



COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218
COASTALGADNR.ORG

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

MAR 23 2021

Mike DeMell
Terracon
2201 Rowland Avenue
Savannah, Georgia 31404

RE: Letter of Permission (LOP) and Revocable License (RL), Causton Bluff Property Owners Association, Marina Basin Maintenance Dredging, Causton Bluff, Habersham Creek, Chatham County, Georgia (SAS-2002-04980 NWP#16 & NWP#35)

Dear Mr. DeMell,

This Letter of Permission is in response to your request on behalf of Causton Bluff Property Owners Association to perform maintenance dredging within the existing marina basin and basin entrance. Coastal Marshlands Protection Act (CMPA) Permit # 158, issued November 8, 1983, allows for maintenance dredging and disposal activities as outlined in your July 8, 2020 request. As proposed, hydraulically dredged materials will be pumped through a pipeline to an existing, authorized disposal area. Approximately 20,750 cubic yards of material will be dredged, from the 6.7 acres of open water in the existing Causton Bluff Marina basin and entrance channel, to a depth of -9' mean low water.

Dredge material will be pumped via an 8" pipeline to an existing 5.39-acre Confined Disposal Facility (CDF) located approximately 800' north of the project site. The pipeline will be installed by hand within the waterway and marked for visibility 24 hours a day. Any impacts to vegetated coastal marshlands from the placement of the pipeline may require restoration. Coastal Resources Division (CRD) staff will conduct a post dredging inspection to evaluate site conditions. It is your responsibility to notify CRD staff when work associated with this project is complete. The work will begin no sooner than 15 days from the date of this letter and be completed within six months.

The State Properties Commission issued an 18-month Revocable License Agreement for this one time use of the CDF on February 8, 2021.

The Department authorizes the maintenance dredging activities as depicted in the attached plans and description. This LOP is not meant to exempt the above referenced activity from future environmental laws. Please find enclosed a fully executed revocable license for all portions of the project outside the CDF. This license serves as authorization to utilize state owned tidal water bottoms for your project as per the dimensions and configuration described. Any change in the use, location, dimensions, or configuration of the approved project, without prior notification and approval from this office could result in revocation of this license and in required removal of the materials and related structures.

No unauthorized equipment, materials or debris may be placed, disposed of, or stored in jurisdictional areas. Any incidental impacts associated with this project must be rectified by fully restoring areas to their pre-operational topographic and vegetative states.

This authorization does not relieve you from obtaining any other required federal, state, or local permits. Tidal water bottoms and marshlands of coastal Georgia are public trust lands controlled by the State, except for such lands where a validated Crown Grant or State Grant exists. Future maintenance activities that occur within tidal waters and have the potential to cause adverse impact, either temporary or permanent, or that will be in the public's interest shall be reported to the Georgia Department of Natural Resources' Coastal Resources Division.

Please feel free to contact Deb Barreiro at 912.266.3695 if you have any questions.

Sincerely,



Jill Andrews
Chief, Coastal Management Section

Enclosures: Project Description, Plans, Photos and Executed License

cc: Brian Moore, USACE
Mr. Clark Wong, Land Manager; Georgia State Properties Commission
Ms. Kelie Moore, Federal Consistency Coordinator; GADNR CRD
Ms. Susan S. Brinkly, President, Board of Directors, Causton Bluff Property Owners Association

LOP20200053

STATE OF GEORGIA

REVOCABLE LICENSE REQUEST FOR THE USE OF TIDAL WATERBOTTOMS

APPLICANTS NAME(S): Mr. David Knox; President, Causton Bluff POA
MAILING ADDRESS: 1901 Bull Street Savannah GA 31401
PROJECT ADDRESS/LOCATION: Causton Bluff Marina
COUNTY: Chatham WATERWAY: Wilmington river DATE: 8/20/20
LOT, BLOCK & SUBDIVISION NAME FROM DEED: Causton Bluff

Georgia Department of Natural Resources
Coastal Resources Division
One Conservation Way
Brunswick, Georgia 31520-8687

I am requesting that I be granted a revocable license from the State of Georgia to encroach on the beds of tidewaters, which are state owned property. Attached hereto and made a part of this request is a copy of the plans and description of the project that will be the subject of such a license. I certify that all information submitted is true and correct to the best of my knowledge and understand that willful misrepresentation or falsification is punishable by law.

I understand that if permission from the State is granted, it will be a revocable license and will not constitute a license coupled with an interest. I acknowledge that this revocable license does not resolve any actual or potential disputes regarding the ownership of, or rights in, or over the property upon which the subject project is proposed, and shall not be construed as recognizing or denying any such rights or interests. I acknowledge that such a license would relate only to the property interests of the State and would not obviate the necessity of obtaining any other State license, permit or authorization required by State law. I recognize that I waive my right of expectation of privacy and I do not have the permission of the State of Georgia to proceed with such project until the Commissioner of DNR or his/her designee has signed a copy of this request.

Sincerely,

By: [Signature]
(Applicant), title if applicable

By: [Signature]
(Applicant), title if applicable

The State of Georgia hereby grants you a revocable license not coupled with an interest as provided in your request. This area may now or in the future be utilized by boats employing power drawn nets under the provisions for commercial or sport bait shrimping. In its occupancy and use of the premises, licensee shall not discriminate against any person on the basis of race, gender, color, national origin, religion, age, or disability. This covenant by licensee may be enforced by termination of this license, by injunction, and by any other remedy available at law to the Department. The project proposed for this license must be constructed and completed within the specified timeframe associated with the authorization and/or transmittal letter associated with this revocable license and must be maintained in serviceable condition. Otherwise, action will be initiated to revoke this license and all structures must be removed immediately at the licensee's expense.

STATE OF GEORGIA
Office of the Governor

By: [Signature]
For: Mark Williams, Commissioner-DNR

Date: MAR 23 2021

RECORDED
STATE PROPERTIES COMMISSION

FEB 08 2021

No. 2 of 2 Executed Original Counterparts

REAL PROPERTY RECORDS

COUNTERPART OF LICENSE

012498

SPC No. 605.378

STATE OF GEORGIA,
COUNTY OF FULTON:

REVOCABLE LICENSE AGREEMENT

This **REVOCABLE LICENSE AGREEMENT**, hereinafter referred to as "Agreement", is made this 8th day of February, 2021, date of this Agreement, by and between the **STATE PROPERTIES COMMISSION**, a public body within the Executive Branch of the State government of Georgia, whose address for purposes of this Agreement is 270 Washington Street, Suite 2-129, Atlanta, Georgia 30334, **ATTENTION: Executive Director**, Party of the First Part, hereinafter referred to as "Licensor", and **CAUSTON BLUFF OWNERS ASSOCIATION**, whose address for purposes of this Agreement is 1901 Bull Street, Savannah, Georgia 31401, Party of the Second Part, hereinafter referred to as "Licensee".

WITNESSETH THAT:

1.

USAGE, ABBREVIATIONS AND DEFINITIONS

- 1.1 As used in this Agreement, the following words, terms, and abbreviations set forth in this section numbered 1 refer to, or mean, or include in their meaning, the following:
- 1.1.1 The word "Licensor" means the State Properties Commission and includes in its meaning the words "its members, officers and employees".
- 1.1.2 The word "Licensee" includes in its meaning the words "its officers, employees, representatives and agents".
- 1.1.3 The words "revocable license" shall mean "the granting, subject to certain terms and conditions contained in a written Revocable License Agreement, to a named person or persons (Licensee), and to that person or persons only, of a revocable personal privilege to use a certain described parcel or tract of property to be known as the Licensed Premises for a named purpose. Regardless of any and all improvements and investments made, consideration paid, or expenses and harm incurred or encountered by the Licensee, a revocable license shall not confer upon the Licensee any right, title, interest, or estate in the Licensed Premises, nor shall a revocable license confer upon the Licensee a license coupled with an interest or an easement. A revocable license may be revoked, canceled, or terminated, with or without cause, at any time by the licensor (commission)". OCGA § 50-16-31(10).

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1.1.4 The term "Revocable License Agreement" means both this Agreement and "a written instrument which embodies a revocable license and which sets forth the name of the parties thereto and the terms and conditions upon which the revocable license is granted". OCGA § 50-16-31(11).

1.2 All words used in this Agreement include in their meaning the masculine, feminine, and neuter gender; singular and plural number; and present, past and future tense; and all appropriate grammatical adjustments shall be assumed as though in each case fully expressed.

1.3 For convenience, when referring herein to either Licensor or Licensee, the third person, neuter gender "it" is used.

2.

LICENSED PREMISES

Licensor, for and in consideration of the payment by Licensee to Licensor of the sum of \$5,000.00, hereby grants to Licensee, and Licensee hereby accepts from Licensor, a revocable license to the extent the title permits and subject to the terms, conditions, and provisions of this Agreement and OCGA § 50-16-42, over the following described real property, hereinafter referred to as the "Licensed Premises":

That portion of State owned real property containing approximately 5.385 acres, lying and being in Chatham County, Georgia commonly known as the former Sulco Tronox Site, as shown on an engineer survey marked Exhibit "A", attached hereto and incorporated herein.

The Licensed Premises is presently under the custody of the Department of Natural Resources, Coastal Resources Division.

3.

USE OF LICENSED PREMISES

At its sole cost, expense, risk and responsibility, Licensee shall use the Licensed Premises only for the purpose, and for no other purpose whatsoever, for the placement of dredge materials containing approximately 20,750 cubic yards in accordance with the policies and procedures outlined by the Corps of Engineers, Environmental Protection Division, Coastal Resources Division, and various Coastal Marshland Protection Act permits.

4.

DURATION

4.1 Licensee may use the Licensed Premises during the period beginning on the date hereof and ending at 12:00 midnight 18 months from the date hereof, for so long as licensee uses the Licensed Premises for the purposes permitted in Section 3 above and unless previously revoked pursuant to Section 5 below. If not previously revoked or terminated, this

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Revocable License shall stand revoked, without the necessity of Licensor given any notice to Licensee, at 12:00 midnight 18 months from the date hereof.

5.

REVOCATION

- 5.1 This Agreement merely grants to Licensee a revocable license as set forth in Subsection 1.1.3 above. Licensee, by its acceptance and execution of this Agreement, hereby acknowledges and agrees that this Revocable License Agreement does not confer upon Licensee any right, title, interest, or estate in the Licensed Premises, nor confer upon the Licensee a license coupled with an interest nor confer upon Licensee an easement in the Licensed Premises. It is expressly understood and agreed by Licensee that this Agreement confers upon Licensee, and only Licensee, a mere personal privilege, and that regardless of any and all improvements and investments made, consideration paid, or expenses and harm incurred or encountered by Licensee, this Agreement and the privileges hereby conferred shall be subject to absolute revocation by Licensor, with or without cause, upon notice to Licensee as set forth in Section 12 below.
- 5.2 Following revocation, this Agreement and the revocable license contained herein shall become null and void, and Licensee shall have no right whatsoever to be or remain on the Licensed Premises or to receive a refund of any consideration or any other monetary payment. Licensee covenants and agrees, at its sole cost and expense to remove its facilities from the Licensed Premises and to restore the Licensed Premises to as good or better condition as when received hereunder. Any property of Licensee remaining on the Licensed Premises at the end of said License Period shall be deemed abandoned by Licensee and shall belong to and be the absolute and sole property of the State without further notice, action taken, instrument or conveyance executed or delivered, and without liability to make compensation therefore to Licensee or to any other person whomsoever, and shall be free and discharged from any and every lien, encumbrance, claim and charge of any character created, or attempted to be created, by Licensee at any time.

6.

DAMAGE TO LICENSED PREMISES AND STATE PROPERTY

Licensee hereby agrees that if any property of the State is damaged as a result of the exercise by Licensee of the revocable license herein granted, then, at the election of Licensor, Licensee either shall repair or restore the property or the Licensed Premises, or both, as the case may be, or shall pay the costs thereof, as determined by Licensor. Licensee shall pay the cost of such repair or restoration or commence in good faith the repair or restoration within ten (10) days after notice by Licensor with all repairs or restoration to be completed by Licensee within thirty (30) days thereafter. Revocation of this Agreement shall not relieve Licensee of its obligation to pay for the cost of repair or restoration of the damaged property. This general provision is cumulative of all other remedies Licensor may have, including specific provisions hereof. The placement of dredge

materials containing approximately 20,750 cubic yards in accordance with the policies and procedures outlined in Paragraph 3 above shall not be considered damage.

7.

INDEMNIFICATION

The revocable license herein granted to Licensee is to be used and enjoyed at the sole risk of Licensee, and in consideration of the benefits to be derived here from, Licensee hereby releases, relinquishes and discharges and agrees to indemnify, protect, save, and hold harmless Licensor and Licensor's officers, members, employees, agents, and representatives (including the State Tort Claims Trust Fund, the State Broad Form Employee Liability Fund and the State Authority Operational Liability Trust Fund) from and against all liabilities, damages, costs and expenses (including all attorney's fees and expenses incurred by Licensor or any of Licensor's officers, members, employees, agents, and representatives), causes of action, suits, demands, judgments, and claims of any nature whatsoever (excluding those based upon the sole negligence of Licensor concerning any activities within the scope of O.C.G.A. § 13-8-2(b) relative to the construction, alteration, repair, or maintenance of a building structure, appurtenances, and appliances, including moving, demolition, and excavating connected therewith), arising from, by reason of, or in connection with: (a) injury to or death of any person or damage to property (1) in or on the Licensed Premises (2) in any manner arising from use, non-use or occupancy by Licensee or any of Licensee's officers, employees, agents, representatives, customers, invitees, licensees or contractors or (3) resulting from a condition of the Licensed Premises, excluding any condition of the easement Agreement, if any; (b) violation of any agreement, representation, warranty, provision, term or condition of this Revocable License Agreement by Licensee or any of Licensee's officers, employees, representatives, agents or contractors; or (c) violation of any law affecting the Licensed Premises or the occupancy or use by Licensee of the Licensed Premises. This indemnity extends to the successors and assigns of Licensee and survives the termination of this Revocable License, and to the extent allowed by law, the bankruptcy of Licensee. If and to the extent such damage or loss (including costs and expenses) as covered by this indemnification is paid by the above-referenced or other State self-insurance funds (collectively referred to as the Funds) established and maintained by the State of Georgia Department of Administrative Services Risk Management Division (DOAS), Licensee agrees to reimburse the Funds for such monies paid out by the Funds. Licensee shall, at its expense, be entitled to and shall have the duty to participate in the defense of any suit against the Indemnitees to the extent consistent with and permitted by the Georgia Tort Claims Act. The defense on behalf of Licensor or its covered officers or employees (including any settlement discussions) shall be conducted through the Attorney General of Georgia as provided by law. No settlement or compromise of any claim, loss or damage asserted against any Indemnitees shall be binding upon any Indemnitees unless expressly approved by the Indemnitees and the Attorney General of Georgia.

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8.

LIABILITY INSURANCE

Licensee shall procure and maintain in full force and effect at all times during the term of this Agreement, through a self-insurance program or an insurance policy consistent with Section 7: commercial general liability insurance, on an occurrence basis insuring against all liability and property damage of Licensor and Licensee and their members, officers, employees and agents arising from or in connection with the use or occupancy of the Premises by Licensee, its agents, employees, or others working at the direction of Licensee or on its behalf during the License Term, with liability limits of One Million Dollars (\$1,000,000.00) per person and of Three Million Dollars (\$3,000,000.00) per occurrence. Each policy also specifically shall insure performance of Licensee's obligation to indemnify Licensor pursuant to the Section 7 of this Agreement. A statement of policy limits herein shall not limit Licensee's liability under this Agreement.

9.

GENERAL REQUIREMENTS FOR INSURANCE POLICIES

Licensee shall pay the cost of all insurance coverage which Licensee is required to produce and maintain under this Agreement. Except where Licensee is self-insured, each insurance policy shall:

- a.) be issued by an insurer authorized to transact casualty insurance in Georgia;
- b.) be issued by an insurer with a current Best Policyholder's Rating of "A" or better and with a financial six rating of class "XI" or larger by A. M. Best Company, Inc.;
- c.) be issued on such form of policy, authorized in Georgia, as Licensor may reasonably approve;
- d.) provide that the policy cannot be canceled as to Licensor except after the insurer gives Licensor thirty (30) days prior written notice of cancellation;
- e.) state that notice of any claim against Licensor shall be deemed to have occurred only when an officer of Licensor has received actual notice, and has actual knowledge of the claim;
- f.) not be subject to invalidation as to Licensor by reason of any act or omission of Licensee or any of Licensee's officers, employees or agents; and
- g.) not be subject to invalidation as to Licensee by reason of any act or omission of Licensor or any of Licensor's officers, employees or agents.

Each policy required by this Agreement shall also contain a provision permitting Licensee to waive all rights of recovery and claims by way of subrogation.

Licensee shall not produce or maintain in force any insurance policy which might have the effect of reducing the loss payable under any of the policies required by this Agreement. Upon the request of Licensor, Licensee shall deliver a certificate of such self-insurance or insurance policy to Licensor, together with evidence reasonably satisfactory to Licensor that the premiums, as applicable, have been paid for a period at least covering the License Period.

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10.

SUBJECT TO APPROVAL BY ANY APPROPRIATE STATE REGULATORY AGENCY, SUBJECT TO PRIOR GRANTS, AND CONDITION OF LICENSED PREMISES

Licensee accepts this grant of revocable license subject to approval by any appropriate State regulatory agency that the Licensee's proposed uses of the Licensed Premises meets all applicable safety and regulatory standards and requirements. Further, Licensee accepts this grant of revocable license subject to all ownership, prior permits, licenses, landlord and tenant relationships, easements, leases, and other rights or interests affecting the Licensed Premises whether the same be of agreement or not, and the revocable license granted herein by Licensor to Licensee must be exercised by Licensee so as to avoid interference with any of the said prior permits, licenses, landlord and tenant relationships, easements, leases, or other interests. Licensee acknowledges that it has fully inspected the Licensed Premises and accepts the same "as is". Licensor shall have no responsibility at any time to Licensee for the condition of the Licensed Premises and shall have no duty to the Licensee or to its licensees, invitees or trespassers concerning Licensee's use of the Licensed Premises or their entry on the Licensed Premises. Licensor makes no covenant of quiet enjoyment of the Licensed Premises whatsoever.

11.

ASSIGNMENT OR TRANSFER

This Revocable License Agreement and the rights herein granted may not be conveyed, assigned, transferred, managed or operated by any other entity without the express written consent of the State Properties Commission, which consent shall be given or not in the sole discretion of the State Properties Commission. Without limitation, any transfer or use of the property which may be characterized as a private activity by the Internal Revenue Service and thereby adversely affect the tax-exempt status of any public bond investment in the property is strictly prohibited. Any such use, conveyance, assignment, transfer, management or operation made without the consent of the State Properties Commission shall be void ab initio.

12.

NOTICES

All notices required by the provisions of this Agreement to be secured from or given by either of the parties hereto to the other shall be in writing and shall be delivered either: (a) by hand delivery to the recipient party at such party's address; or (b) sent by United States Certified Mail - Return Receipt Requested, postage prepaid, and addressed to the recipient party at such party's address. The day upon which such notice is hand delivered or so mailed shall be deemed the date of service of such notice. The parties hereto agree that, even though notices shall be addressed to the attention of a particular person, title, or entity as forth in this Agreement, it shall be a valid and perfected delivery of notice even though the said named person or the person holding said title or named entity is not the person, title or entity who accepts or receives delivery of the said notice, but is the

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lawful successor person, title or entity of the named person, title or entity. Any notice, hand delivered or so mailed, the text of which is reasonably calculated to apprise the recipient party of the substance thereof and the circumstances involved, shall be deemed sufficient notice under this Agreement. Either party hereto may from time to time, by notice to the other, designate a different person or title, or both if applicable, or address to which notices to said party shall be given.

13.

GENERAL PROVISIONS OF THIS AGREEMENT

- 13.1 The brief capitalized and underlined headings or titles preceding each section herein are merely for purposes of section identification, convenience and ease of reference, and shall be completely disregarded in the construction of this Agreement.
- 13.2 All time limits stated herein are of the essence of this Agreement.
- 13.3 For the purpose of inspecting the Licensed Premises, Licensee shall permit Licensor, without giving prior notice, to enter on the Licensed Premises during either Licensor's regular business hours or Licensee's regular business hours.
- 13.4 No failure of either party hereto to exercise any right or power given to said party under this Agreement, or to insist upon strict compliance by the other party hereto with the provisions of this Agreement, and no custom or practice of either party hereto at variance with the terms and conditions of this Agreement, shall constitute a waiver of either party's right to demand exact and strict compliance by the other party hereto with the terms and conditions of this Agreement.
- 13.5 This Agreement shall be governed by, construed under, performed and enforced in accordance with the laws of Georgia.
- 13.6 Nothing contained in this Agreement shall make, or be construed to make, Licensor and Licensee partners in, of, or joint venturers with each other, nor shall anything contained in this Agreement render, or be construed to render, either Licensor or Licensee liable to a third party for the debts or obligations of the other.
- 13.7 If any provision of this Agreement, or any portion thereof, should be ruled void, invalid, unenforceable or contrary to public policy by any court of competent jurisdiction, then any remaining portion of such provision and all other provisions of this Agreement shall survive and be applied, and any invalid or unenforceable portion shall be construed or reformed to preserve as much of the original words, terms, purpose and intent as shall be permitted by law.
- 13.8 Should any provision of this Agreement require judicial interpretation, it is agreed and stipulated by and between the parties hereto that the court interpreting or construing the same shall not apply a presumption that the terms, conditions and provisions hereof shall be more strictly construed against one party by reason of the rule of construction that an instrument is to be construed more strictly against the party who prepared the same.
- 13.9 This Agreement is executed in two (2) counterparts which are separately numbered and identified (No. 1 is for Licensor and No. 2 is for Licensee) but each of which is deemed an

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original of equal dignity with the other and which is deemed one and the same instrument as the other.

- 13.10 In the enjoyment of the revocable license herein granted by Licensor to Licensee and of the rights and privileges incident thereto, Licensee shall at all times comply with all applicable laws of Georgia and of the United States, all applicable rules and regulations promulgated pursuant to any and all such laws, all applicable recommended standards, and all applicable local ordinances, including, but not limited to, codes, ordinances and recommended standards now or hereafter promulgated, and all applicable local rules and regulations and recommended standards promulgated pursuant to such codes and ordinances.
- 13.11 The revocation of this Agreement shall not operate to cut off any claims or causes of action in favor of Licensor or Licensee which occurred or arose prior to the effective date of such revocation.
- 13.12 Licensee, by its acceptance and execution of this Agreement, hereby acknowledges that it has not been induced by any representations, statements, or warranties by Licensor including, but not limited to, representations or warranties with respect to title to the Licensed Premises or the condition or suitability thereof for Licensee's purpose.
- 13.13 In its occupancy and use of the premises, Licensee shall not discriminate against any person on the basis of race, gender, color, national origin, religion, age, or disability. This covenant by Licensee may be enforced by termination of this Agreement, by injunction, and by any other remedy available at law to Licensor.

14.

ENTIRE AGREEMENT

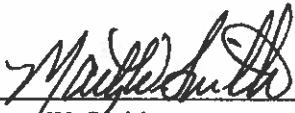
This Agreement supersedes all prior negotiations, discussions, statements, and agreements between Licensor and Licensee and constitutes the full, complete and entire agreement between Licensor and Licensee with respect to the Licensed Premises and Licensee's use and occupancy thereof. No modification of or amendment to this Agreement shall be binding on either party hereto unless such modification or amendment shall be properly authorized, in writing, properly signed by both Licensor and Licensee and incorporated in and by reference made a part hereof.

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WITNESS WHEREOF, Licensor and Licensee, acting pursuant to and in conformity with properly considered and adopted resolutions and acting by and through their duly authorized hereinafter named representatives, have caused these presents to be executed, all as of the date hereof.

LICENSOR

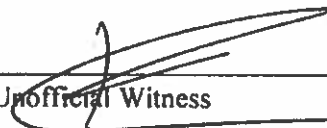
STATE PROPERTIES COMMISSION



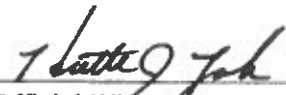
Marty W. Smith
as Executive Director of the State Properties
Commission

Signed, sealed, and delivered
in our presence:

(STATE PROPERTIES COMMISSION
SEAL AFFIXED HERE)



Unofficial Witness



Official Witness, Notary Public

My Commission expires: 07-22-22



(Signatures continued on next page.)

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(Signatures continued from previous page.)

LICENSEE

CAUSTON BLUFF OWNERS ASSOCIATION

By: *Susan S. Beinkley*

Name: *Susan S. Beinkley*

Title: *President Board of Directors*

Attest: *Jodi L. Christine*

Signed, sealed, and delivered
in our presence:

(SEAL AFFIXED HERE)

Jessica Roper
Unofficial Witness

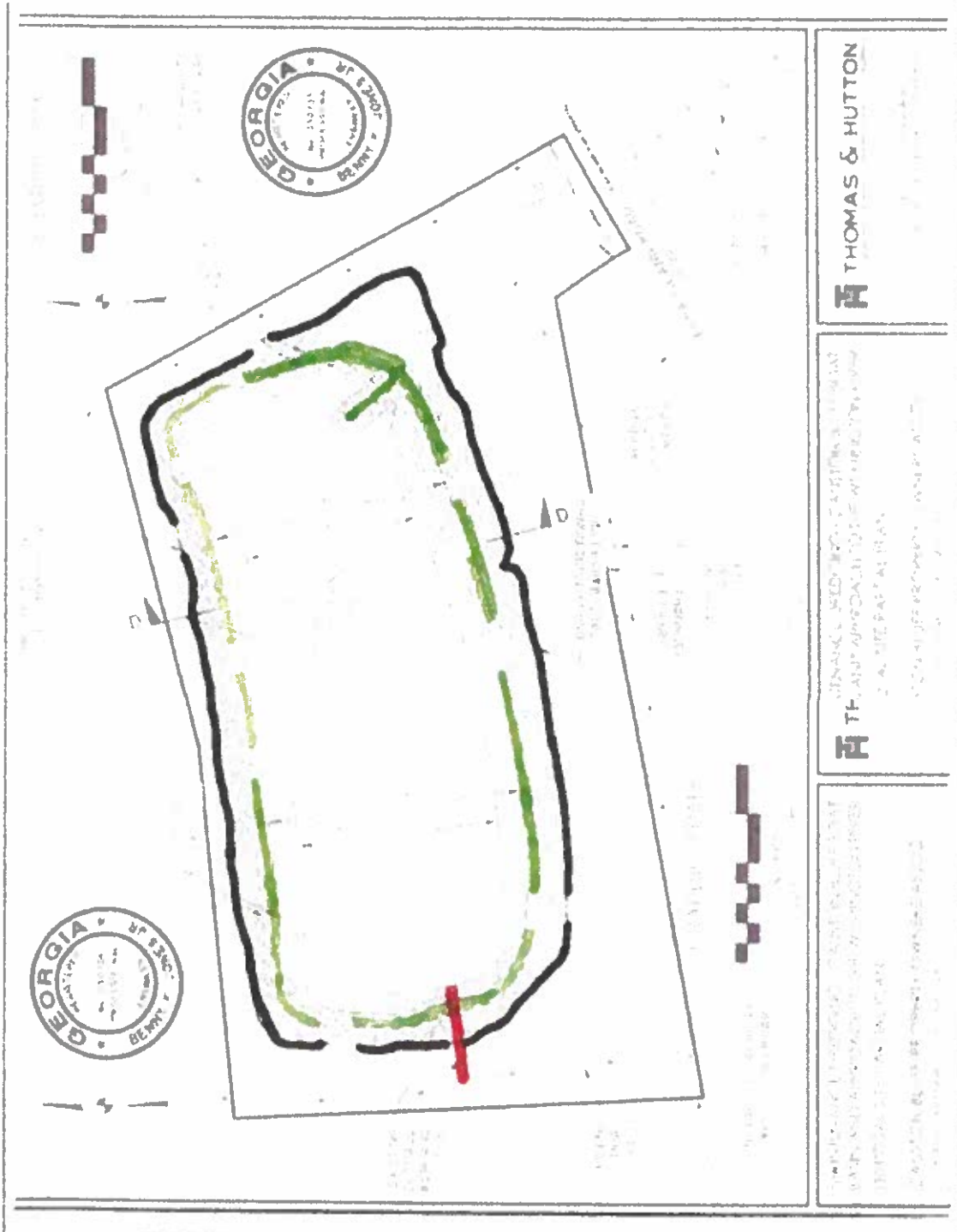
Mallory M. Waters
Official Witness, Notary Public
My Commission expires: _____



(NOTARY SEAL)

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Exhibit "A"



THOMAS & HUTTON

THOMAS & HUTTON

THOMAS & HUTTON

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ENVIRONMENTAL SERVICES, INC.

A Terracon COMPANY

2201 Rowland Ave.
Savannah, Georgia 31404
P (912) 629 4000
F (912) 629 4001
environmentalservicesinc.com

8 July 2020

Mr. Josh Nobel
Manager, Marsh & Shore Management Program
Coastal Resources Division
Georgia Department of Natural Resources
1 Conservation Way
Brunswick, GA 31523

**Subject: Causton Bluff POA Boat Basin Maintenance Dredging Operation
Nationwide Permit #35 / Nationwide Permit #16 Application
Request for Additional Information
Chatham County, Georgia**

ES13044.06/HM137000

Dear Mr. Nobel,

Environmental Services Inc., a Terracon Company (ESI), on behalf of the Causton Bluff Property Owners Association, requests the review of additional information provided in this package. In response to the Army Corps of Engineer's Request for Additional Information (RAI) dated 5 May 2020, ESI has addressed all matters listed and provided the information and materials necessary for the continued review of this application.

This package includes the following:

- ESI Responses to RAI
- New PCN Form for both NWP #16 and NWP #35
- Permit Drawings, dated 29 November 2018; revised to now include Sheet 12 with Weir Details, dated 16 June 2020
- Temporary CDF Access Figures 1-4 and Photosheets
- Causton Bluff Maintenance Dredging Action Plan
- Dredging History Information
- Tier I Evaluation for Disposal of Dredge Material

We trust the attached information provides sufficient response to the Corps' request on 5 May 2020. Upon completion of your review, should you need any further information, please do not hesitate to let us know. As always, we appreciate the opportunity to assist you with your review and processing of this project.

Sincerely yours,
ENVIRONMENTAL SERVICES, INC. A Terracon Company.

Michael J. DeMell
Department Manager

MD/as
HM137000/CRD RAI Cover Letter
Jun 2020

**Appendix A:
ESI Responses to RAI**



RESPONSE TO RAI

On behalf Savannah Boathouse, Environmental Services, Inc. A Terracon Company (ESI) provides the following information in response to the above referenced Request for Additional Information submitted via email on 5 May 2020. Our comments are provided in order of questions raised as outlined below:

- 1.) Please provide a project history, the application references “previously authorized” in multiple locations and this will facilitate review of these records. A table format may be an efficient way of summarizing the site history, at a minimum please provide the following:
 - Please find the attached table depicting dredging history for the Causton Bluff marina. This table now includes all requested information for dredging activity after 2000 (Appendix E).
- 2.) With consideration to the potential Manatee in the vicinity of the project, review the attached EDGES document, specifically, special conditions ‘a – k’. Please verify that the current proposal will comply with these conditions.
 - Zulu Marine and Aerial states that they will comply with all legal requirements surrounding manatee presence near the dredging operations, as well as special conditions listed a-k in the EDGES document.
- 3.) Please provide the Tier 1 to CRD and EPD as required by the Regional Conditions.
 - Hard copies of the Tier 1 report have been provided to both the EPD and CRD.
- 4.) As discussed yesterday, please confirm that you are requesting verification of NWP 35 as well as NWP 16 for the discharge from the CDF.
 - A new PCN form for the NWP 35 and 16 is attached to this package.
- 5.) The application states, “the +/-6.7-acre area will be dredged to its original design depths”. Please confirm this depth for the record, this may be ultimately covered in the project history.
 - The marina will be dredged to a depth that will not exceed -9 feet below mean low low water (MLLW). This depth is derived by reference in the original permit whereby the “depth” of the basin is to be 14 feet deep. Assuming the marsh elevation of ~ +5 feet, a 14 foot cut results in a finished elevation of ~ -9 feet. This is the same depth depicted in the previous maintenance dredging authorizations.
- 6.) Please provide a more comprehensive CDF maintenance plan. This should include specifics to pre- and post-construction operations of the CDF.
 - Please find the attached updated maintenance plan.



- 7.) Provide a drawing showing the temporary culvert placement and its relation to the plans already provided, along with GPS coordinates of the culvert location and any other proposed temporary impact, including approximate width and length of construction matting that will be required.
- See Appendix D, Figure 1 and Figure 3
- 8.) Provide the plans for the new weir to be constructed. Are you proposing any modifications to the existing discharge pipe? If so, please provide a description of this work and the GPS coordinates for the impacts.
- A new weir will be installed in the same location of the existing weir. Please see the addition of Sheet 12 to the permit drawings that address the replacement of the weir (Appendix C). A sleeve will be installed in the existing pipe leading under the existing perimeter dike, but no modification of the pipe on the outboard side of the dike is proposed.
- 9.) Provide a drawing (or figure) for the placement of the dredge pipe extending from the marina, through the culvert under Elba Island Road and to the CDF.
- See Appendix D, Figure 4
- 10.) What are the output capabilities of the hydraulic dredge and what will be the maintained production rate to control turbidity during dredging operations? What will be the work schedule for the dredge (i.e. 3-4 days of dredging, 3- days off) and how much time does the contractor anticipate needing to complete dredging operations?
- Production rate of dredge will be limited to approximately 900 GPH to help control turbidity. Initially the work plan will be for 5-6 days per week for the first week to check turbidity and flow. Once the contractor establishes the desired flow rate, the contractor will adjust dredging to accommodate the CDF capacity. The goal is to completely finish the project within 4 months, depending on how fast the CDF will drain while meeting the appropriate turbidity levels.
- 11.) During our discussion we asked about the amount of slurry material vs the amount of sediment that will be pumped into the CDF. It is our understanding that more slurry will be pumped than space available within the CDF, which is 20,750 CY. Please clarify how this will be completed without overtopping the dikes, this should include proposed amount of slurry material that will be pumped into the CDF.
- Thomas & Hutton has calculated the volume of material needed to be dredged from the basin to be 20,750 CY as generally depicted on Sheets 8 & 9 of 12 in the permit exhibits. Recent site specific survey of the confined disposal facility (CDF) as generally depicted on Sheets 6 & 7 of 12 provided data to calculate the volume capacity of the CDF. The CDF has the capacity to accommodate the 20,750 CY. Furthermore, the CDF offers 2 feet of additional freeboard (i.e. dike elevation) above the calculated volume requirements. This



freeboard provides sufficient flexibility for the dredge operator to manage discharge rates into the CDF and outfall rates through the weir as discussed in Item 10 above.

12.) With the Wilmington River being a part of the Atlantic Intercoastal Waterway (AIWW) will the dredge extend into any part of the channel at any time during operations? What size barge will the contractor use and when not actively working where will the dredge be staged?

- Zulu's dredge equipment will not extend into the AIWW. The barge to be used is 30-feet in length with a 10-foot beam.

13.) Written permission should be obtained from SNLG to run the pipe under Elba Island Road and from the State due to the CDF being their property. Do you know when you anticipate authorization from CRD?

- Carla Roark from SNLG has approved the dredge plan and access to the CDF. Notice of vehicles or equipment parked along side Elba Island Road will be provided to SNLG each day that it is necessary. See the below email from 9 June 2020

From: Roark, Carla <Carla_Roark@kindermorgan.com>
Sent: Tuesday, June 9, 2020 2:17 PM
To: Brian McCarthy <mccarthy@comcast.net>
Subject: RE: Causton Bluff Owners Association Harbor Dredging

Southern LNG has no problem with Causton Bluff with the plan that you are proposing. I do ask that you send me an email or text on the days that you will have contractors parking along the shoulder of the Elba Island Road.

Thank you

Carla Roark
Compliance Manager
Southern LNG

- Additionally, Kelie Moore from the Coastal Resource Division intends to grant permission to use the disposal area. See the below email from 8 August 2018.



From: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Sent: Wednesday, August 8, 2018 2:45 PM
To: Mike DeMell <mdemell@ESINC.CC>
Subject: RE: Causton Bluff Maintenance Dredging

Label the CDF owner as State of Georgia. Permission to use the disposal site will be granted through a short-term Revocable License Agreement from State Properties Commission. I believe Frank Smith will be signing that document, but it would be better not to put a specific name or address for the owner of the site; just label it as State of Georgia.

Kelie Moore
Federal Consistency Coordinator
Coastal Resources Division

14.)Skye is coordinating with Jacksonville for the Tier 1 and will provide an update by the end of the week as discussed.

- A hard copy of the Tier 1 Report is being provided to both EPD and CRD.

**Appendix B:
New PCN Form**

U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
2017 PRE-CONSTRUCTION NOTIFICATION (PCN)
FOR USE OF CERTAIN NATIONWIDE PERMITS (NWP)

USE OF NWP NUMBER 16 and 35 Date 13 March 2020

APPLICANT/PROPERTY OWNER Brian McCarthy / Causton Bluff Property Owners Association

Phone(hm/bus) 912-658-8127 FAX _____ E-Mail mccarthybe@comcast.net

Address 6 St. Augustine Bend City Savannah State GA Zip Code 31404

AGENT/CONSULTANT Environmental Services, Inc., a Terracon Company

Phone(hm/bus) 912-236-4711 FAX 912-236-3668 E-Mail mdemell@esinc.cc

Address 2201 Rowland Ave. City Savannah State GA Zip Code 31404

PROJECT LOCATION/ADDRESS St. Augustine Bend

City Savannah County Chatham Subdivision Causton Bluff Lot _____

Latitude 32.067697 Longitude -81.024813 Hydrologic Map Cataloging Unit 03060109

Nearest Named Stream, River or Other Waterbody Wilmington River

EXISTING SITE CONDITIONS The Causton Bluff boat basin is a ~6.7 acre harbor that is home to three finger docks. In reference to the hydrologic survey conducted by Bottom Line Echo, the siltation in the basin has reached the point of requiring new maintenance dredging.

PROJECT DESCRIPTION In order to maintain access and use of the harbor by the community's vessels, dredged material will be removed from the boat basin and deposited of in the CDF located to the North. The removal and deposit of the dredged material will comply with the original permit granted for the construction of the basin and will not exceed the original design depths of -9 feet MLLW.

MEASURES TAKEN TO AVOIDANCE/MINIMIZE IMPACTS TO WATER OF U.S.
Additional detail is provided in attached Support Documentation.

PROJECT AREA AND IMPACT INFORMATION

	PROJECT AREA		IMPACTS TO US WATERS	
	ACRES	LINEAR FEET	ACRES	LINEAR FEET
TOTAL PROJECT AREA	6.7	N/A	N/A	N/A
UPLAND		N/A	N/A	N/A
WETLAND		N/A		N/A
OPEN WATER	6.7	N/A		N/A
PERENNIAL STREAM				
INTERMITTENT STREAM				
EPHEMERAL STREAM				
MAN-MADE DITCHES				

MAPS, DRAWINGS AND OTHER INFORMATION. Include information to address answers provided.

1. PCN submitted to the Georgia EPD? (RC A and Appendix A) Yes No
2. PCN submitted to the Georgia CRD? (RC A and Appendix A) Yes No
3. Is the project on or adjacent to a state water, where buffer variance is required? Yes No
4. Is the project within 10 miles of a 303(d) listed stream? Yes No
5. Is the project located in or adjacent to a trout stream? Yes No
6. Is there a water quality management plan for the project site? Yes No
7. Is a copy of the FWS Initial Project Scoping (IPaC) attached to the PCN? (GC 18) Yes No
<http://ecos.fws.gov/ipac/>
8. Are oysters located within the project area? Yes No
9. Are cultural resources located on or near the project site? (GC 20(c)) Yes No
<http://www.nr.nps.gov/>
10. Is compensatory mitigation required? (GC 32(b)(6), GC 23 & RCs H.1–H.5) Yes No
11. Are culverts proposed in streams or wetlands? (RC C.4 and E.1-8) Yes No
12. Is in-stream/wetland storm water management proposed? (RC C.5) Yes No
13. Is the project phased, with future wetland/stream impacts planned? Yes No
14. Have authorized wetland/stream impacts occurred on the project site? Yes No
15. Have unauthorized wetland/stream impacts occurred on the project site? Yes No
16. Is the project located within 5 miles of an airport? Yes No

IMPORTANT NOTES:

1. For a PCN to be complete for processing, information required at NWP General Condition (GC) 32(b) and Savannah District 2017 NWP Regional Conditions C must be included.
2. All maps and drawings that are attached to this PCN must be submitted on 8 ½ X 11-inch paper. Supplemental maps and drawings larger than 8 ½ X 11 may also be submitted for clarity.

Appendix C:
Permit Drawings, dated 29 November 2018; Revised to now include Sheet 12 with weir details,
dated 16 June 2020

Z:\27381\27381.0000\Engineering\Drawings\Permit\27381.0000 - 01-VICINITY.dwg - Jun 16, 2020 - 7:04:53 AM



DREDGING PERMIT - CAUSTON BLUFF BOAT BASIN AND APPROACH TO THE WILMINGTON RIVER VICINITY MAP

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.
 LOCATION: SAVANNAH (CHATHAM), GA
 DATE: 11/29/2018
 JOB NUMBER: J-27381.0000

SHEET: 1 OF 12
 SCALE: 1"=4000'

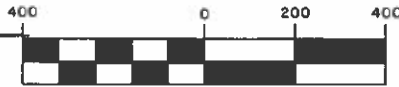


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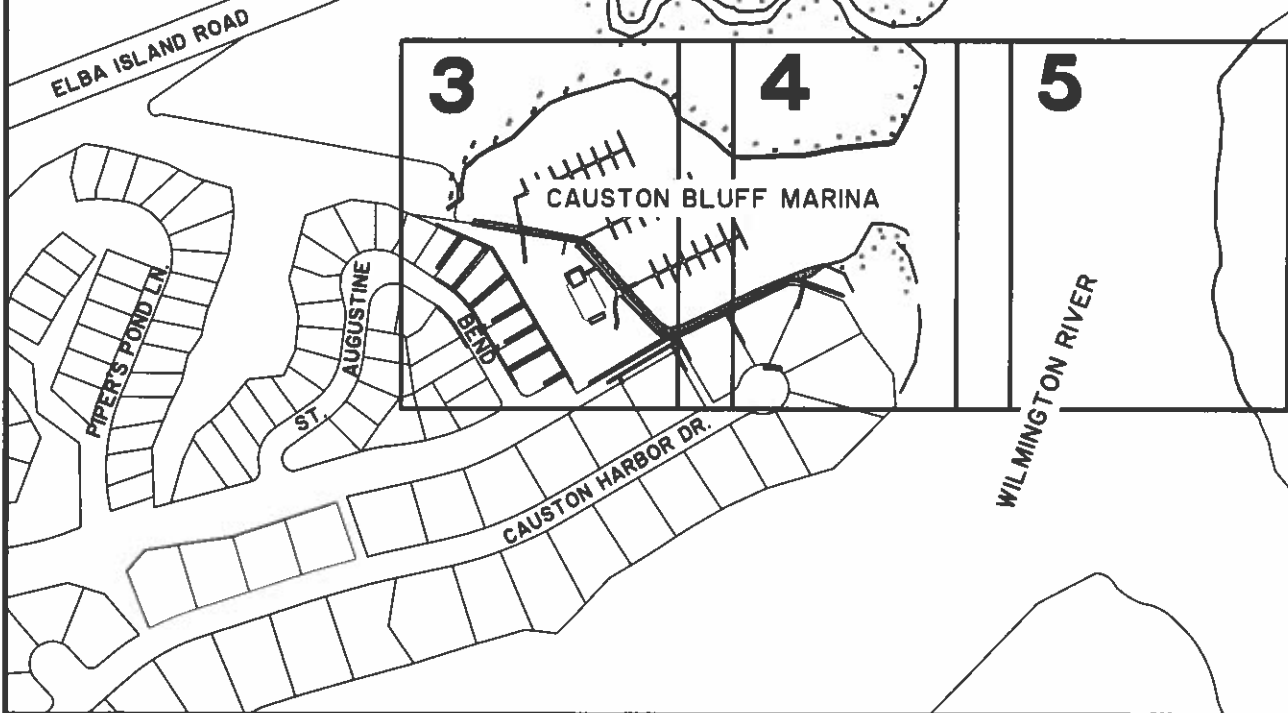
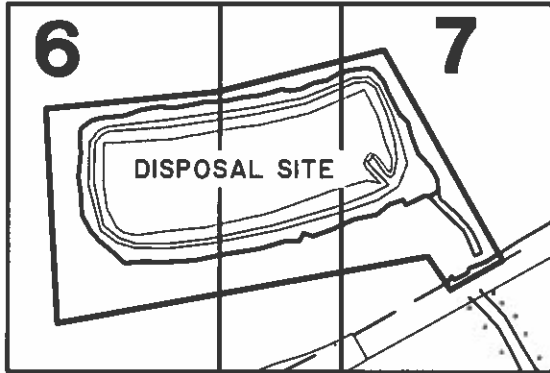
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GRAPHIC SCALE



(IN FEET)
1 inch = 400 ft.



DREDGING PERMIT - CAUSTON BLUFF BOAT BASIN AND APPROACH TO THE WILMINGTON RIVER SITE MAP

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.

LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018
JOB NUMBER: J-27381.0000

SHEET: 2 OF 12
SCALE: 1" = 400'



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GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

DREDGED VOLUME
= 20,750 CY

APPROX.
EDGE OF
MARSH



MLW
RIP-RAP
(TYPICAL)

EXIST. FLOATING
DOCKS (TYP.)

MHW

EXIST. METAL
RAMP (TYP.)
EXIST.
BUILDING

EXIST.
POOL

EXIST.
BUILDING

RIP-RAP
(TYPICAL)

ST. AUGUSTINE BEND

CAUSTON HARBOR DR.

DATUM: MLLW

SEE
SECTION AA
SHEET 8

SEE SHEET NO. 4 OF 12
MATCH LINE

MAINTENANCE DREDGING - CAUSTON BLUFF BOAT
BASIN AND APPROACH TO THE WILMINGTON RIVER
MARINA SITE PARTIAL PLAN

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.

LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018
JOB NUMBER: J-27381.0000

SHEET: 3 OF 12
SCALE: 1" = 100'

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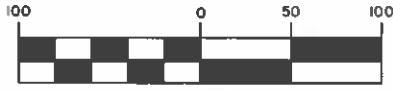
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DATE PLOTTED: 11/29/2018 10:54:00 AM

SEE SHEET NO. 3 OF 12

GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

DREDGED VOLUME = 20,750 CY

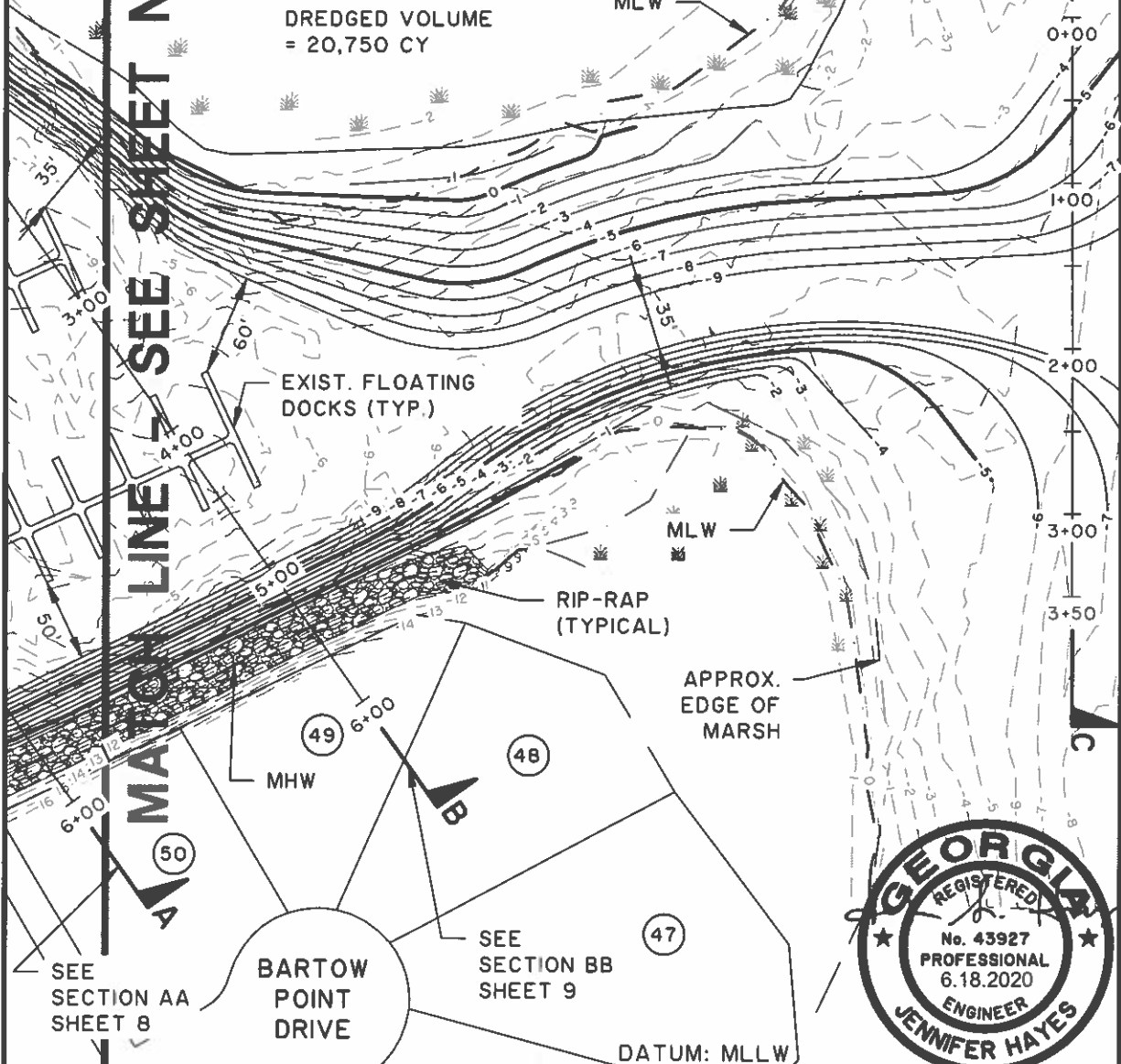
APPROX. EDGE OF MARSH

MLW

SEE SECTION CC SHEET 10

SEE SHEET NO. 5 OF 12

MATCH LINE - SEE SHEET NO. 3 OF 12



EXIST. FLOATING DOCKS (TYP.)

RIP-RAP (TYPICAL)

APPROX. EDGE OF MARSH

BARTOW POINT DRIVE

SEE SECTION AA SHEET 8

SEE SECTION BB SHEET 9

DATUM: MLLW



MAINTENANCE DREDGING - CAUSTON BLUFF BOAT BASIN AND APPROACH TO THE WILMINGTON RIVER MARINA SITE PARTIAL PLAN

CLIENT: CAUSTON BLUFF PROPERTY OWNERS ASSOC.

LOCATION: SAVANNAH (CHATHAM), GA

DATE: 11/29/2018

JOB NUMBER: J-27381.0000

SHEET: 4 OF 12

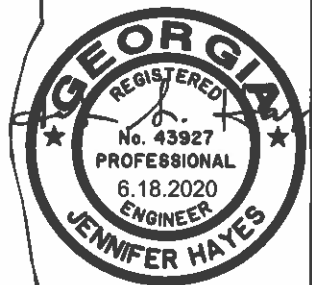
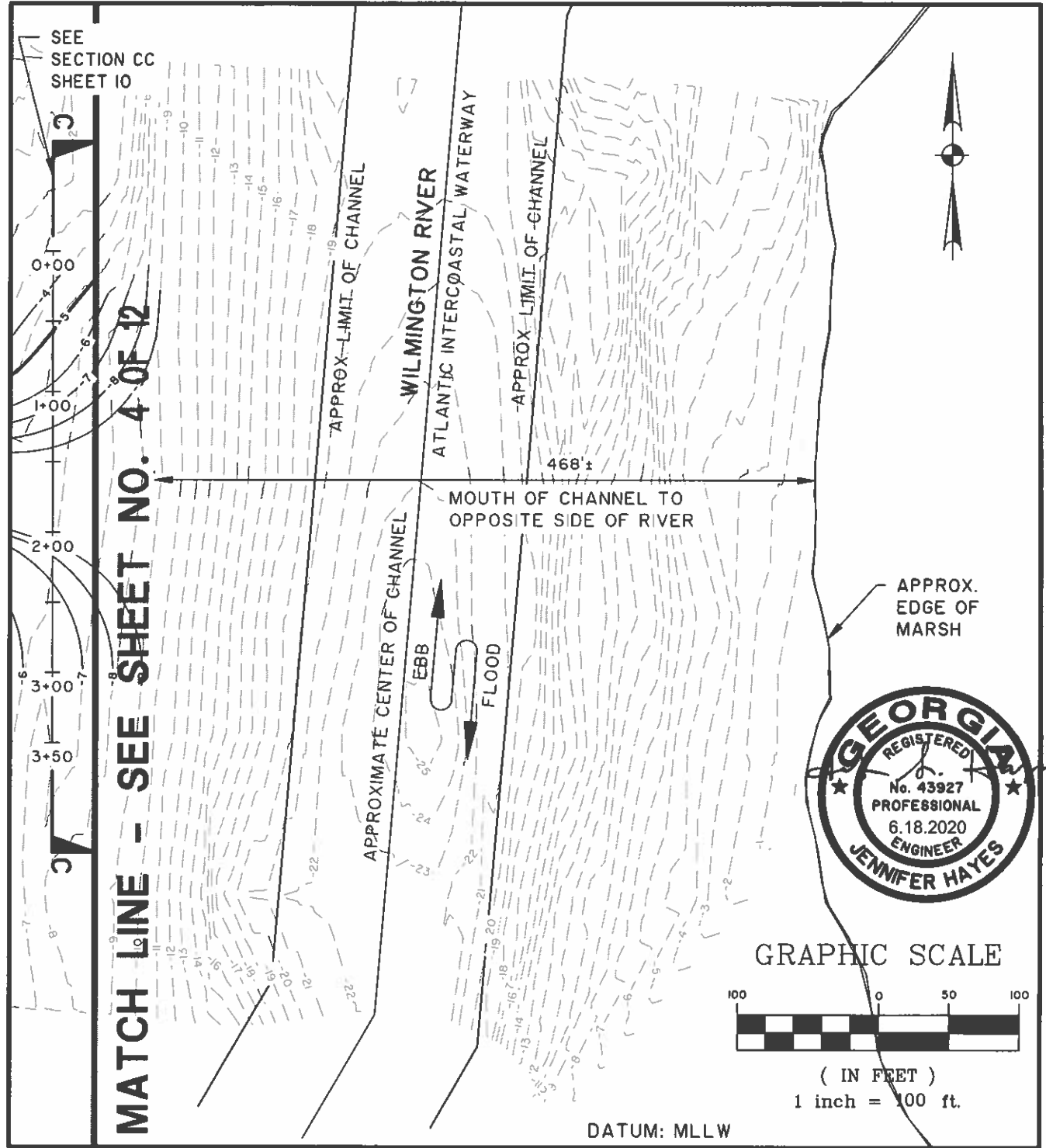
SCALE: 1" = 100'

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DATE PLOTTED: 12/14/2018 10:58:11 AM PROJECT: CAUSTON BLUFF MARINA SITE PARTIAL PLAN SHEET NO. 4 OF 12



MAINTENANCE DREDGING - CAUSTON BLUFF BOAT BASIN AND APPROACH TO THE WILMINGTON RIVER MARINA SITE PARTIAL PLAN

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.
 LOCATION: SAVANNAH (CHATHAM), GA
 DATE: 11/29/2018
 JOB NUMBER: J-27381.0000

SHEET: 5 OF 12
 SCALE: 1" = 100'

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DATE PLOTTED: 07/07/2018 09:54:40 AM PLOTTER: HP DesignJet 2400



DNR JURISDICTIONAL SALT MARSH LINE

MATCH LINE - SEE SHEET NO. 7 OF 12

EXISTING OUTFALL WEIR AND PIPE TO BE REBUILT SEE SHEET 12

EXISTING TIDAL DITCH

TOP OF DIKE

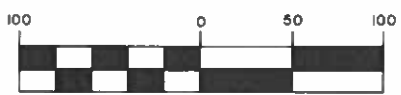
SEE SECTION DD SHEET II

DNR JURISDICTIONAL SALT MARSH LINE

PROJECT BOUNDARY

EXISTING TIDAL DITCH

GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

20,750 CY CAPACITY WITH 2' FREEBOARD

DATUM: MLLW

MAINTENANCE DREDGING - CAUSTON BLUFF BOAT BASIN AND APPROACH TO THE WILMINGTON RIVER DISPOSAL SITE PARTIAL PLAN

CLIENT: CAUSTON BLUFF PROPERTY OWNERS ASSOC.

LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018 REVISED 6-16-2020
JOB NUMBER: J-27381.0000

SHEET: 6 OF 12
SCALE: 1" = 100'

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6.18.2020 11:29 AM 11/29/2018 10:00 AM 11/29/2018 10:00 AM 11/29/2018 10:00 AM

MATCH LINE - SEE SHEET NO. 6 OF 12

DNR JURISDICTIONAL SALT MARSH LINE

GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

20,750 CY CAPACITY
WITH 2' FREEBOARD



TOP OF DIKE

SEE SECTION DD SHEET II

DNR JURISDICTIONAL SALT MARSH LINE

PROJECT BOUNDARY

EXISTING TIDAL DITCH

APPROX. EDGE OF MARSH

ELBA ISLAND ROAD (PRIVATE)

APPROX. EDGE OF MARSH

DATUM: MLLW

MAINTENANCE DREDGING - CAUSTON BLUFF BOAT BASIN AND APPROACH TO THE WILMINGTON RIVER DISPOSAL SITE PARTIAL PLAN

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.

LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018
JOB NUMBER: J-27381.0000

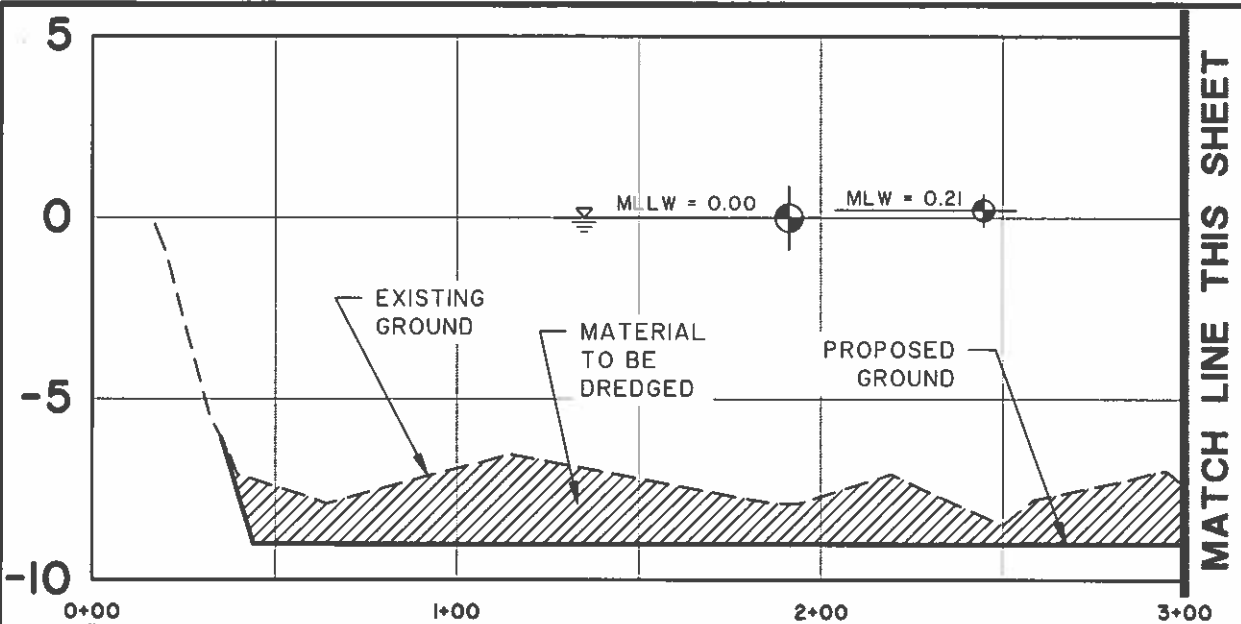
SHEET: 7 OF 12
SCALE: 1" = 100'

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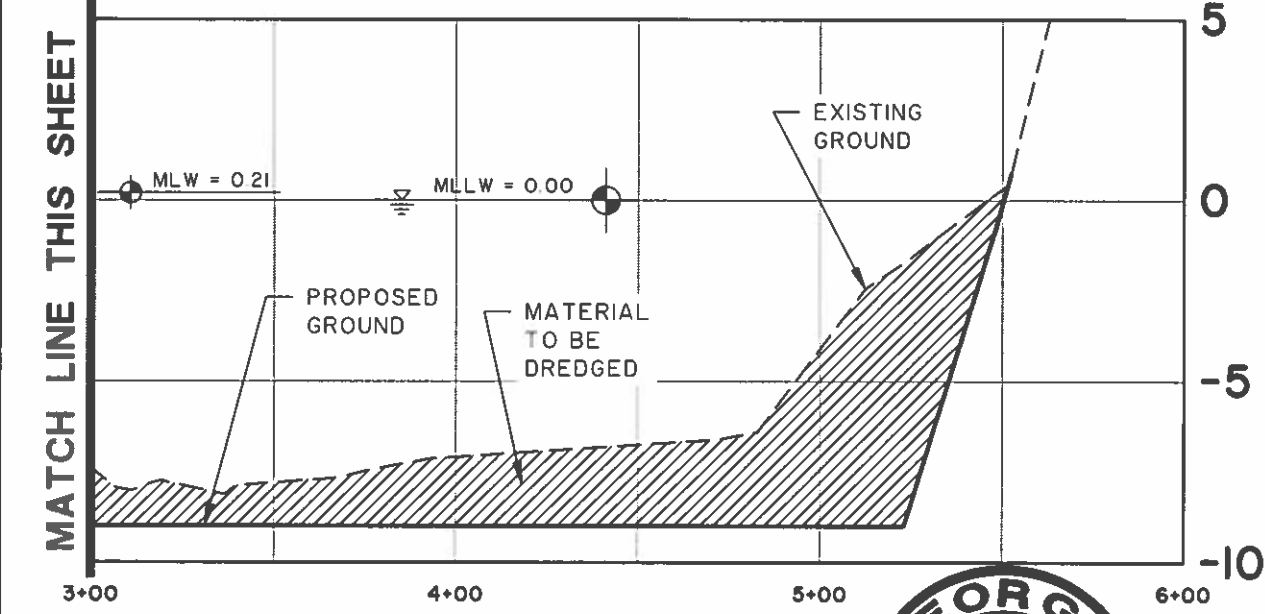
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MATCH LINE THIS SHEET



MATCH LINE THIS SHEET

DREDGED VOLUME
= 20,750 CY

SECTION AA
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



DATUM: MLLW

DREDGING PERMIT - CAUSTON BLUFF BOAT BASIN
AND APPROACH TO THE WILMINGTON RIVER
SECTION AA

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.
LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018
JOB NUMBER: J-27381.0000

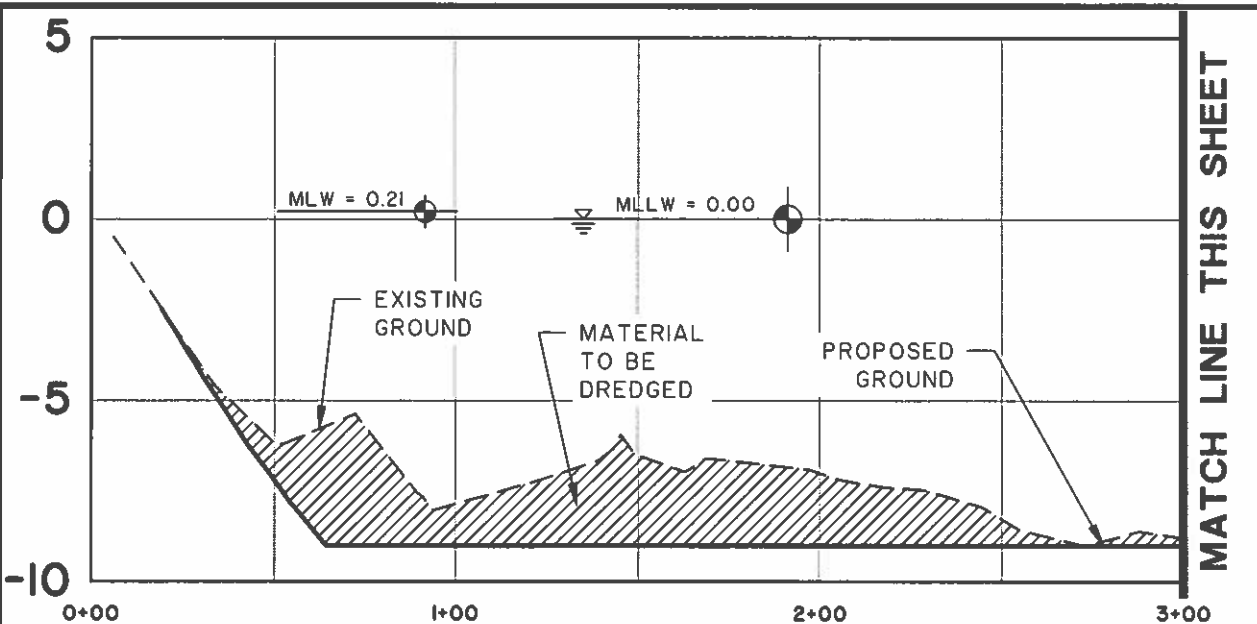
SHEET: 8 OF 12
SCALE: 1" = 50'

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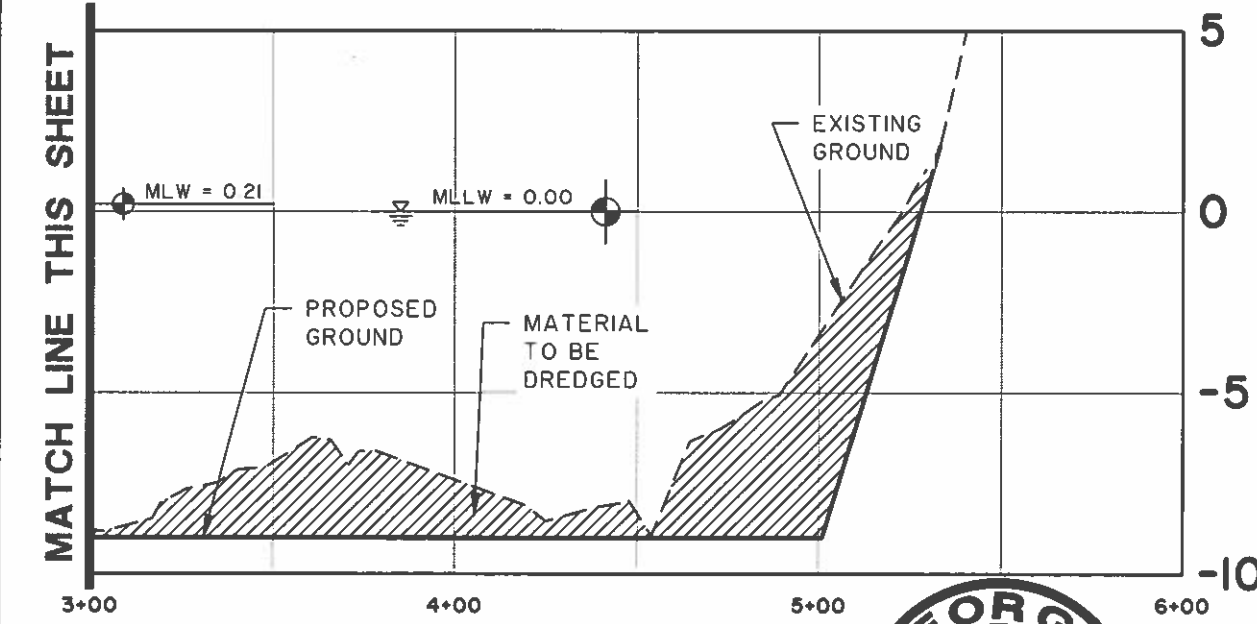
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DATE PLOTTED: 11/29/2018 10:00:00 AM PLOT SCALE: 1" = 50' HORIZONTAL 1" = 5' VERTICAL



MATCH LINE THIS SHEET

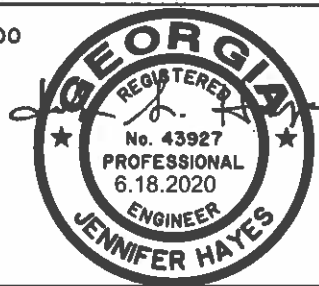


MATCH LINE THIS SHEET

DREDGED VOLUME
= 20,750 CY

SECTION BB
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

DATUM: MLLW



DREDGING PERMIT - CAUSTON BLUFF BOAT BASIN
AND APPROACH TO THE WILMINGTON RIVER
SECTION BB

CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.
LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018
JOB NUMBER: J-27381.0000

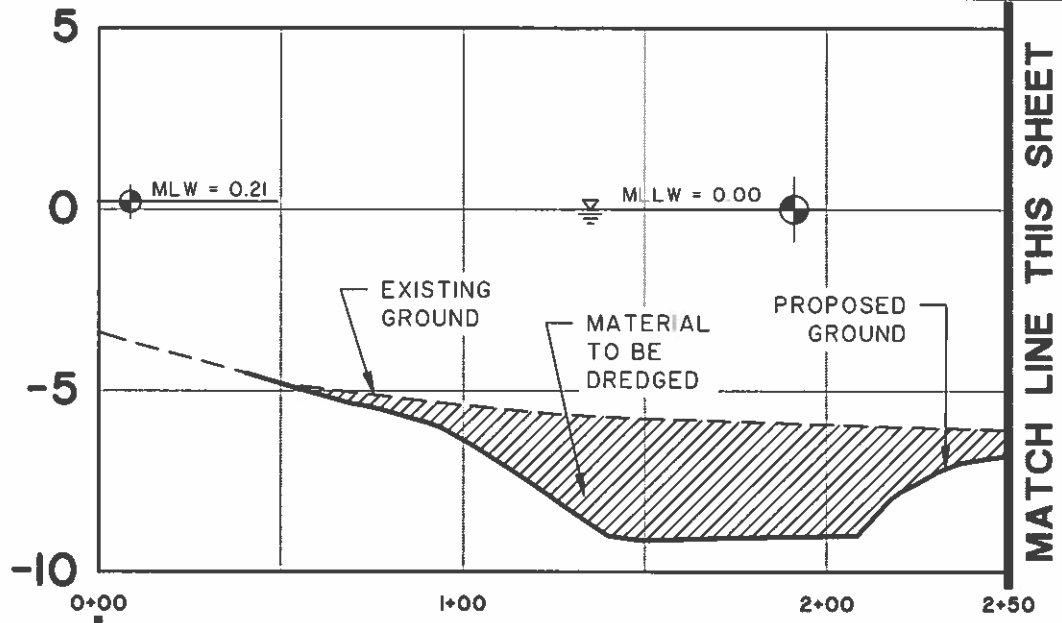
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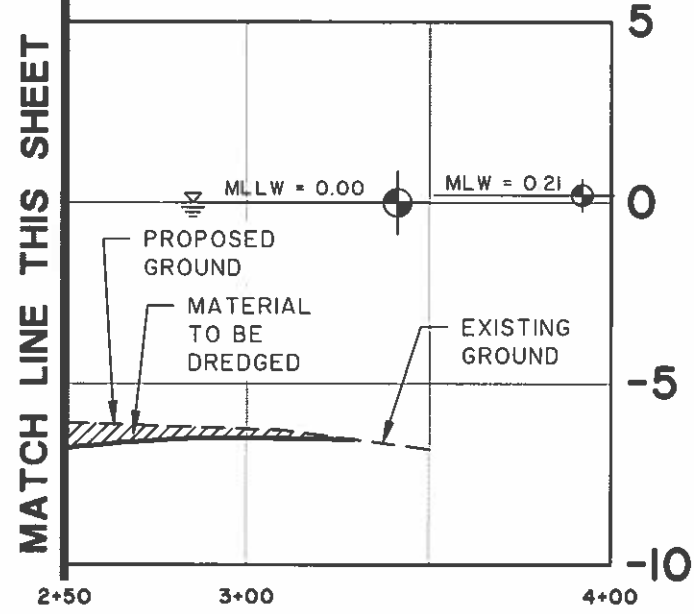
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MATCH LINE THIS SHEET



MATCH LINE THIS SHEET

DREDGED VOLUME
= 20,750 CY

SECTION CC
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

DATUM: MLLW



DREDGING PERMIT - CAUSTON BLUFF BOAT BASIN
AND APPROACH TO THE WILMINGTON RIVER
SECTION CC

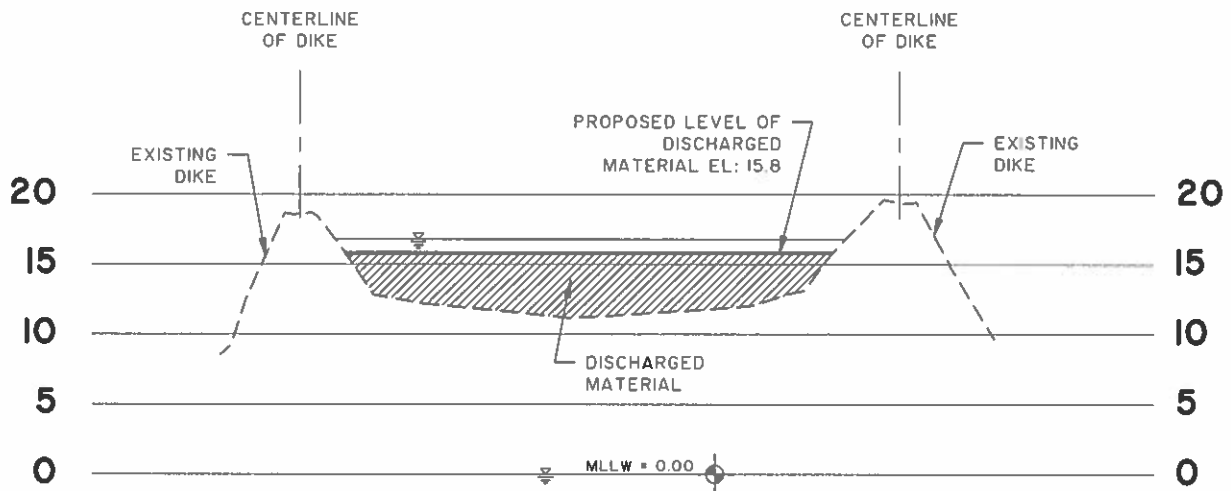
CLIENT:
CAUSTON BLUFF PROPERTY OWNERS ASSOC.
LOCATION: SAVANNAH (CHATHAM), GA
DATE: 11/29/2018
JOB NUMBER: J-27381.0000

SHEET: 10 OF 12
SCALE: 1" = 50'

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DISPOSAL AREA SECTION DD

SCALE: HORZ.: 1" = 60'
 VERT.: 1" = 10'

20,750 CY CAPACITY
 WITH 2' FREEBOARD

DATUM: MLLW

MAINTENANCE DREDGING - CAUSTON BLUFF BOAT
 BASIN AND APPROACH TO THE WILMINGTON RIVER
 DISPOSAL AREA SECTION

CLIENT:
 CAUSTON BLUFF PROPERTY OWNERS ASSOC.

LOCATION: SAVANNAH (CHATHAM), GA
 DATE: 11/29/2018
 JOB NUMBER: J-27381.0000

SHEET: 11 OF 12
 SCALE: 1" = 60'

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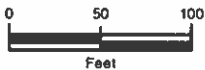


Appendix D:
Temporary CDF Access Figures and Photosheets



Temporary 20' long culvert pipes placed in roadside ditch. One 24" pipe and two 18" pipes.

- Culvert End Points
- Approximate Project Boundary
- Temporary Culvert (+/- 20 ft)



Source(s): NAIP 2017 Aerial Imagery, Sub-Meter GPS Data (2020)

Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.

Culvert Ends	Latitude	Longitude
West Side	-81.02597858	32.06975961
East Side	-81.02590219	32.06979082



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2201 ROWLAND AVE
PH. (912) 236-4711

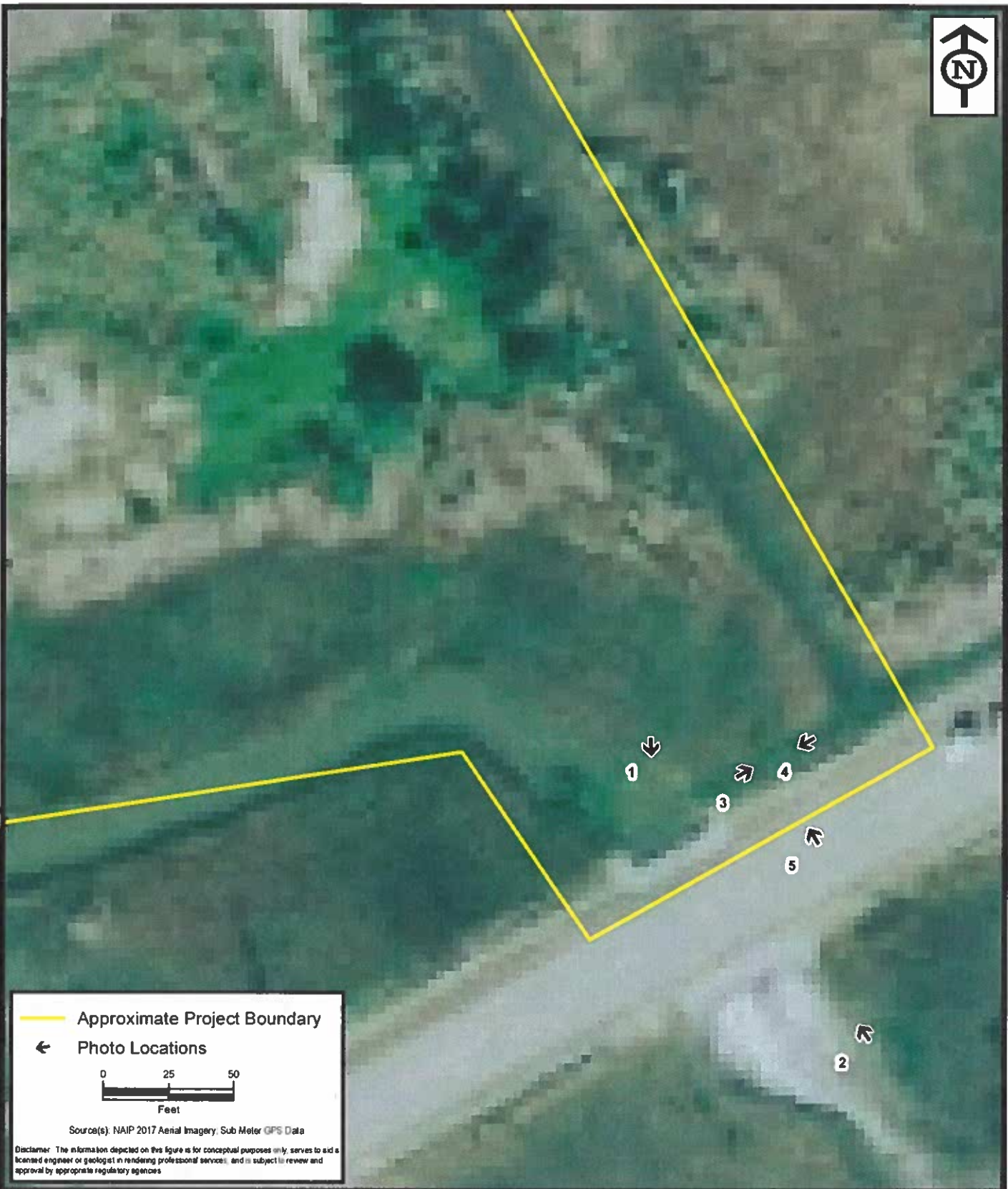
SAVANNAH, GA 31404
FAX (912) 629-4001



Causton Bluff - CDF Temp. Access Exhibit

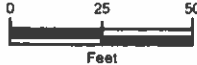
Causton Bluff

Chatham County, Georgia

Project No.	HM137000
Date	May 2020
Drawn By	CP
Checked By	MD
Approved By	MD
Figure No.	1



 **Approximate Project Boundary**
 **Photo Locations**


 Feet

Source(s): NAIP 2017 Aerial Imagery, Sub Meter GPS Data

Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.


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 A Terracon COMPANY

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 PH. (912) 236-4711 FAX (912) 629-4001

CDF Temp. Access Photo Locations Exhibit

Causton Bluff

Chatham County, Georgia

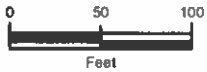
Project No.	HM137000
Date	May 2020
Drawn By	CP
Checked By	MD
Approved By	MD
Figure No.	2



Approximate 190ft. x 10ft. Matting

 Approximate Project Boundary

 Construction Matting



Source(s): NAIP 2017 Aerial Imagery, Sub-Meter GPS Data (2020)

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A Terracon COMPANY

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SAVANNAH, GA 31404
FAX (912) 629-4001



Causton Bluff - CDF Temp. Access Exhibit

Causton Bluff

Chatham County, Georgia

Project No.	HM137000
Date	Jun 2020
Drawn By	AJV
Checked By	MJD
Approved By	MJD
Figure No.	3



 Approximate Project Boundary
 Approximate Dredge Pipe Location

0 125 250
Feet

Source(s): NAIP 2017 Aerial Imagery, Sub-Meter GPS Data (2020)

Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.

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Causton Bluff - CDF Approximate Dredge Pipe Location

Causton Bluff

Chatham County, Georgia

Project No.	HM137000
Date	Jul 2020
Drawn By	AJV
Checked By	MJD
Approved By	MJD
Figure No.	4

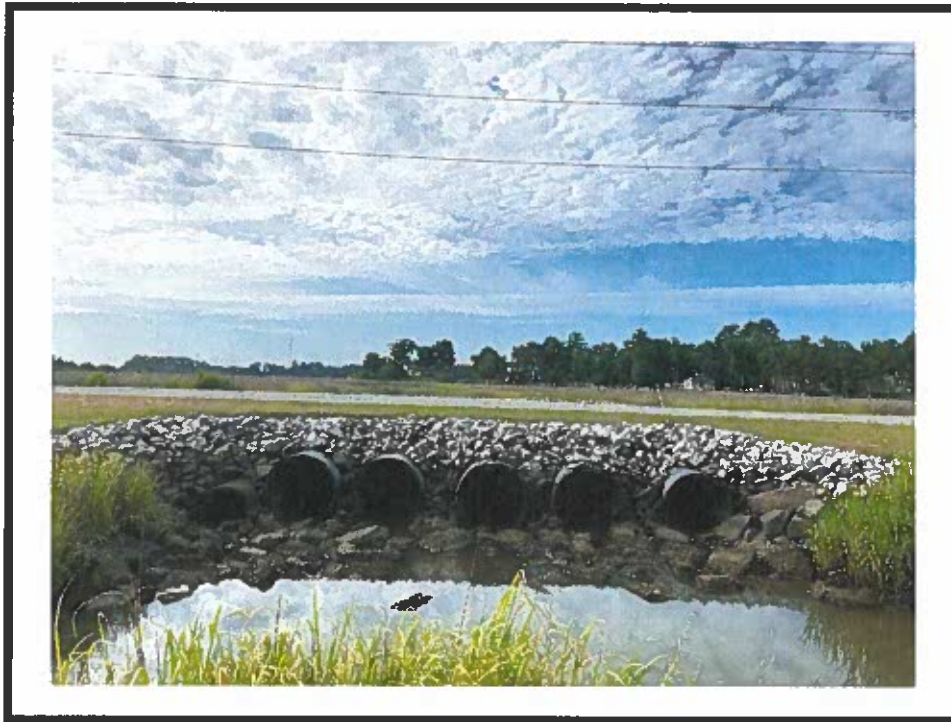


Photo 1: Facing south at Elba Island Rd culverts



Photo 2: Facing north at Elba Island Rd culverts



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Photosheet 1

Causton Bluff - CDF Temporary Access

Chatham County, Georgia

Project No.	HM137000
Date	May 2020
Drawn By	CP
Checked By	MD
Figure No.	1



Photo 3: Facing east in roadside ditch

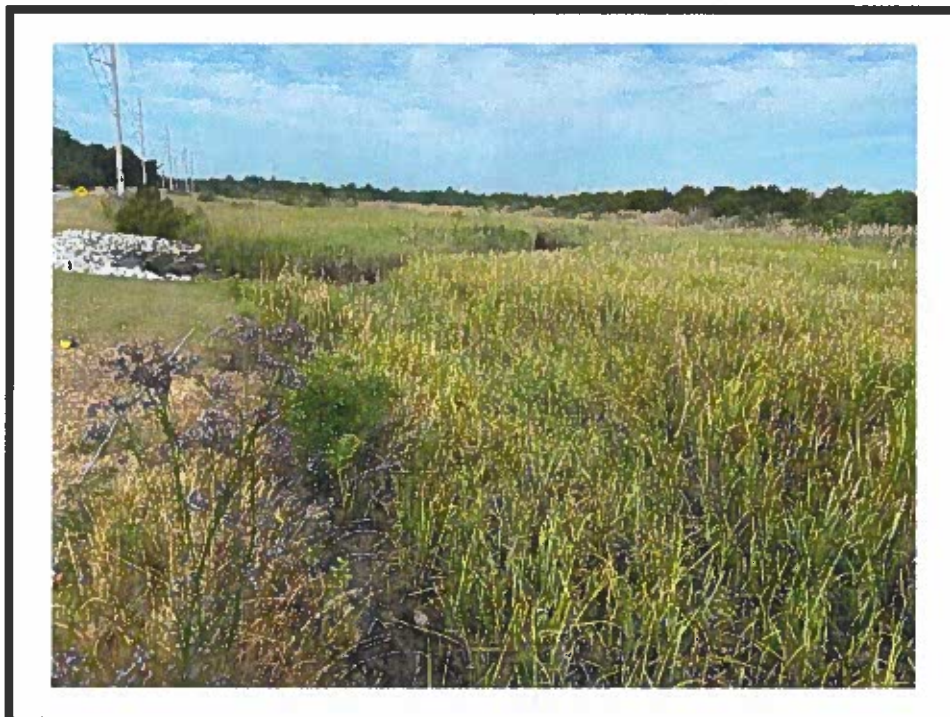


Photo 4: Facing west in roadside ditch



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Photosheet 2

Causton Bluff - CDF Temporary Access

Chatham County, Georgia

Project No.	HM137000
Date	May 2020
Drawn By	CP
Checked By	MD
Figure No.	2



Photo 5: Facing north at roadside ditch with Confined Disposal Facility (CDF) in background

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Photosheet 3 Causton Bluff - CDF Temporary Access Chatham County, Georgia
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Project No.	HM137000
Date	May 2020
Drawn By	CP
Checked By	MD
Figure No.	3

Appendix E:
Causton Bluff Maintenance Dredging Action Plan

CAUSTON BLUFF PROPERTY OWNERS ASSOCIATION

MAINTENANCE DREDGING OF BOAT BASIN

DISPOSAL AREA ACTION PLAN

Permit No. 200104980

The Causton Bluff Property Owners Association intends to perform maintenance dredging on accumulated material from their existing boat basin located along the Wilmington River. The basin has experienced significant siltation since the previous maintenance dredging activity to the extent use by the recreational boats in the basin is hampered by insufficient water depth particularly at low tide stages. This maintenance dredging will not exceed a depth of -9 feet MLLW.

Disposal of the dredged material will be into the Confined Upland Disposal Facility A2 immediately across the Elba Island Road from the boat basin. The disposal area is currently owned by the State of Georgia and has not been actively used since Causton Bluff's previous dredging activity in 2012. This disposal area is part of the original permit action and serves as a perpetual location for dredge material disposal.

It is the goal of the Owner to perform this dredging and discharge operation in a safe, controlled manner with minimal adverse impact to the surrounding areas. During the course of the dredging, the Owner intends to monitor the entire dredging and disposal area activities to prevent damage or deterioration to the existing marshes and drainage control systems.

The dredging will ideally be performed between June 1, 2020, and December 30, 2020.

RESPONSIBLE PARTIES

Owner/ Applicant: Causton Bluff Property Owners Association
Point of Contact: Brian McCarthy
912-658-8127

Project Engineer: Thomas & Hutton Engineering Co:
Point of Contact: Matthew Frazier, P.E.
912-721-4047

Dredging Contractor: Zulu Marine Services

Responsibilities during Project:

- Perform disposal area preparation including, installation of silt fencing, vegetation removal, repairs to weir structure, and placement of grassing on dike walls
- Perform hydraulic dredging of marina based on permit drawings and conditions
- Monitor for manatee and other marine life during dredging and maintain log book of sightings, impacts, collisions, etc.
- Monitor weir operations and dredge pipe conditions during dredging.

**Construction Monitoring/
Water Quality Testing:**

Terracon Consulting
Points of Contact: Guoming Lin 912-200-9114
Leah Moore 678-760-3643

Responsibilities during Project:

- Monitor Dredging Disposal Operations
- Collect three background water quality samples and analysis of data at the following locations prior to dredging:
 - receiving tidal ditch
 - upstream from CDF near tidal reach of receiving ditch
 - at culverts underneath Elba Island Road
 - water sample at mid-depth in center of marina (1 sample only)
- Perform grab sample of ponded water within CDF one day prior to weir release.
- Transmit immediately all results of testing to USACOE
- Monitor weir operations during dredging for adjustment of weir boards if required due to testing results. Maintain contact with dredge to coordinate stoppage of dredging as required.
- Monitor dike integrity
- Perform sampling for water quality during dredging as required by permit conditions
- Samples will be tested for dissolved oxygen, salinity, total suspended solids, copper, and cyanide. All sampling will be in accordance with State approved laboratory methods and procedures.
- Perform post-construction monitoring of CDF for dike integrity and weir functions

DREDGING PLAN

Causton Bluff intends to contract with a dredging contractor to perform a hydraulic dredge with 8" pipe for this work. The small size of the dredge is due, primarily, to the constricted area around the structures in the marina basin. The smaller pipe will also minimize the discharge rate into the disposal area. The material will be discharged into the disposal area by means of a submerged pipeline to be located under the Elba Island Road thru an existing pipe culvert.

DISPOSAL AREA PREPARATION

Due to the inactivity of the disposal area regarding dredging activities, several modifications and repairs are required to provide for the proper discharge of the dredged materials. The interior of the site is to be grubbed of all underbrush to provide a cleared bottom profile. A row of silt fencing will be installed around the perimeter of the dikes for erosion and sedimentation control above the outside toe of the dike. The elevation of the interior area of the disposal area ranges from 10 to 13 MLLW (average 12 used for calculations). The top elevation of the dike ranges from 18 to 20 MLLW (18 used for calculations). Upon completion of the disposal area preparation, and prior to the commencement of the dredging operations, the dikes will be stabilized and grassing of the outside slope of the dike will be performed using marsh-type grasses or other species of native grass indigenous to the area in accordance with the Georgia Department of Natural Resources guidelines and practices.

CONSTRUCTION ACCESS

Access to the disposal area by construction vehicles will be minimized to prevent rutting or damage to the adjacent marsh areas. All work performed in the disposal area shall be from within the interior of the diked footprint and shall use best management practices to avoid adverse impacts to the adjacent marshes, tidal streams, ditches, and mudflats. It is anticipated that the

equipment to be used for the disposal area preparation and maintenance will consist of a small tracked excavator, and a fecon cutting head powered a Takeuchi TL12. Matting will be placed from the existing Elba Island Road across the tidal flats into the disposal area.

Temporary concrete pipe culverts will be installed where the equipment intends to cross the existing ditches adjacent to Elba Island Road. These culverts will be removed upon completion of the work and the area restored to its original condition. Access to the disposal area will be restricted to the limits indicated on the attached plan. Any damage to the adjacent sites caused by the construction and dredging activities will be repaired to their original condition. Care shall be taken to prevent interference with the normal operation of the existing mosquito control ditches surrounding the disposal area. Any damage will be repaired to the satisfaction of the Mosquito Control Commission authorities.

WEIR STRUCTURE Maintenance

A new 36 inches diameter weir structure, 10 feet tall will be installed prior to the commencement of the dredging. An access ladder will be attached to this structure to facilitate the manipulation and inspection of the weir boards. The bottom of the weir will be positioned approximately 4 feet below the existing interior elevation of the disposal area and securely anchored to prevent buoyancy or shifting. Treated timber boards will be used for the weir height control. The weir pipe was previously extended approximately 80 linear feet to provide discharge into the adjacent ditch. A layer of filter fabric was installed underneath the pipe. During the dredging, the weir boards will be kept as high as possible to prevent the discharge of effluent for the first couple of days allowing the settlement of the material. As the dredging progresses the boards will be systematically lowered as necessary to discharge the water as required. Periodic inspections of the weir and boards will be performed to monitor the condition of the system. A sump will be created immediately in front of the weir to insure continual drainage towards the weir during pumping activities. The sump will be constructed such that no undermining of the weir can occur. This sump will continue to be maintained after completion of the dredging operation to provide surface flow towards the weir and provide a habitat for fish to feed of mosquito larvae minimizing their potential for breeding. A perimeter manifold ditch will be installed along the inside toe of the dikes to facilitate the dewatering process and aid in the dredged material consolidation process.

REMOVAL OF DEBRIS

Small trees and shrubs will be cut using chainsaws and then hand carried to a dump trailer located on the Elba Island Road. The Phragmites will be mowed down and carried in large baskets out to the dump trailer also. The debris will be taken to an offsite landfill.

DEWATERING OF DISPOSAL AREA

Upon completion of the dredging operation and subsequent release of the ponded water to the stream, a dewatering system consisting of finger ditches will be used in the disposal area for positive drainage to the weir and prevention of mosquito breeding habitats. Construction of these ditches will also aid in the densification and consolidation of the dredged material. Upon completion of the dredging activities and discharge into the disposal area, an examination will be performed to determine that the dredged sediment have sufficiently dried. The weir boards will then be set to provide complete drainage of the sump area immediately in front of the weir structure to prevent mosquito breeding habitats.

MONITORING OF MARINE LIFE

As specified in the Special Conditions of the prior Permit, monitoring will be performed by observers for sightings of manatees and/or short-nosed and Atlantic Sturgeons as required. All vessels associated with the dredging will operate at "no wake/idle" speed at all times while in the water where the draft of the vessel provides less than four feet of under keel clearance. Dredging will cease upon sighting of any manatee within 100 yards of the project area and will not resume until no further sightings have occurred for at least 30 minutes. No siltation barriers will be utilized. The dredge will have a trained observer to provide watch for the presence of marine mammals and observe the area at all times during the dredging. The observer(s) will maintain contact with the dredge to coordinate any stoppage of the dredging operations when sightings occur. Appropriate signage as identified in the Permit will be installed both on a temporary basis as well as permanent signs for manatee sighting and awareness.

DREDGE AND DISPOSAL AREA MONITORING PROGRAM

The Owner's Construction Monitoring Consultant (Terracon), and the Dredging Contractor (Zulu) will have dual responsibility for the weir operations. Terracon will be the responsible party for the water quality monitoring and notification to the USACE and the dredging contractor concerning the opening/closing of the weir and halting of dredging due to the water sampling analysis. Terracon and representatives of the dredging contractor will also be monitoring the dike integrity and will provide immediate notification of any seepage, breaks, etc. that may occur and instruct the dredge to immediately halt operations.

Prior to commencement of the dredging operations, the USACE will inspect the disposal area facility for conformance with the permit conditions. Upon their approval, and completion of the required water quality sampling program outlined in the permit, dredging will be allowed to commence.

The Owner intends to hire Terracon to oversee the disposal operations and perform sampling and testing during the dredging operation, in accordance with the special conditions of the permit and the Dredge Material Evaluation Report-Final Causton Bluff Marina dated July 19, 2001, to insure the project related effluent does not exceed 250mg/l Total Suspended Solids (TSS). Initial background samples will be taken prior to commencement of the dredging at three separate occasions at the receiving ditch, upstream of the CDF near the tidal reach of the receiving ditch and at the culverts underneath Elba Island Road to develop a baseline reading for dissolved

oxygen, salinity, TSS, Copper and Cyanide. One day prior to the release of the ponded water from the CDF, a grab sample will be taken within the CDF to analyze for DO, salinity, TSS, Copper, and Cyanide. If the DO, Copper, and Cyanide levels are within the specified levels identified in the Permit Conditions, the weir may be opened, and the ponded water released. Approval from USACE is required prior release and will be based on the test results.

Once a steady flow from the weir commences daily TSS, Copper, and Cyanide shall be checked for levels as specified in the State of Georgia Rules and Regulations for Water Quality, Chapter 391-3-6, Section 0.03 - Water Use Classification and Water Quality Standards, for Coastal Marine Estuary Waters, amended, revised March 2001 or latest edition. Provided the established levels are not exceeded, samples shall be taken every third and fifth day of weir discharge for monitoring of TSS, Copper and Cyanide along with turbidity. The analysis of the water samples will be performed by a State approved laboratory under the supervision of Terracon.

The procedures and protocols to be used in the analysis will conform to the USEPA/USACE Draft Inland Testing Manual, in accordance with the sampling plan submitted as part of the permit application and as specified in the permit conditions. Results of the testing will be provided to the Corps, as specified in the permit conditions. Adjustment in the dredging rate will be performed to maintain the turbidity and TSS requirements, including, but not limited to, suspension of dredging operations to allow for longer settling time. Once sufficient settling time has occurred and the effluent clear enough to commence discharging, another sample shall be taken to determine TSS. At no time will the TSS be allowed to exceed 500mg/l. If the TSS exceeds 250 mg/l, the weir release will be halted by adding weir boards and/or stoppage of dredging.

In addition to the sampling and testing of the effluent, the position of the timber weir boards relative to the ponded water will be monitored daily during the dredging to provide the proper discharge of the effluent. The monitoring program will also include daily visual examination of the satisfactory condition of the entire earthen dike system and adjacent areas during the dredging event. Monitoring will include visual examination of the exterior of the dike walls for signs of or potential of degradation, seepage, cracking, overflow, or erosion of the dike walls will facilitate immediate stoppage of the discharge activity and emergency repairs implemented as necessary to insure the proper and safe functioning of the disposal area containment system. In the event of seepage or cracking in the dikes, remedial repairs will consist of, but not be limited to, installation of filter fabric underlayment with placement of additional fill and if required, stone rip-rap to prevent erosion of the walls. The monitoring will also include verification that no migration of the dike toe footprint occurs. The Corps will be immediately notified of any problems with the dikes and provided plans for the repairs, if necessary.

The dredge pipeline will also be daily inspected for breaks or other types leakage or failure. Upon discovery of any pipeline problems the dredging operations will be immediately halted until repairs by the dredge contractor are completed. During the implementation of repairs, no dredging operations and discharging into the disposal area will be performed.

As part of the dike wall monitoring program, the weir structure and piping will also be monitored for problems such as differential settlement of the structure, failure of pipe joints that may result in leakage, etc. Any problems encountered will facilitate immediate stoppage of dredging and repairs commenced.

CONTINGENCY PLANS

Once the dredging operations commence and the water quality monitoring program is underway, samples will be taken every three days to check for dissolved oxygen, PH, salinity, total suspended solids, copper, and cyanide.

If, at any time, the sampling indicates levels in excess of those specified in the permit conditions

for copper and cyanide, the weir will be immediately closed until a corrective action plan can be developed to reduce the level of these contaminants to acceptable levels. If the TSS levels exceed 250 milligrams per liter, the weir will be closed, and additional flashboards placed and/or the dredging halted to provide for a longer settling time. Approval from the Corps will be required to reopen the weir and/or resume dredging operations.

In the event a problem occurs in the dike walls, such as seepage, cracking, breaks, etc. Terracon and/or dredge contractor will immediately contact the dredge to halt pumping operations. The Owner and Engineer will be immediately notified, along with the Corps, that a loss of integrity has occurred. No resumption in dredging will occur until a plan of corrective action has been developed and approved by the USACE concerning the repair of the dike system and restoration of its integrity.

Impact/collisions with marine mammals will be immediately placed into a log book prepared and kept by the dredge contractor. The Corps, USFWS, and GADNR will be contacted in accordance with the permit conditions. A report summarizing all incidents and sightings will be submitted to the USFWS and National Marine Fisheries upon completion of the dredging project.

POST-CONSTRUCTION MONITORING

Upon completion of the dredging operations, the silt fencing around the perimeter of the dike system will be removed and any material that has sloughed on the dikes will be retrieved and placed back into the disposal area interior. The weir structure, dikes, and interior drainage of the disposal area will continue to be monitored on a routine basis by the Owner to ensure the continued integrity of the disposal facility.

**Appendix F:
Dredging History Information**

Causton Bluff Dredging History 2000 – present

Date	File Number	Material Dredged	Description	Permittee
Mar-02	200104980	14000 yd ³	The Causton Bluff property owners hydraulically dredged material in order to maintain the existing boat basin located on Wilmington River. Disposal of the dredged material was in the confined upland disposal facility (A2) immediately across the Elba Island Road from the boat basin.	Causton Bluff Property Owners Association
2006	200104980 200502079	14000 yd ³	Previous permit from 2002 extended	""
2011	200104980 200502079	14000 yd ³	Previous permit from 2002 extended	""
Nov-18	200104980 200502079	20750 yd ³	It was proposed that the basin would be dredged to its original depth. However, work has yet to be completed due pending permit approvals.	""

Appendix G:
Tier 1 Environmental Assessment, dated 14 September 2018