RIGGER RESIDENCE LIVING SHORELINE

2025

CMPA Permit Application

LaBarba Environmental Services

Tel (912) 215-1255
Fax N/A

139 Altama Connector, #161
Brunswick, GA 31525

sam@labarbaenvironmentalservices.com

Table of Contents

Applicant Information

The applicant for the proposed project is Mr. and Mrs. Rigger. The applicant is represented by Sam LaBarba of LaBarba Environmental Services for this project.

Mary Stubbs Rigger & Ralph Donald Rigger Jr.
1047 Head Lane
Townsend, GA 31331, USA
Email: laxrigger@gmail.com : msrigger@gmail.com
Phone: (404) 312-9162

Sam LaBarba
LaBarba Environmental Services
139 Altama Connector, #161
Brunswick, GA 31525
Email: sam@labarbaenvironmentalservices.com
Phone: (912) 215-1255

Project Summary

The proposed project involves the construction of a living shoreline to stabilize the eroding bank and enhance ecological function along a tidal waterbody. The living shoreline design incorporates rip-rap, Flexamat, and the planting of native marsh and transitional vegetation. The project aims to reduce shoreline erosion, restore natural habitat, and improve water quality while maintaining tidal connectivity and aquatic life movement. The project spans approximately 92 linear feet and complies with applicable federal, state, and local permitting requirements, including Nationwide Permit (NWP) 54 for Living Shorelines and the Coastal Marshlands Protection Act.

Existing Conditions:

The project site is located in Townsend, Georgia along the Sapelo River, west of Bellville Point. The site contains approximately 0.52 acres of wetlands and consists of an upland residence and a manicured lawn extending to a steep bluff where the shoreline is currently eroding. The bluff extends from approximately 25’ in elevation at the top of the bank to approximately 5’ elevation at the bottom of the bank where the Mean High Water/CMPA Line is located. The slope above CMPA Line is composed of creeping vines and scatters individual small trees and shrubs. Beginning at the CMPA Line is an existing rip rap revetment that has been in place for an unknown period of time, dating back to at least the 1990’s. The existing rip rap covers the entire length of the shoreline, but is not uniform in its width and thickness.

The Georgia Wetlands Restoration Access Portal (G-WRAP) indicates that the area is suitable for supporting oysters and Spartina grass; however, ongoing erosion has prevented these species from fully establishing along the shoreline. Historical shoreline maps referenced in Appendix N show excessive erosion dating back to the 1930s, highlighting the significant loss of shoreline over time. Within the last two years, erosion has left the private dock walkway entirely inaccessible. The trend of the river migrating to the south is becoming increasingly hazardous to upland structures along the waterway.

Erosion at this project location is a two-part problem. The first issue arises from the high water velocity of the Sapelo River undercutting the large bluff, which causes immediate drops of the shoreline immediately adjacent to the CMPA line, as well as subsidence further landward. The second issue arises from rainwater directly hitting the side of the bluff and also from percolation of rainwater from the upland through the side of the bank. The existing vegetation does not adequately protect the fragile topsoil on the bank and the existing rip rap is not sufficient to prevent erosion below the high water line. The proposed living shoreline presents a unique opportunity to solve both of these problems as a single biostructure extending from below the marsh line and transitioning to the upland slope.

Proposed Conditions (Living Shoreline):

The proposed living shoreline will result in the stabilization of approximately **92 linear feet** of shoreline through the strategic use of rip-rap, Flexamat, and native vegetation. The project also includes impacts to adjacent upland areas, which will involve grading to achieve the required slope and facilitate the installation of shoreline stabilization components. The project is designed to minimize environmental impacts while addressing erosion and enhancing the ecological function of the area. Below is a summary of the impacts, categorized into Coastal Marshlands Protection Act (CMPA) jurisdiction impacts and impacts below the High Tide Line (HTL).

Summary of Impacts:

- Total impact area (Upland+Marsh): **3,390 square feet**
- Impact area within CMPA jurisdiction: **1,075 square feet**
- Impact volume within CMPA jurisdiction: **31.63 cubic yard**
- Impact area below HTL: **1,158 square feet**
- Impact volume below HTL: **32.46 cubic yards**

Description of Impacts:

1. **Grading:** The grading activities are essential for preparing the site for the installation of shoreline stabilization materials and achieving a stable slope. The upland area will be regraded to a 1.5H:1V slope to ensure stability and prevent future erosion. This work involves the redistribution of existing material to produce the desired slope. Grading will facilitate proper alignment and installation of the rip-rap, Flexamat, and other components, while minimizing disturbance to surrounding areas. Best management practices (BMPs), including silt fencing and mats for heavy equipment, will be employed to reduce sediment runoff and soil compaction.
2. **Flexamat:** Installed along the slope, the Flexamat will stabilize soils, while allowing for vegetation to be planted between the individual concrete cells. This provides immediate protection for the plant roots and space for the vegetation to spread once established. The flexamat will be anchored per manufacturer specifications to prevent displacement during tidal and storm events.

3. **Rip-rap:** A limited amount of rip-rap will be strategically placed at the toe of the slope and along the side borders, to dissipate wave energy and prevent further erosion.
4. **Oysters:** The oysters that are growing on the existing rip rap will be preserved and strategically placed on the new rip rap and flexamat to promote immediate regrowth.
5. **Native Vegetation:** Salt-tolerant species (*Spartina alterniflora*) will be planted across the graded slope to establish a resilient vegetative buffer. This planting will provide both ecological benefits and erosion control. Salt tolerant upland plants will be used above the HTL.

This design ensures long-term shoreline stabilization while supporting natural tidal flows and aquatic organism movement.

Jurisdictional Impact Chart:

Material/Activity	CMPA Jurisdiction Area (sq ft)	CMPA Jurisdiction Volume (cu yd)	Below HTL Area (sq ft)	Below HTL Volume (cu yd)
Grading	1,075	±0	1,158	±0
Rip-rap*	333	24.66	337	24.96
Flexamat*	1,075	6.97	1,158	7.5
Oysters*	158	0	158	0
Native Vegetation*	585	0	585	0
Total	**1,075**	**31.63**	**1,158**	**32.46**

Note: (*) Impacts from some materials are inclusive to the area impacted by other materials. For instance, the native vegetation overlaps with the Flexamat, so its area is not an additional impact.

Needs Assessment

Shoreline erosion at the project site poses risks to the adjacent upland area, contributing to sedimentation and loss of habitat. Without intervention, continued erosion will degrade water quality and reduce the ecological integrity of the tidal ecosystem. The proposed living shoreline addresses these issues by:

- Stabilizing the bank to prevent further erosion.
- Restoring native vegetation and habitat for aquatic and terrestrial species.
- Improving water quality by reducing sediment runoff.
- Enhancing the shoreline's resilience to storm surges and tidal flows.

This project aligns with regional goals for sustainable shoreline management and habitat restoration, providing both ecological and community benefits.

Alternative Analyses

Several alternatives were evaluated to address the shoreline erosion and habitat degradation:

1. **No-Action Alternative:**
    - **Outcome:** Continued erosion would result in ongoing habitat loss, water quality degradation, and increased risks to upland stability.
    - **Conclusion:** Not viable due to ecological and structural concerns.
2. **Hardened Shoreline (e.g., Bulkhead):**
    - **Outcome:** While this option would stabilize the shoreline, it would disrupt natural tidal flows and eliminate habitat for aquatic and terrestrial species.
    - **Conclusion:** Rejected due to adverse environmental impacts and regulatory constraints.
3. **Stabilization Using Only Rip-Rap:**
    - **Outcome:** This approach would involve using rip-rap exclusively to stabilize the shoreline. While effective at reducing erosion, this method lacks the ecological benefits provided by a living shoreline, such as habitat creation and water quality improvement. Additionally, rip-rap alone would not address the loss of vegetative cover, limiting its long-term effectiveness and resilience.
    - **Conclusion:** Not selected due to insufficient ecological benefits and limited functionality compared to the preferred alternative.
4. **Living Shoreline (Preferred Alternative):**
    - **Outcome:** Combines natural and structural elements to stabilize the shoreline, restore habitat, and improve water quality while maintaining tidal connectivity and aquatic life movement.
    - **Conclusion:** Selected as the most sustainable and environmentally beneficial solution.

Adjoining Landowners

Ronald Beasley
133 Cherokee Drive
Guyton, GA 31312

Jack & Phyllis Hogan
325 Old Loganville Road
Loganville, GA 30052

Landfill/Hazardous Waste Statement

The Georgia Environmental Protection Division Hazardous Site Inventory indicates that the project location does not contain any landfills or hazardous waste sites.

Historic/Cultural Resources

The project area does not contain any sites listed on the National Register of Historic Places or the GNAHRGIS. If historic or cultural resources are discovered during the project they will be immediately reported to the appropriate agencies.

Water Quality Certification

This application will be processed by the U.S. Army Corps of Engineers as a Nationwide Permit which has been granted blanket authorization for a 401 Water Quality Certification.

Soil and Erosion Control Statement

The proposed project will adhere to the soil and erosion control responsibilities, if required, for the proposed project. EPD was contacted and determined that a buffer variance is not required for this project.

Turbidity Statement

The proposed project will be performed in a manner to minimize turbidity in the stream. The dock structure will be entirely pile supported with minimal impacts to sediment from driving pilings.

Water Use Statement

The proposed project is located seaward of upland owned by the applicant. The project will extend minimally into the waterway to prevent obstructions to navigation. The final structure will provide more opportunities for legitimate water use.

Public Interest Statement

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.
The proposed project involves the implementation of a Living Shoreline, which represents the most natural and environmentally beneficial approach to shoreline stabilization. Unlike hardened structures such as bulkheads or seawalls, a Living Shoreline is designed to work in harmony with natural coastal processes, promoting resilience while minimizing any adverse impact on water flow or navigation.

The key components of this proposal, including Flexamat placement, marsh vegetation planting, riprap for erosion control, and oyster seeding, are all nature-based solutions that enhance rather than obstruct the natural flow of navigational waters. These features facilitate sediment retention, reduce wave energy, and stabilize the shoreline while ensuring the continued movement of water in a way that supports the surrounding ecosystem.

Furthermore, because no large-scale artificial structures are being introduced into the waterway, there is no risk of creating unreasonably harmful obstructions to navigation. Instead, the project maintains and enhances the natural hydrodynamic characteristics of the area, contributing to long-term coastal resilience.

B. Whether or not unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created.

The implementation of a Living Shoreline as part of this proposal is specifically designed to prevent erosion, minimize shoaling, and maintain natural water movement without causing harmful alterations. Unlike traditional shoreline stabilization methods, such as bulkheads or seawalls, which can intensify erosion and disrupt sediment transport, this approach enhances the shoreline's resilience while supporting natural hydrodynamic processes.

By incorporating marsh vegetation, Flexamat, strategically placed riprap, and oyster seeding, the project effectively dissipates wave energy, stabilizes sediment, and prevents excessive erosion along the shoreline. These nature-based solutions ensure that sediment remains in place rather than being displaced into navigational channels, thereby reducing the potential for shoaling.

Furthermore, this design promotes continuous water exchange and circulation, preventing the formation of stagnant areas that could negatively impact water quality. The combination of native vegetation and oyster reef establishment fosters a dynamic and self-sustaining shoreline, maintaining ecological balance while supporting long-term coastal stability.

Overall, this Living Shoreline solution offers a sustainable, low-impact alternative that not only stabilizes the shoreline but also mitigates erosion and shoaling risks, ensuring the continued health and functionality of the waterway.

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 Living Shoreline project is designed to work in harmony with the natural environment and will not unreasonably interfere with the conservation of marine life, wildlife, or critical natural resources such as water and oxygen supply. In fact, this approach actively enhances habitat quality and promotes ecological sustainability.

By incorporating marsh vegetation, oyster reef restoration, and natural erosion control measures, the project directly supports fish, shrimp, oysters, crabs, clams, and other marine life. Oyster seeding, in particular, provides valuable habitat while also improving water quality through natural filtration, increasing oxygen levels, and enhancing biodiversity. Similarly, the establishment of marsh and upland vegetation fosters essential nursery habitats for marine species, stabilizing sediment and reducing water turbidity, which benefits aquatic life.

Unlike hardened structures that can disrupt ecosystems and degrade water quality, this Living Shoreline approach maintains natural hydrodynamics and improves overall ecosystem function. The project's erosion control measures help prevent sedimentation that could otherwise smother marine habitats, while maintaining a balanced exchange of nutrients and oxygen within the water column.

In conclusion, rather than interfering with the conservation of marine and wildlife resources, the proposed project actively supports and restores critical habitats, ensuring a net positive impact on ecological health. The Living Shoreline solution enhances, rather than harms, the surrounding environment, reinforcing long-term resilience and sustainability for both marine life and water quality.

Conclusion

The proposed Living Shoreline project represents a proactive, sustainable, and ecologically responsible approach to shoreline stabilization. By incorporating natural elements such as riprap, Flexamat, native vegetation, and oyster seeding, this project not only addresses the ongoing erosion issues but also enhances the natural habitat, water quality, and resilience of the coastal environment.

Unlike traditional hardened structures, this Living Shoreline approach works with natural coastal processes rather than against them. It will stabilize the shoreline, reduce sediment loss, and improve water quality while maintaining tidal connectivity and ensuring that navigational waters remain unobstructed. Additionally, by fostering critical habitats for fish, shrimp, oysters, crabs, and other marine species, this project will actively contribute to the conservation of aquatic life and promote long-term ecological health.

Through careful design and adherence to all federal, state, and local permitting requirements, this project serves as a model for environmentally responsible shoreline stabilization. By choosing a nature-based solution, the applicants are not only preserving their property but also enhancing the broader coastal ecosystem—ensuring that this valuable waterway remains healthy, navigable, and resilient for generations to come.

Sam LaBarba
LaBarba Environmental Services
February 2, 2025

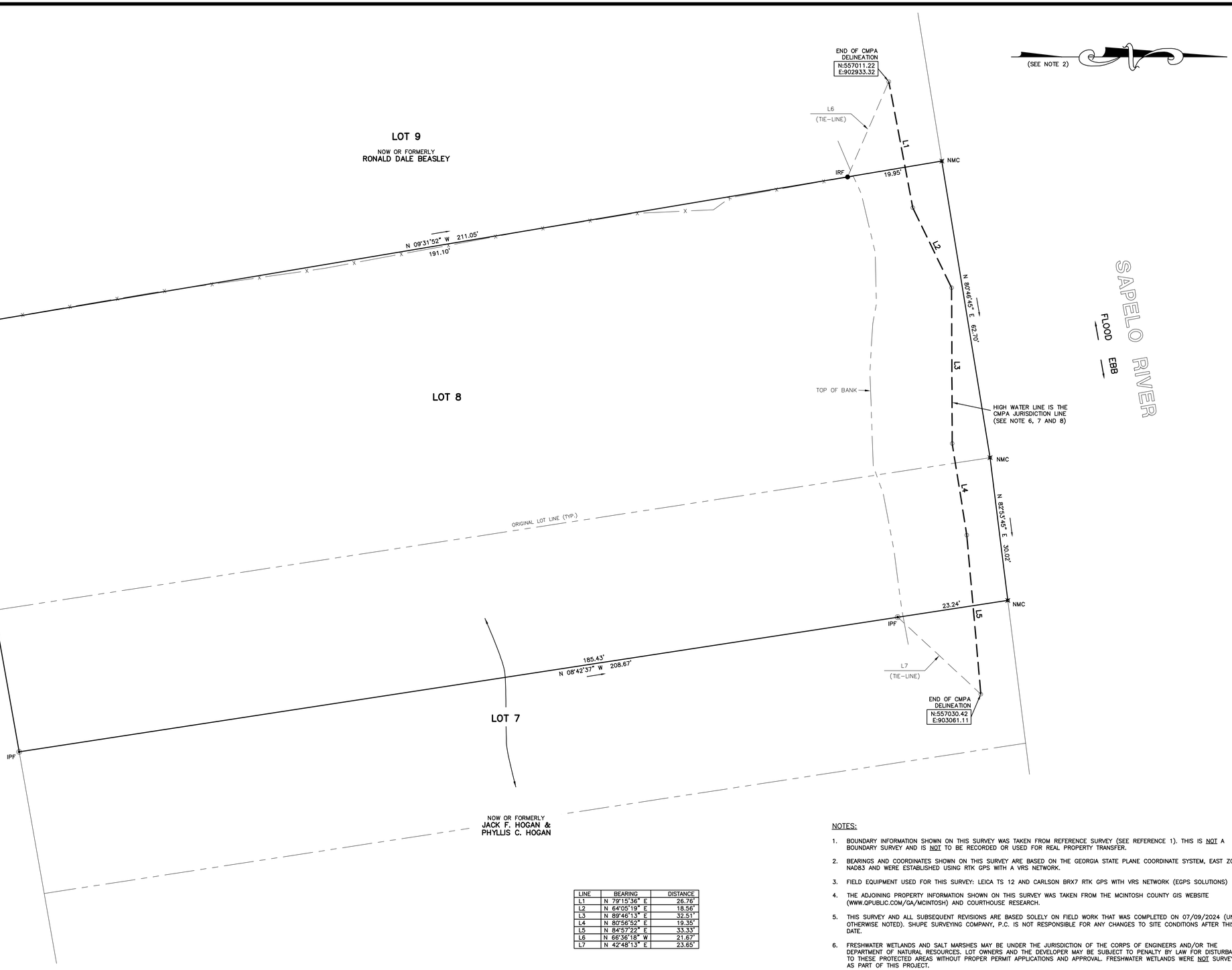
Files

SCAN ME

Site Map

SCAN ME

Appendix J: Survey



LINE	BEARING	DISTANCE
L1	N 79°15'36" E	28.76'
L2	N 64°05'19" E	18.56'
L3	N 89°46'13" E	32.51'
L4	N 80°56'52" E	19.35'
L5	N 84°57'22" E	33.33'
L6	N 66°36'18" W	21.67'
L7	N 42°48'13" E	23.65'

REFERENCES:

1. SURVEY BY DURAND LAND SURVEYING, TITLED "RETRACEMENT SURVEY, LANDS OF FELIX W. & MARIAM J. HAYNES, BEING 0.44 ACRES, LOT 8 & WESTERN 1/2 OF LOT 7, BLOCK 'D', SAPELO GARDENS S/D", DATED 10/05/2020.
2. PLAT BOOK 2, PAGE 113

NOTES:

1. BOUNDARY INFORMATION SHOWN ON THIS SURVEY WAS TAKEN FROM REFERENCE SURVEY (SEE REFERENCE 1). THIS IS NOT A BOUNDARY SURVEY AND IS NOT TO BE RECORDED OR USED FOR REAL PROPERTY TRANSFER.
2. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
3. FIELD EQUIPMENT USED FOR THIS SURVEY: LEICA TS 12 AND CARLSON BRX7 RTK GPS WITH VRS NETWORK (EGPS SOLUTIONS)
4. THE ADJOINING PROPERTY INFORMATION SHOWN ON THIS SURVEY WAS TAKEN FROM THE MCINTOSH COUNTY GIS WEBSITE (WWW.QPUBLIC.COM/GA/MCINTOSH) AND COURTHOUSE RESEARCH.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 07/09/2024 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. FRESHWATER WETLANDS AND SALT MARSHES MAY BE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. FRESHWATER WETLANDS WERE NOT SURVEYED AS PART OF THIS PROJECT.
7. COASTAL MARSHLANDS PROTECTION ACT (CMPA) JURISDICTION LINE IS THE HIGH WATER LINE.
8. THIS PROPERTY MAY BE SUBJECT TO THE 25' CMPA BUFFER.
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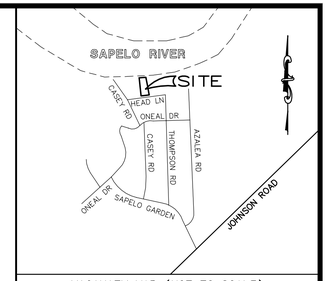


VICINITY MAP (NOT TO SCALE)

LEGEND:

- ● IRF 1/2" IRON REBAR FOUND
- ◉ IPF 1/2" IRON PIPE FOUND
- ※ NMC NON-MONUMENTED CORNER
- ——— X ——— FENCE
- ——— — — ——— TOP OF BANK

GEORGIA PROFESSIONAL No. 3081 LAND SURVEYOR C. TEEPLE HILL

C. TEEPLE HILL, GA PLS #3081

NO.	REVISION	BY	DATE

A CMPA JURISDICTION LINE SURVEY OF:

LOT 8 AND WESTERLY 1/2 OF LOT 7, BLOCK D, SAPELO GARDENS

1515TH G.M.D.,
MCINTOSH COUNTY, GEORGIA

PREPARED FOR:
MARY S RIGGER AND
RALPH D RIGGER JR

SHUPE SURVEYING COMPANY, P.C.
3837 DARIEN HIGHWAY
BRUNSWICK, GA 31525
912-265-0562
CERTIFICATE OF AUTHORIZATION: LSF317

10' 0 5' 10' 20'

SCALE	1" = 10'	DRAWING DATE	07/24/2024
FILE	24311	DRAWN BY	KP
DRAWING	24311-CMPA	CREW CHIEF	RO

SHEET 1 OF 1

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

February 20, 2025

Ralph and Mary Rigger
254 E. Parkwood Road
Decatur, GA 30030

Re: Coastal Marshlands Protection Act (CMPA), Jurisdictional Determination Verification, 1047 Head Lane, Lot 8 and Westerly Half of Lot 7 Block D, Sapelo Gardens Subdivision, Sapelo River, McIntosh County, Georgia

Dear Mr. and Ms. Rigger:

Our office has received the survey and plat, dated July 24, 2024, prepared by Shupe Surveying Company, P.C., No. 3081 entitled *"A CMPA Jurisdiction Line Survey of: Lot 8 and Westerly ½ of Lot 7, Block D, Sapelo Gardens 1515th G.M.D., McIntosh County, Georgia"* prepared for Mary S. Rigger and Ralph D. Rigger Jr. Based on my site inspection, April 18, 2024, this plat and survey generally depict the delineation of the coastal marshlands boundary as required by the State of Georgia for jurisdiction under the authority of the Coastal Marshlands Protection Act O.C.G.A. § 12-5-280 et seq.

The Coastal Marshlands Protection Act O.C.G.A. § 12-5-280 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on April 18, 2025 but may be voided should legal and/or environmental conditions change.

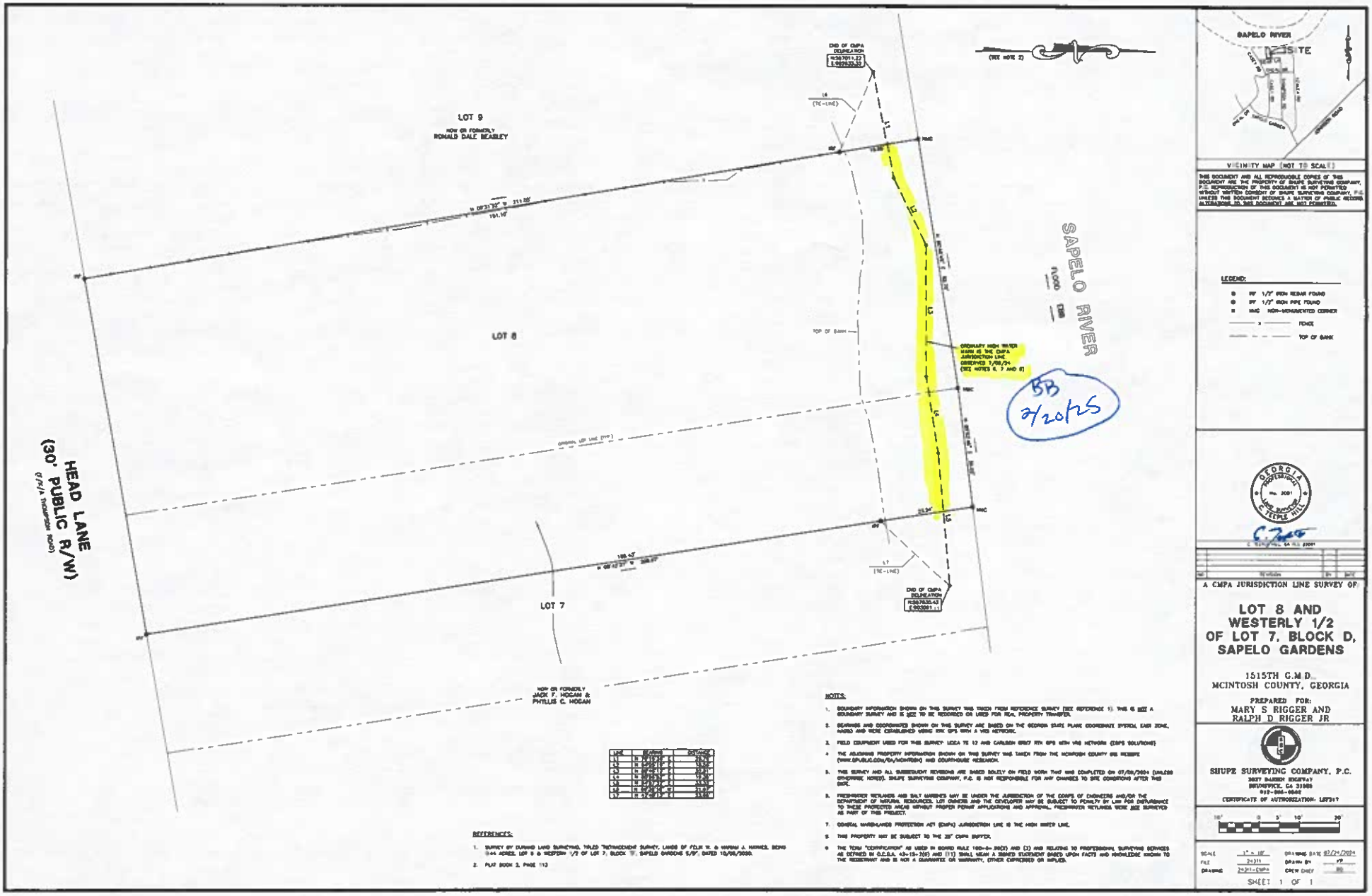
This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Coastal Marshlands Protection Committee or this Department is required prior to any construction or alteration in the marsh jurisdictional area. We appreciate you providing us with this information for our records. If you have any questions, please contact me at (912) 264-7218.

Sincerely,

Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *A CMPA Jurisdiction Line Survey of: Lot 8 and Westerly ½ of Lot 7, Block D, Sapelo Gardens 1515th G.M.D., McIntosh County, Georgia*

File: JDS20240117



LINE	BEARING	DISTANCE
L1	N 29°31'39" E	49.76'
L2	N 29°31'39" E	49.76'
L3	N 29°31'39" E	49.76'
L4	N 29°31'39" E	49.76'
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VICINITY MAP (NOT TO SCALE)

LEGEND:

- ● 1/2" IRON REBAR FOUND
- ● 1/2" IRON PIPE FOUND
- ■ MNC NON-MONUMENTED CORNER
- x FENCE
- TOP OF BANK

GEORGIA REGISTERED No. 3081 LAND SURVEYOR C. TEMPLE HILL

A CMPA JURISDICTION LINE SURVEY OF

LOT 8 AND WESTERLY 1/2 OF LOT 7, BLOCK D, SAPELO GARDENS

1515TH G.M.D.
MCINTOSH COUNTY, GEORGIA

PREPARED FOR:
MARY S RIGGER AND
RALPH D RIGGER JR

SHUPE SURVEYING COMPANY, P.C.
3027 DARIEN HIGHWAY
BRUNSWICK, GA 31525
912-264-0040
CERTIFICATE OF AUTHORIZATION: LSF917

10' 0 5' 10' 20'

SCALE	1" = 10'	DRAWING DATE	07/24/2024
FILE	24111	DRAWN BY	KP
DRAWING	24111-CMPA	CREW CHIEF	BG

SHEET 1 OF 1

Sam LaBarba

From: Winsness, Shannon <Shannon.Winsness@dnr.ga.gov>
Sent: Friday, November 22, 2024 6:23 AM
To: Sam LaBarba
Subject: RE: Buffer Exemption Verification (1047 Head Lane NE, Townsend, GA)

O.C.G.A. § 12-7-6 (b)(17) (A)(vi) There is established a 25 foot buffer along coastal marshlands, as measured horizontally from the coastal marshland-upland interface, as determined in accordance with Part 4 of Article 4 of Chapter 5 of this title, the "Coastal Marshlands Protection Act of 1970," and the rules and regulations promulgated thereunder, except on the landward side of any currently serviceable shoreline stabilization structure.

O.C.G.A. § 12-7-3 (13.1) "Serviceable" means usable in its current state or with minor maintenance but not so degraded as to essentially require reconstruction.

From the submitted photos, the existing rip rap does look to be serviceable. It is functioning as a serviceable shoreline stabilization structure.

The fact that the owner or owners would now like to install a living shoreline does not change the determination. The **exemption is still applicable**.

Therefore, a marsh buffer variance **will not be** required by EPD according to the Rules of the Georgia Department of Natural Resources, Environmental Protection Division, Chapter 391-3-7.11, Erosion and Sedimentation Control.

However, the EPD reserves the right to change this determination if information that conflict with the original project plans and methods described is obtained during a later site inspection.

This letter does not relieve you from obtaining any other permits that would be required by any other local, state or federal agency.

Please do not hesitate to contact me @ 912-230-4880 should you have any questions.

Shannon Winsness
Watershed Protection Branch
Coastal District Office
1050 Canal Road
Brunswick, GA 31525-6856

Zoom Phone: (912) 434-7486
Cell: 912-230-4880
Email: shannon.winsness@dnr.ga.gov

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

From: Sam LaBarba <sam@labarbaenvironmentalservices.com>
Sent: Thursday, November 21, 2024 1:34 PM
To: Winsness, Shannon <Shannon.Winsness@dnr.ga.gov>
Subject: Buffer Exemption Verification (1047 Head Lane NE, Townsend, GA)

Shannon,

Please see the attached drawings for a living shoreline at 1047 Head Lane. The property currently has a rip rap armoring on the shoreline which will be incorporated into the living shoreline. Can you confirm that the existing rip rap exempts the upland property from the buffer?

Sincerely,

Sam LaBarba
Owner
P: (912) 215-1255
E: sam@labarbaenvironmentalservices.com
A: Brunswick, Georgia

LaBarba Environmental Services
A SUSTAINABLE FUTURE

McIntosh County Building and Zoning Office

Post Office Box 2694
Darien, GA 31305

Bryan Boone, Administrator
Donna Moody, Inspector
Glenda Davis, Permit Technician

Phone: 912-437-6603
FAX: 912-437-5088

March 14, 2025

Georgia Department of Natural Resources
One Conservation Way
Brunswick, Georgia 31520

RE:

MARY S & RALPH RIGGER
Location address:
1047 Head Ln
Legal Description:
LT 8 & W ½ LT 7
Map & Parcel # 0061B 0026

To: Whom It May Concern

In response to your request for information on any hazardous landfill or zoning conflicts with the proposed project: I reviewed our files and there is no data to indicate that this site has ever been used as a landfill or hazardous waste site. This project also meets McIntosh County's zoning standards.

Sincerely,

Shawn Jordan
McIntosh County
Building & Zoning Administrator

RIGGER LIVING SHORLINE
COASTAL MARSHLANDS PROTECTION ACT
PERMIT APPLICATION

APPROVED

3/21/2025

W. Bryan Boone

VICINITY MAP
NTS

PREPARED FOR:
DON & MARY RIGGER
1047 HEAD LANE NE
TOWNSEND, GA 31331

LABARBA ENVIRONMENTAL SERVICES
139 ALTAMA CONN. #161
BRUNSWICK, GA 31525

ORIGINAL ISSUE DATE: 11/14/24

CONTENTS

NOT RELEASED FOR CONSTRUCTION

LEGEND

These standard symbols will be found in the drawing.

- MEAN LOW WATER
- MEAN HIGH WATER
- HIGH TIDE LINE
- OYSTERS
- RIP RAP
- FLEXAMAT
- MARSH VEG PLANTING
- TRANS. VEG PLANTING
- UPLAND VEG PLANTING

COVER

LABARBA ENVIRONMENTAL SERVICES
BRUNSWICK, GA

PREPARED FOR:
DON & MARY RIGGER

DATE: 11/14/2024

SCALE: NTS

1

SHEET:

NOTES:

1. BOUNDARY AND CMPA SURVEY PROVIDED BY SHUPE SURVEYING.

2. CONTOUR DATA OBTAINED FROM LIDAR PROVIDED BY ZULU MARINE.

3. EXISTING RIP RAP: 762 SF (APPROX. 56.5 CY)

4. EXISTING RIP RAP TO BE TEMPORARILY REMOVED AND INCORPORATED INTO FINAL LIVING SHORELINE BORDER

5. EXISTING OYSTERS RECRUTING ON LOWER RIP RAP SECTIONS. OYSTERS WILL BE TEMPORARILY RELOCATED TO BE INCORPORATED INTO THE LIVING SHORELINE.

6. EXISTING AREA WITH OYSTERS: 288 SF

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LEGEND

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EXISTING CONDITIONS

LABARBA ENVIRONMENTAL SERVICES
BRUNSWICK, GA

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DON & MARY RIGGER

DATE: 11/14/2024

SCALE: NTS

2

SHEET:

NOTES:

1. SLOPE GRADED TO 1.5:1 FOR THE ENTIRE SHORELINE.

2. GRADING WILL INVOLVE SHAPING EXISTING SHORELINE, NO ADDITIONAL FILL DIRT WILL BE DISCHARGED INTO JURISDICTIONAL AREAS.

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LOT 9

LOT 8

LOT 7

PROPOSED CONTOURS

SAPELO RIVER

FLOOD

EBB

MEAN LOW WATER
0.21' MLLW (STA. 8674975)

MEAN HIGH WATER
7.72' MLLW (STA. 8674975)

HIGH WIDE LINE
8.11' MLLW (STA. 8674975)

LEGEND

These standard symbols will be found in the drawing.

- MEAN LOW WATER
- MEAN HIGH WATER
- HIGH TIDE LINE
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- UPLAND VEG PLANTING

GRADING

LABARBA ENVIRONMENTAL SERVICES
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SCALE: NTS

3

SHEET:

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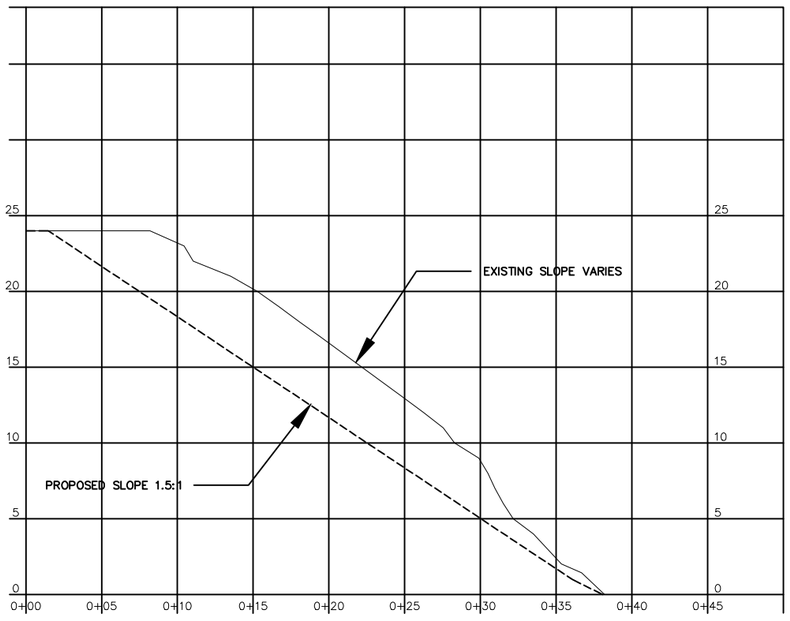
LEGEND

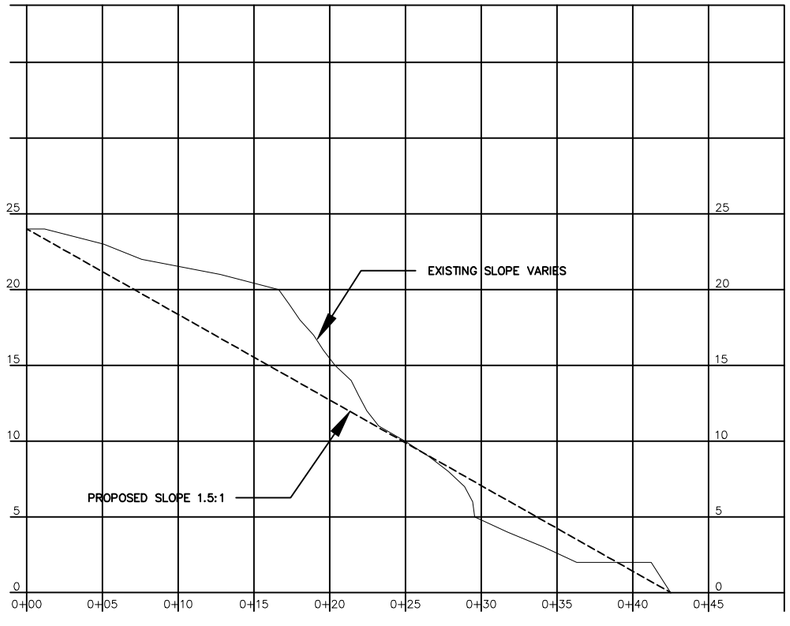
These standard symbols will be found in the drawing.

- MEAN LOW WATER
- MEAN HIGH WATER
- HIGH TIDE LINE
- OYSTERS
- RIP RAP
- FLEXAMAT
- MARSH VEG PLANTING
- TRANS. VEG PLANTING
- UPLAND VEG PLANTING

SECTION A



SECTION B



SLOPE

LABARBA ENVIRONMENTAL SERVICES
BRUNSWICK, GA
PREPARED FOR:
DON & MARY RIGGER

DATE: 11/14/2024

SCALE: NTS

4

SHEET:

NOTES:

1. FLEXAMAT INSTALLATION TO FOLLOW MANUFACTURERS STANDARDS.

2. SINGLE LAYER OF FLEXAMAT WILL BE INSTALLED UNIFORMLY ON THE GRADED SHORELINE.

3. 2" DIA. STAINLESS STEEL DEADMAN ANCHOR INSTALLED AT THE TOP OF THE BLUFF

4. TOE AND SIDES OF FLEXAMAT RENCHED INTO EXISTING BANK FOR SCOUR PROTECTION.

5. TOTAL IMPACTS
   DEADMAN ANCHOR: 2" X 92' (14.72 SF)
   FLEXAMAT: 3,580 SF X 0.175' THICK (626.5 CF) (23.2 CY)

6. TOTAL IMPACTS IN CMPA JURISDICTION
   DEADMAN ANCHOR: NO IMPACTS
   FLEXAMAT: 1,075 SF C 0.175' THICK (188.125 CF) (6.97 CY)

7. TOTAL IMPACTS BELOW HIGH TIDE LINE
   DEADMAN ANCHOR: NO IMPACTS
   FLEXAMAT: 1,158 SF C 0.175' THICK (202.65 CF) (7.5 CY)

LOT 9

LOT 8

LOT 7

SINGLE LAYER FLEXAMAT

2' WIDE DEADMAN TRENCH

2" DIA. STAINLESS STEEL DEADMAN ANCHOR BURIED 18" DEEP

SAPELO RIVER

FLOOD

EBB

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LEGEND

These standard symbols will be found in the drawing.

- MEAN LOW WATER
- MEAN HIGH WATER
- HIGH TIDE LINE
- OYSTERS
- RIP RAP
- FLEXAMAT
- MARSH VEG PLANTING
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- UPLAND VEG PLANTING

FLEXAMAT

LABARBA ENVIRONMENTAL SERVICES
BRUNSWICK, GA

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DATE: 11/14/2024

SCALE: NTS

5

SHEET:

NOTES:

1. FLEXAMAT INSTALLATION TO FOLLOW MANUFACTURERS STANDARDS.

2. SINGLE LAYER OF FLEXAMAT WILL BE INSTALLED UNIFORMLY ON THE GRADED SHORELINE.

3. 2" DIA. STAINLESS STEEL DEADMAN ANCHOR INSTALLED AT THE TOP OF THE BLUFF

4. TOTAL IMPACTS
   RIP RAP: 3' WIDE X 162' LONG X 2' THICK (486 SF) (972 CF) (36 CY)

5. TOTAL IMPACTS IN CMPA JURISDICTION
   RIP RAP: 333 SF (666 CF) (24.66 CY)

6. TOTAL IMPACTS BELOW HIGH TIDE LINE
   RIP RAP: 337 SF (674 CF) (24.96 CY)

LOT 9

LOT 8

LOT 7

3' X 35' RIP RAP BORDER OVER TRENCHED FLEXAMAT

3' X 92' RIP RAP TOE OVER TRENCHED FLEXAMAT

3' X 35' RIP RAP BORDER OVER TRENCHED FLEXAMAT

SAPELO RIVER

FLOOD

EBB

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LEGEND

These standard symbols will be found in the drawing.

- MEAN LOW WATER
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- UPLAND VEG PLANTING

RIP RAP BORDER PROTECTION

LABARBA ENVIRONMENTAL SERVICES
BRUNSWICK, GA

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6

SHEET:

NOTES:

1. OYSTER HARVESTED PRIOR TO GRADING WILL BE REPLANTED INTO THE LOWER INTERTIDAL ZONE OF THE LIVING SHORELINE TO RECRUIT ON THE RIP RAP AND FLEXAMAT.
2. IMPACTED AREA WILL BE LESS THAN THE EXISTING FOOTPRINT DUE TO THE CLOSER SPACING OF OYSTERS AFTER GRADING.
3. TOTAL IMPACTS
   OYSTERS: 158 SF
4. TOTAL IMPACTS IN CMPA JURISDICTION
   OYSTERS: 158 SF
5. TOTAL IMPACTS BELOW HIGH TIDE LINE
   OYSTERS: 158 SF

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LOT 9

LOT 8

LOT 7

158 SF AREA PLANTED WITH OYSTER

SAPELO RIVER

FLOOD

EBB

LANE

LEGEND

These standard symbols will be found in the drawing.

- MEAN LOW WATER
- MEAN HIGH WATER
- HIGH TIDE LINE
- OYSTERS
- RIP RAP
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RIP RAP BORDER PROTECTION

LABARBA ENVIRONMENTAL SERVICES
BRUNSWICK, GA

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7

SHEET:

NOTES:

1. ALL VEGETATION PLANTED WILL BE NATIVE TO THE LOCAL ECOSYSTEM.
2. TOTAL IMPACTS
   JURISDICTIONAL VEGETATION: 585 SF
   SALT-TOLERANT PLANTS: 191
   SALT-TOLERANT/UPLAND MIX PLANTS: 2,112
3. TOTAL IMPACTS IN CMPA JURISDICTION
   JURISDICTIONAL VEGETATION: 585 SF
   SALT-TOLERANT PLANTS: NO IMPACTS
   SALT-TOLERANT/UPLAND MIX PLANTS: NO IMPACTS
4. TOTAL IMPACTS BELOW HIGH TIDE LINE
   JURISDICTIONAL VEGETATION: 585 SF
   SALT-TOLERANT PLANTS: 191 SF
   SALT-TOLERANT/UPLAND MIX PLANTS: NO IMPACTS

LOT 9

LOT 8

LOT 7

SALT-TOLERANT/UPLAND MIX VEGETATION

SALT-TOLERANT UPLAND VEGETATION

JURISDICTIONAL VEGETATION

SAPELO RIVER

FLOOD

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LEGEND

These standard symbols will be found in the drawing.

- MEAN LOW WATER
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VEGETATION PLANTING

LABARBA ENVIRONMENTAL SERVICES
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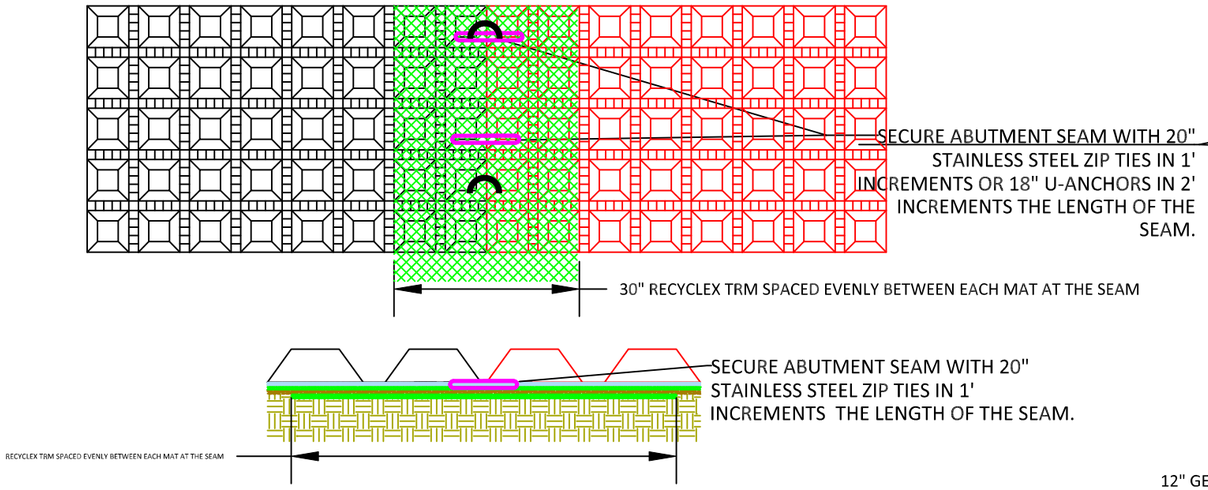
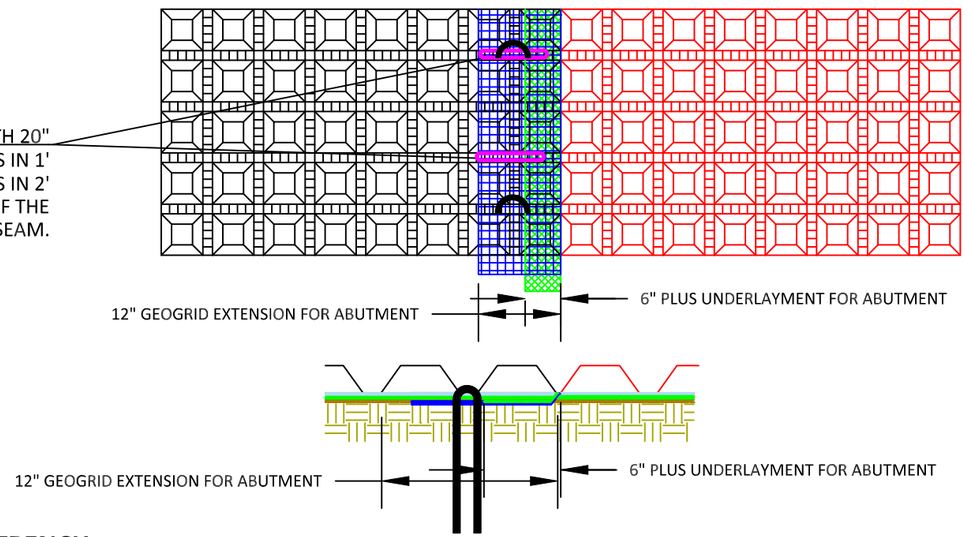
8

SHEET:

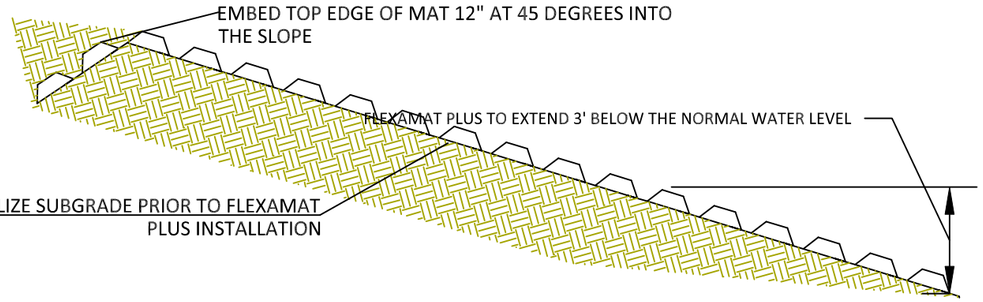
ABUTMENT METHOD FOR SHORELINE WIDTH LESS THAN 16'



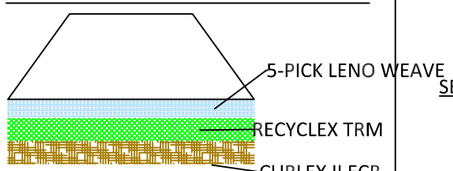
ABUTMENT METHOD FOR SHORELINE WIDTH GREATER THAN 16'



PROFILE VIEW OF SLOPE AND ANCHOR TRENCH



FLEXAMAT PLUS UNDERLAYMENT



FLEXAMAT PLUS - SHORELINE ARMORING

CONSTRUCTION NOTES:

1. AN ENGINEER OR MANUFACTURES REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
2. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
3. PRIOR TO FLEXAMAT PLUS INSTALLATION, SEED AND FERTILIZE SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. .
4. INSTALL FLEXAMAT PLUS ROLLS, MATS SHALL BE CONTINUOUS FOR ENTIRE LENGTH OF SLOPE.
   4.1. MATTING SHALL EXTEND 3' BELOW ORDINARY WATER LEVEL.
5. AT MAT ABUTMENT SEAMS, INSTALL RECYCLEX TRM SEAMS EVENLY UNDER EACH MAT.
6. SECURE ABUTMENT SEAMS IN 2' INCREMENTS USING STAINLESS STEEL ZIP TIES OR #3 REBAR - 18" U-ANCHORS. ZIP TIES SHALL ENCOMPASS 3 CORDS OF GRID OF EACH ABUTTING MAT OR GEOGRID EXTENSION. U-ANCHORS SHALL ENCOMPASS 2 CORDS OF GEOGRID OF EACH ABUTTING MAT OR GEOGRID EXTENSIONS.
7. AT THE BEGINNING AND END OF THE SHORELINE PROTECTION, EMBED THE MAT 18" PAST THE ANTICIPATED SCOUR POINT. FILL AND COMPACT TERMINATION TRENCH WITH COHESIVE SOIL.
8. RECESS TOP TWO BLOCKS OF MAT INTO THE SLOPE.

APPROVED
3/21/2025
W. Bryon Boone

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Info@Flexamat.com
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VEGETATION PLANTING

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DATE: 11/14/2024
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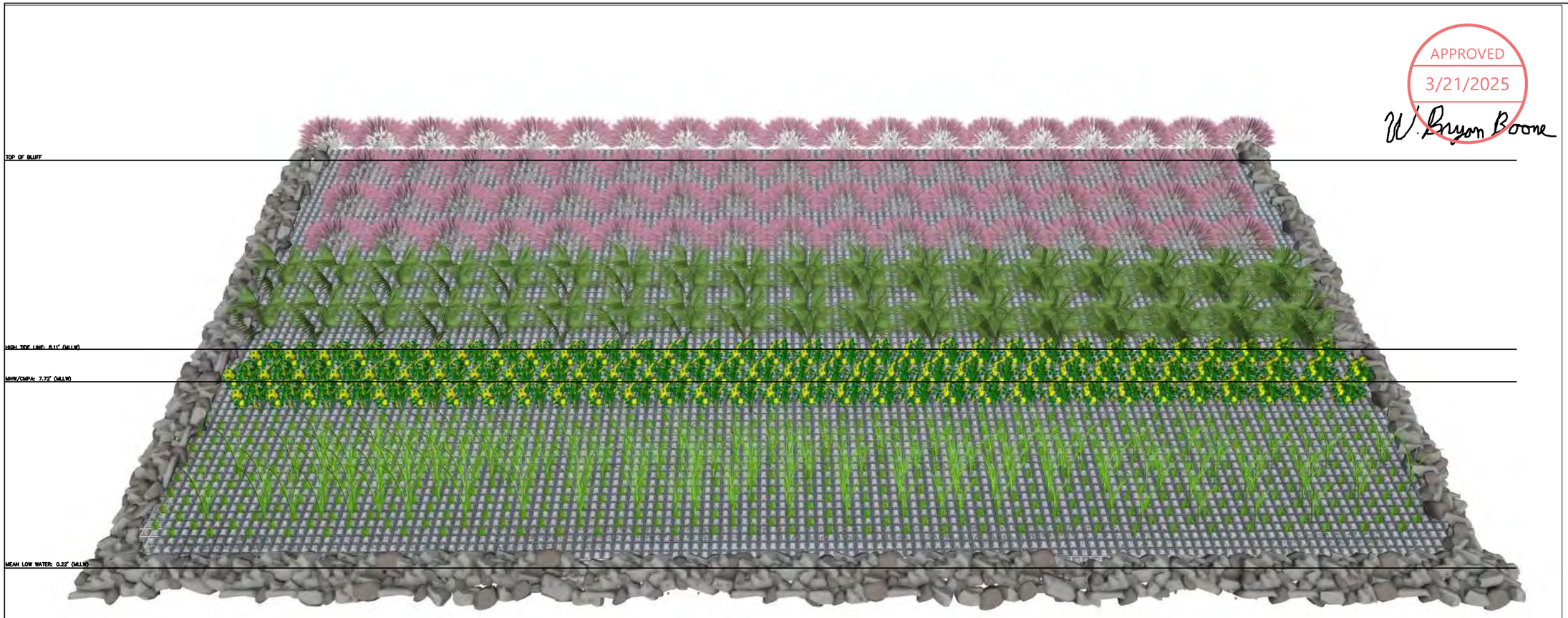
9
SHEET:



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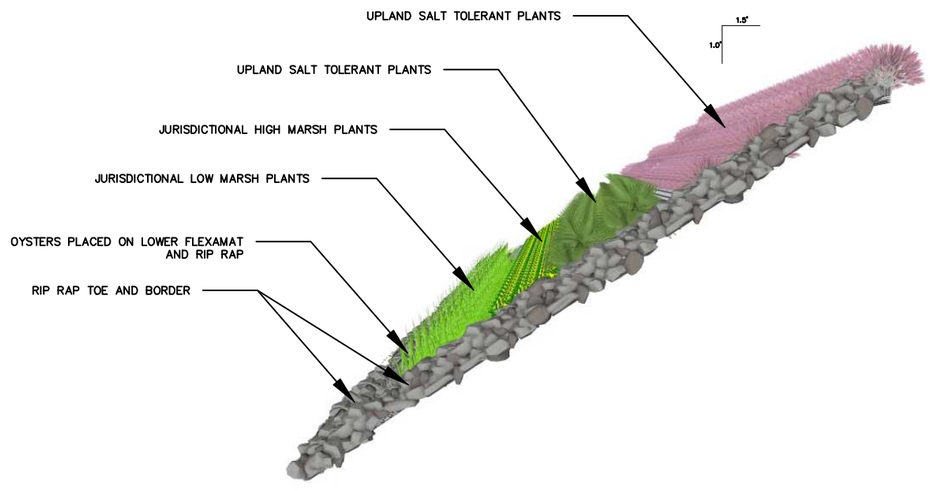

PROFILE VIEW

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10
SHEET: