



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-2021-00246-DCH

December 2, 2021

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

REQUEST TO DISCHARGE FILL MATERIAL IN MOBILE BAY TO CREATE
1,200 ACRES OF WETLAND HABITAT IN MOBILE, MOBILE COUNTY,
ALABAMA

TO WHOM IT MAY CONCERN: This District has received an application for a Department of the Army (DA) 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: Alabama State Port Authority
Attention: Mr. Robert Harris
250 North Water Street Mobile,
Alabama 36602

AGENT: Moffatt & Nichol
Attention: Ms. Mary Beth Sullivan
11 North Water Street, Suite 20220
Mobile, Alabama 36606

LOCATION: The proposed project is located within Upper Mobile Bay; approximately 1.5 miles south of US Highway 90/98 causeway; at Latitude 30.646906°, Longitude -88.000935°; Mobile, Mobile County, Alabama.

PROJECT PURPOSE: The basic project purpose is to establish a large-scale, long-term beneficial use (BU) dredged-material placement area to create wetland habitat. The overall project purpose is to construct multiple individual Wetland Creation Cells (WCC), as needed, within three (3) phased Wetland Creation Areas (WCA) in order to use material dredged from the Upper Mobile Bay area to create up to 1,200 acres of intertidal wetland habitat in Upper Mobile Bay.

PROPOSED WORK: The applicant proposes the phased construction of a 1,200-acre beneficial used dredged-material placement (wetland creation) area in Upper Mobile Bay over a 20-year period, dependent on dredged material volumes and timing of maintenance dredging activities. The completed project would allow for the overall placement of up to 9.5 million cubic yards of material dredged from Upper Mobile Bay area within three (3) fully-enclosed WCA containment dikes protected by rock breakwaters or revetment at the south boundary of the project area progressing to the north boundary, as needed, into softer

containment structures. Three (3) types of shoreline protection and external containment structures are proposed, dependent on the controlling environmental conditions: Type I includes a rock breakwater with a maximum crest elevation of +4 feet NAVD88, a marsh buffer, and an internal earthen containment dike with a crest elevation of +6 feet NAVD88. Type II includes a sand containment dike protected by a rock revetment, with a crest elevation of +6 feet NAVD88. Type III includes a sand containment dike with a fortified core of constructed geotubes and a fronting beach, with a maximum crest elevation of +6 feet NAVD88. Project design elevations may be adjusted as the project is implemented, to account for sea level rise.

Individual WCC would be constructed within the larger WCAs to provide manageable-sized areas for material placement and targeted wetland habitat creation. Each cell is anticipated to be 40-80 acres in size. Construction of internal containment structures would proceed as existing WCC approach capacity to allow for continued dredge-material placement. Material obtained for construction of the internal containment dikes would be hydraulically or mechanically dredged within individual WCC or sourced from existing upland dredge placement areas for upper Mobile Harbor and transported by hopper barge to the WCA. If in-situ material is utilized, internal borrow areas would be filled over time and incorporated into habitat creation activities for each WCC.

Habitat creation would include the excavation of tidal creeks, tidal ponds, embayments, low- and high-marsh features, and scrub shrub mounds. Dredged material placed for marsh creation would be placed by hydraulic dredge lines. Dredged material construction fill elevation would not exceed +4 feet NAVD88 to accommodate settling to the wetland design target elevation of +1 feet NAVD88. Within the initial five years, approximately 100 acres of wetlands would be created through the placement of dredged material. Approximately 40-80 acres of wetlands would be created each following year, dependent on the volumes of material dredged by the Alabama State Port Authority, the U.S. Army Corps of Engineers, or other entities. Fill impacts for each area of the overall project are described in Table 1 below.

A corridor for vessels and equipment would be established to access the project site. The corridor would use areas where the minimal water depth is met for vessel access. Impacts to the water bottom are not anticipated for the project corridor. A Project Access Facility at the project site for equipment and personnel access and material offloading for use over the lifespan of the project would be constructed. This activity would require installation of steel sheet piles for construction of a bulkhead, and timber piles for mooring and berthing activities. The Project Access Facility would be constructed to a maximum elevation of +6 feet NAVD88 and be approximately 30 feet wide and 100 feet long. The Project Access Facility would intersect the external containment dike system to provide access throughout the project site.

Corridors for dredge pipelines would be established between the federal navigation channel and the project site. The corridor would include crossing(s) for the Mobile Ship Channel and would be routed through open water along a route that minimizes navigation impacts and impacts to benthic habitat, and avoids cultural resource and submerged aquatic vegetation (SAV) areas. During each dredge cycle, the dredge pipeline would be temporarily placed within the pipeline corridor. All dredged materials used for the project would be determined suitable for open-water disposal in accordance with the Southeast Regional Implementation

Manual (SERIM) Requirements and Procedures for the Evaluation of Ocean Disposal of Dredged Material in the Southeastern U.S. Atlantic and Gulf Coast Waters.

Table 1: Proposed Project Impacts

EXCAVATION AND FILL SUMMARY		
EXCAVATIONS - EXTERNAL CONTAINMENT	VOLUME (cubic yards)	AREA (square feet)
SOUTH WCA	974,156	2,630,221
MIDDLE WCA	659,716	1,781,234
NORTH WCA	606,240	1,636,849
EXCAVATIONS - INTERNAL CONTAINMENT	VOLUME (cubic yards)	AREA (square feet)
SOUTH WCA	349,744	944,309
MIDDLE WCA	293,829	793,339
NORTH WCA	214,799	579,958
FILL - DREDGE FILL FOR EXTERNAL CONTAINMENT	VOLUME (cubic yards)	AREA (square feet)
SOUTH WCA	487,078	1,262,836
MIDDLE WCA	329,858	1,027,635
NORTH WCA	303,120	818,425
FILL - DREDGE FILL FOR INTERNAL CONTAINMENT	VOLUME (cubic yards)	AREA (square feet)
SOUTH WCA	174,872	770,232
MIDDLE WCA	146,915	762,368
NORTH WCA	107,400	618,338
FILL - RIP RAP FOR EXTERNAL CONTAINMENT	VOLUME (cubic yards)	AREA (square feet)
SOUTH WCA	493,154	2,020,538
MIDDLE WCA	296,806	1,644,216
NORTH WCA	272,748	1,309,479
FILL - DREDGE FILL FOR WETLAND CREATION	VOLUME (cubic yards)	AREA (square feet)
SOUTH WCA	3,772,883	16,411,955
MIDDLE WCA	3,281,707	14,992,569
NORTH WCA	2,410,898	13,071,136

AVOIDANCE & MINIMIZATION: The applicant has indicated that avoidance measures such as the implementation of an exclusion zone and a soft start procedure (ramping up) in order to alert nearby sensitive species and allow them to move out of the area prior to construction activities could be used to minimize potential noise impacts to marine mammals. Additionally, the applicant has indicated that potential cultural resources have been identified and will be avoided prior to and during construction. The applicant has surveyed and avoided areas containing SAV and/or seagrass. The U.S. Army Corps of Engineers (USACE) has not

determined the adequacy of the applicant's avoidance and minimization efforts for the proposed activity.

MITIGATION: The provision of compensatory mitigation has not been proposed. The applicant has stated that while the project would result in the loss of 1,200 acres of estuarine water column and water bottoms, the ecological benefits of creating 1,200 acres of tidal marsh would offset the loss of functions and services provided by this resource.

WATER QUALITY / COASTAL ZONE MANAGEMENT: The applicant will apply for certification from the State of Alabama in accordance with Section 401(a)(1) of the Clean Water Act, as well as Coastal Zone Management (CZM) consistency certification in accordance with the Alabama Coastal Zone 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.

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, which includes the footprint of the proposed dredge and fill areas that would be disturbed by construction of the project. The National Register of Historic Places will be consulted for properties listed, or eligible for listing, in the National Register, which are known to exist and would be affected by the proposed work. The Mobile District is seeking comments regarding the existence, or the potential for existence, of significant cultural and historic properties within the permit area. The applicant has provided a Phase I Cultural Resources Assessment of the project site. At this time, the USACE, Mobile District has made no determination regarding potential effects of the project on cultural/historic resources. Further coordination with the State Historic Preservation Officer and/or federally-recognized American Indian tribes will be performed as determined to be appropriate.

In addition, we are seeking comments from local historical societies, museums, universities, the U.S. Department of the Interior, National Park Service, Division of Archeological Services and concerned citizens regarding the existence or the potential for existence of significant cultural and historic properties within the permit area.

ESSENTIAL FISH HABITAT: This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The proposed project would permanently impact 1,200 acres of estuarine water column and water bottoms. The applicant has provided an EFH Assessment and Marsh Planting and Monitoring Plan to the USACE, Mobile District which will be coordinated with the National Marine Fisheries Service (NMFS) as part of this consultation. Our initial determination is that the proposed action may adversely affect EFH or federally managed fisheries. However, such effects are mitigated through the avoidance of SAV/seagrass and the overall ecological benefits to creation of 1,200 acres of tidal marsh within Upper Mobile Bay. 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 (NMFS).

ENDANGERED SPECIES: Preliminary review of this application and the U.S. Department of the Interior's List of Endangered and Threatened Wildlife and Plants indicate the following federally-listed species are known or expected to occur within the project area: Alabama red-bellied turtle (E), West Indian manatee (T), wood stork (T), green sea turtle (T), Kemp's Ridley sea turtle (E), Loggerhead sea turtle (T), and Gulf sturgeon (T). There is no designated critical habitat within the project action area. At this time, the USACE, Mobile District has made no determination with regard to potential effects of the project on the above-listed species. Further coordination with the U.S. Fish and Wildlife Service (USFWS) and NMFS 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- 2021-00246-DCH**, and should be directed to the District Engineer, Mobile District, Regulatory

Division, Attention: **Mr. Dylan C. Hendrix**, Post Office Box 2288, Mobile, Alabama 36628-0001, or by e-mail at dylan.c.hendrix@usace.army.mil, or (251) 694-3772. Copies of all comments should be furnished to the ADEM 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

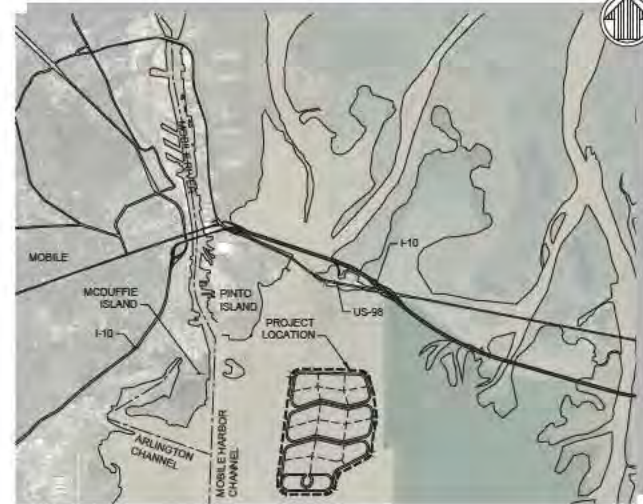
UPPER MOBILE BAY BENEFICIAL USE WETLAND CREATION SITE PROJECT

ALABAMA STATE PORT AUTHORITY

PERMIT DRAWINGS - NOT FOR CONSTRUCTION



INDEX OF DRAWINGS		
SHEET INDEX	SHEET	DRAWING TITLE
1	G-001	TITLE SHEET
2	G-002	GENERAL NOTES
3	V-101	GENERAL CONDITIONS
4	V-102	ENVIRONMENTAL AVOIDANCE PLAN
5	B-101	GENERAL SOIL BORING LOGS PLAN
6	C-101	WETLAND CREATION SITE LAYOUT
7	C-102	CONCEPTUAL WETLAND CREATION CELL DETAIL
8	C-301	WETLAND CREATION AREA TYPICAL SECTION
9	C-320	CONTAINMENT DIKE TYPICAL SECTIONS (1 OF 2)
10	C-321	CONTAINMENT DIKE TYPICAL SECTIONS (2 OF 2)
11	C-501	TEMPORARY WARNING SIGN DETAIL
12	C-502	TURBIDITY CURTAIN DETAIL
13	C-503	BOX WEIR DETAIL
14	C-601	COORDINATE TABLES



NO.	DATE	BY	REVISION

UPPER MOBILE BAY
BENEFICIAL USE WETLAND CREATION SITE PROJECT

TITLE SHEET

DATE	DESIGNED BY	CHECKED BY	DATE	SCALE	PROJECT NO.	DATE	SCALE	PROJECT NO.
2021-09-08								



Sheet Reference No.
G-001
INDEX: 1 OF 1

PERMIT DRAWINGS
ISSUED: 2021-09-08
NOT TO BE USED FOR CONSTRUCTION

GENERAL NOTES

- THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
- BACKGROUND AERIAL IMAGERY COURTESY OF MICROSOFT BING, 2021.
- ALL HORIZONTAL COORDINATES ARE NAD 83 (2011), ALABAMA STATE PLANE, WEST ZONE, U.S. SURVEY FEET.
- ALL ELEVATIONS REFERENCE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET (UNLESS OTHERWISE NOTED).
- NO CONSTRUCTION EQUIPMENT OR ACTIVITIES MAY OPERATE, TRANSIT, STAGE OR STORE WITHIN THE AVOIDANCE AREAS AS SHOWN ON SHEET V-102.
- ESTIMATED RANGE OF FULLY LOADED DRAFTS FOR VESSELSTO BE USED FOR CONSTRUCTION.
 - 800 HP TUGS.....6-8 FT
 - 2,000 HP TUGS.....10-14 FT
 - WORK BOATS, TENDERS.....6-8 FT
 - CREW BOATS.....2-4 FT
 - WORK BARGES, FUEL BARGES.....4-6 FT
 - 18" HYDRAULIC DREDGE.....6 FT
- TURBIDITY CURTAINS SHALL BE INSTALLED BY CONTRACTOR AS NECESSARY TO PREVENT TURBIDITY IN EXCESS OF ADEW WATER QUALITY REQUIREMENTS.
- CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION MAGNETOMETER SURVEY OF ANY DREDGE/EXCAVATION AREA.
- WARNING SIGNS AND LIGHTS SHALL BE INSTALLED AS NECESSARY PER UNITED STATES COAST GUARD REQUIREMENTS, INCLUDING NECESSARY TEMPORARY LIGHTS AND SIGNAGE DURING CONSTRUCTION AND PERMANENT LIGHTS AND SIGNAGE DURING OPERATION.
- WHERE REFERENCED, DESIGN ELEVATIONS REFER TO LONG-TERM, POST-SETTLEMENT ELEVATIONS.

WETLAND CREATION SITE NOTES:

- THESE PERMIT DRAWINGS SHOW THE 1,200-ACRE CONCEPTUAL WETLAND CREATION SITE LAYOUT FOR REFERENCE. EXACT WETLAND CREATION SITE TO BE DELINEATED DURING DETAILED DESIGN. CHANGES MAY BE NECESSARY BASED ON PENDING GEOTECHNICAL INVESTIGATIONS, WAVE OR HYDRODYNAMIC MODELING, OR OTHER DESIGN CONSIDERATIONS.
- REQUESTING PERMIT FOR A 1,200-ACRE WETLAND CREATION SITE. THE WETLAND CREATION SITE IS TO CONSIST OF INDIVIDUAL WETLAND CREATION AREAS TO BE SEPARATED BY TIDAL CHANNELS. EACH WETLAND CREATION AREA WILL BE SEPARATED INTO APPROXIMATELY 40-ACRE WETLAND CREATION CELLS.
- TIDAL CHANNELS SHALL BE SIZED TO PROVIDE HYDROLOGIC CONNECTION BETWEEN WETLANDS CELLS AND MOBILE BAY.
- INITIAL CONSTRUCTION SHALL CONSIST OF EXTERNAL CONTAINMENT FOR AN APPROXIMATELY 100-ACRE SITE WITHIN THE SOUTHERN WETLAND CREATION AREA, AS SHOWN ON SHEET C-101. TWO 50-ACRE WETLAND CREATION CELLS WITHIN THIS AREA SHALL BE CONSTRUCTED.
- THE REMAINING PORTION OF THE SOUTHERN WETLAND CREATION AREA, AS WELL AS THE MIDDLE WETLAND CREATION AREA AND NORTHERN WETLAND CREATION AREA SHALL BE CONSTRUCTED IN PHASES AS NECESSARY.
- WETLAND CREATION SITE SHALL NOT EXCEED 1,200-ACRES.
- WETLAND CREATION SITE SHALL NOT FILL WITHIN ENVIRONMENTALLY SENSITIVE AREAS INCLUDING EXISTING SUBAQUATIC VEGETATION (SAV) BEDS OR EXISTING WETLANDS.

DREDGING NOTES:

- ANCHOR BUOYS, AND DREDGE PIPELINE (FLOATING OR SUBMERGED) WITHIN THE DREDGE PIPELINE CORRIDOR, THE ACCESS CORRIDOR, OR OTHER PUBLIC NAVIGABLE WATERWAYS SHALL BE MARKED IN ACCORDANCE WITH THE U.S. COAST GUARD REGULATIONS INCLUDING REQUIRED FLASHING LIGHTS, WARNING SIGNS AND MARKERS.
- THE CONTRACTOR MAY DREDGE WITHIN THE BORROW AREAS TO THE ELEVATIONS INDICATED IN THESE DRAWINGS.
- THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A COMMUNICATION PLAN TO THE OWNER AND THE USACE OPERATIONS DIVISION, WHICH PRECISELY Delineates THE DREDGE LOCATION, ATTENDANT PLANT, ANCHOR BUOYS, AND FLOATING OR SUBMERGED PIPELINE PURSUANT TO THE PROJECT SPECIFICATIONS.
- HYDRAULIC AND/OR MECHANICAL DREDGING AND PLACEMENT IS PROPOSED FOR CONTAINMENT DNE CONSTRUCTION MATERIAL TO BE PLACED ALONG CENTERLINE OF CONTAINMENT DIKES AND/OR STOCKPILED THEN TRANSPORTED AND REMOVED TO CONSTRUCT CONTAINMENT DIKES WITH LAND-BASED EQUIPMENT.
- TURBIDITY CURTAINS SHALL BE UTILIZED BY THE CONTRACTOR AS NECESSARY TO COMPLY WITH ADEW WATER QUALITY REQUIREMENTS. TRAINING/GUIDE DIKES MAY BE UTILIZED BY THE CONTRACTOR AHEAD OF THE DREDGE PIPELINE AS THE MATERIAL IS PLACED ALONG THE CONTAINMENT DNE CENTERLINES IN ORDER TO MINIMIZE THE LOSSES AND SPREAD OF DREDGED MATERIAL.

CONTAINMENT DNE NOTES:

- CONTAINMENT DIKES TO CONSIST OF EITHER TYPE I, TYPE II, OR TYPE III CONTAINMENT AS SHOWN ON SHEETS C-200 AND C-201. EXACT CONTAINMENT STRUCTURES INCLUDING HORIZONTAL AND VERTICAL DIMENSIONS FOR EACH REACH OF CONTAINMENT ARE TO BE DETERMINED DURING DETAILED ENGINEERING AND DESIGN BASED ON WAVE LOADING.
- CONTAINMENT DNE DESIGN ELEVATIONS SHALL NOT EXCEED 46.0 FEET (NAVD 88).
- UNLESS OTHERWISE INDICATED, PROJECT FEATURE INFLECTION POINT (PFP) COORDINATES REFER TO THE CENTERLINE OF THE ROCK RIPRAP BREAKWATER.

PROPOSED DREDGE PIPELINE CORRIDOR NOTES:

- TO FACILITATE TRANSPORT OF DREDGED MATERIAL FROM ASP, TERMINALS INCLUDING INDOOR PILE COAL TERMINAL, ASP CONTAINER TERMINAL, AND DRIFT ISLAND TERMINAL, 2,100' WIDE DREDGE PIPELINE CORRIDORS ARE PROPOSED AS SHOWN ON SHEET C-101.
- THE DREDGE PIPELINE SHALL BE SUBMERGED AND PLACED ON THE WATER BOTTOMS. FLOATING DREDGE PIPELINE SHALL ONLY BE USED AS NECESSARY.
- THE PROPOSED DREDGE PIPELINE CORRIDORS SHALL CROSS THE MOBILE HARBOR CHANNEL AT THE PIPS SHOWN ON SHEET C-101. CHANNEL CROSSING SHALL BE COMPLETED FOLLOWING USAGE CHANNEL, CROSSING REGULATIONS IN ACCORDANCE WITH EM 395-1-1.

ABBREVIATIONS

AC	ACRES	WATER LEVELS (FEET)	
APPROX	APPROXIMATE	MHW	+1.16'
BL	BASELINE	MHW	+1.09'
BM	BENCH MARK	MFL	+0.32'
BTM	BOTTOM	NAVD 88 (DATUM)	+0.00'
CL	CENTERLINE	MW	-0.44'
CL	CENTERLINE	MW	-0.53'
DB	DREDGE		
ENG	ENGINEERING		
EXIST	EXISTING		
FT	FOOT/FEET		
INCH	INCH		
ID	IDENTIFICATION		
LB	POUND		
MAX	MAXIMUM		
MB	BORING LOG ID		
MHW	MEAN HIGH WATER		
MIN	MINIMUM		
MW	MEAN LOW WATER		
MSL	MEAN SEA LEVEL		
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988		
NAVD 83	NORTH AMERICAN VERTICAL DATUM OF 1983		
OD	ODDGE		
PFP	PROJECT FEATURE INFLECTION POINT		
TYPE	TYPE		
WCA	WETLAND CREATION AREA		
WP	WORKING POINT		

TIDAL DATUM INFORMATION:

AC	ACRES	WATER LEVELS (FEET)	
APPROX	APPROXIMATE	MHW	+1.16'
BL	BASELINE	MHW	+1.09'
BM	BENCH MARK	MFL	+0.32'
BTM	BOTTOM	NAVD 88 (DATUM)	+0.00'
CL	CENTERLINE	MW	-0.44'
CL	CENTERLINE	MW	-0.53'
DB	DREDGE		
ENG	ENGINEERING		
EXIST	EXISTING		
FT	FOOT/FEET		
INCH	INCH		
ID	IDENTIFICATION		
LB	POUND		
MAX	MAXIMUM		
MB	BORING LOG ID		
MHW	MEAN HIGH WATER		
MIN	MINIMUM		
MW	MEAN LOW WATER		
MSL	MEAN SEA LEVEL		
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988		
NAVD 83	NORTH AMERICAN VERTICAL DATUM OF 1983		
OD	ODDGE		
PFP	PROJECT FEATURE INFLECTION POINT		
TYPE	TYPE		
WCA	WETLAND CREATION AREA		
WP	WORKING POINT		

EXCAVATION AND FILL SUMMARY

EXCAVATIONS - EXTERNAL CONTAINMENT	VOLUME	AREA
SOUTH WCA	974,156	2,650,221
MIDDLE WCA	669,276	1,781,234
NORTH WCA	696,240	1,656,849
EXCAVATIONS - INTERNAL CONTAINMENT	VOLUME	AREA
SOUTH WCA	349,256	942,991
MIDDLE WCA	293,829	793,339
NORTH WCA	214,799	579,569
FILL - DREDGE FILL FOR EXTERNAL CONTAINMENT	VOLUME	AREA
SOUTH WCA	467,078	1,262,836
MIDDLE WCA	329,859	1,027,635
NORTH WCA	303,120	818,425
FILL - DREDGE FILL FOR INTERNAL CONTAINMENT	VOLUME	AREA
SOUTH WCA	174,828	770,232
MIDDLE WCA	146,915	762,369
NORTH WCA	167,400	618,338
FILL - RIPRAP FOR EXTERNAL CONTAINMENT	VOLUME	AREA
SOUTH WCA	483,154	2,020,538
MIDDLE WCA	296,808	1,644,216
NORTH WCA	272,748	1,369,479
FILL - DREDGE FILL FOR WETLAND CREATION	VOLUME	AREA
SOUTH WCA	3,772,883	16,411,955
MIDDLE WCA	3,281,707	14,892,269
NORTH WCA	2,474,989	13,071,138

- INTERNAL IN SITU BORROW AREA EXCAVATION VOLUME IS THE CUT VOLUME NECESSARY TO CONSTRUCT EXTERNAL AND INTERNAL CONTAINMENT DIKES FOR THE NORTH, SOUTH, AND MIDDLE WCA, INCLUDING THE 100-ACRE SITE.
- FILL VOLUME IS TO THE LONG-TERM DESIGN ELEVATION OF +1.0' NAVD 88.

PERMIT DRAWINGS
ISSUED 2/07/2021
NOT TO BE USED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON Z-3 DRAWING



**UPPER MOBILE BAY
BENEFICIAL USE WETLAND CREATION SITE PROJECT**

GENERAL NOTES

Designed by NC	Date 2021-09-08
Drawn by MES	MAN object No 210315
Reviewed by PWK	Drawn by Scale
Submittal by MAR BE H SU NIAN	Plot scale 1:1 (D SHEET)

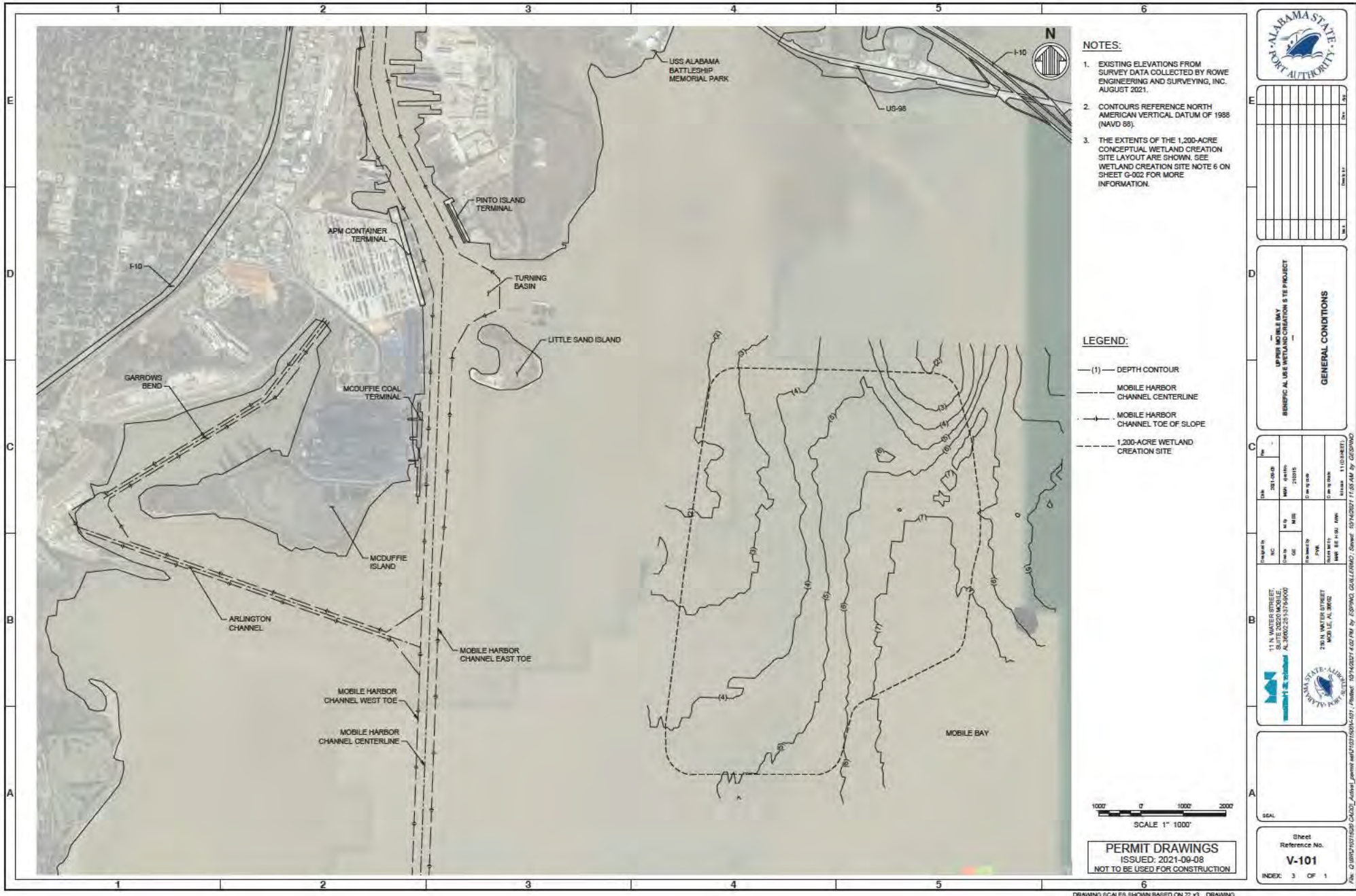
11 N. WATER STREET, SUITE 2020 MOBILE, AL 36602 251-378-9000

250 N. WATER STREET MOBILE, AL 36602

Sheet Reference No. **G-002**

2 OF 1

Scale

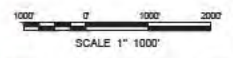


NOTES:

- 1. EXISTING ELEVATIONS FROM SURVEY DATA COLLECTED BY ROWE ENGINEERING AND SURVEYING, INC. AUGUST 2021.
- 2. CONTOURS REFERENCE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 3. THE EXTENTS OF THE 1,200-ACRE CONCEPTUAL WETLAND CREATION SITE LAYOUT ARE SHOWN. SEE WETLAND CREATION SITE NOTE 6 ON SHEET G-002 FOR MORE INFORMATION.

LEGEND:

- (1)— DEPTH CONTOUR
- MOBILE HARBOR CHANNEL CENTERLINE
- MOBILE HARBOR CHANNEL TOE OF SLOPE
- - - 1,200-ACRE WETLAND CREATION SITE



PERMIT DRAWINGS
ISSUED: 2021-09-08
NOT TO BE USED FOR CONSTRUCTION



DATE	BY	DESCRIPTION

UPON MOBILE BAY
BENEFICIAL USE WETLAND CREATION IS THE PROJECT
GENERAL CONDITIONS

DATE	BY	DESCRIPTION
2021-08-09	MAT	210316
	WJ	210118
	WJ	210118
	WJ	210118
	WJ	210118
	WJ	210118
	WJ	210118
	WJ	210118

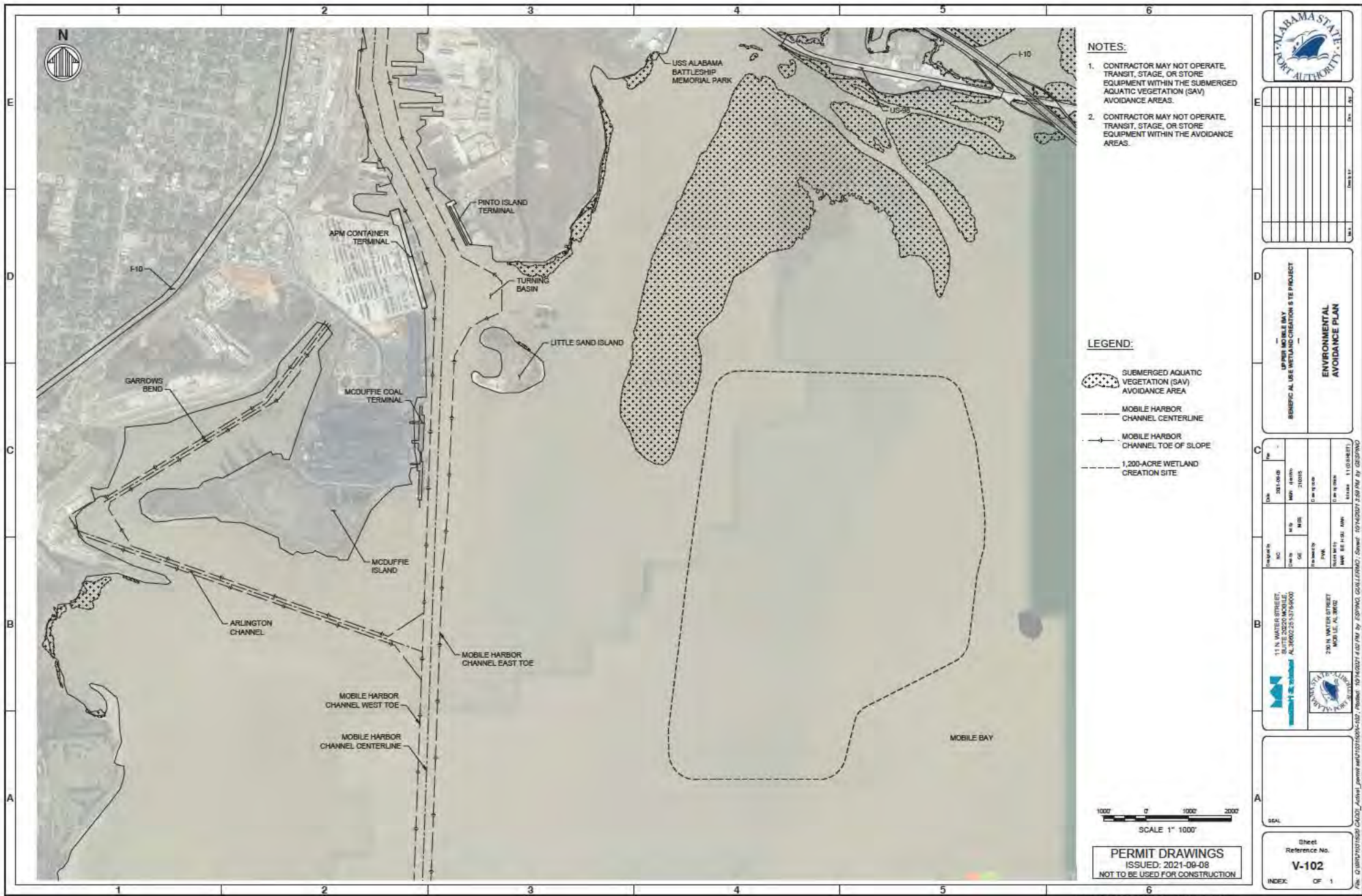
11 N WATER STREET
31115 MOBILE
AL 36602-25179-6000
800.645.7228

290 N WATSON STREET
MOBILE, AL 36602



Sheet Reference No.
V-101
INDEX: 3 OF 1

DRAWING SCALES SHOWN BASED ON 22 x 35 DRAWING
File: Q:\0917107575GP_CADD\Activity\permits\ref\210118\091-101_PlanSet_101\400271.dwg 10/14/2021 11:55 AM by GSP/WD

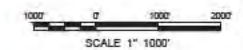


NOTES:

1. CONTRACTOR MAY NOT OPERATE, TRANSIT, STAGE, OR STORE EQUIPMENT WITHIN THE SUBMERGED AQUATIC VEGETATION (SAV) AVOIDANCE AREAS.
2. CONTRACTOR MAY NOT OPERATE, TRANSIT, STAGE, OR STORE EQUIPMENT WITHIN THE AVOIDANCE AREAS.

LEGEND:

- SUBMERGED AQUATIC VEGETATION (SAV) AVOIDANCE AREA
- MOBILE HARBOR CHANNEL CENTERLINE
- MOBILE HARBOR CHANNEL TOE OF SLOPE
- 1,200-ACRE WETLAND CREATION SITE



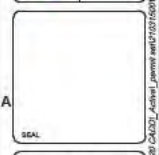
PERMIT DRAWINGS
ISSUED: 2021-09-08
NOT TO BE USED FOR CONSTRUCTION



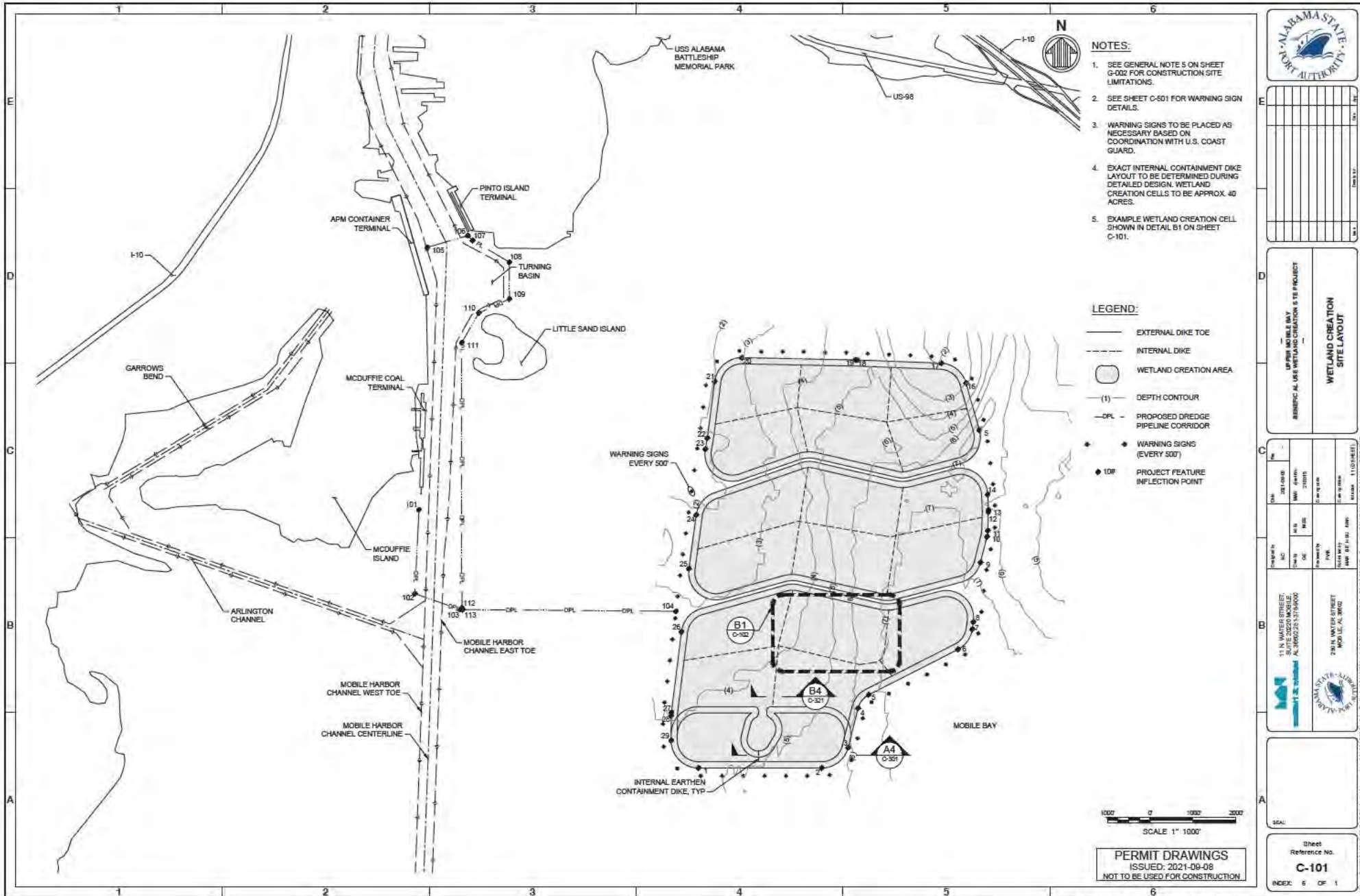
DATE	NO.	DESCRIPTION

LIPINSKI MOBILE BAY
BENEFICIAL USE WETLAND CREATION SITE PROJECT
**ENVIRONMENTAL
AVOIDANCE PLAN**

Date	2021-09-08	Drawn by	JLS	Checked by	
Designator					
Scale	1" = 1000'				
Project No.	2021-09-08				



Sheet Reference No. **V-102**
INDEX: OF 1



NOTES:

1. SEE GENERAL NOTE 5 ON SHEET G-002 FOR CONSTRUCTION SITE LIMITATIONS.
2. SEE SHEET C-501 FOR WARNING SIGN DETAILS.
3. WARNING SIGNS TO BE PLACED AS NECESSARY BASED ON COORDINATION WITH U.S. COAST GUARD.
4. EXACT INTERNAL CONTAINMENT DIKE LAYOUT TO BE DETERMINED DURING DETAILED DESIGN. WETLAND CREATION CELLS TO BE APPROX. 40 ACRES.
5. EXAMPLE WETLAND CREATION CELL SHOWN IN DETAIL B1 ON SHEET C-101.

LEGEND:

- EXTERNAL DIKE TOE
- - - INTERNAL DIKE
- WETLAND CREATION AREA
- (1) DEPTH CONTOUR
- DPL - PROPOSED DREDGE PIPELINE CORRIDOR
- ◆ WARNING SIGNS (EVERY 500')
- ◆ IOP PROJECT FEATURE INFLECTION POINT



NO.	DATE	DESCRIPTION

UPPER MOBILE BAY
 BENEVOLENT USE WETLAND CREATION SITE PROJECT
 WETLAND CREATION
 SITE LAYOUT

Date	DESIGNED BY	DATE	SCALE
11/10/2021	11/10/2021	11/10/2021	11/10/2021

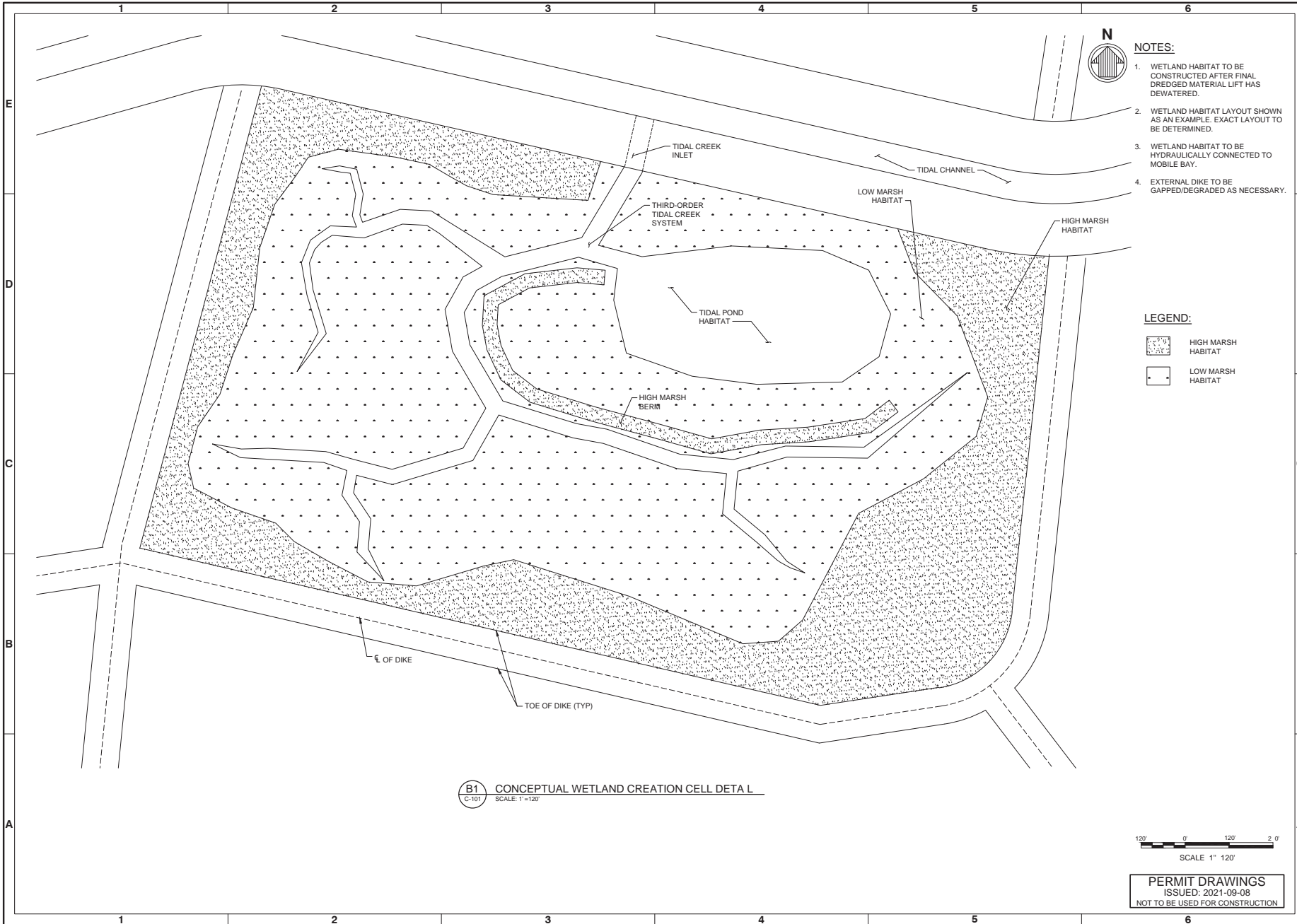
U.S. WATER RESOURCES DIVISION
 333 PINE BLVD
 AL 36852-2517-6000
 MOBILE, AL 36682

ALABAMA STATE AUTHORITY
 280 N. UNIVERSITY STREET
 MOBILE, AL 36682

SCALE 1" = 1000'

PERMIT DRAWINGS
 ISSUED: 2021-09-08
 NOT TO BE USED FOR CONSTRUCTION

Sheet Reference No.
C-101
 INDEX: 6 OF 1



B1 CONCEPTUAL WETLAND CREATION CELL DETAIL
 C-101 SCALE: 1" = 120'

PERMIT DRAWINGS
 ISSUED: 2021-09-08
 NOT TO BE USED FOR CONSTRUCTION



NO.	DATE	BY	REVISION

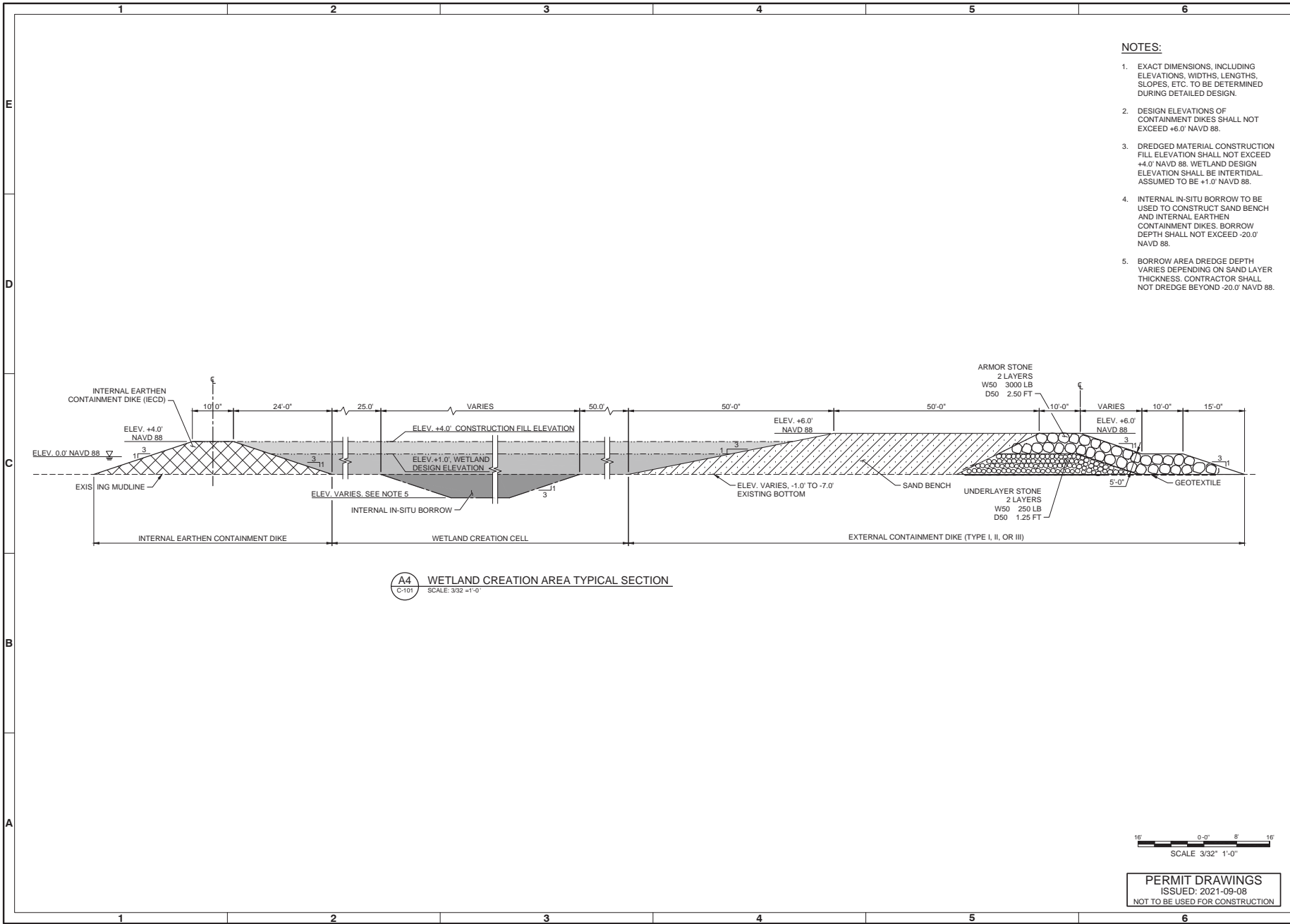
UPPER MOBILE BAY
 BENEFICIAL USE WETLAND CREATION SITE PROJECT
 CONCEPTUAL WETLAND
 CREATION CELL DETAIL

Drawn by	Checked by	Date	Revised by	Revised Date
MC	DE	20210908	MEB	210916
DE	PPM			
MEB	MEB			
PPM	MEB			
MEB	MEB			
MEB	MEB			

11 N. WATER STREET, SUITE 2025 MOBILE, AL 36682-2515 251-979-5000
 2620 N. WATER STREET MOBILE, AL 36682

SEAL

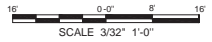
Sheet Reference No.
C-102
 INDEX: 7 OF 1



NOTES:

1. EXACT DIMENSIONS, INCLUDING ELEVATIONS, WIDTHS, LENGTHS, SLOPES, ETC. TO BE DETERMINED DURING DETAILED DESIGN.
2. DESIGN ELEVATIONS OF CONTAINMENT DIKES SHALL NOT EXCEED +6.0' NAVD 88.
3. DREDGED MATERIAL CONSTRUCTION FILL ELEVATION SHALL NOT EXCEED +4.0' NAVD 88. WETLAND DESIGN ELEVATION SHALL BE INTERTIDAL ASSUMED TO BE +1.0' NAVD 88.
4. INTERNAL IN-SITU BORROW TO BE USED TO CONSTRUCT SAND BENCH AND INTERNAL EARTHEN CONTAINMENT DIKES. BORROW DEPTH SHALL NOT EXCEED -20.0' NAVD 88.
5. BORROW AREA DREDGE DEPTH VARIES DEPENDING ON SAND LAYER THICKNESS. CONTRACTOR SHALL NOT DREDGE BEYOND -20.0' NAVD 88.

A4 WETLAND CREATION AREA TYPICAL SECTION
SCALE: 3/32" = 1'-0"



PERMIT DRAWINGS
ISSUED: 2021-09-08
NOT TO BE USED FOR CONSTRUCTION



NO.	DATE	DESCRIPTION

**UPPER MOBILE BAY
BENEFICIAL USE WETLAND CREATION SITE PROJECT**

**WETLAND CREATION
AREA TYPICAL SECTION**

Date: 2021-09-08 MMR Ref No: 210115 MMR No: 210115 MMR Date: 08/30/2021 MMR Issued: 11/10/2021 MMR Issued By: GESP/NO	Drawn by: [blank] Checked by: [blank] Reviewed by: [blank] Approved by: [blank]
11 N. WATER STREET, SUIITE 202B MOBILE, AL 36682-2515 251-579-9000 	2620 N. WATER STREET MOBILE, AL 36682

SEAL

Sheet Reference No.
C-301
INDEX: 8 OF 1



Date	Drawn	Checked	Scale

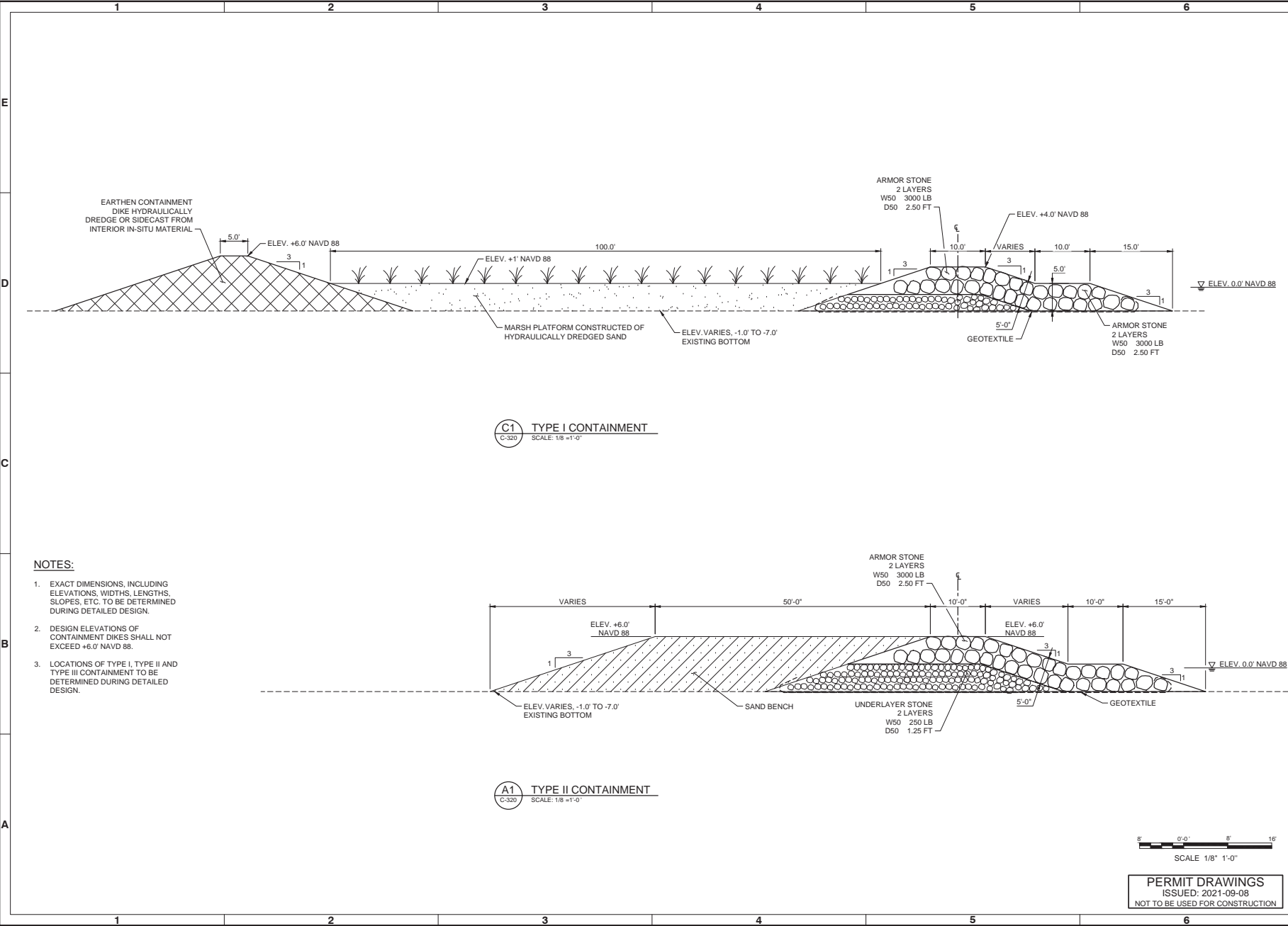
UPPER MOBILE BAY
BENEFICIAL USE WETLAND CREATION & REPAIR PROJECT
CONTAINMENT DIKE
TYPICAL SECTIONS (1 OF 2)

Date	Drawn	Checked	Scale
2021-09-08	MAR	SPR	2:015E
	JULY	RES	

11 N. WATER STREET
SUITE 2025 MOBILE
AL 36682-251-979-5000
www.hilltop.com
2620 N. WATER STREET
MOBILE, AL 36682

SEAL

Sheet Reference No.
C-320
INDEX: 9 OF 1



PERMIT DRAWINGS
ISSUED: 2021-09-08
NOT TO BE USED FOR CONSTRUCTION

