



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8175

March 1, 2022

Regulatory Division
North Branch
Mitigation Banking Team
SAJ-2021-03867 (GP-SCW)

Richard N. Mendelson
1124 Highland Beach Drive
Highland Beach, Florida 33487
Sent via email: rmendelson@bellsouth.net

Dear Mr. Mendelson:

The U.S. Army Corps of Engineers (Corps) has completed the review of your application for a Department of the Army permit, which the Corps received on November 22, 2021. Your application was assigned file number SAJ-2021-03867. A review of the information and drawings provided indicates that the proposed work would result in the removal and replacement of the existing 5-foot by 80-foot marginal dock with nine concrete filled PVC pilings. The activities subject to this permit are authorized pursuant to authorities under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403). The project is located in a residential canal at 1124 Highland Beach Drive, in Section in Section 04, Township 47 South, Range 43 East, in Highland Beach, Palm Beach County, Florida.

This letter verifies your project, as described above and depicted on the enclosed drawings, is authorized by Regional General Permit (RGP) SAJ-20 and any subsequent modifications, if applicable. **This RGP authorization is valid until March 27, 2023.** Please access the Corps' Jacksonville District Regulatory Division Source Book webpage to view the special and general conditions for SAJ-20, which apply specifically to this authorization. The Internet URL address is: <http://www.saj.usace.army.mil/Missions/Regulatory.aspx>. Please be aware this Internet address is case sensitive; and, you will need to enter it exactly as it appears above. Once there select "Source Book"; and, then select "General Permits." Then you will need to select the specific SAJ permit noted above.

You must comply with ALL the RGP general and special, attached and/or incorporated by reference, and the Project Specific Special Conditions and General Conditions, listed below, or you may be subject to enforcement action.

General Conditions (33 CFR PART 320-330):

1. The time limit for completing the work authorized ends on **March 27, 2023.**
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 or 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 on the transfer form attached to this letter and forward a copy to this office to validate the transfer of this authorization.
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.

Project Specific Special Conditions:

The following project specific special conditions are included with this verification:

1. **Reporting Address:** 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.

The Permittee shall reference this permit number, SAJ-2021-03867 (RGP-SCW) on all submittals.

2. **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.
3. **Commencement Notification:** Choose one, the Permittee shall submit a completed "Commencement Notification" form (Attachment 2).
4. **Posting of Permit:** The Permittee shall have available and maintain for review a copy of this permit and approved plans at the construction site.
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 (Attachment 3) 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. **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 permitted activities, items that may have historic or archaeological origin are observed the Permittee shall immediately cease all activities adjacent to the discovery that may result in the destruction of these resources and shall prevent his/her employees from further removing, or otherwise damaging, such resources. The applicant shall notify both the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333 and the Corps, of the observations within the same business day (8 hours). Examples of submerged historical, archaeological or cultural resources include shipwrecks, shipwreck debris fields (such as steam engine parts, or wood planks and beams), anchors, ballast rock, concreted iron objects, concentrations of coal, prehistoric watercraft (such as log "dugouts"), and other evidence of human activity. The materials may be deeply buried in sediment, resting in shallow sediments or above them, or protruding into water. The Corps shall coordinate with the Florida State Historic Preservation Officer (SHPO) to assess the significance of the discovery and devise appropriate actions. Project activities shall not resume without verbal and/or written authorization from the Corps.
 - c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the above Special Condition and, if deemed necessary by the SHPO or Corps, in accordance with 36 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 Archaeologist within the same business day (8-hours). The Corps shall then notify the appropriate SHPO. 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 SHPO and from the Corps.
7. 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.

8. 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. 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 these JAXBO must be utilized during the design and construction of the permitted work.

9. Manatee Conditions: The Permittee shall comply with the “Standard Manatee Conditions for In-Water Work – 2011” (Attachment 4). The most recent version of the Manatee Conditions must be utilized.

Jurisdictional Determination:

A jurisdiction determination was not completed with this request. Therefore, this is not an appealable action. However, you may request an approved JD, which is an appealable action, by contacting the Corps for further instruction.

This letter of authorization does not include conditions that would prevent the ‘take’ of a state-listed fish or wildlife species. These species are protected under sec. 379.411, Florida Statutes, and listed under Rule 68A-27, Florida Administrative Code. With regard to fish and wildlife species designated as species of special concern or threatened by the State of Florida, you are responsible for coordinating directly with the Florida Fish and Wildlife Conservation Commission (FWC). You can visit the FWC license and permitting webpage (<http://www.myfwc.com/license/wildlife/>) for more information, including a list of those fish and wildlife species designated as species of special concern or threatened. The Florida Natural Areas Inventory

(<http://www.fnai.org/>) also maintains updated lists, by county, of documented occurrences of those species.

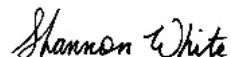
This letter of authorization does not give absolute Federal authority to perform the work as specified on your application. The proposed work may be subject to local building restrictions mandated by the National Flood Insurance Program. You should contact your local office that issues building permits to determine if your site is located in a flood-prone area, and if you must comply with the local building requirements mandated by the National Flood Insurance Program.

This letter of authorization does not preclude the necessity to obtain any other Federal, State, or local permits, which may be required.

Thank you for your cooperation with our permit program. 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 complete our automated Customer Service Survey at <https://regulatory.ops.usace.army.mil/customer-service-survey/>. Please be aware this Internet address is case sensitive; and, you will need to enter it exactly as it appears above. Your input is appreciated – favorable or otherwise.

Should you have any questions related to this GP verification or have issues accessing the documents reference in this letter, please contact Mrs. Shannon White at the letterhead address above, via telephone at 904-232-1681, or via e-mail at shannon.c.white@usace.army.mil.

Sincerely,

A handwritten signature in black ink that reads "Shannon White". The script is cursive and fluid.

Shannon White
Project Manager

Enclosures

DEPARTMENT OF THE ARMY PERMIT TRANSFER REQUEST

DA PERMIT NUMBER: SAJ-2021-03867 (RGP-SCW)

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, Post Office Box 4970, Jacksonville, FL 32232-0019 or submit via electronic mail to: SAJ-RD-Enforcement@usace.army.mil (not to exceed 15 MB).

(TRANSFEREE-SIGNATURE)

(SUBDIVISION)

(DATE)

(LOT)

(BLOCK)

(NAME-PRINTED)

(STREET ADDRESS)

(MAILING ADDRESS)

(CITY, STATE, ZIP CODE)

COMMENCEMENT NOTIFICATION

*Within ten (10) days of initiating the authorized work, submit this form to 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-2021-03867(RGP-SCW)

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). If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-3697.

1. Department of the Army Permit Number: SAJ-2021-03867 (RGP-SCW)

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):

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

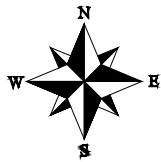
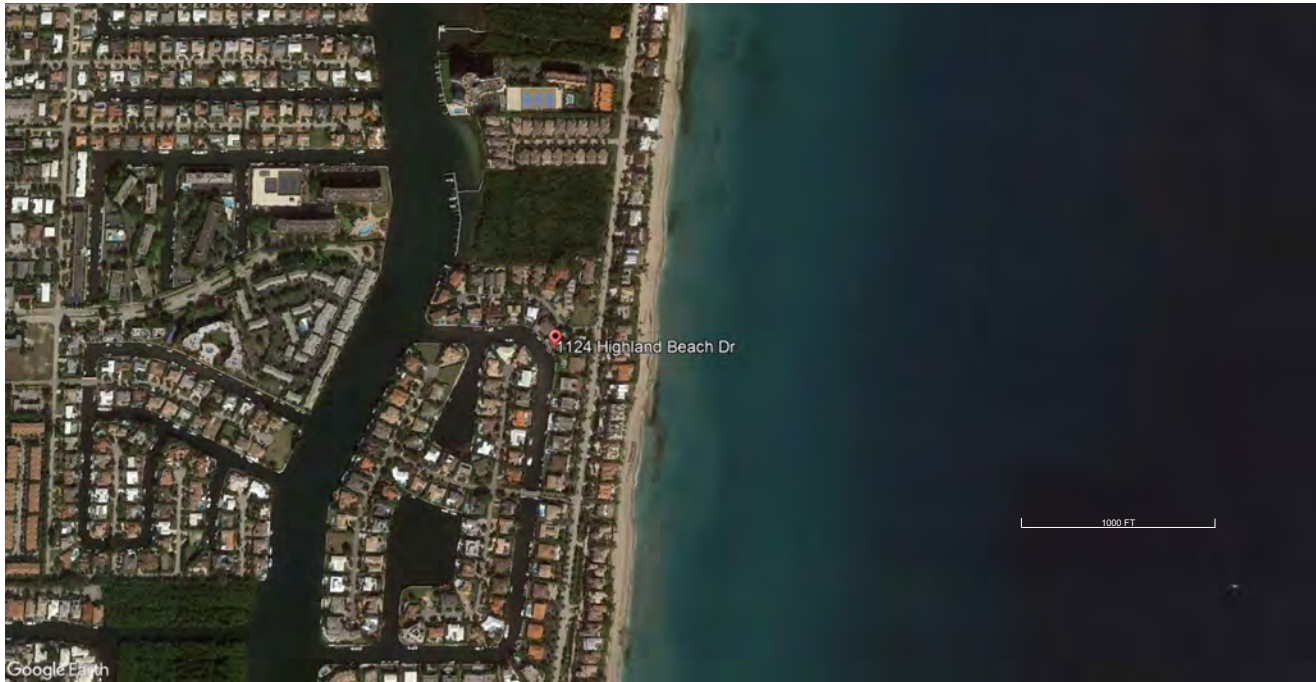
Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

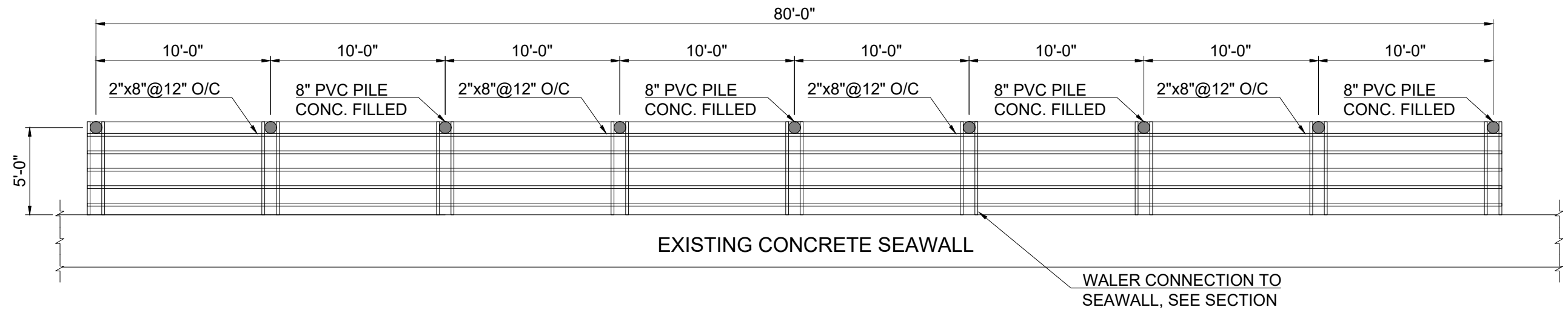
cell *FWC or #FWC



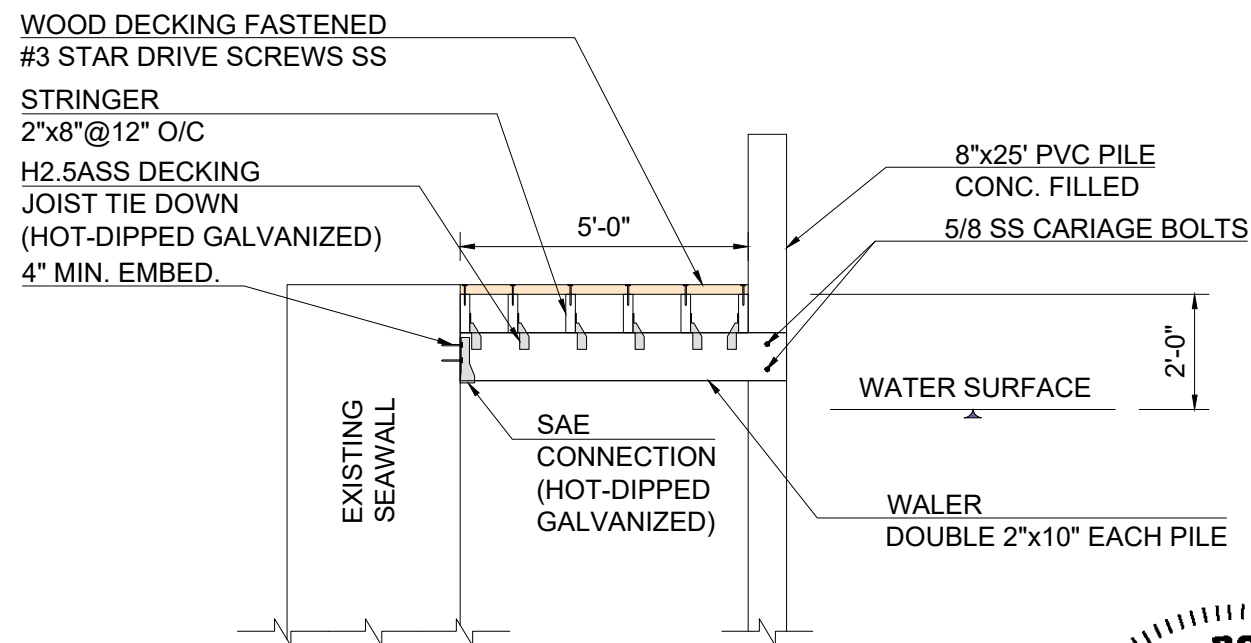
This item has been electronically signed and sealed by Neal A. Rogers, Jr., on the date adjacent to the seal using a SHA authentication code.
Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

AMERICAN MARINE ENGINEERING INC.
20423 STATE ROAD 7
SUITE F6-346
BOCA RATON, FLORIDA 33498 USA
PH: 561-448-5755

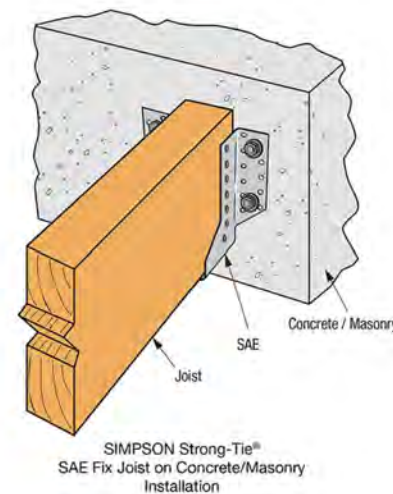
PROJECT: 1124 Highland Beach Highland Beach, FLORIDA 33487		
DRAWN: M.S.	CLIENT: Igor Chigirinsky	
	CHECKED: M.S.	SCALE: DATE: February 16, 2021
APPROVED:	DRAWING NUMBER: HBFL-01	
	SHEET: 1	OF: 4



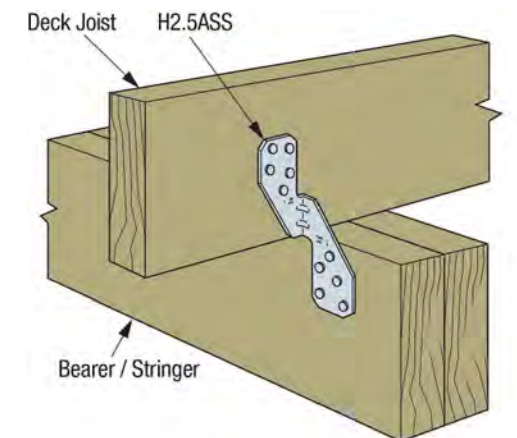
DECK PLAN
SCALE: 1:80



DECK CROSS SECTION
SCALE: 1:40



R TO CONCRETE TYPICAL CONNETION
SCALE: NTS



STRINGER TO WALER CONNECTION DETAIL
SCALE: NTS



This item has been electronically signed and sealed by Neal A. Rogers, Jr., P.E. on the date adjacent to the seal using a SHA authentication code.

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AMERICAN MARINE ENGINEERING INC.
20423 STATE ROAD 7
SUITE F6-346
BOCA RATON, FLORIDA 33498 USA
PH: 561-448-5755

PROJECT:
1124 Highland Beach
Highland Beach, FLORIDA 33487

DRAWN:
M.S.

CLIENT:
Igor Chigirinsky

CHECKED:
M.S.

SCALE:
AS SHOWN

DATE:
February 16, 2021

APPROVED:

DRAWING NUMBER:
HBFL-02

SHEET:
2

OF:
4

1 DESIGN DATA

- 1.1 CODE: 2020 FLORIDA BUILDING CODE, BUILDING, 7TH EDITION
- 1.2 BUILDING CLASSIFICATION UTILITY AND MISCELLANEOUS GROUP U
 - 1.2.1 DEAD LOAD 4.0 PSF
 - 1.2.2 LIVE LOAD 100 PSF
 - 1.2.3 WIND LOAD - NOT EVALUATED- STRUCTURE NOT VULNERABLE TO EXCESSIVE WIND LOADS

2 GENERAL PROVISIONS

- 2.1 LICENSED CONTRACTOR IS RESPONSIBLE TO OBTAIN AND CONSPICUOUSLY POST ANY AND ALL LOCAL, STATE AND FEDERAL PERMITS THAT MAY BE REQUIRED. LICENSED CONTRACTOR SHALL VERIFY ALL REQUIRED PERMITS ARE OBTAINED AND CONSPICUOUSLY POSTED.
- 2.2 THESE PLANS DO NOT AUTHORIZE CONTRACTOR TO TRESPASS, DAMAGE OR OTHERWISE ALTER ADJACENT PUBLIC OR PRIVATE PROPERTY, EXCEPT THAT AUTHORIZED BY WRITTEN PERMISSION FROM THE OWNER.
- 2.3 ALL MATERIALS ARE TO BE PROVIDED AS TO TYPE, SIZE, MATERIAL AND MANUFACTURER AS SPECIFIED ON THESE DRAWINGS. CONTRACTOR MAY NOT DEVIATE FFROM THESE PLANS AND SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
- 2.4 THESE PLANS DO NOT AUTHORIZE AND DISCHARGE OF POLLUTANTS TO WATERS OF THE STATE OF FLORIDA EXCEPT THOSE DISCHARGES AUTHORIZED BY LOCAL OR STATE PERMIT.
- 2.5 LICENSED CONTRACTOR MAY NOT STORE OR TRANSFER ANY HAZARDOUS MATERIALS ON SITE.
- 2.6 UPON COMPLETION OF PILING INSTALLATION, CONTRACTOR SHALL PROVIDE A WRITTEN REPORT INCLUDING A DIAGRAM OF THE FINAL PILE LAYOUT AND THE NUMBER OF BLOWS AND DEPTH OF PILING AT REFUSAL FOR EACH PILE. CONTRACTORS REPORT AND DIAGRAM SHALL SHOW THE DEVIATION FROM PLUMB FOR EACH PILING.
- 2.7 LICENSED CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY CONFLICTS OR OMISSIONS BETWEEN EXISTING CONDITIONS OR THE VARIOUS ELEMENTS OF THE WORKING DRAWING SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK. THE LICENSED CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR ALL LINES, ELEVATIONS, AND MEASUREMENTS.
- 2.8 ALL UNANTICIPATED OR UNFORESEEN DEMOLITION AND/OR NEW CONSTRUCTION CONDITIONS WHICH REQUIRE DEVIATION FROM THE PLANS AND NOTES HEREIN SHALL BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- 2.9 LICENSED CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK
- 2.10 THE LICENSED CONTRACTOR TO INSTALL AND REMOVE ALL SHORING AND BRACING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK.
- 2.11 THESE DRAWINGS ARE BASED ON THE HYDROGRAPHIC AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS
- 2.12 JOBSITE IS TO BE KEPT CLEAN AT ALL TIMES.
- 2.13 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL REQUIREMENTS AS WELL AS APPLICABLE DISTRICT SPECIAL PROVISIONS REGARDING ENDANGERED SPECIES.
- 2.14 ALL WORK PERFORMED, AS WELL AS, CONSTRUCTION MATERIALS AND TESTING SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES, REGULATIONS AND ORDINANCES.
- 2.15 DOCK SHALL NOT BE USED UNTIL FINAL INSPECTION AND APPROVAL IS OBTAINED.
- 2.16 JOBSITE TO BE LEFT IN BROOM CLEAN CONDITIONS.
- 2.17 ALL EXPOSED HAZARDS TO BE PROPERLY PROTECTED AT ALL TIMES TO MEET OSHA STANDARDS.

3 PILES

- 3.1 PILES SHALL BE FIBERGLASS (FRP) OR WOOD PILES MARINE GRADE OR AS STATED ON DRAWINGS.
- 3.2 PROVIDE PILES OF SUCH LENGTH AS REQUIRED TO DEVELOP THE SPECIFIED BEARING VALUE, TO OBTAIN THE SPECIFIED PENETRATION, AND TO EXTEND ABOVE THE TOP OF DECK AS INDICATED
- 3.3 JETTING TO FACILITATE PILE PENETRATION SHALL NOT BE USED UNLESS SPECIFICALLY PERMITTED BY THE ENGINEER OF RECORD
- 3.4 PREDRILLED HOLES. WHEN NECESSARY TO ACHIEVE THE REQUIRED PENETRATION, DRILL HOLES OF DIAMETER NOT GREATER THAN 90 PERCENT OF THE AVERAGE CROSS-SECTIONAL DIMENSION OF THE PILE AT THE DEPTH BEING DRILLED AND DRIVE THE PILETHEREIN TO PRACTICAL REFUSAL.
- 3.5 PENETRATION PER BLOW MAY BE MEASURED EITHER DURING INITIAL DRIVING OR DURING RE--DRIVING FOLLOWING A SET PERIOD OF TIME AS DETERMINED BY THE ENGINEER OF RECORD.
- 3.6 PRACTICAL REFUSAL: PRACTICAL REFUSAL WILL BE EITHER A CONDITION WHERE THE BLOW COUNT EXCEEDS TWO TIMES THE NUMBER OF BLOWS REQUIRED IN 1 FOOT OR 40 BLOWS PER FOOT FOR TIMBER PILES.
- 3.7 PILES MUST BE INSTALLED TO ACHIEVE THE MINIMUM LATERAL RESISTANCE. IN ACCORDANCE WITH FLORIDA BUILDING CODE 1810.2.1 LATERAL SUPPORT, PILES TO BE INSTALLED A MINIMUM OF 5 FEET INTO STIFF SOIL OR 10 FEET INTO SOFT SOIL UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL ON THE BASIS OF A GEOTECHNICAL INVESTIGATION BY A REGISTERED DESIGN PROFESSIONAL. PILES WHICH HAVE REACHED PRACTICAL REFUSAL BUT HAVE NOT BEEN INSTALLED TO ACHIEVE THE MINIMUM LATERAL STABILITY SHALL BE REMOVED, AND THE PILE PREDRILLED TO ACHIEVE THE MIMINUM LATERAL RESISTANCE EMBEDMENT.
- 3.8 PER GENERAL REQUIREMENT 2.6, UPON COMPLETION OF PILING INSTALLATION CONTRATOR SHALL SUBMIT TO ENGINEER A DIMENSIONED DIAGRAM OF THE FINAL PILING LAYOUT, WITH BLOWS TO REUSAL AND DEVIATION FROM PLUMB.
- 3.9 THE MAXIMUM DRIVING STRESS, PSI FOR TIMBER PILES SHALL NOT EXCEED 3FCO, WHERE FCO IS THE BASE RESISTANCE OF WOOD IN COMPRESSION PARALLEL TO THE GRAIN, IN PSI.
- 3.10 DO NOT DRIVE PILES WITHIN 20 FEET OF CONCRETE LESS THAN 2 DAYS OLD, SINCE MOST CONCRETE IS CLOSE TO 50% STRENGTH AFTER 2 DAYS.
- 3.11 PROVIDE ADEQUATE LATERAL SUPPORT FOR INSTALLED INDIVIDUAL PILES TO PREVENT EXCESSIVE TEMPORARY FLEXURAL STRESSES OR MOVEMENT OF THE PILE TOP OUT OF TOLERANCE.
- 3.12 INSTALLATION TOLERANCES.
 - 3.12.1 DEVIATION FROM PLUMB AND ANGLE OF BATTER: 2 INCH PER FOOT OF PILE LENGTH, BUT NOT MORE THAN 6 INCHES OVERALL.
 - 3.12.2 DEVIATION FROM LOCATION OF PILE TOP: 2 INCHES.
- 3.13 WHEN THE AREA OF THE HEAD OF A TIMBER PILE IS GREATER THAN THAT OF THE FACE OF THE HAMMER, USE A SUITABLE CAP TO DISTRIBUTE THE BLOWS THROUGHOUT THE CROSS SECTION OF THE PILE.
- 3.14 AFTER TIMBER PILES ARE CUT OFF, TREAT CUT SURFACES IN ACCORDANCE WITH AWPA M4.

4 DECKING REQUIREMENTS

- 4.1 ALL DECKING MATERIAL SHALL BE COMPOSED OF DIMENSICN LUMBER (2” NOMINAL THICKNESS) OR COMPOSIT DECKING. COMPOSITE DECKING TO CONSIST OF RECYCLED LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) AND RECYCLED WOOD.
- 4.2 DECKING TO BE ATTACHED TO EACH STRINGER OR DOUBLE STRINGER LOCATION WITH #3 SS SCREWS, OR PROPRIETARY CONCEALED FASTENING SYSTEM, SUCH AS TREX UNIVERSAL HIDEAWAY HIDDEN FASTENERS, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, SAE CONNECTORS SHALL BE HOT-DIPPED GALVANIZED.
- 4.3 DECKING MATERIAL TO BE SPACED APPROXIMATELY 1/8” APART. RECOMMENDED SPACING FOR TREATED 2X6.

WIDTH AT INSTALLATION	SPACING (MIN - MAX)
5 1/2" (WET OR DRY)	1/8"- 1/4"
5 5/8" (WET)	1/16"-1/8"
5 3/4" (WET)	BUTT BOARDS TOGETHER
OVER 5 3/4" (WET)	ALLOW DRYING TIME PRIOR TO INSTALLATION
- 4.4 EACH SEGMENT OF DECKING MUST BEAR ON A MINIMUM OF 3 STRINGERS (OR 3 SUPPORTS).

5 WOOD MATERIALS

- 5.1 LUMBER GRADE.
 - 5.1.1 WOOD DECK: MARINE GRADE NO. 1.
 - 5.1.2 ALL OTHERS: MARINE GRADE NO. 1 OR NO. 2
- 5.2 LUMBER SPECIES: SOUTHERN YELLOW PINE (SYP) OR APPROVED ALTERNATIVE.
- 5.3 LUMBER (INCLUDING TIMBER PILES) IS TO BE PRESERVATIVE TREATED IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF AMERICAN WOOD--PRESERVERS' ASSOCIATION (AWPA) STANDARD U1.
- 5.4 END USE CATEGORY: AWPA UCSC (MARINE USE SOUTHERN WATERS.
- 5.5 LUMBER THAT IS CUT, DRILLED, PLANED, OR OTHERWISE ALTERED AFTER TREATMENT IS TO BE TREATED IN FIELD IN COMPLIANCE WITH AWPA STANDARD M4 (CARE OF PRESSURE TREATED WOOD PRODUCTS) TO ALTERED SURFACES. INSPECT EACH PIECE OF LUMBER AFTER DRYING AND DISCARD DAMAGED OR DEFECTIVE PIECES
- 5.6 ROUND TIMBER POLES AND PILES SHALL COMPLY WITH ASTM D3200 AND ASTM D25, RESPECTIVELY
- 5.7 STRINGER SPLICES MUST OCCUR AT PILE LOCATIONS ONLY. AS FAR AS PRACTICAL, STRINGER SPLICES TO BE ALTERNATED SO THAT TWO ADJACENT SPLICES DO NOT OCCUR AT SAME PILE LOCATION. STRINGER SPLICES AT PILE LOCATIONS TO BE WITH 24” MINIMUM LENGTH SCAB OF SAME MATERIAL AS STRINGER, WITH A MINIMUM OF 4 -- 1/4” DIA. LAG SCREWS EACH SIDE OF SPLICE WITH 2” EDGE AND END DISTANCE.



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DRAWN: M.S.	CLIENT: Igor Chigirinsky
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CHECKED: M.S.	SCALE: AS SHOWN	DATE: February 16, 2021
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APPROVED:	DRAWING NUMBER: HBFL-03
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SHEET: 3	OF: 4
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6 FASTENERS

- 6.1 UNLESS NOTED OTHERWISE FASTENERS AND CONNECTORS SHALL BE OF STAINLESS STEEL CONSTRUCTION COMPLYING WITH ASTM A316.
- 6.2 FASTENERS AND CONNECTORS SHALL BE OF THE SAME CORROSION--RESISTANT MATERIAL
- 6.3 SELECT FASTENERS OF SIZE THAT WILL NOT FULLY PENETRATE MEMBERS WHERE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR WILL RECEIVE FINISH MATERIALS.
- 6.4 MAKE TIGHT CONNECTIONS BETWEEN MEMBER.
- 6.5 ANCHOR ADHESIVE SHALL BE A HIGH PERFORMANCE, TWO COMPONENT ADHESIVE ANCHORING SYSTEM, SUCH AS SIKA®ANCHORFIX--1, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 6.6 LAG SCREWS AND BOLTS TO MEET REQUIREMENTS OF ANSI/ASME STANDARD B18.2.1
- 6.7 INSTALL FASTENERS WITHOUT SPLITTING WOOD; PREDRILL AS REQUIRED.
- 6.8 LEAD HOLES FOR LAG SCREWS SHALL BE BORED AS FOLLOWS TO AVOID SPLITTING OF THE WOOD MEMBER DURING CONNECTION FABRICATION:
- (A)


THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK,
- (B)

THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 75% AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION. THE LARGER PERCENTILE IN EACH RANGE SHALL APPLY TO LAG SCREWS OF GREATER DIAMETERS.
- 6.9 THE THREADED PORTION OF THE LAG SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH NOT BY DRIVING WITH A HAMMER.
- 6.10 SOAP OR OTHER LUBRICANT MAY BE USED ON THE LAG SCREW OR IN THE LEAD HOLES TO FACILITATE INSERTION AND TO PREVENT DAMAGE TO THE LAG SCREW.
- 6.11 THE MINIMUM LENGTH OF LAG SCREW PENETRATION, PM NOT INCLUDING THE LENGTH OF THE TAPERED TIP, E, OF THE LAG SCREW INTO THE MAIN MEMBER OF SINGLE SHEAR CONNECTIONS AND THE SIDE MEMBERS OF DOUBLE SHEAR CONNECTIONS SHALL BE 4D.
- 6.12 LAG BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE MEMBERS. BOLTS SHALL NOT BE FORCIBLY DRIVEN.
- 6.13 A STANDARD CUT WASHER SHALL BE PROVIDED BETWEEN THE WOOD AND THE BOLT HEAD AND BETWEEN THE WOOD AND THE NUT.
- 6.14 1/4" DIAMETER TAPCONS REQUIRE 1 1/2" MINIMUM EDGE DISTANCE AND 1 1/2" MINIMUM EMBEDMENT INTO 4000 PSI CONCRETE MINIMUM.
- 6.15 3/8" DIAMETER WEDGE ANCHORS REQUIRE 1 3/4" MINIMUM EDGE DISTANCE AND 1 1/2" MINIMUM EMBEDMENT INTO 4000 PSI CONCRETE MINIMUM.



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