



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

CESAM RD-A
PUBLIC NOTICE NO. SAM-2016-01489-SBC

December 19, 2024

JOINT PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS AND
STATE OF ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**REQUEST FOR AUTHORIZATION TO DREDGE AND PLACE FILL IN WATERS OF
THE UNITED STATES TO CONSTRUCT SHORELINE STABILIZATION
BREAKWATERS AND RESTORE APPROXIMATELY 30 ACRES OF BRACKISH
TIDAL MARSH, BELLE FONTAINE, MOBILE COUNTY, ALABAMA**

TO WHOM IT MAY CONCERN: This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344). Please communicate this information to interested parties.

APPLICANT: Mobile County Commission
Attention: Mr. G. William Meltin
Mobile Government Plaza
205 Government Street
Mobile, Alabama 36644

AGENT: Thompson Engineering Inc.
Attention: Dr. Barry A. Vittor
8060 Cottage Hill Road
Mobile, Alabama 36695

LOCATION: The project is located in western Mobile Bay just north of the convergence of East Fowl River and Mobile Bay, along the shorelines of the Salt Aire and Goat Island properties in western Mobile Bay, just north of the mouth of east Fowl River off Salt Aire Road; within Section 4,5, 6, and 9, Township 7 South, Range 1 East; at Latitude 30.462297° North, Longitude 88.101038° West; Belle Fontaine, Mobile County, Alabama.

PROJECT PURPOSE: The “Basic Project Purpose” is the restoration and protection of aquatic habitat. For the purposes of the Clean Water Act Section 404(b)(1) Guidelines this basic purpose defines the project as a water-dependent activity (an activity requiring access or proximity to or siting within a special aquatic site to fulfill its basic purpose). The “Overall Project Purpose” is to restore, stabilize, and protect eroding tidal marsh habitat and shorelines located on the applicant-owned Salt Aire and Goat Island properties.

PROPOSED WORK: The applicant received a previous authorization on December 21, 2017 that authorized the installation of a series of low-profile breakwaters along the shorelines of their 233-acre Salt Aire property and their 28-acre Goat Island property on the west side of Mobile Bay, to protect the existing shorelines and brackish tidal marsh habitat from further erosion and damage. The applicant proposes to dredge silty sand sediment from the nearby U.S. Army Corps of Engineers (USACE) Fowl River Open Water Dredged Material Management Area, and use that material to restore approximately 30 acres of lost brackish tidal marsh habitat located between the new breakwater structures and the existing shorelines. During the dredging and construction phase of the project, approximately 37.5 acres of Mobile Bay waters would be temporarily obstructed.

The applicant's Salt Aire property has approximately 4,100 linear feet of frontage on Mobile Bay, while Goat Island (including its remnants) has approximately 1,050 linear feet of Bay frontage. Both properties have suffered severe shoreline and tidal marsh habitat loss due to storm-induced erosion; most of the Goat Island peninsula that extended northeast from the main body of the island has washed away since 1970 and is now represented by only a narrow island. In recent years the project site has eroded at a high rate, and continues to erode under the prevailing conditions in this area of Mobile Bay.

Shoreline / Marsh Restoration: The project would place fill into approximately 30 acres of Mobile Bay open waters in an attempt to restore approximately 33 acres of brackish tidal marsh. The fill would be accomplished by pumping approximately 266,000 cubic yards of hydraulically dredged predominantly silty sand sediment into open water areas located between the existing shorelines and the breakwater structures. The restored marsh areas would have a final design elevation ranging from 0.5 feet to 3.0 feet above MWL. Water depths between the restored shoreline and the breakwaters would taper to an anticipated 1-to-30 or more angle of repose of deposited material. Tidal channels would be constructed within the marsh to provide tidal flushing and access for nekton. These tidal channels would vary in width and depth and would simulate natural channels in tidal marshes around Mobile Bay. A larger open-water channel approximately 100 to 150 feet wide would also remain unfilled to allow for boat access to, and flushing of, the canal system within the Salt Aire property. The restored marsh areas would be planted with appropriate brackish marsh plant species, including smooth cordgrass (*Spartina alterniflora*), black needlerush (*Juncus roemerianus*), and salt meadow cordgrass (*Spartina patens*).

Dredging Activity: Sediment would be hydraulically dredged from the USACE Fowl River Open Water Dredged Material Management Area, which is located approximately 0.5 mile to the southeast of the restoration area. Use of this sediment would constitute a beneficial use of dredged materials originally removed from the Fowl River Federal Navigation Channel. The dredging process would remove a relatively shallow layer of deposited sediment in order to avoid excavation of deep pits within the management area. This method of dredging would avoid the need to re-fill the excavated areas and is

designed to protect water quality. The silty sand material would be dredged from an approximately 30-acre portion of the USACE management area and pumped directly into the restoration areas. The applicant would install silt fence/curtain structures around the restoration areas prior to beginning dredging operations in order to reduce sediment transport out into the open waters of Mobile Bay.

During construction, signs and/or buoys will be deployed to warn navigational interests of the on-going construction hazards and other potential dangers. Dredging equipment and pipelines will be marked and lighted in accordance with U.S. Coast Guard (USCG) Navigational Rules and a Notice to Mariners will be provided for publication and broadcast by the USCG and USACE, Mobile District prior to commencement of work.

Monitoring: Pre- and post-dredging bathymetry surveys would be performed within the dredging areas by the applicant in order to document the extent of sediment removal and to identify any spots where dredging might cause water depths to increase by more than 4 feet. Those areas may be remediated by re- contouring, but such measures would be addressed through consultation with the USACE, Mobile District and Alabama Department of Environmental Management prior to taking any action.

AVOIDANCE AND MINIMIZATION: Potentially adverse impacts to waters of the United States associated with construction of the proposed project have been reduced or minimized through the applicant's dredging site selection and their project design processes. Their beneficial re-use of dredged material from an existing dredged material disposal area would cause less environmental impacts than if they obtained the material from previously undisturbed waterbottoms. In addition, their project design process included the use of the DELFT3D Wave Model modeling platform to perform coupled hydrodynamics and wave analyses. This modeling allowed the applicant to consider alternative alignments and find an optimal configuration for their proposed offshore segmented breakwater structures, and minimize their use of those hardened structures to the minimum size necessary to achieve their purpose. The USACE, Mobile District has not verified the adequacy of the applicant's alternatives or avoidance and minimization efforts at this time.

MITIGATION: Compensatory mitigation for impacts to waterbottoms is not proposed as the purpose of the project would be to provide restoration and protection of tidal marsh and other natural resources and improved habitat for aquatic species injured by the Deepwater Horizon oil spill.

WATER QUALITY / COASTAL ZONE MANAGEMENT: The applicant has applied for certification from the State of Alabama in accordance with Section 401(a)(1) of the Clean Water Act and for Coastal Zone Management (CZM) consistency concurrence in

accordance with the Alabama Coastal Area Management Program. Upon completion of the required advertising and public comment review, a determination relative to Water Quality Certification and CZM consistency will be made by the Alabama Department of Environmental Management (ADEM) within an established reasonable period of time. This notice serves as a notification to the Administrator of the Environmental Protection Agency (EPA) requesting a determination of potential water quality impacts to neighboring jurisdictions, pursuant to section 401(a)(2) of the Clean Water Act.

HISTORIC PROPERTIES: In accordance with Section 106 of the National Historic Preservation Act and Appendix C of 33 CFR Part 325, the undertaking defined in this notice is being considered for the potential to affect cultural and historic properties within the permit area. In accordance with Appendix C of 33 CFR Part 325, the Mobile District has determined the permit area consists of the entire undertaking in waters of the United States as well as portions of the upland residential lot. The National Register of Historic Places was consulted for properties listed in or eligible for the National Register, which are known to exist and would be affected by the proposed work. The Mobile District issued a finding of “No Effect” on significant cultural and historic properties per the District archeologist and the Phase I survey provided by the applicant. The determination was issued to the Alabama SHPO on October 2, 2017, and a concurrence letter was received on October 25, 2017. The permit area described above is currently under review by District Archaeologists to provide a determination on the potential for existence of significant cultural and historic properties.

ESSENTIAL FISH HABITAT: This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The project includes estuarine substrate and water column utilized by various life stages of various marine species, and the proposal would potentially impact approximately 62.5 acres of waterbottoms (32.5 acres due to fill and 30 acres due to dredging) utilized by various life stages of various marine species. Our initial determination is that the proposed action would not adversely affect EFH or federally managed fisheries but would likely provide an overall benefit to federally managed fisheries species. Our final determination relative to project impacts and the need for mitigative measures is subject to review by and coordination with the National Marine Fisheries Service.

ENDANGERED SPECIES: Preliminary review of this application and the U.S. Department of the Interior List of Endangered and Threatened Wildlife and Plants indicate that the proposed activity may affect but is not likely to adversely affect the following listed endangered or threatened species with the potential to exist within the action area of the project: Florida Manatee (*Trichechus manatus*) (T), Alabama Red-belly turtle (*Pseudemys alabamensis*) (E), Green sea turtle (*Chelonia mydas*) (T), Kemp’s Ridley sea turtle (*Lepidochelys kempii*) (E), Loggerhead sea turtle (*Caretta caretta*) (T), and Gulf Sturgeon (*Acipenser oxyrinchus desotoi*) (T).

Also, based on the nature of the project's action area being predominantly estuarine waterways, tidal marsh, and eroded sandy bay shoreline, we have preliminarily determined that the proposed activity will have no effect on the following listed species with the potential to exist within the action area: Gopher tortoise (*Gopherus Polyphemus*) (T), Eastern indigo snake (*Drymarchon couperi*) (T), and Wood stork (*Mycteria americana*) (E). Additionally, there is no designated critical habitat within the action area of the project. This determination is being coordinated with the U.S. Fish and Wildlife Service (USFWS) via this Public Notice.

Further coordination with the USFWS will be performed as determined to be appropriate.

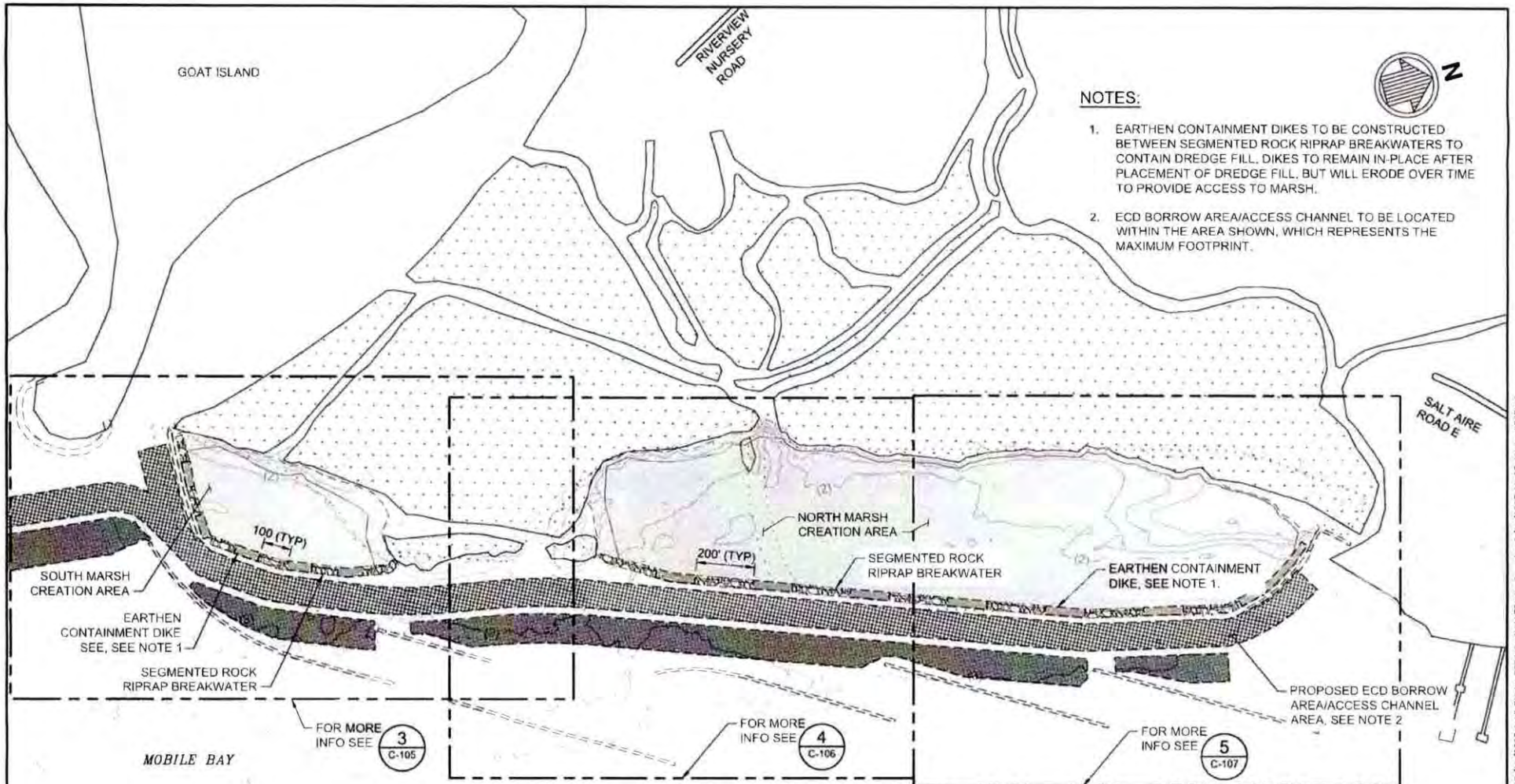
COMMENTS: This public notice is being distributed to all known interested persons in order to assist in developing facts on which a decision by the USACE can be based. The Mobile District is soliciting comments from the public, federal, state and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed below. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing, setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, and in general, the needs and welfare of the people. Evaluation of the probable impacts involving deposits of dredged or fill material into waters of the United States will also include the application of guidelines established by the Administrator of the U.S. Environmental Protection Agency.

Correspondence concerning this notice should refer to Public Notice Number **SAM-2016-01489-SBC**, and should be directed to the project manager, Ms. Jennifer J. Wilder by e-mail at Jennifer.J.Wilder@usace.army.mil, or to the USACE, Mobile District, Regulatory Division, Attention: Ms. Jennifer J. Wilder, Post Office Box 2288, Mobile, Alabama 36628-0001. Copies of all comments should be furnished to the Alabama Department of Environmental Management at coastal@adem.alabama.gov, or sent to: Alabama Department of Environmental Management, Mobile Branch / Coastal Section, 3664 Dauphin Street, Suite B, Mobile, Alabama 36608. **All comments should be received no later than 30 days from the date of this Public Notice.**

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/Missions/Regulatory.aspx.

MOBILE DISTRICT
U.S. Army Corps of Engineers

Attachments



NOTES:

1. EARTHEN CONTAINMENT DIKES TO BE CONSTRUCTED BETWEEN SEGMENTED ROCK RIPRAP BREAKWATERS TO CONTAIN DREDGE FILL. DIKES TO REMAIN IN-PLACE AFTER PLACEMENT OF DREDGE FILL, BUT WILL ERODE OVER TIME TO PROVIDE ACCESS TO MARSH.
2. ECD BORROW AREA/ACCESS CHANNEL TO BE LOCATED WITHIN THE AREA SHOWN, WHICH REPRESENTS THE MAXIMUM FOOTPRINT.



LEGEND:

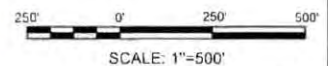
- (-3-) BATHYMETRY CONTOURS
- EXIST. MARSH (NO WORK ZONE)


- PROPOSED EARTHEN CONTAINMENT DIKE
- PROPOSED MARSH CREATION AREA
- PROPOSED BREAKWATER

- PROPOSED TEMPORARY ACCESS CHANNEL MATERIAL PLACEMENT AREA
- PROPOSED ECD BORROW AREA / ACCESS CHANNEL AREA
- PREVIOUSLY PERMITTED MARSH RESTORATION
- CONSTRUCTED W.A.S. FOOTPRINT

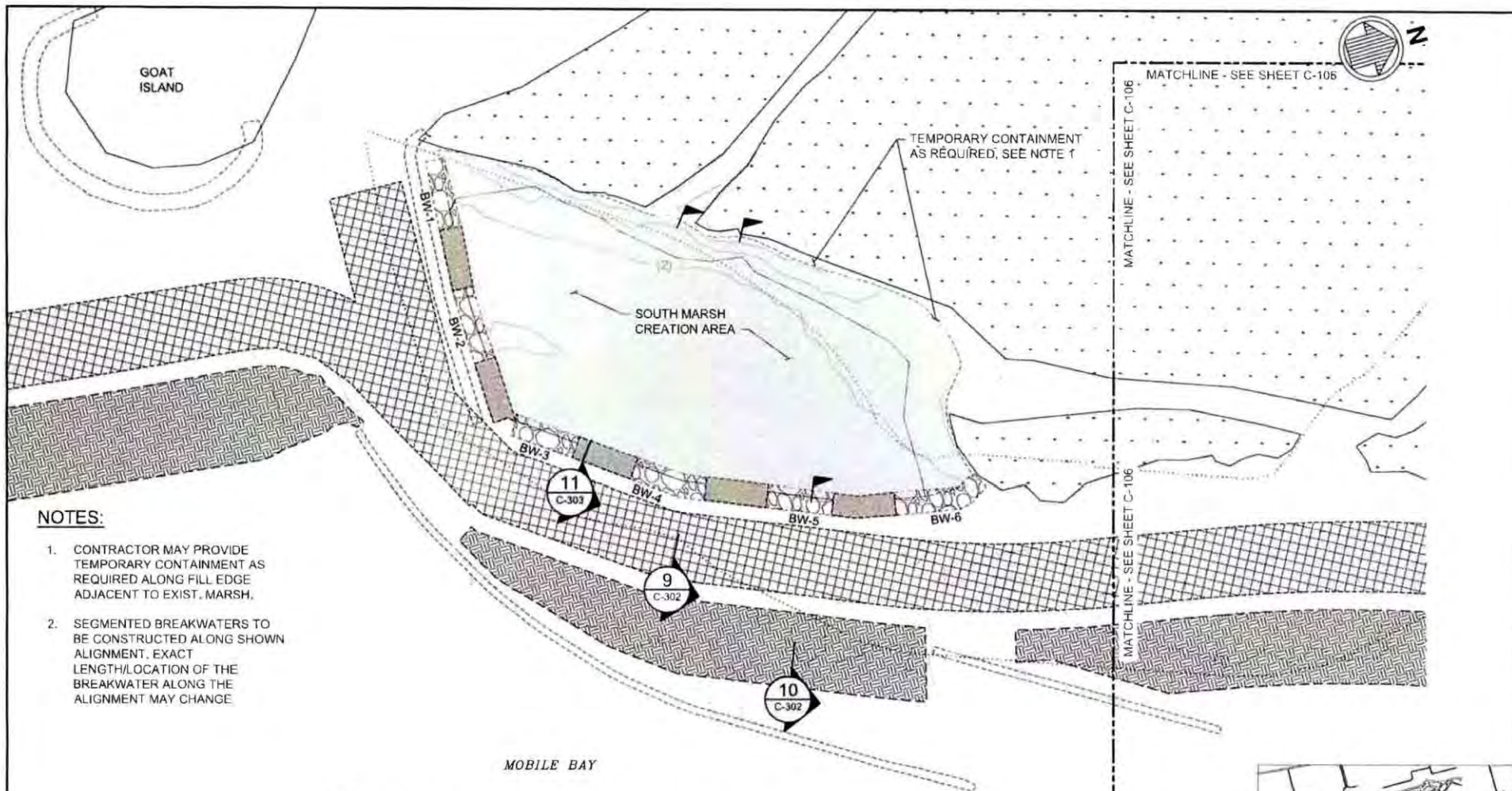
2 PROPOSED MCA AND BREAKWATER LAYOUT
C-101 SCALE: 1"=500'

DRAFT



BY	DESCRIPTION	DATE	<div> moffatt & nichol 11 N. WATER STREET, SUITE 20220 MOBILE, AL 36602 251-378-9030</div>	<div>MOBILE COUNTY COMMISSION 250 GOVERNMENT STREET MOBILE, AL 36644</div>	SALT AIRE SHORELINE RESTORATION		PROPOSED MCA AND BREAKWATER LAYOUT	
					USACE REGULATORY NUMBER: SAM-2016-01489-SBC			
					M&N PROJECT NUMBER: 201708		DATE:	SHEET REF. No.: C-104
DRAWN BY: GE					DESIGNED BY: NC	APPROVED BY: PWK	MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02	

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NOTES:

1. CONTRACTOR MAY PROVIDE TEMPORARY CONTAINMENT AS REQUIRED ALONG FILL EDGE ADJACENT TO EXIST. MARSH.
2. SEGMENTED BREAKWATERS TO BE CONSTRUCTED ALONG SHOWN ALIGNMENT. EXACT LENGTH/LOCATION OF THE BREAKWATER ALONG THE ALIGNMENT MAY CHANGE.

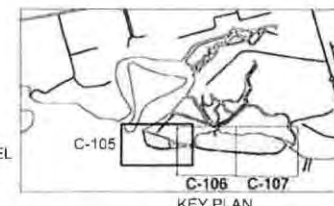
LEGEND:

(3) BATHYMETRY CONTOURS
 EXIST. MARSH (NO WORK ZONE)

3 MCA AND BREAKWATER DETAIL (1 OF 3)
 SCALE 1"=200'

TDE OF FILL
 SLOPED AREA
 MARSH PLATFORM
 PROPOSED EARTHEN CONTAINMENT DIKE
 PROPOSED MARSH CREATION AREA
 PROPOSED BREAKWATER

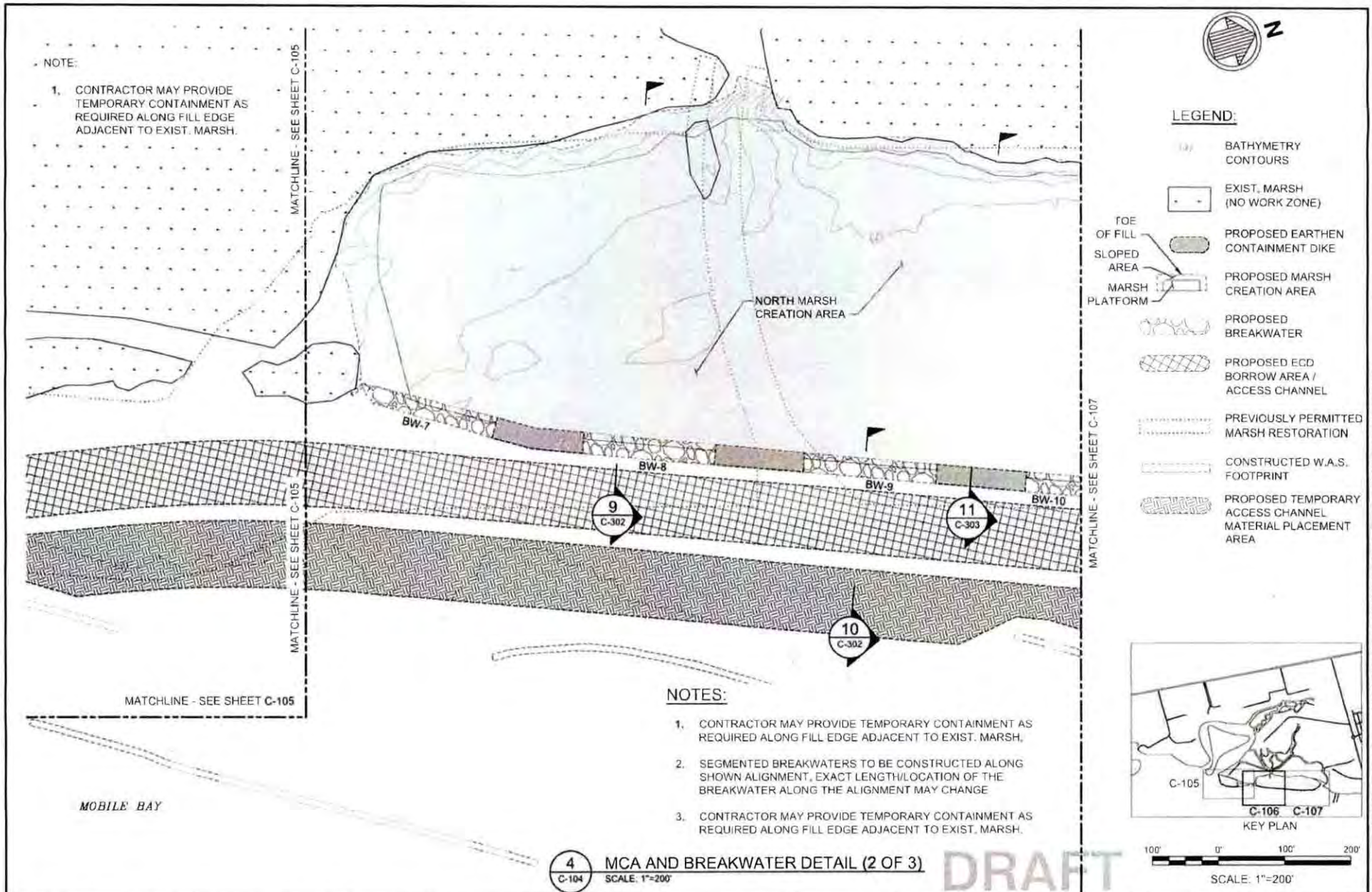
PROPOSED TEMPORARY ACCESS CHANNEL MATERIAL PLACEMENT AREA
 PROPOSED ECD BORROW AREA / ACCESS CHANNEL
 PREVIOUSLY PERMITTED MARSH RESTORATION
 CONSTRUCTED W.A.S. FOOTPRINT




SCALE: 1"=200'

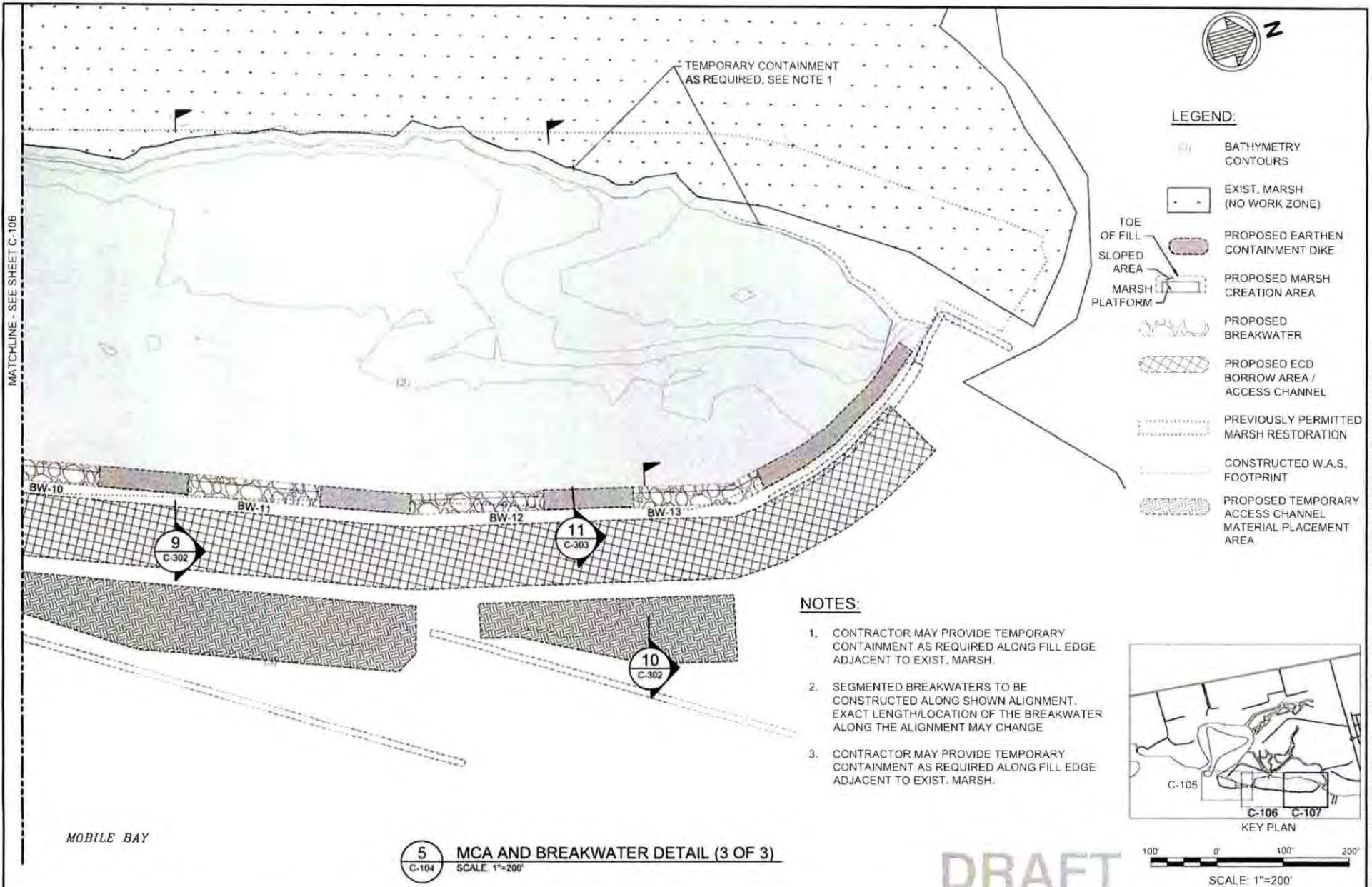
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BY	DESCRIPTION	DATE	 MOBILE COUNTY COMMISSION 250 GOVERNMENT STREET MOBILE, AL 36644		SALT AIRE SHORELINE RESTORATION		MCA AND BREAKWATER DETAIL (1 OF 3)	
					USACE REGULATORY NUMBER: SAM-2016-01489-SBC			
					M&N PROJECT NUMBER: 201708		DATE:	SHEET REF. No.: C-105
DRAWN BY: GE		DESIGNED BY: NC	APPROVED BY: PWK		MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02		2023-10-15	SHEET 9 OF 18



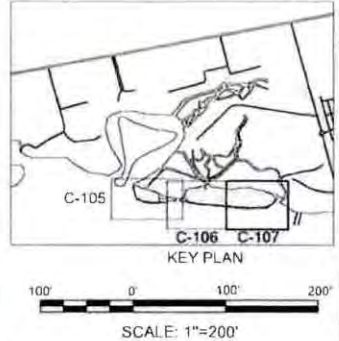
BY	DESCRIPTION	DATE	<div> moffatt & nichol 11 N. WATER STREET, SUITE 20220 MOBILE, AL 36602 251-378-9000</div>	<div>MOBILE COUNTY COMMISSION 250 GOVERNMENT STREET MOBILE, AL 36644</div>	<div>SALT AIRE SHORELINE RESTORATION</div>		<div>MCA AND BREAKWATER DETAIL (2 OF 3)</div>			
					USACE REGULATORY NUMBER: SAM-2016-01489-SBC					
							M&N PROJECT NUMBER: 201708		DATE:	SHEET REF. No.: C-106
DRAWN BY: GE					DESIGNED BY: NC	APPROVED BY: PWK	MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02		2023-10-15	SHEET 10 OF 18

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- LEGEND:**
- BATHYMETRY CONTOURS
 - EXIST. MARSH (NO WORK ZONE)
 - PROPOSED EARTHEN CONTAINMENT DIKE
 - PROPOSED MARSH CREATION AREA
 - PROPOSED BREAKWATER
 - PROPOSED ECD BORROW AREA / ACCESS CHANNEL
 - PREVIOUSLY PERMITTED MARSH RESTORATION
 - CONSTRUCTED W.A.S. FOOTPRINT
 - PROPOSED TEMPORARY ACCESS CHANNEL MATERIAL PLACEMENT AREA

- NOTES:**
1. CONTRACTOR MAY PROVIDE TEMPORARY CONTAINMENT AS REQUIRED ALONG FILL EDGE ADJACENT TO EXIST. MARSH.
 2. SEGMENTED BREAKWATERS TO BE CONSTRUCTED ALONG SHOWN ALIGNMENT. EXACT LENGTH/LOCATION OF THE BREAKWATER ALONG THE ALIGNMENT MAY CHANGE
 3. CONTRACTOR MAY PROVIDE TEMPORARY CONTAINMENT AS REQUIRED ALONG FILL EDGE ADJACENT TO EXIST. MARSH.

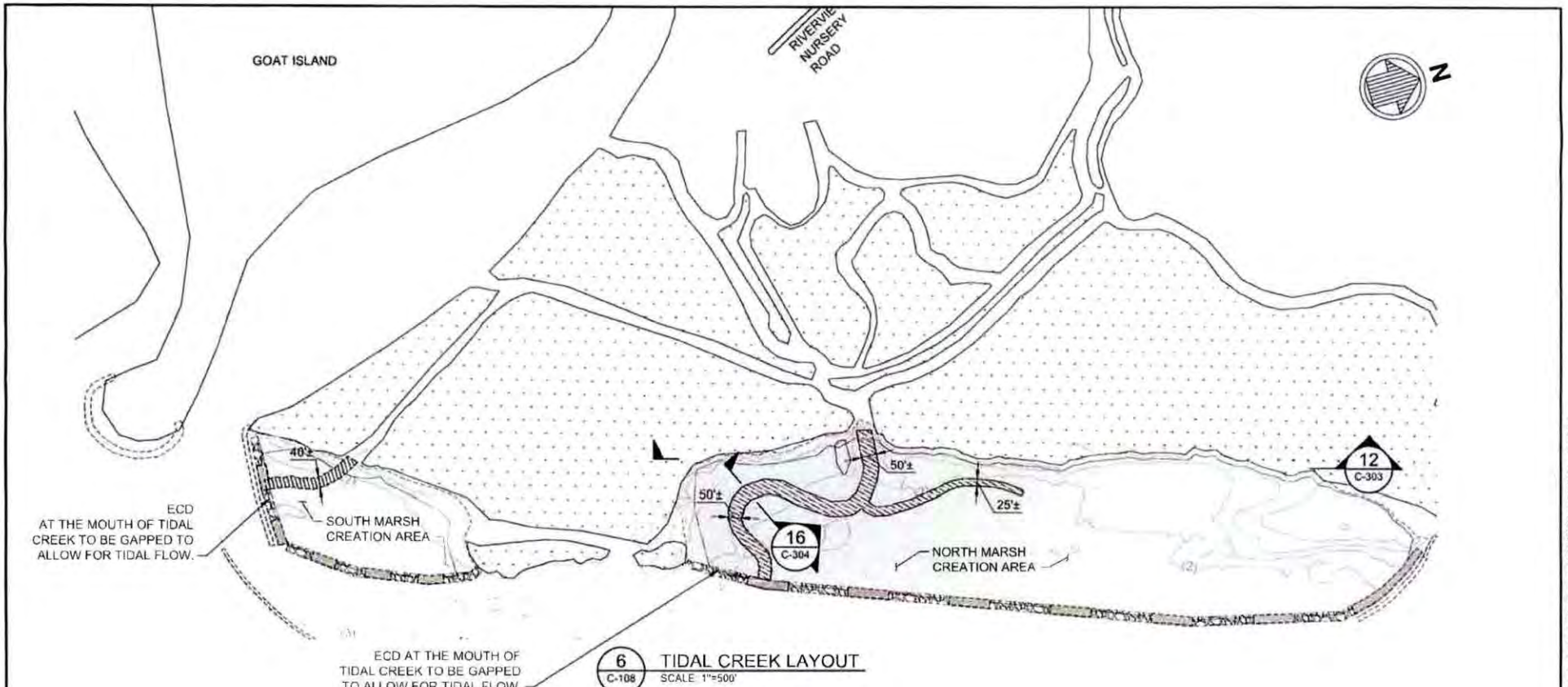


5 MCA AND BREAKWATER DETAIL (3 OF 3)
SCALE: 1"=200'

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BY	DESCRIPTION	DATE	 moffatt & nichol 11 N. WATER STREET, SUITE 20220 MOBILE, AL 36602 251-378-9000		MOBILE COUNTY COMMISSION 250 GOVERNMENT STREET MOBILE, AL 36644		SALT AIRE SHORELINE RESTORATION USACE REGULATORY NUMBER: SAM-2016-01489-SBC M&N PROJECT NUMBER: 201708 MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02		MCA AND BREAKWATER DETAIL (3 OF 3) DATE: 2023-10-15 SHEET REF. No.: C-107 SHEET 11 OF 18	
DRAWN BY: GE			DESIGNED BY: NC		APPROVED BY: PWK					

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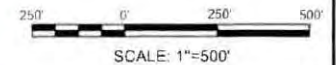
LEGEND:


- | | | | | | |
|--|---------------------------------------|--|----------------|--|---------------------------------|
| | BATHYMETRY CONTOURS | | TOE OF FILL | | PROPOSED MARSH CREATION AREA |
| | EXIST. MARSH (NO WORK ZONE) | | SLOPED AREA | | PROPOSED NORTH MCA TIDAL CREEKS |
| | TOE PROPOSED EARTHEN CONTAINMENT DIKE | | MARSH PLATFORM | | PROPOSED SOUTH MCA TIDAL CREEK |
| | TOE PROPOSED BREAKWATER | | TOP OF CUT | | |
| | CONSTRUCTED W.A.S. FOOTPRINT | | TOP OF CUT | | |

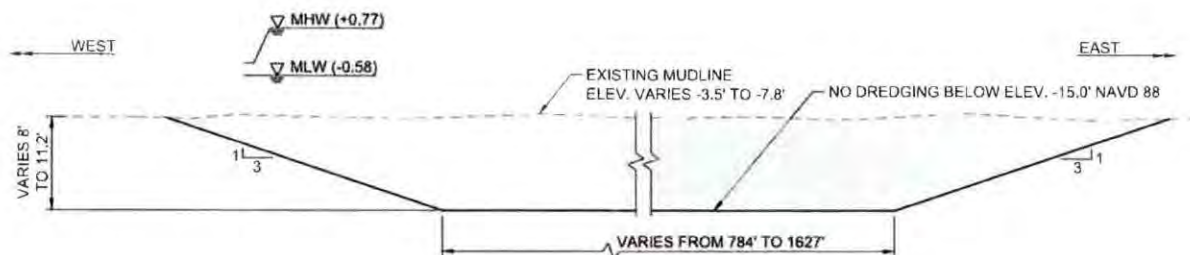
NOTES:

1. TIDAL CREEKS TO BE EXCAVATED FROM MARSH CREATION AREAS FOLLOWING PLACEMENT AND DE-WATERING OF DREDGE FILL.
2. FINAL TIDAL CREEK PLANFORM LAYOUT WITHIN MARSH CREATION AREA MAY BE MODIFIED BASED ON PLACED FILL TO TAKE ADVANTAGE OF LOW AREAS.

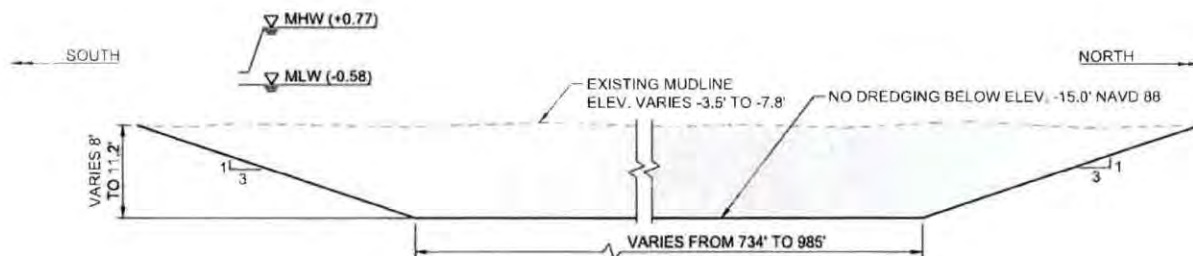
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BY	DESCRIPTION	DATE	<div> moffatt & nichol 11 N. WATER STREET, SUITE 20220 MOBILE, AL 36602 251-378-9000</div>	<div>MOBILE COUNTY COMMISSION 250 GOVERNMENT STREET MOBILE, AL 36644</div>	<div>SALT AIRE SHORELINE RESTORATION</div>		<div>TIDAL CREEK LAYOUT</div>			
					USACE REGULATORY NUMBER: SAM-2016-01489-SBC					
							M&N PROJECT NUMBER: 201708		DATE: 2023-10-15	SHEET REF. No. C-108
DRAWN BY: GE					DESIGNED BY: NC	APPROVED BY: PWK	MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02			SHEET 12 OF 18



8 BORROW AREA TYPICAL SECTION 2 (WEST - EAST)
SCALE: 1"=20' VERTICAL EXG. 1:1

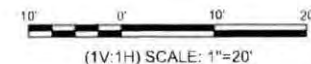



7 BORROW AREA TYPICAL SECTION 1 (SOUTH - NORTH)
SCALE: 1"=20' VERTICAL EXG. 1:1

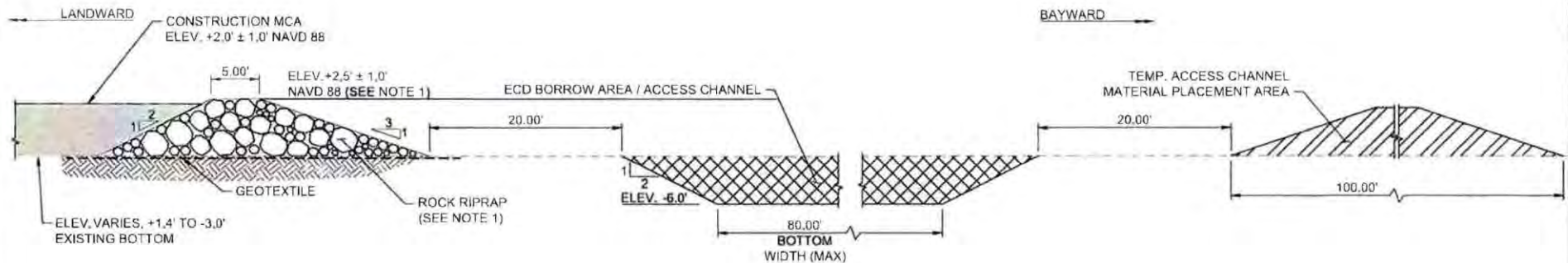
LEGEND:

- EXISTING MUDLINE
- DREDGE TEMPLATE
- ALLOWABLE DREDGING PRISM

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BY	DESCRIPTION	DATE	 moffatt & nichol 11 N. WATER STREET, SUITE 20220 MOBILE, AL 36602 251-378-9000	MOBILE COUNTY COMMISSION 250 GOVERNMENT STREET MOBILE, AL 36644	SALT AIRE SHORELINE RESTORATION		BORROW AREA TYPICAL SECTIONS	
					USACE REGULATORY NUMBER: SAM-2016-01489-SBC			
					M&N PROJECT NUMBER: 201708		DATE:	SHEET REF. No.: C-301
					MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02		2023-10-15	SHEET 13 OF 18
DRAWN BY: GE			DESIGNED BY: NC	APPROVED BY: PWK				



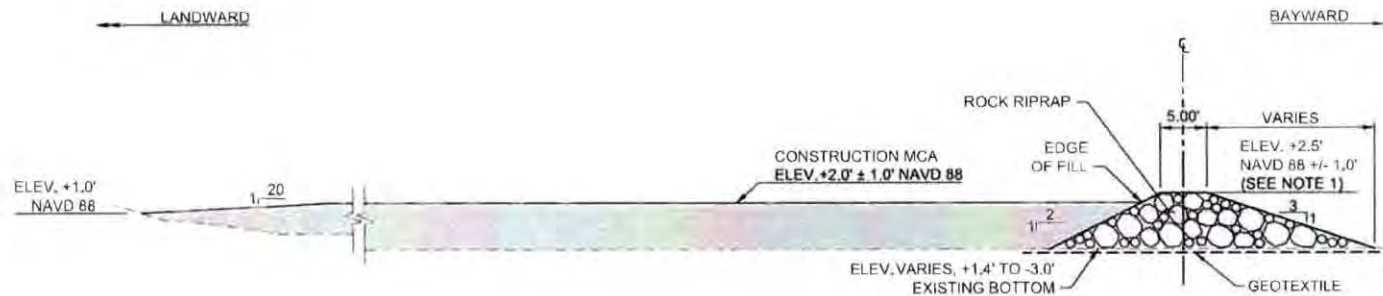
10 PROPOSED BREAKWATER AND ACCESS CHANNEL TYPICAL SECTION

SCALE: 1" = 16'

C-105 & C-107

NOTES:

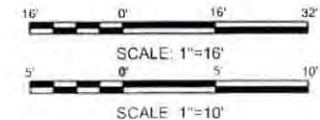
1. RIPRAP BREAKWATER DESIGN IS BASED ON 30% DESIGN CALCULATIONS. SUBJECT TO CHANGE AS DESIGN PROGRESSES. CHANGES WILL NOT INCREASE AREA OF IMPACT.
2. A 2.0' DEEP BEDDING STONE LAYER MAY BE PLACED BELOW THE ARMOR STONE.



9 PROPOSED MCA AND BREAKWATER TYPICAL SECTION

SCALE: 1" = 10'

C-105, C-107



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BY	DESCRIPTION	DATE	<div></div> <div>moffatt & nichol</div> <div>11 N. WATER STREET, SUITE 20220</div> <div>MOBILE, AL 36602</div> <div>251-378-9000</div>	MOBILE COUNTY COMMISSION	SALT AIRE SHORELINE RESTORATION		BREAKWATER TYPICAL SECTIONS	
					USACE REGULATORY NUMBER: SAM-2016-01489-SBC		DATE:	SHEET REF. No.: C-302
					M&N PROJECT NUMBER: 201708			
					MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02			
DRAWN BY: GE			DESIGNED BY: NC	APPROVED BY: PWK	MOBILE COUNTY PROJECT NUMBER: NFWF-57972-SA02		2023-10-15	SHEET 14 OF 18