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17 March 2020

Georgia Department of Natural Resources
Coastal Resources Division
Attn: Paul Tobler, Coastal Permit Coordinator
185 Richard Davis Drive, Suite 104
Richmond Hill, GA 31324

**RE: Savannah Boathouse
Chatham County, Georgia
Permit Modification Request**

Permit #760

Dear Mr. Tobler:

I am writing to address recent modifications to the Savannah Boathouse permit application. More specifically, these changes are a function of architectural design requirements associated with the office building to meet fire and ADA access codes and minor in-water adjustments following the dock supplier construction modifications. Pursuant to our recent discussions, this correspondence is provided to update your files and allow you to initiate a permit modification to Permit #760 issued on August 23, 2019.

The changes are as follows:

- **Sheet 6:** Is the Overall Proposed Improvement figure that contains the changes to the plan defined in detail below and in the following sheets.
- **Sheet 9:** Changes on the south side of the building include the addition of a staircase and a handicap access lift leading from the current ground elevation of ~7.5 ft. msl to the first-floor finish elevation of 13ft. msl. Once at the first-floor level, a new fire escape affords access from the first-floor to second-floor of the office space. These additions are required to meet fire safety and American Disabilities Act (ADA) codes. Adding the



ADA and safety components of the project increase the wooden deck area from 1,237 sf. to 1,418 sf.

- **Sheet 9:** Additional changes include the “reduction” of the southern end of the fixed concrete fork lift pier. The original design was 40ft. wide by 20ft. before connecting to the 40ft. by 16ft. pier leading to the river. The reduction is removing 4’ feet on the east and west sides of this structure resulting in the revised width of 32ft. wide by 20ft. This reduces the total sf. of impact by the forklift pier on CMPA jurisdictional area from 1,150 sf. to 1,025 sf. (125 sf. reduction). This reduction also dictates that the two gangways now have a slight angle leading from the fixed pier to the 10 ft. wide floating dock.
- **Sheet 9:** Other changes on this sheet include the addition of a new transformer float located on the south and west side of the south western most finger dock. This feature was not part of the original project but was determined necessary by the dock manufacturer. The size of this additional float is 3’ 3” by 9’ 10”. Similar to above, a second transformer float will be located on the south and east side of the south eastern most finger dock. This feature replaces the 4’ by 6’ structure that existed originally with the same 3’ 3” by 9’ 10” float. The previous 4’ by 6’ dock structures amounted to 24 sf. of area each, while the new 3’ 3” by 9’ 10” features amount to 31.95 sf. each. Together, the two new floats will result in the addition of 15.9 sf. to the total area of the project. Given the above mentioned 125 sf. reduction, the project area will still ultimately be reduced.
- **Sheet 9:** The final changes on this sheet are new staircases located on the north side of the office building, adjacent to the first-floor deck area. These staircases will allow for pedestrian access from the first-floor elevation of 13.5’ ft. msl. down to ground elevation. Lastly, the wooden walkway leading from the deck area to the forklift pier has been shifted southward.
- **Sheet 10:** Changes to this sheet now include the revised, east facing elevation view of the office building with the aforementioned changes.
- **Sheet 11:** Changes to this sheet include modification to the details shown on the north side of the office building and fork lift pier mentioned previously.



Please note, no changes have been made to the location of the finger docks from where they were originally proposed; therefore, no change will occur in the navigable waters surrounding the proposed marina. Please use this supplemental information regarding the application for the Savannah Boathouse project.

As always, if you have any further questions or need clarification on any of the details listed in the revised drawings, please feel free to call me.

Sincerely,

ENVIRONMENTAL SERVICES, INC.
A TERRACON COMPANY

Michael J. DeMell
Department Manager

MD/av
HM167008/Permit Drawing Letters/DNR Permit Mod Letter
March 2020

PROJECT DESCRIPTION AND
SUPPORT DOCUMENTATION FOR THE JOINT APPLICATION
FOR THE
SAVANNAH BOATHOUSE
Chatham County, Georgia

1. **BASIC PROJECT DETAILS**

3 Sea Sons, LLC. proposes the re-development of a ~4.91-acre site located west of Highway 80 and south of the Bull River in Chatham County, Georgia (Appendix A; Figure 1 and Appendix B, Sheet 1). The ~4.91-acre site includes ~2.38-acres of upland and ~2.53-acres of marsh. The property was formally owned by the Williams family who operated various commercial uses for the past 90-years. Included in the prior use was the Williams Seafood Restaurant, shrimping operations, and most recently the site was leased for the operation of a casino cruise ship company. The proposed project is a re-development of the ~2.38-acre upland portion of the site to a full-service marina operation. The materials in this application provide specific details of prior use, existing site conditions, and proposed improvements to re-establish a viable business to serve the community.

The proposed project is named **Savannah Boathouse**. The project will consist of a full-service marina facility to be constructed along the south bank of the Bull River. The general scope of the project includes the construction of 8 finger docks to accommodate 25 permanent wet slips, mooring for transient vessels and staging areas for daily use, installation of a dry rack facility to accommodate 108 dry slips, a forklift launch facility to deploy and recover vessels, and an office / store building to accommodate daily business operations. A portion of the marina facility (forklift launch, gangways, finger docks, etc.) will be constructed over the existing river bottom. The dry rack, office/store, parking, underground fuel tanks, and wash racks will be constructed in the uplands.

The following information and attached materials are provided to pursue Coastal Marshlands Protection Act (CMPA) and Section 10 of the Rivers and Harbors Act permits.

1.1 *Existing Site Conditions:*

General information pertaining to the existing site conditions for the ~4.91-acre site can be found in Appendix A; Figures 1 through 6. Included in this Appendix are Figure 1 Vicinity Map,

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Figure 2 USGS Topographic Image, Figure 3 NRCS Soil Survey, Figure 4 National Wetland Inventory, Figure 5 FEMA Flood Zone Data, and Figure 6 LiDAR Digital Elevation Model data.

The existing conditions, both current and within the past 25 years are detailed via the attached - SAGIS Pictometry Photo Sheets 1-8, Google Earth Photo Essay 1994 through 2019, and at grade existing site conditions Photo Sheets 1 through 3 (Appendix A).

Close attention should be given to these aerials to help understand that this is a *re-development of a prior commercial site* and as such, much of proposed development is to occur on previously used, hardened structures of one form or another. Additionally, Photo Sheets 4 through 5 provide examples of at grade photos of the anticipated finished site improvements. These photographs were taken at the nearby Turners Creek Boat Ramp in Chatham County, Ga (Appendix A). Where possible, otherwise none existent storm water management tools will be installed to improve site conditions.

In addition to those items above, as depicted in Appendix B, Sheet 2 and in greater detail Sheet 5, there are numerous in-water structures remaining from the prior permitting and past uses. Combined, these existing features represent ~4,360 sf of unused in-water structures. The project will removal all these structures except for the fixed walkway and covered structure located off the western side of the peninsula. During the demolish of these features, the contactor will also clean up other marine debris in and around the area and dispose of these materials in an appropriate manner.

1.2 *Jurisdictional Determination:*

In early 2019, Environmental Services, Inc. (ESI) delineated the ~4.91-acre site to assess and define any aquatic resources that may be regulated by the Corps of Engineers. As a result of this review, no freshwater wetlands have been located within the project boundary and a salt marsh wetland boundary was established around the perimeter of the upland peninsula. In April 2019, ESI and the Corps of Engineers staff completed a field visit to verify the recent delineation. The 2019 salt marsh boundary has been surveyed and is depicted on the survey prepared by Dale E.

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Yawn March 30, 2019. The Corps verified the above referenced delineation in a letter dated April 18, 2019. (Appendix K).

In early 2019, ESI delineated the ~4.91-acre site to perform a formal delineation of the subject property to establish the extent of the **salt marsh boundary**. The 2019 salt marsh delineation was performed in accordance with the *Coastal Marshlands Protection Act of 1970*. On March 14, 2019 ESI and DNR staff completed a field visit to verify the recent delineation. The 2019 salt marsh boundary has been surveyed and is depicted on the survey prepared by Dale E. Yawn March 30, 2019. DNR verified the above referenced delineation in a letter dated April 9, 2019. (Appendix J).

1.3 *Proposed Impacts:*

The project will result in no freshwater wetland impacts. Impacts associated with work located within tidal waters is limited to the shading footprint and pile installation of the floating docks, fixed walkways, forklift pier, and gangways associated with the marshland component of the project. Additional impacts are associated with placement of additional rip-rap on top of the existing rip-rap along the north side of the project and south bank of the Bull River.

Details of this work can be found in Appendix B and in the table below.

Table 1.

Area Name	Activity Type	Habitat	Area of Impact (Acres)	Impact Type
Marshland Component	<ul style="list-style-type: none"> Pile and floating dock installation Gangway Forklift Pier 	OW/WB RR VM	~12,825 sf. total ~12,470 sf. ~280 sf. ~95 sf.	<ul style="list-style-type: none"> Shading Floating dock Fixed forklift pier river piles into rip rap & water bottoms
Bank Stabilization	<ul style="list-style-type: none"> Supplemental Rip Rap installation 	RR/VM	~2,385 sf. Or ~265 sy.	<ul style="list-style-type: none"> Placement of rip rap on top of the existing revetment

** OW/WB = Open Water/Water Bottoms, RR = Existing Rip Rap within Jurisdiction, MF = Mud Flat, VM = Vegetated marsh

2. SITE PLANS

Appendix B, Sheets 1-14; dated 05/30/19 (*Revised 03/13/20*) prepared by EMC Engineering Services, Inc. provide specific details associated with the project.

2.1 *Marshlands Component of Project:*

The marshlands component for this project is graphically defined in Appendix C; Figure 1. Attention should be given to this figure to comprehend how the proposed project relates to the current site conditions. Essentially, the entire landmass has been developed for prior purposes in the past. The marshland component, generally defined as the part of the project in an estuarine area requiring a permit under The Coastal Marshlands Protection Act, generally includes the portion of the fixed forklift launch facility waterward of the jurisdictional boundary, (2) gangways, the finger docks and attendant features, and supplemental rip rap placed upon the surface of the existing revetment. Refer to Appendix N for details pertaining to the “*draft*” Marina Operations and Maintenance Manual. Details associated with the marshlands component of the project are graphically defined in Appendix B; Sheets 1 - 23 and discussed further below:

- **Forklift Pier:** A fixed concrete forklift pier will be constructed starting landward of the jurisdictional boundary and extending into the Bull River. This structure will be constructed upon piles. The southern portion of this structure (*within the jurisdictional area*) is oriented parallel to the river and measures approximate 12’ wide and 32’ long (* *note the southern end of the forklift pier measures in total 20’x 32’, only a portion of which is in jurisdiction, ~385sq.ft.*). The pier then narrows to 16’ wide by 40’ long extending northeast into the river to a point where vessel recovery and launch can be accommodated at any tide. Refer to Appendix B; Sheets 6, 9, 10, & 11 for further detail.
- **Floating Dock Facility:** Leading from the above referenced forklift pier, the western floating docks begin at a 5’ wide by 40’ long gangway. The western gangway lands onto a 10’ wide x 200’ long launch float that has four total finger docks, consisting of (3) 8’ wide x 120’ long finger docks and one additional 10’ wide x 120’ long finger dock located furthest to the northwest. Similarly, leading from the above referenced forklift pier, the

eastern floating docks begin at a 5' wide x 40' long gangway. The east gangway lands onto a 10' wide x 200' long launch float that has (3) 8' wide x 80' long finger docks and one additional 10' wide x 80' long finger dock which is located furthest to the northeast. The fuel dispensers and sewer pumpout will be available in multiple locations on the outer docks. Additionally, on the inboard side of the two launch floating docks, there are two boat access floats to assist staff launch and recover vessels from the forklift. These floats have a mid-section that is 4' wide x 20' long and each end transitions back to the launch float at a 45-degree angle. A 4' wide x 16' long bait float is situated on the east side of the eastern most gangway and inboard of the southeastern most floating dock. **Two 3'3" by 9'10" floats are positioned on the south and east corner of the most southwestern finger dock and similarly on south and west corner of the most southeastern finger dock. These floats will support necessary transformers needed for amenities on the docks.** Lastly, on the east side of the eastern 10' wide x 200' launch float a 4' wide x 50' long float is situated to accommodate pedestrian traffic should an ADA gangway be needed in the future. The above docks provide ~1,600 lf of side-tie mooring. The applicant anticipates 25 in-water slips, with the balance of mooring area to accommodate staging of boats, day use, and transient vessel accommodations. Refer to Appendix B; Sheets 6, 9, 10, and 14 for further detail. Please note, as defined on Sheet 14, some floats may have rub rails along the perimeter of the docks that would add an additional 2" of width on both sides of the above referenced floats. Additional support structures, often shown as 45 degree bracing on Sheet 9, are included in the total area of structure located in jurisdiction.

- **Existing Structure to Remain:** As depicted throughout the documents presented in Appendix A, there are numerous in-water structures associated with the current site. One structure that will remain is the ~21' x ~21' existing concrete/wood structure and the ~6' wide x 50' long fixed walkway. As also defined in Appendix B; Sheets 2, 5, 6, 9, and 11 this structure will serve several purposes to accommodate pedestrian safety and educational opportunities.

First and foremost, safety in association with pedestrians near to the forklift launch and recovery operations is a priority. As defined on the plans and more specifically in

Appendix B; Sheets 8 & 9 as the forklift pavement extends north toward the river, the width of the upland peninsula narrows. As such, the plan accommodates pedestrian traffic along the east side of the forklift travel way. Once at the river, the forklift needs to launch or recover a vessel, then back out and turn around 180-degrees to proceed to the south. As depicted on Sheet 9, the swing radius of the forklift carrying a vessel results in the bow swinging out further to the west during this operation. The above referenced existing structure will provide a safe location for marina patrons to avoid forklift operation while gaining access to or from the floating docks on the western side of the marina facility.

Similarly, considering this is a covered structure, it provides refuge for marina patrons to escape inclement weather conditions and a potential point for kiosks to enhance and strengthen educational opportunities in association with Appendix M – “Sample” Educational Materials.

- The applicant intends to seek federal funding from the Boating Infrastructure Grant (BIG) Program to offset the construction costs associated with portions of this facility. The Sportfishing and Boating Safety Act of 1998 established BIG to provide funding to States, the District of Columbia, Commonwealths, and territories for the development and maintenance of facilities for transient non-trailerable recreational vessels. Through the program’s intent and eligibility criteria, BIG-funded facilities provide many benefits to the communities in which they are located, such as:
 - Inter-state commerce and economic impact
 - ADA accessible boating facilities
 - State-of-the-art marina design and construction
 - Durable, long-lasting facilities
 - Environmental quality and sustainability
 - Vibrant and active marinas and waterfront destinations
- **Bank Stabilization:** The northern end of the upland peninsula has been subjected to a haphazard placement of revetment materials during the use of this property and commercial operations over the last 90-years. The current materials are unstable in places and need supplemental enhancement. Appendix B; Sheet 10 provides a profile view and Sheet 11

defines cross-sections F-F, G-G, & H-H views of this activity. This area measures ~110' long x ~20' wide (~0.05-acres / ~2,385 sf. / ~265 sy.). The current revetment is a sparsely vegetated bank. The purpose and need for this additional bank stabilization are to enhance the current rip-rap and further fortify this portion of the bank to protect the new improvements.

2.2 Upland Component of the Project:

The upland component for this project is graphically defined in Appendix C; Figure 1. Attention should be given to this figure to comprehend how the proposed project relates to the current site conditions. Essentially, the entire upland parcel has experienced some form of development over the years with residual material/debris left across the site. The upland component, generally defined as all those service areas, amenities, and recreational areas located inland of the Coastal Marshlands Protection Act jurisdictional line, that serve or augment the functioning of the marshlands component of the project, generally include installation of a dry rack facility to accommodate 108 dry slips, the upland portion of a forklift launch facility to deploy and recover vessels, an office / store building to accommodate daily business operations, staff and patron parking, underground fuel tanks, wash racks and other attendant features.

Refer to Appendix N for details pertaining to the “*draft*” Marina Operations and Maintenance Manual. Details associated with the upland component of the project are graphically defined in Appendix 2; Sheets 6 thru 8 and discussed further below:

Dry Slip Marina (using open dry stack racks):

The proposed 108 dry slips are located at the southern portion of the site. The dry slip vessels will be housed in three rack systems: each 35' wide x 150' long. Each rack system will be rooved and may be enclosed on three sides. The dry stack operation will also include an office, restrooms, temporary washdown racks, and an upland fuel-dispensing station. The fuel system will be designed with appropriate leak detection and safety shut-off technology. The dry stack operations area will be graded so that all wash down water is collected via a single storm drain. The wash down water will pass through an oil and water separator prior to being discharged.

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Marine Fuel System

Fueling stations will be provided at two locations in the marina facility: one at the dry stack, and one on the northeast dock.

The fuel system will be designed in accordance with the National Fire Protection Association's (NFPA) Automotive and Marine Service Station Code (NFPA 30A) and will feature appropriate leak detection, safety shut-off technology and fire protection. A Spill Prevention Control and Containment (SPCC) Plan will be prepared for the (2) 7,500-gallon Underground Storage Tanks (USTs) located north of the parking and dry stack operations area.

When possible, vessels stored in the dry stack will be fueled while they are on the forklift in the operations area. All other vessels will be fueled in the water while they are securely berthed at the respective fuel dock.

An experienced operator will oversee vessel fueling at each fueling station. Fuel spill response equipment (e.g. absorbent booms, pads, etc.) will be stored and easily accessible at each fueling station.

Marine Sewage Pumpout System

Marine sewage pumpout station will be installed at the Savannah Boathouse in an effort to protect water quality in the Bull River. Fixed pumpout stations will be provided at various locations of the floating docks. Sewage pumpout "hydrants" are installed along the edge of the dock "trees" (similar to utility pedestals and fire suppression standpipes). The pumpout system will connect and discharge to the existing Chatham County municipal wastewater collection and treatment system. The marine sewage pumpout system will be available to vessels berthed at the marina (short and long-term) as well as to the general boating public.

The applicant intends to seek Clean Vessel Act funding to offset a portion of the costs of the marine sewage pumpout system. The Clean Vessel Act (CVA) of 1992 was signed into law to reduce pollution from vessel sewage discharges, prohibiting the discharge of raw sewage into fresh water or within coastal salt-water limits. The act established a federal grant program administered

by the U.S. Fish and Wildlife Service, which to date has awarded nearly \$150 million for states to install thousands of sewage pumpout stations.

2.3 Marshlands Buffers for Upland Component:

As previously discussed, this project is a redevelopment of a prior restaurant / shrimp dock / casino boat facility; therefore, there are no undisturbed buffers adjacent to the Bull River nor the saltmarsh located along the west side of the project area. Appendix A is provided to document the existing site conditions and the photo essay is used to observe progression of the site over the years. Appendix A also provides examples of the how the finished development will look within areas adjacent to the marsh. Appendix B; Sheets 7 & 8 defines the 50' upland buffer measured from the jurisdictional boundary. Note, given the configuration of the landform, retaining or reestablishing a 50' buffer measured from the jurisdictional boundary would preclude any ability to redevelop this site. The current upland buffer regulations were generally developed in consideration of undeveloped "green" sites, and currently don't necessarily accommodate challenges associated with the redevelopment of prior developed sites.

Pursuant to CMPA, Chapter 391-2-3.02(4) the following discussion is offered:

(4)(a): As mentioned earlier, all of the upland component has been developed and utilized in years past. Therefore, there are no undisturbed, natural upland buffers on this site (*See Appendix A & B*).

(4)(b): The applicant and project team certify adherence to appropriate soil and erosion control responsibilities as appropriate and available for use of this site (*See Appendix D*).

(4)(b)(1): As noted above, this is a redevelopment of a prior used site with no undisturbed upland buffers. Where possible, and more specifically as the development extends southwest, available upland will be retained and used as upland buffer. Enhancements will occur to include additional clean up of prior uses, supplemental plantings, and introduction of stormwater management tools.

(4)(b)(2)(i): Construction and maintenance of temporary structures will be limited to those necessary for construction of the marshland component.

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(4)(b)(2)(ii): Construction and maintenance of permanent structures will be limited to those features that are required for the functionality of and/or provide permanent access to the marshland component.

(4)(b)(2)(iii): Planting and grading with vegetated materials within the marshlands buffer will be completed to enhance stormwater management (*See Appendix A; Site Improvement Examples Figures A-4 & A-5*).

(4)(c): As outlined in Appendix A and Appendix D – post construction installation, restoration, and maintenance of the new stormwater management techniques and supplemental plants will provide for a more protective buffer than currently exists on site.

(4)(d): As defined in Appendix A and Appendix B – already existing impervious surfaces are present across most of the site. Where necessary to accommodate the proposed project, these existing features will remain as is or replaced with the current proposed structures. Where possible, these existing features will be removed, and site improvements implemented to result in a more protective conditions on site than currently exist.

(4)(e): As previously mentioned and outlined in Appendix D, the proposed site improvements will meet or exceed standards outlined in the Coastal Stormwater Supplement.

2.4 Storm water Management Plan of the Upland Component:

Refer to Appendix D for details relating to the storm water management summary, and existing conditions.

2.5 Pervious / Impervious Surface Calculations of the Upland Component:

Refer to Appendix D for details relating to the storm water management summary, and existing conditions.

3. DEED INFORMATION

Appendix F provides the property deed information for this site.

4. ADJOINING LANDOWNERS

A list of adjoining landowners and their addresses is attached in Appendix G.

5. **ZONING AND LANDFILL/HAZARDOUS WASTE STATEMENT**

On 30 May 2019 ESI submitted letters to contact the appropriate Chatham County officials regarding zoning and hazardous waste / landfills in the project area. In a response letter dated June 20, 2019 Mr. Clifford Bascombe, Assistant Director, Building Safety & Regulatory Services for Chatham County confirmed the project is in accordance with the approved zoning ordinance. In a response letter June 14, 2019 Mr. Nick Milionis, Sr. Development Services Engineer for Chatham County Public Works reports site conditions are unknown about any landfills or hazardous waste site exist on site. (Appendix 10 & 11 respectively). On June 28, 2019 ESI provided supplemental information to GADNR-CRD revealing GADNR-EPD and Chatham County hazardous site inventory mapping documents no known landfill or hazards on site.

6. **DESCRIPTION OF ALTERNATIVES & MINIMIZATION OF IMPACT MEASURES**

6.1 *Alternatives:*

The project team has prepared several earlier site plans conceptualizing this project. Each plan is generally similar in that the limited upland acreage dictates that the southern portion of the tract will have to accommodate dry rack storage and parking, and narrow peninsula leading the river will primarily be used for vessel and pedestrian access to the river and a small ~30' wide x 60' long footprint to accommodate the ship store, retail, and office facilities needed to operate a full service marina. The width and depth of the Bull River and the width of the parcel and extended property boundaries afford sufficient in-water dockage options which are best accomplished by the proposed plan defined above and elsewhere in this application. Considering the existing site conditions, no freshwater wetlands exist on site; therefore, the project represents complete avoidance of any wetlands regulated by the Clean Water Act.

Where possible, minimization efforts have been employed which include limiting permanent impacts to the previously utilized 50' upland component buffer and limiting the supplemental rip rap to only that needed to protect the new site improvements.

No additional minimization options exist that would also allow the project to be constructed as proposed.

6.2 *No-Build Alternative:*

A no-build alternative would result in the subject site remaining in the abandoned, underutilized condition as it has been since the restaurant burned down in 2005. A no-build alternative does not meet the purpose and need for this project.

7. **EROSION AND SEDIMENTATION STATEMENT**

Pursuant to CESAS Form 19; Question 16, B: 1,2,3.

- 1) All activities will be performed in a manner to minimize turbidity into river.
- 2) No oils or other pollutants will be released from the proposed activities which will reach the river.
- 3) All work will be performed in a manner necessary to avoid interference with any legitimate water uses.

8. **PUBLIC INTEREST STATEMENT**

The proposed construction, outlined elsewhere in these materials, has been designed to meet the specific project purpose, while minimizing adverse impacts to the surrounding ecosystems wherever possible. In this application, documentation has been provided to discuss how the project is not contrary to the public interest, and the following public interest considerations are discussed:

Pursuant to the Coastal Marshland Protection Act 12-5-286. (12)(g):

- a. *Whether or not unreasonably harmful obstruction to or alteration of the natural flow of navigational water within the affected area will arise as a result of the proposal.*

Site data collected and used in this application clearly defines the existing site conditions. The river at the project location ranges between ~740 to ~783' wide. The proposed dock occupies ~ 32% of the waterway. Appendix B; Sheets 6, 9 & 10 provide detail of the docks in association with the current bathymetric survey, provided by Bottom Line Echo, of the Bull River. As

depicted, the depth of the river at the dock location satisfy depth requirements for this project. As depicted, the depth of the river north of the outboard docks range between -25' to -30' deep. Proceeding across the river to the north, depths remain greater than -11' deep for at least ~370. These conditions provide ample room for safe navigation past the proposed project. Therefore, there will be no unreasonable harmful obstruction to or alteration of the natural flow of navigational waters.

- b. *Whether or not unreasonable harmful or increased erosion, shoaling of channels or stagnant areas of water will be created.*

The project is located along the outside bend of a slight curved section of the Bull River. The configuration of the docks and piles allow the current to continue to run parallel to the shoreline. Furthermore, most of the proposed structures will begin at least 25' north of the existing rip-rapped shoreline. Therefore, no unreasonable harmful or increased erosion, shoaling of channels or stagnant areas of water will be created.

- c. *Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.*

The proposed project will employ Best Management Practices in accordance with local, state, and federal regulations.

As outlined in the Conservation Measures Section 11 in this document, and the "Sample" education materials defined in Appendix M, conservation of marine life and other resources will be employed and made part of the daily operations of this project.

Therefore, using appropriate redevelopment standards consistent with BMP's and regulatory obligations, this project as proposed will not unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.

9. LISTED SPECIES

Protection of listed animal species is provided by the Endangered Species Act for both private and public lands, regardless of permitting needs. For species listed by the State of Georgia as rare, unusual, or in danger of extinction under the Endangered Wildlife Act, the state's jurisdiction is limited to the capture, killing, selling, and protection of suitable habitat of protected species on public land. For plants listed by the state as rare, unusual, or in danger of extinction under the Wildflower Preservation Act, jurisdiction is also limited to those species found on public land. Species of Management Concern (SMC) are not being evaluated, because they have no federal listing, so therefore are not legally protected. Since this parcel does not contain public lands, the listed species review focused only on the federally listed species with ranges in Chatham County, Georgia.

The total site consists of 4.91-acres, of which 2.38-acres are upland and 2.53-acres are marsh. As discussed earlier, most of the upland was formerly part of Williams Seafood Restaurant which burnt down in 2004. Due to the site's current condition containing urban debris and its prior use as a restaurant followed by commercial use as a casino cruise ship facility, upland dependent listed species are not anticipated to occur within the project site. These prior uses significantly limited the habitat types on site. For this reason, several of the species listed as potentially occurring in Chatham County are not anticipated to occur within the project site, including eastern indigo snake (*Drymarchon corais couperi*), frosted flatwoods salamander (*Ambystoma cingulatum*), red-cockaded woodpecker (*Picoides borealis*), and Pondberry (*Lindera melissifolia*).

ESI has spent a substantial amount of time on site and have reviewed available printed material for current listed species. Refer to Appendix L for U.S. Fish and Wildlife IPaC data. Compilation of this data revealed the list of species identified to occupy habitats similar to those

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found on or near the project site as listed below in Table 2, along with a brief description and statement about their potential for occurrence.

Table 2. Listed species classified as Threatened or Endangered for Chatham County, GA

Species	Federal Status	Habitat	Threats	Potential Habitat Present	Project Potential for Impacts	Biological Opinion
Bird						
Wood Stork <i>Mycteria americana</i>	T	Primarily feed in fresh and brackish wetlands and nest in cypress or other wooded swamps.	Decline due primarily to loss of suitable feeding habitat, particularly in south Florida. Other factors include loss of nesting habitat, prolonged drought/flooding, raccoon predation on nests, and human disturbance of rookeries.	Yes, marsh on west side of site	None	No Effect
Piping Plover <i>Charadrius melodus</i>	T	Sandy upper beaches, especially where scattered grass tufts are present, and sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments. Nests may also be built on sandy open flats among shells or cobble behind foredunes	human activity; disturbance by humans, predation, and development pressure are pervasive threats along the Atlantic coast; inappropriate water management a threat on the northern Great Plains. Current favorable population trends depend on intensive management.	Potential	Low ¹	May Affect – Not Likely to Adversely Affect
Red Knot <i>Calidris canutus rufa</i>	T	Uses different habitats for breeding, wintering, and migration. Breeding habitats are elevated and sparsely vegetated ridges or slopes. They are often adjacent to wetlands and lake edges for feeding. Wintering and migration habitats are often muddy or sandy coastal areas, such as the mouths of bays and estuaries, and tidal flats.	Nests in Arctic, winters mainly in southern South America; drastic decline in recent decades; population size now in the low 10,000s; overharvest and population declines of horseshoe crabs (the eggs of which are a critical food resource) probably major reason for red knot decline.	Potential	Low ¹	May Affect – Not Likely to Adversely Affect

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Mammals						
West Indian Manatee <i>Trichechus manatus</i>	T	Live in marine, brackish, and freshwater systems in coastal and riverine areas.	Habitat loss, boat collision, entanglements in fishing gear	Yes	Low ¹	May Affect – Not Likely to Adversely Affect
North Atlantic Right Whales <i>Eubalaena glacialis</i>	E	Mostly found along the Atlantic coast of North America. Nursery in shallow coastal waters	Ship collisions, fishing gear entanglement, habitat degradation, contaminants, climate change, noise	Yes	Low ¹	May Affect – Not Likely to Adversely Affect
Reptile						
Green Sea Turtle <i>Chelonia mydas</i>	T	Shallow waters inside reefs, bays, inlets; rarely found in open ocean. Nest in open beaches with minimal disturbance.	Loss of nesting habitat, commercial harvest, disease, marine pollution, watercraft strikes, incidental capture	Yes, Bull River	Low ¹	May Affect – Not Likely to Adversely Affect
Leatherback Sea Turtle <i>Dermochelys coriacea</i>	E	Open ocean, forage in coastal waters and offshore.	Incidental capture, marine pollution, commercial harvest	Potential, Bull River	Low ¹	May Affect – Not Likely to Adversely Affect
Loggerhead Sea Turtle <i>Caretta caretta</i>	T	Feed in coastal bars/estuaries and shallow water along the continental shelf.	Loss of nesting habitat, incidental capture	Yes, Bull River	Low ¹	May Affect – Not Likely to Adversely Affect
Hawksbill Sea Turtle <i>Eretmochelys imbricata</i>	E	This species uses a wide range of tropical and subtropical habitats, including shallow coastal waters with rocky bottoms, coral reefs, beds of sea grass or algae, mangrove-bordered bays and estuaries, and submerged mud flats	Heavy exploitation and decreased nesting grounds due to development.	Potential, Bull River	Low ¹	May Affect – Not Likely to Adversely Affect
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i>	E	Habitat primarily includes shallow coastal and estuarine waters, often over sandy or muddy bottoms where crab are numerous.	Major threats include degradation of beach and coastal marine/estuarine habitats and mortality in commercial fisheries; vulnerable to oil spills.	Potential, Bull River	Low ¹	May Affect – Not Likely to Adversely Affect

SAVANNAH BOATHOUSE

Fish						
Shortnose Sturgeon <i>Ambystoma cingulatum</i>	E	Hatch in freshwater rivers, and spend most of their time in coastal waters, spending little time in the ocean.	Overharvesting, bycatch of sturgeon in fisheries targeting other species, poor water quality, habitat degradation/loss from dams, dredging, etc.	Yes	Low ¹	May Affect – Not Likely to Adversely Affect
Atlantic Sturgeon <i>Acipenser oxyrinchus oxyrinchus</i>	E	Hatch in freshwater rivers, head out to sea as juveniles, and spend most of their time in coastal rivers. In Georgia, they return to their birthplace to spawn during later summer/fall. Adults migrate and forage along the coast in estuaries.	Overharvesting, bycatch of sturgeon in fisheries targeting other species, poor water quality, habitat degradation/loss from dams, dredging, etc.	Yes	Low ¹	May Affect – Not Likely to Adversely Affect

¹ Low was assigned to all those species that could not be completely eliminated as potentially utilizing the property or nearby waters in some regard. In this case all of these species were assigned a Biological Opinion of May Affect – Not Likely to Adversely

Potential suitable foraging for wood storks may exist in the marsh located on the west side of the project area. This marsh area is not unique to support wood stork foraging in the area, but generic by nature. Although wood storks could fly over the site, given the fact that this site does not offer any unique habitat for this species, the likelihood of the project negatively affecting this species is low. Activities associated with this project are not anticipated to affect this species.

The marine species listed in Table 2, can/do occupy the waterways proximate to the project and within the Atlantic Ocean located ~9.3 river miles to the east. Boats originating from the marina have a potential for encountering these marine species during their trips. Therefore, several general mitigative measures are being discussed to avoid unreasonable interference with wildlife conservation. These concepts include but are not limited to:

- Coordination with the resource agencies to access the current educational materials and develop a project specific education plan to be used by the patrons. Examples of such plans, signs, and brochures can be found in Appendix N.
- Initial construction of the facility will employ normal Best Management Practices (BMPs)

10. CULTURAL RESOURCE ASSESSMENT

ESI consulted the University of Georgia Archaeological Site File in May 2019. Based upon this inquire, there are 11 projects and two sites (9CH763, 9CH1509) found within a 1-mile radius of the project area. Site 9CH763 was located on the east side of Hwy 80 in 1986, in preparation for development of the Bull River Yacht Club facility. The site included architectural debris, historic ceramic, aboriginal ceramic, glass, and bone. The site was not recommended for preservation and the project proceeded. Site 9CH1509 was observed during a 2018 assessment performed for GDOT as part of the Bull River bridge replacement. The site represents the old Hwy 80 bridge remains consisting of (5) extant support structures exposed at hightide. The site file materials are provided in Appendix O of this application.

11. CONSERVATION MEASURES

As noted elsewhere in this application, the applicant has taken various steps to minimize environmental impacts and create a development that is a viable business venture as well as a project that would complement Chatham County.

These measures include:

- a) Re-development of an already impacted waterfront with a reduced footprint.
- b) Limit marsh shading where possible by removing dilapidated in-water structures and replacing them with new.
- c) Use of construction material suitable to the environment for which they are proposed.
- d) The implementation of standard threatened and endangered species educational materials, both temporarily during construction and permanently after construction.
- e) If necessary, utilize pile driving techniques that decrease potential disturbance to threatened and endangered species.
- f) The implementation of an education program to inform users of local resources.
- g) Provide public access.
- h) Improve existing revetment to prevent future erosion.
- i) Restoration of the upland fringe where possible and enhancing the buffer where none currently exists.
- j) Compilation of a Marina Operations and Maintenance Manual.

SAVANNAH BOATHOUSE

- k) Implement Clean Marina Best Management Practices and other Best Management Practices during the construction of the water access structures and associated development, to avoid turbidity and siltation in adjacent marshes and waterways.
- l) Implement monthly maintenance of dock apparatus' capable of producing a stream of fresh water and have a contingency plan for emergency repairs of any freshwater source.
- m) Provide pump out stations.

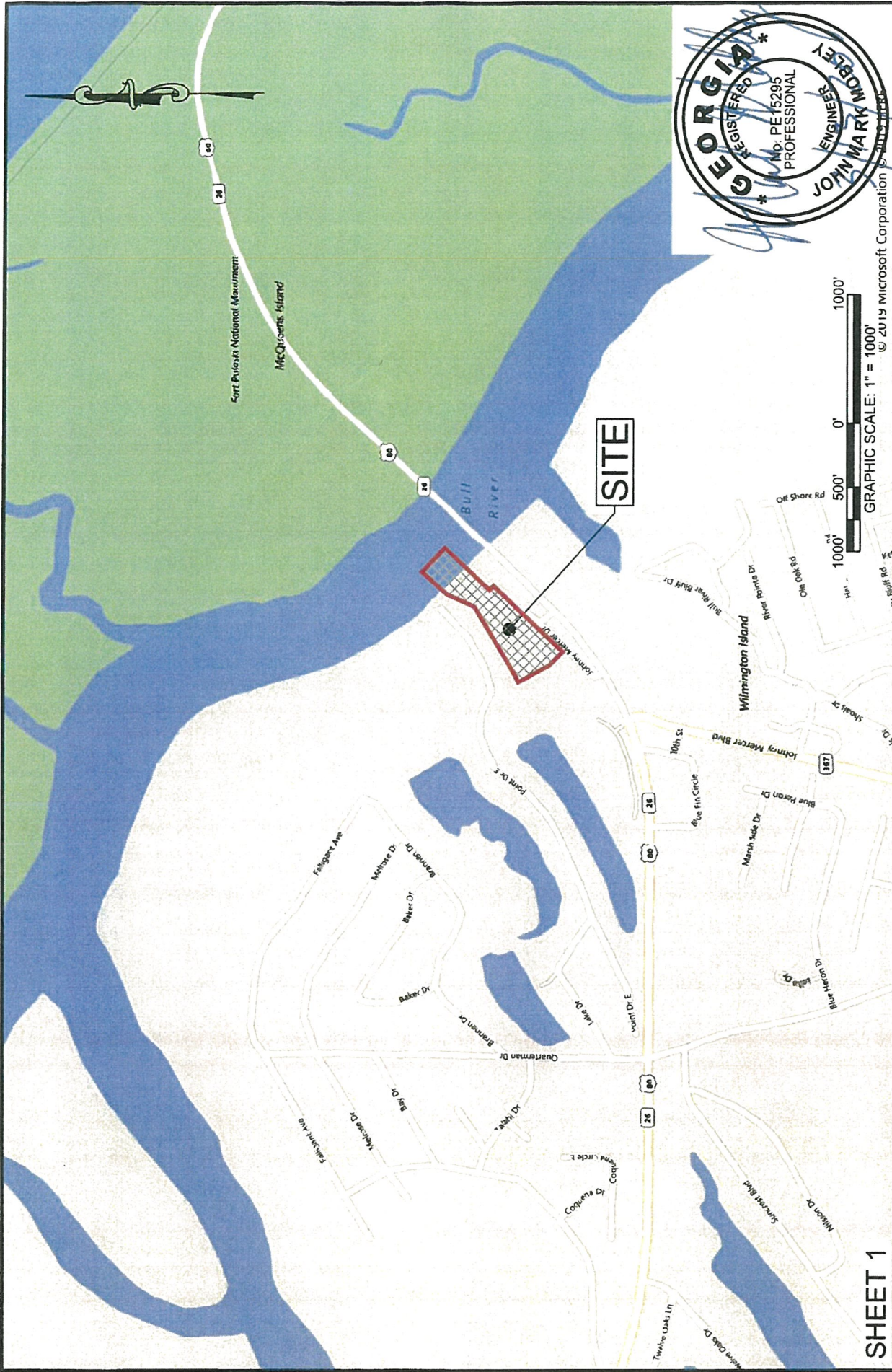
12. PURPOSE AND NEED STATEMENT

The Purpose and Need Statement is to satisfy 404 (b) (1) Guidelines and public interest review (33 CFR 320.4). The purpose of the project is to construct a full-service marina facility to serve public and private interests. The need for this project is driven by several factors, these include:

- Residents in Chatham County have limited facilities that provide for public access to the water and suitable wet and dry storage. Recent Hurricanes Matthew and Irma have decimated the in-water public and private facilities located in and around Chatham County, further limiting suitable water access and use.
- Transient boaters will be provided additional opportunities for mooring while visiting the Savannah area.
- The proposed project stimulates economic development in this area.

13. Needs Assessment

Pursuant to The Rules of the Department of Natural Resources, Chapter 391-2-3-.03(6)(c.), Coastal Marshlands Protection, the applicant has prepared the Savannah Boathouse Needs Assessment found in Appendix E.



PROJECT NO:	18-0143
DRAWN BY:	TCB
DESIGNED BY:	TCB
SURVEYED BY:	YAWN
SURVEY DATE:	JAN. 2019
CHECKED BY:	JMM
SCALE:	1" = 1000'
DATE:	MARCH 13, 2020

GRAPHIC SCALE: 1" = 1000'

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PROJECT LOCATION MAP
SAVANNAH BOATHOUSE DEVELOPMENT
 8020 E. US HWY 80
 CHATHAM COUNTY, GEORGIA
 Prepared for:
 3 SEA SONS, LLC.

Handwritten signature and date: 6/15/20

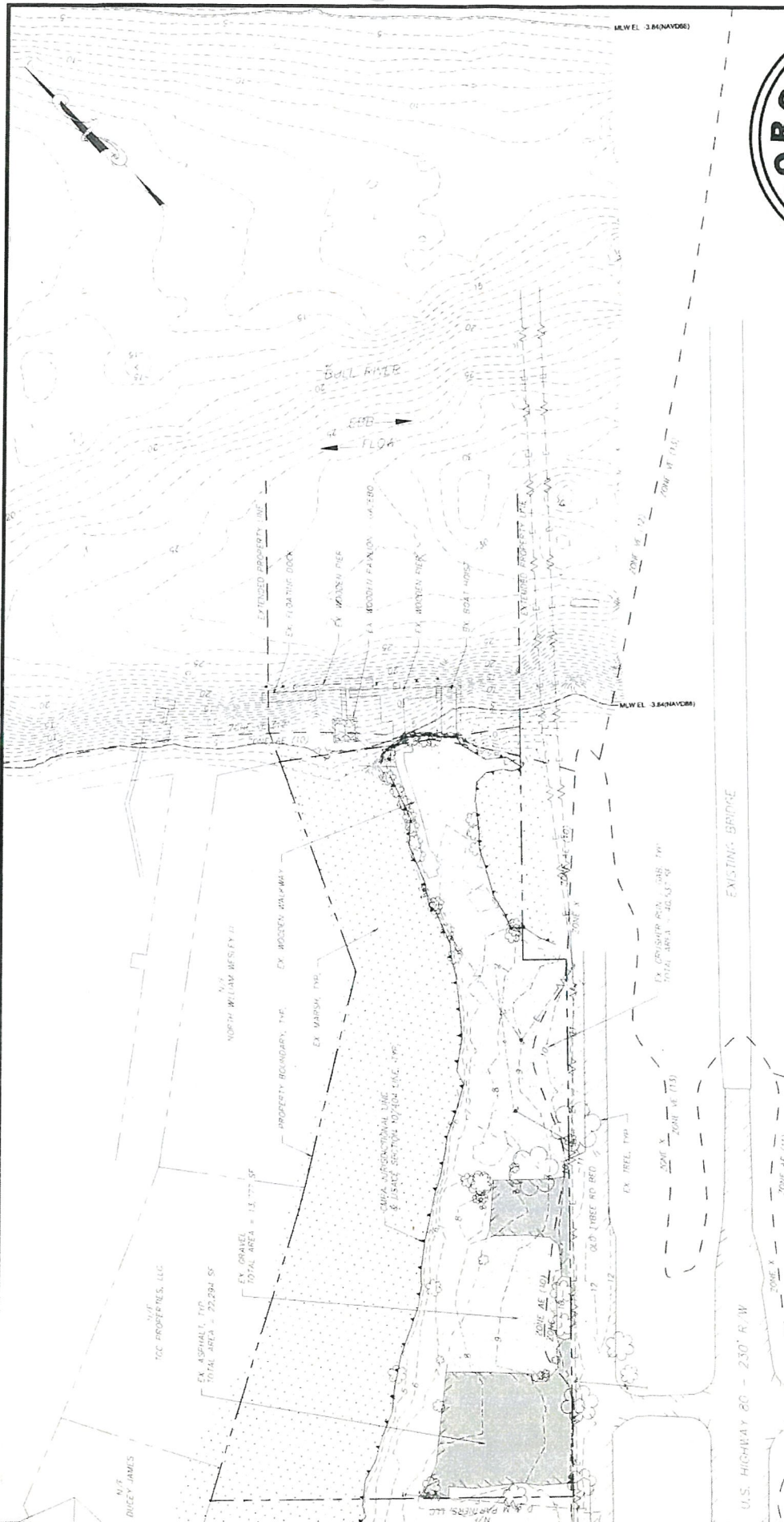
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TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY COMPLETED BY YAWN LAND SURVEYS, LLC AND A BATHYMETRIC SURVEY COMPLETED BY BOTTOM LINE ECHO COMPANY IN JANUARY 2019. HORIZONTAL DATUM IS BASED ON GEORGIA STATE PLAN NAD 83. ALL ELEVATIONS SHOWN ARE BASED ON NAVD88 DATUM.



PROJECT AREA = 4.91 ACRES
 UPLAND AREA = 2.38 ACRES
 MARSHLAND AREA = 2.53 ACRES

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OVERALL EXISTING CONDITIONS

SAVANNAH BOATHOUSE DEVELOPMENT

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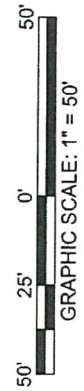
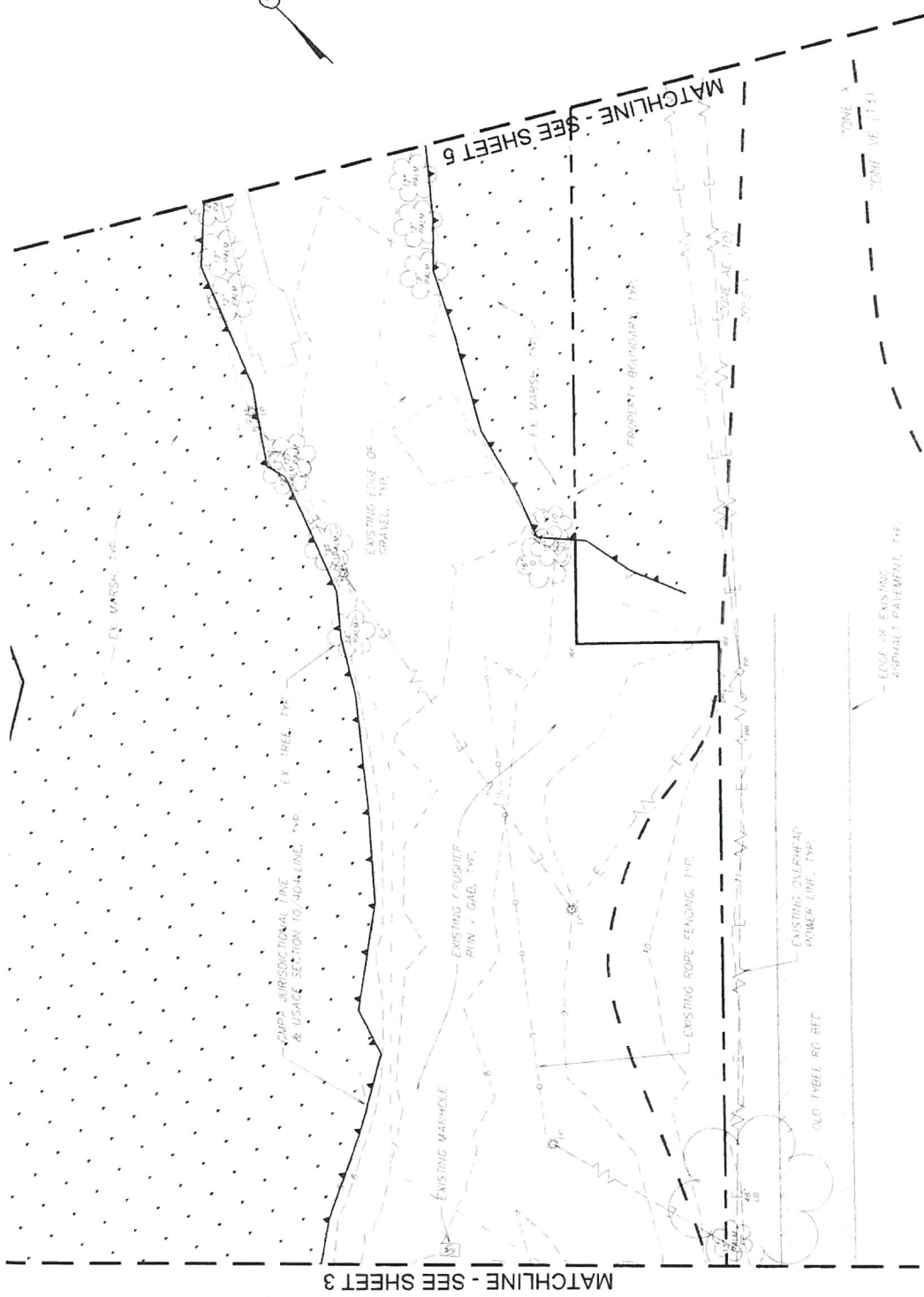
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OVERALL EXISTING CONDITIONS

SAVANNAH BOATHOUSE DEVELOPMENT

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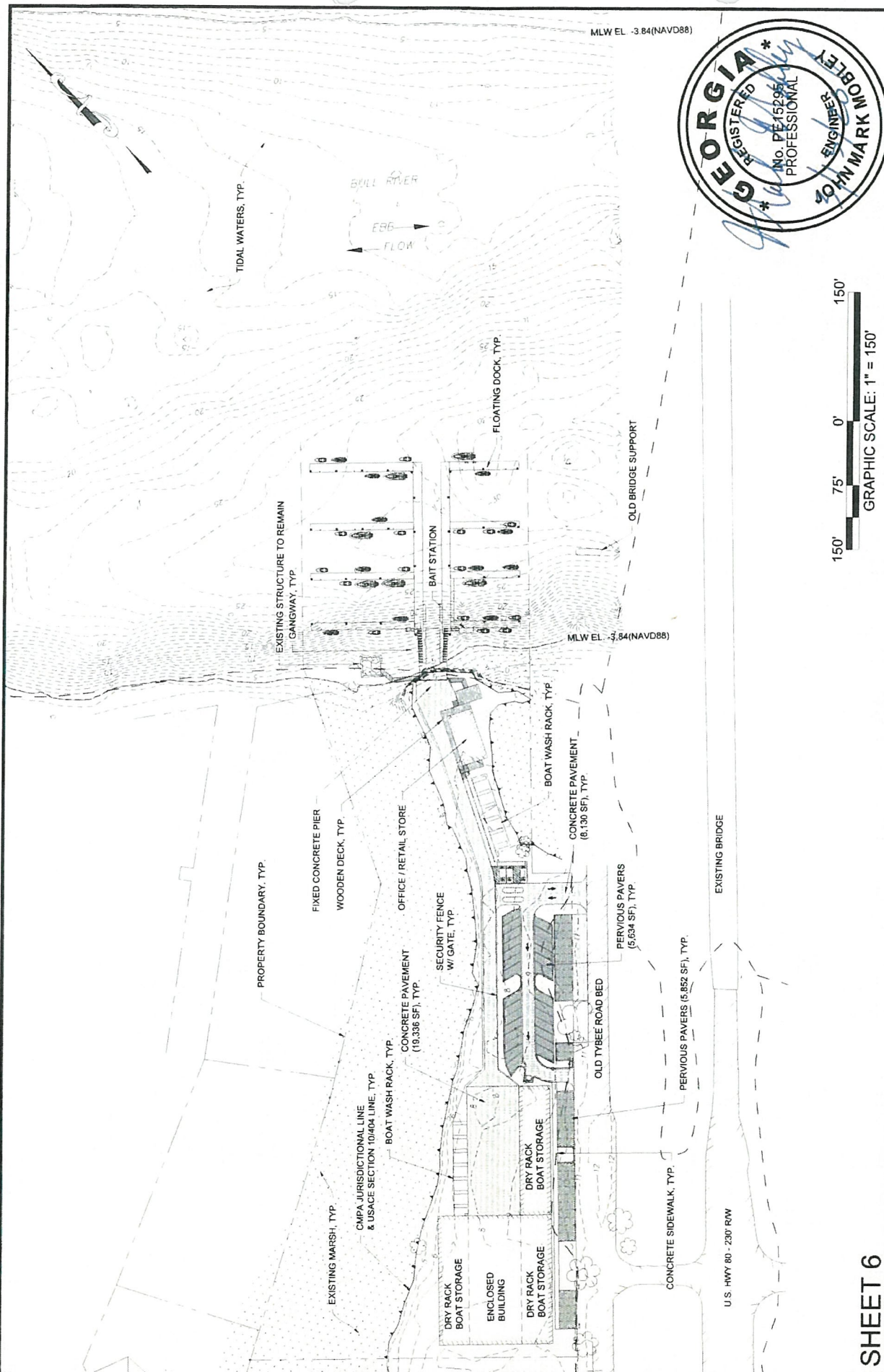
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OVERALL PROPOSED IMPROVEMENTS

SAVANNAH BOATHOUSE DEVELOPMENT

8020 E. US HWY 80

CHATHAM COUNTY, GEORGIA

Prepared for:

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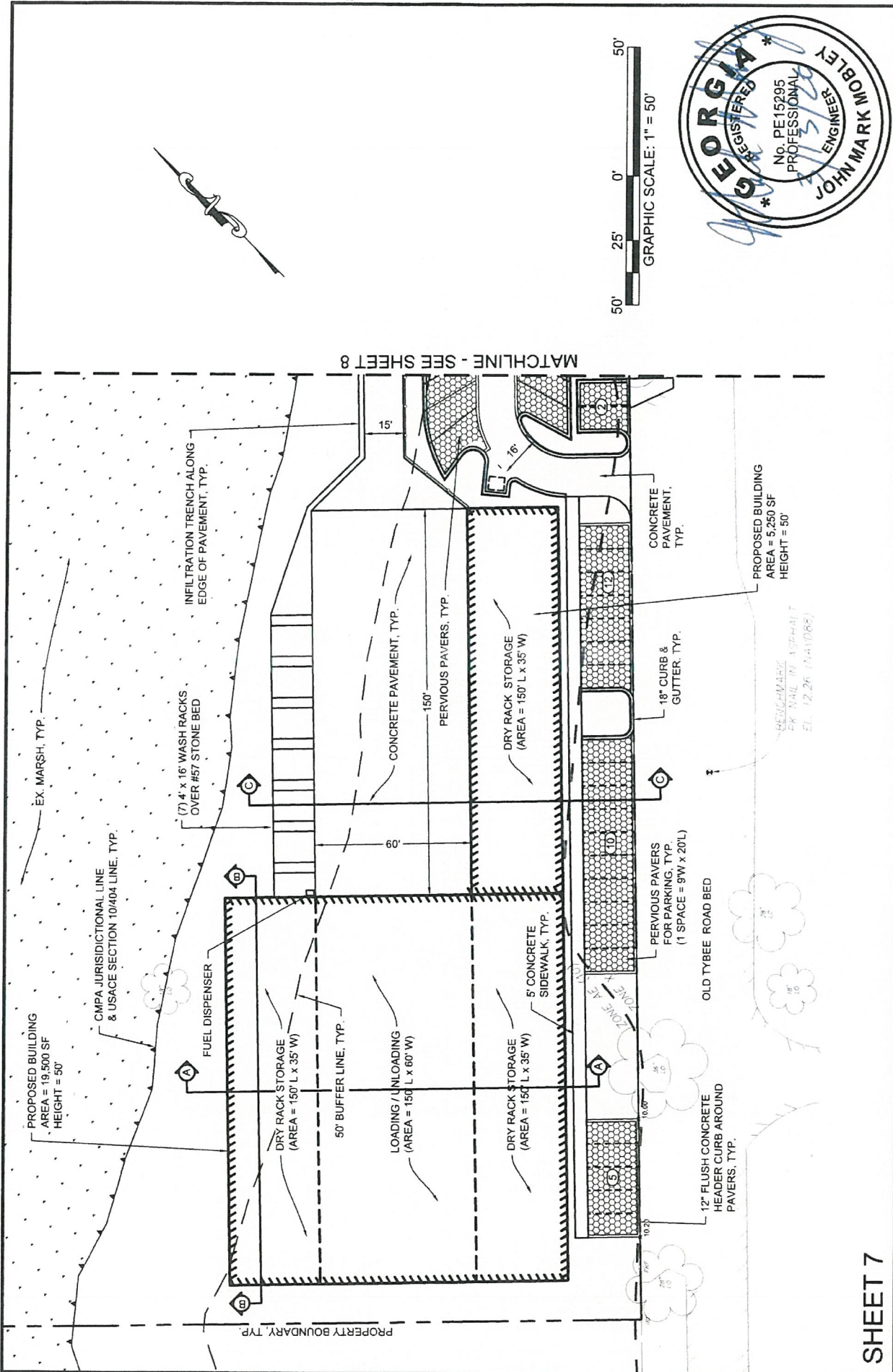


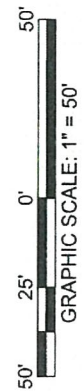
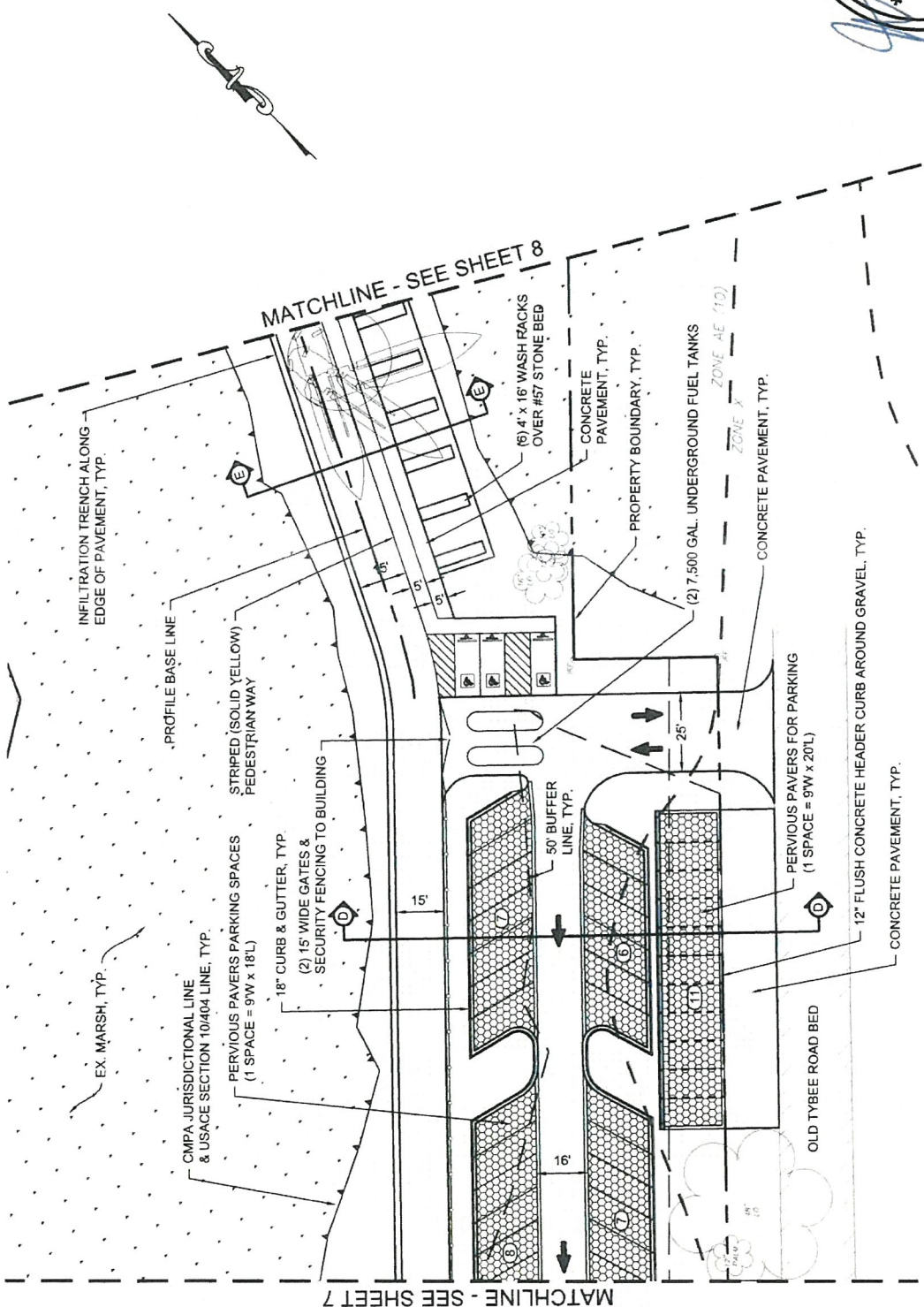
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PROPOSED IMPROVEMENTS

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3 SEA SONS, LLC. *6/15/20*

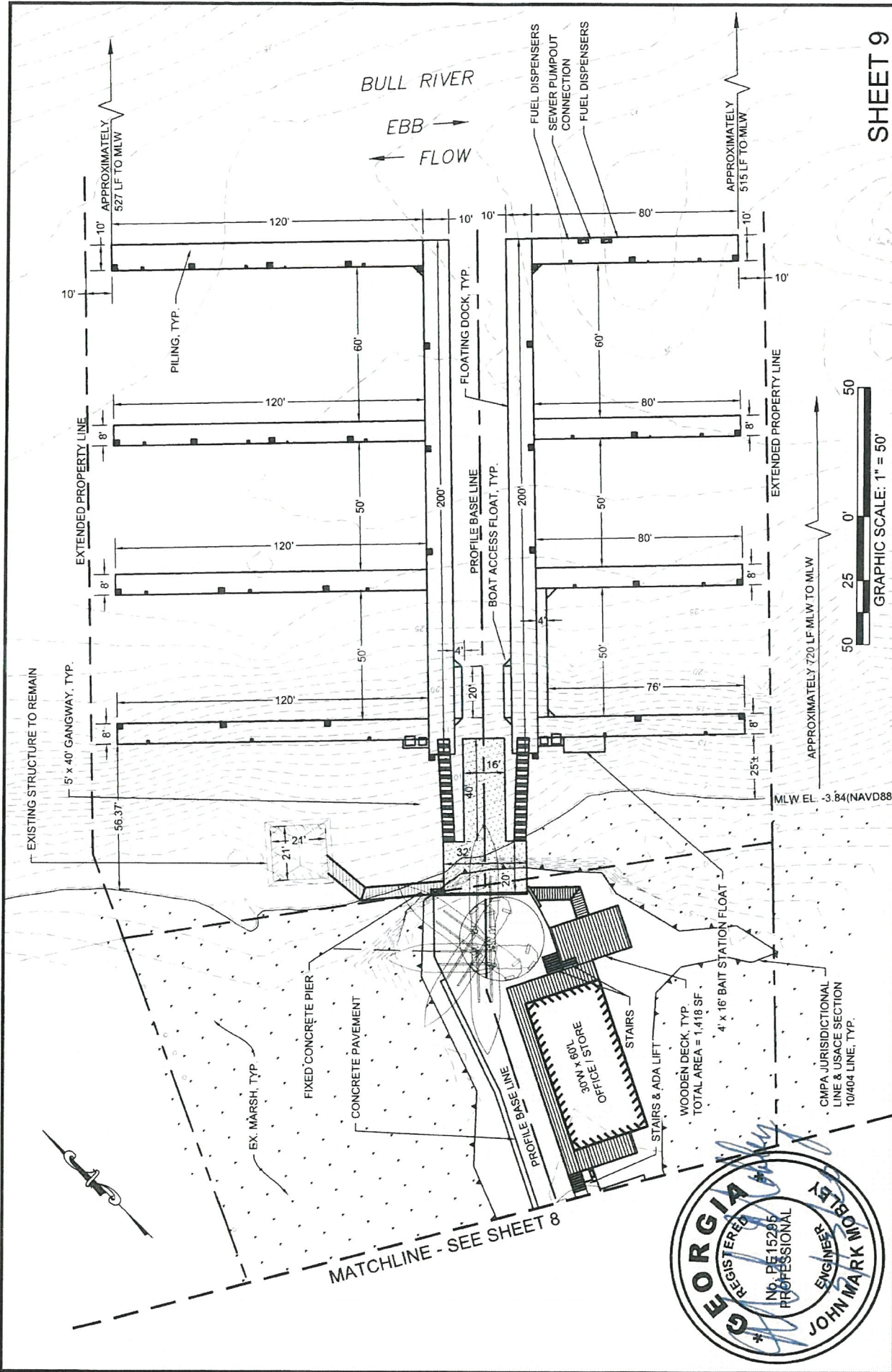
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MATCHLINE - SEE SHEET 8



SHEET 9

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MARSHLAND COMPONENT PROPOSED IMPROVEMENTS

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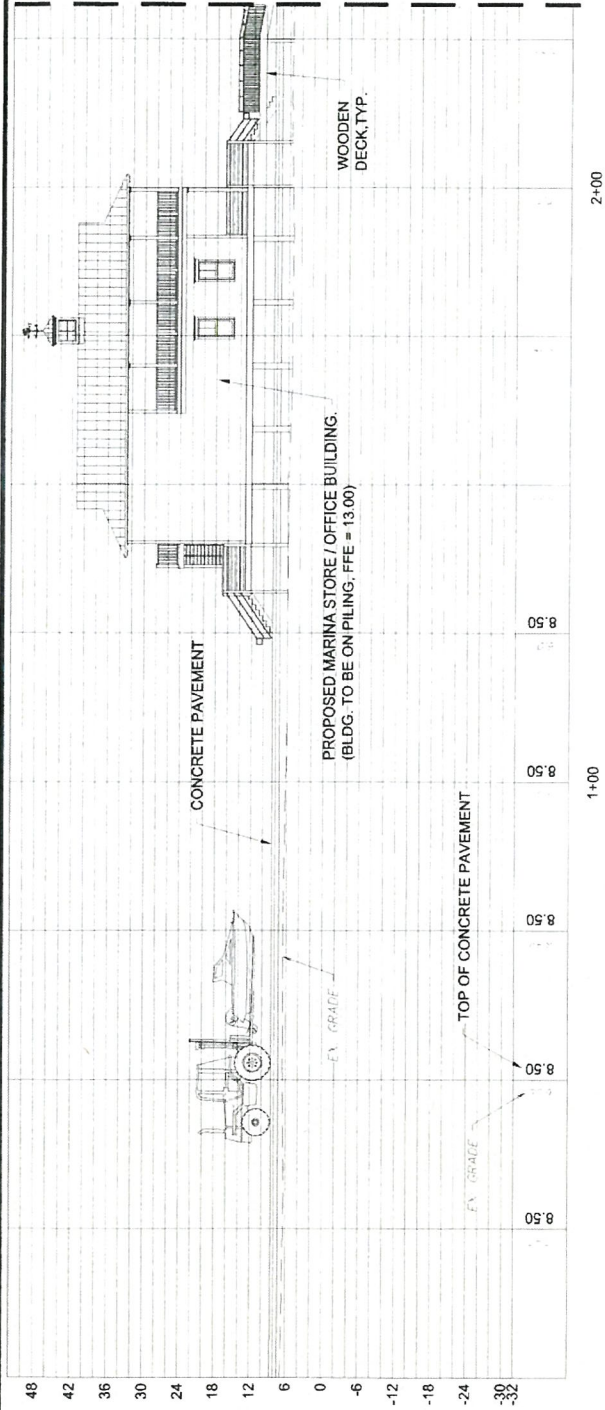
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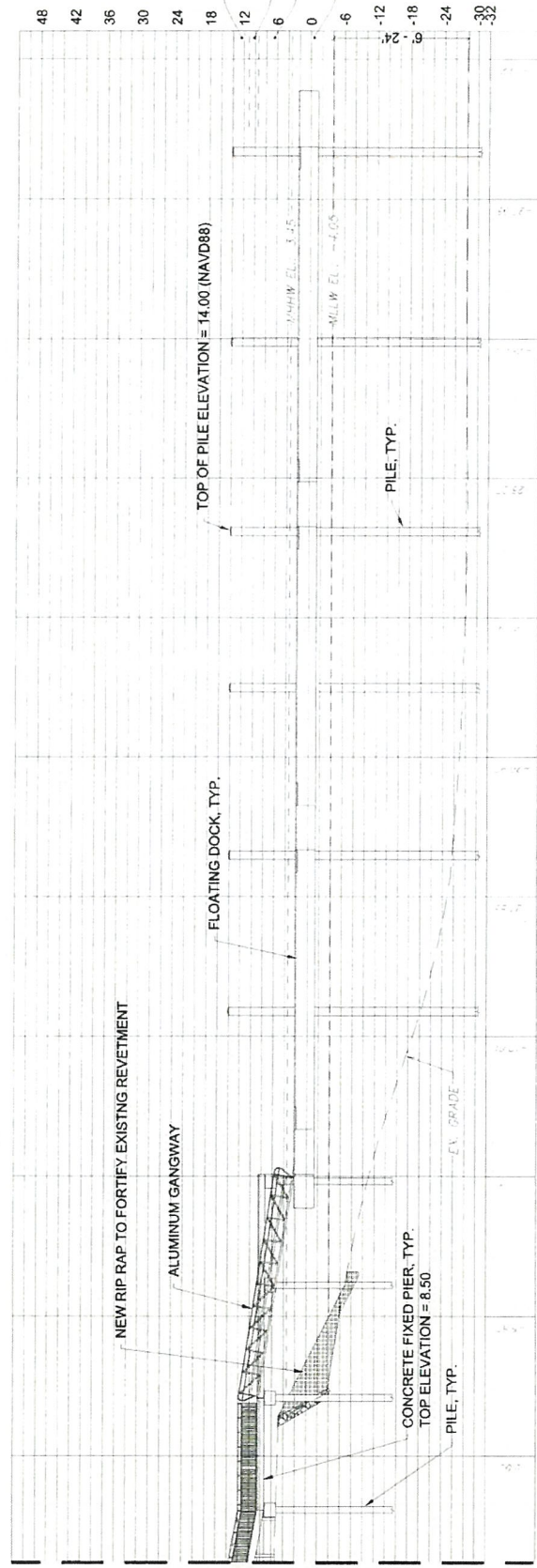
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MATCHLINE - SEE BELOW



MATCHLINE - SEE ABOVE



SHEET 10

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FORKLIFT PATH, FIXED PIER, & FLOATING DOCK PROFILE

SAVANNAH BOATHOUSE DEVELOPMENT

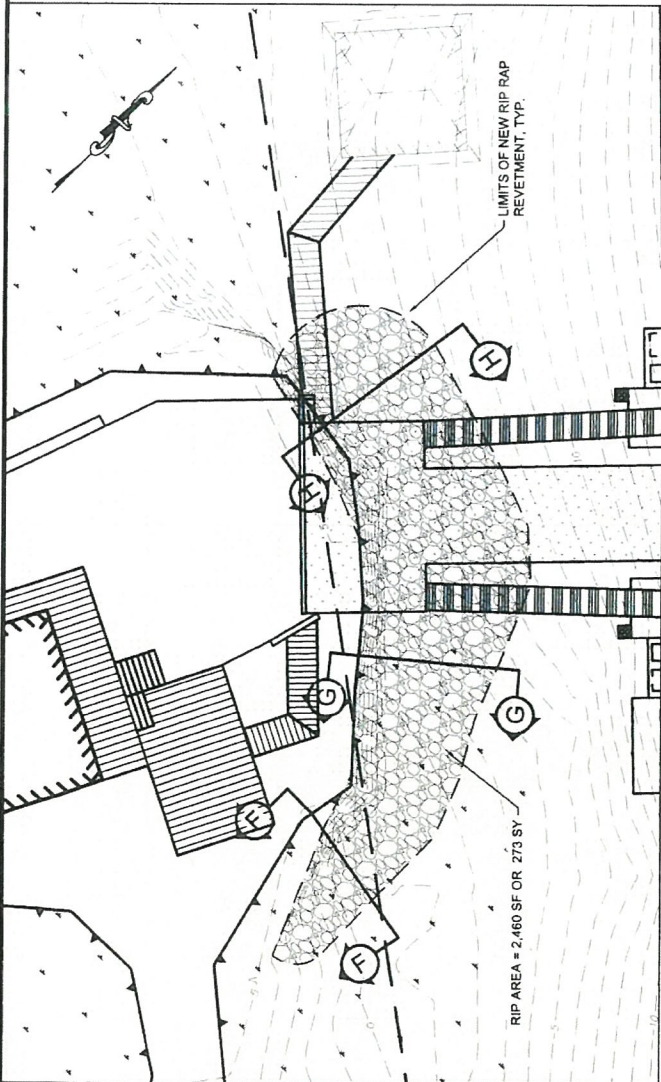
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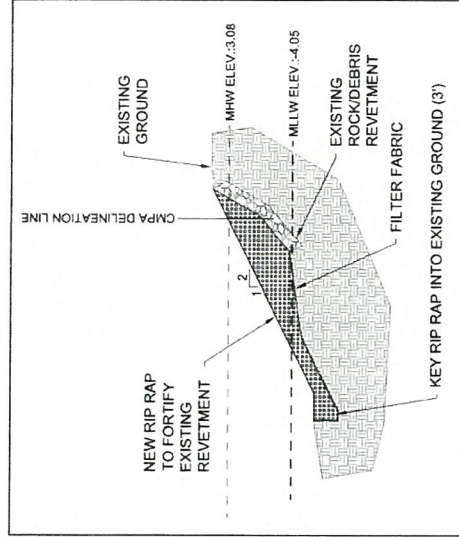
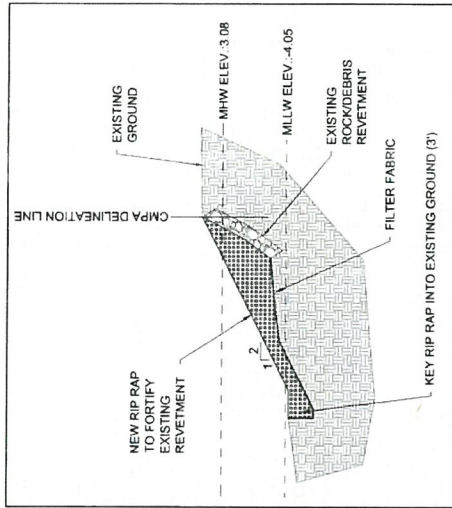
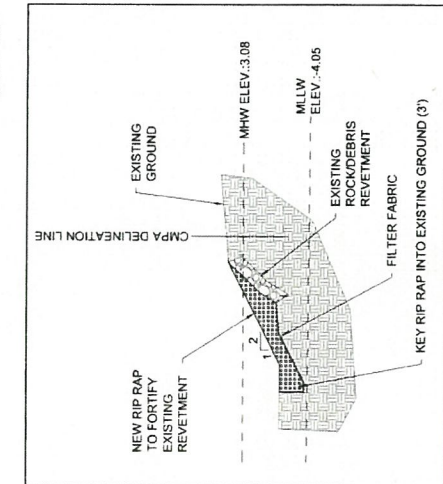
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NOTES:

1. RIP RAP TO BE TYPE 2 AND MEET THE REQUIREMENTS OF GDOT STD. 805.
2. FILTER FABRIC TO BE PLACED UNDER RIP RAP AND SHOULD BE MIRAFI HP570 OR APPROVED EQUAL.



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RIP RAP REVETMENT PLAN AND DETAIL
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 CHATHAM COUNTY, GEORGIA

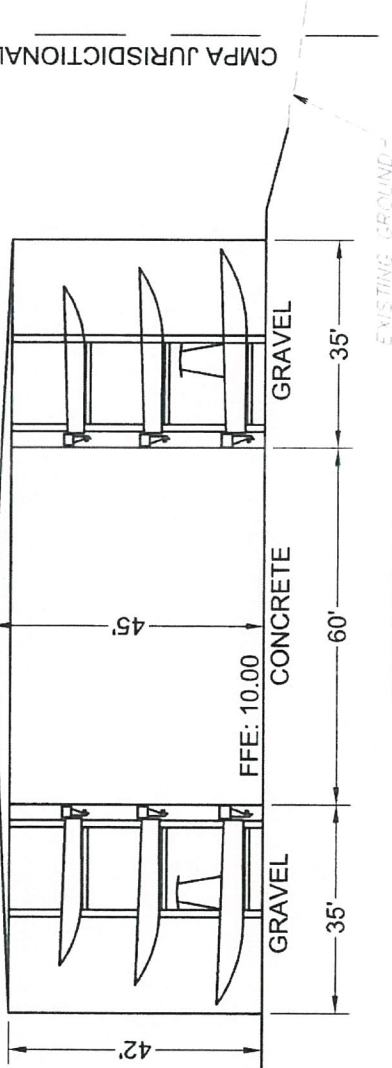
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ENCLOSED BUILDING
(4 SIDES) W/ SLIDING
DOORS FOR ACCESS

CMPA JURISDICTIONAL LINE

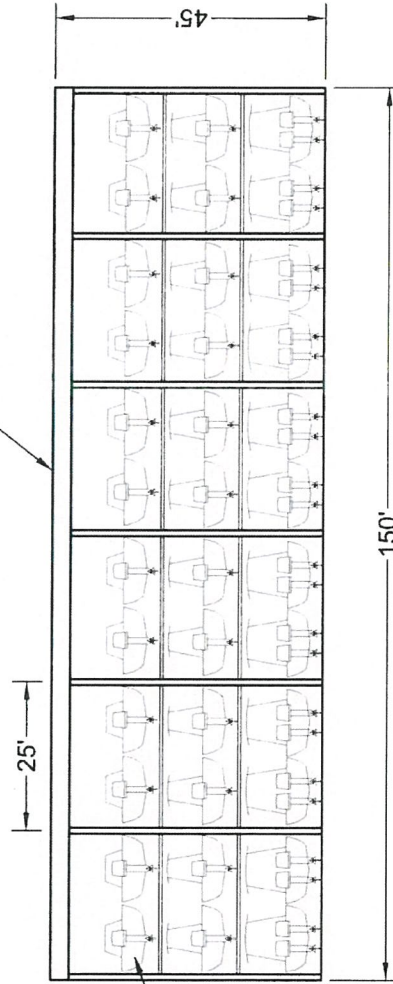


SECTION A-A

SCALE: 1" = 30'



ENCLOSED BUILDING



SECTION B-B

SCALE: 1" = 30'

BOAT, TYP.



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CROSS SECTIONS

SAVANNAH BOATHOUSE DEVELOPMENT

8020 E. US HWY 80

CHATHAM COUNTY, GEORGIA

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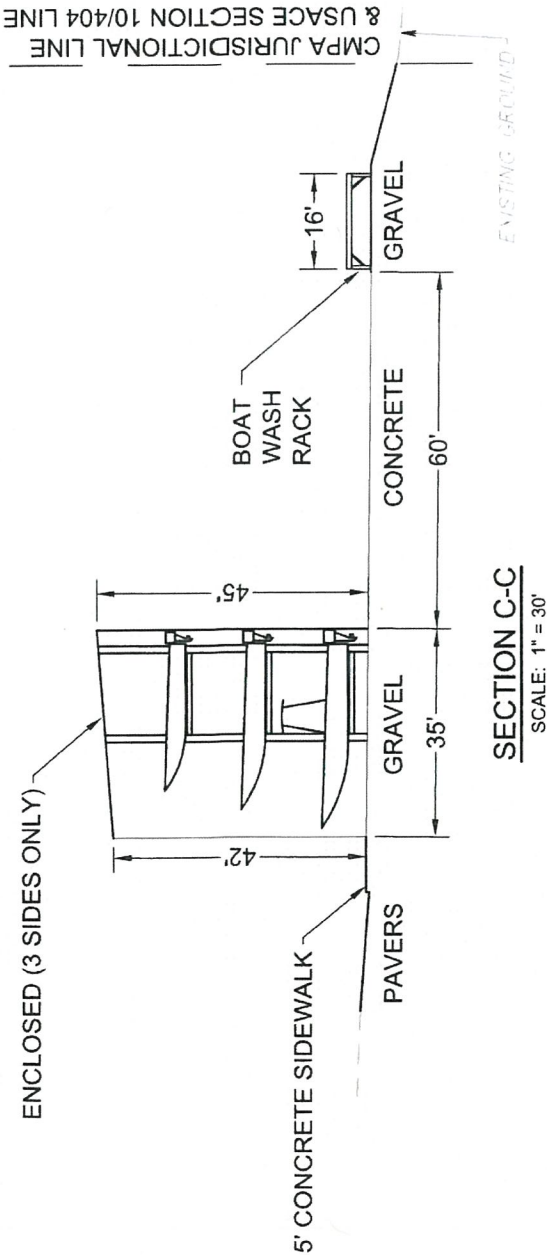
John Mark Mobley
6/5/20

SHEET 12

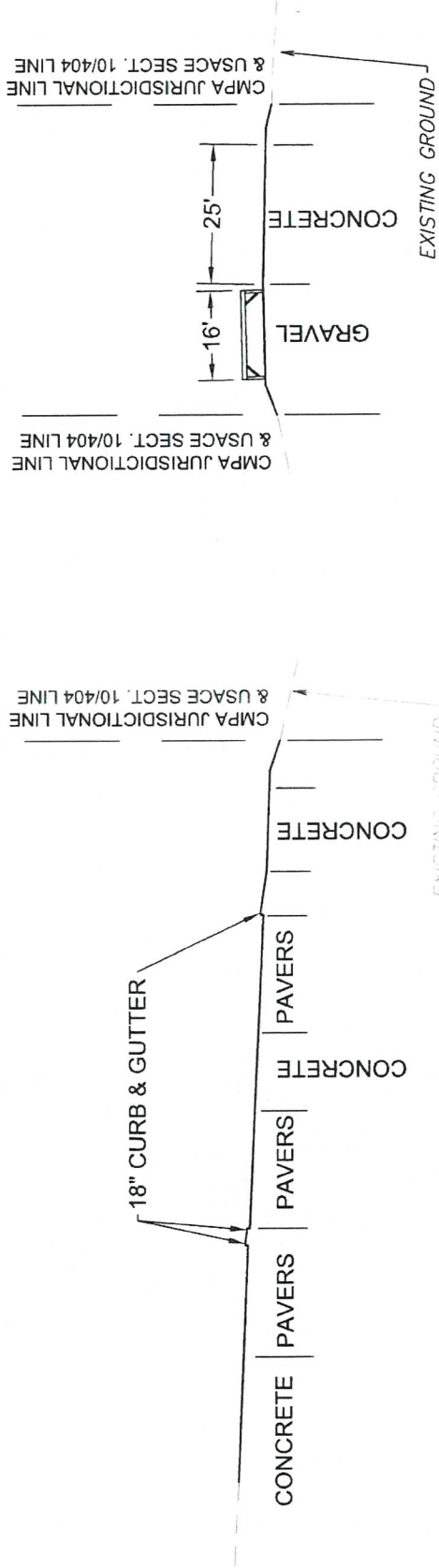
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SECTION C-C
SCALE: 1" = 30'



SECTION D-D
SCALE: 1" = 30'

SECTION E-E
SCALE: 1" = 30'

SHEET 13

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CROSS SECTIONS

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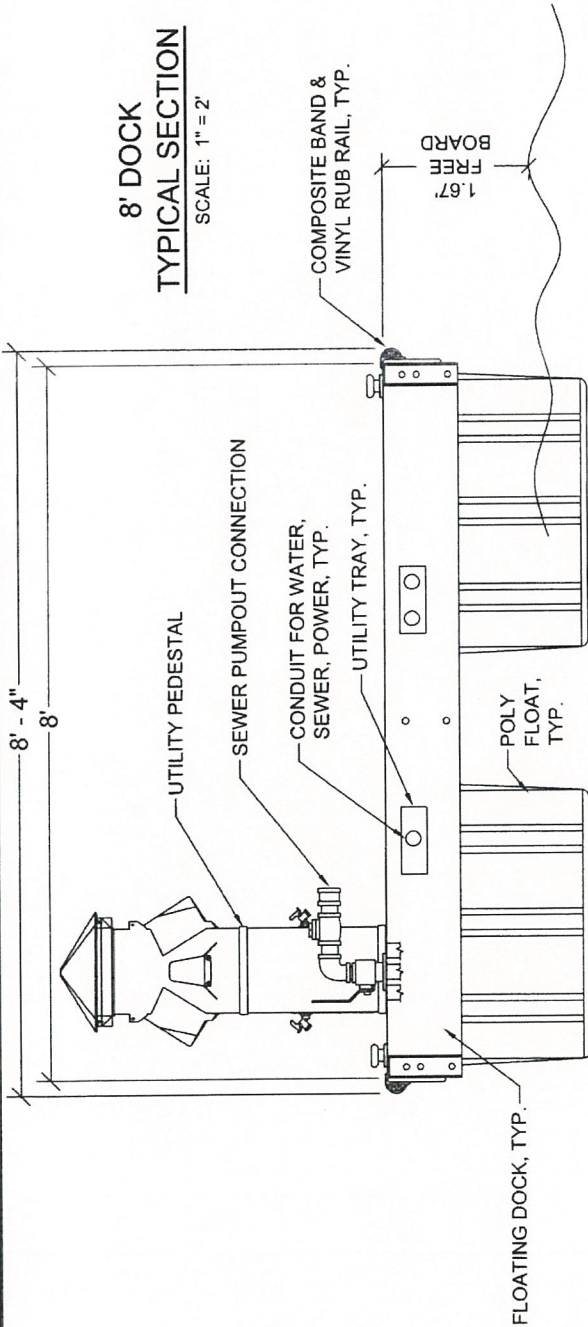
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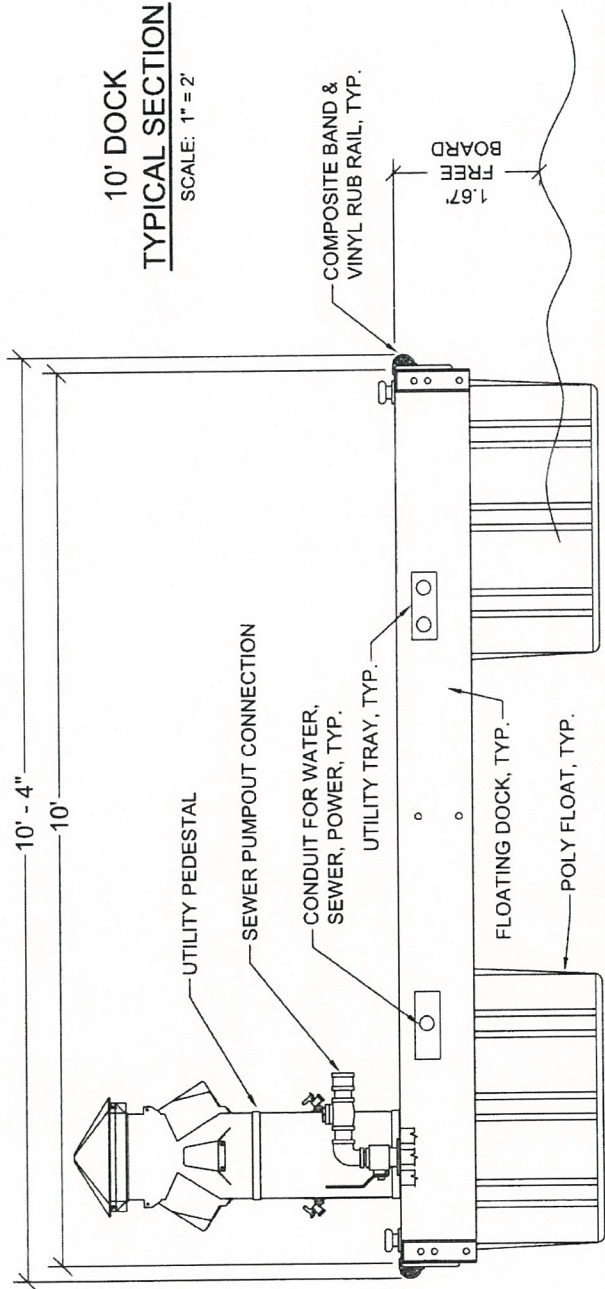
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8' DOCK
TYPICAL SECTION
SCALE: 1" = 2'



10' DOCK
TYPICAL SECTION
SCALE: 1" = 2'



SHEET 14

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DOCK CROSS SECTIONS

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A Terracon COMPANY

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Savannah, Georgia 31404
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environmentalservicesinc.com

2 June 2020

Georgia Department of Natural Resources
Coastal Resource Division
Attn: Sam Labarba
185 Richard David Drive, Suite 104
Richmond Hill, GA 31324

**RE: Savannah Boathouse
Chatham County, Georgia
Permit Modification Materials**

HM167008

Dear Mr. Labarba:

Please find the attached materials as requested from the Georgia Department of Natural Resources regarding permit modifications to the Savannah Boathouse project located on U.S. Highway 80, Chatham County, Georgia.

The materials include:

- Signed Revocable License Request form
- Signed Joint Application Form 19
- Check made payable to the GADNR for a total of \$500.00

A set of these materials has also been sent to you digitally. If you have any further questions or need any other information, feel free to call me.

Sincerely,

Environmental Services Inc.
A Terracon Company

Michael J. DeMell
Department Manager

MD/av
HM167008/Final/June Permit Modification Materials
June 2020

DRAFT
SAVANNAH BOATHOUSE
8020 HWY 80
SAVANNAH, GA 31410
MARINA OPERATIONS AND MAINTENANCE MANUAL

The purpose of this manual is to present policies and guidelines for the management of the primary risks in coastal marinas as well as provide recommendations for management rules and regulations for marina clientele to promote the protection of the marina environment. It is in the interest of the marina owner/operator to develop and follow policies and guidelines which are consistent with the public interest and the protection of the recreational marina environment.

The management categories addressed in this manual include the following:

- Fuel Operations
- Marine Repair and Maintenance
- Waste Handling
- Fish Cleaning Wastes
- Boat Bilge Control
- Boat Cleaning
- Sanitary Waste
- Emergency Preparation and Response

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FUEL OPERATIONS

The proposed fueling system will be in accordance with the Regulations of the State of Georgia and NFPA 30A Marina guidelines and will consist of underground double-walled storage tanks for diesel and gasoline products located within the marina facility. The tanks will be located under the parking lot in an underground vault with appropriate foundation and anchoring systems. The tanks will have overfill and spill protection devices. Marine Grade double wall flexible piping will be installed inside schedule 40 PVC chase pipe conduits to the dispensers located near the Drystack (land-based) and the fueling station on the Transient Dock. All fuel lines will have normally closed solenoid valves. The fuel dispensers will be equipped with containment sumps and automatic shut-off devices and the entire fueling system will have emergency cut-off switches located on the fuel console in the Marina Office/Store as well as the dock. All authorizations and energizing of fuel dispensers will be controlled from the fuel console and at the dispenser by trained personnel. The fuel system will be tested and inspected by the local state fire marshal prior to issuance of a certificate to operate.

A Spill Prevention, Control, and Countermeasure (SPCC) Plan will be prepared for the underground fuel storage tanks and located in the office operations area, in accordance with 40 CFR 112.

Fire extinguishers will be located at each fueling station and in the Marina Store/Office and the Drystack area. Absorbent pads will be located near each fueling station. Pads, as well as oil booms and other appropriate spill cleanup equipment will be positioned near the Marina Store/Office and the Drystack area as well as at accessible locations near the dispensers. All marina personnel will be trained in the use of the cleanup materials and best management practices and procedures. Sufficient signage will be placed at the dispensers and other points along the fuel system describing the emergency procedures in the event of a spill.

The facility will conduct its operations in such a manner to require all individuals who handle material to prevent spills through planning, training, good housekeeping, proper maintenance, and safe operations of the fueling equipment. Should a spill of oil or fuel occur, immediate action will be taken to contain the spill, identify the source and stop any further release of the materials. All responsible parties and jurisdictional agencies will be immediately notified of the spill.

Upon discovery of a spill, the facility will immediately make every effort to contain the spill and stop it at its source in a manner to prevent danger to the health and

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safety of those involved. Containment may involve blocking of stormwater drains, construction of berms/dikes, deployment of spill containment booms/absorbent materials and other barriers to prevent the spread and release of the material to the Bull River, groundwater systems and marshes and to minimize health and environmental damage.

Cleanup and removal of the spill material and spill containment materials will be undertaken after consultation with appropriate regulatory agencies to determine the best method(s) for removal.

MARINE REPAIR AND MAINTENANCE

Savannah Boathouse will include the following facilities for vessel haul-out repair and maintenance:

- Drivable forklift capable of lifting a boat of approximately 17,300 lbs.
- In water docks
- Dry Stack Building (approx. 110 racks)
- Marina Office, Bathrooms, Showers, Laundry

Following is a list of maintenance and repair activities that will be performed at the Boatyard and the best management practices (BMPs) that will be implemented:

- Hull scraping and sanding - place plastic under hull, collect and dispose
- Paint stripping – place plastic under hull, collect and dispose; utilize wet blast system to control dust
- Abrasive blasting - place plastic under hull, collect and dispose; utilize wet blast system to control dust
- Fiberglass Repair
- Bottom painting (anti-fouling paint) - place ground tarps under hull, collect, and dispose.
- Varnishing and wood refinishing – to be performed in segregated area of drystack building with appropriate exhaust system or outdoors
- Electronic
- Degreasing / parts washing – degrease, collect and properly dispose all waste products
- Engine work – collect used oil and filters and dispose of through waste disposal company

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- Propulsion work
- Zinc replacement – collected, stored inside and removed by metal collection company

WASTE HANDLING

The facility will dispose of all solid waste consistent with the State of Georgia Rules for Solid Waste Management Chapter 391-3-4. Trash receptacles will be installed in convenient locations for marina patrons. Receptacles will contain covers to prevent water collection during rainfall events or loss of the waste from high winds or scavenging animals and birds.

Receptacles are to be emptied by marina personnel before they are completely filled to avoid spillage.

Signs will be posted throughout the site to inform patrons of the waste collection rules and policies.

Proper storage and disposal of potentially harmful and hazardous liquid material wastes is to be performed to eliminate the potential of spills entering the waters and harming the aquatic environment and marina property. Liquid materials provided by the facility such as oils, solvents, fuels, etc. are to be stored in a manner to prevent spills and if applicable recycled and disposed of properly.

FISH CLEANING WASTES

To avoid water quality problems and unsightly waste, fish cleaning is to be performed only in designated areas sufficiently identified for patrons. Receptacles will be provided and clearly marked for the proper disposal of fish cleaning waste. Waste collected at the designated fish cleaning area will be disposed of daily at a minimum to prevent spillage, odor and unsightly conditions. Patrons are to be informed as the procedures for waste collection due to fish cleaning and resulting adverse impacts of improper disposal of fish waste into the marina waters.

BOAT BILGE CONTROL

Facility personnel will be responsible for establishing and maintaining procedures and guidelines to avoid leakage of boat bilges into the Bull River. Marina patrons

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are to use care during fueling operations to prevent overfilling of gas tanks and to not discharge contaminated bilge materials into the waters. All spills are to be reported to the facility operator immediately.

The facility will promote and make available the use of oil absorbing materials in the bilge areas of all boats with inboard engines. Containers will be provided to hold motor oils or disposal of absorption materials and bilge oil materials. The facility will recycle used oils or dispose of them in accordance with applicable disposal regulations.

BOAT CLEANING

The facility will not allow in-water hull scraping or any process that occurs underwater which removes paint from the hull releasing it into the water.

The facility will not sell and will prohibit the use of detergents containing ammonia, chlorinated solvents or other harmful cleaning products which may be released into the water.

Washing of boats shall only be performed out of the water at the designated wash down areas where runoff and any resulting debris may be contained and properly disposed of.

SANITARY WASTE

Discharge of sewage into the waters will be strictly prohibited. Sufficient signage at the marina will be installed prohibiting the sewage discharge.

A state-of-the-art marine sewage pumpout station will be installed in an effort to protect water quality in and around the Bull River. Fixed pumpout station will be provided at the Fuel Dock as well as at the fueling facilities on the Transient Docks.

The marine sewage pumpout system will be available to vessels berthed at the marina (short and long-term) as well as to the general boating public.

Instructions on the use of the equipment will be posted throughout the facility with directions on procedures in the event of a spill.

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Prior to using the pump-out equipment the boat is to be securely moored to the dock and the equipment checked for its available capacity. Proper absorbent material will be on hand during the pump-out operation.

The facility will provide patron restroom facilities to be open at all hours. Facility personnel will routinely inspect and maintain all sanitary sewer equipment and facilities in good working condition.

Only biodegradable and phosphate free soaps and cleaners will be available for purchase at the marina.

EMERGENCY PREPARATION AND RESPONSE

The facility is to maintain an Emergency Response Plan and to educate all marina personnel and patrons on the procedures to be followed in the event of:

- Chemical Accidents
- Oil and Fuel Spills
- Fire
- Boat Sinkings
- Severe Weather

Facility personnel will coordinate with local fire departments and emergency management organizations for recommendations and development of any additional procedures or methods required for the plan. Appropriate safety equipment and devices will be located throughout the marina facility for use in the event of an emergency.

Chemical Accidents

The office will keep on file Material Safety Data Sheets (MSDS) of all products kept on site. Notification procedures in the event of an accident will be coordinated with local officials.

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Spill Prevention and Control

Immediate action shall be taken to contain any spills, identify the source of the spill and prevent any further release of the material. All responsible parties and regulatory/enforcement agencies will be immediately notified of the spill. The marina will make every effort to contain the spill and to prevent danger to the health and safety of the public and the environment. Adequate containment devices including but not limited to, booms, berms, dikes, absorbent materials and other clean-up equipment will be provided and kept in good working condition.

Clean-up of any spills will be performed after consultation with appropriate agencies as to the proper method of cleanup and disposal of spill material.

Fire Prevention and Protection

Fire extinguishers and other appropriate fire fighting equipment will be located throughout the facility and will be routinely serviced to maintain their working condition.

Evacuation diagrams and directions will be sufficiently posted throughout the facility.

Emergency shut off switches and valves will be installed on all power and fuel equipment.

All marina personnel will be trained in fire response procedures.

All electrical products and devices will be routinely inspected to insure their safe and good working condition. All fire safety procedures are to be strictly enforced. Instructions on the procedures in the event of a fire are to be posted in visible areas of the facility.

Boat Sinkings

To minimize the potential for vessel sinkings at the site, the facility will provide and maintain a portable dewatering pump to be used by marina personnel. In the event

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a boat cannot be prevented from sinking, spill containment booms will be deployed and applicable response agencies notified immediately.

Severe Weather

The facility is to develop and periodically update a Severe Weather Evacuation and Preparedness Plan to implement in the event of approaching Hurricanes or other severe adverse weather conditions. The plan is to be phased with steps to be performed in stages as the severe weather approaches or is forecast so that sufficient time is made available to protect the facility and vessels from damage due to high winds, storm surges and heavy rain conditions. The plan shall include provisions for evacuation of wet slips and the drystack storage areas of boats and the securing of vessels in the event evacuation is not possible. Instructions as to the procedures for evacuation and/or the securing of vessels remaining at the facility are to be provided to the marina patrons each year prior to the beginning of the official "hurricane season". Included in the instructions will be the responsibilities of the marina and the individual boat owners as to the operations of the facility during this period. The safety of facility personnel and marina patrons and the public are the primary function of the Preparedness Plan. Each year the marina personnel will conduct a pre-hurricane inspection of the facilities components to evaluate the programs/ procedures, maintenance needs and evacuation routes and directions. Prevention of leaks or spills of liquid materials need to be planned accordingly to minimize the potential of releases into the marina waters during storm events. Hours of operations and safety concerns are to be broadcast to all marina patrons in the event of approaching inclement weather in order to provide for the timely and safe use of the facility.

In the event of damage to the facility from severe weather clean-up procedures are to commence immediately upon determination of the safety of personnel to accomplish the work effort. Applicable regulatory and/or jurisdictional agencies are to be notified immediately as the situation warrants.

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REPORT STURGEON



If you catch a sturgeon or find one dead, call the Southeast U.S. Sturgeon Hotline:

1-844-STURG 911

(1-844-788-7491)

Or email: nmfs.ser.sturgeonnetwork@noaa.gov

Support scientific research by reporting the following observations to the Southeast U.S. Sturgeon Hotline:

- **specific location where the fish was caught or found**
(if alive, do not remove from the water, cut the line as close to the hook as possible, and release it. if it is dead, do not touch or move it),
- **the condition of the caught or dead fish**
(e.g. level of decay and signs of trauma or injury),
- **presence of scientific research tags**
(report color and writing on the tags),
- **the estimated length of the fish**
(from nose to end of tail), and
- **if possible, a picture of the entire fish**
(this will allow for proper species identification).



<http://sero.nmfs.noaa.gov>

Sturgeon are federally protected in the Southeast U.S. RECEIVED
It's illegal to harm or keep them.

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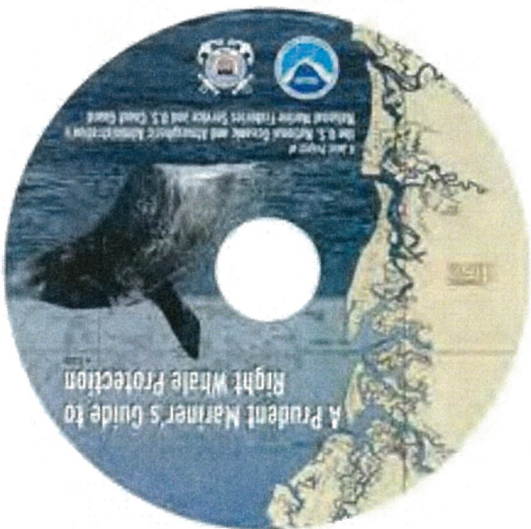
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NOAA Fisheries is pleased to announce a computer-based, interactive guide and training resource for shipboard operations as they relate to avoiding ship-strike interactions with North Atlantic right whales.

Produced by NOAA Fisheries and the U.S. Coast Guard, with input from the shipping industry, non-governmental organizations, and Florida and Georgia state resource management agencies, this interactive CD program provides key educational and support information intended for shipboard operations in areas where North Atlantic right whales may be present. Focused on operations along the Atlantic Coast of North America, the program delivers crew training information about right whales, including an introduction to right whales, recommended navigational actions when operating in right whale habitat, a guide to reporting sightings of dead or injured right whales, an informative video presentation, and a short follow-up quiz. Additionally, the program includes guidelines for compliance with the Mandatory Ship Reporting Systems, including an innovative, interactive report generation program.

This CD should be used as part of a shipboard right whale protection management program, which includes training, planning, sighting collection and vessel operations.



You Can

Help Protect Sea Turtles



Sea turtles are among the largest living reptiles. Most species have scales and a bony shell and all species are cold-blooded, breathe air, and lay their eggs on land. Sea turtles are found throughout the world in temperate and tropical waters. Six species of sea turtles nest on U.S. beaches or are found in U.S. waters.

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How You Can Help Protect Sea Turtles During Nesting Season

- Minimize beachfront lighting during the sea turtle nesting season by turning off, shielding, or redirecting lights away from the beach.
- Close blinds and draperies in oceanfront rooms at night to keep indoor lighting from reaching the beach.
- Remove recreational equipment, such as lounge chairs, cabanas, umbrellas, and boats, from the beach at night. These items can deter nesting attempts and prevent hatchlings from reaching the ocean.

- Do not to construct beach campfires during nesting season. Sea turtle hatchlings are attracted to the light and may crawl into fires and die.

- Use your natural vision and moonlight when walking on the beach at night.

- If you encounter a turtle on the beach at night, remain quiet, still and at a distance. Flash photography and human disturbance may prevent her from nesting successfully.

- Leave the tracks left by turtles undisturbed. Researchers use the tracks to identify the species of turtle that nested and to find and mark the nests for protection. If you encounter a sea turtle nest or hatchlings, leave the eggs and baby turtles alone.

- Properly dispose of your garbage. Turtles may mistake plastic bags, styrofoam, and trash floating in the water as food and die when this trash blocks their intestines.

- Celebrate events without the use of helium balloon releases. Like plastic trash, balloons end up in the ocean, especially when released near the coast. Sea turtles mistakenly eat the balloons and die.

All six sea turtle species nesting on U.S. beaches or found in U.S. waters are designated as threatened or endangered under the U.S. Endangered Species Act (ESA).

Protection Under the Endangered Species Act

- Avoid trampling beach vegetation. Use boardwalks when available instead of walking over dunes. Natural vegetation stabilizes sand and reduces beach erosion.

- When boating, stay alert and avoid sea turtles. Propeller and collision impacts from boats and ships can result in injury and death of sea turtles. Also, stay in channels and avoid running in seagrass beds to protect this important habitat from prop scarring and damage.

- Avoid anchoring boats in seagrass beds and coral reefs which serve as important feeding and resting habitats for sea turtles.

All six sea turtles nesting on U.S. beaches or found in U.S. waters are designated as threatened or endangered under the U.S. Endangered Species Act (ESA). Endangered status means a species is considered in danger of extinction throughout all or a significant portion of its range. Threatened means that a species is likely to become endangered. The ESA provides penalties for taking, harassing or harming sea turtles and affords some protection for their habitat.

For more information about sea turtles

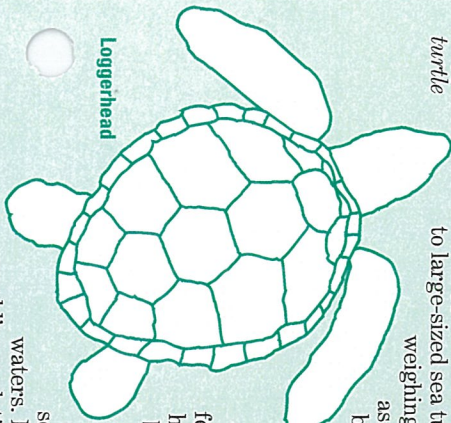
contact:

National Sea Turtle Coordinator
U.S. Fish and Wildlife Service
7915 Baymeadows Way
Suite 200
Jacksonville, FL 32256
Phone: 904/731 3336
E-mail: seaturtle@fws.gov



Updated July 2009

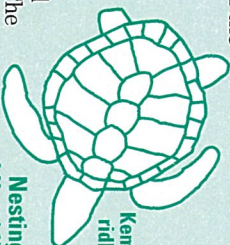
Loggerhead sea turtle



Loggerhead

The loggerhead sea turtle is a medium to large-sized sea turtle usually weighing 175 to 300 pounds as adults. It is reddish brown to yellow in color and has a large head. An adult loggerhead is two and one-half to three and one-half feet long. Loggerhead hatchlings are dull brown to rusty brown in color. Loggerheads are the most common sea turtles in U.S. waters. Nearly a third of the world's population nests along Atlantic and Gulf Coast beaches.

Kemp's ridley turtle

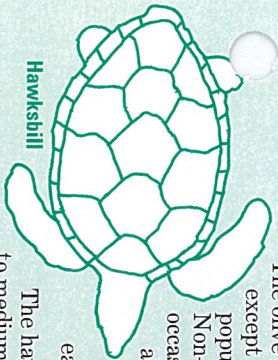


Kemp's ridley

Nesting and Hatching Habits

The Kemp's ridley is a small turtle with adults reaching two to two and one-half feet in length and weighing 80 to 100 pounds. The Kemp's ridley has an oval shell and is usually an olive-gray color. The Kemp's ridley is the rarest and most endangered of all sea turtles. It occurs mainly in coastal areas of the Gulf of Mexico and along the East Coast.

Olive ridley sea turtle

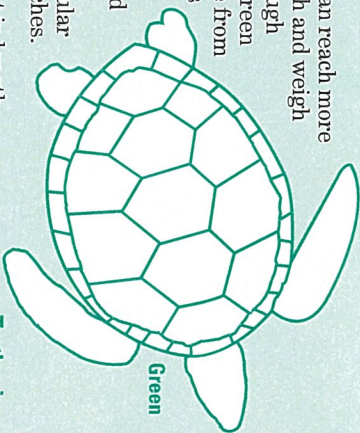


Hawksbill

Hawksbill sea turtle

The olive ridley is a bit larger than the Kemp's but is still a small turtle. Adult olive ridleys may reach three feet in length and will weigh 100 to 110 pounds. The olive ridley is threatened except for the Mexican nesting population which is endangered. Non-nesting individuals are occasionally found in the waters along the Pacific coast of the United States. Nesting populations occur in the eastern Pacific near Mexico. The hawksbill turtle is a small to medium-sized turtle. As an adult, it may reach up to three feet in length and weigh 100 to 200 pounds. It gets its name from its distinctive hawk-like beak. Hawksbills have a patterned top shell with overlapping scales. Most U.S. sightings are around Florida and Texas.

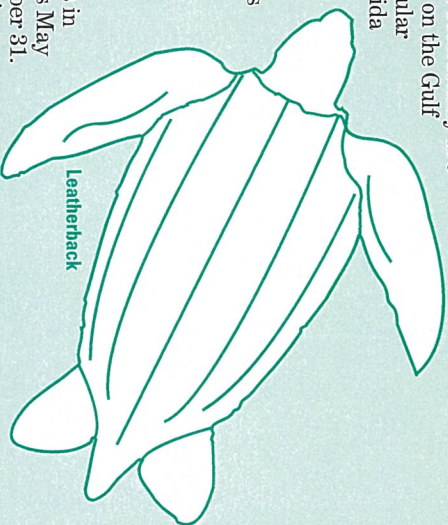
Green sea turtle



Green

An adult green turtle can reach more than three feet in length and weigh 300 to 400 pounds. Though brownish in color, the green sea turtle gets its name from the greenish color of its subdermal fat. Green turtles are found along both the East Coast and the West Coast of the United States with regular nesting on Florida beaches.

Leatherback sea turtle



Leatherback

Growing up to eight feet in length and weighing up to 2,000 pounds, the leatherback is the largest living turtle. This turtle is unique in that its shell lacks scales. Instead it is composed of a mosaic of small bones covered by firm, rubbery skin with seven longitudinal ridges or keels. Leatherbacks are seen along the East Coast, and occasionally are found stranded on the Gulf Coast, with regular nesting on Florida beaches.

Turtles in Trouble

The number of sea turtles worldwide has declined. Human activity is the primary cause. From the time a sea turtle begins life as an egg buried in the sand to a grown adult swimming in the ocean, our human activities are impacting sea turtle survival. Scientists estimate that only one out of 1000 sea turtle hatchlings will make it to adulthood.

In many cases, prime sea turtle nesting sites are also prime real estate. Beaches used for nesting are lost to beachfront development or are disturbed by beach maintenance and recreation. Sea turtle reproduction is reduced when adult female sea turtles are unable to nest, nest in poor habitat, or when eggs and hatchlings die from human beach activity.

Activities in the ocean also threaten sea turtles. Sea turtles lose their lives when they become trapped or tangled in fishing nets, seines and lines. Some are injured or die when they are hit by ships, boats, and jet skis. Plastic bags, styrofoam pieces, balloons, and other trash that floats on the ocean are often mistaken for food and eaten by sea turtles. Ingested trash blocks digestion and can cause death.


At night, both adult female sea turtles and hatching sea turtles are disturbed by artificial light, including street lights, flashlights, flash cameras, and even campfires. Females may not nest and hatchlings may become disoriented heading inland instead of toward the ocean.


Mind Your Manatee Manners




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If you see manatees while swimming, snorkeling, diving, or boating, please follow these suggestions:

 Look, but don't touch. Avoid excess noise and splashing.

 Practice "passive observation" and observe manatees from above water and at a distance.

 Resist the urge to feed manatees or give them water.

 Stash your trash. Discard monofilament line, hooks, and other trash properly.

 Do not enter designated manatee sanctuaries for any reason.

All 1-888-404-3922, #FWC, or *FWC, email or text Tip@myfwc.com, or use VHF Channel 16 on your marine radio if you see an injured, dead, tagged, or orphaned manatee, or if you see a manatee being harassed.

By quietly observing manatees, you will get a rare opportunity to see the natural behavior of these unique animals.

Manatees are a protected species. A significant proportion of manatee mortality is attributed to human-related activities, such as watercraft collisions, drowning in gates or locks, and entanglement or ingestion of fishing gear. Human-related manatee deaths are preventable, making this the most logical place to begin to reduce mortalities.



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Get Involved!

For more information on manatees, contact:

Save the Manatee® Club
500 N. Maitland Ave., Maitland, FL 32751
1-800-432-JOIN (5646) • savethemanatee.org

Become a volunteer! savethemanatee.org/vol.htm

Public Awareness Materials

SMC offers a variety of free public awareness materials to boaters and waterfront property owners. These items include metal dock signs, vinyl boating banners, boat decals, and laminate manatee protection cards. If you are interested in receiving any of these items, please contact education@savethemanatee.org or call 1-800-432-JOIN (5646).

It's the Law

Manatees are protected under federal law by the Endangered Species Act of 1973 (ESA) and the Marine Mammal Protection Act of 1972 (MMPA). These laws make it illegal to harass, harm, hunt, capture, or kill any marine mammal. Manatees are also protected by the Florida Manatee Sanctuary Act of 1978. Feeding manatees, giving them water, or otherwise altering their behavior can be considered harassment. It is also against the law to intentionally discard monofilament fishing line or netting into Florida waters.

Watch manatee webcams at ManaTV.org

Last revised March 2016. Graphic design donated by D.R. Aitch

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Please Don't Touch
Or Feed Me



**TIPS FOR PROTECTING
MANATEES IN
THE WILD**

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