(STATE ROAD No. 789)
TARAWITT DRIVE
(ORB 947, PG 902)
PARCEL 1/LOT A
ID NO.: 7938400004
VACANT
81,268 SQUARE FEET OR
1.8657 ACRES±
PARCEL 2/LOT B
ID NO.: 7938410052
VACANT
12,871 SQUARE FEET OR
0.2955 ACRES±
PARCEL ID: 7938400003
TIMOTHY & JENNIFER KELLY
PARCEL ID: 7944900005
JOHN MOCON
SUBDIVISION ON LONGBOAT KEY OF FRACTIONAL
SECTIONS 25, 26 AN PART OF SECTION 24,
TOWNSHIP 35 SOUTH, RANGE 16 EAST
(PLAT BOOK 7, PAGE 16)
POINT OF BEGINNING
PARCEL 2
FOUND N&D GFY LB 021
POINT OF BEGINNING: AS SURVEYED LEGAL DESCRIPTION
EASTERLY R/W LINE OF GULF OF MEXICO DR.
FOUND 5/8" IR
NO ID
POINT OF COMMENCEMENT: AS SURVEYED LEGAL DESCRIPTION AND PARCEL 2
SOUTHEASTERLY LINE OF LOT 6 AND THE EASTERLY R/W LINE OF GULF OF MEXICO DR.
FOUND N&D
NO ID
POINT OF BEGINNING
PARCEL 1
EASTERLY R/W LINE OF GULF OF
MEXICO DR. AND N LINE OF LOT 5
FOUND N&D NO ID
TBM "A"
ELEV=5.74'
(NAVD 1988)
FOUND 5/8" IR
NO ID
TBM "B"
ELEV.=6.08'
(NAVD 1988)
FOUND 5/8" IRC
GFY LB 021
FOUND 5/8" IR
GFY LB 021
FOUND 5/8" IR
NO ID
FOUND 1/2" IR
NO ID
FOUND "X" CUT
IN SEAWALL
FOUND "X" CUT
IN PAVEMENT
NO POINT
FOUND OR SET
NO POINT FOUND
OR SET FALLS IN
CANAL
CONCRETE
SEAWALL
4' PVC
FENCE
SOUTHEASTERLY
LINE OF LOT 6
NORTHWESTERLY LINE OF LOT 6
NORTH LINE
OF LOT 5
NORTH LINE OF LOT 5
SOUTH LINE OF LOT 5
NORTH LINE OF LOT 6
REMAINDER OF LOT 5
REMAINDER OF LOT 6
REMAINDER OF LOT 6
N50°00'E 463.66'(D)
N50°08'01"E 453.84'(M)
N50°08'01"E 453.70'(M)
S39°51'59"E 10.00'(M)
N50°08'01"E 1866.39'(C)
S39°51'59"E 887.9'(M)
S40°00'E 100.00'(D)
N50°08'01"E 1887.50'(C)
N50°08'03"E 1422.14'(C)
N50°00'E 143.00'(D)
S39°44'17"E 90.00'(M)
S40°00'E 100.00'(D)
N50°08'01"E 1746.95'(C)
N50°08'00"E 1746.76'(D)
N39°51'58"W 10.00'(C)
S50°00'W 0.86'(D)
S50°08'01"W 0.86'(C)
N40°00'W 100.00'(D)
S40°00'E 100.00'(M)
S50°08'01"W 143.01'(M)
S50°08'01"W 142.98'(M)
S50°00'W 143.00'(D)
N39°43'45"W 10.00'(M)
S40°37'58"E
10.00'
N40°37'58"W 179.80'
N40°37'58"W 189.81'(M)
N40°48'W 200.00'(D)
N50°08'01"E 450.25'(M)
S50°08'01"W 450.69'(M)
S50°00'W 450.00'(D)
S50°08'01"W 593.24'(M)
N50°08'01"E 450.00'(D)
N40°37'58"W 10.00'(M)
S50°08'01"W 593.24'(M)
N50°08'01"E 450.00'(D

LISTED SPECIES SURVEY REPORT

5630 GULF OF MEXICO DRIVE
LONGBOAT KEY, FLORIDA 34228

APRIL 2025

Prepared by:

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting

PHONE: 239-643-0166 WWW.THANAPLES.COM

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1 INTRODUCTION

Turrell, Hall & Associates, Inc. (THA) has conducted a listed species survey at 5630 Gulf of Mexico Drive in Longboat Key, Florida 34228, located within Section 25, Township 35 S, Range 16 E, in Manatee County. The parcel can be identified by Folio Number 7938400059 and totals approximately 2.16 acres in size.

The purpose of this report is to provide a summary of wildlife observations on the property and to consider potential effects of the proposed project on any local, state, or federal listed species that may utilize the property for feeding, foraging, or nesting.

2 METHODOLOGY

Prior to any wildlife survey, careful consideration is given to the habitat types in question and species that are known to utilize such areas. Prior to conducting any survey, several publications and references are consulted. These include The Official List of Florida's Endangered Species, Florida's Endangered and Threatened Species (dated December 2022), Florida's Imperiled Species Management Plan, Florida Fish and Wildlife Conservation Commission (FWC) Species Conservation Measures and Permitting Guidelines, the Florida Natural Areas Inventory (FNAI), and Manatee County aerial photography.

The basic objective of any wildlife survey is to obtain evidence that wildlife species are utilizing the subject site. This site may be comprised of a primary or secondary foraging zone, a nesting zone, or merely be adjacent to those sites with regard to a particular listed species. As many listed species in Florida are cryptic and/or nocturnal, patience and sufficient time must be devoted to the survey.

Aerial photography and the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) maps of the site and surrounding area were consulted before arriving on-site. After thorough consideration of the property location and existing habitats, a potential list of species that could be found on-site was developed. The required survey procedure for each species was then followed to determine if any listed species was utilizing the subject property.

A system of linear transects was followed throughout the subject area in the early morning, afternoon, and dusk hours, thus allowing for the proper protocols for surveying gopher tortoises and other anticipated or potential species that could occur on the project lands. THA Qualified biologists traversed the entire site in a series of linear transects spaced approximately 25 feet apart depending on the habitat type and density. Much of the site is open space, which is periodically mown, thus allowing for open visibility during survey efforts. Where the site was not mown and the canopy was dense, transects were spaced closer together.

A visual inspection of trees was also conducted to search for potential Florida bonneted bat roosts. Evidence of protected plants was also searched for along transect lines. Indirect evidence such as rooting, scrape marks, nests, cavities, burrows, tracks, and scat were looked for and noted. Once cavity or nest trees are located, they are marked with a handheld GPS for further investigation prior to clearing. In addition, the approximate sighting location of any listed species is noted on the survey aerial.

3 PRELIMINARY RESEARCH

Prior to field investigations, aerial photos, soil maps, and prior mapping for the Sabal Palm Road property were reviewed to identify the various vegetation associations that are present on and adjacent to the project area. Various publications and databases were reviewed to identify listed plant and wildlife species that could occur and those that had been previously documented on or near the project site and also to gather information concerning listed species.

Based on the habitat types that were identified, existing knowledge of the project area, contacts with other consultants, and review of publications and databases, a preliminary list of listed plant and animal species with the potential to occur within or near the project area was determined.

As used herein, the term "listed animal or plant species" refers to those plants and animals listed as endangered or threatened by the U.S. Fish and Wildlife Service (FWS) or the FWC. THA wildlife and listed species surveys were supplemented by research concerning listed species. The following subsections document these efforts and their results. A list of listed species that could potentially utilize the subject property can be found below in Table 1.

Table 1: Potential Threatened and Endangered Species

Common Name	Scientific Name	Status
American alligator	*Alligator mississippiensis*	FT (S/A)
American crocodile	*Crocodylus acutus*	FT
Eastern indigo snake	*Drymarchon couperi*	FT
Gopher tortoise	*Gopherus polyphemus*	ST
West Indian manatee	*Trichechus manatus*	FT

FE = Federally Endangered FT = Federally Threatened ST = State Threatened
FT (S/A) = Federally designated Threatened species due to similarity of appearance

4 RESULTS

The subject property has been surveyed for a total of 9.25 hours. A summary of survey times and weather on site is displayed below in Table 2.

Table 2: Summary of Survey Efforts

Date	Start	End	Observers	Survey Hours	Temp. (F)	Cloud Cover	Precip. (In.)	Wind (mph)
01/17/2022	0929	1045	1	1.25	63	60%	0	21 WNW
06/15/2023	1100	1800	3	7.00	90	15%	0	8 - 15 SSW
07/18/2024	1000	1100	1	1.00	86	20%	0	9 S

4.1 LISTED SPECIES OBSERVED ONSITE

No evidence of listed species was observed onsite by THA biologists; however, it is assumed that the West Indian manatee does utilize portions of the existing canal.

4.2 SPECIES OBSERVED ONSITE

While surveying the subject property for listed species, biologists recorded sightings and signs of non-listed wildlife in addition to the listed species. All wildlife observed on or adjacent to the project site is displayed below in Table 4.

Table 4: List of Species Observed Onsite

Common Name	Scientific Name	Status
Reptiles		
Brown anole	*Anolis sagrei*	Non-native
Birds		
Blue jay	*Cyanocitta cristata*	
Blue-gray Gnatcatcher	*Polioptila caerulea*	
Boat-tailed Grackle	*Quiscalus major*	
Common grackle	*Quiscalus quiscula*	
Common ground dove	*Columbina passerina*	
Fish crow	*Corvus ossifragus*	
Great blue heron	*Ardea herodias*	
Mourning dove	*Zenaida macroura*	
Northern cardinal	*Cardinalis cardinalis*	
Northern mockingbird	*Mimus polyglottos*	
Osprey	*Pandion haliaetus*	
Turkey vulture	*Cathartes aura*	
White ibis	*Eudocimus albus*	

FE = Federally Endangered FT = Federally Threatened ST = State Threatened FT (S/A) = Federally designated Threatened species due to similarity of appearance

5 DISCUSSION

5.1 PROPOSED PROJECT

The project proposes to construct a multi-family condominium with an associated 8-slip docking facility and seawall. The existing seawall will be removed, and a portion of the upland habitat on-site will be dredged in order to provide a small basin for the docking facility. A new concrete seawall will be installed along the newly proposed shoreline and the canal within the property boundary will be dredged to a depth of -4.0′ NAVD 88 below the Mean Low Water Line (MLWL).

5.2 PROPOSED IMPACTS TO POTENTIAL AND OBSERVED LISTED SPECIES

5.2.1 American alligator (Alligator mississippiensis)

Though the American alligator is no longer considered endangered, it is currently listed as federally threatened due to its similarity in appearance to the American crocodile (*Crocodylus acutus*). Several alligators were observed in the agricultural ditches on the subject property. Any development that results in the removal of the agricultural ditches could affect alligators on-site. These effects could be offset with the inclusion of other alligator habitats onsite, such as the proposed flow-way and stormwater lakes. Any potential development should include a protection plan to help avoid and minimize direct impacts to individual alligators and alligator nests.

5.2.2 American crocodile (Crocodylus acutus)

The American crocodile is federally designated as threatened. They can be found in ponds, coves and creeks in mangroves swamps and occasionally in inland and freshwater areas along the coast. The subject property is not located within American crocodile critical habitat and is unlikely to have any effect on the American crocodile.

5.2.3 Eastern indigo snake (Drymarchon couperi)

The Eastern indigo snake (*Drymarchon couperi*) is listed as federally threatened. Generally, this species lives and hunts in a wide variety of habitats and its territory can cover large areas. It can be associated with gopher tortoise burrows (as a commensal) and favors pine flatwoods, palmetto prairies, and scrub habitats as well as wetland edges. It is relatively reclusive in nature and is rarely observed in the wild. Immediately prior to construction on the subject property, an eastern indigo snake survey will be needed to ensure they are not utilizing areas where large equipment will be used. No eastern indigo snakes have been observed onsite. However, indigo snakes could theoretically frequent parts of the property. Special construction guidelines to protect the indigo snake will have to be followed by construction personnel during all phases of construction work performed onsite.

5.2.4 Gopher tortoise (Gopherus polyphemus)

The gopher tortoise is listed as a threatened species by the FWC. This species prefers upland habitats, particularly xeric scrub communities, and higher-elevation pine flatwoods. They can also be found in disturbed upland areas, including fallow and abandoned agricultural fields, perimeters of active crop fields, and pastures. No gopher tortoise burrows were observed on the subject property.

5.2.5 West Indian manatee (Trichechus manatus)

The West Indian manatee (Trichechus manatus) is a large marine mammal, which is classified as federally threatened under the Endangered Species Act and protected by the Marine Mammal Protection Act. Populations of the West Indian manatee in Florida are generally found in inland and coastal waters during the winter but can disperse great distances during warmer months. West Indian manatees are aquatic herbivores that graze on seagrasses and other aquatic vegetation. A submerged resource survey was conducted to assess potential impacts to submerged aquatic vegetation and manatee foraging potential. No submerged aquatic vegetation was found in the project footprint. The species' main threats are loss of warm water refugia and collisions with boats. Manatee County has not yet adopted a Manatee Protection Plan; therefore, the applicant proposes to distribute and implement a Manatee Educational Plan to all future slip owners. This plan can be found attached in Appendix II.

All standard manatee protection construction conditions shall be respected. Manatee awareness and education signs shall be displayed and maintained in legible condition throughout the project area. Additionally, slip owners will be required to adhere to manatee protection measures in the form of distributed educational materials and a clause included in the slip agreement.

5.3 PUBLIC INTEREST

The proposed project will not adversely affect the conservation of fish and wildlife. The site has been impacted for decades and is not home to any nesting or denning activities by local wildlife. The dredging of the canal being proposed will provide additional in-water habitat at the end of the waterway and protect the adjacent waters from potential degradation associated with limited flushing of this small canal. The project will also adhere to all criteria required by local, state, and federal agencies that they may impose as the project is reviewed. As depicted in the attached exhibits, no seagrass or other aquatic submerged resources are present within the project footprint and will therefore not be impacted by the proposed project. Since the project proposes recreational boat usage outside of the project boundary, a map of the existing nearby aquatic resource areas will be provided to slip owners in conjunction with the manatee educational plan. The project will not interfere with the conservation of fish, marine wildlife, or any other natural resources.

6 CONCLUSION

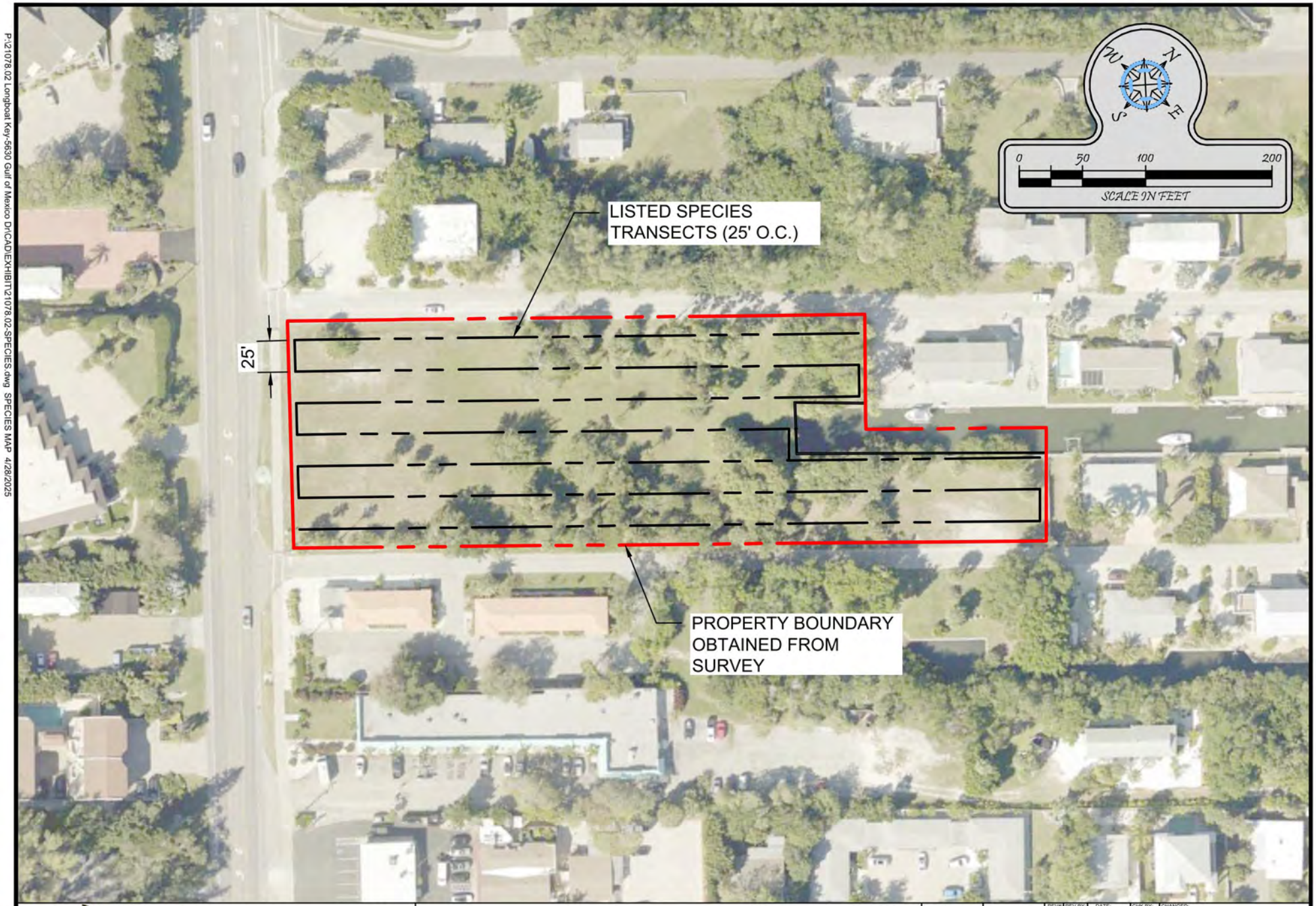
THA performed a listed species survey of the approximately 2.16-acre subject property as well as the entirety of the manmade canal which connects the surface waters on-site to Sarasota Bay. Preliminary research was supplemented with over 9 hours of onsite investigation. No evidence of listed species was observed on or adjacent to the proposed development of the subject property. It is however, assumed that the West Indian manatee does utilize the surface waters of the existing canal.

Based on THA's observations if the development of this site provides for appropriate design and management guidelines, it will not adversely affect any endangered, threatened, or otherwise protected species. These management guidelines shall be coordinated with the appropriate local, state, and federal agencies to better ensure their protection.

APPENDIX I
EXHIBITS

APPENDIX II
MANATEE EDUCATIONAL PLAN

P:\21078.02 Longboat Key-5630 Gulf of Mexico Dr\CAD\EXHIBIT\21078.02-SPECIES.dwg SPECIES MAP 4/28/2025



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5630 GULF OF MEXICO DR

SPECIES MAP

RY NO. 5875

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		REV#	REV BY	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	04-28-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	01 OF 01	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

APPENDIX II
MANATEE EDUCATIONAL PLAN

5630 Gulf of Mexico Drive
Longboat Key, FL 34228

Manatee Educational Plan
June 2025

Prepared by:

Turrell, Hall & Associates, Inc.
Marine & Environmental Consulting

Phone: 239-643-0166 www.thanaples.com

1 INTRODUCTION

Turrell, Hall & Associates, Inc. (THA) has been contracted to provide environmental services in the form of a Manatee Educational Plan at a property located at 5630 Gulf of Mexico Drive, Longboat Key, Florida 34228, which can be further identified by folio number 7938400059. The property is located within Section 25, Township 35 S, and Range 16 E in Manatee County, and can be specifically found at coordinates N 27.41524297, W -82.66039591.

The property is approximately 2.16 acres in size and can be found on Gulf of Mexico Drive at the end of a canal that connects to Sarasota Bay. The project area currently only consists of open land and a concrete seawall.

The project proposes to construct a multi-family condominium with an associated 8-slip docking facility and seawall. The existing seawall will be removed, and a portion of the upland habitat on-site will be dredged in order to provide a small basin for the docking facility. A new concrete seawall will be installed along the newly proposed shoreline and the canal within the property boundary will be dredged to a depth of -4.0′ NAVD 88 below the Mean Low Water Line (MLWL).

This document serves to outline the manatee educational plan to be implemented at the proposed docking facility in association with the permit application being reviewed by the Southwest Florida Water Management District (SWFWMD) and the Florida Fish & Wildlife Conservation Commission (FWC). This plan is being developed as assurance that the facility will mitigate for the applicant's request to exceed the typical ratio of 1 slip per 100 feet of shoreline.

2 PLAN & IMPLEMENTATION

The proposed project will include the construction of four docks with a total of eight boat slips. The project area is located within an idle speed zone that extends the entire length of the manmade canal. Upon purchase, each slip owner will be provided with hard copies of educational literature outlining the FWC approved guidelines for protecting the Florida manatee as well as a map including the location of seagrasses found within the canal. Additionally, a 30" x 36" Florida Friendly Boating sign will be installed facing landward in front of the docking facility.

These measures will be enforced by including clause in the slip purchase agreement will require slip owners to confirm receipt and acknowledgement of the educational materials which will be provided to them by the Homeowner's Association. The clause will read as follows:

I (print first & last name) _____ hereby certify that I have read and will abide by the Guidelines for Protecting Florida Manatees.

The proposed signage, educational brochure, and seagrass location maps can be found below in Appendix I.

APPENDIX I:
EDUCATIONAL MATERIALS & SEAGRASS LOCATION MAP

Guidelines for protecting

Florida Manatees



© Terri Calleson, USFWS

We all have a shared responsibility to protect Florida's resources and pass on to future generations the beauty, wildlife, water and natural resources we have today.

Florida Fish and Wildlife Conservation Commission

MyFWC.com/Manatee



About Florida manatees

Florida manatees are a native subspecies of the West Indian manatee. They are a grayish-brown marine mammal with a paddle shaped tail and two flippers.

Like all mammals, manatees have hair, which is sparsely distributed on their body, with the area around its mouth having stiff whiskers. Adults average 10 feet in length and about 1,200 pounds but can reach over 13 feet and more than 3,000 pounds. At birth, a calf is about three to four feet long and 60 to 70 pounds.

Manatees eat plants along rivers, coastal areas and at the water's surface. At rest, they can hold their breath for up to 20 minutes; when active, they surface to breathe about every three to five minutes.

They live in both freshwater and saltwater habitats, including rivers, springs, estuaries, bays and canals. Manatees cannot survive for prolonged periods in water that is colder than 68°F, so natural springs and power plant warm-water discharge canals provide important habitat for manatees during colder months.

Female manatees begin to breed between five and seven years of age and are pregnant for 13 months. Calves spend their first two years nursing and learning how to survive before leaving their mothers. Generally, wild manatees live to about 30 years of age.

Tips for boat, including personal watercraft, operators

- Observe and follow all boating regulatory zone signs.
- Wear polarized sunglasses so you can see where manatees are located underwater.
- Slow down. Reducing speed gives you a greater chance to avoid manatees and for them to avoid your vessel.
- Use marked channels when boating. Channel depth reduces the likelihood of crushing or hitting manatees in shallow waters.

Manatee Protection Zones

There are established zones to protect manatees from collisions with boats and harassment. Here are the typical signs found on Florida's waterways:



Idle Speed Zones

Designate a protected area where boats are not permitted to go any faster than necessary to maintain steerage and make headway while producing no wake.



Slow Speed Zones

Designate a protected area where boats must be fully off plane and completely settled and level in the water while moving with only minimum wake.



Motorboats Prohibited Zones

Designate a protected area that prohibits all entry by all power-driven vessels or those operating under mechanical means of propulsion.



No Entry Zones

Designate a protected area that prohibits all entry including boating, swimming, wading, fishing and diving activities.

Report collisions with manatees

You will not be cited if you accidently collide with a manatee while obeying posted speed zone restrictions. Please report any vessel collisions with manatees as soon as possible to increase the manatee's chance of survival.

Tips for paddlers

- Use caution when paddling near seagrass beds, sanctuaries or refuge area boundaries as manatees frequent these areas. Give manatees space to move freely in their habitat.
- Paddle your vessel to avoid traveling over resting manatees. Manatees must surface to breathe and will startle awake if you are in the way. Startled manatees may quickly flee the area, potentially moving into harm's way. Their quick movements can also cause small vessels to capsize.
- Lower your anchor slowly when securing your vessel as there may be resting manatees below.



Tips for divers and snorkelers

- Consider using snorkel gear when diving near manatees as the sound of air bubbles from SCUBA gear can disturb them.

Other ways to help manatees:

- Participate in coastal cleanup events.
- Attend boating safety classes or take online courses.
- Purchase a "Save the Manatee" license plate or collectible manatee decal from your tax collector's office or online.
- Dispose of monofilament line properly at line recycling bins or drop–off locations to avoid entangling manatees, birds, marine turtles and other marine life.


Karen Parker, FWC

Tips for viewing wild manatees

- Wear polarized sunglasses so you can see where manatees are located underwater.
- Watch manatees from a distance to limit disturbance. Be mindful of resting manatees.
- Never pursue, chase or disturb any manatee. If a manatee stops feeding, swims toward you or changes its behavior, you are too close.
- Speak quietly and avoid making loud noises when you are near wildlife areas to avoid disturbance.
- Do not separate a mother and calf.
- Watch out for "swirling" when manatees dive. The swirls look like a large "footprint" on the water's surface.
- Never offer food or water to manatees because it alters their foraging behavior and attracts them to areas where they may be harmed.
- Do not touch, remove or damage research equipment attached to manatees. The tag units help researchers monitor these manatees.



Manatees and the law

Manatees are protected by the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973 and the Florida Manatee Sanctuary Act of 1978. It is illegal to feed, harass, harm, pursue, hunt, shoot, wound, kill, annoy or molest manatees.

Examples of illegal activities include:

- Giving food or water to manatees, or using food or water to attract manatees
- Separating a mother and calf
- Disturbing manatee mating herds
- Pursuing or chasing manatees either while swimming or with a vessel
- Disturbing resting manatees
- Hitting, jumping on, standing on, holding on to or attempting to ride manatees
- Blocking a manatee's path
- Fishing for or attempting to hook or catch a manatee

Call the FWC's Wildlife Alert Hotline:
888-404-FWCC (3922)
#FWC on cell phones,
or text Tip@MyFWC.com
to report manatee deaths, injuries, harassment, accidents, or ones orphaned or distressed.



Follow us on:

Florida Fish and Wildlife Conservation Commission
MyFWC.com/Manatee
Division of Habitat and Species Conservation
Imperiled Species Management Section

12/2020

Florida Friendly Boating



Be friendly to wildlife

- **Never feed wild animals.** It is illegal, unhealthy, and trains wildlife to seek out boats, increasing the risk of injury. Avoid dumping leftover bait overboard.
- **Reduce disturbance.** Stay quiet and be aware of accidently separating manatee mother and calf pairs, disrupting mating herds, or blocking a manatee's path if it moves towards you.
- **Avoid injuries.** It is illegal to chase, hold, ride, jump on, or hit manatees or other wildlife. Never try to "fish" or attempt to catch birds, dolphins, manatees or sea turtles.
- **Avoid high manatee use areas.** Manatees can suffer from cold stress in the wintertime. If disturbed or chased out of warm water areas, it may cause death, illness or affect their ability to reproduce.

Look out below

Collisions with boats can cause injury and death among manatees, sea turtles and dolphins.

Manatees are an endangered species native to Florida, and are designated as the State's official marine mammal. They live in fresh, brackish and salt water areas, and eat aquatic vegetation such as seagrass. Because they must surface to breathe, many of these slow-moving creatures are injured or killed by boats each year.

How to recognize a manatee's presence:



- Look for a swirl on the water's surface
- Look for a tail or nose (usually the only parts of the manatee's body that break the surface of the water)
- Listen for their breath

Five species of **sea turtles** are found in Florida waters; all are either endangered or threatened. Sea turtles rest at or just below the surface of the water and must raise their heads out of the water to breathe.

How to recognize a sea turtle's presence:



- Look for a sea turtle's head or top portion of shell at the surface of the water.

What boaters can do

- **Wear polarized sunglasses.** Polarized lenses reduce reflected glare from the water and make it easier to see people, wildlife or objects underneath the surface.
- **Know the zones.** Abide by the speed regulations as posted. Idle speed no wake - minimum speed needed to maintain steerage. Slow speed minimum wake - fully off plane and settled in the water.
- **Use marked channels.** Greater water depth protects you, seagrass and wildlife.
- **Post a lookout.** Designate a person to watch for wildlife, other boaters, swimmers, or obstructions when the vessel is underway.
- **Save a life.** Properly discard or recycle fishing line and plastics, and use circle or non-stainless steel hooks to prevent wildlife injury or death due to ingestion or entanglement.

Wear a life jacket



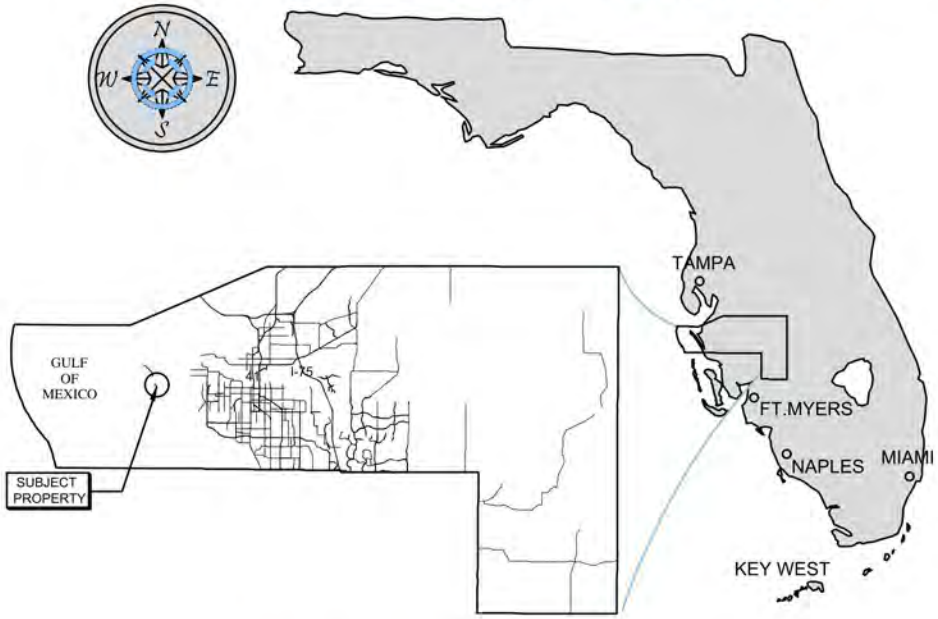
Wildlife Alert:
1-888-404-FWCC (3922)
cell *FWC or #FWC

Report sick, dead, or injured manatees or sea turtles, and any wildlife or boating law violations.

For more information go to MyFWC.com

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg LOCATION MAP 2/24/2025

STATE OF FLORIDA



MANATEE COUNTY



VICINITY MAP



COUNTY AERIAL

SITE ADDRESS:
<> 5630 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

<> LATITUDE: N 27.415609
<> LONGITUDE: W -82.659969

NOTES:
<> THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

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Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

LOCATION MAP

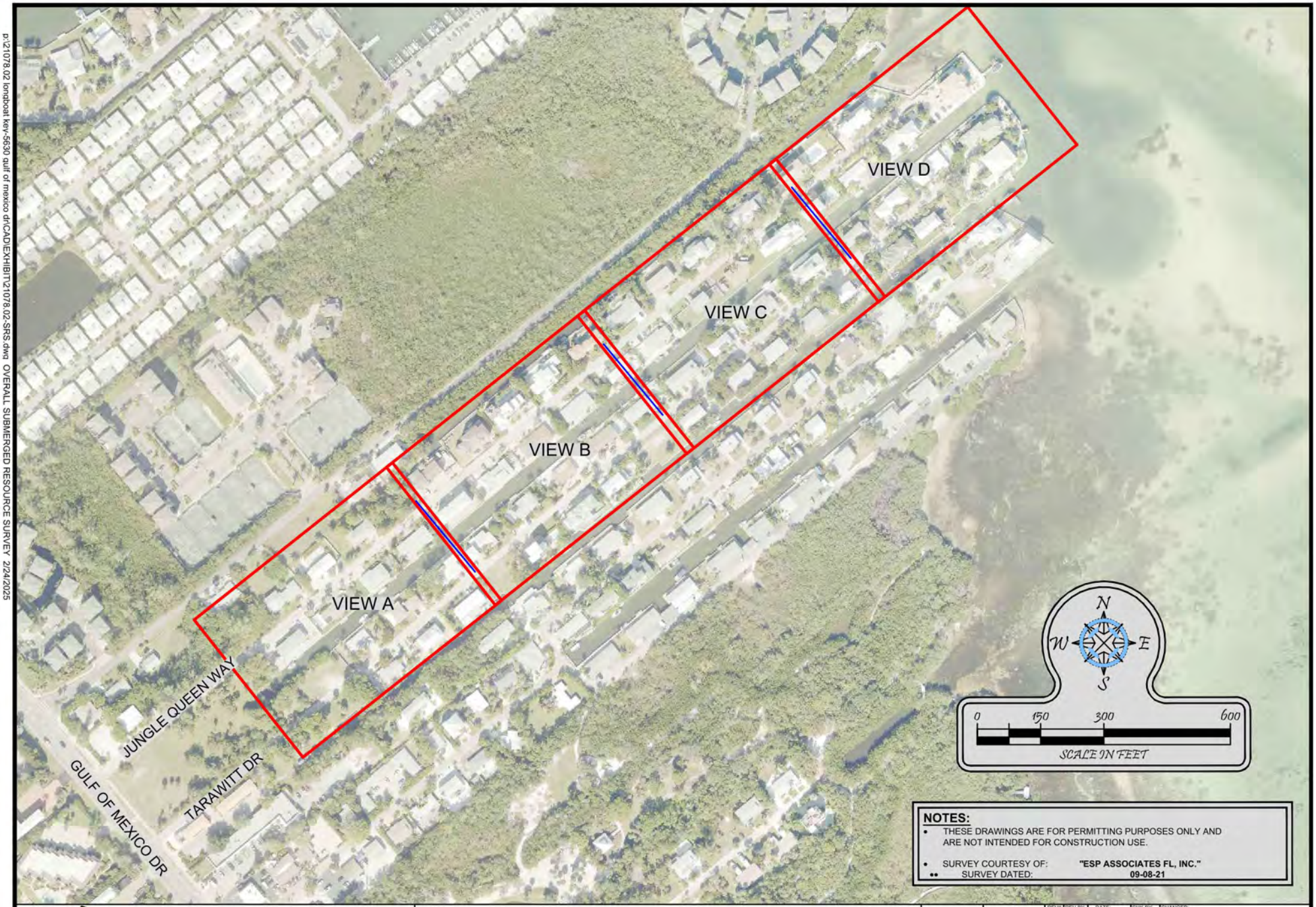
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DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	01 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg OVERALL SUBMERGED RESOURCE SURVEY 2/24/2025



NOTES:

- THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.
- SURVEY COURTESY OF: **"ESP ASSOCIATES FL, INC."**
- SURVEY DATED: **09-08-21**

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Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

OVERALL SUBMERGED RESOURCE SURVEY

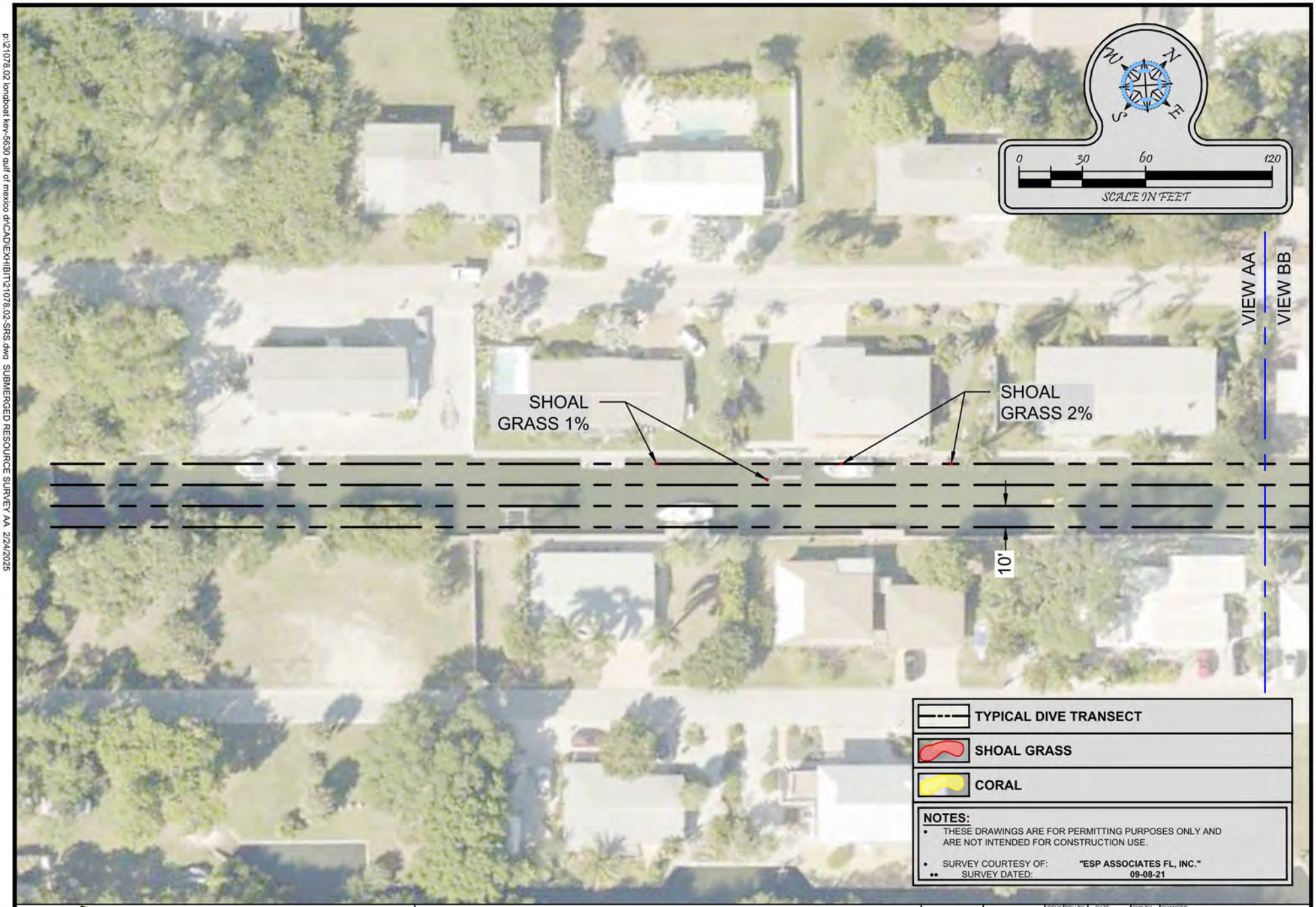
RY NO. 5875

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		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	02 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg SUBMERGED RESOURCE SURVEY AA 2/24/2025



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Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

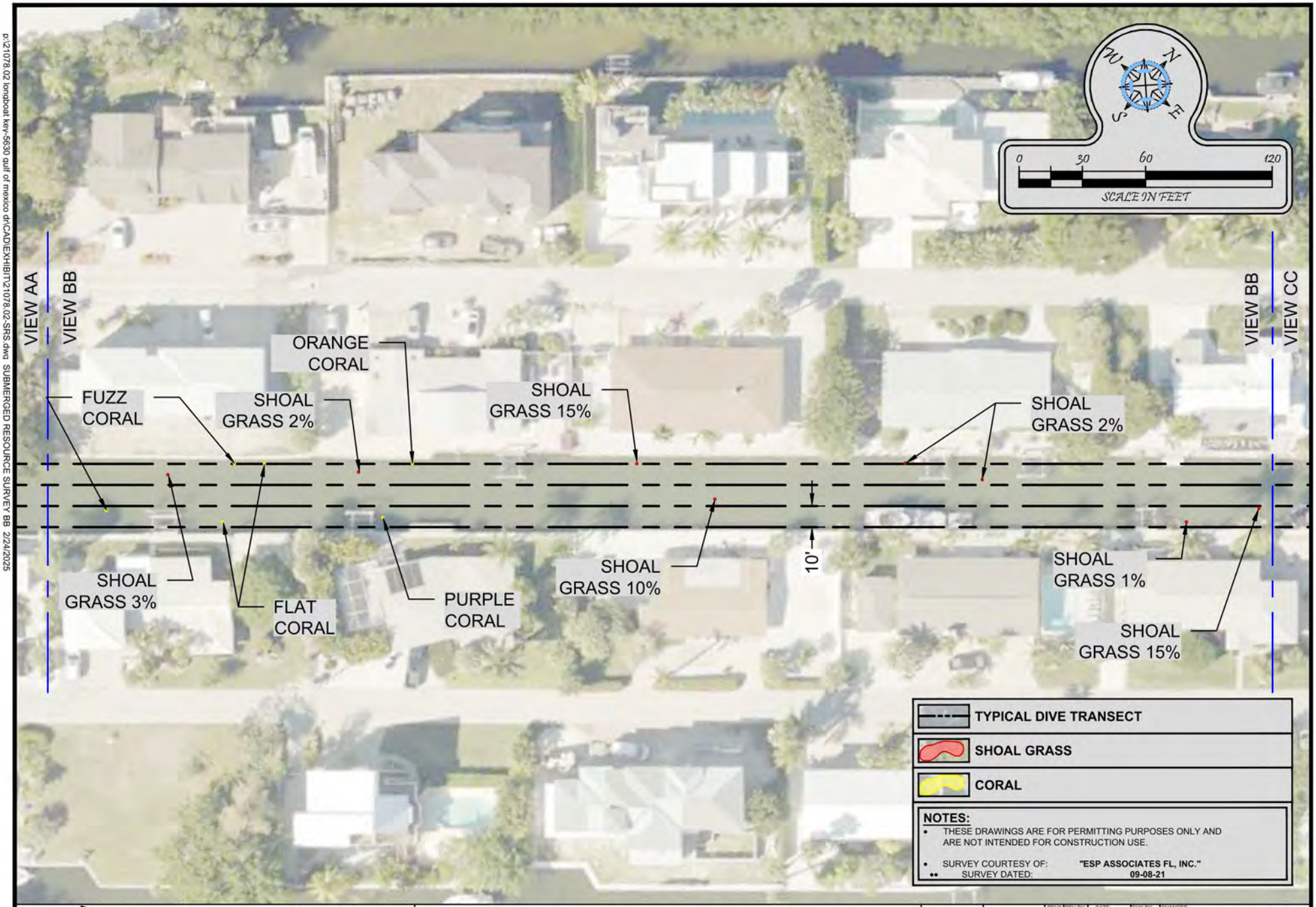
SUBMERGED RESOURCE SURVEY AA

RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	03 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E



Turrell, Hall & Associates, Inc.
Marine & Environmental Consulting
3584 Exchange Ave. Naples, FL 34104-3732
Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

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SUBMERGED RESOURCE SURVEY BB

RY NO. 5875

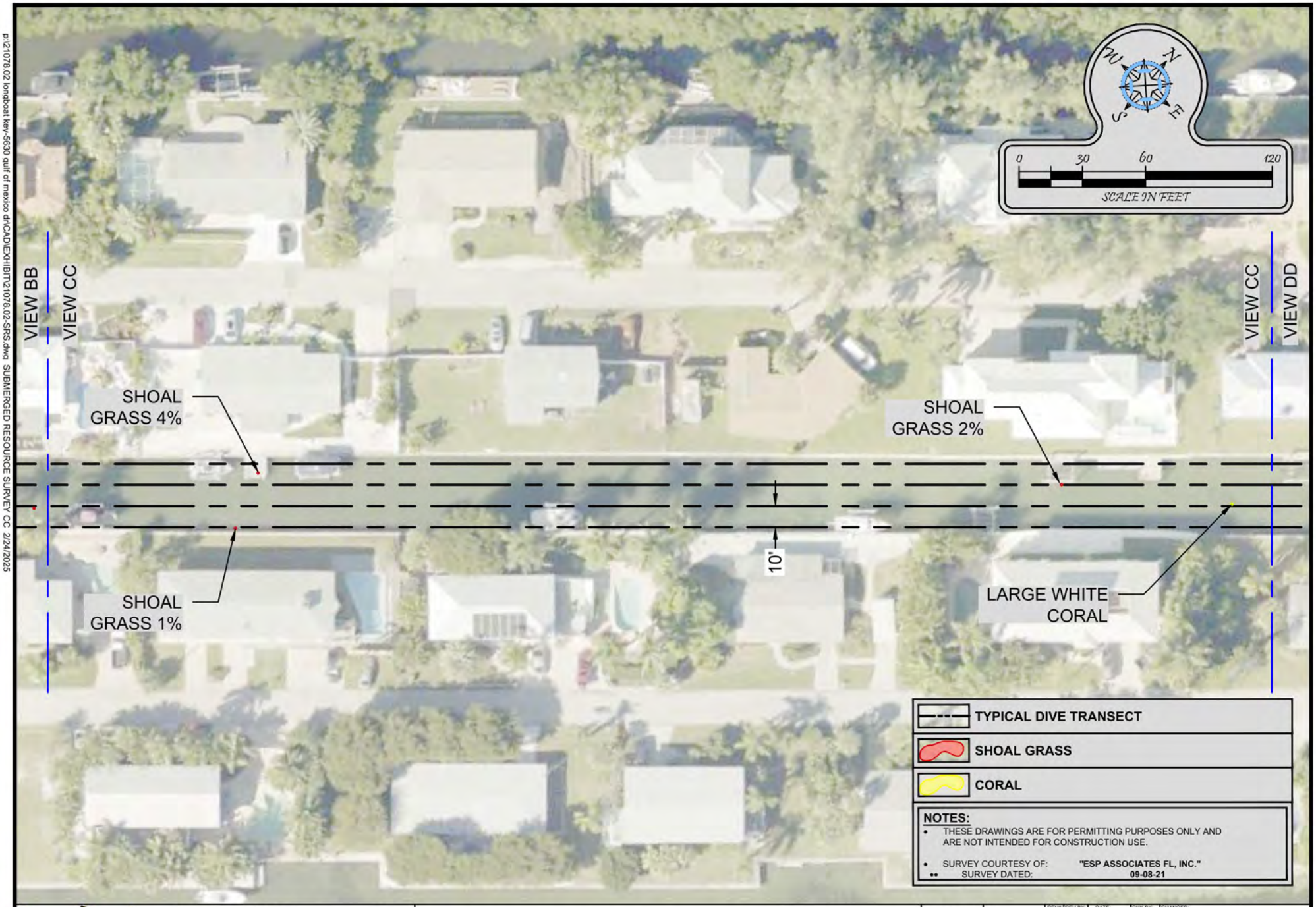
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DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	04 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

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5630 GULF OF MEXICO DR

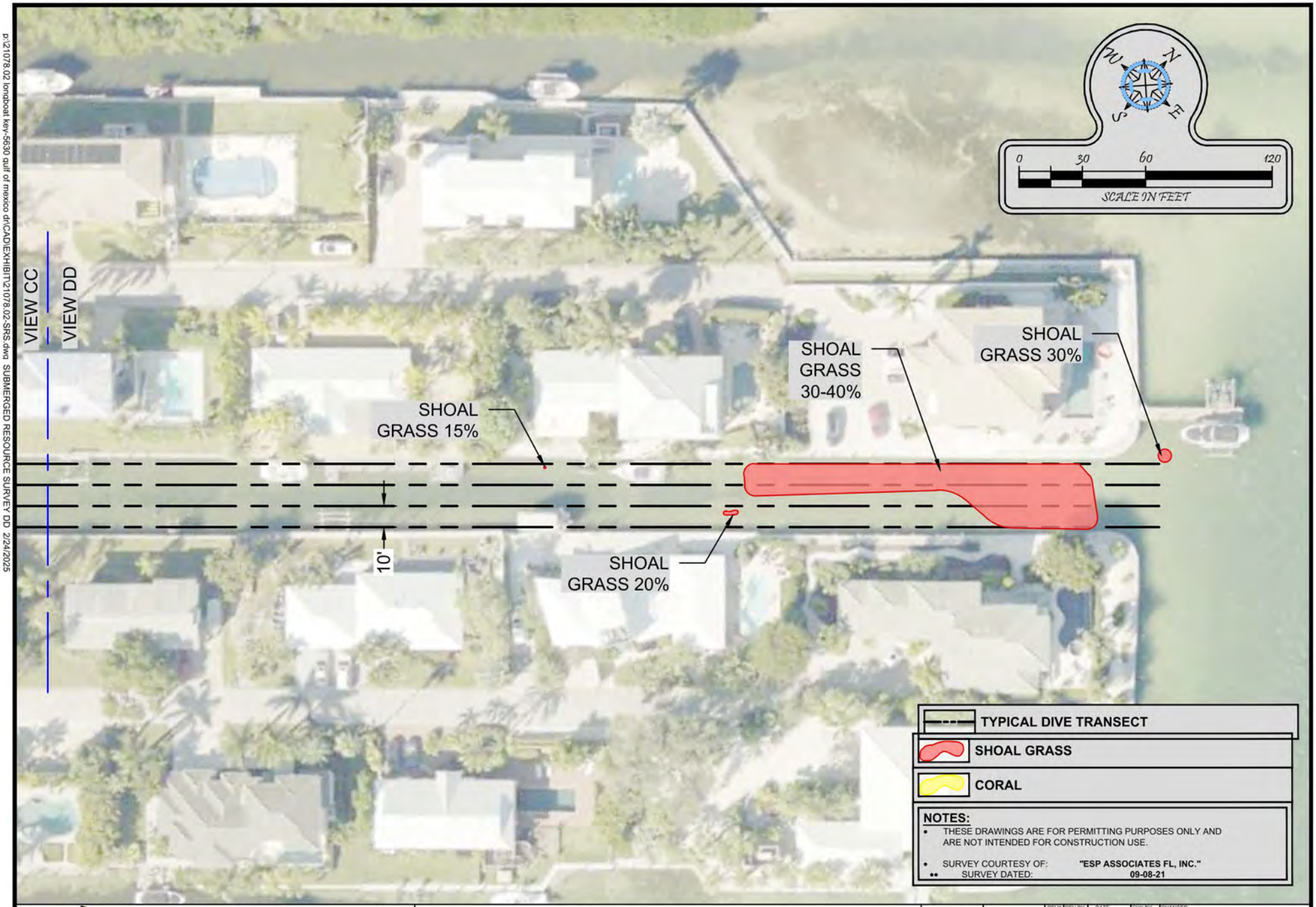
SUBMERGED RESOURCE SURVEY CC

RY NO. 5875

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		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
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SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E



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Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

SUBMERGED RESOURCE SURVEY DD

RY NO. 5875

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		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	06 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

5630 Gulf of Mexico Drive – Completeness Review

The following items require additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission.

Planning and Zoning

- Previous comment not addressed: Please provide responses to each finding of 152.04(B) as follows:

Findings of Fact 152.04

A. *The work proposed does or does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.*

B. *Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.*

C. *Harmful or increased erosion, shoaling of channels, or stagnant areas of water will or will not be created thereby.*

D. *Material injury or monetary damage to adjoining land will or will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.*

E. *Material injury or monetary damage will or will not occur to beaches and shores to such an extent as to be contrary to the public interest, or result in the destruction of oyster beds, clam beds, or marine productivity.*

F. *Material injury or monetary damage will or will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest*

Please note: Seawalls, Docks, and Lifts require separate permitting for construction and compliance with all codes including 158.099 Structures over Water Town Code.

5630 Gulf of Mexico Drive – Completeness Review

The ACOE permit has been received, however the following information is still outstanding, please provide supporting information in regard to the following correspondence received in Accela on 4/30/26.

The following items require additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission.

Planning and Zoning

- Please provide support information for the following statements provided in the most recent response to comments. Please provide responses to each finding of 152.04(B) as follows:

Findings of Fact 152.04

A. *Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.*

B. *Harmful or increased erosion, shoaling of channels, or stagnant areas of water will or will not be created thereby.*

Responses provided to the above findings and introductory narrative state in part that "*flushing at the end of the canal will be improved."* Please provide how flushing will be provided by this or as a result of this permit.

C. *Material injury or monetary damage to adjoining land will or will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.*

Response provided to the above finding C. narrative states in part that "*the proposed maintenance dredging will reduce shoaling".* Please provide what type of shoaling is being referred to, and how the shoaling will be reduced by this or as a result of this permit.

E. *Material injury or monetary damage will or will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest*

Response provided to the above finding E. states in part that "*the basin will not otherwise destroy or damage marine productivity"*. Please provide what type of marine productivity, other than oyster or clam beds, is either not present or will not be destroyed or damaged by this or as a result of this permit.

F. Material injury or monetary damage will or will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest

Response provided to the above finding F. states in part that "*The basin is to be dredged from upland areas".* Are there not other areas than the new basin area to be dredged as part of this application?. Also, the narrative provided states that the basin to be dredged "*will not involve, impact, or damage any natural marine habitats, grass flats, or established marine soils*". Please provide how natural marine habitats, grass flats, or established marine soils will not be impacted as a result of this permit.

Please note: Seawalls, Docks, and Lifts require separate permitting for construction and compliance with all codes including 158.099 Structures over Water Town Code.

5630 Gulf of Mexico Drive – Completeness Review

The ACOE permit has been received, however the following information is still outstanding, please see previous correspondence of 3/6/26, and email of 3/26/26.

The following items require additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission**.**

Planning and Zoning

- Previous comment not addressed: Please provide responses to each finding of 152.04(B) as follows:

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Please note: Seawalls, Docks, and Lifts require separate permitting for construction and compliance with all codes including 158.099 Structures over Water Town Code.

5630 Gulf of Mexico Drive – Completeness Review

Thank you for submitting the technical analysis. To ensure your insights are clearly conveyed, please include specific narrative responses to the questions and findings outlined below. Please ensure you provide comprehensive responses for sections C, E, and F from the previous completeness review.

Correspondingly, the following items require additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission**.**

Planning and Zoning

- Please provide support information for the following statements provided in the most recent response to comments. Please provide responses to each finding of 152.04(B) as follows:

Findings of Fact 152.04

A. *Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.*

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Please note: Seawalls, Docks, and Lifts require separate permitting for construction and compliance with all codes including 158.099 Structures over Water Town Code.

Findings of Fact 152.04

A. *The work proposed does or does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.*

B. *Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.*

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5630 Gulf of Mexico Drive – Completeness Review June 11, 2026

Thank you for submitting the technical analysis titled “Boat Basin Flushing Analysis” (dated July 2024), along with the completeness response letter dated May 26, 2026.

Per our discussion today, please provide clear, comprehensive narrative responses explaining how the application affirmatively supports the **Findings of Fact** detailed below. Because these findings serve as the basis for consideration by the **Town Commission**, ensure you address items **B** and **C** individually and in detail.

Please note that we have received complete responses for findings **A**, **D**, **E**, and **F**, which do not require any further information.

Findings of Fact 152.04 (B)

A. *The work proposed does or does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.*
B. *Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.*
C. *Harmful or increased erosion, shoaling of channels, or stagnant areas of water will or will not be created thereby.*
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LRS
LAND RESOURCE STRATEGIES, LLC

February 23, 2026

Mr. Tate Taylor, Planner
Planning, Zoning & Building Dept.
Town of Longboat Key
501 Gulf of Mexico Dr.
Longboat Key, FL 34228

Re: Dredge & Fill Application - P-DFIL-25-003

Dear Tate:

I am writing to respond to comments regarding the above referenced application received January 27, 2026 as follows:

5630 Gulf of Mexico Drive Completeness Review
Below are areas that require additional information. (Responses in **Bold**)
Public Works
1. Please provide the state and federal permits for this project for review by the Town.
As discussed with the Public Works Director and the Town Engineer and as set forth in our original application, Section 152.04 (B) of the Zoning Code specifically states, "Upon consideration… the (Dredge & Fill) application may be approved (by the Town Commission) subject to the formal approval of the agency of the state having jurisdiction". (emphasis added) All required permits will be obtained and submitted with the actual permit application for construction of the project.

Planning and Zoning

• Please clarify if there are listed species found or not. Response states that there were several alligators.
• Construction plans do not provide the depths of the proposed dredge.
• Please provide the location of the approved spoil disposal.
• Please correct conflict between Engineer and Environmental report regarding what State and Federal

agencies are reviewing**. Responses to these comments are included in the letter from JR Evans Engineering dated February 18, 2026, attached.**

• Please provide responses to each finding of 152.04(B) as follows:

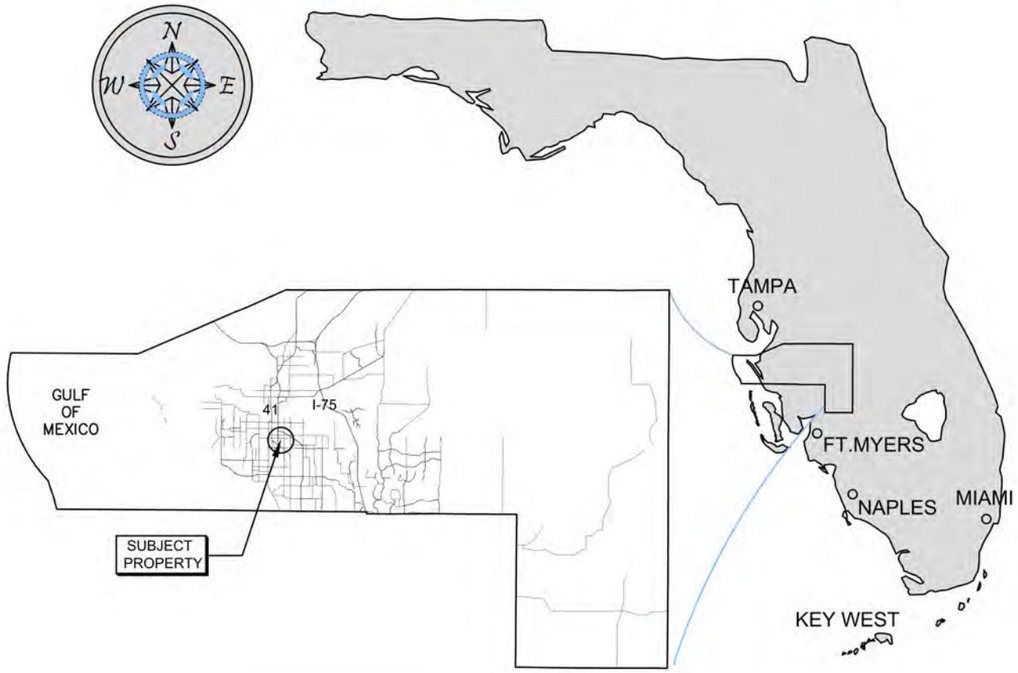
A. The work proposed **does not** violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.
B. Harmful obstruction **will not** occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.
C. Harmful or increased erosion, shoaling of channels, or stagnant areas of water **will not** be created thereby.
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• Please note: Seawalls, Docks, and Lifts require separate permitting for construction and compliance with all codes including 158.099 Structures over Water Town Code. **Acknowledged**

Tate, I believe the foregoing addresses your comments however if you require additional information please do not hesitate to call. Please advise when we can expect to be placed on the Town Commission agenda for Public Hearing. Thank you for your assistance.

Sincerely,

Bruce E. Franklin, President
Land Resource Strategies, LLC

STATE OF FLORIDA



MANATEE COUNTY

SITE ADDRESS:

<> 5630 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

NOTES:

<> THESE DRAWINGS ARE FOR CONSTRUCTION PURPOSES ONLY.

<> LATITUDE: N 27.415609

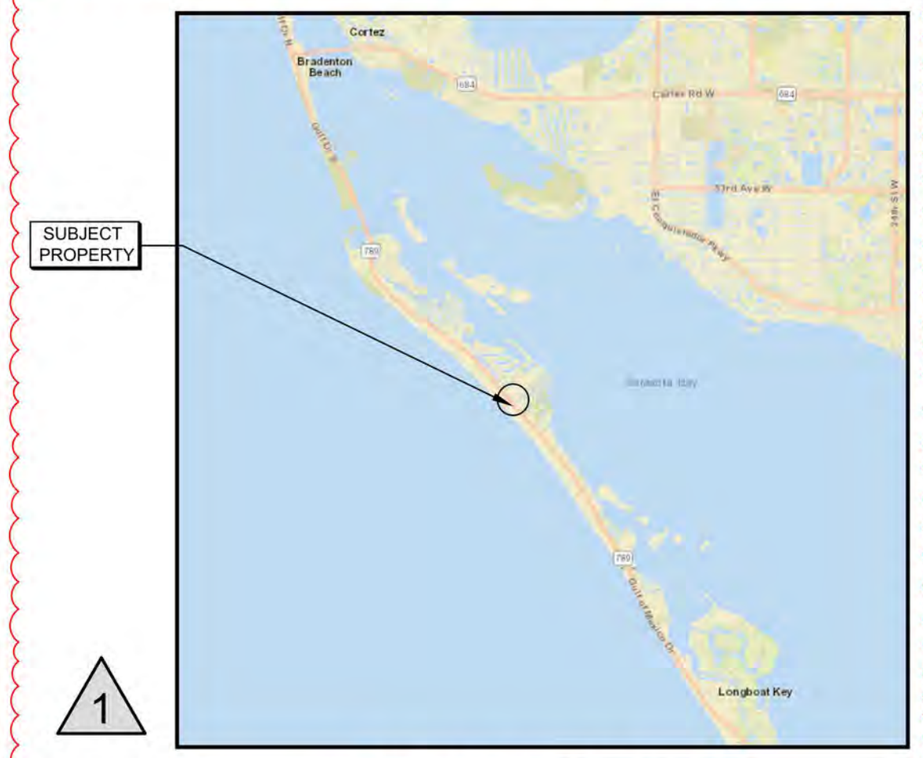
<> LONGITUDE: W -82.659969

TODD T. TURRELL
REGISTERED PROFESSIONAL ENGINEER
LICENSE NO. 39659

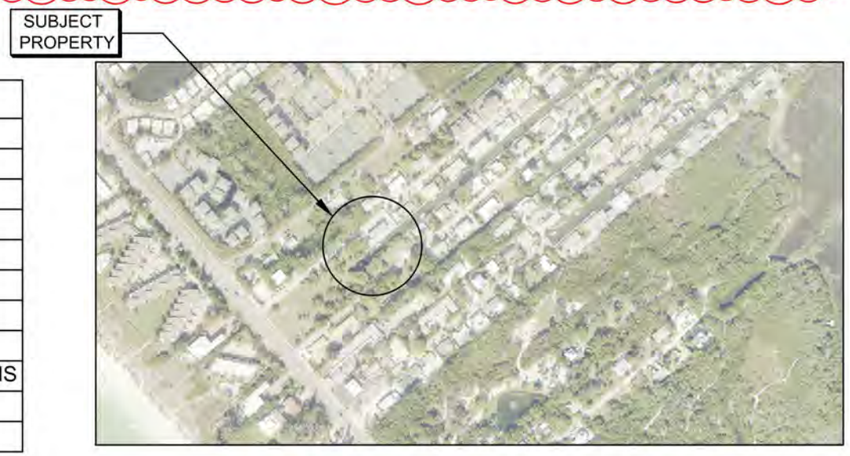
DATE:August 13, 2025

TODD T. TURRELL STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 39659. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY TODD T. TURRELL, P.E. USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

5630 GULF OF MEXICO DR	
Sheet Number	Sheet Title
G100	LOCATION PAGE
S100	SEAWALL PLAN
S101	SEAWALL CROSS SECTION
S102	SEAWALL DETAILS
C100	FRAMING PLAN
C101	DREDGE PLAN
C102	DOCK CONNECTION DETAILS
C103	PILING & FRAMING CROSS SECTIONS
C104	WIDTH OF WATERWAY
U100	UTILITY PLAN



VICINITY MAP



COUNTY AERIAL

5630 GULF OF MEXICO DR

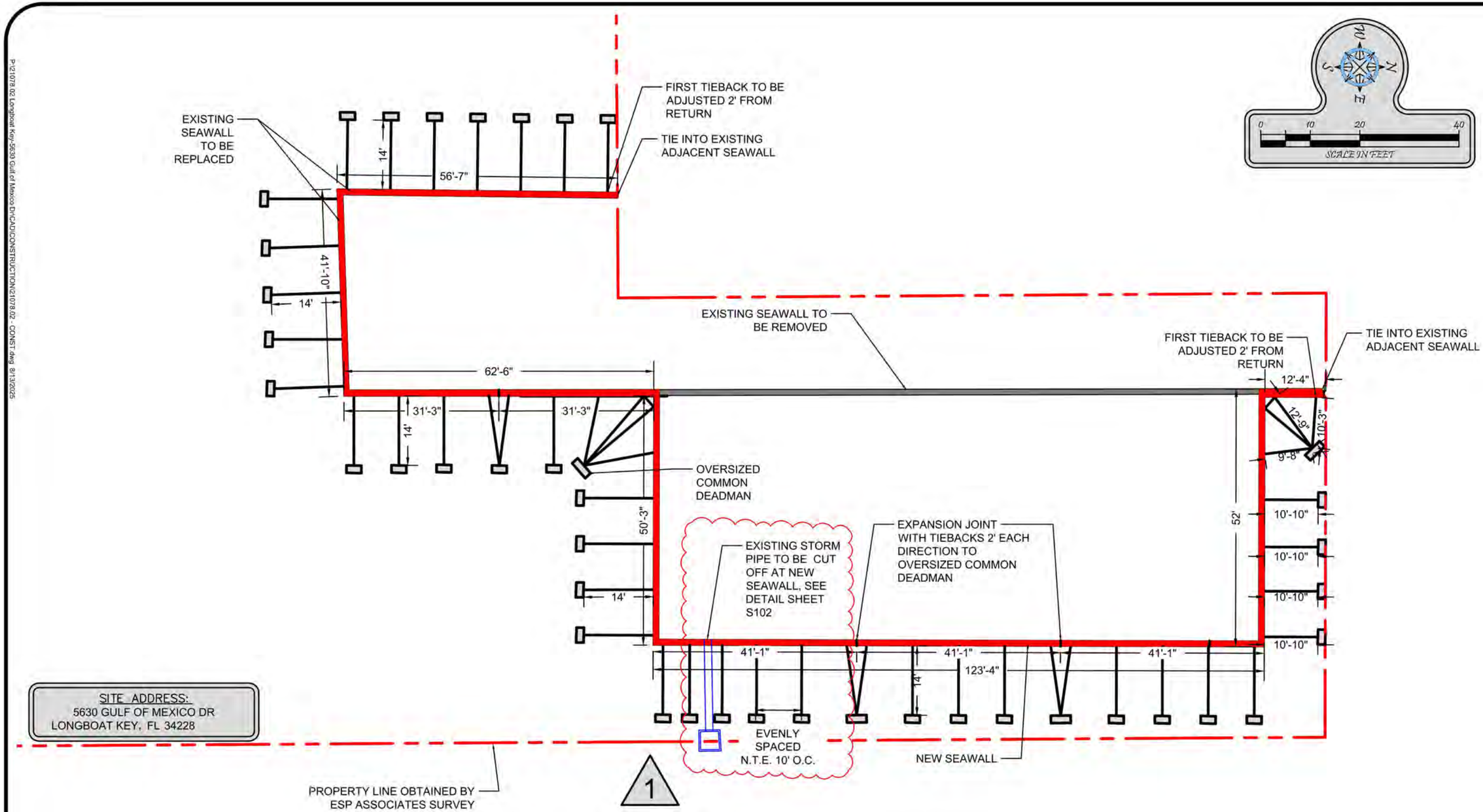
LOCATION PAGE

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
3584 Exchange Ave. Suite B,
Naples, Fl. 34104-3732
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REV #	REV BY	DATE	CHK BY	CHANGED
01	RMJ	05-13-25	TTT	SHEETS S100-S102
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DRAWN BY: RMJ
CHECKED BY: CH
PROJECT: 21078.02
DATE: 07-16-24
LAYOUT: LOCATION PAGE
REVIEWED BY: TTT
SHEET: G100

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SITE ADDRESS:
5630 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

NOTES:

- O THESE DRAWINGS ARE FOR CONSTRUCTION
- O THESE DRAWINGS ARE DESIGNED PER THE LATEST BUILDING CODE
- O SPECIFICATIONS:
- O MINIMUM PENETRATION 40% FOR CONCRETE (50% FOR VINYL) OF PANEL LENGTH.
- O ALL STEEL TO BE ASTM GRADE 60.
- O ALL OVERLAPS OF CONTINUOUS STEEL TO BE A MINIMUM OF 24" UNLESS OTHERWISE NOTED.
- O ALL CONCRETE TO BE 5,000 PSI FLORIDA DOT CLASS IV SPECS WITH A 0.4 WATER/CEMENT RATIO WITH #57 STONE LARGE AGGREGATE FOR TRUCK MIXES AND #89 STONE FOR LARGE AGGREGATE FOR PUMP MIXES. 3.5 GALLON PER CUBIC YARD DSI CORROSION INHIBITOR SHALL BE USED IN ALL CAP AND PANEL CONCRETE.
- O SEAWALL CAP TO BE COATED IN VOCOMP-20 CURING COMPOUND OR APPROVED EQUAL

5630 GULF OF MEXICO DR
SEAWALL PLAN

5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
3584 Exchange Ave. Suite B,
Naples, Fl. 34104-3752
Phone: (239) 643-0166
Fax: (239) 643-6632
email: turrell@associates.com

REV #	REV BY	DATE	DES BY	CHANGED
01	RMJ	8/13/25	TTT	ADDED EX. PIPE

DRAWN BY: RMJ
CHECKED BY: CH
PROJECT: 21078.02
DATE: 07-16-24
LAYER: SEAWALL PLAN
REVIEWED BY: TTT
SHEET: S100

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P:\21078.02 Longboat Key-5630 Gulf of Mexico D\CAD\CONSTRUCTION\SEAWALL DETAILS.dwg 8/13/2025

1 - Seawall Notes

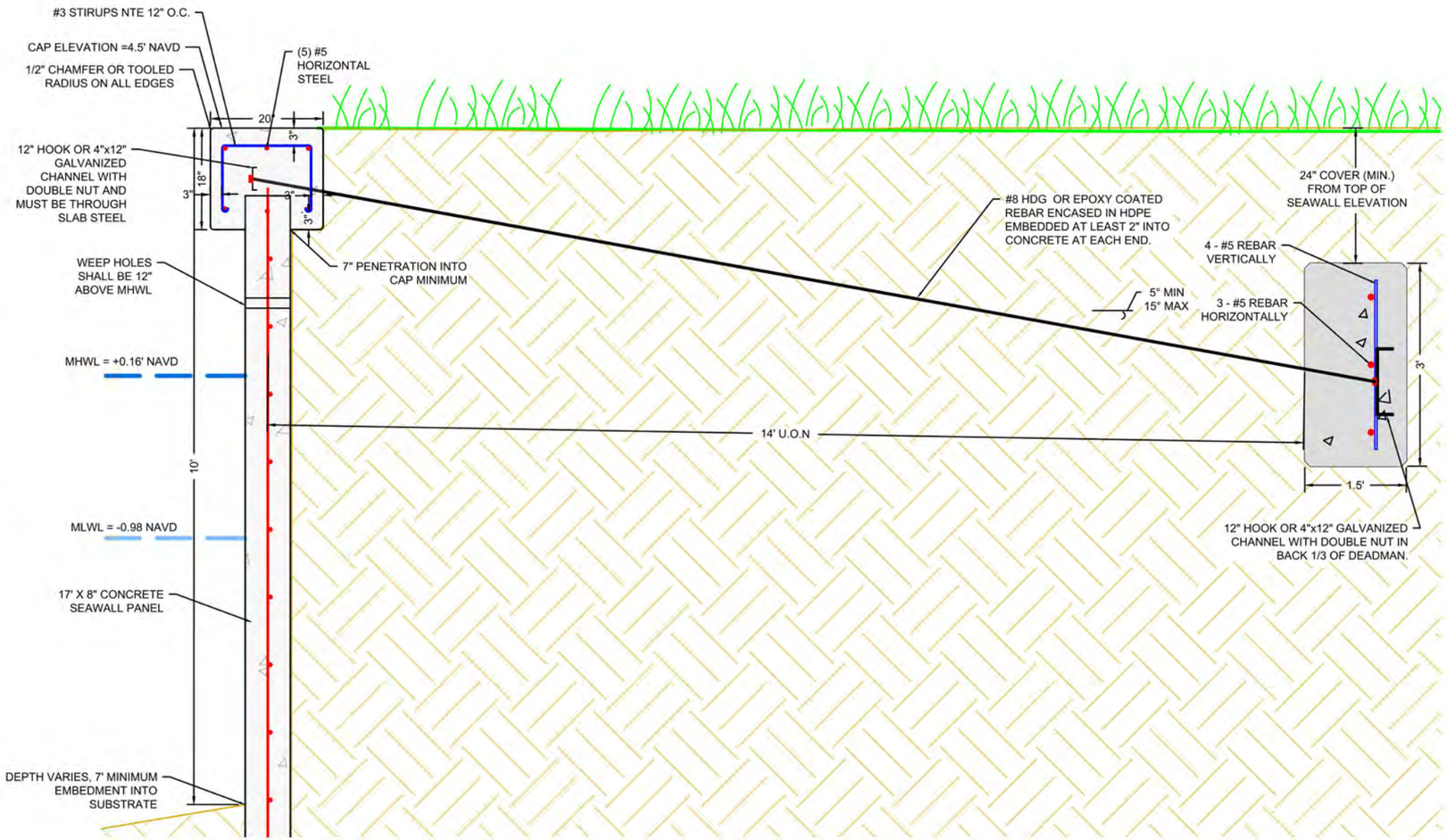
1.1 These drawings are designed per the latest building code.
1.2 The existing cap and panels may need to be modified to facilitate installation and to accommodate the new utility through wall penetrations.
1.3 Seawall shall be installed in straight alignment +/- 2".
1.4 Top of seawall cap shall either be level or pitched slightly to the water and shall not exceed more than 1/8" per foot.
1.5 Contractor is responsible for any temporary relieving or shoring of the existing seawall during installation.
1.6 Contractor shall be responsible to ensure that minimum tip elevation is achieved. If any panels cannot be driven to full embedment by standard methods, contractor shall notify engineer immediately. No panels may be cut without prior engineer approval.
1.7 Contractor shall notify engineer if seawall exposure exceeds or is expected to exceed what is shown in the plans.
1.8 Contractor shall coordinate with Engineer for any required inspections

2 - Concrete Specifications

2.1 All concrete to have 3 gal/cy of DCI-S corrosion inhibitor.
2.2 All steel to be ASTM Grade 60
2.3 All overlaps of continuous steel to be a minimum of 24" unless otherwise noted
2.4 All concrete to be 5,000PSI Florida DOT Class IV with a 0.40 W/C ratio, 4" slump ±1", with #57 stone large aggregate for truck mixes and #89 stone for large aggregate for pump mixes
2.5 Contractor to submit proposed mix design and curing procedure to engineer for approval
2.6 All steel to have min. 3" coverage.

3 - Helical Tieback Notes

3.1 Contractor may substitute helical tiebacks for deadmen tieback where necessary to avoid conflicts with existing structures.
3.2 Contractor shall keep a log of installation torque for each helical to show the design capacity was met.
3.3 Contractor to pull test 1 out of every 10 helicals to verify capacity.



TYPICAL SEAWALL SECTION

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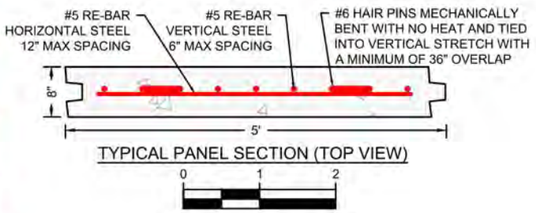
5630 GULF OF MEXICO DR

SEAWALL CROSS SECTION

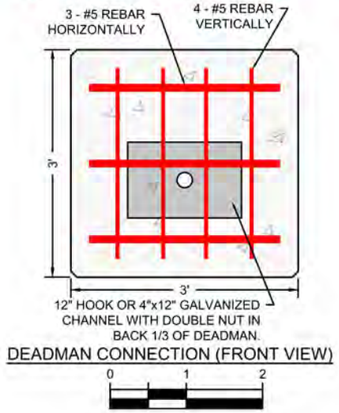
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REV #	REV BY	DATE	CHK BY	CHANGED
01	RMJ	03/13/25	TH	INITIAL ISSUE

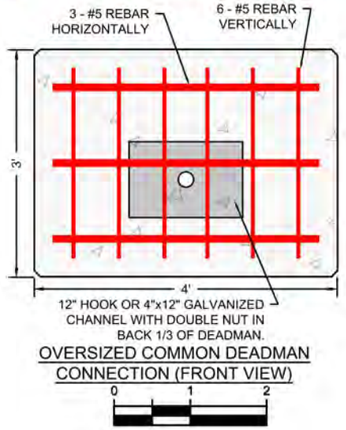
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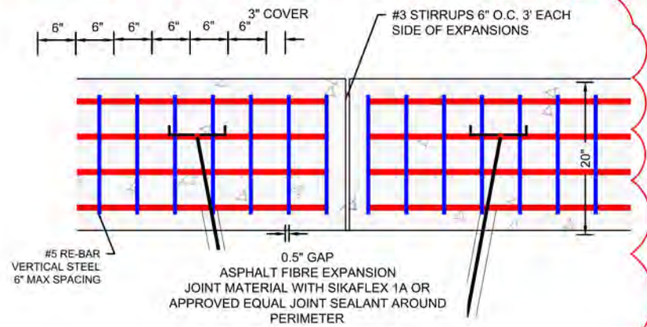
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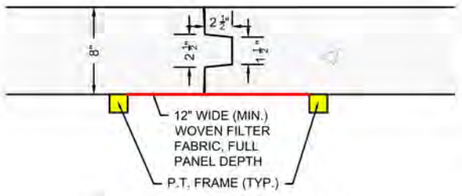
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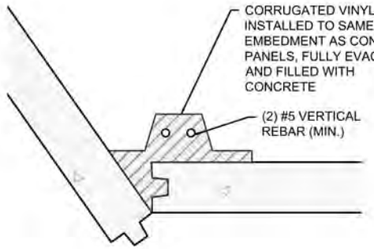
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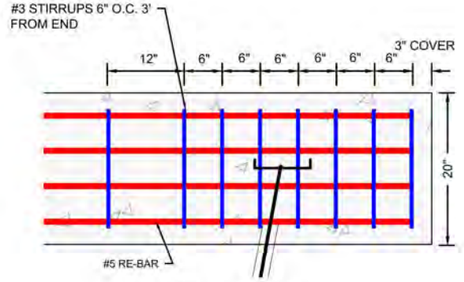
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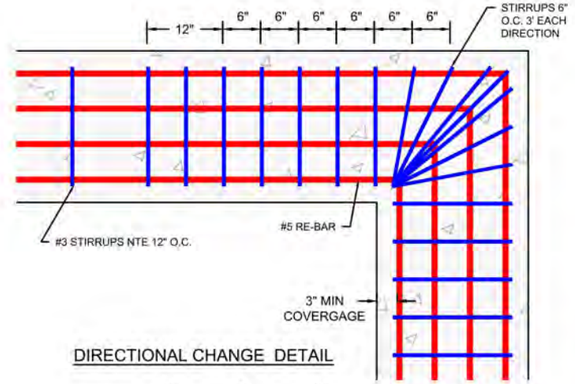
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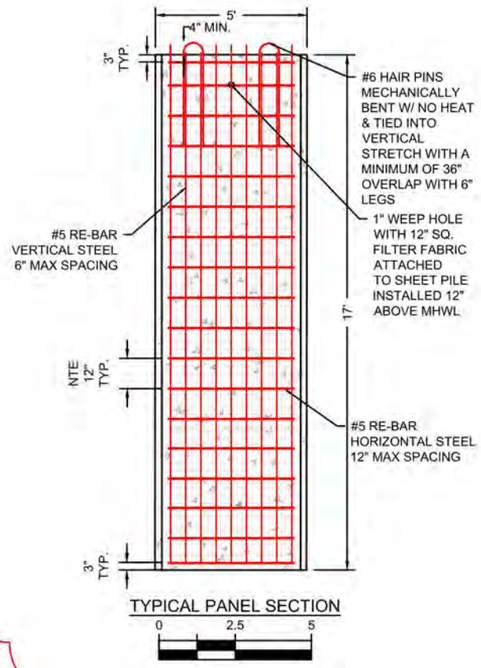
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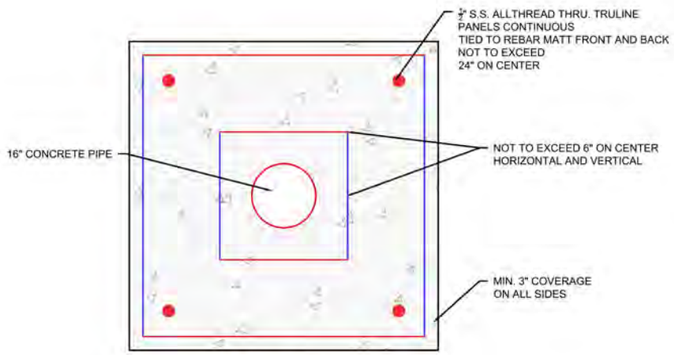
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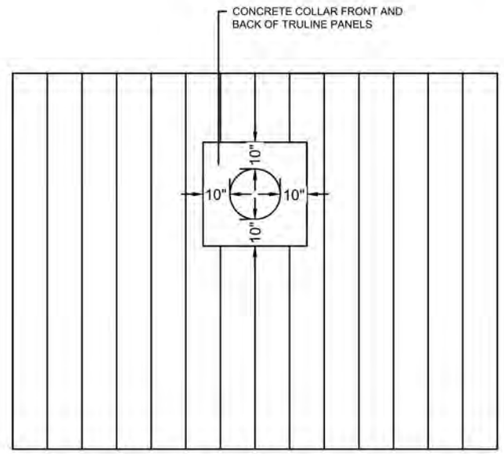
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TYPICAL PANEL SECTION



#5 STEEL MATT
N.T.S.



TYPICAL CONCRETE PIPE COLLAR
N.T.S.

1

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5630 GULF OF MEXICO DR

SEAWALL DETAILS

5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228

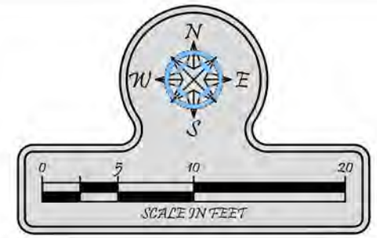
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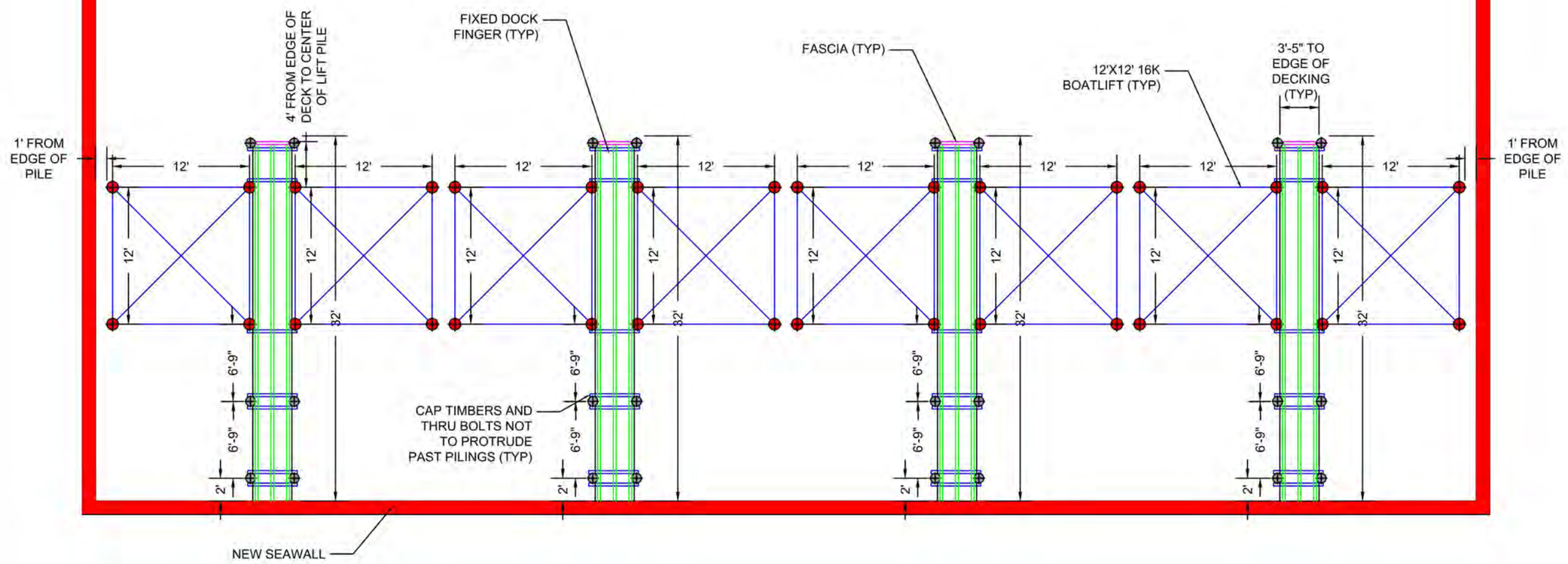
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DATE: 07-16-24
LAYOUT: SEAWALL DETAILS
SHEET: S102

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BUILDING MATERIAL SPECIFICATION
NOTES:
<> DOCK PILES - 10" BUTT MEASURED BEFORE CUTTING 2.5 PCF CCA 10' MIN. PENETRATION INTO SUBSTRATE DRIVEN TO FIRM BEARING.
<> BOAT LIFT PILES - 12" BUTT MEASURED BEFORE CUTTING 2.5 PCF CCA 15' MIN. PENETRATION INTO SUBSTRATE DRIVEN TO FIRM BEARING.
<> PILING WRAP - PVC WRAP ALL PILES FROM 12" ABOVE MHWL TO 6" BELOW SUBSTRATE.
<> CAP TIMBERS - 3' X 10" 0.60 CCA NO.1 SYP S4S
<> STRINGERS - 3" X 8" 0.60 CCA NO.1 SYP S4S (NOT TO EXCEED 18" ON CENTER)
<> DECKING - 2" X 6" WEARDECK
<> 5/8" GRADE 304/305 STAINLESS STEEL BOLTS THROUGH PILES, CAP TIMBERS, STRINGERS
<> 3" NO.10 GRADE 316 STAINLESS STEEL BUGLE HEAD SCREWS FOR DECKING.
<> BLACK VINYL CONE OR FLAT PILING CAPS.



LEGEND	
SYMBOL	DESCRIPTION
⊕	10" UP PILE
⊛	10" DOWN PILE
⊕	12" LIFT PILE
	3"X10" CAP TIMBER
	3"X8" STRINGER
	3"X8" FASCIA
DECKING: 2"X6" WEARDECK (NOT SHOWN)	



5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228

5630 GULF OF MEXICO DR
FRAMING PLAN

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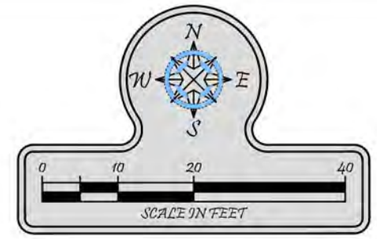
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SHEET:	C100

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5630 GULF OF MEXICO DR
DREDGE PLAN

5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228



EXISTING SEAWALL TO BE REPLACED

EXISTING ELEVATIONS REFERENCED TO NAVD88

DREDGE/EXCAVATION TO -4 MLW (9,823 SF, 1,325 CY)

TURBIDITY CURTAIN (162 LF)

SPOIL AREA

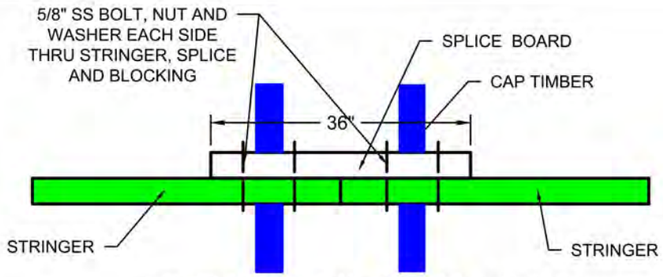
PROPERTY BOUNDARY

55'-5"
39'-5"
20'-2"
62'-8"
44'-9"
26'-2"
44'-10"
24'-2"
8'-3"
12'-6"
50'-5"
121'
50'-10"
50'
50'

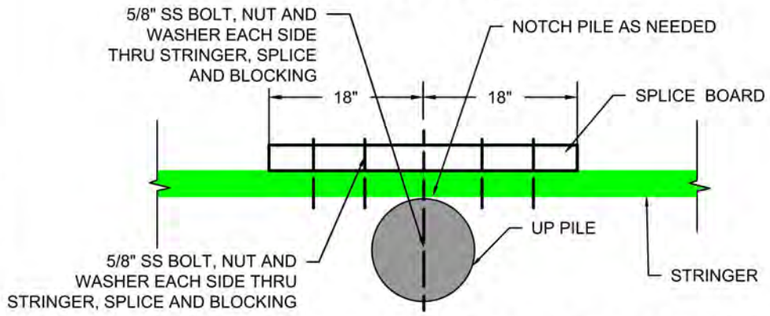
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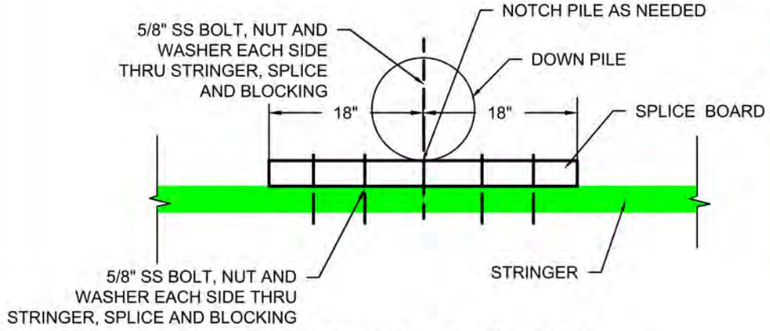
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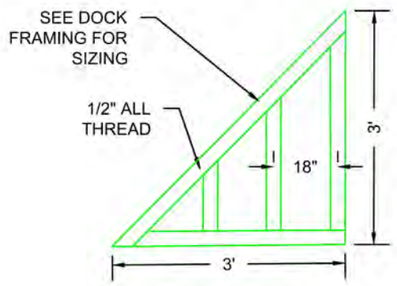
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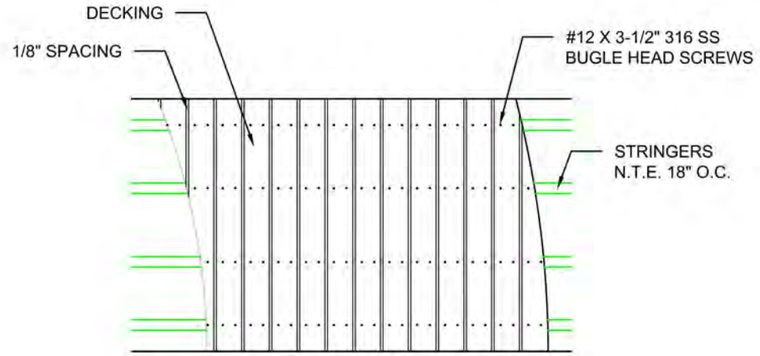
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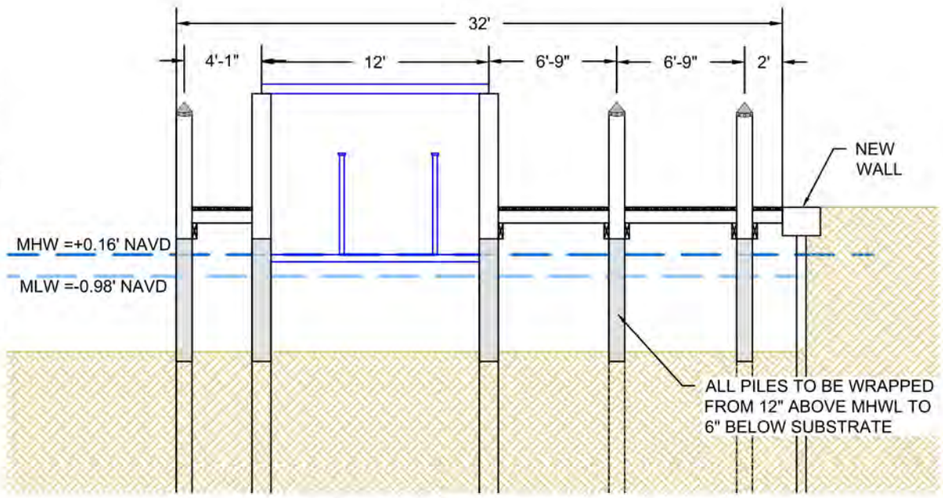
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WOOD DOWN PILE
NOT TO SCALE



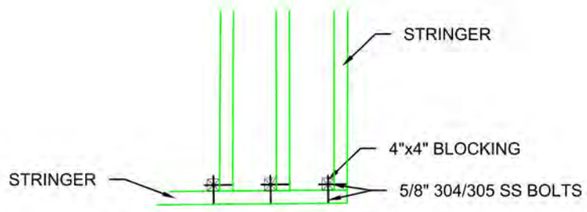
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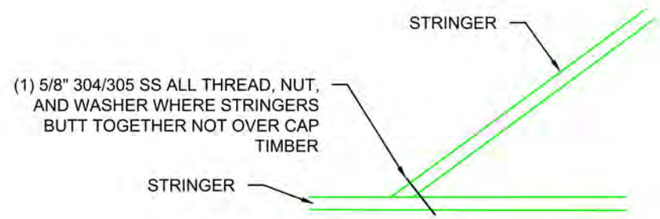
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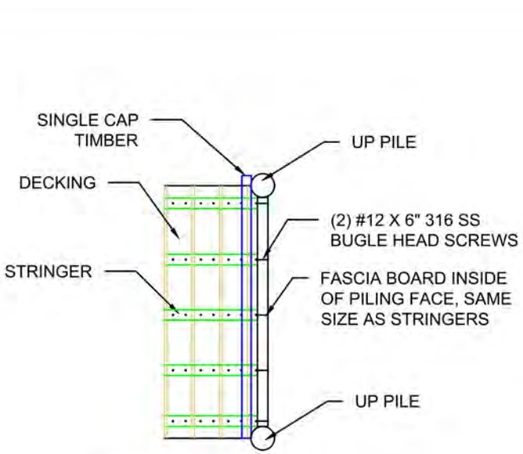
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SCALE: 1" = 8'



TYPICAL BLOCK DETAIL
NOT TO SCALE



STRINGER TO STRINGER
CONNECTION DETAIL
NOT TO SCALE



TYPICAL FASCIA
BOARD PLAN DETAIL
NOT TO SCALE

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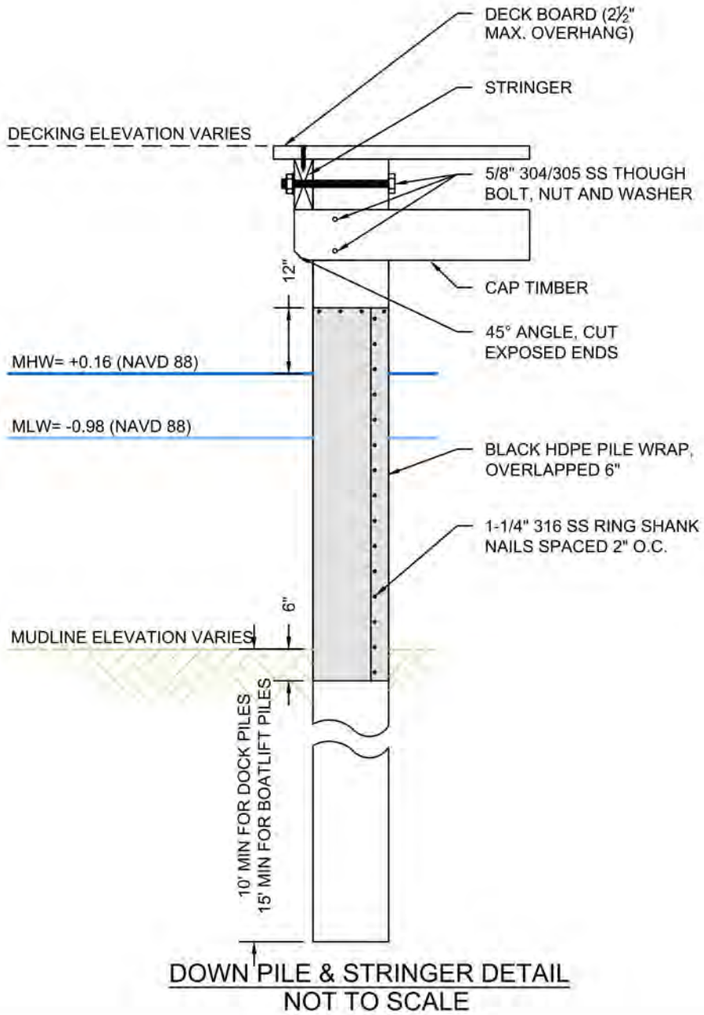
5630 GULF OF MEXICO DR

DOCK CONNECTION DETAILS

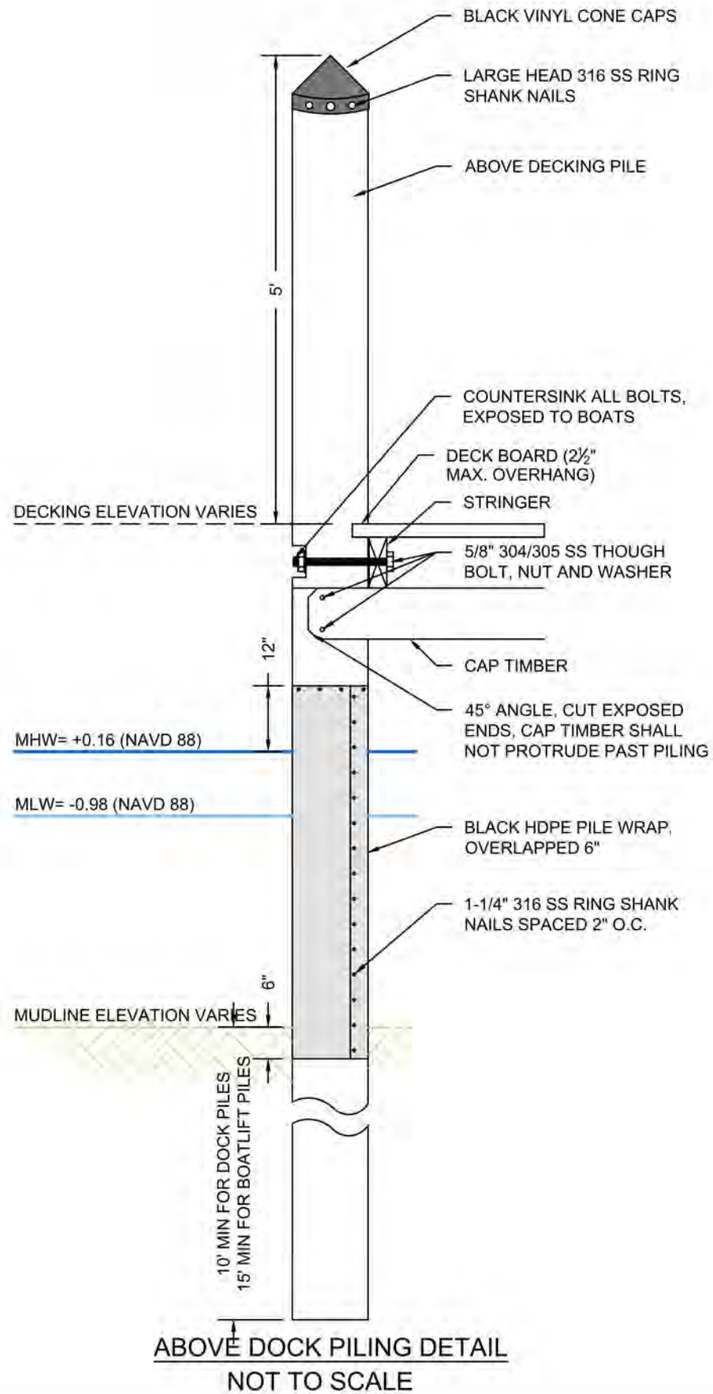
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DOWN PILE & STRINGER DETAIL
NOT TO SCALE



ABOVE DOCK PILING DETAIL
NOT TO SCALE

5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228

5630 GULF OF MEXICO DR

PILING & FRAMING CROSS SECTIONS

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EXISTING SEAWALL TO BE REPLACED

39'-5"

38'-8"

86'-8"

54'-1"

13'-9"

NEW SEAWALL

NEW DOCK (TYP)

55'-3"

87'

36'-3"

13'-9"

PROPERTY BOUNDARY

N

W

E

S

0 10 20 40

SCALE IN FEET

5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228

5630 GULF OF MEXICO DR

WIDTH OF WATERWAY

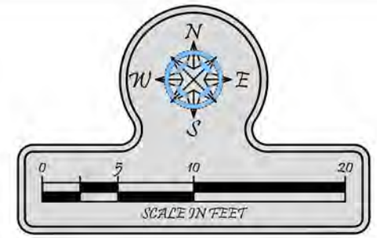
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LAYOUT: WIDTH OF WATERWAY
REVIEWED BY: TTT
SHEET: C104

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LEGEND	
SYMBOL	DESCRIPTION
E	(8) 20 AMP GFI DUPLEX OUTLET



FIXED DOCK FINGER (TYP)

NEW SEAWALL

5630 GULF OF MEXICO DR, LONGBOAT KEY, FL 34228

5630 GULF OF MEXICO DR

UTILITY PLAN

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LAYOUT: UTILITY PLAN
REVIEWED BY: TTT
SHEET: U100

BOAT BASIN FLUSHING ANALYSIS

5630 GULF OF MEXICO DR.

JULY 2024

PREPARED BY:

J.R. EVANS ENGINEERING

9961 INTERSTATE COMMERCE DRIVE STE. 230
FORT MYERS, FLORIDA 33913

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EXHIBITS

Exhibit 1 – Tide Station Location Map and Report

Exhibit 2 – ICPR4 Input Report

Exhibit 3 – ICPR4 Results

ELIZABETH FOUNTAIN, P.E.
FLORIDA LICENSE NO. 60077

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1 INTRODUCTION

The 5630 Gulf of Mexico Dr. boat basin is one component of the proposed 5630 Gulf of Mexico Dr./ 551 Tarawitt Dr. development project currently being permitted under ERP Application 889189. The project proposes the creation of a basin located on the property. Dredging down to elevation -4.98 ft-NAVD (-4 feet below Mean Low Water) is proposed to provide adequate draft for vessels entering and leaving the basin. The boat basin's perimeter, orientation, and footprint will remain as it is in the existing (pre-project) condition.

The purpose of the flushing analysis discussed in this report was to ensure that adequate flushing of the proposed boat basin (the exchange in water between the boat basin and Sarasota Bay) will occur and will prevent pollutant accumulation and poor water quality within the boat basin. Per Section 10.2.4.3 of Volume I of the Applicant's Handbook "a flushing time of less than or equal to four days is the maximum that is desirable for docking facilities."

2 STUDY AREA LOCATION AND DESCRIPTION

2.1 ORIGINAL DESIGNED BATHYMETRY

Dredging of the existing canal was conducted sometime around 1957 as shown in ***Figure 1***. By 1968 the canal served as waterside access to Sarasota ay for the residents along Tarawitt Dr. and Jungle Queen Way as shown in ***Figure 2***.



Figure 1. Historic Aerial (1957)



Figure 2. Historic Aerial (1968)

2.2 EXISTING BATHYMETRY AND SITE CONDITIONS

The existing property is mainly an empty lot with canal access. ESP Associates conducted a survey of the properties in September 2021. The survey is provided in the ERP plans submitted under ERP application 889189. The deepest depths surveyed within the canal were around -5.6 ft-NAVD, approximately 4.62' below Mean Low Water (MLW). The highest elevation found on the property in the proposed dredging area is 3.0' ft-NAVD.

Refer to the Environmental Supplement report prepared by Turrell, Hall & Associates, Inc. provided under ERP Application 889189 for a detailed description of the project area's existing (pre-project) soils, vegetation and animal species.

2.3 PROPOSED DREDGING

Dredging to the designed depth of the boat basin of -4' MLW is proposed for functionality of the boat basin as a navigable docking area for vessels. The proposed dredging is limited to the areas with sediment above -4' MLW (-4.98 ft-NAVD). No changes are proposed to the basin below elevation -4.98 ft-NAVD.

Refer to the Environmental Supplement report and the Marina Operations and Management Plan prepared by Turrell, Hall & Associates, Inc. provided under ERP Application 889189 for further details of the proposed dredging and proposed boat basin facilities.

3 FLUSHING ANALYSIS

3.1 TIDAL RANGE AND PERIODICITY

Tide station data from FDEP Tide Station 872-6159 was used to determine the tidal characteristics in the area of the proposed boat basin. Tide Station 872-6159 is located 5.00 miles east of the project area. A location map of the selected tide station and the tide station report are included in **Exhibit 1**. A standard semidiurnal tide cycle based on the tide station data was entered as a time-stage series ("boundary stage set") and was assigned to Sarasota Bay time/stage node in the tidal flushing model scenario created in Interconnected Pond Routing Version 4 (ICPR4), a hydrology and hydraulics modeling program. The ICPR4 tidal flushing model is discussed further in Section 3.3 below. The tidal boundary stage set is provided in the ICPR4 Input Report in **Exhibit 2**.

3.2 PROPOSED BASIN GEOMETRY

3.2.1 *Longest Path*

The longest path in the boat basin, measured from the southeast corner of the basin to the confluence with Sarasota Bay is approximately 2300 feet. The distance from the center of the widest part of the basin to the confluence with Sarasota Bay is approximately 2125 feet. The project does not propose changes to the existing (pre-project) longest path length.

3.2.2 *Depth and Width*

The minimum depth of the basin after dredging will be 4 feet below MLW or -4.98 ft-NAVD. The maximum depth of the existing canal according to the September 2021 bathymetric survey was measured to be -5.6 ft-NAVD. No change to the maximum depth is proposed. The width of the proposed boat basin is 50 feet. The length of the proposed boat basin is 123 feet

3.2.3 *Basin Volume*

The basin's proposed volume was calculated by creating a proposed conditions surface. The proposed bathymetric surface was created using the September 2021 survey to establish the existing bathymetry of the boat basin, and then all elevations above the minimum dredge elevation of -4.98 ft-NAVD were reduced to -4.98 ft-NAVD. The proposed surface was then imported into ICPR4 and a stage-area table was developed for the proposed basin. A visual representation of the proposed surface is provided in ***Figure 3***. Based on the stage-area table for the basin, the proposed volume of the basin at MSL is 7.02 acre-feet. The stage-area table and accompanying volume calculations for the basin are provided in ***Table 1.***

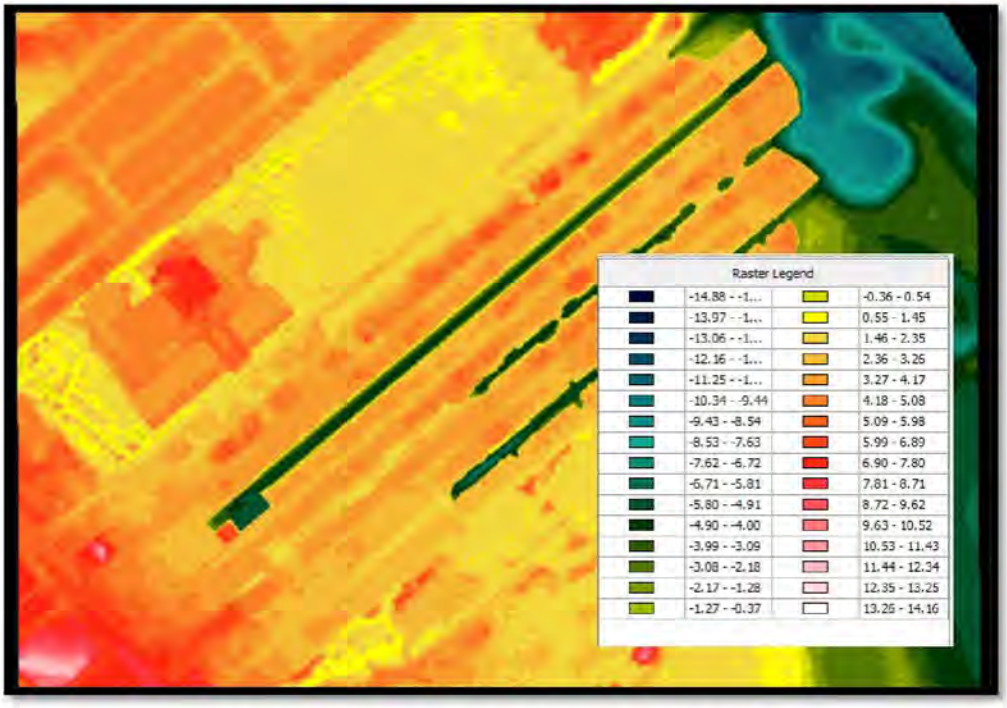


Figure 3. Proposed Boat Basin Bathymetric Surface (ft-NAVD)

Table 1. Basin Volume

Stage (ft-NAVD)	Area (Ac)	Volume (Ac-ft)	Cumulative Volume (Ac-ft)	
-5.60	0.00	0.00	0.00	
-5.50	0.00	0.00	0.00	
-5.00	0.05	0.00	0.01	
-4.50	0.44	0.04	0.15	
-4.00	0.94	0.09	0.49	
-3.50	1.45	0.14	1.09	
-3.00	1.71	0.17	1.89	
-2.50	1.90	0.19	2.79	
-2.00	2.01	0.20	3.77	
-1.69	2.07	0.02	4.40	MLLW
-0.98	2.22	0.02	5.90	MLW
-0.50	2.32	0.23	7.02	MSL
0.13	2.32	0.23	8.48	MHW
0.41	2.32	0.23	9.12	MHHW

3.3 TIDAL FLUSHING MODEL

3.3.1 *Desired Flushing*

Flushing of the boat basin will occur when the tide in Sarasota Bay recedes to low tide levels. Water within the basin flushes into Sarasota Bay until the tide begins to rise. Adequate flushing of the basin prevents the accumulation of pollutants within the basin. Per Section 10.2.4.3 of Volume I of the Applicant's Handbook, the maximum desired flushing time for docking facilities to reduce the concentration of a pollutant to ten percent of its original concentration is four days. The volume of the boat basin at mean sea level after the proposed dredging is 7.02 acre-feet. A complete exchange in the boat basins volume within 96 hours would indicate an adequate reduction to pollutant concentrations.

3.3.2 *Model Network*

Interconnected Pond Routing Version 4 (ICPR4) is a hydrology and hydraulics modeling program. The tidal flushing model utilizes ICPR4's hydraulic computation capabilities to simulate the exchange of the boat basins water with the tidal waters of Sarasota Bay through the defined opening connecting the two water bodies.

The ICPR4 model was setup with four (4) main components, shown in ***Figure 4*** and described below. The ICPR4 Input Report is provided in **Exhibit 2**.

- Proposed Canal With Boat Basin: Stage/area node that represents the proposed boat basin's geometry.
- Sarasota Bay: Time/stage node that represents Sarasota Bay's diurnal tide.
- Canal Mouth: Weir link that represents the narrowest connection between the basin and Sarasota Bay.
- Canal Mouth: Weir cross section that represents the opening geometry between the boat basin and Sarasota Bay.

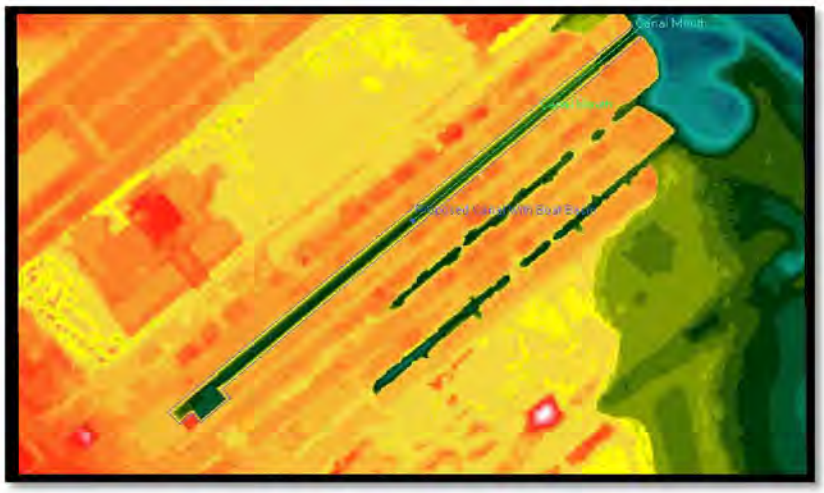


Figure 4. ICPR4 Flushing Model Nodal Diagram

3.3.3 *Flushing Model Results*

The flushing simulation was run for 120 hours (5 days). The boat basin's flushing volume at a particular time can be quantified by the outflow volume from the proposed boat basin node, Proposed Canal With Boat Basin, to Sarasota Bay node. The flushing model results shown in ***Figure 5*** indicate that the proposed boat basin will exchange its total volume of 7.02 acre-feet (305,800 cubic feet) in 25.75 hours, 70.25 hours sooner than the desired time to reduce a pollutant to 10% of its initial concentration. The ICPR4 Flushing Model results are provided in **Exhibit 3**.

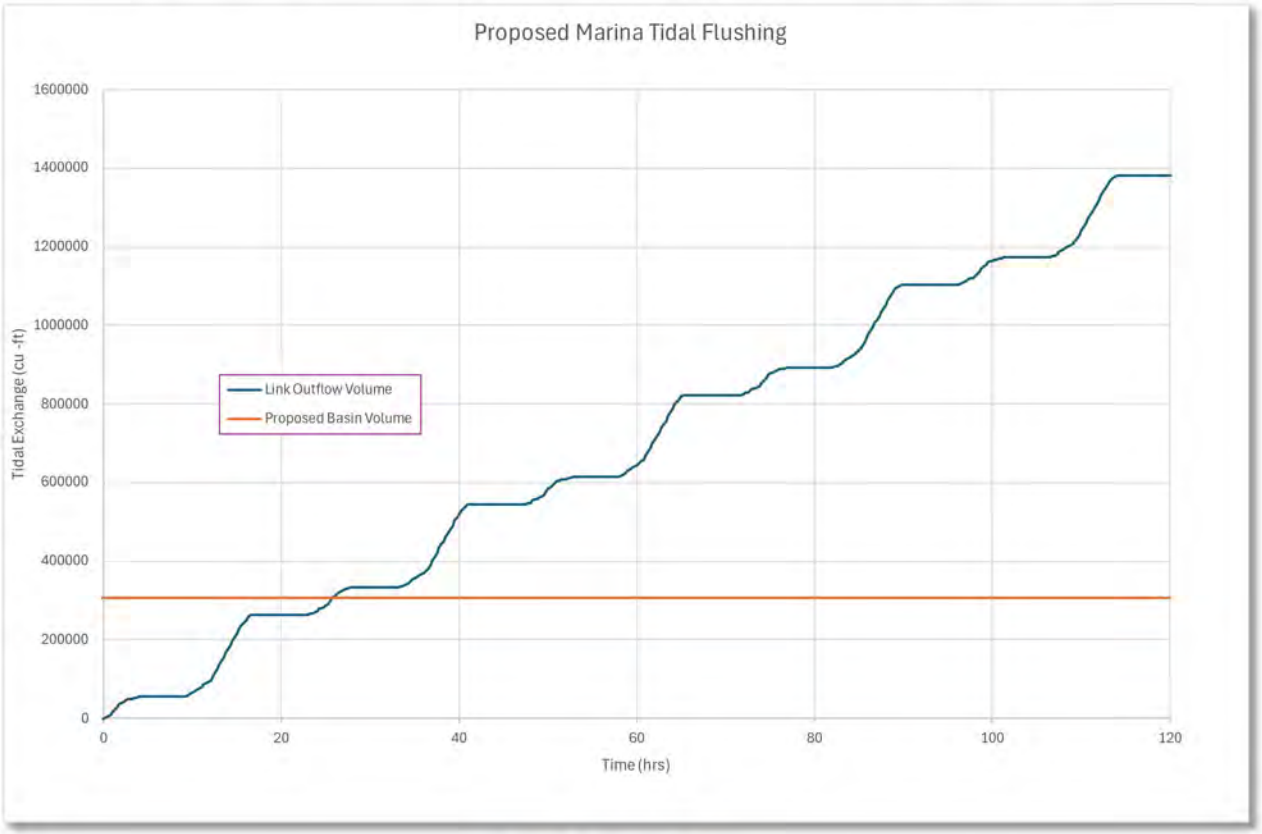


Figure 5. Flushing Volume

3.3.4 *Maximum Inflow/Outflow Velocities*

The maximum velocity of flow between the Canal and Sarasota Bay, determined using the ICPR4 model results, was approximately 0.09 ft/s. The maximum inflow and outflow rates were 22.82 cfs and 17.09 cfs, respectively. The ICPR4 Flushing Model results are provided in **Exhibit 3**.

3.3.5 *Phase Lag*

The tidal phase-lag between the entrance and the center of the boat basin will be insignificant due to the relatively small size of the basin and the negligible angular distance between the mouth of the basin and the center of the basin. It can be assumed based on the size and geometry of the proposed basin that any lag in tidal phase would be considered negligible for the subject basin.

Exhibit 1

Tide Station Location Map and Report

J.R. EVANS ENGINEERING

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
Bureau of Survey and Mapping

BENCHMARK & DATUM ELEVATIONS

TIDE STATION ID: 872-6159

DATE: 5/5/2015

BENCH MARK ELEVATIONS

STATION NAME	NAVD 88 FEET	NAVD 88 METERS
6159 A 1977	3.73	1.137
6159 B 1977	3.83	1.168
6159 E 1977	3.99	1.217
6159 F 1977	4.47	1.361
6159 G 2008	3.56	1.086
MAN 6 1982 BSM	14.65	4.464
ELEV 9.78	8.54	2.602

DATE: 5/5/2015

TIDE STATION ID: 872-6159

TIDE STATION NAME: WHITFIELD ESTATES, SARASOTA BAY

TIDAL EPOCH: 1983-2001

ELEVATION OF TIDAL DATUMS BASED ON 1929 & 1988 DATUMS

TIDAL DATUM	NAVD 88 FEET	NAVD 88 METERS
MHHW	0.41	0.126
MHW	0.13	0.041
MSL	-0.50	-0.153
MTL	-0.52	-0.157
MLW	-1.16	-0.355
MLLW	-1.69	-0.516

MR= 1.30 88/FT 0.396 88/M

NOTE: Tidal datums as calculated and shown herein may vary slightly from tidal datums calculated from data obtained from the Center for Operational Oceanographic Products and Services (CO-OPS).

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Division of State Lands
Bureau of Survey and Mapping

STATION ID:	**8726159**	**PUBLICATION DATE:**	**05/05/2015**
NAME:	**WHITFIELD ESTATES, SARASOTA BAY**		
NOAA CHART:	**11424**	**LATITUDE:**	**27Ø 24.5' N**
USGS QUAD:	**BRADENTON**	**LONGITUDE:**	**82Ø 34.8' W**

To reach the tidal bench marks from the intersection of US Highway 301 and State Road 70, proceed 2.0 miles south on U.S. highway 301 to Whitfield Avenue, then 2.1 mles west on Whitfield Avenue to Westmoreland Drive, continue 0.3 mile NW on Westmoreland Drive to North Isles Drive, and then 0.1 mile SW on North Isles Drive to its end. The bench marks are located along the seawall, Westmoreland Drive, and North Isles Drive. The tide gage and staff were located on a privately owned pier.

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Division of State Lands
Bureau of Survey and Mapping

STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: 6159 A 1977
DESIGNATION: 872 6159 A TIDAL

MONUMENTATION: Bench Mark Disk
AGENCY: National Ocean Service PID#: AG7691
SETTING CLASSIFICATION: Concrete seawall
NAD 83(1986) POSITION: 27 24 35.9(N) 082 34 43.4(W) HAND-HELD GPS

The bench mark is a disk set flush in a concrete sea wall, 54.0 feet SW of the centerline of North Isles Drive, 43.5 feet NW of the NW corner of a swimming pool, 25.8 feet east of the west end of the seawall, and 3.0 feet SW of the NE edge of the south seawall.



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Division of State Lands
Bureau of Survey and Mapping

STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: **6159 B 1977**
DESIGNATION: 872 6159 B TIDAL

MONUMENTATION: Bench Mark Disk
AGENCY: National Ocean Service PID#: AG7692
SETTING CLASSIFICATION: Concrete seawall
NAD 83(1986) POSITION: 27 24 36.3(N) 082 34 43.6(W) HAND-HELD GPS

The bench mark is a disk set in a concrete seawall, 50 feet north of Bench Mark 6159 A 1977, 34 feet NW of the centerline of North Isles Drive, 29 feet east of the west end of the north sea wall, and 0.7 foot west of the east edge of the north sea wall.



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STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: **6159 E 1977**
DESIGNATION: 872 6159 E TIDAL

MONUMENTATION: Bench mark Disk
AGENCY: National Ocean Service PID#: AG7689
SETTING CLASSIFICATION: Concrete post
NAD 83(1986) POSITION: 27 24 39.0(N) 082 34 41.2(W) HAND-HELD GPS

The bench mark is a disk set in a concrete post along Westmoreland Drive, 38.2 feet SSW of the south corner of a white block house #8158, 30 feet NE of the centerline of Westmoreland Drive, and 1.7 feet west of a utility pole and 0.4 foot below ground level.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
Bureau of Survey and Mapping

STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: **6159 F 1977**
DESIGNATION: 872 6159 F TIDAL

MONUMENTATION: Tidal Station Disk
AGENCY: National Ocean Service PID#: AG7690
SETTING CLASSIFICATION: Copper-clad steel rod
NAD 83(1986) POSITION: 27 24 37.5(N) 082 34 42.4(W) HAND-HELD GPS

The bench mark is a disk located 140 feet east of bench mark 6159 B 1977, 100 feet SW of the junction of North Isles Drive and Westmoreland Drive, 24.5 feet NW of the centerline of North Isles Drive, 6.2 feet SW of a large clump of trees with shaggy bark, and 0.27 m (0.9 ft) SW of utility pole #106. The bench mark is crimped to the top of a copper-clad steel rod driven 40 feet to refusal, and encased in a PVC pipe and concrete kickblock.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
Bureau of Survey and Mapping

STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: 6159 G 2008
DESIGNATION: 872 6159 G TIDAL

MONUMENTATION: Survey disk
AGENCY: FL Dept. of Environmental Protection PID#: DL1848
SETTING CLASSIFICATION: Concrete curb
NAD 83(1986) POSITION: 2737.9(N) 082 34 40.9(W) HAND-HELD GPS

The bench mark is a disk located 99.8 feet south of bench mark 6159 E 1977, 33.5 feet SW of the centerline of Westmoreland Drive, 18.3 feet SE of the centerline of North isle Drive, 12.0 feet north of a fire hydrant, and 3.0 feet NW of the center of a 24-inch) steel manhole cover.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
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STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: **MAN 6 1982 BSM**
DESIGNATION: MAN 6

MONUMENTATION: Survey disk
AGENCY: FL Department of Natural Resources PID#: AG7687
SETTING CLASSIFICATION: Concrete manhole box
NAD 83(1986) POSITION: 27 25 04.8(N) 082 33 17.2(W) HAND-HELD GPS

The bench mark is a disk set in the top of a 6-foot by 6-foot concrete manhole box mark bearing 36.9 feet south of the centerline of Whitfield Avenue, 104 feet east of the centerline of Pennsylvania Avenue, 19.5 feet NW of an electric breaker box (14a), and 83.0 feet ENE of a power pole (5-1374-9930-0-6).



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
Bureau of Survey and Mapping

STATION ID: 8726159 **PUBLICATION DATE:** 05/05/2015
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE:** 27Ø 24.5' N
USGS QUAD: BRADENTON **LONGITUDE:** 82Ø 34.8' W

T I D A L B E N C H M A R K

BENCH MARK STAMPING: **ELEV 9.78**
DESIGNATION: 9.78

MONUMENTATION: Survey Disk
AGENCY: Manatee County PID#: AG7688
SETTING CLASSIFICATION: Concrete culvert headwall
NAD 83(1986) POSITION: 27 24 51.3(N) 082 33 59.5(W) HAND-HELD GPS

The bench mark is a disk set in the top of a large concrete headwall 1 foot below the road, bearing 117.7 feet NNW of the centerline of Whitfield Avenue, 249.6 feet ENE of the centerline of Willow Street, 94.6 feet ESE of a concrete power pole, and 25.25 feet SW of a3.5-foot diameter live oak tree.



9.78, AG7688, 1, 20140411

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
Bureau of Survey and Mapping

STATION ID: 8726159 **PUBLICATION DATE: 05/05/2015**
NAME: WHITFIELD ESTATES, SARASOTA BAY
NOAA CHART: 11424 **LATITUDE: 27Ø 24.5' N**
USGS QUAD: BRADENTON **LONGITUDE: 82Ø 34.8' W**

T I D A L D A T U M S

Tidal datums at WHITFIELD ESTATES, SARASOTA BAY based on:

LENGTH OF SERIES: 1 MONTH
TIME PERIOD: September 1977 - September 1977
TIDAL EPOCH: 1983-2001
CONTROL TIDE STATION: 8725943 BLACKBURN POINT

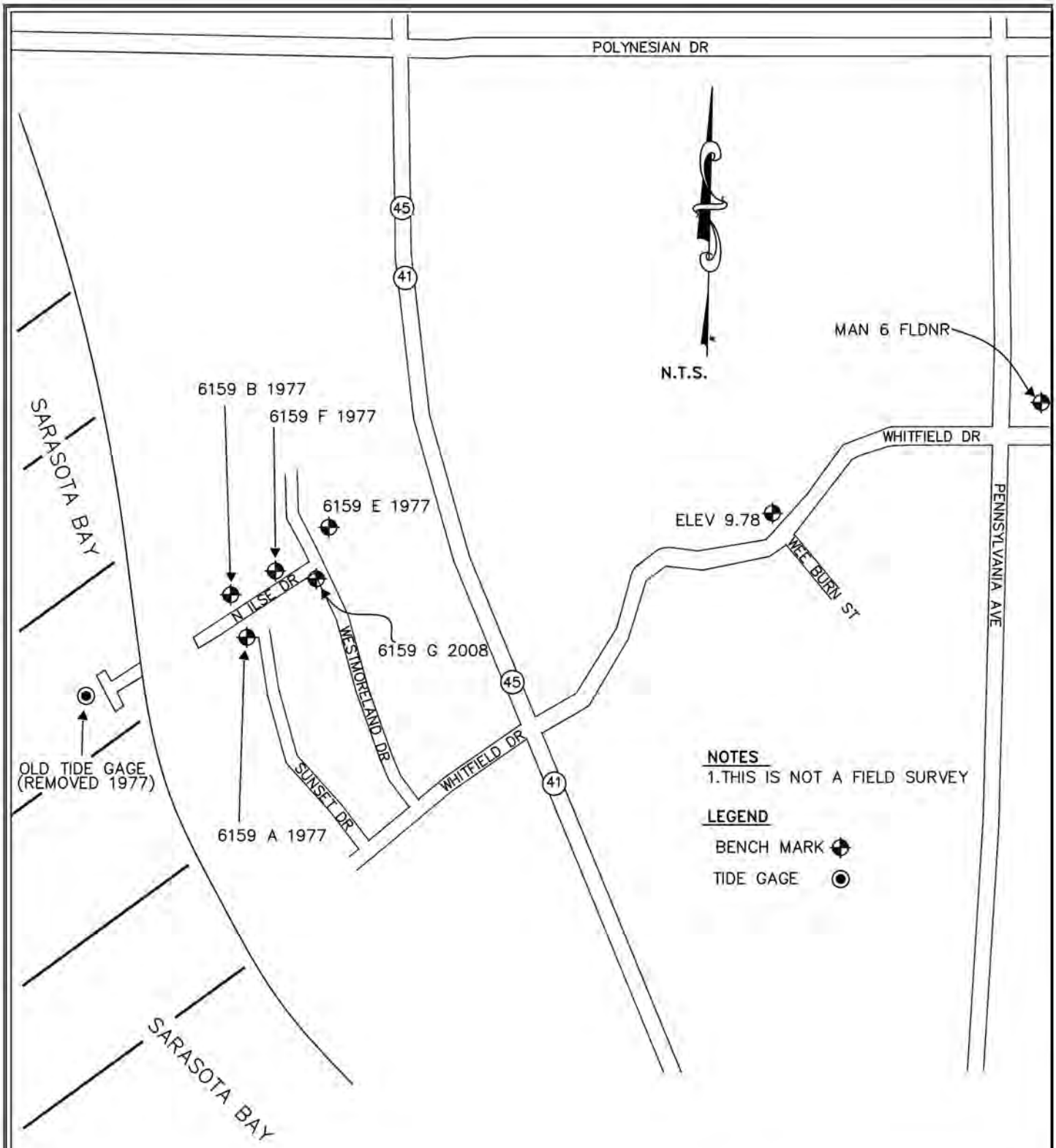
Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in METERS:

MEAN HIGHER HIGH WATER	MHHW	=	0.642
MEAN HIGH WATER	MHW	=	0.557
North American Vertical Datum	NAVD88	=	0.516
MEAN SEA LEVEL	MSL	=	0.363
MEAN TIDE LEVEL	MTL	=	0.359
MEAN LOW WATER	MLW	=	0.161
MEAN LOWER LOW WATER	MLLW	=	0.000

North American Vertical Datum (NAVD88)

Bench Mark Elevation Information — In METERS above:

Stamping or Designation	MLLW	MHW
6159 A 1977	1.653	1.096
6159 B 1977	1.684	1.127
6159 E 1977	1.733	1.176
6159 F 1977	1.877	1.320
6159 G 2008	1.602	1.045
MAN 6 1982 BSM	4.980	4.423
ELEV 9.78	3.118	2.561



SKETCH OF TIDAL STATION
872-6159
WHITFIELD ESTATES, SARASOTA BAY
SARASOTA, FL.

LATITUDE: 27° 24' 30"
LONGITUDE: 082° 34' 48"
USGS QUAD: BRADENTON

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BUREAU of SURVEY and MAPPING
3900 COMMONWEALTH BLVD. TALLAHASSEE, FL 32399
(850) 245-2606

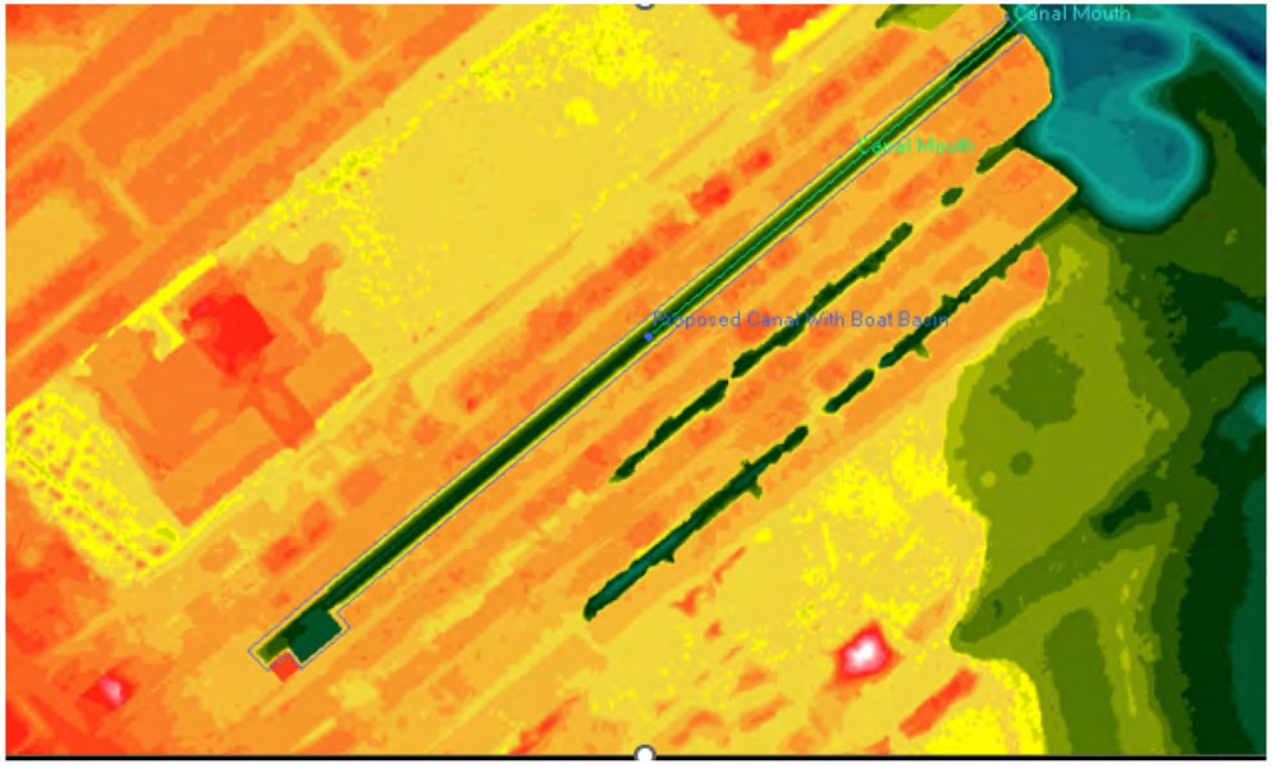
FIELD VISIT DATE	SCALE NOT TO SCALE	COUNTY: SARASOTA
UNKNOWN	DRAWN BY C.S.	SEC 26 T35S R17E
	REVISED BY: J.R.H.	OFF. NO.
DWG. NAME 872-6159	4/22/08	SHEET 1 OF 1

X:\USERS\BSM\DRAWINGS\TIDESTA\872-6159

Exhibit 3

ICPR4 Input Report

J.R. EVANS ENGINEERING


Canal Mouth
Canal Mouth
Proposed Canal with Boat Basin

Node: Existing Canal

Scenario: Existing
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.09 ft
Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
-5.57	0.0002	9
-5.50	0.0005	20
-5.40	0.0021	90
-5.30	0.0039	171
-5.20	0.0072	315
-5.10	0.0186	810
-5.00	0.0382	1665
-4.90	0.0669	2916
-4.80	0.1058	4608
-4.70	0.1510	6579
-4.60	0.2058	8964
-4.50	0.2686	11700
-4.40	0.3455	15048
-4.30	0.4465	19449
-4.20	0.5614	24453
-4.10	0.6760	29448
-4.00	0.7837	34137
-3.90	0.8992	39168
-3.80	1.0122	44091
-3.70	1.1295	49203
-3.60	1.2281	53496
-3.50	1.3064	56907
-3.40	1.3610	59283
-3.30	1.4141	61596
-3.20	1.4661	63864
-3.10	1.5149	65988
-3.00	1.5659	68211
-2.90	1.6149	70344
-2.80	1.6570	72180
-2.70	1.6963	73890
-2.60	1.7304	75375
-2.50	1.7560	76491
-2.40	1.7795	77517
-2.30	1.8017	78480
-2.20	1.8236	79434
-2.10	1.8446	80352
-2.00	1.8657	81270
-1.90	1.8872	82206
-1.80	1.9079	83106
-1.70	1.9273	83952
-1.60	1.9483	84870
-1.50	1.9659	85635

Stage [ft]	Area [ac]	Area [ft2]
-1.40	1.9895	86661
-1.30	2.0072	87435
-1.20	2.0271	88299
-1.10	2.0500	89298
-1.00	2.0723	90270
-0.90	2.0917	91116
-0.80	2.1114	91971
-0.70	2.1306	92808
-0.60	2.1510	93699
-0.50	2.1713	94581
-0.40	2.1905	95418
-0.30	2.2138	96435
-0.20	2.2370	97443
-0.10	2.2607	98478
0.00	2.2845	99513
0.09	2.3025	100296
0.19	2.3211	101106
0.29	2.3386	101871
0.39	2.3576	102699
0.49	2.3793	103644
0.59	2.4002	104553
0.69	2.4225	105525
0.79	2.4444	106479
0.89	2.4636	107316
0.99	2.4835	108180
1.09	2.5023	108999
1.19	2.5223	109872
1.29	2.5444	110835
1.39	2.5678	111852
1.49	2.5878	112725
1.59	2.6072	113571
1.69	2.6275	114453
1.79	2.6469	115299
1.89	2.6684	116235
1.99	2.6950	117396
2.09	2.7190	118440
2.19	2.7428	119475
2.29	2.7655	120465
2.39	2.7928	121653
2.49	2.8277	123174
2.59	2.8686	124956
2.69	2.9070	126630
2.79	2.9419	128151
2.89	2.9731	129510
2.99	3.0023	130779
3.09	3.0209	131589
3.19	3.0434	132570
3.29	3.0669	133596
3.39	3.0864	134442

Stage [ft]	Area [ac]	Area [ft2]
3.49	3.1050	135252
3.59	3.1202	135918
3.69	3.1343	136530
3.79	3.1442	136962
3.90	3.1517	137286
3.99	3.1554	137448
4.10	3.1585	137583
4.19	3.1607	137682
4.29	3.1622	137745
4.39	3.1628	137772
4.49	3.1636	137808
4.60	3.1645	137848
4.70	3.1654	137883
4.79	3.1661	137916
4.89	3.1663	137924
4.99	3.1663	137924

Comment:

Node: Sarasota Bay

Scenario: Existing
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 0.09 ft
Warning Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	0.09
0	0	0	0.0835	0.09
0	0	0	0.1668	0.08
0	0	0	0.2501	0.08
0	0	0	0.3337	0.06
0	0	0	0.4168	0.05
0	0	0	0.5000	0.04
0	0	0	0.5834	0.03
0	0	0	0.6667	0.02
0	0	0	0.7500	0.02
0	0	0	0.8336	0.01
0	0	0	0.9167	-0.02
0	0	0	1.0000	-0.05
0	0	0	1.0835	-0.07
0	0	0	1.1670	-0.10
0	0	0	1.2501	-0.12
0	0	0	1.3335	-0.15
0	0	0	1.4167	-0.17

Year	Month	Day	Hour	Stage [ft]
0	0	0	1.5001	-0.17
0	0	0	1.5833	-0.20
0	0	0	1.6673	-0.22
0	0	0	1.7504	-0.24
0	0	0	1.8336	-0.24
0	0	0	1.9168	-0.27
0	0	0	2.0002	-0.29
0	0	0	2.0838	-0.29
0	0	0	2.1670	-0.32
0	0	0	2.2501	-0.32
0	0	0	2.3334	-0.34
0	0	0	2.4170	-0.34
0	0	0	2.5001	-0.34
0	0	0	2.5834	-0.37
0	0	0	2.6669	-0.37
0	0	0	2.7501	-0.37
0	0	0	2.8334	-0.37
0	0	0	2.9171	-0.39
0	0	0	3.0002	-0.39
0	0	0	3.0837	-0.39
0	0	0	3.1668	-0.39
0	0	0	3.2501	-0.39
0	0	0	3.3337	-0.39
0	0	0	3.4167	-0.42
0	0	0	3.5001	-0.42
0	0	0	3.5834	-0.42
0	0	0	3.6668	-0.42
0	0	0	3.7502	-0.42
0	0	0	3.8335	-0.42
0	0	0	3.9168	-0.44
0	0	0	4.0001	-0.44
0	0	0	4.0834	-0.44
0	0	0	4.1667	-0.44
0	0	0	4.2502	-0.44
0	0	0	4.3336	-0.44
0	0	0	4.4170	-0.44
0	0	0	4.5000	-0.44
0	0	0	4.5835	-0.42
0	0	0	4.6667	-0.42
0	0	0	4.7501	-0.39
0	0	0	4.8334	-0.39
0	0	0	4.9169	-0.37
0	0	0	5.0001	-0.34
0	0	0	5.0834	-0.34
0	0	0	5.1667	-0.32
0	0	0	5.2500	-0.29
0	0	0	5.3336	-0.27
0	0	0	5.4168	-0.24
0	0	0	5.5001	-0.20

Year	Month	Day	Hour	Stage [ft]
0	0	0	5.5834	-0.17
0	0	0	5.6669	-0.12
0	0	0	5.7500	-0.10
0	0	0	5.8335	-0.05
0	0	0	5.9169	0.00
0	0	0	6.0000	0.02
0	0	0	6.0833	0.04
0	0	0	6.1669	0.05
0	0	0	6.2500	0.08
0	0	0	6.3334	0.10
0	0	0	6.4168	0.12
0	0	0	6.5001	0.14
0	0	0	6.5834	0.16
0	0	0	6.6668	0.18
0	0	0	6.7501	0.21
0	0	0	6.8336	0.23
0	0	0	6.9170	0.25
0	0	0	7.0000	0.27
0	0	0	7.0834	0.29
0	0	0	7.1669	0.30
0	0	0	7.2502	0.32
0	0	0	7.3334	0.33
0	0	0	7.4167	0.35
0	0	0	7.5001	0.36
0	0	0	7.5836	0.37
0	0	0	7.6667	0.37
0	0	0	7.7502	0.38
0	0	0	7.8334	0.39
0	0	0	7.9169	0.39
0	0	0	8.0001	0.40
0	0	0	8.0834	0.40
0	0	0	8.1668	0.41
0	0	0	8.2501	0.41
0	0	0	8.3333	0.41
0	0	0	8.4167	0.41
0	0	0	8.5000	0.41
0	0	0	8.5834	0.41
0	0	0	8.6667	0.41
0	0	0	8.7501	0.41
0	0	0	8.8335	0.41
0	0	0	8.9167	0.41
0	0	0	9.0001	0.41
0	0	0	9.0834	0.40
0	0	0	9.1668	0.40
0	0	0	9.2502	0.40
0	0	0	9.3334	0.39
0	0	0	9.4168	0.38
0	0	0	9.5000	0.38
0	0	0	9.5834	0.37

Year	Month	Day	Hour	Stage [ft]
0	0	0	9.6667	0.36
0	0	0	9.7503	0.35
0	0	0	9.8333	0.33
0	0	0	9.9168	0.32
0	0	0	10.0001	0.31
0	0	0	10.0834	0.30
0	0	0	10.1667	0.28
0	0	0	10.2500	0.27
0	0	0	10.3335	0.26
0	0	0	10.4167	0.25
0	0	0	10.5001	0.24
0	0	0	10.5834	0.23
0	0	0	10.6667	0.22
0	0	0	10.7501	0.21
0	0	0	10.8333	0.19
0	0	0	10.9167	0.18
0	0	0	11.0002	0.17
0	0	0	11.0834	0.16
0	0	0	11.1668	0.15
0	0	0	11.2500	0.13
0	0	0	11.3334	0.12
0	0	0	11.4168	0.11
0	0	0	11.5002	0.10
0	0	0	11.5834	0.09
0	0	0	11.6667	0.08
0	0	0	11.7500	0.05
0	0	0	11.8335	0.04
0	0	0	11.9167	0.03
0	0	0	12.0000	0.02
0	0	0	12.0834	0.00
0	0	0	12.1669	-0.02
0	0	0	12.2501	-0.05
0	0	0	12.3336	-0.10
0	0	0	12.4169	-0.12
0	0	0	12.5001	-0.15
0	0	0	12.5836	-0.20
0	0	0	12.6669	-0.22
0	0	0	12.7500	-0.27
0	0	0	12.8336	-0.29
0	0	0	12.9167	-0.32
0	0	0	13.0001	-0.37
0	0	0	13.0834	-0.39
0	0	0	13.1668	-0.42
0	0	0	13.2501	-0.47
0	0	0	13.3336	-0.49
0	0	0	13.4170	-0.54
0	0	0	13.5002	-0.56
0	0	0	13.5836	-0.59
0	0	0	13.6668	-0.64

Year	Month	Day	Hour	Stage [ft]
0	0	0	13.7501	-0.66
0	0	0	13.8335	-0.69
0	0	0	13.9167	-0.71
0	0	0	14.0003	-0.76
0	0	0	14.0836	-0.78
0	0	0	14.1668	-0.81
0	0	0	14.2501	-0.86
0	0	0	14.3334	-0.88
0	0	0	14.4169	-0.91
0	0	0	14.5002	-0.96
0	0	0	14.5834	-0.98
0	0	0	14.6668	-1.03
0	0	0	14.7500	-1.05
0	0	0	14.8336	-1.10
0	0	0	14.9167	-1.13
0	0	0	15.0003	-1.18
0	0	0	15.0835	-1.20
0	0	0	15.1667	-1.25
0	0	0	15.2502	-1.27
0	0	0	15.3335	-1.32
0	0	0	15.4168	-1.35
0	0	0	15.5000	-1.37
0	0	0	15.5834	-1.42
0	0	0	15.6669	-1.45
0	0	0	15.7500	-1.47
0	0	0	15.8334	-1.49
0	0	0	15.9167	-1.52
0	0	0	16.0001	-1.54
0	0	0	16.0834	-1.57
0	0	0	16.1667	-1.59
0	0	0	16.2501	-1.62
0	0	0	16.3336	-1.64
0	0	0	16.4168	-1.64
0	0	0	16.5000	-1.67
0	0	0	16.5834	-1.67
0	0	0	16.6669	-1.69
0	0	0	16.7503	-1.69
0	0	0	16.8333	-1.69
0	0	0	16.9167	-1.69
0	0	0	17.0001	-1.69
0	0	0	17.0835	-1.69
0	0	0	17.1668	-1.69
0	0	0	17.2501	-1.69
0	0	0	17.3334	-1.69
0	0	0	17.4167	-1.67
0	0	0	17.5001	-1.64
0	0	0	17.5835	-1.62
0	0	0	17.6668	-1.59
0	0	0	17.7502	-1.57

Year	Month	Day	Hour	Stage [ft]
0	0	0	17.8334	-1.52
0	0	0	17.9167	-1.49
0	0	0	18.0000	-1.45
0	0	0	18.0834	-1.40
0	0	0	18.1669	-1.32
0	0	0	18.2502	-1.27
0	0	0	18.3334	-1.25
0	0	0	18.4168	-1.20
0	0	0	18.5001	-1.15
0	0	0	18.5836	-1.13
0	0	0	18.6667	-1.10
0	0	0	18.7501	-1.08
0	0	0	18.8334	-1.05
0	0	0	18.9167	-1.03
0	0	0	19.0000	-1.00
0	0	0	19.0834	-0.98
0	0	0	19.1668	-0.96
0	0	0	19.2502	-0.93
0	0	0	19.3334	-0.91
0	0	0	19.4169	-0.88
0	0	0	19.5003	-0.83
0	0	0	19.5834	-0.81
0	0	0	19.6667	-0.78
0	0	0	19.7500	-0.73
0	0	0	19.8334	-0.69
0	0	0	19.9169	-0.66
0	0	0	20.0001	-0.61
0	0	0	20.0836	-0.56
0	0	0	20.1669	-0.54
0	0	0	20.2501	-0.49
0	0	0	20.3335	-0.44
0	0	0	20.4169	-0.39
0	0	0	20.5000	-0.37
0	0	0	20.5835	-0.32
0	0	0	20.6668	-0.27
0	0	0	20.7501	-0.22
0	0	0	20.8334	-0.20
0	0	0	20.9167	-0.15
0	0	0	21.0001	-0.10
0	0	0	21.0834	-0.05
0	0	0	21.1669	-0.02
0	0	0	21.2502	0.01
0	0	0	21.3334	0.03
0	0	0	21.4168	0.04
0	0	0	21.5002	0.06
0	0	0	21.5836	0.08
0	0	0	21.6669	0.10
0	0	0	21.7502	0.11
0	0	0	21.8335	0.13

Year	Month	Day	Hour	Stage [ft]
0	0	0	21.9167	0.14
0	0	0	22.0002	0.16
0	0	0	22.0834	0.17
0	0	0	22.1667	0.18
0	0	0	22.2501	0.19
0	0	0	22.3334	0.21
0	0	0	22.4167	0.22
0	0	0	22.5001	0.22
0	0	0	22.5834	0.22
0	0	0	22.6667	0.23
0	0	0	22.7501	0.23
0	0	0	22.8336	0.23
0	0	0	22.9168	0.23
0	0	0	23.0002	0.23
0	0	0	23.0834	0.23
0	0	0	23.1670	0.23
0	0	0	23.2502	0.22
0	0	0	23.3333	0.22
0	0	0	23.4170	0.21
0	0	0	23.5001	0.19
0	0	0	23.5834	0.18
0	0	0	23.6667	0.18
0	0	0	23.7500	0.17
0	0	0	23.8334	0.16
0	0	0	23.9169	0.14
0	0	0	24.0001	0.13
0	0	0	24.0834	0.12
0	0	0	24.1668	0.11
0	0	0	24.2501	0.10
0	0	0	24.3334	0.09
0	0	0	24.4169	0.09
0	0	0	24.5002	0.08
0	0	0	24.5835	0.08
0	0	0	24.6671	0.06
0	0	0	24.7502	0.05
0	0	0	24.8334	0.04
0	0	0	24.9168	0.03
0	0	0	25.0001	0.02
0	0	0	25.0834	0.02
0	0	0	25.1670	0.01
0	0	0	25.2501	-0.02
0	0	0	25.3334	-0.05
0	0	0	25.4169	-0.07
0	0	0	25.5004	-0.10
0	0	0	25.5835	-0.12
0	0	0	25.6669	-0.15
0	0	0	25.7501	-0.17
0	0	0	25.8335	-0.17
0	0	0	25.9167	-0.20

Year	Month	Day	Hour	Stage [ft]
0	0	0	26.0007	-0.22
0	0	0	26.0838	-0.24
0	0	0	26.1670	-0.24
0	0	0	26.2502	-0.27
0	0	0	26.3336	-0.29
0	0	0	26.4172	-0.29
0	0	0	26.5004	-0.32
0	0	0	26.5835	-0.32
0	0	0	26.6668	-0.34
0	0	0	26.7504	-0.34
0	0	0	26.8335	-0.34
0	0	0	26.9168	-0.37
0	0	0	27.0003	-0.37
0	0	0	27.0835	-0.37
0	0	0	27.1668	-0.37
0	0	0	27.2505	-0.39
0	0	0	27.3336	-0.39
0	0	0	27.4171	-0.39
0	0	0	27.5002	-0.39
0	0	0	27.5835	-0.39
0	0	0	27.6671	-0.39
0	0	0	27.7501	-0.42
0	0	0	27.8335	-0.42
0	0	0	27.9168	-0.42
0	0	0	28.0002	-0.42
0	0	0	28.0836	-0.42
0	0	0	28.1669	-0.42
0	0	0	28.2502	-0.44
0	0	0	28.3335	-0.44
0	0	0	28.4168	-0.44
0	0	0	28.5001	-0.44
0	0	0	28.5836	-0.44
0	0	0	28.6670	-0.44
0	0	0	28.7504	-0.44
0	0	0	28.8334	-0.44
0	0	0	28.9169	-0.42
0	0	0	29.0001	-0.42
0	0	0	29.0835	-0.39
0	0	0	29.1668	-0.39
0	0	0	29.2503	-0.37
0	0	0	29.3335	-0.34
0	0	0	29.4168	-0.34
0	0	0	29.5001	-0.32
0	0	0	29.5834	-0.29
0	0	0	29.6670	-0.27
0	0	0	29.7502	-0.24
0	0	0	29.8335	-0.20
0	0	0	29.9168	-0.17
0	0	0	30.0003	-0.12

Year	Month	Day	Hour	Stage [ft]
0	0	0	30.0834	-0.10
0	0	0	30.1669	-0.05
0	0	0	30.2503	0.00
0	0	0	30.3334	0.02
0	0	0	30.4167	0.04
0	0	0	30.5003	0.05
0	0	0	30.5834	0.08
0	0	0	30.6668	0.10
0	0	0	30.7502	0.12
0	0	0	30.8335	0.14
0	0	0	30.9168	0.16
0	0	0	31.0002	0.18
0	0	0	31.0835	0.21
0	0	0	31.1670	0.23
0	0	0	31.2504	0.25
0	0	0	31.3334	0.27
0	0	0	31.4168	0.29
0	0	0	31.5003	0.30
0	0	0	31.5836	0.32
0	0	0	31.6668	0.33
0	0	0	31.7501	0.35
0	0	0	31.8335	0.36
0	0	0	31.9170	0.37
0	0	0	32.0001	0.37
0	0	0	32.0836	0.38
0	0	0	32.1668	0.39
0	0	0	32.2503	0.39
0	0	0	32.3335	0.40
0	0	0	32.4168	0.40
0	0	0	32.5002	0.41
0	0	0	32.5835	0.41
0	0	0	32.6667	0.41
0	0	0	32.7501	0.41
0	0	0	32.8334	0.41
0	0	0	32.9168	0.41
0	0	0	33.0001	0.41
0	0	0	33.0835	0.41
0	0	0	33.1669	0.41
0	0	0	33.2501	0.41
0	0	0	33.3335	0.41
0	0	0	33.4168	0.40
0	0	0	33.5002	0.40
0	0	0	33.5836	0.40
0	0	0	33.6668	0.39
0	0	0	33.7502	0.38
0	0	0	33.8334	0.38
0	0	0	33.9168	0.37
0	0	0	34.0001	0.36
0	0	0	34.0837	0.35

Year	Month	Day	Hour	Stage [ft]
0	0	0	34.1667	0.33
0	0	0	34.2502	0.32
0	0	0	34.3335	0.31
0	0	0	34.4168	0.30
0	0	0	34.5001	0.28
0	0	0	34.5834	0.27
0	0	0	34.6669	0.26
0	0	0	34.7501	0.25
0	0	0	34.8335	0.24
0	0	0	34.9168	0.23
0	0	0	35.0001	0.22
0	0	0	35.0835	0.21
0	0	0	35.1667	0.19
0	0	0	35.2501	0.18
0	0	0	35.3336	0.17
0	0	0	35.4168	0.16
0	0	0	35.5002	0.15
0	0	0	35.5834	0.13
0	0	0	35.6668	0.12
0	0	0	35.7502	0.11
0	0	0	35.8336	0.10
0	0	0	35.9168	0.09
0	0	0	36.0001	0.08
0	0	0	36.0834	0.05
0	0	0	36.1669	0.04
0	0	0	36.2501	0.03
0	0	0	36.3334	0.02
0	0	0	36.4168	0.00
0	0	0	36.5003	-0.02
0	0	0	36.5835	-0.05
0	0	0	36.6670	-0.10
0	0	0	36.7503	-0.12
0	0	0	36.8335	-0.15
0	0	0	36.9170	-0.20
0	0	0	37.0003	-0.22
0	0	0	37.0834	-0.27
0	0	0	37.1670	-0.29
0	0	0	37.2501	-0.32
0	0	0	37.3335	-0.37
0	0	0	37.4168	-0.39
0	0	0	37.5002	-0.42
0	0	0	37.5835	-0.47
0	0	0	37.6670	-0.49
0	0	0	37.7504	-0.54
0	0	0	37.8336	-0.56
0	0	0	37.9170	-0.59
0	0	0	38.0002	-0.64
0	0	0	38.0835	-0.66
0	0	0	38.1669	-0.69

Year	Month	Day	Hour	Stage [ft]
0	0	0	38.2501	-0.71
0	0	0	38.3337	-0.76
0	0	0	38.4170	-0.78
0	0	0	38.5002	-0.81
0	0	0	38.5835	-0.86
0	0	0	38.6668	-0.88
0	0	0	38.7503	-0.91
0	0	0	38.8336	-0.96
0	0	0	38.9168	-0.98
0	0	0	39.0002	-1.03
0	0	0	39.0834	-1.05
0	0	0	39.1670	-1.10
0	0	0	39.2501	-1.13
0	0	0	39.3337	-1.18
0	0	0	39.4169	-1.20
0	0	0	39.5001	-1.25
0	0	0	39.5836	-1.27
0	0	0	39.6669	-1.32
0	0	0	39.7502	-1.35
0	0	0	39.8334	-1.37
0	0	0	39.9168	-1.42
0	0	0	40.0003	-1.45
0	0	0	40.0834	-1.47
0	0	0	40.1668	-1.49
0	0	0	40.2501	-1.52
0	0	0	40.3335	-1.54
0	0	0	40.4168	-1.57
0	0	0	40.5001	-1.59
0	0	0	40.5835	-1.62
0	0	0	40.6670	-1.64
0	0	0	40.7502	-1.64
0	0	0	40.8334	-1.67
0	0	0	40.9168	-1.67
0	0	0	41.0003	-1.69
0	0	0	41.0837	-1.69
0	0	0	41.1667	-1.69
0	0	0	41.2501	-1.69
0	0	0	41.3335	-1.69
0	0	0	41.4169	-1.69
0	0	0	41.5002	-1.69
0	0	0	41.5835	-1.69
0	0	0	41.6668	-1.69
0	0	0	41.7501	-1.67
0	0	0	41.8335	-1.64
0	0	0	41.9169	-1.62
0	0	0	42.0002	-1.59
0	0	0	42.0836	-1.57
0	0	0	42.1668	-1.52
0	0	0	42.2501	-1.49

Year	Month	Day	Hour	Stage [ft]
0	0	0	42.3334	-1.45
0	0	0	42.4168	-1.40
0	0	0	42.5003	-1.32
0	0	0	42.5836	-1.27
0	0	0	42.6668	-1.25
0	0	0	42.7502	-1.20
0	0	0	42.8335	-1.15
0	0	0	42.9170	-1.13
0	0	0	43.0001	-1.10
0	0	0	43.0835	-1.08
0	0	0	43.1668	-1.05
0	0	0	43.2501	-1.03
0	0	0	43.3334	-1.00
0	0	0	43.4168	-0.98
0	0	0	43.5002	-0.96
0	0	0	43.5836	-0.93
0	0	0	43.6668	-0.91
0	0	0	43.7503	-0.88
0	0	0	43.8337	-0.83
0	0	0	43.9168	-0.81
0	0	0	44.0001	-0.78
0	0	0	44.0834	-0.73
0	0	0	44.1668	-0.69
0	0	0	44.2503	-0.66
0	0	0	44.3335	-0.61
0	0	0	44.4170	-0.56
0	0	0	44.5003	-0.54
0	0	0	44.5835	-0.49
0	0	0	44.6669	-0.44
0	0	0	44.7503	-0.39
0	0	0	44.8334	-0.37
0	0	0	44.9169	-0.32
0	0	0	45.0002	-0.27
0	0	0	45.0835	-0.22
0	0	0	45.1668	-0.20
0	0	0	45.2501	-0.15
0	0	0	45.3335	-0.10
0	0	0	45.4168	-0.05
0	0	0	45.5003	-0.02
0	0	0	45.5836	0.01
0	0	0	45.6668	0.03
0	0	0	45.7502	0.04
0	0	0	45.8336	0.06
0	0	0	45.9170	0.08
0	0	0	46.0003	0.10
0	0	0	46.0836	0.11
0	0	0	46.1669	0.13
0	0	0	46.2501	0.14
0	0	0	46.3336	0.16

Year	Month	Day	Hour	Stage [ft]
0	0	0	46.4168	0.17
0	0	0	46.5001	0.18
0	0	0	46.5835	0.19
0	0	0	46.6668	0.21
0	0	0	46.7501	0.22
0	0	0	46.8335	0.22
0	0	0	46.9168	0.22
0	0	0	47.0001	0.23
0	0	0	47.0835	0.23
0	0	0	47.1670	0.23
0	0	0	47.2502	0.23
0	0	0	47.3336	0.23
0	0	0	47.4168	0.23
0	0	0	47.5004	0.23
0	0	0	47.5836	0.22
0	0	0	47.6667	0.22
0	0	0	47.7504	0.21
0	0	0	47.8335	0.19
0	0	0	47.9168	0.18
0	0	0	48.0001	0.18
0	0	0	48.0834	0.17
0	0	0	48.1668	0.16
0	0	0	48.2503	0.14
0	0	0	48.3335	0.13
0	0	0	48.4168	0.12
0	0	0	48.5002	0.11
0	0	0	48.5835	0.10
0	0	0	48.6668	0.09
0	0	0	48.7503	0.09
0	0	0	48.8336	0.08
0	0	0	48.9169	0.08
0	0	0	49.0005	0.06
0	0	0	49.0836	0.05
0	0	0	49.1668	0.04
0	0	0	49.2502	0.03
0	0	0	49.3335	0.02
0	0	0	49.4168	0.02
0	0	0	49.5004	0.01
0	0	0	49.5835	-0.02
0	0	0	49.6668	-0.05
0	0	0	49.7503	-0.07
0	0	0	49.8338	-0.10
0	0	0	49.9169	-0.12
0	0	0	50.0003	-0.15
0	0	0	50.0835	-0.17
0	0	0	50.1669	-0.17
0	0	0	50.2501	-0.20
0	0	0	50.3341	-0.22
0	0	0	50.4172	-0.24

Year	Month	Day	Hour	Stage [ft]
0	0	0	50.5004	-0.24
0	0	0	50.5836	-0.27
0	0	0	50.6670	-0.29
0	0	0	50.7506	-0.29
0	0	0	50.8338	-0.32
0	0	0	50.9169	-0.32
0	0	0	51.0002	-0.34
0	0	0	51.0838	-0.34
0	0	0	51.1669	-0.34
0	0	0	51.2502	-0.37
0	0	0	51.3337	-0.37
0	0	0	51.4169	-0.37
0	0	0	51.5002	-0.37
0	0	0	51.5839	-0.39
0	0	0	51.6670	-0.39
0	0	0	51.7505	-0.39
0	0	0	51.8336	-0.39
0	0	0	51.9169	-0.39
0	0	0	52.0005	-0.39
0	0	0	52.0835	-0.42
0	0	0	52.1669	-0.42
0	0	0	52.2502	-0.42
0	0	0	52.3336	-0.42
0	0	0	52.4170	-0.42
0	0	0	52.5003	-0.42
0	0	0	52.5836	-0.44
0	0	0	52.6669	-0.44
0	0	0	52.7502	-0.44
0	0	0	52.8335	-0.44
0	0	0	52.9170	-0.44
0	0	0	53.0004	-0.44
0	0	0	53.0838	-0.44
0	0	0	53.1668	-0.44
0	0	0	53.2503	-0.42
0	0	0	53.3335	-0.42
0	0	0	53.4169	-0.39
0	0	0	53.5002	-0.39
0	0	0	53.5837	-0.37
0	0	0	53.6669	-0.34
0	0	0	53.7502	-0.34
0	0	0	53.8335	-0.32
0	0	0	53.9168	-0.29
0	0	0	54.0004	-0.27
0	0	0	54.0836	-0.24
0	0	0	54.1669	-0.20
0	0	0	54.2502	-0.17
0	0	0	54.3337	-0.12
0	0	0	54.4168	-0.10
0	0	0	54.5003	-0.05

Year	Month	Day	Hour	Stage [ft]
0	0	0	54.5837	0.00
0	0	0	54.6668	0.02
0	0	0	54.7501	0.04
0	0	0	54.8337	0.05
0	0	0	54.9168	0.08
0	0	0	55.0002	0.10
0	0	0	55.0836	0.12
0	0	0	55.1669	0.14
0	0	0	55.2502	0.16
0	0	0	55.3336	0.18
0	0	0	55.4169	0.21
0	0	0	55.5004	0.23
0	0	0	55.5838	0.25
0	0	0	55.6668	0.27
0	0	0	55.7502	0.29
0	0	0	55.8337	0.30
0	0	0	55.9170	0.32
0	0	0	56.0002	0.33
0	0	0	56.0835	0.35
0	0	0	56.1669	0.36
0	0	0	56.2504	0.37
0	0	0	56.3335	0.37
0	0	0	56.4170	0.38
0	0	0	56.5002	0.39
0	0	0	56.5837	0.39
0	0	0	56.6669	0.40
0	0	0	56.7502	0.40
0	0	0	56.8336	0.41
0	0	0	56.9169	0.41
0	0	0	57.0001	0.41
0	0	0	57.0835	0.41
0	0	0	57.1668	0.41
0	0	0	57.2502	0.41
0	0	0	57.3335	0.41
0	0	0	57.4169	0.41
0	0	0	57.5003	0.41
0	0	0	57.5835	0.41
0	0	0	57.6669	0.41
0	0	0	57.7502	0.40
0	0	0	57.8336	0.40
0	0	0	57.9170	0.40
0	0	0	58.0002	0.39
0	0	0	58.0836	0.38
0	0	0	58.1668	0.38
0	0	0	58.2502	0.37
0	0	0	58.3335	0.36
0	0	0	58.4171	0.35
0	0	0	58.5001	0.33
0	0	0	58.5836	0.32

Year	Month	Day	Hour	Stage [ft]
0	0	0	58.6669	0.31
0	0	0	58.7502	0.30
0	0	0	58.8335	0.28
0	0	0	58.9168	0.27
0	0	0	59.0003	0.26
0	0	0	59.0835	0.25
0	0	0	59.1669	0.24
0	0	0	59.2502	0.23
0	0	0	59.3335	0.22
0	0	0	59.4169	0.21
0	0	0	59.5001	0.19
0	0	0	59.5835	0.18
0	0	0	59.6670	0.17
0	0	0	59.7502	0.16
0	0	0	59.8336	0.15
0	0	0	59.9168	0.13
0	0	0	60.0002	0.12
0	0	0	60.0836	0.11
0	0	0	60.1670	0.10
0	0	0	60.2502	0.09
0	0	0	60.3335	0.08
0	0	0	60.4168	0.05
0	0	0	60.5003	0.04
0	0	0	60.5835	0.03
0	0	0	60.6668	0.02
0	0	0	60.7502	0.00
0	0	0	60.8337	-0.02
0	0	0	60.9169	-0.05
0	0	0	61.0004	-0.10
0	0	0	61.0837	-0.12
0	0	0	61.1669	-0.15
0	0	0	61.2504	-0.20
0	0	0	61.3337	-0.22
0	0	0	61.4168	-0.27
0	0	0	61.5004	-0.29
0	0	0	61.5835	-0.32
0	0	0	61.6669	-0.37
0	0	0	61.7502	-0.39
0	0	0	61.8336	-0.42
0	0	0	61.9169	-0.47
0	0	0	62.0004	-0.49
0	0	0	62.0838	-0.54
0	0	0	62.1670	-0.56
0	0	0	62.2504	-0.59
0	0	0	62.3336	-0.64
0	0	0	62.4169	-0.66
0	0	0	62.5003	-0.69
0	0	0	62.5835	-0.71
0	0	0	62.6671	-0.76

Year	Month	Day	Hour	Stage [ft]
0	0	0	62.7504	-0.78
0	0	0	62.8336	-0.81
0	0	0	62.9169	-0.86
0	0	0	63.0002	-0.88
0	0	0	63.0837	-0.91
0	0	0	63.1670	-0.96
0	0	0	63.2502	-0.98
0	0	0	63.3336	-1.03
0	0	0	63.4168	-1.05
0	0	0	63.5004	-1.10
0	0	0	63.5835	-1.13
0	0	0	63.6671	-1.18
0	0	0	63.7503	-1.20
0	0	0	63.8335	-1.25
0	0	0	63.9170	-1.27
0	0	0	64.0003	-1.32
0	0	0	64.0836	-1.35
0	0	0	64.1668	-1.37
0	0	0	64.2502	-1.42
0	0	0	64.3337	-1.45
0	0	0	64.4168	-1.47
0	0	0	64.5002	-1.49
0	0	0	64.5835	-1.52
0	0	0	64.6669	-1.54
0	0	0	64.7502	-1.57
0	0	0	64.8335	-1.59
0	0	0	64.9169	-1.62
0	0	0	65.0004	-1.64
0	0	0	65.0836	-1.64
0	0	0	65.1668	-1.67
0	0	0	65.2502	-1.67
0	0	0	65.3337	-1.69
0	0	0	65.4171	-1.69
0	0	0	65.5001	-1.69
0	0	0	65.5835	-1.69
0	0	0	65.6669	-1.69
0	0	0	65.7503	-1.69
0	0	0	65.8336	-1.69
0	0	0	65.9169	-1.69
0	0	0	66.0002	-1.69
0	0	0	66.0835	-1.67
0	0	0	66.1669	-1.64
0	0	0	66.2503	-1.62
0	0	0	66.3336	-1.59
0	0	0	66.4170	-1.57
0	0	0	66.5002	-1.52
0	0	0	66.5835	-1.49
0	0	0	66.6668	-1.45
0	0	0	66.7502	-1.40

Year	Month	Day	Hour	Stage [ft]
0	0	0	66.8337	-1.32
0	0	0	66.9170	-1.27
0	0	0	67.0002	-1.25
0	0	0	67.0836	-1.20
0	0	0	67.1669	-1.15
0	0	0	67.2504	-1.13
0	0	0	67.3335	-1.10
0	0	0	67.4169	-1.08
0	0	0	67.5002	-1.05
0	0	0	67.5835	-1.03
0	0	0	67.6668	-1.00
0	0	0	67.7502	-0.98
0	0	0	67.8336	-0.96
0	0	0	67.9170	-0.93
0	0	0	68.0002	-0.91
0	0	0	68.0837	-0.88
0	0	0	68.1671	-0.83
0	0	0	68.2502	-0.81
0	0	0	68.3335	-0.78
0	0	0	68.4168	-0.73
0	0	0	68.5002	-0.69
0	0	0	68.5837	-0.66
0	0	0	68.6669	-0.61
0	0	0	68.7504	-0.56
0	0	0	68.8337	-0.54
0	0	0	68.9169	-0.49
0	0	0	69.0003	-0.44
0	0	0	69.0837	-0.39
0	0	0	69.1668	-0.37
0	0	0	69.2503	-0.32
0	0	0	69.3336	-0.27
0	0	0	69.4169	-0.22
0	0	0	69.5002	-0.20
0	0	0	69.5835	-0.15
0	0	0	69.6669	-0.10
0	0	0	69.7502	-0.05
0	0	0	69.8337	-0.02
0	0	0	69.9170	0.01
0	0	0	70.0002	0.03
0	0	0	70.0836	0.04
0	0	0	70.1670	0.06
0	0	0	70.2504	0.08
0	0	0	70.3337	0.10
0	0	0	70.4170	0.11
0	0	0	70.5003	0.13
0	0	0	70.5835	0.14
0	0	0	70.6670	0.16
0	0	0	70.7502	0.17
0	0	0	70.8335	0.18

Year	Month	Day	Hour	Stage [ft]
0	0	0	70.9169	0.19
0	0	0	71.0002	0.21
0	0	0	71.0835	0.22
0	0	0	71.1669	0.22
0	0	0	71.2502	0.22
0	0	0	71.3335	0.23
0	0	0	71.4169	0.23
0	0	0	71.5004	0.23
0	0	0	71.5836	0.23
0	0	0	71.6670	0.23
0	0	0	71.7502	0.23
0	0	0	71.8338	0.23
0	0	0	71.9170	0.22
0	0	0	72.0001	0.22
0	0	0	72.0838	0.21
0	0	0	72.1669	0.19
0	0	0	72.2502	0.18
0	0	0	72.3335	0.18
0	0	0	72.4168	0.17
0	0	0	72.5002	0.16
0	0	0	72.5837	0.14
0	0	0	72.6669	0.13
0	0	0	72.7502	0.12
0	0	0	72.8336	0.11
0	0	0	72.9169	0.10
0	0	0	73.0002	0.09
0	0	0	73.0837	0.09
0	0	0	73.1670	0.08
0	0	0	73.2503	0.08
0	0	0	73.3339	0.06
0	0	0	73.4170	0.05
0	0	0	73.5002	0.04
0	0	0	73.5836	0.03
0	0	0	73.6669	0.02
0	0	0	73.7502	0.02
0	0	0	73.8338	0.01
0	0	0	73.9169	-0.02
0	0	0	74.0002	-0.05
0	0	0	74.0837	-0.07
0	0	0	74.1672	-0.10
0	0	0	74.2503	-0.12
0	0	0	74.3337	-0.15
0	0	0	74.4169	-0.17
0	0	0	74.5003	-0.17
0	0	0	74.5835	-0.20
0	0	0	74.6675	-0.22
0	0	0	74.7506	-0.24
0	0	0	74.8338	-0.24
0	0	0	74.9170	-0.27

Year	Month	Day	Hour	Stage [ft]
0	0	0	75.0004	-0.29
0	0	0	75.0840	-0.29
0	0	0	75.1672	-0.32
0	0	0	75.2503	-0.32
0	0	0	75.3336	-0.34
0	0	0	75.4172	-0.34
0	0	0	75.5003	-0.34
0	0	0	75.5836	-0.37
0	0	0	75.6671	-0.37
0	0	0	75.7503	-0.37
0	0	0	75.8336	-0.37
0	0	0	75.9173	-0.39
0	0	0	76.0004	-0.39
0	0	0	76.0839	-0.39
0	0	0	76.1670	-0.39
0	0	0	76.2503	-0.39
0	0	0	76.3339	-0.39
0	0	0	76.4169	-0.42
0	0	0	76.5003	-0.42
0	0	0	76.5836	-0.42
0	0	0	76.6670	-0.42
0	0	0	76.7504	-0.42
0	0	0	76.8337	-0.42
0	0	0	76.9170	-0.44
0	0	0	77.0003	-0.44
0	0	0	77.0836	-0.44
0	0	0	77.1669	-0.44
0	0	0	77.2504	-0.44
0	0	0	77.3338	-0.44
0	0	0	77.4172	-0.44
0	0	0	77.5002	-0.44
0	0	0	77.5837	-0.42
0	0	0	77.6669	-0.42
0	0	0	77.7503	-0.39
0	0	0	77.8336	-0.39
0	0	0	77.9171	-0.37
0	0	0	78.0003	-0.34
0	0	0	78.0836	-0.34
0	0	0	78.1669	-0.32
0	0	0	78.2502	-0.29
0	0	0	78.3338	-0.27
0	0	0	78.4170	-0.24
0	0	0	78.5003	-0.20
0	0	0	78.5836	-0.17
0	0	0	78.6671	-0.12
0	0	0	78.7502	-0.10
0	0	0	78.8337	-0.05
0	0	0	78.9171	0.00
0	0	0	79.0002	0.02

Year	Month	Day	Hour	Stage [ft]
0	0	0	79.0835	0.04
0	0	0	79.1671	0.05
0	0	0	79.2502	0.08
0	0	0	79.3336	0.10
0	0	0	79.4170	0.12
0	0	0	79.5003	0.14
0	0	0	79.5836	0.16
0	0	0	79.6670	0.18
0	0	0	79.7503	0.21
0	0	0	79.8338	0.23
0	0	0	79.9172	0.25
0	0	0	80.0002	0.27
0	0	0	80.0836	0.29
0	0	0	80.1671	0.30
0	0	0	80.2504	0.32
0	0	0	80.3336	0.33
0	0	0	80.4169	0.35
0	0	0	80.5003	0.36
0	0	0	80.5838	0.37
0	0	0	80.6669	0.37
0	0	0	80.7504	0.38
0	0	0	80.8336	0.39
0	0	0	80.9171	0.39
0	0	0	81.0003	0.40
0	0	0	81.0836	0.40
0	0	0	81.1670	0.41
0	0	0	81.2503	0.41
0	0	0	81.3335	0.41
0	0	0	81.4169	0.41
0	0	0	81.5002	0.41
0	0	0	81.5836	0.41
0	0	0	81.6669	0.41
0	0	0	81.7503	0.41
0	0	0	81.8337	0.41
0	0	0	81.9169	0.41
0	0	0	82.0003	0.41
0	0	0	82.0836	0.40
0	0	0	82.1670	0.40
0	0	0	82.2504	0.40
0	0	0	82.3336	0.39
0	0	0	82.4170	0.38
0	0	0	82.5002	0.38
0	0	0	82.5836	0.37
0	0	0	82.6669	0.36
0	0	0	82.7505	0.35
0	0	0	82.8335	0.33
0	0	0	82.9170	0.32
0	0	0	83.0003	0.31
0	0	0	83.0836	0.30

Year	Month	Day	Hour	Stage [ft]
0	0	0	83.1669	0.28
0	0	0	83.2502	0.27
0	0	0	83.3337	0.26
0	0	0	83.4169	0.25
0	0	0	83.5003	0.24
0	0	0	83.5836	0.23
0	0	0	83.6669	0.22
0	0	0	83.7503	0.21
0	0	0	83.8335	0.19
0	0	0	83.9169	0.18
0	0	0	84.0004	0.17
0	0	0	84.0836	0.16
0	0	0	84.1670	0.15
0	0	0	84.2502	0.13
0	0	0	84.3336	0.12
0	0	0	84.4170	0.11
0	0	0	84.5004	0.10
0	0	0	84.5836	0.09
0	0	0	84.6669	0.08
0	0	0	84.7502	0.05
0	0	0	84.8337	0.04
0	0	0	84.9169	0.03
0	0	0	85.0002	0.02
0	0	0	85.0836	0.00
0	0	0	85.1671	-0.02
0	0	0	85.2503	-0.05
0	0	0	85.3338	-0.10
0	0	0	85.4171	-0.12
0	0	0	85.5003	-0.15
0	0	0	85.5838	-0.20
0	0	0	85.6671	-0.22
0	0	0	85.7502	-0.27
0	0	0	85.8338	-0.29
0	0	0	85.9169	-0.32
0	0	0	86.0003	-0.37
0	0	0	86.0836	-0.39
0	0	0	86.1670	-0.42
0	0	0	86.2503	-0.47
0	0	0	86.3338	-0.49
0	0	0	86.4172	-0.54
0	0	0	86.5004	-0.56
0	0	0	86.5838	-0.59
0	0	0	86.6670	-0.64
0	0	0	86.7503	-0.66
0	0	0	86.8337	-0.69
0	0	0	86.9169	-0.71
0	0	0	87.0005	-0.76
0	0	0	87.0838	-0.78
0	0	0	87.1670	-0.81

Year	Month	Day	Hour	Stage [ft]
0	0	0	87.2503	-0.86
0	0	0	87.3336	-0.88
0	0	0	87.4171	-0.91
0	0	0	87.5004	-0.96
0	0	0	87.5836	-0.98
0	0	0	87.6670	-1.03
0	0	0	87.7502	-1.05
0	0	0	87.8338	-1.10
0	0	0	87.9169	-1.13
0	0	0	88.0005	-1.18
0	0	0	88.0837	-1.20
0	0	0	88.1669	-1.25
0	0	0	88.2504	-1.27
0	0	0	88.3337	-1.32
0	0	0	88.4170	-1.35
0	0	0	88.5002	-1.37
0	0	0	88.5836	-1.42
0	0	0	88.6671	-1.45
0	0	0	88.7502	-1.47
0	0	0	88.8336	-1.49
0	0	0	88.9169	-1.52
0	0	0	89.0003	-1.54
0	0	0	89.0836	-1.57
0	0	0	89.1669	-1.59
0	0	0	89.2503	-1.62
0	0	0	89.3338	-1.64
0	0	0	89.4170	-1.64
0	0	0	89.5002	-1.67
0	0	0	89.5836	-1.67
0	0	0	89.6671	-1.69
0	0	0	89.7505	-1.69
0	0	0	89.8335	-1.69
0	0	0	89.9169	-1.69
0	0	0	90.0003	-1.69
0	0	0	90.0837	-1.69
0	0	0	90.1670	-1.69
0	0	0	90.2503	-1.69
0	0	0	90.3336	-1.69
0	0	0	90.4169	-1.67
0	0	0	90.5003	-1.64
0	0	0	90.5837	-1.62
0	0	0	90.6670	-1.59
0	0	0	90.7504	-1.57
0	0	0	90.8336	-1.52
0	0	0	90.9169	-1.49
0	0	0	91.0002	-1.45
0	0	0	91.0836	-1.40
0	0	0	91.1671	-1.32
0	0	0	91.2504	-1.27

Year	Month	Day	Hour	Stage [ft]
0	0	0	91.3336	-1.25
0	0	0	91.4170	-1.20
0	0	0	91.5003	-1.15
0	0	0	91.5838	-1.13
0	0	0	91.6669	-1.10
0	0	0	91.7503	-1.08
0	0	0	91.8336	-1.05
0	0	0	91.9169	-1.03
0	0	0	92.0002	-1.00
0	0	0	92.0836	-0.98
0	0	0	92.1670	-0.96
0	0	0	92.2504	-0.93
0	0	0	92.3336	-0.91
0	0	0	92.4171	-0.88
0	0	0	92.5005	-0.83
0	0	0	92.5836	-0.81
0	0	0	92.6669	-0.78
0	0	0	92.7502	-0.73
0	0	0	92.8336	-0.69
0	0	0	92.9171	-0.66
0	0	0	93.0003	-0.61
0	0	0	93.0838	-0.56
0	0	0	93.1671	-0.54
0	0	0	93.2503	-0.49
0	0	0	93.3337	-0.44
0	0	0	93.4171	-0.39
0	0	0	93.5002	-0.37
0	0	0	93.5837	-0.32
0	0	0	93.6670	-0.27
0	0	0	93.7503	-0.22
0	0	0	93.8336	-0.20
0	0	0	93.9169	-0.15
0	0	0	94.0003	-0.10
0	0	0	94.0836	-0.05
0	0	0	94.1671	-0.02
0	0	0	94.2504	0.01
0	0	0	94.3336	0.03
0	0	0	94.4170	0.04
0	0	0	94.5004	0.06
0	0	0	94.5838	0.08
0	0	0	94.6671	0.10
0	0	0	94.7504	0.11
0	0	0	94.8337	0.13
0	0	0	94.9169	0.14
0	0	0	95.0004	0.16
0	0	0	95.0836	0.17
0	0	0	95.1669	0.18
0	0	0	95.2503	0.19
0	0	0	95.3336	0.21

Year	Month	Day	Hour	Stage [ft]
0	0	0	95.4169	0.22
0	0	0	95.5003	0.22
0	0	0	95.5836	0.22
0	0	0	95.6669	0.23
0	0	0	95.7503	0.23
0	0	0	95.8338	0.23
0	0	0	95.9170	0.23
0	0	0	96.0004	0.23
0	0	0	96.0836	0.23
0	0	0	96.1672	0.23
0	0	0	96.2504	0.22
0	0	0	96.3335	0.22
0	0	0	96.4172	0.21
0	0	0	96.5003	0.19
0	0	0	96.5836	0.18
0	0	0	96.6669	0.18
0	0	0	96.7502	0.17
0	0	0	96.8336	0.16
0	0	0	96.9171	0.14
0	0	0	97.0003	0.13
0	0	0	97.0836	0.12
0	0	0	97.1670	0.11
0	0	0	97.2503	0.10
0	0	0	97.3336	0.09
0	0	0	97.4171	0.09
0	0	0	97.5004	0.08
0	0	0	97.5837	0.08
0	0	0	97.6673	0.06
0	0	0	97.7504	0.05
0	0	0	97.8336	0.04
0	0	0	97.9170	0.03
0	0	0	98.0003	0.02
0	0	0	98.0836	0.02
0	0	0	98.1672	0.01
0	0	0	98.2503	-0.02
0	0	0	98.3336	-0.05
0	0	0	98.4171	-0.07
0	0	0	98.5006	-0.10
0	0	0	98.5837	-0.12
0	0	0	98.6671	-0.15
0	0	0	98.7503	-0.17
0	0	0	98.8337	-0.17
0	0	0	98.9169	-0.20
0	0	0	99.0009	-0.22
0	0	0	99.0840	-0.24
0	0	0	99.1672	-0.24
0	0	0	99.2504	-0.27
0	0	0	99.3338	-0.29
0	0	0	99.4174	-0.29

Year	Month	Day	Hour	Stage [ft]
0	0	0	99.5006	-0.32
0	0	0	99.5837	-0.32
0	0	0	99.6670	-0.34
0	0	0	99.7506	-0.34
0	0	0	99.8337	-0.34
0	0	0	99.9170	-0.37
0	0	0	100.0005	-0.37
0	0	0	100.0837	-0.37
0	0	0	100.1670	-0.37
0	0	0	100.2507	-0.39
0	0	0	100.3338	-0.39
0	0	0	100.4173	-0.39
0	0	0	100.5004	-0.39
0	0	0	100.5837	-0.39
0	0	0	100.6673	-0.39
0	0	0	100.7503	-0.42
0	0	0	100.8337	-0.42
0	0	0	100.9170	-0.42
0	0	0	101.0004	-0.42
0	0	0	101.0838	-0.42
0	0	0	101.1671	-0.42
0	0	0	101.2504	-0.44
0	0	0	101.3337	-0.44
0	0	0	101.4170	-0.44
0	0	0	101.5003	-0.44
0	0	0	101.5838	-0.44
0	0	0	101.6672	-0.44
0	0	0	101.7506	-0.44
0	0	0	101.8336	-0.44
0	0	0	101.9171	-0.42
0	0	0	102.0003	-0.42
0	0	0	102.0837	-0.39
0	0	0	102.1670	-0.39
0	0	0	102.2505	-0.37
0	0	0	102.3337	-0.34
0	0	0	102.4170	-0.34
0	0	0	102.5003	-0.32
0	0	0	102.5836	-0.29
0	0	0	102.6672	-0.27
0	0	0	102.7504	-0.24
0	0	0	102.8337	-0.20
0	0	0	102.9170	-0.17
0	0	0	103.0005	-0.12
0	0	0	103.0836	-0.10
0	0	0	103.1671	-0.05
0	0	0	103.2505	0.00
0	0	0	103.3336	0.02
0	0	0	103.4169	0.04
0	0	0	103.5005	0.05

Year	Month	Day	Hour	Stage [ft]
0	0	0	103.5836	0.08
0	0	0	103.6670	0.10
0	0	0	103.7504	0.12
0	0	0	103.8337	0.14
0	0	0	103.9170	0.16
0	0	0	104.0004	0.18
0	0	0	104.0837	0.21
0	0	0	104.1672	0.23
0	0	0	104.2506	0.25
0	0	0	104.3336	0.27
0	0	0	104.4170	0.29
0	0	0	104.5005	0.30
0	0	0	104.5838	0.32
0	0	0	104.6670	0.33
0	0	0	104.7503	0.35
0	0	0	104.8337	0.36
0	0	0	104.9172	0.37
0	0	0	105.0003	0.37
0	0	0	105.0838	0.38
0	0	0	105.1670	0.39
0	0	0	105.2505	0.39
0	0	0	105.3337	0.40
0	0	0	105.4170	0.40
0	0	0	105.5004	0.41
0	0	0	105.5837	0.41
0	0	0	105.6669	0.41
0	0	0	105.7503	0.41
0	0	0	105.8336	0.41
0	0	0	105.9170	0.41
0	0	0	106.0003	0.41
0	0	0	106.0837	0.41
0	0	0	106.1671	0.41
0	0	0	106.2503	0.41
0	0	0	106.3337	0.41
0	0	0	106.4170	0.40
0	0	0	106.5004	0.40
0	0	0	106.5838	0.40
0	0	0	106.6670	0.39
0	0	0	106.7504	0.38
0	0	0	106.8336	0.38
0	0	0	106.9170	0.37
0	0	0	107.0003	0.36
0	0	0	107.0839	0.35
0	0	0	107.1669	0.33
0	0	0	107.2504	0.32
0	0	0	107.3337	0.31
0	0	0	107.4170	0.30
0	0	0	107.5003	0.28
0	0	0	107.5836	0.27

Year	Month	Day	Hour	Stage [ft]
0	0	0	107.6671	0.26
0	0	0	107.7503	0.25
0	0	0	107.8337	0.24
0	0	0	107.9170	0.23
0	0	0	108.0003	0.22
0	0	0	108.0837	0.21
0	0	0	108.1669	0.19
0	0	0	108.2503	0.18
0	0	0	108.3338	0.17
0	0	0	108.4170	0.16
0	0	0	108.5004	0.15
0	0	0	108.5836	0.13
0	0	0	108.6670	0.12
0	0	0	108.7504	0.11
0	0	0	108.8338	0.10
0	0	0	108.9170	0.09
0	0	0	109.0003	0.08
0	0	0	109.0836	0.05
0	0	0	109.1671	0.04
0	0	0	109.2503	0.03
0	0	0	109.3336	0.02
0	0	0	109.4170	0.00
0	0	0	109.5005	-0.02
0	0	0	109.5837	-0.05
0	0	0	109.6672	-0.10
0	0	0	109.7505	-0.12
0	0	0	109.8337	-0.15
0	0	0	109.9172	-0.20
0	0	0	110.0005	-0.22
0	0	0	110.0836	-0.27
0	0	0	110.1672	-0.29
0	0	0	110.2503	-0.32
0	0	0	110.3337	-0.37
0	0	0	110.4170	-0.39
0	0	0	110.5004	-0.42
0	0	0	110.5837	-0.47
0	0	0	110.6672	-0.49
0	0	0	110.7506	-0.54
0	0	0	110.8338	-0.56
0	0	0	110.9172	-0.59
0	0	0	111.0004	-0.64
0	0	0	111.0837	-0.66
0	0	0	111.1671	-0.69
0	0	0	111.2503	-0.71
0	0	0	111.3339	-0.76
0	0	0	111.4172	-0.78
0	0	0	111.5004	-0.81
0	0	0	111.5837	-0.86
0	0	0	111.6670	-0.88

Year	Month	Day	Hour	Stage [ft]
0	0	0	111.7505	-0.91
0	0	0	111.8338	-0.96
0	0	0	111.9170	-0.98
0	0	0	112.0004	-1.03
0	0	0	112.0836	-1.05
0	0	0	112.1672	-1.10
0	0	0	112.2503	-1.13
0	0	0	112.3339	-1.18
0	0	0	112.4171	-1.20
0	0	0	112.5003	-1.25
0	0	0	112.5838	-1.27
0	0	0	112.6671	-1.32
0	0	0	112.7504	-1.35
0	0	0	112.8336	-1.37
0	0	0	112.9170	-1.42
0	0	0	113.0005	-1.45
0	0	0	113.0836	-1.47
0	0	0	113.1670	-1.49
0	0	0	113.2503	-1.52
0	0	0	113.3337	-1.54
0	0	0	113.4170	-1.57
0	0	0	113.5003	-1.59
0	0	0	113.5837	-1.62
0	0	0	113.6672	-1.64
0	0	0	113.7504	-1.64
0	0	0	113.8336	-1.67
0	0	0	113.9170	-1.67
0	0	0	114.0005	-1.69
0	0	0	114.0839	-1.69
0	0	0	114.1669	-1.69
0	0	0	114.2503	-1.69
0	0	0	114.3337	-1.69
0	0	0	114.4171	-1.69
0	0	0	114.5004	-1.69
0	0	0	114.5837	-1.69
0	0	0	114.6670	-1.69
0	0	0	114.7503	-1.67
0	0	0	114.8337	-1.64
0	0	0	114.9171	-1.62
0	0	0	115.0004	-1.59
0	0	0	115.0838	-1.57
0	0	0	115.1670	-1.52
0	0	0	115.2503	-1.49
0	0	0	115.3336	-1.45
0	0	0	115.4170	-1.40
0	0	0	115.5005	-1.32
0	0	0	115.5838	-1.27
0	0	0	115.6670	-1.25
0	0	0	115.7504	-1.20

Year	Month	Day	Hour	Stage [ft]
0	0	0	115.8337	-1.15
0	0	0	115.9172	-1.13
0	0	0	116.0003	-1.10
0	0	0	116.0837	-1.08
0	0	0	116.1670	-1.05
0	0	0	116.2503	-1.03
0	0	0	116.3336	-1.00
0	0	0	116.4170	-0.98
0	0	0	116.5004	-0.96
0	0	0	116.5838	-0.93
0	0	0	116.6670	-0.91
0	0	0	116.7505	-0.88
0	0	0	116.8339	-0.83
0	0	0	116.9170	-0.81
0	0	0	117.0003	-0.78
0	0	0	117.0836	-0.73
0	0	0	117.1670	-0.69
0	0	0	117.2505	-0.66
0	0	0	117.3337	-0.61
0	0	0	117.4172	-0.56
0	0	0	117.5005	-0.54
0	0	0	117.5837	-0.49
0	0	0	117.6671	-0.44
0	0	0	117.7505	-0.39
0	0	0	117.8336	-0.37
0	0	0	117.9171	-0.32
0	0	0	118.0004	-0.27
0	0	0	118.0837	-0.22
0	0	0	118.1670	-0.20
0	0	0	118.2503	-0.15
0	0	0	118.3337	-0.10
0	0	0	118.4170	-0.05
0	0	0	118.5005	-0.02
0	0	0	118.5838	0.01
0	0	0	118.6670	0.03
0	0	0	118.7504	0.04
0	0	0	118.8338	0.06
0	0	0	118.9172	0.08
0	0	0	119.0005	0.10
0	0	0	119.0838	0.11
0	0	0	119.1671	0.13
0	0	0	119.2503	0.14
0	0	0	119.3338	0.16
0	0	0	119.4170	0.17
0	0	0	119.5003	0.18
0	0	0	119.5837	0.19
0	0	0	119.6670	0.21
0	0	0	119.7503	0.22
0	0	0	119.8337	0.22

Year	Month	Day	Hour	Stage [ft]
0	0	0	119.9170	0.22
0	0	0	120.0003	0.23
0	0	0	120.0837	0.23
0	0	0	120.1672	0.23
0	0	0	120.2504	0.23
0	0	0	120.3338	0.23
0	0	0	120.4170	0.23
0	0	0	120.5006	0.23
0	0	0	120.5838	0.22
0	0	0	120.6669	0.22
0	0	0	120.7506	0.21
0	0	0	120.8337	0.19
0	0	0	120.9170	0.18
0	0	0	121.0003	0.18
0	0	0	121.0836	0.17
0	0	0	121.1670	0.16
0	0	0	121.2505	0.14
0	0	0	121.3337	0.13
0	0	0	121.4170	0.12
0	0	0	121.5004	0.11
0	0	0	121.5837	0.10
0	0	0	121.6670	0.09

Comment:

Node: Proposed Canal With Boat Basin

Scenario: Proposed
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.09 ft
Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
-5.57	0.0002	9
-5.50	0.0005	23
-5.40	0.0025	108
-5.30	0.0060	261
-5.20	0.0116	504
-5.10	0.0277	1206
-5.00	0.0523	2277
-4.90	0.2248	9792
-4.80	0.2671	11637
-4.70	0.3149	13716
-4.60	0.3731	16254
-4.50	0.4362	18999
-4.40	0.5126	22329

Stage [ft]	Area [ac]	Area [ft2]
-4.30	0.6114	26631
-4.20	0.7238	31527
-4.10	0.8360	36414
-4.00	0.9413	41004
-3.90	1.0535	45891
-3.80	1.1634	50679
-3.70	1.2783	55683
-3.60	1.3748	59886
-3.50	1.4523	63261
-3.40	1.5062	65610
-3.30	1.5585	67887
-3.20	1.6101	70137
-3.10	1.6585	72243
-3.00	1.7097	74475
-2.90	1.7587	76608
-2.80	1.8008	78444
-2.70	1.8401	80154
-2.60	1.8742	81639
-2.50	1.8998	82755
-2.40	1.9236	83790
-2.30	1.9457	84753
-2.20	1.9676	85707
-2.10	1.9888	86634
-2.00	2.0099	87552
-1.90	2.0314	88488
-1.80	2.0521	89388
-1.70	2.0715	90234
-1.60	2.0928	91161
-1.50	2.1103	91926
-1.40	2.1341	92961
-1.30	2.1519	93735
-1.20	2.1717	94599
-1.10	2.1944	95589
-1.00	2.2169	96570
-0.90	2.2364	97416
-0.80	2.2556	98253
-0.70	2.2748	99090
-0.60	2.2952	99981
-0.50	2.3157	100872
-0.40	2.3349	101709
-0.30	2.3585	102735
-0.20	2.3814	103734
-0.10	2.4050	104760
0.00	2.4291	105813
0.09	2.4471	106596
0.19	2.4657	107406
0.29	2.4835	108180
0.39	2.5027	109017
0.49	2.5240	109944

Stage [ft]	Area [ac]	Area [ft2]
0.59	2.5448	110853
0.69	2.5667	111807
0.79	2.5888	112770
0.89	2.6079	113598
0.99	2.6279	114471
1.09	2.6461	115263
1.19	2.6661	116136
1.29	2.6878	117081
1.39	2.7107	118080
1.49	2.7306	118944
1.59	2.7498	119781
1.69	2.7700	120663
1.79	2.7888	121482
1.89	2.8101	122409
1.99	2.8324	123381
2.09	2.8506	124173
2.19	2.8686	124956
2.29	2.8864	125730
2.39	2.9064	126603
2.49	2.9360	127890
2.59	2.9729	129501
2.69	3.0085	131049
2.79	3.0430	132552
2.89	3.0781	134082
2.99	3.1227	136026
3.09	3.1502	137223
3.19	3.1789	138474
3.29	3.2050	139608
3.39	3.2258	140517
3.49	3.2452	141363
3.59	3.2607	142038
3.69	3.2748	142650
3.79	3.2847	143082
3.90	3.2924	143415
3.99	3.2961	143577
4.10	3.2992	143712
4.19	3.3014	143811
4.29	3.3031	143883
4.39	3.3039	143919
4.49	3.3048	143955
4.60	3.3057	143995
4.70	3.3065	144030
4.79	3.3074	144072
4.89	3.3081	144099
5.00	3.3082	144106
5.10	3.3083	144110
5.20	3.3084	144113
5.30	3.3085	144116
5.40	3.3086	144122

Stage [ft]	Area [ac]	Area [ft2]
5.50	3.3087	144129
5.60	3.3089	144134
5.69	3.3099	144180
5.79	3.3114	144243
5.90	3.3138	144351
6.00	3.3149	144396
6.09	3.3157	144432
6.20	3.3167	144475
6.30	3.3170	144489
6.40	3.3178	144522
6.50	3.3182	144542
6.60	3.3183	144546
6.69	3.3184	144549
6.80	3.3185	144553
6.90	3.3186	144557
7.00	3.3187	144564
7.10	3.3187	144564

Comment:

Node: Sarasota Bay

Scenario: Proposed
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 0.09 ft
Warning Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	0.09
0	0	0	0.0835	0.09
0	0	0	0.1668	0.08
0	0	0	0.2501	0.08
0	0	0	0.3337	0.06
0	0	0	0.4168	0.05
0	0	0	0.5000	0.04
0	0	0	0.5834	0.03
0	0	0	0.6667	0.02
0	0	0	0.7500	0.02
0	0	0	0.8336	0.01
0	0	0	0.9167	-0.02
0	0	0	1.0000	-0.05
0	0	0	1.0835	-0.07
0	0	0	1.1670	-0.10
0	0	0	1.2501	-0.12
0	0	0	1.3335	-0.15

Year	Month	Day	Hour	Stage [ft]
0	0	0	1.4167	-0.17
0	0	0	1.5001	-0.17
0	0	0	1.5833	-0.20
0	0	0	1.6673	-0.22
0	0	0	1.7504	-0.24
0	0	0	1.8336	-0.24
0	0	0	1.9168	-0.27
0	0	0	2.0002	-0.29
0	0	0	2.0838	-0.29
0	0	0	2.1670	-0.32
0	0	0	2.2501	-0.32
0	0	0	2.3334	-0.34
0	0	0	2.4170	-0.34
0	0	0	2.5001	-0.34
0	0	0	2.5834	-0.37
0	0	0	2.6669	-0.37
0	0	0	2.7501	-0.37
0	0	0	2.8334	-0.37
0	0	0	2.9171	-0.39
0	0	0	3.0002	-0.39
0	0	0	3.0837	-0.39
0	0	0	3.1668	-0.39
0	0	0	3.2501	-0.39
0	0	0	3.3337	-0.39
0	0	0	3.4167	-0.42
0	0	0	3.5001	-0.42
0	0	0	3.5834	-0.42
0	0	0	3.6668	-0.42
0	0	0	3.7502	-0.42
0	0	0	3.8335	-0.42
0	0	0	3.9168	-0.44
0	0	0	4.0001	-0.44
0	0	0	4.0834	-0.44
0	0	0	4.1667	-0.44
0	0	0	4.2502	-0.44
0	0	0	4.3336	-0.44
0	0	0	4.4170	-0.44
0	0	0	4.5000	-0.44
0	0	0	4.5835	-0.42
0	0	0	4.6667	-0.42
0	0	0	4.7501	-0.39
0	0	0	4.8334	-0.39
0	0	0	4.9169	-0.37
0	0	0	5.0001	-0.34
0	0	0	5.0834	-0.34
0	0	0	5.1667	-0.32
0	0	0	5.2500	-0.29
0	0	0	5.3336	-0.27
0	0	0	5.4168	-0.24

Year	Month	Day	Hour	Stage [ft]
0	0	0	5.5001	-0.20
0	0	0	5.5834	-0.17
0	0	0	5.6669	-0.12
0	0	0	5.7500	-0.10
0	0	0	5.8335	-0.05
0	0	0	5.9169	0.00
0	0	0	6.0000	0.02
0	0	0	6.0833	0.04
0	0	0	6.1669	0.05
0	0	0	6.2500	0.08
0	0	0	6.3334	0.10
0	0	0	6.4168	0.12
0	0	0	6.5001	0.14
0	0	0	6.5834	0.16
0	0	0	6.6668	0.18
0	0	0	6.7501	0.21
0	0	0	6.8336	0.23
0	0	0	6.9170	0.25
0	0	0	7.0000	0.27
0	0	0	7.0834	0.29
0	0	0	7.1669	0.30
0	0	0	7.2502	0.32
0	0	0	7.3334	0.33
0	0	0	7.4167	0.35
0	0	0	7.5001	0.36
0	0	0	7.5836	0.37
0	0	0	7.6667	0.37
0	0	0	7.7502	0.38
0	0	0	7.8334	0.39
0	0	0	7.9169	0.39
0	0	0	8.0001	0.40
0	0	0	8.0834	0.40
0	0	0	8.1668	0.41
0	0	0	8.2501	0.41
0	0	0	8.3333	0.41
0	0	0	8.4167	0.41
0	0	0	8.5000	0.41
0	0	0	8.5834	0.41
0	0	0	8.6667	0.41
0	0	0	8.7501	0.41
0	0	0	8.8335	0.41
0	0	0	8.9167	0.41
0	0	0	9.0001	0.41
0	0	0	9.0834	0.40
0	0	0	9.1668	0.40
0	0	0	9.2502	0.40
0	0	0	9.3334	0.39
0	0	0	9.4168	0.38
0	0	0	9.5000	0.38

Year	Month	Day	Hour	Stage [ft]
0	0	0	9.5834	0.37
0	0	0	9.6667	0.36
0	0	0	9.7503	0.35
0	0	0	9.8333	0.33
0	0	0	9.9168	0.32
0	0	0	10.0001	0.31
0	0	0	10.0834	0.30
0	0	0	10.1667	0.28
0	0	0	10.2500	0.27
0	0	0	10.3335	0.26
0	0	0	10.4167	0.25
0	0	0	10.5001	0.24
0	0	0	10.5834	0.23
0	0	0	10.6667	0.22
0	0	0	10.7501	0.21
0	0	0	10.8333	0.19
0	0	0	10.9167	0.18
0	0	0	11.0002	0.17
0	0	0	11.0834	0.16
0	0	0	11.1668	0.15
0	0	0	11.2500	0.13
0	0	0	11.3334	0.12
0	0	0	11.4168	0.11
0	0	0	11.5002	0.10
0	0	0	11.5834	0.09
0	0	0	11.6667	0.08
0	0	0	11.7500	0.05
0	0	0	11.8335	0.04
0	0	0	11.9167	0.03
0	0	0	12.0000	0.02
0	0	0	12.0834	0.00
0	0	0	12.1669	-0.02
0	0	0	12.2501	-0.05
0	0	0	12.3336	-0.10
0	0	0	12.4169	-0.12
0	0	0	12.5001	-0.15
0	0	0	12.5836	-0.20
0	0	0	12.6669	-0.22
0	0	0	12.7500	-0.27
0	0	0	12.8336	-0.29
0	0	0	12.9167	-0.32
0	0	0	13.0001	-0.37
0	0	0	13.0834	-0.39
0	0	0	13.1668	-0.42
0	0	0	13.2501	-0.47
0	0	0	13.3336	-0.49
0	0	0	13.4170	-0.54
0	0	0	13.5002	-0.56
0	0	0	13.5836	-0.59

Year	Month	Day	Hour	Stage [ft]
0	0	0	13.6668	-0.64
0	0	0	13.7501	-0.66
0	0	0	13.8335	-0.69
0	0	0	13.9167	-0.71
0	0	0	14.0003	-0.76
0	0	0	14.0836	-0.78
0	0	0	14.1668	-0.81
0	0	0	14.2501	-0.86
0	0	0	14.3334	-0.88
0	0	0	14.4169	-0.91
0	0	0	14.5002	-0.96
0	0	0	14.5834	-0.98
0	0	0	14.6668	-1.03
0	0	0	14.7500	-1.05
0	0	0	14.8336	-1.10
0	0	0	14.9167	-1.13
0	0	0	15.0003	-1.18
0	0	0	15.0835	-1.20
0	0	0	15.1667	-1.25
0	0	0	15.2502	-1.27
0	0	0	15.3335	-1.32
0	0	0	15.4168	-1.35
0	0	0	15.5000	-1.37
0	0	0	15.5834	-1.42
0	0	0	15.6669	-1.45
0	0	0	15.7500	-1.47
0	0	0	15.8334	-1.49
0	0	0	15.9167	-1.52
0	0	0	16.0001	-1.54
0	0	0	16.0834	-1.57
0	0	0	16.1667	-1.59
0	0	0	16.2501	-1.62
0	0	0	16.3336	-1.64
0	0	0	16.4168	-1.64
0	0	0	16.5000	-1.67
0	0	0	16.5834	-1.67
0	0	0	16.6669	-1.69
0	0	0	16.7503	-1.69
0	0	0	16.8333	-1.69
0	0	0	16.9167	-1.69
0	0	0	17.0001	-1.69
0	0	0	17.0835	-1.69
0	0	0	17.1668	-1.69
0	0	0	17.2501	-1.69
0	0	0	17.3334	-1.69
0	0	0	17.4167	-1.67
0	0	0	17.5001	-1.64
0	0	0	17.5835	-1.62
0	0	0	17.6668	-1.59

Year	Month	Day	Hour	Stage [ft]
0	0	0	17.7502	-1.57
0	0	0	17.8334	-1.52
0	0	0	17.9167	-1.49
0	0	0	18.0000	-1.45
0	0	0	18.0834	-1.40
0	0	0	18.1669	-1.32
0	0	0	18.2502	-1.27
0	0	0	18.3334	-1.25
0	0	0	18.4168	-1.20
0	0	0	18.5001	-1.15
0	0	0	18.5836	-1.13
0	0	0	18.6667	-1.10
0	0	0	18.7501	-1.08
0	0	0	18.8334	-1.05
0	0	0	18.9167	-1.03
0	0	0	19.0000	-1.00
0	0	0	19.0834	-0.98
0	0	0	19.1668	-0.96
0	0	0	19.2502	-0.93
0	0	0	19.3334	-0.91
0	0	0	19.4169	-0.88
0	0	0	19.5003	-0.83
0	0	0	19.5834	-0.81
0	0	0	19.6667	-0.78
0	0	0	19.7500	-0.73
0	0	0	19.8334	-0.69
0	0	0	19.9169	-0.66
0	0	0	20.0001	-0.61
0	0	0	20.0836	-0.56
0	0	0	20.1669	-0.54
0	0	0	20.2501	-0.49
0	0	0	20.3335	-0.44
0	0	0	20.4169	-0.39
0	0	0	20.5000	-0.37
0	0	0	20.5835	-0.32
0	0	0	20.6668	-0.27
0	0	0	20.7501	-0.22
0	0	0	20.8334	-0.20
0	0	0	20.9167	-0.15
0	0	0	21.0001	-0.10
0	0	0	21.0834	-0.05
0	0	0	21.1669	-0.02
0	0	0	21.2502	0.01
0	0	0	21.3334	0.03
0	0	0	21.4168	0.04
0	0	0	21.5002	0.06
0	0	0	21.5836	0.08
0	0	0	21.6669	0.10
0	0	0	21.7502	0.11

Year	Month	Day	Hour	Stage [ft]
0	0	0	21.8335	0.13
0	0	0	21.9167	0.14
0	0	0	22.0002	0.16
0	0	0	22.0834	0.17
0	0	0	22.1667	0.18
0	0	0	22.2501	0.19
0	0	0	22.3334	0.21
0	0	0	22.4167	0.22
0	0	0	22.5001	0.22
0	0	0	22.5834	0.22
0	0	0	22.6667	0.23
0	0	0	22.7501	0.23
0	0	0	22.8336	0.23
0	0	0	22.9168	0.23
0	0	0	23.0002	0.23
0	0	0	23.0834	0.23
0	0	0	23.1670	0.23
0	0	0	23.2502	0.22
0	0	0	23.3333	0.22
0	0	0	23.4170	0.21
0	0	0	23.5001	0.19
0	0	0	23.5834	0.18
0	0	0	23.6667	0.18
0	0	0	23.7500	0.17
0	0	0	23.8334	0.16
0	0	0	23.9169	0.14
0	0	0	24.0001	0.13
0	0	0	24.0834	0.12
0	0	0	24.1668	0.11
0	0	0	24.2501	0.10
0	0	0	24.3334	0.09
0	0	0	24.4169	0.09
0	0	0	24.5002	0.08
0	0	0	24.5835	0.08
0	0	0	24.6671	0.06
0	0	0	24.7502	0.05
0	0	0	24.8334	0.04
0	0	0	24.9168	0.03
0	0	0	25.0001	0.02
0	0	0	25.0834	0.02
0	0	0	25.1670	0.01
0	0	0	25.2501	-0.02
0	0	0	25.3334	-0.05
0	0	0	25.4169	-0.07
0	0	0	25.5004	-0.10
0	0	0	25.5835	-0.12
0	0	0	25.6669	-0.15
0	0	0	25.7501	-0.17
0	0	0	25.8335	-0.17

Year	Month	Day	Hour	Stage [ft]
0	0	0	25.9167	-0.20
0	0	0	26.0007	-0.22
0	0	0	26.0838	-0.24
0	0	0	26.1670	-0.24
0	0	0	26.2502	-0.27
0	0	0	26.3336	-0.29
0	0	0	26.4172	-0.29
0	0	0	26.5004	-0.32
0	0	0	26.5835	-0.32
0	0	0	26.6668	-0.34
0	0	0	26.7504	-0.34
0	0	0	26.8335	-0.34
0	0	0	26.9168	-0.37
0	0	0	27.0003	-0.37
0	0	0	27.0835	-0.37
0	0	0	27.1668	-0.37
0	0	0	27.2505	-0.39
0	0	0	27.3336	-0.39
0	0	0	27.4171	-0.39
0	0	0	27.5002	-0.39
0	0	0	27.5835	-0.39
0	0	0	27.6671	-0.39
0	0	0	27.7501	-0.42
0	0	0	27.8335	-0.42
0	0	0	27.9168	-0.42
0	0	0	28.0002	-0.42
0	0	0	28.0836	-0.42
0	0	0	28.1669	-0.42
0	0	0	28.2502	-0.44
0	0	0	28.3335	-0.44
0	0	0	28.4168	-0.44
0	0	0	28.5001	-0.44
0	0	0	28.5836	-0.44
0	0	0	28.6670	-0.44
0	0	0	28.7504	-0.44
0	0	0	28.8334	-0.44
0	0	0	28.9169	-0.42
0	0	0	29.0001	-0.42
0	0	0	29.0835	-0.39
0	0	0	29.1668	-0.39
0	0	0	29.2503	-0.37
0	0	0	29.3335	-0.34
0	0	0	29.4168	-0.34
0	0	0	29.5001	-0.32
0	0	0	29.5834	-0.29
0	0	0	29.6670	-0.27
0	0	0	29.7502	-0.24
0	0	0	29.8335	-0.20
0	0	0	29.9168	-0.17

Year	Month	Day	Hour	Stage [ft]
0	0	0	30.0003	-0.12
0	0	0	30.0834	-0.10
0	0	0	30.1669	-0.05
0	0	0	30.2503	0.00
0	0	0	30.3334	0.02
0	0	0	30.4167	0.04
0	0	0	30.5003	0.05
0	0	0	30.5834	0.08
0	0	0	30.6668	0.10
0	0	0	30.7502	0.12
0	0	0	30.8335	0.14
0	0	0	30.9168	0.16
0	0	0	31.0002	0.18
0	0	0	31.0835	0.21
0	0	0	31.1670	0.23
0	0	0	31.2504	0.25
0	0	0	31.3334	0.27
0	0	0	31.4168	0.29
0	0	0	31.5003	0.30
0	0	0	31.5836	0.32
0	0	0	31.6668	0.33
0	0	0	31.7501	0.35
0	0	0	31.8335	0.36
0	0	0	31.9170	0.37
0	0	0	32.0001	0.37
0	0	0	32.0836	0.38
0	0	0	32.1668	0.39
0	0	0	32.2503	0.39
0	0	0	32.3335	0.40
0	0	0	32.4168	0.40
0	0	0	32.5002	0.41
0	0	0	32.5835	0.41
0	0	0	32.6667	0.41
0	0	0	32.7501	0.41
0	0	0	32.8334	0.41
0	0	0	32.9168	0.41
0	0	0	33.0001	0.41
0	0	0	33.0835	0.41
0	0	0	33.1669	0.41
0	0	0	33.2501	0.41
0	0	0	33.3335	0.41
0	0	0	33.4168	0.40
0	0	0	33.5002	0.40
0	0	0	33.5836	0.40
0	0	0	33.6668	0.39
0	0	0	33.7502	0.38
0	0	0	33.8334	0.38
0	0	0	33.9168	0.37
0	0	0	34.0001	0.36

Year	Month	Day	Hour	Stage [ft]
0	0	0	34.0837	0.35
0	0	0	34.1667	0.33
0	0	0	34.2502	0.32
0	0	0	34.3335	0.31
0	0	0	34.4168	0.30
0	0	0	34.5001	0.28
0	0	0	34.5834	0.27
0	0	0	34.6669	0.26
0	0	0	34.7501	0.25
0	0	0	34.8335	0.24
0	0	0	34.9168	0.23
0	0	0	35.0001	0.22
0	0	0	35.0835	0.21
0	0	0	35.1667	0.19
0	0	0	35.2501	0.18
0	0	0	35.3336	0.17
0	0	0	35.4168	0.16
0	0	0	35.5002	0.15
0	0	0	35.5834	0.13
0	0	0	35.6668	0.12
0	0	0	35.7502	0.11
0	0	0	35.8336	0.10
0	0	0	35.9168	0.09
0	0	0	36.0001	0.08
0	0	0	36.0834	0.05
0	0	0	36.1669	0.04
0	0	0	36.2501	0.03
0	0	0	36.3334	0.02
0	0	0	36.4168	0.00
0	0	0	36.5003	-0.02
0	0	0	36.5835	-0.05
0	0	0	36.6670	-0.10
0	0	0	36.7503	-0.12
0	0	0	36.8335	-0.15
0	0	0	36.9170	-0.20
0	0	0	37.0003	-0.22
0	0	0	37.0834	-0.27
0	0	0	37.1670	-0.29
0	0	0	37.2501	-0.32
0	0	0	37.3335	-0.37
0	0	0	37.4168	-0.39
0	0	0	37.5002	-0.42
0	0	0	37.5835	-0.47
0	0	0	37.6670	-0.49
0	0	0	37.7504	-0.54
0	0	0	37.8336	-0.56
0	0	0	37.9170	-0.59
0	0	0	38.0002	-0.64
0	0	0	38.0835	-0.66

Year	Month	Day	Hour	Stage [ft]
0	0	0	38.1669	-0.69
0	0	0	38.2501	-0.71
0	0	0	38.3337	-0.76
0	0	0	38.4170	-0.78
0	0	0	38.5002	-0.81
0	0	0	38.5835	-0.86
0	0	0	38.6668	-0.88
0	0	0	38.7503	-0.91
0	0	0	38.8336	-0.96
0	0	0	38.9168	-0.98
0	0	0	39.0002	-1.03
0	0	0	39.0834	-1.05
0	0	0	39.1670	-1.10
0	0	0	39.2501	-1.13
0	0	0	39.3337	-1.18
0	0	0	39.4169	-1.20
0	0	0	39.5001	-1.25
0	0	0	39.5836	-1.27
0	0	0	39.6669	-1.32
0	0	0	39.7502	-1.35
0	0	0	39.8334	-1.37
0	0	0	39.9168	-1.42
0	0	0	40.0003	-1.45
0	0	0	40.0834	-1.47
0	0	0	40.1668	-1.49
0	0	0	40.2501	-1.52
0	0	0	40.3335	-1.54
0	0	0	40.4168	-1.57
0	0	0	40.5001	-1.59
0	0	0	40.5835	-1.62
0	0	0	40.6670	-1.64
0	0	0	40.7502	-1.64
0	0	0	40.8334	-1.67
0	0	0	40.9168	-1.67
0	0	0	41.0003	-1.69
0	0	0	41.0837	-1.69
0	0	0	41.1667	-1.69
0	0	0	41.2501	-1.69
0	0	0	41.3335	-1.69
0	0	0	41.4169	-1.69
0	0	0	41.5002	-1.69
0	0	0	41.5835	-1.69
0	0	0	41.6668	-1.69
0	0	0	41.7501	-1.67
0	0	0	41.8335	-1.64
0	0	0	41.9169	-1.62
0	0	0	42.0002	-1.59
0	0	0	42.0836	-1.57
0	0	0	42.1668	-1.52

Year	Month	Day	Hour	Stage [ft]
0	0	0	42.2501	-1.49
0	0	0	42.3334	-1.45
0	0	0	42.4168	-1.40
0	0	0	42.5003	-1.32
0	0	0	42.5836	-1.27
0	0	0	42.6668	-1.25
0	0	0	42.7502	-1.20
0	0	0	42.8335	-1.15
0	0	0	42.9170	-1.13
0	0	0	43.0001	-1.10
0	0	0	43.0835	-1.08
0	0	0	43.1668	-1.05
0	0	0	43.2501	-1.03
0	0	0	43.3334	-1.00
0	0	0	43.4168	-0.98
0	0	0	43.5002	-0.96
0	0	0	43.5836	-0.93
0	0	0	43.6668	-0.91
0	0	0	43.7503	-0.88
0	0	0	43.8337	-0.83
0	0	0	43.9168	-0.81
0	0	0	44.0001	-0.78
0	0	0	44.0834	-0.73
0	0	0	44.1668	-0.69
0	0	0	44.2503	-0.66
0	0	0	44.3335	-0.61
0	0	0	44.4170	-0.56
0	0	0	44.5003	-0.54
0	0	0	44.5835	-0.49
0	0	0	44.6669	-0.44
0	0	0	44.7503	-0.39
0	0	0	44.8334	-0.37
0	0	0	44.9169	-0.32
0	0	0	45.0002	-0.27
0	0	0	45.0835	-0.22
0	0	0	45.1668	-0.20
0	0	0	45.2501	-0.15
0	0	0	45.3335	-0.10
0	0	0	45.4168	-0.05
0	0	0	45.5003	-0.02
0	0	0	45.5836	0.01
0	0	0	45.6668	0.03
0	0	0	45.7502	0.04
0	0	0	45.8336	0.06
0	0	0	45.9170	0.08
0	0	0	46.0003	0.10
0	0	0	46.0836	0.11
0	0	0	46.1669	0.13
0	0	0	46.2501	0.14

Year	Month	Day	Hour	Stage [ft]
0	0	0	46.3336	0.16
0	0	0	46.4168	0.17
0	0	0	46.5001	0.18
0	0	0	46.5835	0.19
0	0	0	46.6668	0.21
0	0	0	46.7501	0.22
0	0	0	46.8335	0.22
0	0	0	46.9168	0.22
0	0	0	47.0001	0.23
0	0	0	47.0835	0.23
0	0	0	47.1670	0.23
0	0	0	47.2502	0.23
0	0	0	47.3336	0.23
0	0	0	47.4168	0.23
0	0	0	47.5004	0.23
0	0	0	47.5836	0.22
0	0	0	47.6667	0.22
0	0	0	47.7504	0.21
0	0	0	47.8335	0.19
0	0	0	47.9168	0.18
0	0	0	48.0001	0.18
0	0	0	48.0834	0.17
0	0	0	48.1668	0.16
0	0	0	48.2503	0.14
0	0	0	48.3335	0.13
0	0	0	48.4168	0.12
0	0	0	48.5002	0.11
0	0	0	48.5835	0.10
0	0	0	48.6668	0.09
0	0	0	48.7503	0.09
0	0	0	48.8336	0.08
0	0	0	48.9169	0.08
0	0	0	49.0005	0.06
0	0	0	49.0836	0.05
0	0	0	49.1668	0.04
0	0	0	49.2502	0.03
0	0	0	49.3335	0.02
0	0	0	49.4168	0.02
0	0	0	49.5004	0.01
0	0	0	49.5835	-0.02
0	0	0	49.6668	-0.05
0	0	0	49.7503	-0.07
0	0	0	49.8338	-0.10
0	0	0	49.9169	-0.12
0	0	0	50.0003	-0.15
0	0	0	50.0835	-0.17
0	0	0	50.1669	-0.17
0	0	0	50.2501	-0.20
0	0	0	50.3341	-0.22

Year	Month	Day	Hour	Stage [ft]
0	0	0	50.4172	-0.24
0	0	0	50.5004	-0.24
0	0	0	50.5836	-0.27
0	0	0	50.6670	-0.29
0	0	0	50.7506	-0.29
0	0	0	50.8338	-0.32
0	0	0	50.9169	-0.32
0	0	0	51.0002	-0.34
0	0	0	51.0838	-0.34
0	0	0	51.1669	-0.34
0	0	0	51.2502	-0.37
0	0	0	51.3337	-0.37
0	0	0	51.4169	-0.37
0	0	0	51.5002	-0.37
0	0	0	51.5839	-0.39
0	0	0	51.6670	-0.39
0	0	0	51.7505	-0.39
0	0	0	51.8336	-0.39
0	0	0	51.9169	-0.39
0	0	0	52.0005	-0.39
0	0	0	52.0835	-0.42
0	0	0	52.1669	-0.42
0	0	0	52.2502	-0.42
0	0	0	52.3336	-0.42
0	0	0	52.4170	-0.42
0	0	0	52.5003	-0.42
0	0	0	52.5836	-0.44
0	0	0	52.6669	-0.44
0	0	0	52.7502	-0.44
0	0	0	52.8335	-0.44
0	0	0	52.9170	-0.44
0	0	0	53.0004	-0.44
0	0	0	53.0838	-0.44
0	0	0	53.1668	-0.44
0	0	0	53.2503	-0.42
0	0	0	53.3335	-0.42
0	0	0	53.4169	-0.39
0	0	0	53.5002	-0.39
0	0	0	53.5837	-0.37
0	0	0	53.6669	-0.34
0	0	0	53.7502	-0.34
0	0	0	53.8335	-0.32
0	0	0	53.9168	-0.29
0	0	0	54.0004	-0.27
0	0	0	54.0836	-0.24
0	0	0	54.1669	-0.20
0	0	0	54.2502	-0.17
0	0	0	54.3337	-0.12
0	0	0	54.4168	-0.10

Year	Month	Day	Hour	Stage [ft]
0	0	0	54.5003	-0.05
0	0	0	54.5837	0.00
0	0	0	54.6668	0.02
0	0	0	54.7501	0.04
0	0	0	54.8337	0.05
0	0	0	54.9168	0.08
0	0	0	55.0002	0.10
0	0	0	55.0836	0.12
0	0	0	55.1669	0.14
0	0	0	55.2502	0.16
0	0	0	55.3336	0.18
0	0	0	55.4169	0.21
0	0	0	55.5004	0.23
0	0	0	55.5838	0.25
0	0	0	55.6668	0.27
0	0	0	55.7502	0.29
0	0	0	55.8337	0.30
0	0	0	55.9170	0.32
0	0	0	56.0002	0.33
0	0	0	56.0835	0.35
0	0	0	56.1669	0.36
0	0	0	56.2504	0.37
0	0	0	56.3335	0.37
0	0	0	56.4170	0.38
0	0	0	56.5002	0.39
0	0	0	56.5837	0.39
0	0	0	56.6669	0.40
0	0	0	56.7502	0.40
0	0	0	56.8336	0.41
0	0	0	56.9169	0.41
0	0	0	57.0001	0.41
0	0	0	57.0835	0.41
0	0	0	57.1668	0.41
0	0	0	57.2502	0.41
0	0	0	57.3335	0.41
0	0	0	57.4169	0.41
0	0	0	57.5003	0.41
0	0	0	57.5835	0.41
0	0	0	57.6669	0.41
0	0	0	57.7502	0.40
0	0	0	57.8336	0.40
0	0	0	57.9170	0.40
0	0	0	58.0002	0.39
0	0	0	58.0836	0.38
0	0	0	58.1668	0.38
0	0	0	58.2502	0.37
0	0	0	58.3335	0.36
0	0	0	58.4171	0.35
0	0	0	58.5001	0.33

Year	Month	Day	Hour	Stage [ft]
0	0	0	58.5836	0.32
0	0	0	58.6669	0.31
0	0	0	58.7502	0.30
0	0	0	58.8335	0.28
0	0	0	58.9168	0.27
0	0	0	59.0003	0.26
0	0	0	59.0835	0.25
0	0	0	59.1669	0.24
0	0	0	59.2502	0.23
0	0	0	59.3335	0.22
0	0	0	59.4169	0.21
0	0	0	59.5001	0.19
0	0	0	59.5835	0.18
0	0	0	59.6670	0.17
0	0	0	59.7502	0.16
0	0	0	59.8336	0.15
0	0	0	59.9168	0.13
0	0	0	60.0002	0.12
0	0	0	60.0836	0.11
0	0	0	60.1670	0.10
0	0	0	60.2502	0.09
0	0	0	60.3335	0.08
0	0	0	60.4168	0.05
0	0	0	60.5003	0.04
0	0	0	60.5835	0.03
0	0	0	60.6668	0.02
0	0	0	60.7502	0.00
0	0	0	60.8337	-0.02
0	0	0	60.9169	-0.05
0	0	0	61.0004	-0.10
0	0	0	61.0837	-0.12
0	0	0	61.1669	-0.15
0	0	0	61.2504	-0.20
0	0	0	61.3337	-0.22
0	0	0	61.4168	-0.27
0	0	0	61.5004	-0.29
0	0	0	61.5835	-0.32
0	0	0	61.6669	-0.37
0	0	0	61.7502	-0.39
0	0	0	61.8336	-0.42
0	0	0	61.9169	-0.47
0	0	0	62.0004	-0.49
0	0	0	62.0838	-0.54
0	0	0	62.1670	-0.56
0	0	0	62.2504	-0.59
0	0	0	62.3336	-0.64
0	0	0	62.4169	-0.66
0	0	0	62.5003	-0.69
0	0	0	62.5835	-0.71

Year	Month	Day	Hour	Stage [ft]
0	0	0	62.6671	-0.76
0	0	0	62.7504	-0.78
0	0	0	62.8336	-0.81
0	0	0	62.9169	-0.86
0	0	0	63.0002	-0.88
0	0	0	63.0837	-0.91
0	0	0	63.1670	-0.96
0	0	0	63.2502	-0.98
0	0	0	63.3336	-1.03
0	0	0	63.4168	-1.05
0	0	0	63.5004	-1.10
0	0	0	63.5835	-1.13
0	0	0	63.6671	-1.18
0	0	0	63.7503	-1.20
0	0	0	63.8335	-1.25
0	0	0	63.9170	-1.27
0	0	0	64.0003	-1.32
0	0	0	64.0836	-1.35
0	0	0	64.1668	-1.37
0	0	0	64.2502	-1.42
0	0	0	64.3337	-1.45
0	0	0	64.4168	-1.47
0	0	0	64.5002	-1.49
0	0	0	64.5835	-1.52
0	0	0	64.6669	-1.54
0	0	0	64.7502	-1.57
0	0	0	64.8335	-1.59
0	0	0	64.9169	-1.62
0	0	0	65.0004	-1.64
0	0	0	65.0836	-1.64
0	0	0	65.1668	-1.67
0	0	0	65.2502	-1.67
0	0	0	65.3337	-1.69
0	0	0	65.4171	-1.69
0	0	0	65.5001	-1.69
0	0	0	65.5835	-1.69
0	0	0	65.6669	-1.69
0	0	0	65.7503	-1.69
0	0	0	65.8336	-1.69
0	0	0	65.9169	-1.69
0	0	0	66.0002	-1.69
0	0	0	66.0835	-1.67
0	0	0	66.1669	-1.64
0	0	0	66.2503	-1.62
0	0	0	66.3336	-1.59
0	0	0	66.4170	-1.57
0	0	0	66.5002	-1.52
0	0	0	66.5835	-1.49
0	0	0	66.6668	-1.45

Year	Month	Day	Hour	Stage [ft]
0	0	0	66.7502	-1.40
0	0	0	66.8337	-1.32
0	0	0	66.9170	-1.27
0	0	0	67.0002	-1.25
0	0	0	67.0836	-1.20
0	0	0	67.1669	-1.15
0	0	0	67.2504	-1.13
0	0	0	67.3335	-1.10
0	0	0	67.4169	-1.08
0	0	0	67.5002	-1.05
0	0	0	67.5835	-1.03
0	0	0	67.6668	-1.00
0	0	0	67.7502	-0.98
0	0	0	67.8336	-0.96
0	0	0	67.9170	-0.93
0	0	0	68.0002	-0.91
0	0	0	68.0837	-0.88
0	0	0	68.1671	-0.83
0	0	0	68.2502	-0.81
0	0	0	68.3335	-0.78
0	0	0	68.4168	-0.73
0	0	0	68.5002	-0.69
0	0	0	68.5837	-0.66
0	0	0	68.6669	-0.61
0	0	0	68.7504	-0.56
0	0	0	68.8337	-0.54
0	0	0	68.9169	-0.49
0	0	0	69.0003	-0.44
0	0	0	69.0837	-0.39
0	0	0	69.1668	-0.37
0	0	0	69.2503	-0.32
0	0	0	69.3336	-0.27
0	0	0	69.4169	-0.22
0	0	0	69.5002	-0.20
0	0	0	69.5835	-0.15
0	0	0	69.6669	-0.10
0	0	0	69.7502	-0.05
0	0	0	69.8337	-0.02
0	0	0	69.9170	0.01
0	0	0	70.0002	0.03
0	0	0	70.0836	0.04
0	0	0	70.1670	0.06
0	0	0	70.2504	0.08
0	0	0	70.3337	0.10
0	0	0	70.4170	0.11
0	0	0	70.5003	0.13
0	0	0	70.5835	0.14
0	0	0	70.6670	0.16
0	0	0	70.7502	0.17

Year	Month	Day	Hour	Stage [ft]
0	0	0	70.8335	0.18
0	0	0	70.9169	0.19
0	0	0	71.0002	0.21
0	0	0	71.0835	0.22
0	0	0	71.1669	0.22
0	0	0	71.2502	0.22
0	0	0	71.3335	0.23
0	0	0	71.4169	0.23
0	0	0	71.5004	0.23
0	0	0	71.5836	0.23
0	0	0	71.6670	0.23
0	0	0	71.7502	0.23
0	0	0	71.8338	0.23
0	0	0	71.9170	0.22
0	0	0	72.0001	0.22
0	0	0	72.0838	0.21
0	0	0	72.1669	0.19
0	0	0	72.2502	0.18
0	0	0	72.3335	0.18
0	0	0	72.4168	0.17
0	0	0	72.5002	0.16
0	0	0	72.5837	0.14
0	0	0	72.6669	0.13
0	0	0	72.7502	0.12
0	0	0	72.8336	0.11
0	0	0	72.9169	0.10
0	0	0	73.0002	0.09
0	0	0	73.0837	0.09
0	0	0	73.1670	0.08
0	0	0	73.2503	0.08
0	0	0	73.3339	0.06
0	0	0	73.4170	0.05
0	0	0	73.5002	0.04
0	0	0	73.5836	0.03
0	0	0	73.6669	0.02
0	0	0	73.7502	0.02
0	0	0	73.8338	0.01
0	0	0	73.9169	-0.02
0	0	0	74.0002	-0.05
0	0	0	74.0837	-0.07
0	0	0	74.1672	-0.10
0	0	0	74.2503	-0.12
0	0	0	74.3337	-0.15
0	0	0	74.4169	-0.17
0	0	0	74.5003	-0.17
0	0	0	74.5835	-0.20
0	0	0	74.6675	-0.22
0	0	0	74.7506	-0.24
0	0	0	74.8338	-0.24

Year	Month	Day	Hour	Stage [ft]
0	0	0	74.9170	-0.27
0	0	0	75.0004	-0.29
0	0	0	75.0840	-0.29
0	0	0	75.1672	-0.32
0	0	0	75.2503	-0.32
0	0	0	75.3336	-0.34
0	0	0	75.4172	-0.34
0	0	0	75.5003	-0.34
0	0	0	75.5836	-0.37
0	0	0	75.6671	-0.37
0	0	0	75.7503	-0.37
0	0	0	75.8336	-0.37
0	0	0	75.9173	-0.39
0	0	0	76.0004	-0.39
0	0	0	76.0839	-0.39
0	0	0	76.1670	-0.39
0	0	0	76.2503	-0.39
0	0	0	76.3339	-0.39
0	0	0	76.4169	-0.42
0	0	0	76.5003	-0.42
0	0	0	76.5836	-0.42
0	0	0	76.6670	-0.42
0	0	0	76.7504	-0.42
0	0	0	76.8337	-0.42
0	0	0	76.9170	-0.44
0	0	0	77.0003	-0.44
0	0	0	77.0836	-0.44
0	0	0	77.1669	-0.44
0	0	0	77.2504	-0.44
0	0	0	77.3338	-0.44
0	0	0	77.4172	-0.44
0	0	0	77.5002	-0.44
0	0	0	77.5837	-0.42
0	0	0	77.6669	-0.42
0	0	0	77.7503	-0.39
0	0	0	77.8336	-0.39
0	0	0	77.9171	-0.37
0	0	0	78.0003	-0.34
0	0	0	78.0836	-0.34
0	0	0	78.1669	-0.32
0	0	0	78.2502	-0.29
0	0	0	78.3338	-0.27
0	0	0	78.4170	-0.24
0	0	0	78.5003	-0.20
0	0	0	78.5836	-0.17
0	0	0	78.6671	-0.12
0	0	0	78.7502	-0.10
0	0	0	78.8337	-0.05
0	0	0	78.9171	0.00

Year	Month	Day	Hour	Stage [ft]
0	0	0	79.0002	0.02
0	0	0	79.0835	0.04
0	0	0	79.1671	0.05
0	0	0	79.2502	0.08
0	0	0	79.3336	0.10
0	0	0	79.4170	0.12
0	0	0	79.5003	0.14
0	0	0	79.5836	0.16
0	0	0	79.6670	0.18
0	0	0	79.7503	0.21
0	0	0	79.8338	0.23
0	0	0	79.9172	0.25
0	0	0	80.0002	0.27
0	0	0	80.0836	0.29
0	0	0	80.1671	0.30
0	0	0	80.2504	0.32
0	0	0	80.3336	0.33
0	0	0	80.4169	0.35
0	0	0	80.5003	0.36
0	0	0	80.5838	0.37
0	0	0	80.6669	0.37
0	0	0	80.7504	0.38
0	0	0	80.8336	0.39
0	0	0	80.9171	0.39
0	0	0	81.0003	0.40
0	0	0	81.0836	0.40
0	0	0	81.1670	0.41
0	0	0	81.2503	0.41
0	0	0	81.3335	0.41
0	0	0	81.4169	0.41
0	0	0	81.5002	0.41
0	0	0	81.5836	0.41
0	0	0	81.6669	0.41
0	0	0	81.7503	0.41
0	0	0	81.8337	0.41
0	0	0	81.9169	0.41
0	0	0	82.0003	0.41
0	0	0	82.0836	0.40
0	0	0	82.1670	0.40
0	0	0	82.2504	0.40
0	0	0	82.3336	0.39
0	0	0	82.4170	0.38
0	0	0	82.5002	0.38
0	0	0	82.5836	0.37
0	0	0	82.6669	0.36
0	0	0	82.7505	0.35
0	0	0	82.8335	0.33
0	0	0	82.9170	0.32
0	0	0	83.0003	0.31

Year	Month	Day	Hour	Stage [ft]
0	0	0	83.0836	0.30
0	0	0	83.1669	0.28
0	0	0	83.2502	0.27
0	0	0	83.3337	0.26
0	0	0	83.4169	0.25
0	0	0	83.5003	0.24
0	0	0	83.5836	0.23
0	0	0	83.6669	0.22
0	0	0	83.7503	0.21
0	0	0	83.8335	0.19
0	0	0	83.9169	0.18
0	0	0	84.0004	0.17
0	0	0	84.0836	0.16
0	0	0	84.1670	0.15
0	0	0	84.2502	0.13
0	0	0	84.3336	0.12
0	0	0	84.4170	0.11
0	0	0	84.5004	0.10
0	0	0	84.5836	0.09
0	0	0	84.6669	0.08
0	0	0	84.7502	0.05
0	0	0	84.8337	0.04
0	0	0	84.9169	0.03
0	0	0	85.0002	0.02
0	0	0	85.0836	0.00
0	0	0	85.1671	-0.02
0	0	0	85.2503	-0.05
0	0	0	85.3338	-0.10
0	0	0	85.4171	-0.12
0	0	0	85.5003	-0.15
0	0	0	85.5838	-0.20
0	0	0	85.6671	-0.22
0	0	0	85.7502	-0.27
0	0	0	85.8338	-0.29
0	0	0	85.9169	-0.32
0	0	0	86.0003	-0.37
0	0	0	86.0836	-0.39
0	0	0	86.1670	-0.42
0	0	0	86.2503	-0.47
0	0	0	86.3338	-0.49
0	0	0	86.4172	-0.54
0	0	0	86.5004	-0.56
0	0	0	86.5838	-0.59
0	0	0	86.6670	-0.64
0	0	0	86.7503	-0.66
0	0	0	86.8337	-0.69
0	0	0	86.9169	-0.71
0	0	0	87.0005	-0.76
0	0	0	87.0838	-0.78

Year	Month	Day	Hour	Stage [ft]
0	0	0	87.1670	-0.81
0	0	0	87.2503	-0.86
0	0	0	87.3336	-0.88
0	0	0	87.4171	-0.91
0	0	0	87.5004	-0.96
0	0	0	87.5836	-0.98
0	0	0	87.6670	-1.03
0	0	0	87.7502	-1.05
0	0	0	87.8338	-1.10
0	0	0	87.9169	-1.13
0	0	0	88.0005	-1.18
0	0	0	88.0837	-1.20
0	0	0	88.1669	-1.25
0	0	0	88.2504	-1.27
0	0	0	88.3337	-1.32
0	0	0	88.4170	-1.35
0	0	0	88.5002	-1.37
0	0	0	88.5836	-1.42
0	0	0	88.6671	-1.45
0	0	0	88.7502	-1.47
0	0	0	88.8336	-1.49
0	0	0	88.9169	-1.52
0	0	0	89.0003	-1.54
0	0	0	89.0836	-1.57
0	0	0	89.1669	-1.59
0	0	0	89.2503	-1.62
0	0	0	89.3338	-1.64
0	0	0	89.4170	-1.64
0	0	0	89.5002	-1.67
0	0	0	89.5836	-1.67
0	0	0	89.6671	-1.69
0	0	0	89.7505	-1.69
0	0	0	89.8335	-1.69
0	0	0	89.9169	-1.69
0	0	0	90.0003	-1.69
0	0	0	90.0837	-1.69
0	0	0	90.1670	-1.69
0	0	0	90.2503	-1.69
0	0	0	90.3336	-1.69
0	0	0	90.4169	-1.67
0	0	0	90.5003	-1.64
0	0	0	90.5837	-1.62
0	0	0	90.6670	-1.59
0	0	0	90.7504	-1.57
0	0	0	90.8336	-1.52
0	0	0	90.9169	-1.49
0	0	0	91.0002	-1.45
0	0	0	91.0836	-1.40
0	0	0	91.1671	-1.32

Year	Month	Day	Hour	Stage [ft]
0	0	0	91.2504	-1.27
0	0	0	91.3336	-1.25
0	0	0	91.4170	-1.20
0	0	0	91.5003	-1.15
0	0	0	91.5838	-1.13
0	0	0	91.6669	-1.10
0	0	0	91.7503	-1.08
0	0	0	91.8336	-1.05
0	0	0	91.9169	-1.03
0	0	0	92.0002	-1.00
0	0	0	92.0836	-0.98
0	0	0	92.1670	-0.96
0	0	0	92.2504	-0.93
0	0	0	92.3336	-0.91
0	0	0	92.4171	-0.88
0	0	0	92.5005	-0.83
0	0	0	92.5836	-0.81
0	0	0	92.6669	-0.78
0	0	0	92.7502	-0.73
0	0	0	92.8336	-0.69
0	0	0	92.9171	-0.66
0	0	0	93.0003	-0.61
0	0	0	93.0838	-0.56
0	0	0	93.1671	-0.54
0	0	0	93.2503	-0.49
0	0	0	93.3337	-0.44
0	0	0	93.4171	-0.39
0	0	0	93.5002	-0.37
0	0	0	93.5837	-0.32
0	0	0	93.6670	-0.27
0	0	0	93.7503	-0.22
0	0	0	93.8336	-0.20
0	0	0	93.9169	-0.15
0	0	0	94.0003	-0.10
0	0	0	94.0836	-0.05
0	0	0	94.1671	-0.02
0	0	0	94.2504	0.01
0	0	0	94.3336	0.03
0	0	0	94.4170	0.04
0	0	0	94.5004	0.06
0	0	0	94.5838	0.08
0	0	0	94.6671	0.10
0	0	0	94.7504	0.11
0	0	0	94.8337	0.13
0	0	0	94.9169	0.14
0	0	0	95.0004	0.16
0	0	0	95.0836	0.17
0	0	0	95.1669	0.18
0	0	0	95.2503	0.19

Year	Month	Day	Hour	Stage [ft]
0	0	0	95.3336	0.21
0	0	0	95.4169	0.22
0	0	0	95.5003	0.22
0	0	0	95.5836	0.22
0	0	0	95.6669	0.23
0	0	0	95.7503	0.23
0	0	0	95.8338	0.23
0	0	0	95.9170	0.23
0	0	0	96.0004	0.23
0	0	0	96.0836	0.23
0	0	0	96.1672	0.23
0	0	0	96.2504	0.22
0	0	0	96.3335	0.22
0	0	0	96.4172	0.21
0	0	0	96.5003	0.19
0	0	0	96.5836	0.18
0	0	0	96.6669	0.18
0	0	0	96.7502	0.17
0	0	0	96.8336	0.16
0	0	0	96.9171	0.14
0	0	0	97.0003	0.13
0	0	0	97.0836	0.12
0	0	0	97.1670	0.11
0	0	0	97.2503	0.10
0	0	0	97.3336	0.09
0	0	0	97.4171	0.09
0	0	0	97.5004	0.08
0	0	0	97.5837	0.08
0	0	0	97.6673	0.06
0	0	0	97.7504	0.05
0	0	0	97.8336	0.04
0	0	0	97.9170	0.03
0	0	0	98.0003	0.02
0	0	0	98.0836	0.02
0	0	0	98.1672	0.01
0	0	0	98.2503	-0.02
0	0	0	98.3336	-0.05
0	0	0	98.4171	-0.07
0	0	0	98.5006	-0.10
0	0	0	98.5837	-0.12
0	0	0	98.6671	-0.15
0	0	0	98.7503	-0.17
0	0	0	98.8337	-0.17
0	0	0	98.9169	-0.20
0	0	0	99.0009	-0.22
0	0	0	99.0840	-0.24
0	0	0	99.1672	-0.24
0	0	0	99.2504	-0.27
0	0	0	99.3338	-0.29

Year	Month	Day	Hour	Stage [ft]
0	0	0	99.4174	-0.29
0	0	0	99.5006	-0.32
0	0	0	99.5837	-0.32
0	0	0	99.6670	-0.34
0	0	0	99.7506	-0.34
0	0	0	99.8337	-0.34
0	0	0	99.9170	-0.37
0	0	0	100.0005	-0.37
0	0	0	100.0837	-0.37
0	0	0	100.1670	-0.37
0	0	0	100.2507	-0.39
0	0	0	100.3338	-0.39
0	0	0	100.4173	-0.39
0	0	0	100.5004	-0.39
0	0	0	100.5837	-0.39
0	0	0	100.6673	-0.39
0	0	0	100.7503	-0.42
0	0	0	100.8337	-0.42
0	0	0	100.9170	-0.42
0	0	0	101.0004	-0.42
0	0	0	101.0838	-0.42
0	0	0	101.1671	-0.42
0	0	0	101.2504	-0.44
0	0	0	101.3337	-0.44
0	0	0	101.4170	-0.44
0	0	0	101.5003	-0.44
0	0	0	101.5838	-0.44
0	0	0	101.6672	-0.44
0	0	0	101.7506	-0.44
0	0	0	101.8336	-0.44
0	0	0	101.9171	-0.42
0	0	0	102.0003	-0.42
0	0	0	102.0837	-0.39
0	0	0	102.1670	-0.39
0	0	0	102.2505	-0.37
0	0	0	102.3337	-0.34
0	0	0	102.4170	-0.34
0	0	0	102.5003	-0.32
0	0	0	102.5836	-0.29
0	0	0	102.6672	-0.27
0	0	0	102.7504	-0.24
0	0	0	102.8337	-0.20
0	0	0	102.9170	-0.17
0	0	0	103.0005	-0.12
0	0	0	103.0836	-0.10
0	0	0	103.1671	-0.05
0	0	0	103.2505	0.00
0	0	0	103.3336	0.02
0	0	0	103.4169	0.04

Year	Month	Day	Hour	Stage [ft]
0	0	0	103.5005	0.05
0	0	0	103.5836	0.08
0	0	0	103.6670	0.10
0	0	0	103.7504	0.12
0	0	0	103.8337	0.14
0	0	0	103.9170	0.16
0	0	0	104.0004	0.18
0	0	0	104.0837	0.21
0	0	0	104.1672	0.23
0	0	0	104.2506	0.25
0	0	0	104.3336	0.27
0	0	0	104.4170	0.29
0	0	0	104.5005	0.30
0	0	0	104.5838	0.32
0	0	0	104.6670	0.33
0	0	0	104.7503	0.35
0	0	0	104.8337	0.36
0	0	0	104.9172	0.37
0	0	0	105.0003	0.37
0	0	0	105.0838	0.38
0	0	0	105.1670	0.39
0	0	0	105.2505	0.39
0	0	0	105.3337	0.40
0	0	0	105.4170	0.40
0	0	0	105.5004	0.41
0	0	0	105.5837	0.41
0	0	0	105.6669	0.41
0	0	0	105.7503	0.41
0	0	0	105.8336	0.41
0	0	0	105.9170	0.41
0	0	0	106.0003	0.41
0	0	0	106.0837	0.41
0	0	0	106.1671	0.41
0	0	0	106.2503	0.41
0	0	0	106.3337	0.41
0	0	0	106.4170	0.40
0	0	0	106.5004	0.40
0	0	0	106.5838	0.40
0	0	0	106.6670	0.39
0	0	0	106.7504	0.38
0	0	0	106.8336	0.38
0	0	0	106.9170	0.37
0	0	0	107.0003	0.36
0	0	0	107.0839	0.35
0	0	0	107.1669	0.33
0	0	0	107.2504	0.32
0	0	0	107.3337	0.31
0	0	0	107.4170	0.30
0	0	0	107.5003	0.28

Year	Month	Day	Hour	Stage [ft]
0	0	0	107.5836	0.27
0	0	0	107.6671	0.26
0	0	0	107.7503	0.25
0	0	0	107.8337	0.24
0	0	0	107.9170	0.23
0	0	0	108.0003	0.22
0	0	0	108.0837	0.21
0	0	0	108.1669	0.19
0	0	0	108.2503	0.18
0	0	0	108.3338	0.17
0	0	0	108.4170	0.16
0	0	0	108.5004	0.15
0	0	0	108.5836	0.13
0	0	0	108.6670	0.12
0	0	0	108.7504	0.11
0	0	0	108.8338	0.10
0	0	0	108.9170	0.09
0	0	0	109.0003	0.08
0	0	0	109.0836	0.05
0	0	0	109.1671	0.04
0	0	0	109.2503	0.03
0	0	0	109.3336	0.02
0	0	0	109.4170	0.00
0	0	0	109.5005	-0.02
0	0	0	109.5837	-0.05
0	0	0	109.6672	-0.10
0	0	0	109.7505	-0.12
0	0	0	109.8337	-0.15
0	0	0	109.9172	-0.20
0	0	0	110.0005	-0.22
0	0	0	110.0836	-0.27
0	0	0	110.1672	-0.29
0	0	0	110.2503	-0.32
0	0	0	110.3337	-0.37
0	0	0	110.4170	-0.39
0	0	0	110.5004	-0.42
0	0	0	110.5837	-0.47
0	0	0	110.6672	-0.49
0	0	0	110.7506	-0.54
0	0	0	110.8338	-0.56
0	0	0	110.9172	-0.59
0	0	0	111.0004	-0.64
0	0	0	111.0837	-0.66
0	0	0	111.1671	-0.69
0	0	0	111.2503	-0.71
0	0	0	111.3339	-0.76
0	0	0	111.4172	-0.78
0	0	0	111.5004	-0.81
0	0	0	111.5837	-0.86

Year	Month	Day	Hour	Stage [ft]
0	0	0	111.6670	-0.88
0	0	0	111.7505	-0.91
0	0	0	111.8338	-0.96
0	0	0	111.9170	-0.98
0	0	0	112.0004	-1.03
0	0	0	112.0836	-1.05
0	0	0	112.1672	-1.10
0	0	0	112.2503	-1.13
0	0	0	112.3339	-1.18
0	0	0	112.4171	-1.20
0	0	0	112.5003	-1.25
0	0	0	112.5838	-1.27
0	0	0	112.6671	-1.32
0	0	0	112.7504	-1.35
0	0	0	112.8336	-1.37
0	0	0	112.9170	-1.42
0	0	0	113.0005	-1.45
0	0	0	113.0836	-1.47
0	0	0	113.1670	-1.49
0	0	0	113.2503	-1.52
0	0	0	113.3337	-1.54
0	0	0	113.4170	-1.57
0	0	0	113.5003	-1.59
0	0	0	113.5837	-1.62
0	0	0	113.6672	-1.64
0	0	0	113.7504	-1.64
0	0	0	113.8336	-1.67
0	0	0	113.9170	-1.67
0	0	0	114.0005	-1.69
0	0	0	114.0839	-1.69
0	0	0	114.1669	-1.69
0	0	0	114.2503	-1.69
0	0	0	114.3337	-1.69
0	0	0	114.4171	-1.69
0	0	0	114.5004	-1.69
0	0	0	114.5837	-1.69
0	0	0	114.6670	-1.69
0	0	0	114.7503	-1.67
0	0	0	114.8337	-1.64
0	0	0	114.9171	-1.62
0	0	0	115.0004	-1.59
0	0	0	115.0838	-1.57
0	0	0	115.1670	-1.52
0	0	0	115.2503	-1.49
0	0	0	115.3336	-1.45
0	0	0	115.4170	-1.40
0	0	0	115.5005	-1.32
0	0	0	115.5838	-1.27
0	0	0	115.6670	-1.25

Year	Month	Day	Hour	Stage [ft]
0	0	0	115.7504	-1.20
0	0	0	115.8337	-1.15
0	0	0	115.9172	-1.13
0	0	0	116.0003	-1.10
0	0	0	116.0837	-1.08
0	0	0	116.1670	-1.05
0	0	0	116.2503	-1.03
0	0	0	116.3336	-1.00
0	0	0	116.4170	-0.98
0	0	0	116.5004	-0.96
0	0	0	116.5838	-0.93
0	0	0	116.6670	-0.91
0	0	0	116.7505	-0.88
0	0	0	116.8339	-0.83
0	0	0	116.9170	-0.81
0	0	0	117.0003	-0.78
0	0	0	117.0836	-0.73
0	0	0	117.1670	-0.69
0	0	0	117.2505	-0.66
0	0	0	117.3337	-0.61
0	0	0	117.4172	-0.56
0	0	0	117.5005	-0.54
0	0	0	117.5837	-0.49
0	0	0	117.6671	-0.44
0	0	0	117.7505	-0.39
0	0	0	117.8336	-0.37
0	0	0	117.9171	-0.32
0	0	0	118.0004	-0.27
0	0	0	118.0837	-0.22
0	0	0	118.1670	-0.20
0	0	0	118.2503	-0.15
0	0	0	118.3337	-0.10
0	0	0	118.4170	-0.05
0	0	0	118.5005	-0.02
0	0	0	118.5838	0.01
0	0	0	118.6670	0.03
0	0	0	118.7504	0.04
0	0	0	118.8338	0.06
0	0	0	118.9172	0.08
0	0	0	119.0005	0.10
0	0	0	119.0838	0.11
0	0	0	119.1671	0.13
0	0	0	119.2503	0.14
0	0	0	119.3338	0.16
0	0	0	119.4170	0.17
0	0	0	119.5003	0.18
0	0	0	119.5837	0.19
0	0	0	119.6670	0.21
0	0	0	119.7503	0.22

Year	Month	Day	Hour	Stage [ft]
0	0	0	119.8337	0.22
0	0	0	119.9170	0.22
0	0	0	120.0003	0.23
0	0	0	120.0837	0.23
0	0	0	120.1672	0.23
0	0	0	120.2504	0.23
0	0	0	120.3338	0.23
0	0	0	120.4170	0.23
0	0	0	120.5006	0.23
0	0	0	120.5838	0.22
0	0	0	120.6669	0.22
0	0	0	120.7506	0.21
0	0	0	120.8337	0.19
0	0	0	120.9170	0.18
0	0	0	121.0003	0.18
0	0	0	121.0836	0.17
0	0	0	121.1670	0.16
0	0	0	121.2505	0.14
0	0	0	121.3337	0.13
0	0	0	121.4170	0.12
0	0	0	121.5004	0.11
0	0	0	121.5837	0.10
0	0	0	121.6670	0.09

Comment:

Weir Link: Canal Mouth

Scenario:	Existing
From Node:	Existing Canal
To Node:	Sarasota Bay
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	-5.58 ft
Control Elevation:	-5.58 ft
Cross Section:	Canal Mouth

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: Canal Mouth

Scenario: Proposed

Bottom Clip

From Node:	Proposed Canal With Boat Basin
To Node:	Sarasota Bay
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	-5.58 ft
Control Elevation:	-5.58 ft
Cross Section:	Canal Mouth

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Simulation: Tidal Flushing

Scenario:	Existing
Run Date/Time:	6/19/2024 9:43:58 AM
Program Version:	ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	120.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:		Boundary Stage Set:	
Reference ET Folder:		Extern Hydrograph Set:	
Unit Hydrograph Folder:		Curve Number Set:	
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	
		Rainfall Amount:	0.00 in
Edge Length Option:	Automatic	Storm Duration:	0.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: Tidal Flushing

Scenario: Proposed
Run Date/Time: 6/19/2024 9:53:48 AM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	120.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	
		Rainfall Amount:	0.00 in
Edge Length Option:	Automatic	Storm Duration:	0.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Weir Cross Section: Canal Mouth

Scenario: Existing
Lid: No

Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	2.42
1	2.09	2.22
2	4.18	1.14
3	6.28	-0.17
4	8.37	-1.59
5	10.46	-3.47
6	12.55	-4.66
7	14.65	-5.21
8	16.74	-5.28
9	18.83	-5.34
10	20.92	-5.38
11	23.02	-5.48
12	25.11	-5.48
13	27.20	-5.49
14	29.29	-5.53
15	31.39	-5.57
16	33.48	-5.58
17	35.57	-5.54
18	37.66	-5.53
19	39.76	-5.54
20	41.85	-5.53
21	43.94	-5.48
22	46.03	-5.45

Order	Station [ft]	Elevation [ft]
23	48.13	-5.43
24	50.22	-5.35
25	52.31	-5.12
26	54.40	-3.14
27	56.49	-1.12
28	58.59	0.34
29	60.68	1.78
30	62.77	2.62
31	64.86	2.81
32	66.96	3.08

Comment:

Weir Cross Section: Canal Mouth

Scenario: Proposed
Lid: No

Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	2.42
1	2.09	2.22
2	4.18	1.14
3	6.28	-0.17
4	8.37	-1.59
5	10.46	-3.47
6	12.55	-4.66
7	14.65	-5.21
8	16.74	-5.28
9	18.83	-5.34
10	20.92	-5.38
11	23.02	-5.48
12	25.11	-5.48
13	27.20	-5.49
14	29.29	-5.53
15	31.39	-5.57
16	33.48	-5.58
17	35.57	-5.54
18	37.66	-5.53
19	39.76	-5.54
20	41.85	-5.53
21	43.94	-5.48
22	46.03	-5.45
23	48.13	-5.43
24	50.22	-5.35
25	52.31	-5.12
26	54.40	-3.14

Order	Station [ft]	Elevation [ft]
27	56.49	-1.12
28	58.59	0.34
29	60.68	1.78
30	62.77	2.62
31	64.86	2.81
32	66.96	3.08

Comment:

Weir Cross Section: Canal Mouth Scenario: Canal Mouth

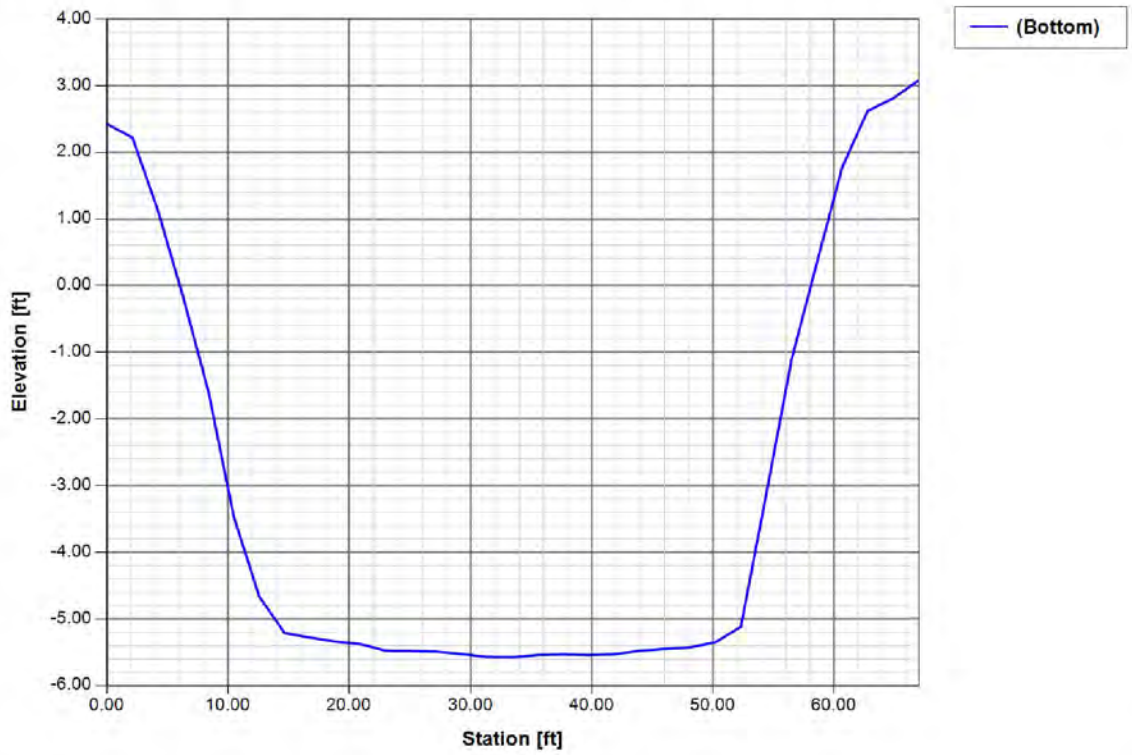


Exhibit 3

ICPR4 Results

J.R. EVANS ENGINEERING

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	0.0000	0.09	0	0
Proposed Canal With Boat Basin	0.2511	0.08	0	1078
Proposed Canal With Boat Basin	0.5050	0.04	0	4409
Proposed Canal With Boat Basin	0.7523	0.02	0	6810
Proposed Canal With Boat Basin	1.0000	-0.05	0	14002
Proposed Canal With Boat Basin	1.2508	-0.12	0	21735
Proposed Canal With Boat Basin	1.5006	-0.17	0	27094
Proposed Canal With Boat Basin	1.7517	-0.24	0	34478
Proposed Canal With Boat Basin	2.0021	-0.29	0	39549
Proposed Canal With Boat Basin	2.2514	-0.32	0	42288
Proposed Canal With Boat Basin	2.5040	-0.34	0	44827
Proposed Canal With Boat Basin	2.7538	-0.37	0	47332
Proposed Canal With Boat Basin	3.0026	-0.39	0	49819
Proposed Canal With Boat Basin	3.2537	-0.39	0	49857
Proposed Canal With Boat Basin	3.5014	-0.42	0	52335
Proposed Canal With Boat Basin	3.7510	-0.42	0	52371
Proposed Canal With Boat Basin	4.0006	-0.44	0	54841
Proposed Canal With Boat Basin	4.2504	-0.44	0	54879
Proposed Canal With Boat Basin	4.5074	-0.44	0	54889
Proposed Canal With Boat Basin	4.7519	-0.39	4691	54889
Proposed Canal With Boat Basin	5.0020	-0.35	9694	54889
Proposed Canal With Boat Basin	5.2509	-0.30	14700	54889
Proposed Canal With Boat Basin	5.5001	-0.20	24558	54889
Proposed Canal With Boat Basin	5.7523	-0.10	35084	54889
Proposed Canal With Boat Basin	6.0001	0.02	47631	54889
Proposed Canal With Boat Basin	6.2519	0.07	53412	54889
Proposed Canal With Boat Basin	6.5004	0.14	60278	54889
Proposed Canal With Boat Basin	6.7531	0.20	67295	54889
Proposed Canal With Boat Basin	7.0029	0.27	74269	54889
Proposed Canal With Boat Basin	7.2510	0.32	80051	54889
Proposed Canal With Boat Basin	7.5016	0.35	83641	54889
Proposed Canal With Boat Basin	7.7534	0.38	86016	54889
Proposed Canal With Boat Basin	8.0034	0.40	88361	54889
Proposed Canal With Boat Basin	8.2517	0.41	89690	54889
Proposed Canal With Boat Basin	8.5017	0.41	89724	54889
Proposed Canal With Boat Basin	8.7517	0.41	89733	54889
Proposed Canal With Boat Basin	9.0017	0.41	89737	54889
Proposed Canal With Boat Basin	9.2517	0.40	89737	56008
Proposed Canal With Boat Basin	9.5017	0.38	89737	58347
Proposed Canal With Boat Basin	9.7500	0.35	89737	61683
Proposed Canal With Boat Basin	10.0050	0.31	89737	65269
Proposed Canal With Boat Basin	10.2531	0.27	89737	69920

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	10.5065	0.24	89737	73458
Proposed Canal With Boat Basin	10.7567	0.21	89737	76945
Proposed Canal With Boat Basin	11.0010	0.17	89737	80341
Proposed Canal With Boat Basin	11.2527	0.13	89737	84950
Proposed Canal With Boat Basin	11.5021	0.10	89737	88440
Proposed Canal With Boat Basin	11.7533	0.06	89737	93022
Proposed Canal With Boat Basin	12.0008	0.02	89737	96463
Proposed Canal With Boat Basin	12.2502	-0.05	89737	103821
Proposed Canal With Boat Basin	12.5022	-0.14	89737	114160
Proposed Canal With Boat Basin	12.7506	-0.26	89737	126591
Proposed Canal With Boat Basin	13.0009	-0.36	89737	136658
Proposed Canal With Boat Basin	13.2508	-0.46	89737	146604
Proposed Canal With Boat Basin	13.5011	-0.56	89737	156697
Proposed Canal With Boat Basin	13.7502	-0.66	89737	166462
Proposed Canal With Boat Basin	14.0008	-0.75	89737	175959
Proposed Canal With Boat Basin	14.2501	-0.85	89737	185550
Proposed Canal With Boat Basin	14.5012	-0.95	89737	195144
Proposed Canal With Boat Basin	14.7520	-1.05	89737	204848
Proposed Canal With Boat Basin	15.0000	-1.17	89737	216230
Proposed Canal With Boat Basin	15.2506	-1.27	89737	225747
Proposed Canal With Boat Basin	15.5016	-1.37	89737	234951
Proposed Canal With Boat Basin	15.7520	-1.47	89737	244047
Proposed Canal With Boat Basin	16.0019	-1.54	89737	250795
Proposed Canal With Boat Basin	16.2508	-1.61	89737	257476
Proposed Canal With Boat Basin	16.5021	-1.66	89737	261958
Proposed Canal With Boat Basin	16.7523	-1.69	89737	264377
Proposed Canal With Boat Basin	17.0055	-1.69	89737	264411
Proposed Canal With Boat Basin	17.2576	-1.69	89737	264420
Proposed Canal With Boat Basin	17.5006	-1.64	93866	264422
Proposed Canal With Boat Basin	17.7512	-1.57	100577	264422
Proposed Canal With Boat Basin	18.0016	-1.45	111649	264422
Proposed Canal With Boat Basin	18.2509	-1.28	127588	264422
Proposed Canal With Boat Basin	18.5002	-1.16	139129	264422
Proposed Canal With Boat Basin	18.7503	-1.08	146381	264422
Proposed Canal With Boat Basin	19.0026	-1.01	153516	264422
Proposed Canal With Boat Basin	19.2515	-0.93	160593	264422
Proposed Canal With Boat Basin	19.5010	-0.84	169916	264422
Proposed Canal With Boat Basin	19.7504	-0.74	179544	264422
Proposed Canal With Boat Basin	20.0008	-0.62	191729	264422
Proposed Canal With Boat Basin	20.2508	-0.50	204023	264422
Proposed Canal With Boat Basin	20.5008	-0.37	216669	264422
Proposed Canal With Boat Basin	20.7516	-0.23	231602	264422

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	21.0001	-0.10	244269	264422
Proposed Canal With Boat Basin	21.2503	0.01	255883	264422
Proposed Canal With Boat Basin	21.5028	0.06	261773	264422
Proposed Canal With Boat Basin	21.7512	0.11	266398	264422
Proposed Canal With Boat Basin	22.0022	0.16	272130	264422
Proposed Canal With Boat Basin	22.2523	0.19	275657	264422
Proposed Canal With Boat Basin	22.5056	0.22	278129	264422
Proposed Canal With Boat Basin	22.7556	0.23	279294	264422
Proposed Canal With Boat Basin	23.0056	0.23	279325	264422
Proposed Canal With Boat Basin	23.2506	0.22	279332	265324
Proposed Canal With Boat Basin	23.5039	0.20	279332	267698
Proposed Canal With Boat Basin	23.7556	0.17	279332	270043
Proposed Canal With Boat Basin	24.0006	0.13	279332	274599
Proposed Canal With Boat Basin	24.2541	0.10	279332	278104
Proposed Canal With Boat Basin	24.5059	0.08	279332	280416
Proposed Canal With Boat Basin	24.7540	0.06	279332	282703
Proposed Canal With Boat Basin	25.0050	0.02	279332	286140
Proposed Canal With Boat Basin	25.2519	-0.02	279332	290875
Proposed Canal With Boat Basin	25.5022	-0.10	279332	298662
Proposed Canal With Boat Basin	25.7507	-0.17	279332	306296
Proposed Canal With Boat Basin	26.0005	-0.22	279332	311363
Proposed Canal With Boat Basin	26.2519	-0.27	279332	316488
Proposed Canal With Boat Basin	26.5012	-0.32	279332	321496
Proposed Canal With Boat Basin	26.7526	-0.34	279332	324258
Proposed Canal With Boat Basin	27.0011	-0.37	279332	326768
Proposed Canal With Boat Basin	27.2525	-0.39	279332	329064
Proposed Canal With Boat Basin	27.5005	-0.39	279332	329309
Proposed Canal With Boat Basin	27.7520	-0.41	279332	331571
Proposed Canal With Boat Basin	28.0010	-0.42	279332	331819
Proposed Canal With Boat Basin	28.2510	-0.44	279332	334054
Proposed Canal With Boat Basin	28.5035	-0.44	279332	334333
Proposed Canal With Boat Basin	28.7564	-0.44	279332	334346
Proposed Canal With Boat Basin	29.0033	-0.42	281754	334348
Proposed Canal With Boat Basin	29.2501	-0.37	286471	334348
Proposed Canal With Boat Basin	29.5028	-0.32	291571	334348
Proposed Canal With Boat Basin	29.7524	-0.25	299126	334348
Proposed Canal With Boat Basin	30.0003	-0.13	311543	334348
Proposed Canal With Boat Basin	30.2500	-0.01	324405	334348
Proposed Canal With Boat Basin	30.5003	0.05	330473	334348
Proposed Canal With Boat Basin	30.7516	0.12	337335	334348
Proposed Canal With Boat Basin	31.0004	0.18	344234	334348
Proposed Canal With Boat Basin	31.2513	0.25	351219	334348

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	31.5001	0.30	357096	334348
Proposed Canal With Boat Basin	31.7528	0.34	361819	334348
Proposed Canal With Boat Basin	32.0022	0.37	364311	334348
Proposed Canal With Boat Basin	32.2518	0.39	366664	334348
Proposed Canal With Boat Basin	32.5035	0.41	368878	334348
Proposed Canal With Boat Basin	32.7518	0.41	369052	334348
Proposed Canal With Boat Basin	33.0018	0.41	369064	334348
Proposed Canal With Boat Basin	33.2518	0.41	369070	334348
Proposed Canal With Boat Basin	33.5018	0.40	369071	335449
Proposed Canal With Boat Basin	33.7518	0.38	369071	337640
Proposed Canal With Boat Basin	34.0018	0.36	369071	339998
Proposed Canal With Boat Basin	34.2552	0.33	369071	343559
Proposed Canal With Boat Basin	34.5023	0.28	369071	348150
Proposed Canal With Boat Basin	34.7549	0.25	369071	351731
Proposed Canal With Boat Basin	35.0039	0.22	369071	355204
Proposed Canal With Boat Basin	35.2505	0.19	369071	358637
Proposed Canal With Boat Basin	35.5022	0.15	369071	362137
Proposed Canal With Boat Basin	35.7546	0.11	369071	366782
Proposed Canal With Boat Basin	36.0015	0.08	369071	370196
Proposed Canal With Boat Basin	36.2501	0.03	369071	374764
Proposed Canal With Boat Basin	36.5004	-0.02	369071	380698
Proposed Canal With Boat Basin	36.7517	-0.12	369071	391033
Proposed Canal With Boat Basin	37.0005	-0.22	369071	401195
Proposed Canal With Boat Basin	37.2528	-0.32	369071	411376
Proposed Canal With Boat Basin	37.5009	-0.41	369071	421313
Proposed Canal With Boat Basin	37.7506	-0.53	369071	433451
Proposed Canal With Boat Basin	38.0011	-0.63	369071	443295
Proposed Canal With Boat Basin	38.2523	-0.71	369071	450850
Proposed Canal With Boat Basin	38.5011	-0.81	369071	460471
Proposed Canal With Boat Basin	38.7529	-0.90	369071	470109
Proposed Canal With Boat Basin	39.0009	-1.02	369071	481693
Proposed Canal With Boat Basin	39.2509	-1.12	369071	491307
Proposed Canal With Boat Basin	39.5008	-1.24	369071	502685
Proposed Canal With Boat Basin	39.7501	-1.34	369071	512076
Proposed Canal With Boat Basin	40.0008	-1.44	369071	521204
Proposed Canal With Boat Basin	40.2513	-1.52	369071	527993
Proposed Canal With Boat Basin	40.5029	-1.59	369071	534760
Proposed Canal With Boat Basin	40.7511	-1.64	369071	539394
Proposed Canal With Boat Basin	41.0030	-1.69	369071	543651
Proposed Canal With Boat Basin	41.2558	-1.69	369071	543866
Proposed Canal With Boat Basin	41.5030	-1.69	369071	543878
Proposed Canal With Boat Basin	41.7504	-1.67	370973	543882

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	42.0017	-1.60	377684	543882
Proposed Canal With Boat Basin	42.2521	-1.50	386679	543882
Proposed Canal With Boat Basin	42.5003	-1.33	401987	543882
Proposed Canal With Boat Basin	42.7507	-1.21	413844	543882
Proposed Canal With Boat Basin	43.0025	-1.10	423434	543882
Proposed Canal With Boat Basin	43.2517	-1.03	430459	543882
Proposed Canal With Boat Basin	43.5028	-0.96	437586	543882
Proposed Canal With Boat Basin	43.7513	-0.88	444690	543882
Proposed Canal With Boat Basin	44.0009	-0.79	454283	543882
Proposed Canal With Boat Basin	44.2505	-0.66	466379	543882
Proposed Canal With Boat Basin	44.5017	-0.54	478660	543882
Proposed Canal With Boat Basin	44.7509	-0.40	493281	543882
Proposed Canal With Boat Basin	45.0005	-0.28	505804	543882
Proposed Canal With Boat Basin	45.2511	-0.15	518543	543882
Proposed Canal With Boat Basin	45.5009	-0.03	531580	543882
Proposed Canal With Boat Basin	45.7528	0.04	538859	543882
Proposed Canal With Boat Basin	46.0016	0.09	544519	543882
Proposed Canal With Boat Basin	46.2535	0.14	549230	543882
Proposed Canal With Boat Basin	46.5041	0.18	553856	543882
Proposed Canal With Boat Basin	46.7535	0.21	557316	543882
Proposed Canal With Boat Basin	47.0052	0.22	558501	543882
Proposed Canal With Boat Basin	47.2552	0.23	558653	543882
Proposed Canal With Boat Basin	47.5052	0.23	558665	543882
Proposed Canal With Boat Basin	47.7552	0.21	558665	546011
Proposed Canal With Boat Basin	48.0052	0.18	558665	548449
Proposed Canal With Boat Basin	48.2504	0.14	558665	552825
Proposed Canal With Boat Basin	48.5061	0.11	558665	556438
Proposed Canal With Boat Basin	48.7510	0.09	558665	558837
Proposed Canal With Boat Basin	49.0011	0.07	558665	560972
Proposed Canal With Boat Basin	49.2525	0.03	558665	564434
Proposed Canal With Boat Basin	49.5035	0.01	558665	566764
Proposed Canal With Boat Basin	49.7523	-0.07	558665	575561
Proposed Canal With Boat Basin	50.0001	-0.14	558665	583184
Proposed Canal With Boat Basin	50.2500	-0.19	558665	588289
Proposed Canal With Boat Basin	50.5029	-0.24	558665	593637
Proposed Canal With Boat Basin	50.7543	-0.29	558665	598692
Proposed Canal With Boat Basin	51.0014	-0.34	558665	603483
Proposed Canal With Boat Basin	51.2510	-0.36	558665	605984
Proposed Canal With Boat Basin	51.5015	-0.37	558665	606261
Proposed Canal With Boat Basin	51.7513	-0.39	558665	608760
Proposed Canal With Boat Basin	52.0030	-0.39	558665	608783
Proposed Canal With Boat Basin	52.2539	-0.42	558665	611271

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	52.5063	-0.42	558665	611306
Proposed Canal With Boat Basin	52.7534	-0.44	558665	613784
Proposed Canal With Boat Basin	53.0013	-0.44	558665	613804
Proposed Canal With Boat Basin	53.2512	-0.42	560840	613809
Proposed Canal With Boat Basin	53.5003	-0.39	563577	613809
Proposed Canal With Boat Basin	53.7527	-0.34	568582	613809
Proposed Canal With Boat Basin	54.0006	-0.27	575866	613809
Proposed Canal With Boat Basin	54.2505	-0.17	586011	613809
Proposed Canal With Boat Basin	54.5011	-0.05	598636	613809
Proposed Canal With Boat Basin	54.7502	0.04	608588	613809
Proposed Canal With Boat Basin	55.0031	0.09	614407	613809
Proposed Canal With Boat Basin	55.2503	0.16	621251	613809
Proposed Canal With Boat Basin	55.5009	0.22	628216	613809
Proposed Canal With Boat Basin	55.7518	0.29	635231	613809
Proposed Canal With Boat Basin	56.0034	0.33	639988	613809
Proposed Canal With Boat Basin	56.2500	0.36	643455	613809
Proposed Canal With Boat Basin	56.5019	0.39	645831	613809
Proposed Canal With Boat Basin	56.7519	0.40	647176	613809
Proposed Canal With Boat Basin	57.0019	0.41	648377	613809
Proposed Canal With Boat Basin	57.2519	0.41	648395	613809
Proposed Canal With Boat Basin	57.5019	0.41	648402	613809
Proposed Canal With Boat Basin	57.7535	0.40	648405	614764
Proposed Canal With Boat Basin	58.0035	0.39	648405	615955
Proposed Canal With Boat Basin	58.2535	0.37	648405	618308
Proposed Canal With Boat Basin	58.5035	0.34	648405	621827
Proposed Canal With Boat Basin	58.7512	0.30	648405	625306
Proposed Canal With Boat Basin	59.0010	0.26	648405	629971
Proposed Canal With Boat Basin	59.2542	0.23	648405	633508
Proposed Canal With Boat Basin	59.5021	0.20	648405	636961
Proposed Canal With Boat Basin	59.7540	0.16	648405	640460
Proposed Canal With Boat Basin	60.0030	0.12	648405	645069
Proposed Canal With Boat Basin	60.2533	0.09	648405	648527
Proposed Canal With Boat Basin	60.5006	0.05	648405	653084
Proposed Canal With Boat Basin	60.7500	0.00	648405	657580
Proposed Canal With Boat Basin	61.0013	-0.09	648405	667707
Proposed Canal With Boat Basin	61.2511	-0.19	648405	677917
Proposed Canal With Boat Basin	61.5018	-0.29	648405	688273
Proposed Canal With Boat Basin	61.7521	-0.39	648405	698316
Proposed Canal With Boat Basin	62.0015	-0.49	648405	708231
Proposed Canal With Boat Basin	62.2503	-0.58	648405	718043
Proposed Canal With Boat Basin	62.5012	-0.68	648405	727841
Proposed Canal With Boat Basin	62.7526	-0.78	648405	737560

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	63.0009	-0.88	648405	747119
Proposed Canal With Boat Basin	63.2512	-0.98	648405	756653
Proposed Canal With Boat Basin	63.5005	-1.10	648405	768172
Proposed Canal With Boat Basin	63.7508	-1.20	648405	777740
Proposed Canal With Boat Basin	64.0000	-1.32	648405	788993
Proposed Canal With Boat Basin	64.2511	-1.41	648405	798188
Proposed Canal With Boat Basin	64.5001	-1.49	648405	805169
Proposed Canal With Boat Basin	64.7512	-1.56	648405	811936
Proposed Canal With Boat Basin	65.0006	-1.64	648405	818609
Proposed Canal With Boat Basin	65.2537	-1.66	648405	821083
Proposed Canal With Boat Basin	65.5032	-1.69	648405	823317
Proposed Canal With Boat Basin	65.7531	-1.69	648405	823336
Proposed Canal With Boat Basin	66.0031	-1.69	648405	823342
Proposed Canal With Boat Basin	66.2503	-1.62	654746	823342
Proposed Canal With Boat Basin	66.5002	-1.52	663459	823342
Proposed Canal With Boat Basin	66.7501	-1.40	674768	823342
Proposed Canal With Boat Basin	67.0004	-1.25	688767	823342
Proposed Canal With Boat Basin	67.2510	-1.13	700380	823342
Proposed Canal With Boat Basin	67.5017	-1.06	707434	823342
Proposed Canal With Boat Basin	67.7502	-0.98	714474	823342
Proposed Canal With Boat Basin	68.0028	-0.91	721680	823342
Proposed Canal With Boat Basin	68.2512	-0.81	731214	823342
Proposed Canal With Boat Basin	68.5013	-0.69	743098	823342
Proposed Canal With Boat Basin	68.7508	-0.57	755279	823342
Proposed Canal With Boat Basin	69.0012	-0.45	767660	823342
Proposed Canal With Boat Basin	69.2502	-0.32	780087	823342
Proposed Canal With Boat Basin	69.5019	-0.20	793008	823342
Proposed Canal With Boat Basin	69.7504	-0.05	808092	823342
Proposed Canal With Boat Basin	70.0015	0.03	816967	823342
Proposed Canal With Boat Basin	70.2539	0.07	821653	823342
Proposed Canal With Boat Basin	70.5020	0.13	827323	823342
Proposed Canal With Boat Basin	70.7503	0.17	831979	823342
Proposed Canal With Boat Basin	71.0052	0.20	835523	823342
Proposed Canal With Boat Basin	71.2558	0.22	836816	823342
Proposed Canal With Boat Basin	71.5058	0.23	837978	823342
Proposed Canal With Boat Basin	71.7558	0.23	837996	823342
Proposed Canal With Boat Basin	72.0058	0.22	837998	824428
Proposed Canal With Boat Basin	72.2533	0.19	837998	827757
Proposed Canal With Boat Basin	72.5041	0.16	837998	830112
Proposed Canal With Boat Basin	72.7529	0.12	837998	834702
Proposed Canal With Boat Basin	73.0052	0.09	837998	838174
Proposed Canal With Boat Basin	73.2527	0.08	837998	839454

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	73.5018	0.05	837998	842741
Proposed Canal With Boat Basin	73.7525	0.02	837998	845188
Proposed Canal With Boat Basin	74.0026	-0.05	837998	852457
Proposed Canal With Boat Basin	74.2529	-0.12	837998	860172
Proposed Canal With Boat Basin	74.5022	-0.17	837998	865475
Proposed Canal With Boat Basin	74.7521	-0.24	837998	872862
Proposed Canal With Boat Basin	75.0011	-0.29	837998	877897
Proposed Canal With Boat Basin	75.2521	-0.32	837998	880667
Proposed Canal With Boat Basin	75.5035	-0.34	837998	883203
Proposed Canal With Boat Basin	75.7541	-0.37	837998	885711
Proposed Canal With Boat Basin	76.0022	-0.39	837998	888199
Proposed Canal With Boat Basin	76.2533	-0.39	837998	888236
Proposed Canal With Boat Basin	76.5018	-0.42	837998	890709
Proposed Canal With Boat Basin	76.7545	-0.42	837998	890746
Proposed Canal With Boat Basin	77.0033	-0.44	837998	893223
Proposed Canal With Boat Basin	77.2559	-0.44	837998	893260
Proposed Canal With Boat Basin	77.5066	-0.44	837998	893269
Proposed Canal With Boat Basin	77.7513	-0.40	842670	893269
Proposed Canal With Boat Basin	78.0024	-0.35	847698	893269
Proposed Canal With Boat Basin	78.2525	-0.30	852740	893269
Proposed Canal With Boat Basin	78.5002	-0.20	862550	893269
Proposed Canal With Boat Basin	78.7525	-0.10	873083	893269
Proposed Canal With Boat Basin	79.0019	0.02	885676	893269
Proposed Canal With Boat Basin	79.2522	0.07	891416	893269
Proposed Canal With Boat Basin	79.5007	0.14	898283	893269
Proposed Canal With Boat Basin	79.7502	0.20	905211	893269
Proposed Canal With Boat Basin	80.0032	0.27	912273	893269
Proposed Canal With Boat Basin	80.2514	0.32	918055	893269
Proposed Canal With Boat Basin	80.5019	0.35	921643	893269
Proposed Canal With Boat Basin	80.7537	0.38	924018	893269
Proposed Canal With Boat Basin	81.0037	0.40	926363	893269
Proposed Canal With Boat Basin	81.2520	0.41	927691	893269
Proposed Canal With Boat Basin	81.5020	0.41	927725	893269
Proposed Canal With Boat Basin	81.7520	0.41	927734	893269
Proposed Canal With Boat Basin	82.0020	0.41	927738	893269
Proposed Canal With Boat Basin	82.2520	0.40	927738	894389
Proposed Canal With Boat Basin	82.5020	0.38	927738	896728
Proposed Canal With Boat Basin	82.7504	0.35	927738	900065
Proposed Canal With Boat Basin	83.0054	0.31	927738	903651
Proposed Canal With Boat Basin	83.2535	0.27	927738	908302
Proposed Canal With Boat Basin	83.5069	0.24	927738	911840
Proposed Canal With Boat Basin	83.7570	0.21	927738	915327

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	84.0013	0.17	927738	918723
Proposed Canal With Boat Basin	84.2530	0.13	927738	923334
Proposed Canal With Boat Basin	84.5024	0.10	927738	926822
Proposed Canal With Boat Basin	84.7503	0.06	927738	931321
Proposed Canal With Boat Basin	85.0011	0.02	927738	934845
Proposed Canal With Boat Basin	85.2505	-0.05	927738	942206
Proposed Canal With Boat Basin	85.5025	-0.14	927738	952545
Proposed Canal With Boat Basin	85.7509	-0.26	927738	964978
Proposed Canal With Boat Basin	86.0012	-0.36	927738	975045
Proposed Canal With Boat Basin	86.2506	-0.46	927738	984964
Proposed Canal With Boat Basin	86.5009	-0.56	927738	995067
Proposed Canal With Boat Basin	86.7517	-0.66	927738	1004882
Proposed Canal With Boat Basin	87.0002	-0.75	927738	1014290
Proposed Canal With Boat Basin	87.2512	-0.85	927738	1023979
Proposed Canal With Boat Basin	87.5003	-0.95	927738	1033466
Proposed Canal With Boat Basin	87.7516	-1.05	927738	1043212
Proposed Canal With Boat Basin	88.0014	-1.17	927738	1054676
Proposed Canal With Boat Basin	88.2504	-1.27	927738	1064115
Proposed Canal With Boat Basin	88.5003	-1.37	927738	1073289
Proposed Canal With Boat Basin	88.7513	-1.47	927738	1082406
Proposed Canal With Boat Basin	89.0012	-1.54	927738	1089154
Proposed Canal With Boat Basin	89.2502	-1.61	927738	1095836
Proposed Canal With Boat Basin	89.5015	-1.66	927738	1100320
Proposed Canal With Boat Basin	89.7516	-1.69	927738	1102758
Proposed Canal With Boat Basin	90.0021	-1.69	927738	1102793
Proposed Canal With Boat Basin	90.2528	-1.69	927738	1102802
Proposed Canal With Boat Basin	90.5011	-1.64	931874	1102804
Proposed Canal With Boat Basin	90.7517	-1.57	938587	1102804
Proposed Canal With Boat Basin	91.0005	-1.45	949577	1102804
Proposed Canal With Boat Basin	91.2514	-1.28	965606	1102804
Proposed Canal With Boat Basin	91.5007	-1.16	977147	1102804
Proposed Canal With Boat Basin	91.7508	-1.08	984390	1102804
Proposed Canal With Boat Basin	92.0000	-1.01	991436	1102804
Proposed Canal With Boat Basin	92.2520	-0.93	998602	1102804
Proposed Canal With Boat Basin	92.5000	-0.84	1007852	1102804
Proposed Canal With Boat Basin	92.7507	-0.74	1017547	1102804
Proposed Canal With Boat Basin	93.0012	-0.62	1029739	1102804
Proposed Canal With Boat Basin	93.2512	-0.50	1042034	1102804
Proposed Canal With Boat Basin	93.5012	-0.37	1054674	1102804
Proposed Canal With Boat Basin	93.7504	-0.23	1069517	1102804
Proposed Canal With Boat Basin	94.0005	-0.10	1082280	1102804
Proposed Canal With Boat Basin	94.2507	0.01	1093890	1102804

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	94.5001	0.06	1099696	1102804
Proposed Canal With Boat Basin	94.7516	0.11	1104400	1102804
Proposed Canal With Boat Basin	95.0026	0.16	1110134	1102804
Proposed Canal With Boat Basin	95.2527	0.19	1113659	1102804
Proposed Canal With Boat Basin	95.5060	0.22	1116128	1102804
Proposed Canal With Boat Basin	95.7560	0.23	1117293	1102804
Proposed Canal With Boat Basin	96.0060	0.23	1117324	1102804
Proposed Canal With Boat Basin	96.2510	0.22	1117331	1103708
Proposed Canal With Boat Basin	96.5043	0.20	1117331	1106083
Proposed Canal With Boat Basin	96.7560	0.17	1117331	1108428
Proposed Canal With Boat Basin	97.0010	0.13	1117331	1112984
Proposed Canal With Boat Basin	97.2545	0.10	1117331	1116489
Proposed Canal With Boat Basin	97.5063	0.08	1117331	1118801
Proposed Canal With Boat Basin	97.7544	0.06	1117331	1121088
Proposed Canal With Boat Basin	98.0054	0.02	1117331	1124524
Proposed Canal With Boat Basin	98.2514	-0.02	1117331	1129226
Proposed Canal With Boat Basin	98.5017	-0.09	1117331	1137022
Proposed Canal With Boat Basin	98.7502	-0.17	1117331	1144659
Proposed Canal With Boat Basin	99.0032	-0.22	1117331	1149822
Proposed Canal With Boat Basin	99.2515	-0.27	1117331	1154848
Proposed Canal With Boat Basin	99.5007	-0.32	1117331	1159859
Proposed Canal With Boat Basin	99.7521	-0.34	1117331	1162638
Proposed Canal With Boat Basin	100.0006	-0.37	1117331	1165148
Proposed Canal With Boat Basin	100.2528	-0.39	1117331	1167446
Proposed Canal With Boat Basin	100.5039	-0.39	1117331	1167689
Proposed Canal With Boat Basin	100.7513	-0.41	1117331	1169933
Proposed Canal With Boat Basin	101.0003	-0.42	1117331	1170204
Proposed Canal With Boat Basin	101.2503	-0.44	1117331	1172414
Proposed Canal With Boat Basin	101.5028	-0.44	1117331	1172717
Proposed Canal With Boat Basin	101.7557	-0.44	1117331	1172730
Proposed Canal With Boat Basin	102.0026	-0.42	1119751	1172732
Proposed Canal With Boat Basin	102.2529	-0.37	1124547	1172732
Proposed Canal With Boat Basin	102.5015	-0.32	1129525	1172732
Proposed Canal With Boat Basin	102.7515	-0.25	1137086	1172732
Proposed Canal With Boat Basin	103.0012	-0.13	1149585	1172732
Proposed Canal With Boat Basin	103.2504	-0.01	1162417	1172732
Proposed Canal With Boat Basin	103.5008	0.05	1168474	1172732
Proposed Canal With Boat Basin	103.7520	0.12	1175339	1172732
Proposed Canal With Boat Basin	104.0008	0.18	1182238	1172732
Proposed Canal With Boat Basin	104.2517	0.25	1189223	1172732
Proposed Canal With Boat Basin	104.5006	0.30	1195097	1172732
Proposed Canal With Boat Basin	104.7533	0.34	1199819	1172732

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	105.0027	0.37	1202309	1172732
Proposed Canal With Boat Basin	105.2523	0.39	1204661	1172732
Proposed Canal With Boat Basin	105.5039	0.41	1206877	1172732
Proposed Canal With Boat Basin	105.7523	0.41	1207049	1172732
Proposed Canal With Boat Basin	106.0023	0.41	1207062	1172732
Proposed Canal With Boat Basin	106.2523	0.41	1207067	1172732
Proposed Canal With Boat Basin	106.5023	0.40	1207068	1173832
Proposed Canal With Boat Basin	106.7523	0.38	1207068	1176026
Proposed Canal With Boat Basin	107.0023	0.36	1207068	1178385
Proposed Canal With Boat Basin	107.2556	0.33	1207068	1181946
Proposed Canal With Boat Basin	107.5027	0.28	1207068	1186540
Proposed Canal With Boat Basin	107.7553	0.25	1207068	1190118
Proposed Canal With Boat Basin	108.0043	0.22	1207068	1193592
Proposed Canal With Boat Basin	108.2509	0.19	1207068	1197024
Proposed Canal With Boat Basin	108.5026	0.15	1207068	1200525
Proposed Canal With Boat Basin	108.7500	0.11	1207068	1205101
Proposed Canal With Boat Basin	109.0019	0.08	1207068	1208585
Proposed Canal With Boat Basin	109.2505	0.03	1207068	1213151
Proposed Canal With Boat Basin	109.5001	-0.02	1207068	1219067
Proposed Canal With Boat Basin	109.7505	-0.12	1207068	1229375
Proposed Canal With Boat Basin	110.0022	-0.22	1207068	1239627
Proposed Canal With Boat Basin	110.2523	-0.32	1207068	1249739
Proposed Canal With Boat Basin	110.5005	-0.41	1207068	1259676
Proposed Canal With Boat Basin	110.7502	-0.53	1207068	1271798
Proposed Canal With Boat Basin	111.0010	-0.63	1207068	1281662
Proposed Canal With Boat Basin	111.2511	-0.71	1207068	1289192
Proposed Canal With Boat Basin	111.5020	-0.81	1207068	1298879
Proposed Canal With Boat Basin	111.7509	-0.90	1207068	1308423
Proposed Canal With Boat Basin	112.0005	-1.02	1207068	1320041
Proposed Canal With Boat Basin	112.2501	-1.12	1207068	1329660
Proposed Canal With Boat Basin	112.5004	-1.24	1207068	1341041
Proposed Canal With Boat Basin	112.7518	-1.34	1207068	1350501
Proposed Canal With Boat Basin	113.0006	-1.44	1207068	1359577
Proposed Canal With Boat Basin	113.2511	-1.52	1207068	1366366
Proposed Canal With Boat Basin	113.5027	-1.59	1207068	1373133
Proposed Canal With Boat Basin	113.7508	-1.64	1207068	1377779
Proposed Canal With Boat Basin	114.0028	-1.69	1207068	1382025
Proposed Canal With Boat Basin	114.2556	-1.69	1207068	1382250
Proposed Canal With Boat Basin	114.5028	-1.69	1207068	1382263
Proposed Canal With Boat Basin	114.7514	-1.67	1208997	1382267
Proposed Canal With Boat Basin	115.0028	-1.59	1215708	1382267
Proposed Canal With Boat Basin	115.2511	-1.50	1224643	1382267

Node Name	Relative Time [hrs]	Stage [ft]	Link Inflow Volume [ft3]	Link Outflow Volume [ft3]
Proposed Canal With Boat Basin	115.5006	-1.33	1239998	1382267
Proposed Canal With Boat Basin	115.7511	-1.21	1251851	1382267
Proposed Canal With Boat Basin	116.0028	-1.10	1261437	1382267
Proposed Canal With Boat Basin	116.2521	-1.03	1268463	1382267
Proposed Canal With Boat Basin	116.5031	-0.96	1275589	1382267
Proposed Canal With Boat Basin	116.7516	-0.88	1282694	1382267
Proposed Canal With Boat Basin	117.0012	-0.79	1292287	1382267
Proposed Canal With Boat Basin	117.2521	-0.66	1304424	1382267
Proposed Canal With Boat Basin	117.5011	-0.54	1316633	1382267
Proposed Canal With Boat Basin	117.7504	-0.40	1331241	1382267
Proposed Canal With Boat Basin	118.0002	-0.28	1343775	1382267
Proposed Canal With Boat Basin	118.2502	-0.15	1356474	1382267
Proposed Canal With Boat Basin	118.5017	-0.03	1369598	1382267
Proposed Canal With Boat Basin	118.7532	0.04	1376863	1382267
Proposed Canal With Boat Basin	119.0031	0.09	1382552	1382267
Proposed Canal With Boat Basin	119.2536	0.14	1387227	1382267
Proposed Canal With Boat Basin	119.5011	0.18	1391811	1382267
Proposed Canal With Boat Basin	119.7564	0.21	1395345	1382267
Proposed Canal With Boat Basin	120.0064	0.22	1396512	1382267

LISTED SPECIES SURVEY REPORT

5630 GULF OF MEXICO DRIVE
LONGBOAT KEY, FLORIDA 34228

REVISED - FEBRUARY 2026

Prepared by:

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting

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6 Conclusion 7

1 INTRODUCTION

Turrell, Hall & Associates, Inc. (THA) has conducted a listed species survey at 5630 Gulf of Mexico Drive in Longboat Key, Florida 34228, located within Section 25, Township 35 S, Range 16 E, in Manatee County. The parcel can be identified by Folio Number 7938400059 and totals approximately 2.16 acres in size.

The purpose of this report is to provide a summary of wildlife observations on the property and to consider potential effects of the proposed project on any local, state, or federal listed species that may utilize the property for feeding, foraging, or nesting. This report is being prepared in association with an Environmental Resource Permit application being reviewed by the Southwest Florida Water Management District (SWFWMD), the Florida Fish & Wildlife Conservation Commission (FWC), and an Individual Permit application being reviewed by the United States Army Corps of Engineers (USACE).

2 METHODOLOGY

Prior to any wildlife survey, careful consideration is given to the habitat types in question and species that are known to utilize such areas. Prior to conducting any survey, several publications and references are consulted. These include The Official List of Florida's Endangered Species, Florida's Endangered and Threatened Species (dated December 2022), Florida's Imperiled Species Management Plan, Florida Fish and Wildlife Conservation Commission (FWC) Species Conservation Measures and Permitting Guidelines, the Florida Natural Areas Inventory (FNAI), and Manatee County aerial photography.

The basic objective of any wildlife survey is to obtain evidence that wildlife species are utilizing the subject site. This site may be comprised of a primary or secondary foraging zone, a nesting zone, or merely be adjacent to those sites with regard to a particular listed species. As many listed species in Florida are cryptic and/or nocturnal, patience and sufficient time must be devoted to the survey.

Aerial photography and the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) maps of the site and surrounding area were consulted before arriving on-site. After thorough consideration of the property location and existing habitats, a potential list of species that could be found on-site was developed. The required survey procedure for each species was then followed to determine if any listed species was utilizing the subject property.

A system of linear transects was followed throughout the subject area in the early morning, afternoon, and dusk hours, thus allowing for the proper protocols for surveying gopher tortoises and other anticipated or potential species that could occur on the project lands. THA Qualified biologists traversed the entire site in a series of linear transects spaced approximately 25 feet apart depending on the habitat type and density. Much of the site is open space, which is periodically mown, thus allowing for open visibility during survey efforts. Where the site was not mown and the canopy was dense, transects were spaced closer together.

A visual inspection of trees was also conducted to search for potential Florida bonneted bat roosts. Evidence of protected plants was also searched for along transect lines. Indirect evidence such as rooting, scrape marks, nests, cavities, burrows, tracks, and scat were looked for and noted. Once cavity or nest trees are located, they are marked with a handheld GPS for further investigation prior to clearing. In addition, the approximate sighting location of any listed species is noted on the survey aerial.

3 PRELIMINARY RESEARCH

Prior to field investigations, aerial photos, soil maps, and prior mapping for the Sabal Palm Road property were reviewed to identify the various vegetation associations that are present on and adjacent to the project area. Various publications and databases were reviewed to identify listed plant and wildlife species that could occur and those that had been previously documented on or near the project site and also to gather information concerning listed species.

Based on the habitat types that were identified, existing knowledge of the project area, contacts with other consultants, and review of publications and databases, a preliminary list of listed plant and animal species with the potential to occur within or near the project area was determined.

As used herein, the term "listed animal or plant species" refers to those plants and animals listed as endangered or threatened by the U.S. Fish and Wildlife Service (FWS) or the FWC. THA wildlife and listed species surveys were supplemented by research concerning listed species. The following subsections document these efforts and their results. A list of listed species that could potentially utilize the subject property can be found below in Table 1.

Table 1: Potential Threatened and Endangered Species

Common Name	Scientific Name	Status
American alligator	*Alligator mississippiensis*	FT (S/A)
American crocodile	*Crocodylus acutus*	FT
Eastern indigo snake	*Drymarchon couperi*	FT
Gopher tortoise	*Gopherus polyphemus*	ST
West Indian manatee	*Trichechus manatus*	FT

FE = Federally Endangered FT = Federally Threatened ST = State Threatened
FT (S/A) = Federally designated Threatened species due to similarity of appearance

4 RESULTS

The subject property has been surveyed for a total of 9.25 hours. A summary of survey times and weather on site is displayed below in Table 2.

Table 2: Summary of Survey Efforts

Date	Start	End	Observers	Survey Hours	Temp. (F)	Cloud Cover	Precip. (In.)	Wind (mph)
01/17/2022	0929	1045	1	1.25	63	60%	0	21 WNW
06/15/2023	1100	1800	3	7.00	90	15%	0	8 - 15 SSW
07/18/2024	1000	1100	1	1.00	86	20%	0	9 S

4.1 LISTED SPECIES OBSERVED ONSITE

No evidence of listed species was observed onsite by THA biologists; however, it is assumed that the West Indian manatee does utilize portions of the existing canal.

4.2 SPECIES OBSERVED ONSITE

While surveying the subject property for listed species, biologists recorded sightings and signs of non-listed wildlife in addition to the listed species. All wildlife observed on or adjacent to the project site is displayed below in Table 4.

Table 4: List of Species Observed Onsite

Common Name	Scientific Name	Status
Reptiles		
Brown anole	*Anolis sagrei*	Non-native
Birds		
Blue jay	*Cyanocitta cristata*	
Blue-gray Gnatcatcher	*Polioptila caerulea*	
Boat-tailed Grackle	*Quiscalus major*	
Common grackle	*Quiscalus quiscula*	
Common ground dove	*Columbina passerina*	
Fish crow	*Corvus ossifragus*	
Great blue heron	*Ardea herodias*	
Mourning dove	*Zenaida macroura*	
Northern cardinal	*Cardinalis cardinalis*	
Northern mockingbird	*Mimus polyglottos*	
Osprey	*Pandion haliaetus*	
Turkey vulture	*Cathartes aura*	
White ibis	*Eudocimus albus*	

FE = Federally Endangered FT = Federally Threatened ST = State Threatened FT (S/A) = Federally designated Threatened species due to similarity of appearance

5 DISCUSSION

5.1 PROPOSED PROJECT

The project proposes to construct a multi-family condominium with an associated 8-slip docking facility and seawall. The existing seawall will be removed, and a portion of the upland habitat on-site will be dredged in order to provide a small basin for the docking facility. A new concrete seawall will be installed along the newly proposed shoreline and the canal within the property boundary will be dredged to a depth of -4.0′ NAVD 88 below the Mean Low Water Line (MLWL).

5.2 PROPOSED IMPACTS TO POTENTIAL AND OBSERVED LISTED SPECIES

5.2.1 American alligator (Alligator mississippiensis)

Though the American alligator is no longer considered endangered, it is currently listed as federally threatened due to its similarity in appearance to the American crocodile (*Crocodylus acutus*). No alligators were observed during any site investigations and are not anticipated to be impacted by the proposed project.

5.2.2 American crocodile (Crocodylus acutus)

The American crocodile is federally designated as threatened. They can be found in ponds, coves and creeks in mangroves swamps and occasionally in inland and freshwater areas along the coast. The subject property is not located within American crocodile critical habitat and is unlikely to have any effect on the American crocodile.

5.2.3 Eastern indigo snake (Drymarchon couperi)

The Eastern indigo snake (*Drymarchon couperi*) is listed as federally threatened. Generally, this species lives and hunts in a wide variety of habitats and its territory can cover large areas. It can be associated with gopher tortoise burrows (as a commensal) and favors pine flatwoods, palmetto prairies, and scrub habitats as well as wetland edges. It is relatively reclusive in nature and is rarely observed in the wild. Immediately prior to construction on the subject property, an eastern indigo snake survey will be needed to ensure they are not utilizing areas where large equipment will be used. No eastern indigo snakes have been observed onsite. However, indigo snakes could theoretically frequent parts of the property. Special construction guidelines to protect the indigo snake will have to be followed by construction personnel during all phases of construction work performed onsite.

5.2.4 Gopher tortoise (Gopherus polyphemus)

The gopher tortoise is listed as a threatened species by the FWC. This species prefers upland habitats, particularly xeric scrub communities, and higher-elevation pine flatwoods. They can

also be found in disturbed upland areas, including fallow and abandoned agricultural fields, perimeters of active crop fields, and pastures. No gopher tortoise burrows were observed on the subject property.

5.2.5 West Indian manatee (Trichechus manatus)

The West Indian manatee (Trichechus manatus) is a large marine mammal, which is classified as federally threatened under the Endangered Species Act and protected by the Marine Mammal Protection Act. Populations of the West Indian manatee in Florida are generally found in inland and coastal waters during the winter but can disperse great distances during warmer months. West Indian manatees are aquatic herbivores that graze on seagrasses and other aquatic vegetation. A submerged resource survey was conducted to assess potential impacts to submerged aquatic vegetation and manatee foraging potential. No submerged aquatic vegetation was found in the project footprint. The species' main threats are loss of warm water refugia and collisions with boats. Manatee County has not yet adopted a Manatee Protection Plan; therefore, the applicant proposes to distribute and implement a Manatee Educational Plan to all future slip owners. This plan can be found attached in Appendix II.

All standard manatee protection construction conditions shall be respected. Manatee awareness and education signs shall be displayed and maintained in legible condition throughout the project area. Additionally, slip owners will be required to adhere to manatee protection measures in the form of distributed educational materials and a clause included in the slip agreement.

5.3 PUBLIC INTEREST

The proposed project will not adversely affect the conservation of fish and wildlife. The site has been impacted for decades and is not home to any nesting or denning activities by local wildlife. The dredging of the canal being proposed will provide additional in-water habitat at the end of the waterway and protect the adjacent waters from potential degradation associated with limited flushing of this small canal. The project will also adhere to all criteria required by local, state, and federal agencies that they may impose as the project is reviewed. As depicted in the attached exhibits, no seagrass or other aquatic submerged resources are present within the project footprint and will therefore not be impacted by the proposed project. Since the project proposes recreational boat usage outside of the project boundary, a map of the existing nearby aquatic resource areas will be provided to slip owners in conjunction with the manatee educational plan. The project will not interfere with the conservation of fish, marine wildlife, or any other natural resources.

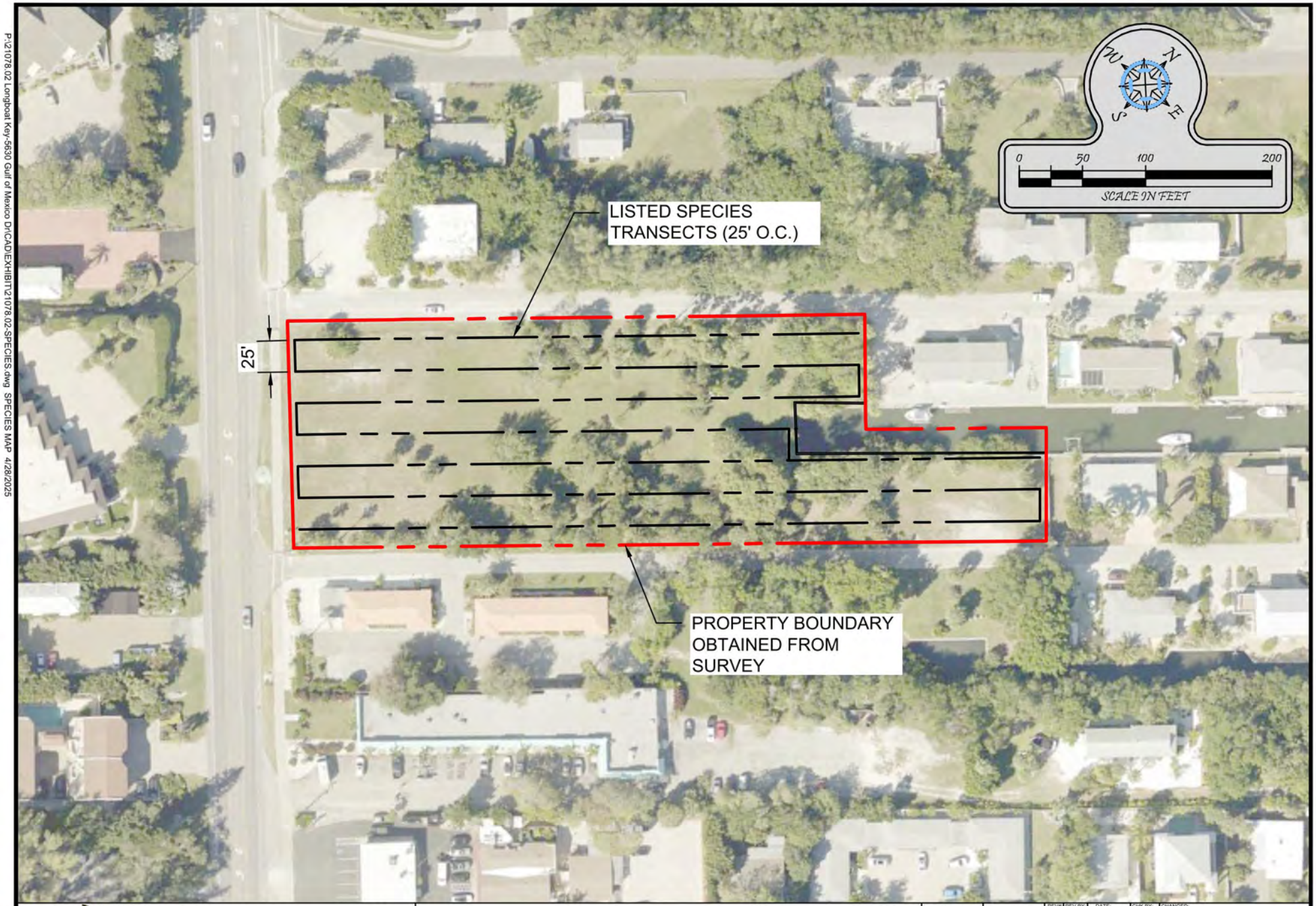
6 CONCLUSION

THA performed a listed species survey of the approximately 2.16-acre subject property as well as the entirety of the manmade canal which connects the surface waters on-site to Sarasota Bay. Preliminary research was supplemented with over 9 hours of onsite investigation. No evidence of listed species was observed on or adjacent to the proposed development of the subject property. It is however, assumed that the West Indian manatee does utilize the surface waters of the existing canal.

Based on THA's observations if the development of this site provides for appropriate design and management guidelines, it will not adversely affect any endangered, threatened, or otherwise protected species. These management guidelines shall be coordinated with the appropriate local, state, and federal agencies to better ensure their protection.

APPENDIX I
EXHIBITS

P:\21078.02 Longboat Key-5630 Gulf of Mexico Dr\CAD\EXHIBIT\21078.02-SPECIES.dwg SPECIES MAP 4/28/2025



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5630 GULF OF MEXICO DR

SPECIES MAP

RY NO. 5875

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		REV#	REV BY	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	04-28-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	01 OF 01	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

APPENDIX II
MANATEE EDUCATIONAL PLAN

5630 Gulf of Mexico Drive
Longboat Key, FL 34228

Manatee Educational Plan
June 2025

Prepared by:

Turrell, Hall & Associates, Inc.
Marine & Environmental Consulting

Phone: 239-643-0166 www.thanaples.com

1 INTRODUCTION

Turrell, Hall & Associates, Inc. (THA) has been contracted to provide environmental services in the form of a Manatee Educational Plan at a property located at 5630 Gulf of Mexico Drive, Longboat Key, Florida 34228, which can be further identified by folio number 7938400059. The property is located within Section 25, Township 35 S, and Range 16 E in Manatee County, and can be specifically found at coordinates N 27.41524297, W -82.66039591.

The property is approximately 2.16 acres in size and can be found on Gulf of Mexico Drive at the end of a canal that connects to Sarasota Bay. The project area currently only consists of open land and a concrete seawall.

The project proposes to construct a multi-family condominium with an associated 8-slip docking facility and seawall. The existing seawall will be removed, and a portion of the upland habitat on-site will be dredged in order to provide a small basin for the docking facility. A new concrete seawall will be installed along the newly proposed shoreline and the canal within the property boundary will be dredged to a depth of -4.0′ NAVD 88 below the Mean Low Water Line (MLWL).

This document serves to outline the manatee educational plan to be implemented at the proposed docking facility in association with the permit application being reviewed by the Southwest Florida Water Management District (SWFWMD) and the Florida Fish & Wildlife Conservation Commission (FWC). This plan is being developed as assurance that the facility will mitigate for the applicant's request to exceed the typical ratio of 1 slip per 100 feet of shoreline.

2 PLAN & IMPLEMENTATION

The proposed project will include the construction of four docks with a total of eight boat slips. The project area is located within an idle speed zone that extends the entire length of the manmade canal. Upon purchase, each slip owner will be provided with hard copies of educational literature outlining the FWC approved guidelines for protecting the Florida manatee as well as a map including the location of seagrasses found within the canal. Additionally, a 30" x 36" Florida Friendly Boating sign will be installed facing landward in front of the docking facility.

These measures will be enforced by including clause in the slip purchase agreement will require slip owners to confirm receipt and acknowledgement of the educational materials which will be provided to them by the Homeowner's Association. The clause will read as follows:

I (print first & last name) _____ hereby certify that I have read and will abide by the Guidelines for Protecting Florida Manatees.

The proposed signage, educational brochure, and seagrass location maps can be found below in Appendix I.

APPENDIX I:
EDUCATIONAL MATERIALS & SEAGRASS LOCATION MAP

Guidelines for protecting

Florida Manatees



© Terri Calleson, USFWS

We all have a shared responsibility to protect Florida's resources and pass on to future generations the beauty, wildlife, water and natural resources we have today.

Florida Fish and Wildlife Conservation Commission

MyFWC.com/Manatee



About Florida manatees

Florida manatees are a native subspecies of the West Indian manatee. They are a grayish-brown marine mammal with a paddle shaped tail and two flippers.

Like all mammals, manatees have hair, which is sparsely distributed on their body, with the area around its mouth having stiff whiskers. Adults average 10 feet in length and about 1,200 pounds but can reach over 13 feet and more than 3,000 pounds. At birth, a calf is about three to four feet long and 60 to 70 pounds.

Manatees eat plants along rivers, coastal areas and at the water's surface. At rest, they can hold their breath for up to 20 minutes; when active, they surface to breathe about every three to five minutes.

They live in both freshwater and saltwater habitats, including rivers, springs, estuaries, bays and canals. Manatees cannot survive for prolonged periods in water that is colder than 68°F, so natural springs and power plant warm-water discharge canals provide important habitat for manatees during colder months.

Female manatees begin to breed between five and seven years of age and are pregnant for 13 months. Calves spend their first two years nursing and learning how to survive before leaving their mothers. Generally, wild manatees live to about 30 years of age.

Tips for boat, including personal watercraft, operators

- Observe and follow all boating regulatory zone signs.
- Wear polarized sunglasses so you can see where manatees are located underwater.
- Slow down. Reducing speed gives you a greater chance to avoid manatees and for them to avoid your vessel.
- Use marked channels when boating. Channel depth reduces the likelihood of crushing or hitting manatees in shallow waters.

Manatee Protection Zones

There are established zones to protect manatees from collisions with boats and harassment. Here are the typical signs found on Florida's waterways:



Idle Speed Zones

Designate a protected area where boats are not permitted to go any faster than necessary to maintain steerage and make headway while producing no wake.



Slow Speed Zones

Designate a protected area where boats must be fully off plane and completely settled and level in the water while moving with only minimum wake.



Motorboats Prohibited Zones

Designate a protected area that prohibits all entry by all power-driven vessels or those operating under mechanical means of propulsion.



No Entry Zones

Designate a protected area that prohibits all entry including boating, swimming, wading, fishing and diving activities.

Report collisions with manatees

You will not be cited if you accidently collide with a manatee while obeying posted speed zone restrictions. Please report any vessel collisions with manatees as soon as possible to increase the manatee's chance of survival.

Tips for paddlers

- Use caution when paddling near seagrass beds, sanctuaries or refuge area boundaries as manatees frequent these areas. Give manatees space to move freely in their habitat.
- Paddle your vessel to avoid traveling over resting manatees. Manatees must surface to breathe and will startle awake if you are in the way. Startled manatees may quickly flee the area, potentially moving into harm's way. Their quick movements can also cause small vessels to capsize.
- Lower your anchor slowly when securing your vessel as there may be resting manatees below.



Tips for divers and snorkelers

- Consider using snorkel gear when diving near manatees as the sound of air bubbles from SCUBA gear can disturb them.

Other ways to help manatees:

- Participate in coastal cleanup events.
- Attend boating safety classes or take online courses.
- Purchase a "Save the Manatee" license plate or collectible manatee decal from your tax collector's office or online.
- Dispose of monofilament line properly at line recycling bins or drop–off locations to avoid entangling manatees, birds, marine turtles and other marine life.


Karen Parker, FWC

Tips for viewing wild manatees

- Wear polarized sunglasses so you can see where manatees are located underwater.
- Watch manatees from a distance to limit disturbance. Be mindful of resting manatees.
- Never pursue, chase or disturb any manatee. If a manatee stops feeding, swims toward you or changes its behavior, you are too close.
- Speak quietly and avoid making loud noises when you are near wildlife areas to avoid disturbance.
- Do not separate a mother and calf.
- Watch out for "swirling" when manatees dive. The swirls look like a large "footprint" on the water's surface.
- Never offer food or water to manatees because it alters their foraging behavior and attracts them to areas where they may be harmed.
- Do not touch, remove or damage research equipment attached to manatees. The tag units help researchers monitor these manatees.



Manatees and the law

Manatees are protected by the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973 and the Florida Manatee Sanctuary Act of 1978. It is illegal to feed, harass, harm, pursue, hunt, shoot, wound, kill, annoy or molest manatees.

Examples of illegal activities include:

- Giving food or water to manatees, or using food or water to attract manatees
- Separating a mother and calf
- Disturbing manatee mating herds
- Pursuing or chasing manatees either while swimming or with a vessel
- Disturbing resting manatees
- Hitting, jumping on, standing on, holding on to or attempting to ride manatees
- Blocking a manatee's path
- Fishing for or attempting to hook or catch a manatee

Call the FWC's Wildlife Alert Hotline:
888-404-FWCC (3922)
#FWC on cell phones,
or text Tip@MyFWC.com
to report manatee deaths, injuries, harassment, accidents, or ones orphaned or distressed.



Follow us on:

Florida Fish and Wildlife Conservation Commission
MyFWC.com/Manatee
Division of Habitat and Species Conservation
Imperiled Species Management Section

12/2020

Florida Friendly Boating



Be friendly to wildlife

- **Never feed wild animals.** It is illegal, unhealthy, and trains wildlife to seek out boats, increasing the risk of injury. Avoid dumping leftover bait overboard.
- **Reduce disturbance.** Stay quiet and be aware of accidently separating manatee mother and calf pairs, disrupting mating herds, or blocking a manatee's path if it moves towards you.
- **Avoid injuries.** It is illegal to chase, hold, ride, jump on, or hit manatees or other wildlife. Never try to "fish" or attempt to catch birds, dolphins, manatees or sea turtles.
- **Avoid high manatee use areas.** Manatees can suffer from cold stress in the wintertime. If disturbed or chased out of warm water areas, it may cause death, illness or affect their ability to reproduce.

Look out below

Collisions with boats can cause injury and death among manatees, sea turtles and dolphins.

Manatees are an endangered species native to Florida, and are designated as the State's official marine mammal. They live in fresh, brackish and salt water areas, and eat aquatic vegetation such as seagrass. Because they must surface to breathe, many of these slow-moving creatures are injured or killed by boats each year.

How to recognize a manatee's presence:



- Look for a swirl on the water's surface
- Look for a tail or nose (usually the only parts of the manatee's body that break the surface of the water)
- Listen for their breath

Five species of **sea turtles** are found in Florida waters; all are either endangered or threatened. Sea turtles rest at or just below the surface of the water and must raise their heads out of the water to breathe.

How to recognize a sea turtle's presence:



- Look for a sea turtle's head or top portion of shell at the surface of the water.

What boaters can do

- **Wear polarized sunglasses.** Polarized lenses reduce reflected glare from the water and make it easier to see people, wildlife or objects underneath the surface.
- **Know the zones.** Abide by the speed regulations as posted. Idle speed no wake - minimum speed needed to maintain steerage. Slow speed minimum wake - fully off plane and settled in the water.
- **Use marked channels.** Greater water depth protects you, seagrass and wildlife.
- **Post a lookout.** Designate a person to watch for wildlife, other boaters, swimmers, or obstructions when the vessel is underway.
- **Save a life.** Properly discard or recycle fishing line and plastics, and use circle or non-stainless steel hooks to prevent wildlife injury or death due to ingestion or entanglement.

Wear a life jacket



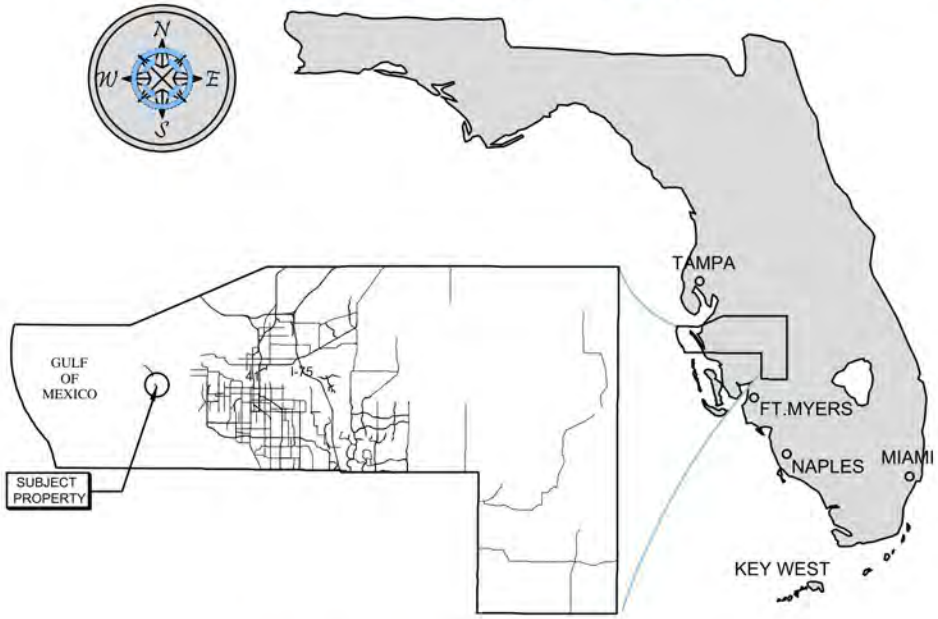
Wildlife Alert:
1-888-404-FWCC (3922)
cell *FWC or #FWC

Report sick, dead, or injured manatees or sea turtles, and any wildlife or boating law violations.

For more information go to MyFWC.com

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg LOCATION MAP 2/24/2025

STATE OF FLORIDA



MANATEE COUNTY



VICINITY MAP



COUNTY AERIAL

SITE ADDRESS:
<> 5630 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

<> LATITUDE: N 27.415609
<> LONGITUDE: W -82.659969

NOTES:
<> THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

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3584 Exchange Ave. Naples, FL 34104-3732
Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

LOCATION MAP

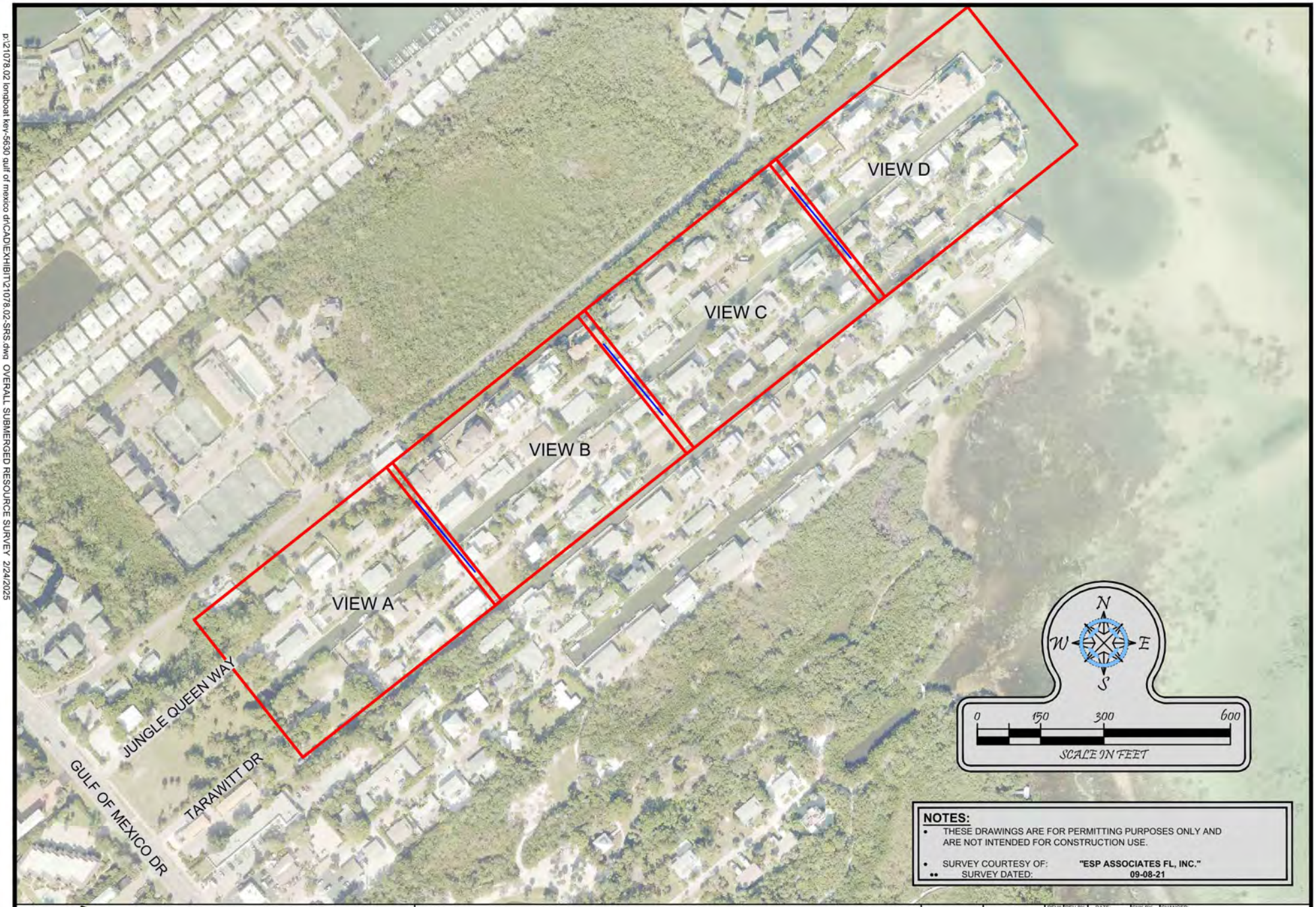
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CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	01 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg OVERALL SUBMERGED RESOURCE SURVEY 2/24/2025



NOTES:

- THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.
- SURVEY COURTESY OF: **"ESP ASSOCIATES FL, INC."**
- SURVEY DATED: **09-08-21**

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5630 GULF OF MEXICO DR

OVERALL SUBMERGED RESOURCE SURVEY

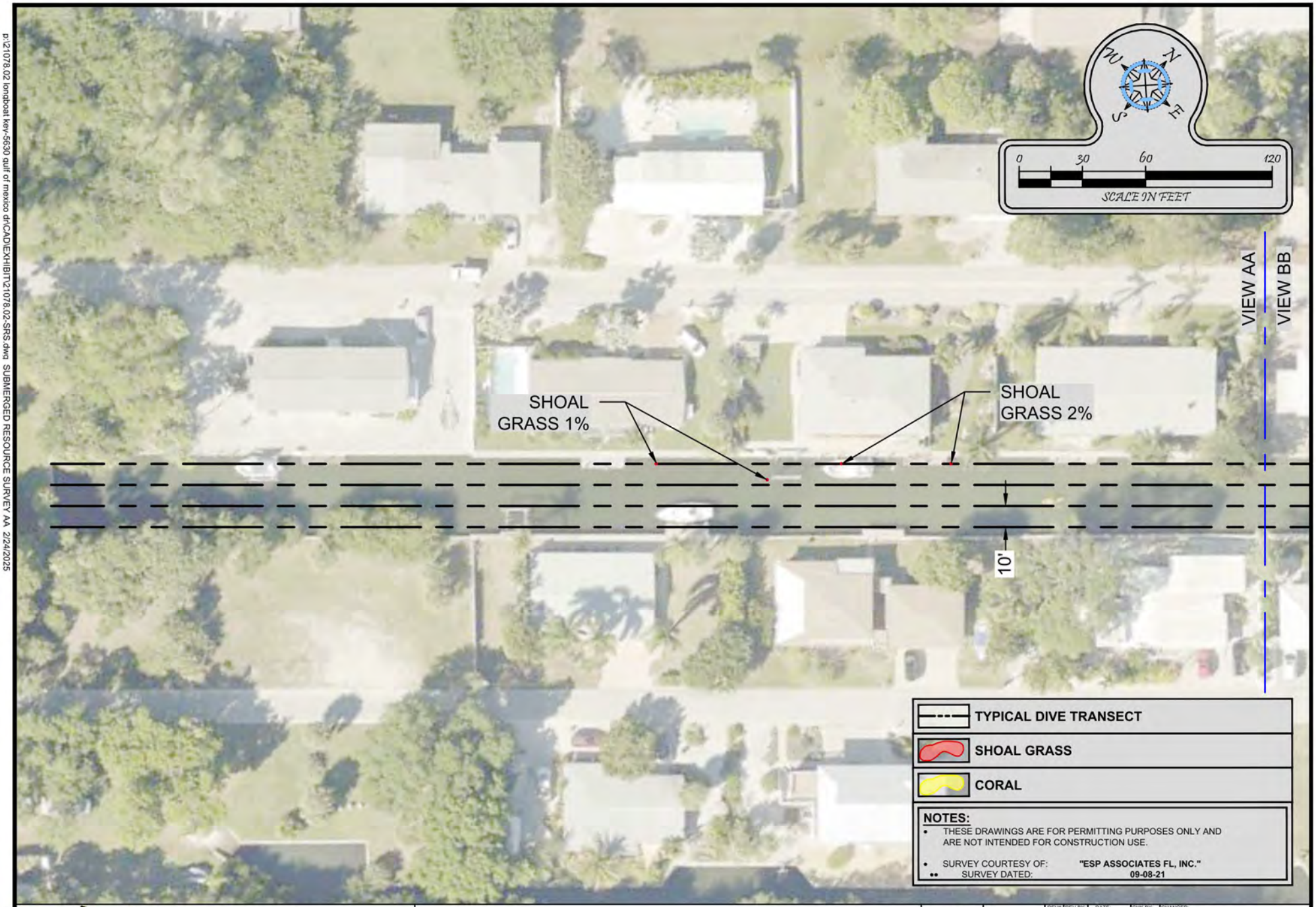
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JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	02 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

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Marine & Environmental Consulting
3584 Exchange Ave. Naples, FL 34104-3732
Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

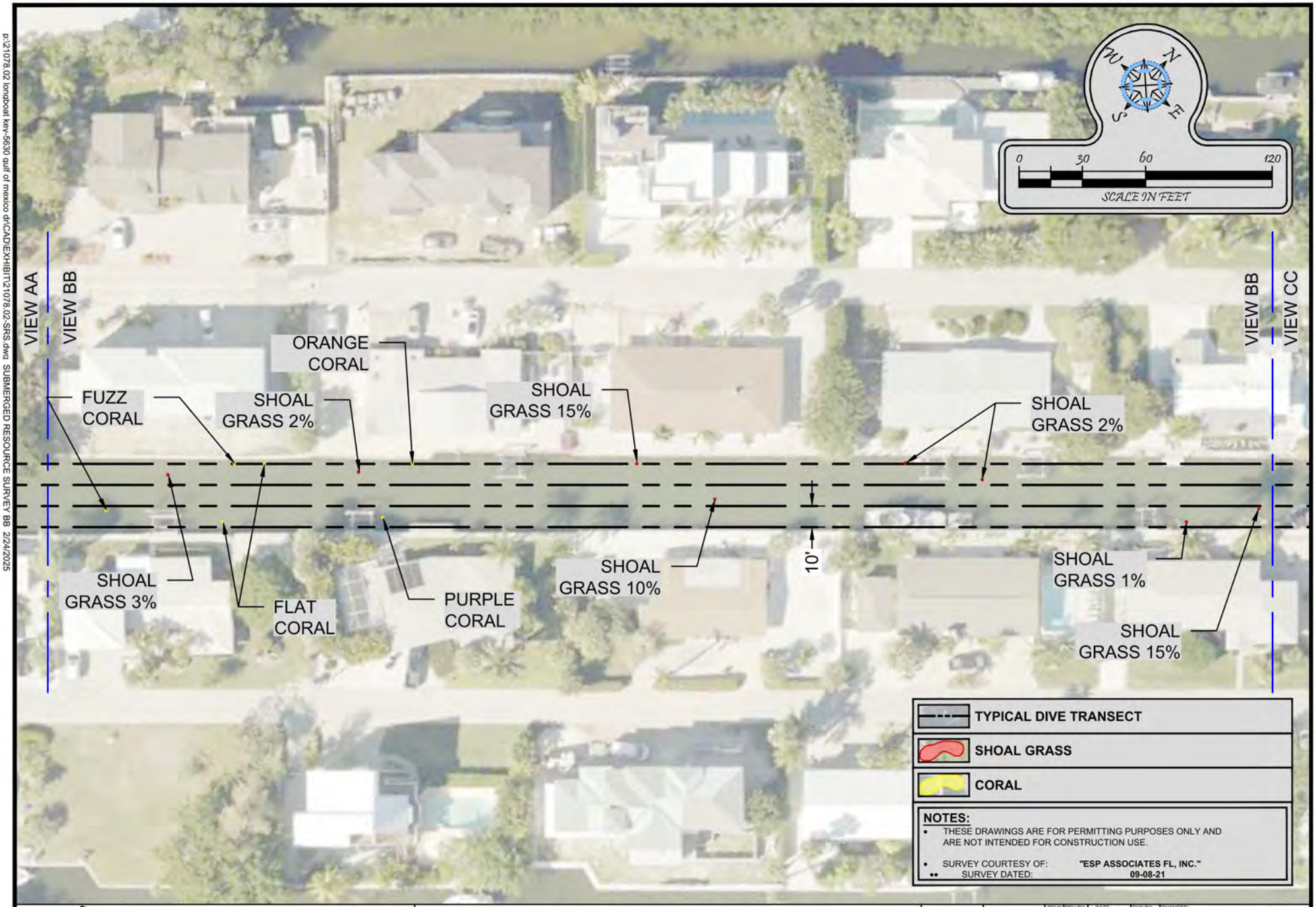
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DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
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SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E



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5630 GULF OF MEXICO DR

SUBMERGED RESOURCE SURVEY BB

RY NO. 5875

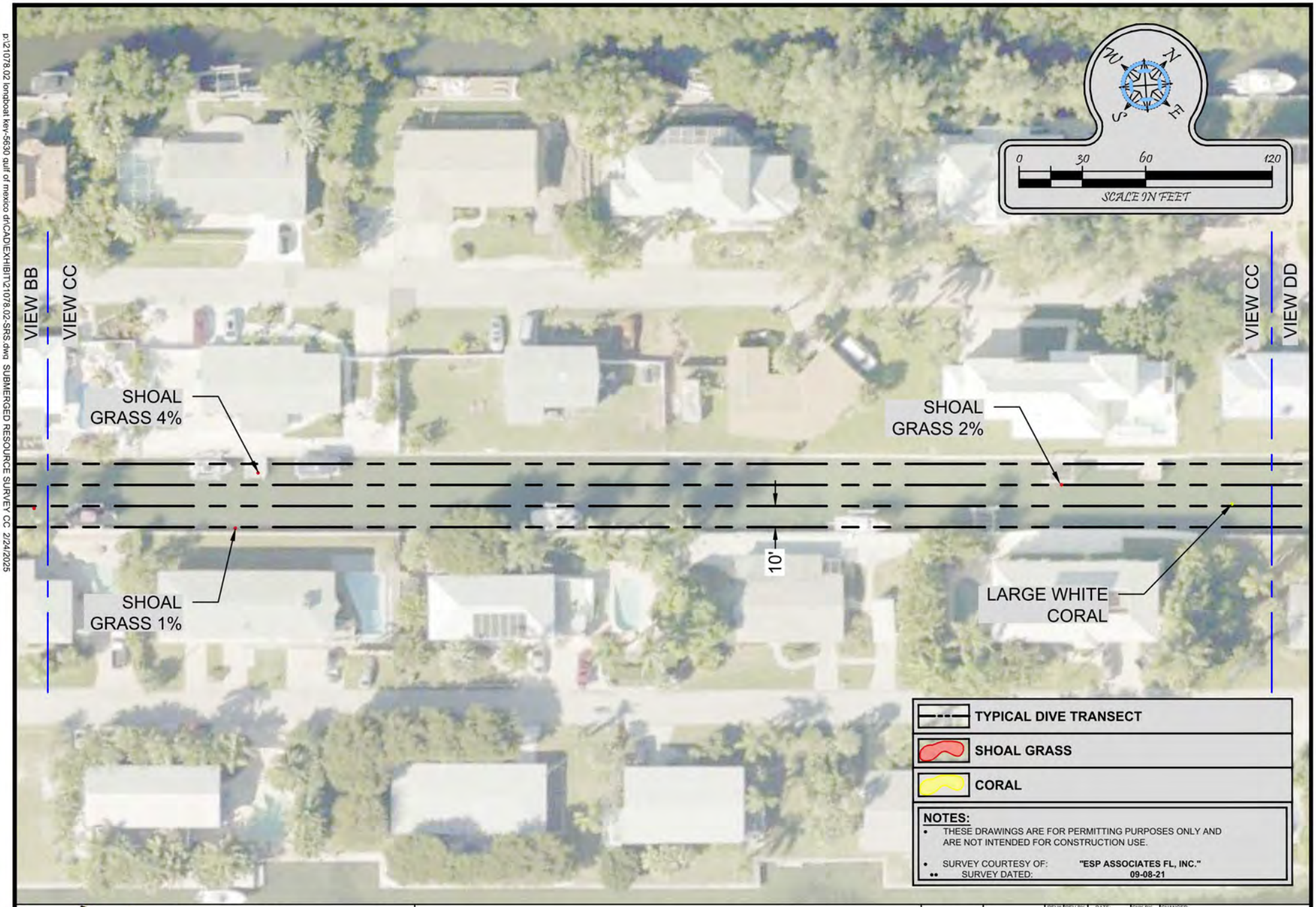
THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY	DATE	CHK BY	CHANGED
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	04 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

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p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg SUBMERGED RESOURCE SURVEY CC 2/24/2025



Turrell, Hall & Associates, Inc.
Marine & Environmental Consulting
3584 Exchange Ave. Naples, FL 34104-3732
Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

5630 GULF OF MEXICO DR

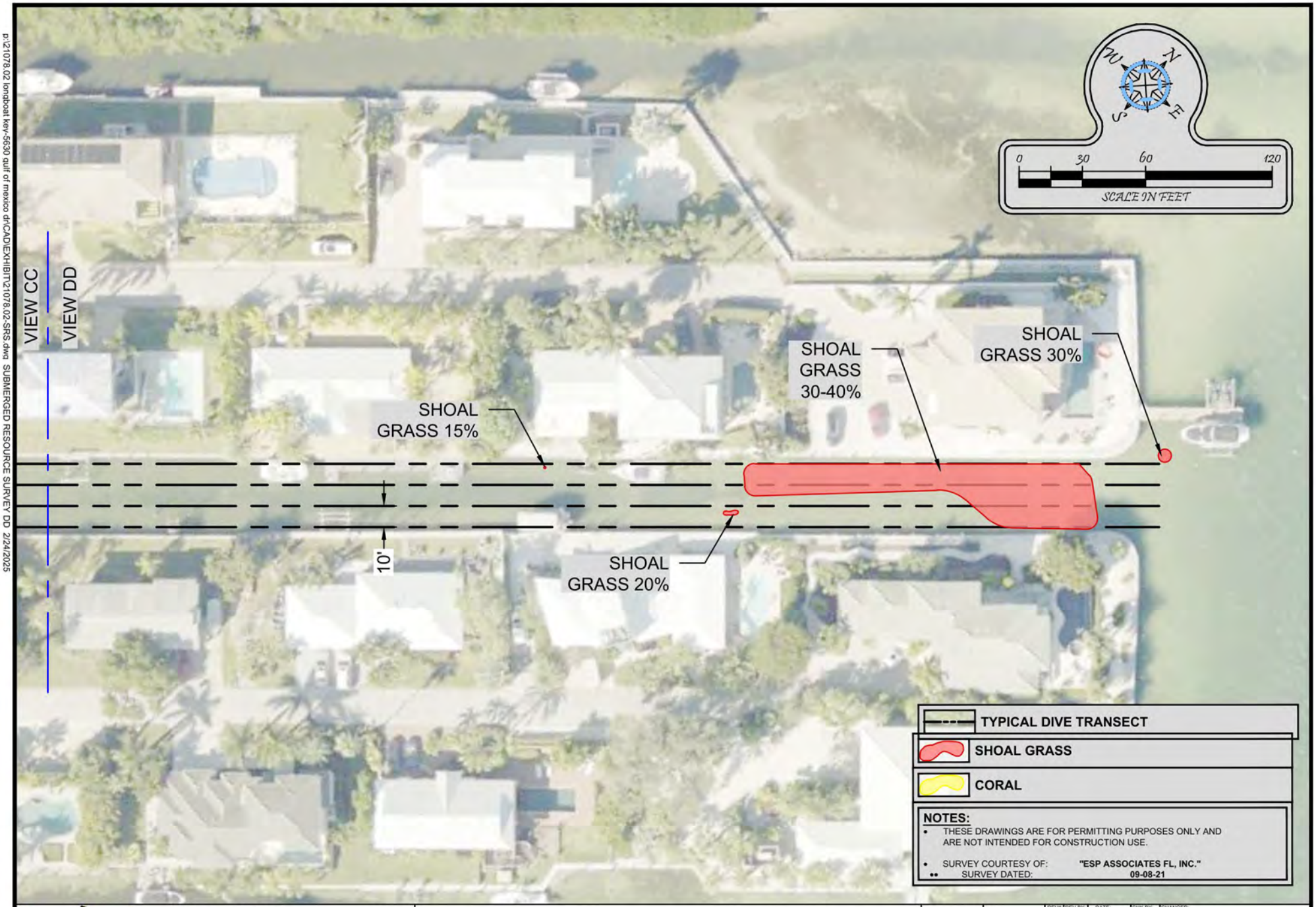
SUBMERGED RESOURCE SURVEY CC

RY NO. 5875

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		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	05 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E



p:\21078.02 longboat key-5630 gulf of mexico dr\CAD\EXHIBIT\21078.02-SRS.dwg SUBMERGED RESOURCE SURVEY DD 2/24/2025

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5630 GULF OF MEXICO DR

SUBMERGED RESOURCE SURVEY DD

RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

		REV#	REV BY:	DATE:	CHK BY:	CHANGED:
DESIGNED:	CH	1.	-	-	-	-
DRAWN BY:	RMJ	2.	-	-	-	-
CREATED:	02-24-25	3.	-	-	-	-
JOB NO.:	21078.02	4.	-	-	-	-
SHEET NO.:	06 OF 06	5.	-	-	-	-

SECTION- 24,25 TOWNSHIP- 35S RANGE- 16E

Town of Longboat Key
Planning, Zoning and Building Department
501 Bay Isles Road
Longboat Key, Florida 34228
941-316-1966
941-316-1970 FAX

PROPERTY OWNER AFFIDAVIT – AUTHORIZED AGENT

(I), (We) WB Longboat Key Residences, LLC as owner(s) of the property whose address and legal description is (enter legal address) 5630 GULF OF MEXICO DR.

hereby appoint BRUCE E. FRANKLIN as our Authorized Agent(s) to act on (my) (our) behalf for the request set forth below. (I), (We) understand that the agent may incur costs and expenses on our behalf in connection with (my) (our) request and agree to pay those fees and expenses in accordance with the Code of Ordinances of the Town of Longboat Key.

The nature of (my) (our) request is DREDGE & FILL PERMIT
(Site Development Plan, ODP Amendment, Variance, Zoning Determination, Special Exception, Permitting, etc.)

If this Affidavit is for an Association, please provide a copy of the Board Meeting minutes / authorization allowing the work to be completed.

SIGNATURE OF PROPERTY OWNER

Signature of Property Owner/Board Member Zdzisław W.

Printed/Typed Name of Property Owner/Board Member Wojciech Zukiewicz

Signature of Property Owner/Board Member _____

Printed/Typed Name of Property Owner/Board Member _____

Mailing Address of Property Owner(s) / Association: _____

Telephone Number: 941-402-9910 Email Address: WZukiewicz@WBfinance.cz

NOTARIZATION OF OWNER'S SIGNATURE

State of Florida

County of Manatee

The foregoing instrument was acknowledged before me by means of physical presence ☒ or online notarization ☐, this 30th day of January 2026 By Wojciech Zukiewicz

Signature of Notary Public E. Blythe

Printed/Stamped Name of Notary Public Yekaterina Blythe

Personally known ☒ OR produced identification ☐ Type of ID. _____

YEKATERINA BLYTHE
Notary Public - State of Florida
Commission # HH 363188
My Comm. Expires Feb 15, 2027
Bonded through National Notary Assn.

LRS
LAND RESOURCE STRATEGIES, LLC

June 16, 2026

Mr. Tate Taylor, Planner
Planning, Zoning & Building Department
Town of Longboat Key
501 Bay Isles Dr.
Longboat Key, FL 34228

Re: Narrative in Response to Section 152.04(E) approval criteria. Application P-DFIL-25-003

Dear Tate;

As requested, I am writing to provide a response to your comments, regarding the above referenced Dredge and Fill application;

The following item requires additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission.

Our response is as follows:

The "work" being permitted consists of seawall replacement and an expanded, seawalled basin to be dredged at the end of the canal located between Tarawitt Drive and Jungle Queen Way subject to Application P-DFIL-25-003.

The work is depicted on the construction plans submitted with the Application. The basin will be dredged from existing, vacant upland that does not include any wetland, mangroves, or other protected habitat or species. In addition, the end of the canal will be maintenance dredged to the -4' Mean High Water (MHW) level, assisting in flushing and providing a wider turn-around at the end of the canal.

The basin construction involves "dredging" subject to Code Section 152.04. You have requested we provide narrative findings on the following criteria as follows:

A. *The work proposed does or does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.*

RESPONSE: The proposed work is consistent with the applicable provisions of the Longboat Key Code, and with state and federal statutes and therefore does not violate any statute, zoning law, ordinance or other restrictions. A Town Building Permit will be subject to obtaining all applicable State and Federal permits.

The Town previously approved the adjacent residential project through approval of the Site Plan for the Evolve Longboat Key Residences. That Site Development Plan reflected the proposed boat basin and docks which are now subject of this dredge and fill application.

Compliance with state and federal statutes will be demonstrated through appropriate permits. Pursuant to § 166.033, Fla. Stat., the Town cannot withhold local development approval based on state and federal permit status, but construction cannot occur until all state and federal permits are received and a construction permit is issued by the Town as noted above..

The project has already received a "Letter of Permission" from the Army Corps of Engineers (SAJ-2024-00519). The project is currently awaiting final approval from the Southwest Florida Water Management District (SWFWMD)(File No. 889189). Both permits will be provided to the Town with the final construction permit applications.

B. Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.

RESPONSE: As demonstrated by the drawings and narrative responses provided, the proposed basin will not obstruct the natural flow of the navigable waters in the canal and proposes no obstruction to natural flow that could be harmful. In fact, flushing at the end of the canal is anticipated to be improved. The entire canal is seawalled, and the project could not, and therefore will not, create or increase erosion. The proposed basin will be seawalled, open to the existing canal and channel, and will not create shoaling or stagnant areas of water. The proposed maintenance dredging will reduce shoaling and the possibility for stagnant water at the end of the canal and flushing will be improved.

- *Please provide support information for the following statements provided in the most recent response to comments. Please provide responses to each finding of 152.04(B) as follows in addition to those provided:*

A. Harmful obstruction will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.

B. Harmful or increased erosion, shoaling of channels, or stagnant areas of water will not be created thereby.

Responses provided to the above findings and introductory narrative state in part that "flushing at the end of the canal will be improved." Please provide how flushing will be provided by this or as a result of this permit.

Response: JR Evans Engineering prepared a Flushing Analysis and is attached to this response submittal. Please see pages 4 & 5 of the report:

3.3 TIDAL FLUSHING MODEL

3.3.1 Desired Flushing

Flushing of the boat basin will occur when the tide in Sarasota Bay recedes to low tide levels. Water within the basin

flushes into Sarasota Bay until the tide begins to rise. Adequate flushing of the basin prevents the accumulation of

pollutants within the basin. Per Section 10.2.4.3 of Volume I of the Applicant's Handbook, the maximum desired flushing

time for docking facilities to reduce the concentration of a pollutant to ten percent of its original concentration is four

days. The volume of the boat basin at mean sea level after the proposed dredging is 7.02 acre-feet. *A complete*

exchange in the boat basins volume within 96 hours would indicate an adequate reduction to pollutant concentrations.

3.3.3 Flushing Model Results

The flushing simulation was run for 120 hours (5 days). The boat basin's flushing volume at a particular time can be

quantified by the outflow volume from the proposed boat basin node, Proposed Canal With Boat Basin, to Sarasota

Bay node. *The flushing model results shown in Figure 5 indicate that the proposed boat basin will exchange its total*

volume of 7.02 acre-feet (305,800 cubic feet) in 25.75 hours, 70.25 hours sooner than the desired time to reduce a pollutant to 10% of its initial concentration. **The ICPR4 Flushing Model results are provided in Exhibit 3.**

This information was sufficient for the US Army Corp of Engineers to issue permit No. SAJ-2024-00519(LP-EWG), a copy of which has been forwarded previously.

C. Harmful or increased erosion, shoaling of channels, or stagnant areas of water will or will not be creoted thereby.

RESPONSE: The entire canal is seawalled, and the project could not and therefore will not create or increase erosion. The basin is seawalled, open to the existing canal and channel, and will not create shoaling or stagnant areas of water. The proposed maintenance dredging will reduce shoaling and the possibility for stagnant water at the end of the canal. The project area is located at the end of a manmade canal that accumulates various vegetative debris and sediment that dredging will remove from the existing basin. The excavation of the new portion of basin will provide more open water area in the canal system for slightly increased flow capacity, thereby reducing shoaling of sand from Sarasota Bay.

D. Material injury or monetary damage to adjoining land will or will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.

RESPONSE: The basin will not cause any material injury or monetary damage to adjoining land. The basin is set back from adjacent property by at least 10'. The seawalls will prevent any erosion or other impacts to neighboring property from the basin.

The basin will not cause any impediment to navigation for existing users of the canal, as it is at the end of the canal. As demonstrated by the drawings (and consistent with Town regulations), none of the boats to be docked within the basin will extend into the canal. The end-of-canal turn-around area will actually be increased.

Given its location at the end of the canal, and its general configuration, the basin will not interfere with the conservation of fish, marine and wildlife or other natural resources. A Listed Species study has been performed and submitted; no listed species were found on the property and construction activities will be monitored for any that might occur. A proposed manatee protection plan has been submitted and will be provided to all slip owners which will help protect any manatees that might come into the canal during construction. The project area is located at the end of a manmade canal that accumulates various vegetative debris and sediment that dredging will remove

from the existing basin. The excavation of the new portion of basin will provide more open water area in the canal system for slightly increased flow capacity, thereby reducing shoaling of sand from Sarasota Bay.

E. Material injury or monetary damage will or will not occur to beaches and shores to such an extent as to be controry to the public interest, or result in the destruction of oyster beds, clam beds, or marine productivity.

RESPONSE: The basin will not injure or damage the Town's beaches and shores as it will occur in an upland, previously seawalled canal. There are no oyster or clam beds in the area to be dredged, and the basin will not otherwise destroy or damage marine productivity.

F. Material injury or monetary damage will or will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest

RESPONSE: The basin is to be dredged from upland areas at the end of an existing seawalled canal and will not involve, impact, or damage any natural marine habitats, grass flats, or established marine soils.

Tate, I believe the foregoing to be responsive to your request. However, if upon receipt and review you require additional information, please do not hesitate to call me.

Sincerely,

Bruce D. Franklin, President
Land Resource Strategies, LLC

JR EVANS ENGINEERING

December 22,2025

Mr. Tate Taylor, Planner
Town of Longboat Key
Planning, Zoning & Building
501 Bay Isles Road
Longboat Key, FL 34228

RE: Evolve - 5630 Gulf of Mexico /551 Tarawitt Drive – Dredge & Fill permit D-DFIL-25-003

Dear Tate;

This letter is in response to Town comments dated November 7, 2025. Please see our responses below each comment in **bold type**.

152.02 – Application; processing fees and costs

(A) A sworn application for a permit under this chapter, accompanied by the required filing fee and the exhibits provided herein, shall be made to the town manager or designee. The application shall contain the following unless the town manager or designee determines that one or more of the following are not applicable to the particular development: **(Note: original application has been submitted along with the required filing fee).**

(1) An accurate, legal description of the land to be filled or excavated prepared by a registered engineer, surveyor, or attorney at law.

Response: Please see attached a certified legal description and sketch of the land that is to be excavated for the project.

(2) An accurate, legal description of the land or submerged land from which fill material is to be dredged or excavated, if any. The description shall be prepared by a registered engineer, surveyor, or attorney-at-law. If no material is to be dredged or excavated, the application shall so state.

Response: Please see attached a certified legal description and sketch of the submerged land that is to be dredged/excavated for the project. The submerged land to be dredged represents the area below Mean High Water Line.

(3) An accurate estimate of the area of submerged land to be filled made by a registered engineer or surveyor.

Response: There is no area of submerged land to be filled as part of this project.

(4) An accurate estimate of the amount and type of fill required for the proposed project, made by a registered engineer.

Response: There is no area of land that is proposed to be filled as part of this project.

(5) The names and addresses of all persons owning or holding any legal or equitable interest in the lands described pursuant to subsections (A)(1) and (2) of this section, as shown by the public records of the county in which the lands are located.
Response: WB Longboat Key Residences, LLC, 1819 Main St., Ste 107, Sarasota, FL 34236

(6) The names and addresses of all persons owning lands bordering on, or adjacent to, the mean high-water line within 1,000 feet of the areas to be filled and dredged, as shown by the latest tax assessment roll in the county in which the lands are located.
Response: Refer to attached list.

(7) Satisfactory evidence of fee simple title to lands described pursuant to subsection (A)(1), and satisfactory evidence of the ownership of lands described pursuant to subsection (A)(2). Evidence of tax records required herein shall be by sworn certificate of a duly-licensed attorney-at-law, a reputable abstract company, or by the county tax collector or assessor.
Response: Refer to attached Warranty Deed and Corrective Special Warranty Deed

152.03 – Plans and drawings

The applicant for a permit under this chapter shall furnish an accurate plan or drawing prepared by a registered engineer showing and designating all areas described in the application and complying with the following requirements:

(A) Showing the mean high-water line of all land areas.
Response: The Mean-High-Water Line is identified on Sheets S100 and S101 of the attached Construction Plans.

(B) Showing the bulkhead line as established by law.
Response: The existing seawall/bulkhead line is depicted on the Construction Plans and Survey.

(C) Showing sufficient soundings of the depth of water to show the general topography of the areas to be dredged and filled.
Response: As shown on Sheet C101 of the Construction Plans, there are existing bathymetric elevations (FT-NAVD) within the canal obtained from a field survey. The attached Survey also depicts the bathymetric elevations and data.

(D) Showing sufficient soundings of the depth of water to fill material available for dredging in the area to be dredged.
Response: As shown on Sheet C101 of the Construction Plans, there are existing bathymetric elevations (FT-NAVD) within the canal obtained from a field survey. The enclosed Survey also depicts the bathymetric elevations and data

(E) Showing the elevation of the proposed fill above the mean high-water line after completion.
Response: There is no fill proposed for this project.

(F) Showing the specifications of bulkheading and sea-walling around the area to be filled if required.

Response: Please see enclosed signed and sealed Construction Plans, providing the specifications of the proposed and replacement seawall.

(G) Showing any other matters and meeting any other requirements the town manager or designee may reasonably require in order that a comprehensive and complete plan of the proposed construction is presented.

Response: Unknown

152.04 – Issuance; revocation

(A) Upon receipt of four copies of an application and all other matters required in this chapter, the town manager or designee shall evaluate and determine the appropriateness and completeness of the application. Within 90 days of the submission of a valid, complete application the town commission shall hold a public hearing on the application.
Response: Acknowledged

(B) Upon consideration, if the commission finds that the work proposed in the application does not violate any statute, zoning law, ordinance, or other restriction which may be applicable thereto **(NO);** no harmful obstruction to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction **(NO);** no harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created thereby**(NO);** no material injury or monetary damage to adjoining land will accrue therefrom, or result in a serious impediment to navigation, interfere with the conservation of fish, marine and wildlife or other natural resources, including beaches and shores to such an extent as to be contrary to the public interest, or result in the destruction of oyster beds, clam beds, or marine productivity, including but not limited to destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest, the application may be approved subject to the formal approval of the agency of the state having jurisdiction.
Response: Please see enclosed a Listed Species Survey Report for the property and project, which contains site-specific information and evaluation of the project on any existing environmental resources. Based on the Public Interest assessment, the proposed canal expansion will not adversely affect fish, wildlife, or other natural resources. The project site has been previously impacted and does not support nesting or denning wildlife. No seagrass or submerged aquatic resources are present within the project footprint. The proposed dredging will improve in-water habitat and enhance flushing, reducing the potential for water quality degradation. The project will comply with all applicable local, state, and federal regulatory requirements, and recreational boating will occur outside the project boundary with appropriate resource mapping and manatee education provided to slip owners.

Comments
Below are areas that require additional information. In addition, please provide an overall introduction narrative of the proposal, what is to be accomplished and what is ultimately proposed for the property and development including the number of boat slips this will be providing and why.

Public Works:

1. Please provide the state and federal permits for this project for review by the Town.

Response: Pending permits are: US Army Corps of Engineers No. SAJ-2024-00519-EWG; and Southwest Florida Water Management District File No. 889189. Note: LDC Section 152.04(B) … "the application may be approved subject to the formal approval of the agency of the state having jurisdiction".

2. Please provide information on how this project impacts on the existing drainage in this area. (ie existing drainage pipes, outfalls, structures, etc.)
Response 2: The project does not adversely impact the existing drainage in this area. There is an existing 18" reinforced concrete storm pipe that currently extends from a roadway inlet along Tarawitt Drive northwest to the existing seawall and canal. The proposed project will result in shortening the length of the existing 18" storm pipe and accommodating the outfall with the new seawall. The existing drainage pattern will remain consistent with pre-project conditions.

Planning and Zoning:

• Please provide an overall introductory narrative describing the proposal, outlining its objectives, the intended improvements for the property, and the ultimate development plan. Include the total number of proposed boat slips and the rationale for that number.
Response: The proposed boat basin was conceptually shown on the Site Plan at the time of approval and is now being processed with this Dredge & Fill permit application for construction. The objective is to build the basin/docks and the intended improvements are reflected in the plans and revisions submitted. As reflected on the construction plans submitted, there are 8 boat slips correlating with the 8 units in the Evolve condominium approved for the same property. These are to be allocated to each residential unit for use by the owners and their guests. This will not be a commercial operation. Rules and regulations for basin/dock usage will be established in the Condominium documents.

• Please provide relevant construction plans (i.e. "refer to construction plans").
Response: Please see the Construction Plans specific to the canal expansion, proposed seawall and boat docks submitted with the original application and as revised with this submittal.

• Please provide a site plan depicting the residential project and the related dredge area.
Response: Please see the attached overall Site Plan which includes the Evolve condominium, and the proposed boat basin/docks.

• Please provide responses and materials pursuant to Chapter 152 Town Code Dredging and Filling, including 152.02, 152.03, and demonstration of compliance with the Commission Finding of 152.04(B).
Response: Please see responses to Sections 152.02, 152.03 and 153.04. Additionally, as noted above, please see enclosed a Listed Species Survey Report for the property and project, which contains site-specific information and evaluation of the project on any existing environmental resources. Based on the Public Interest assessment, the proposed canal expansion will not adversely affect fish, wildlife, or other natural resources. The project site has been previously impacted and does not support nesting or denning wildlife. No seagrass or submerged aquatic resources are present within the project footprint. The proposed dredging will improve in-water habitat and enhance flushing, reducing the potential for water quality degradation. The project will comply with all applicable local, state, and federal regulatory

requirements, and recreational boating will occur outside the project boundary with appropriate resource mapping and manatee education provided to slip owners.

• Please explain what is intended for the spoil area shown on pg. C101 provided.
Response: The spoil area is intended to represent a location for the temporary placement of the excavated material to be subsequently removed from the site. It is not a permanent feature.

• Provide a legend on the plans to denote what is being shown, ie. Land, water, excavation area etc.
Response: Please see the enclosed Construction Plans, Sheet C101, which includes a legend denoting those types of areas.

• Please clearly provide on the plans what seawall is existing and what is proposed.
Response: Please see the enclosed Construction Plans which incorporate additional labels and notes to clearly identify the existing seawall and proposed and/or replacement seawall.

• Please provide the proposed dimensions, square footage, and total square footage of the proposed docks.
Response: Please see the enclosed Construction Plans, Sheet C100, which includes dimensions and areas of the components of the dock system, including finger docks and boatlifts.

• Please provide a survey for the property.
Response: Please see attached Survey of the property.

• Please provide a site plan for the area with yard (proposed setbacks) dimensions shown from all property lines.
Response: Please see the attached Construction Plans, Sheet C104, which includes dimensions for setbacks from the seawall and docks to property lines.

• Please provide the proposed height of the seawall in NAVD.
Response: Please see the enclosed Construction Plans, Sheet S101, which includes a label for the top of cap elevation of 4.50 FT-NAVD.

• Please note: Seawalls, Docks, and Lifts require separate permitting for construction.
Response: Acknowledged.

Please feel free to contact me if you have any further questions. Thank you for your assistance.

Sincerely,

Elizabeth Fountain, P.E., CFM
Senior Vice President
FL License No. 60077

LRS
LAND RESOURCE STRATEGIES, LLC

April 27, 2026

Mr. Tate Taylor, Planner
Planning, Zoning & Building Department
Town of Longboat Key
501 Bay Isles Dr.
Longboat Key, FL 34228

Re: Narrative in Response to Section 152.04(E) approval criteria. Application P-DFIL-25-003

Dear Tate;

As requested, I am writing to provide a response to your last comment received March 23, 2026, regarding the above referenced Dredge and Fill application;

The following item requires additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission.

Our response is as follows:

The "work" being permitted consists of seawall replacement and an expanded, seawalled basin to be dredged at the end of the canal located between Tarawitt Drive and Jungle Queen Way subject to Application P-DFIL-25-003.

The work is depicted on the construction plans submitted with the Application. The basin will be dredged from existing, vacant upland that does not include any wetland, mangroves, or other protected habitat or species. In addition, the end of the canal will be maintenance dredged to the -4' Mean High Water (MHW) level, assisting in flushing and providing a wider turn-around at the end of the canal.

The basin construction involves "dredging" subject to Code Section 152.04. You have requested we provide narrative findings on the following criteria as follows:

A. The work proposed does or does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.

RESPONSE: The proposed work is consistent with the applicable provisions of the Longboat Key Code, and with state and federal statutes and therefore does not violate any statute, zoning law, ordinance or other restrictions.

The Town previously approved the adjacent residential project through approval of the Site Plan for the Evolve Longboat Key Residences. That Site Development Plan reflected the proposed boat basin and docks which are now subject of this dredge and fill application.

Compliance with state and federal statutes will be demonstrated through appropriate permits. Pursuant to § 166.033, Fla. Stat., the Town cannot withhold local development approval based on state and federal permit status, but construction cannot occur until all state and federal permits are received and a construction permit is issued by the Town.

The project has already received a "Letter of Permission" from the Army Corps of Engineers (SAJ-2024-00519). The project is currently awaiting final approval from the Southwest Florida Water Management District (SWFWMD)(File No. 889189). Both permits will be provided to the Town with the final construction permit applications.

B. Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.

RESPONSE: As demonstrated by the drawings and narrative responses provided, the proposed basin will not obstruct the natural flow of the navigable waters in the canal and proposes no obstruction to natural flow that could be harmful. In fact, flushing at the end of the canal is anticipated to be improved.

C. Harmful or increased erosion, shoaling of channels, or stagnant areas of water will or will not be created thereby.

RESPONSE: The entire canal is seawalled, and the project could not and therefore will not create or increase erosion. The proposed basin will be seawalled, open to the existing canal and channel, and will not create shoaling or stagnant areas of water. The proposed maintenance dredging will reduce shoaling and the possibility for stagnant water at the end of the canal and flushing will be improved.

D. Material injury or monetary damage to adjoining land will or will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.

RESPONSE: The basin will not cause any material injury or monetary damage to adjoining land. The basin is set back from adjacent property by at least 10'. The seawalls will prevent any erosion or other impacts to neighboring property from the basin.

The basin will not cause any impediment to navigation for existing users of the canal, as it is at the end of the canal. As demonstrated by the drawings (and consistent with Town regulations), none of the boats to be docked within the basin will extend into the canal. The end-of-canal turn-around area will actually be increased.

Given its location at the end of the canal, and its general configuration, the basin will not interfere with the conservation of fish, marine and wildlife or other natural resources. A Listed Species study has been performed and submitted; no listed species were found on the property and construction activities will be monitored for any that might occur. A proposed manatee protection plan has been submitted and will be provided to all slip owners which will help protect any manatees that might come into the canal during construction.

E. Material injury or monetary damage will or will not occur to beaches and shores to such an extent as to be contrary to the public interest, or result in the destruction of oyster beds, clam beds, or marine productivity.

RESPONSE: The basin will not injure or damage the Town's beaches and shores as it will occur in an upland area of the existing and previously seawalled canal. There are no oyster or clam beds in the area to be dredged, and the basin will not otherwise destroy or damage marine productivity.

F. Material injury or monetary damage will or will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest

RESPONSE: The basin is to be dredged from upland areas at the end of an existing seawalled canal and will not involve, impact, or damage any natural marine habitats, grass flats, or established marine soils.

Tate, I believe the foregoing to be responsive to your request. However, if upon receipt and review you require additional information, please do not hesitate to call me.

Sincerely,

Bruce E. Franklin, President
Land Resource Strategies, LLC

LRS
LAND RESOURCE STRATEGIES, LLC

May 26, 2026

Mr. Tate Taylor, Planner
Planning, Zoning & Building
Town of Longboat Key
501 Bay Isles Road
Longboat Key, FL 34228

Re; Dredge & Fill Permit – P-DFIL – 25 – 003

Dear Tate;

I am writing to provide responses to your Completeness Review comments received May 6, 2026 as follows:

Planning and Zoning

• Please provide support information for the following statements provided in the most recent response to comments. Please provide responses to each finding of 152.04(B) as follows:

A. Harmful obstruction will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.

B. Harmful or increased erosion, shoaling of channels, or stagnant areas of water will not be created thereby.

Responses provided to the above findings and introductory narrative state in part that "flushing at the end of the canal will be improved." Please provide how flushing will be provided by this or as a result of this permit.

Response: JR Evans Engineering prepared a Flushing Analysis and it is attached to this response submittal.

C. Material injury or monetary damage to adjoining land will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.

Response provided to the above finding C. narrative states in part that "the proposed maintenance dredging will reduce shoaling". Please provide what type of shoaling is being referred to, and how the shoaling will be reduced by this or as a result of this permit.

Response: The project area is located at the end of a man-made canal that accumulates various vegetative debris and sediment that dredging will remove from the existing basin. The excavation of the new portion of basin will provide more open water area in the canal system for slightly increased flow capacity, thereby reducing shoaling of sand from Sarasota Bay.

E. Material injury or monetary damage will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest

Response provided to the above finding E. states in part that "the basin will not otherwise destroy or damage marine productivity". Please provide what type of marine productivity, other than oyster or clam beds, is either not present or will not be destroyed or damaged by this or as a result of this permit.

Response: Seagrass is present elsewhere in the canal, but not within or near the basin footprint proposed for dredging. The proposed basin will increase open-water surface area, and the pilings and seawall will add new substrate at the end of the canal that can support marine growth.

F. Material injury or monetary damage will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest

Response provided to the above finding F. states in part that "The basin is to be dredged from upland areas". Are there not other areas than the new basin area to be dredged as part of this application? Also, the narrative provided states that the basin to be dredged "will not involve, impact, or damage any natural marine habitats, grass flats, or established marine soils". Please provide how natural marine habitats, grass flats, or established marine soils will not be impacted as a result of this permit.

Response: The existing upland area subject to the permit is to be excavated for the new boat basin and docks. Submerged land subject to the permit is to be dredged. No seagrass or other submerged aquatic resources are present within the dredge footprint. All dredging proposed in the man-made canal is an area without natural marine habitat and the dredging will remove debris and

sediment that has accumulated in this area over time. Dredging is proposed to re-establish the -4.0' contour that is consistent with the remainder of the canal and its historic depths.

Tate, I believe the foregoing is responsive to your comments. Please let me know otherwise. Thank you for your assistance.

Sincerely,

Bruce E. Franklin, President
Land Resource Strategies, LLC

JR EVANS ENGINEERING

Mr. Tate Taylor, Planner
Planning, Zoning & Building Dept.
Town of Longboat Key
Longboat Key, FL 34228

February 18, 2026

RE: 5630 Gulf of Mexico /551 Tarawitt Drive

Dear Mr. Taylor;

This letter is in response to your comments dated January 27, 2026. Our responses are below with each response in **bold**.

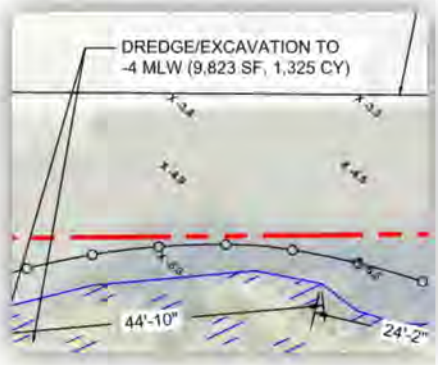
Public Works

1. Please provide the state and federal permits for this project for review by the Town. **Please see letter from Bruce Franklin dated February 19, 2026 included with this re-submission.**

Planning and Zoning

- Please clarify if there are listed species found or not. Response states that there were several alligators.
  Response: Please see enclosed an updated version of the Environmental and Listed Species Survey report, page 5, Discussion, Section 5.2.1, which was in error and has been corrected to state that no alligators were observed during the site investigations and are not expected to be present in the future.

- Construction plans do not provide the depths of the proposed dredge.
  Response: Please see Sheet C101 of the Construction Plans submitted, which indicates that the proposed dredge depth is to (-)4 FT Mean Low Water Line (MLWL). Please see screenshot below from Plan Sheet C101.



- Please provide the location of the approved spoil disposal.
  Response: The permanent location of the spoil disposal has not been determined at this time and will be included in the permit application for actual construction to be filed by the selected Contractor.

  Please correct conflict between Engineer and Environmental report regarding what State and Federal agencies are reviewing.
  Response: Please refer to the Introduction, page 1. of the enclosed and updated version of the Environmental and Listed Species Survey report, which has been corrected to identify the coordination efforts with the applicable permitting agencies: Southwest Florida Water Management District (SWFWMD), the Florida Fish & Wildlife Conservation Commission (FWC), and an Individual Permit application being reviewed by the United States Army Corps of Engineers (USACE).

Please contact me if you have any further questions. Thank you.

Sincerely,

Elizabeth Fountain, P.E., CFM
Senior Vice President
FL License No. 60077

LRS
LAND RESOURCE STRATEGIES, LLC

April 27, 2026

Mr. Tate Taylor, Planner
Planning, Zoning & Building Department
Town of Longboat Key
501 Bay Isles Dr.
Longboat Key, FL 34228

Re: Narrative in Response to Section 152.04(E) approval criteria. Application P-DFIL-25-003

Dear Tate;

As requested, I am writing to provide a response to your last comment received March 23, 2026, regarding the above referenced Dredge and Fill application;

The following item requires additional information. Please provide clear and complete narrative responses explaining how the application affirmatively supports the Findings of Fact listed below. Please note that these Findings of Fact serve as a basis for consideration by the Town Commission.

Our response is as follows:

The "work" being permitted consists of seawall replacement and an expanded, seawalled basin to be dredged at the end of the canal located between Tarawitt Drive and Jungle Queen Way subject to Application P-DFIL-25-003.

The work is depicted on the construction plans submitted with the Application. The basin will be dredged from existing, vacant upland that does not include any wetland, mangroves, or other protected habitat or species. In addition, the end of the canal will be maintenance dredged to the -4' Mean High Water (MHW) level, assisting in flushing and providing a wider turn-around at the end of the canal.

The basin construction involves "dredging" subject to Code Section 152.04. You have requested we provide narrative findings on the following criteria as follows:

A. The work proposed does or does not violate any statute, zoning law, ordinance, or other restrictions which may be applicable thereto.

RESPONSE: The proposed work is consistent with the applicable provisions of the Longboat Key Code, and with state and federal statutes and therefore does not violate any statute, zoning law, ordinance or other restrictions.

The Town previously approved the adjacent residential project through approval of the Site Plan for the Evolve Longboat Key Residences. That Site Development Plan reflected the proposed boat basin and docks which are now subject of this dredge and fill application.

Compliance with state and federal statutes will be demonstrated through appropriate permits. Pursuant to § 166.033, Fla. Stat., the Town cannot withhold local development approval based on state and federal permit status, but construction cannot occur until all state and federal permits are received and a construction permit is issued by the Town.

The project has already received a "Letter of Permission" from the Army Corps of Engineers (SAJ-2024-00519). The project is currently awaiting final approval from the Southwest Florida Water Management District (SWFWMD)(File No. 889189). Both permits will be provided to the Town with the final construction permit applications.

B. Harmful obstruction will or will not occur to, or alteration of, the natural flow of the navigable waters within the area will arise from the proposed construction.

RESPONSE: As demonstrated by the drawings and narrative responses provided, the proposed basin will not obstruct the natural flow of the navigable waters in the canal and proposes no obstruction to natural flow that could be harmful. In fact, flushing at the end of the canal is anticipated to be improved.

C. Harmful or increased erosion, shoaling of channels, or stagnant areas of water will or will not be created thereby.

RESPONSE: The entire canal is seawalled, and the project could not and therefore will not create or increase erosion. The proposed basin will be seawalled, open to the existing canal and channel, and will not create shoaling or stagnant areas of water. The proposed maintenance dredging will reduce shoaling and the possibility for stagnant water at the end of the canal and flushing will be improved.

D. Material injury or monetary damage to adjoining land will or will not accrue therefrom, or result in a serious impediment to navigation, interfering with the conservation of fish, marine and wildlife or other natural resources.

RESPONSE: The basin will not cause any material injury or monetary damage to adjoining land. The basin is set back from adjacent property by at least 10'. The seawalls will prevent any erosion or other impacts to neighboring property from the basin.

The basin will not cause any impediment to navigation for existing users of the canal, as it is at the end of the canal. As demonstrated by the drawings (and consistent with Town regulations), none of the boats to be docked within the basin will extend into the canal. The end-of-canal turn-around area will actually be increased.

Given its location at the end of the canal, and its general configuration, the basin will not interfere with the conservation of fish, marine and wildlife or other natural resources. A Listed Species study has been performed and submitted; no listed species were found on the property and construction activities will be monitored for any that might occur. A proposed manatee protection plan has been submitted and will be provided to all slip owners which will help protect any manatees that might come into the canal during construction.

E. Material injury or monetary damage will or will not occur to beaches and shores to such an extent as to be contrary to the public interest, or result in the destruction of oyster beds, clam beds, or marine productivity.

RESPONSE: The basin will not injure or damage the Town's beaches and shores as it will occur in an upland area of the existing and previously seawalled canal. There are no oyster or clam beds in the area to be dredged, and the basin will not otherwise destroy or damage marine productivity.

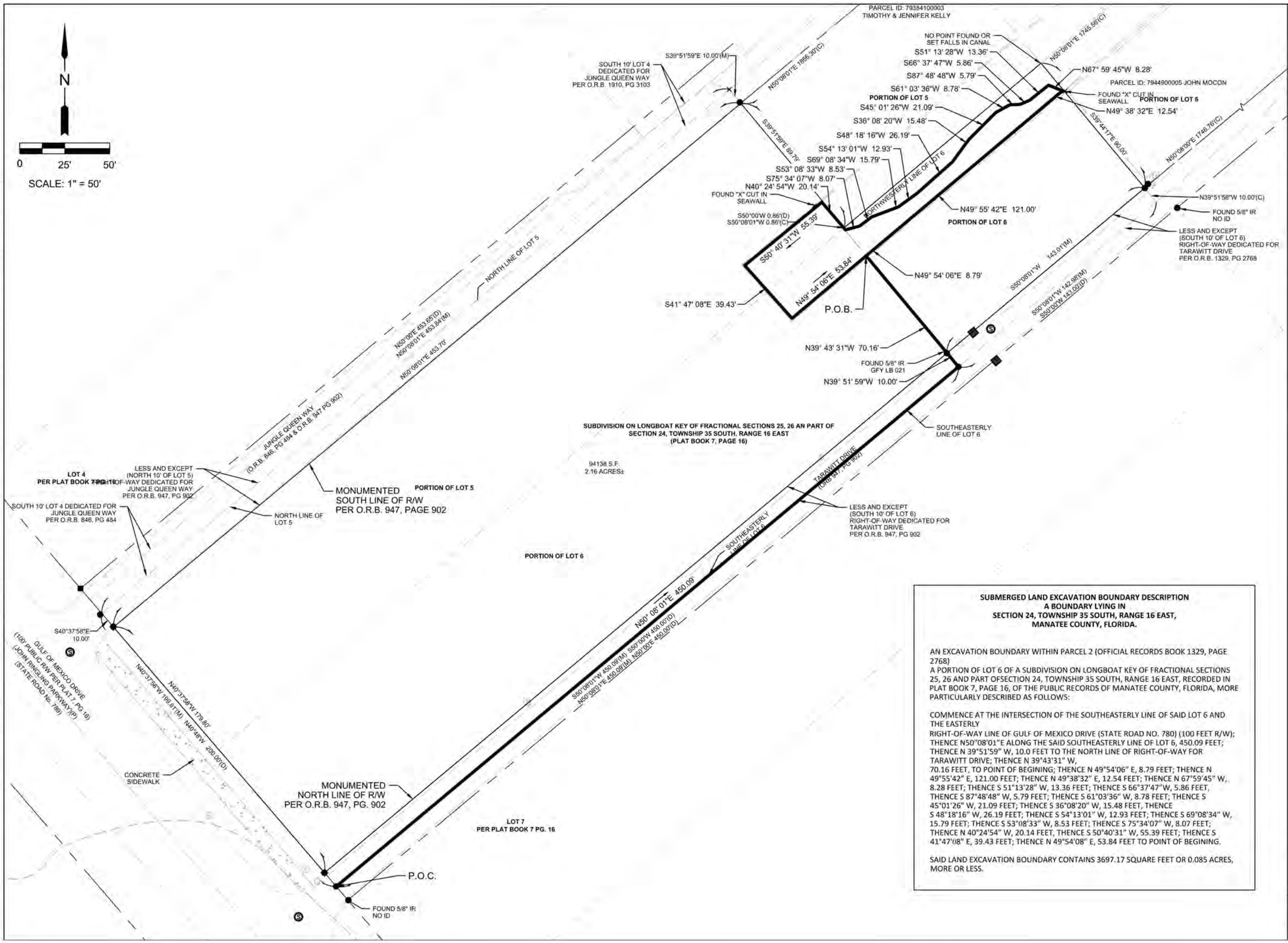
F. Material injury or monetary damage will or will not result in the destruction of natural marine habitats, grass flats suitable as nursery feeding grounds for marine life, and established marine soils suitable for producing plant growth of a type useful as nursery or feeding grounds for marine life to such an extent as to be contrary to the public interest

RESPONSE: The basin is to be dredged from upland areas at the end of an existing seawalled canal and will not involve, impact, or damage any natural marine habitats, grass flats, or established marine soils.

Tate, I believe the foregoing to be responsive to your request. However, if upon receipt and review you require additional information, please do not hesitate to call me.

Sincerely,

Bruce E. Franklin, President
Land Resource Strategies, LLC



SUBMERGED LAND EXCAVATION BOUNDARY DESCRIPTION
A BOUNDARY LYING IN
SECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST,
MANATEE COUNTY, FLORIDA.

AN EXCAVATION BOUNDARY WITHIN PARCEL 2 (OFFICIAL RECORDS BOOK 1329, PAGE 2768)
A PORTION OF LOT 6 OF A SUBDIVISION ON LONGBOAT KEY OF FRACTIONAL SECTIONS 25, 26 AND PART OFSECTION 24, TOWNSHIP 35 SOUTH, RANGE 16 EAST, RECORDED IN PLAT BOOK 7, PAGE 16, OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTHEASTERLY LINE OF SAID LOT 6 AND THE EASTERLY
RIGHT-OF-WAY LINE OF GULF OF MEXICO DRIVE (STATE ROAD NO. 780) (100 FEET R/W); THENCE N50°08'01"E ALONG THE SAID SOUTHEASTERLY LINE OF LOT 6, 450.09 FEET; THENCE N 39°51'59" W, 10.0 FEET TO THE NORTH LINE OF RIGHT-OF-WAY FOR TARAWITT DRIVE; THENCE N 39°43'31" W,
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SAID LAND EXCAVATION BOUNDARY CONTAINS 3697.17 SQUARE FEET OR 0.085 ACRES, MORE OR LESS.

JR EVANS ENGINEERING

JR EVANS ENGINEERING, P.A.
9961 INTERSTATE COMMERCE DR, STE. 230
FT MYERS, FLORIDA 33913
PHONE: (239) 405-9148
FAX: (239) 288-2537
WWW.JREVANSENGINEERING.COM

5630 GULF OF MEXICO DRIVE, TOWN OF LONGBOAT KEY FL.

5630 GULF OF MEXICO DRIVE,
TOWN OF LONGBOAT KEY FL.
SUBMERGED LAND EXCAVATION BOUNDARY DESCRIPTION

ELIZABETH A. FOUNTAIN, P.E.
FL. LICENSE NO. 60077
FL. COA # 29226

PROJECT #:	00864-01
FILE DATE:	2025/12/15
DESIGN BY:	AJI
SCALE:	1" = 50'
SHEET :	1 of 1

JR EVANS ENGINEERING

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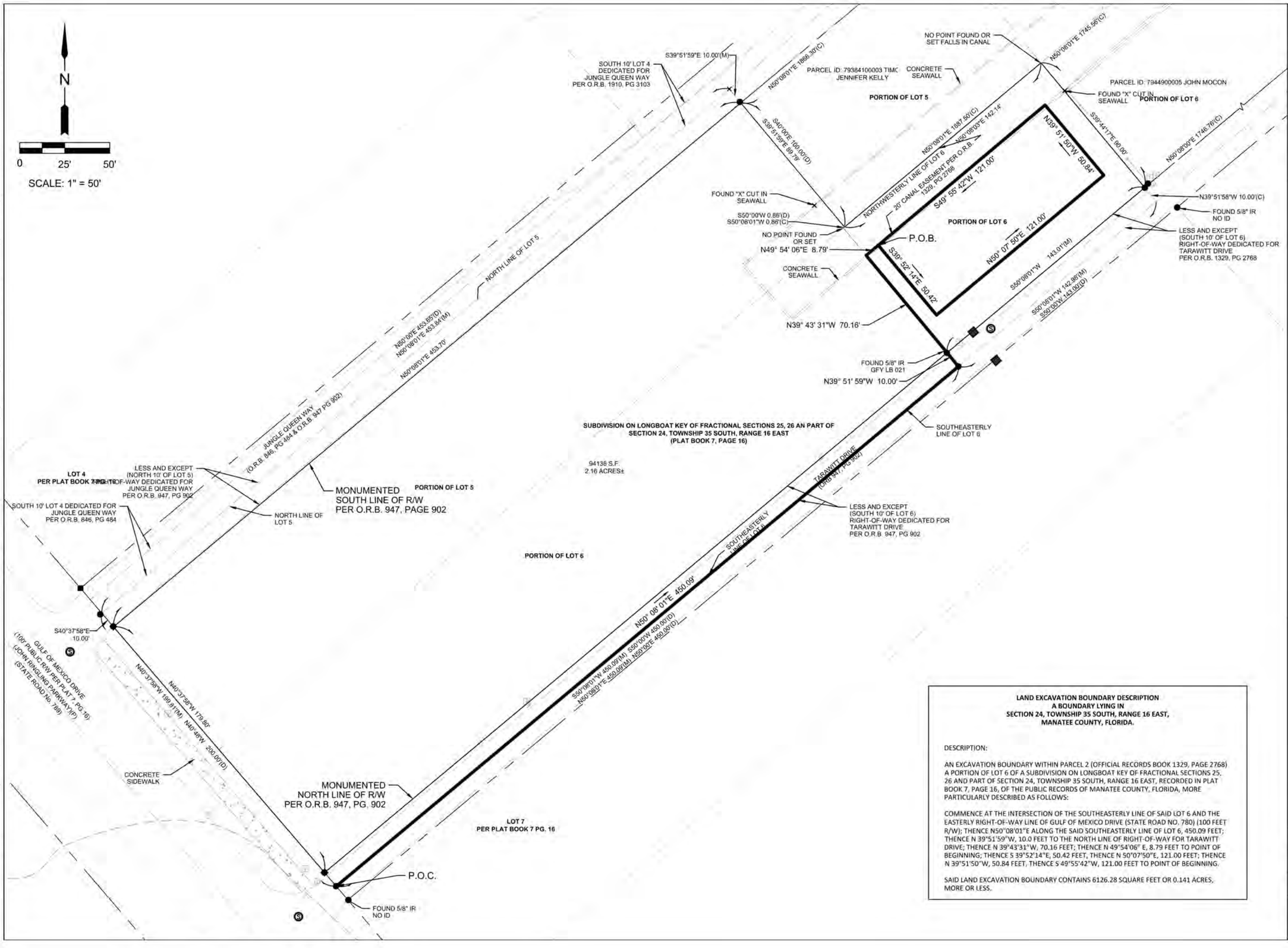
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Prepared by:
JR Evans Engineering, P.A.
9961 Interstate Commerce Dr, STE. 230
Ft Myers, Florida 33913

_____
Elizabeth A. Fountain, P.E.
FL License No. 60077



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SAID LAND EXCAVATION BOUNDARY CONTAINS 6126.28 SQUARE FEET OR 0.141 ACRES, MORE OR LESS.

JR EVANS ENGINEERING

JR EVANS ENGINEERING, P.A.
9961 INTERSTATE COMMERCE DR, STE. 230
FT MYERS, FLORIDA 33913
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