



Alabama State Port Authority

Addendum to RFP/RFQ

Project Name Upper Mobile Bay Beneficial Use Wetland Creation Site (Implementation) – Phase 1 Project

Project No. 11810 **Task No.** N/A **Addendum No.** 3

To: Prospective Offerors **Date:** 10/23/2026

The following revisions are hereby made to the Request for Proposals / Request for Qualifications for the Upper Mobile Bay Beneficial Use Wetland Creation Site (Implementation) – Phase 1 Project.

This Addendum shall become part of the Contract and shall be acknowledged by the Contractor in the Proposal submission by adding the addendum number and date to Page I-16 of the Cost Proposal in the Specification Booklet.

General:

Item	Description
1	The pre-proposal presentation is attached.
2	The scanned sign-in sheet is attached.

Summary of Pre-Proposal Meeting Questions and Answers:

Item	Description
1	<p>Is the rock limited to only granite? Other projects in Mobile Bay have used limestone rock with success.</p> <p>This has been updated to allow sedimentary rock. Please see the change to Section 523 – Rock Riprap Breakwaters in the “Plans and Specifications” table below. The rock shall be required to meet the soundness and abrasion standards in the Specifications.</p>
2	<p>What is the construction budget?</p> <p>The construction funding amount will not be disclosed.</p>
3	<p>Clarify how liquidated damages are calculated.</p> <p>Per Division IV Section 20-13 of the Specifications, Liquidated Damages would be assessed at a rate of 0.033% of the Contract Price per Day.</p> <p>For example, if the Contract Price is \$1,000,000.00, this amount would be: $0.00033 * \\$1,000,000 = \\330 per Day.</p>
4	<p>Is the contractor allowed lay pipe on the water bottom from the local borrow area to the 100-acre site?</p> <p>The dredge pipeline may be floating or submerged but should be outside the avoidance areas and shall not disturb the bottom in the no bottom disturbance areas. There is no specific dredge pipeline corridor, and dredge pipeline corridors should be discussed in proposals.</p>
5	<p>Is the contractor allowed to place fill on the no bottom disturbance area that is located inside the 100-acre site?</p> <p>Filling on top of the no bottom disturbance areas is allowed by the project permit. However, the “no bottom disturbance” area located within the 100-acre fill site is outside of placement areas. Placement of fill within that specific area could negatively impact the future capacity of the site and removal may be required.</p>
6	<p>Why is the local borrow area not allowed to be utilized for filling the geotextile tubes?</p> <p>The project team has concerns about the performance of geotextile tubes with fine-grained fill due to the relatively slow and unpredictable consolidation of the fine-grained material within the geotextile tubes during the dewatering of the tube, potentially resulting in the height of the tube being lower than required. A clean sand is</p>



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	expected to have more consistent and much faster consolidation during tube dewatering, with more predictable tube heights after filling/dewatering.
7	<p>Does the Sunflower material need to be screened for fines?</p> <p>Sunflower material is required to be screened for debris. No other screening is required.</p>
8	<p>Could the liquidated damages be capped at a certain threshold?</p> <p>No.</p>
9	<p>Are the supplemental turbidity control line items a one-time payment for installation?</p> <p>The supplemental turbidity line items are paid at a unit of each 100 linear feet for each month installed. For example, if the Owner directs 500 LF of turbidity curtain for 2 months, then 10 units would be paid (5 units x 2 months).</p>
10	<p>What are the anticipated award and NTP dates?</p> <p>This information is provided in Section 3.0 Procurement Schedule of the Specifications and was modified in Addendum No. 1.</p> <p>Notification of Intent to Award is scheduled for December 3, 2026.</p> <p>NTP estimated by December 21, 2026.</p>
11	<p>Please clarify how the quantity of bedding stone was calculated, and what to do if the contractor elects not to utilize bedding stone. Also clarify construction settlement in excess of 1-ft.</p> <p>The intent of the bedding stone quantity is to account for construction settlement of the breakwaters or revetment by placing sacrificial material that may be provided at a lower cost than underlayer or armor stone.</p> <p>The bedding stone quantity was calculated by applying a nominal 1-ft thickness across the footprint of the breakwaters/revetment at the existing water bottom. The bedding stone quantity is separate from and in addition to the "neat line fill" quantity of the breakwaters/revetment above the water bottom.</p> <p>Construction settlement of the rock riprap features shall not be considered a Contractor responsibility, provided the work has been constructed in accordance with the Plans and Specifications. The Engineer will evaluate actual construction performance and survey data as work progresses and may modify the extents/geometry of remaining rock riprap features in accordance with Section 523 or Section 533 of the Specifications to account for actual construction settlement in order to control the overall project quantity. Accepted quantities incorporated into the work will be measured and paid in accordance with the Contract Documents.</p> <p>Alternatively, if actual construction settlement of the rock riprap features is less than the 1-ft bedding layer thickness, resulting in an underrun of armor stone, the Engineer reserves the right to modify the extents/geometry of the remaining project features to utilize available quantities, provided such modifications are consistent with the overall project intent and budget.</p> <p>If the Contractor chooses not to place an alternative bedding stone material (crushed concrete, quarry run stone, etc.), they should apply the unit cost for underlayer stone or armor stone (whichever applies) to the line item for bedding stone.</p>



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Plans and Specifications:

Item	Description
1	<p>Section 523 – Rock Riprap Breakwaters</p> <p><i>Replace the following sentence in Section 2.1 Graded Rock Riprap:</i></p> <p>The graded rock riprap shall not disintegrate upon exposure to the elements or be easily broken from handling and shall be reasonably free from earth and other foreign materials; the graded rock riprap shall not be sedimentary.</p> <p><i>With:</i></p> <p>The graded rock riprap shall not disintegrate upon exposure to the elements or be easily broken from handling and shall be reasonably free from earth and other foreign materials.</p>
2	<p>Section 533 – Rock Riprap Revetment</p> <p><i>Replace the following in Section 2.1 Graded Rock Riprap:</i></p> <p>When tested in accordance with AASHTO T 85, the solid weight of stone shall be at least 155 pounds per cubic foot (2490 kg/cu m) unless otherwise approved by Engineer.</p> <p><i>With:</i></p> <p>When tested in accordance with AASHTO T 85, the solid weight of stone shall be at least 165 pounds per cubic foot (2640 kg/cu m) unless otherwise approved by Engineer.</p>


Wesley Jackson
Project Manager

10/23/2026
Date



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Upper Mobile Bay Wetland Creation Site (Implementation) – Phase I

Pre-Proposal Sign-In Sheet

October 22, 2026 02:00 pm



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Company Name	Attendee Name/ Contact Name	Contact Number	Contact Email Address
Phillips Heavy Civil	Darryl Carpenter	850-508-6403	dcarpenter@PhillipsInc.com
Coastal Dredging Co.	Curtis Huggins	850-451-6758	Curtis@coastaldredging.net
Wilco/Wilson Coastal	JEFF DENHAM	225-328-6700	JEFF@wilcomps.com
WILSON COASTAL	LEVI LENOIRE	225-999 8318	LEMOINE WILSON wilsoncoastal.com
J+W Marine	Wayne Eldridge	251-751-4127	Wayne@JWMarine.Inc
JW Marine	Austin Hall	251-895-6378	Austin2Hall@yahoo
JHS Contracting	Michael Gomez	678-457-9128	Mgomez@JHScontracting.com
JHS Contracting	Billy Caulder	919-710-6565	Bcaulder@JHScontracting.com
MDTCL	Jim White	251-463-2786	jwhite@mathewsconstruction.com
BLUE DIVER & SALVAGE	Don Coleman	251-370-0701	don.coleman@bluediverllc.com



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October 22, 2026 02:00 pm



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Company Name	Attendee Name/ Contact Name	Contact Number	Contact Email Address
Maverick Constructors	Clint Renard	337-654-0447	clint@maverick-Constructors.com
Viking Dredging	Rusi Patel	832-453-9891	rusi@vikingdredging.com
Luhr Bros	Darwyn Jarrell	504-628-0840	nolan@luhr.com darwynj@luhr.com
Luhr Bros	Nolan Simoneaux III	504-628-1741	nick NSIMONEAUX3@LUHR.COM
US Aqua Services	Thomas Barnes	706-296-3488	tbarnes@usdredge.com
Blade Const	Steve Brown	251 752 5404	steve@bladeconstruction.com
Blade Const	Colin Utr	251-752-1818	colin@bladeconstruction.com
Maintenance Dredging	Justin Tassin	504-782-0995	justine mdi - dredging.com
Cooper Marine	Richard Pipkin	251-366-8394	richard.pipkin@cooper-marine.com
Hughes Company	Phil Hughes	251 610 9674	philhughes@hughesonline.com



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October 22, 2026 02:00 pm



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Company Name	Attendee Name/ Contact Name	Contact Number	Contact Email Address
Berry Bros. General Contractor	Ryan White	985-518-8810	ryan@bbgc.com
TKTMS Inc.	James Monka	504-909-5338	james.monka@TKTMS.com
Thompson Eng.	Matthew Wahn	257-510-7145	m.wahn@thompsonengineering.com
LAWLER AND CO	WILLIAM LAWLER	251-661-9411	WILL@lawlerpls.com
Lawler and Co	George Cowler	251-348-8867	George@lawlerpls.com
Carter's Contracting	Austin Carter	334-488-6023	acarter@carters-contracting.com
Sawyers	MC Marie/STEM		Sam@MCMarineLLC.com
Johnston Trucking Luke Johnston	Luke Johnston	334-674-1047	luke@johnstontrucking.com
G.A. West	Kristian Roe	251-421-5438	Kristian.roe@gawest.com



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October 22, 2026 02:00 pm



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PORT AUTHORITY

Company Name	Attendee Name/ Contact Name	Contact Number	Contact Email Address
WEEKS MARINE INC	Brennon Story	985-400-7236	brennon.story@weeksmarine.com
CURTIN MARITIME	JAMES RAPPE	779-875-0330	JRAPPE@CURTINMARITIME.COM
Esteller Construction	Conner Newell	251-234-9847	Cnewell@estellerconstruction.com
Cooper Marine	Matt Powell	251-415-3055	matt.powell@thecoopergroup.com
Pine Bluff Sand & Gravel	Jonathan Scott	318-664-8784	jonathan.scott@pbsgc.com Parker.McClellan@pbsgc.com jacob.clanton@pbsgc.com
Vulcan Materials	Anthony Grijalva	251 254 2187	Anthony.Grijalva@vulcanmaterials.com
TELLCON LLC TELLIER KENNY	TELLIER KENNY	251-406-2573	TELLIER@TELLCONLLC.COM
FISHTEC	JOHN MORRIS	337-263-7345	JMORRIS@FISHTECMARINE.COM
Bradley Marine	Andrew Bradley	251-509-3687	andrew@bradley-marine.com
AMERICAN MARINE TECHNICAL SOLUTIONS, LLC	DYLAN ALIDOR	251-643-4626	DALIDOR@AMERICANMTECH.COM



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Upper Mobile Bay Wetland Creation Site (Implementation) – Phase I

Pre-Proposal Sign-In Sheet

October 22, 2026 02:00 pm



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Company Name	Attendee Name/ Contact Name	Contact Number	Contact Email Address
Thompson Engineering	Courtney Heavin	251-391-4149	Cheavin@thompsonengineering.com
INLAND DREDGING CO	Rick Smith	985-807-7105	RSMITH@ENCOREDP.COM
MD THOMAS CONSTRUCTION	DANIEL LANTRIP	251 980 2504	DLANTRIP@MDTHOMASCONSTRUCTION.com
The Dutra Group	Anthony Germain	415-717-7214	agermain@dutragroup.com
MOFFATT + NICHOL	Peyton Caraway		pcaraway@moffattnichol.com
M + N	Meg Goecker		mgoecker@moffattnichol.com
M + N	PETE KOTULAK		pkotulak@moffattnichol.com
APA	JASON KRICK		
APA	WESLEY JACKSON		
APA	KYLE STRACHAN		

Upper Mobile Bay Wetland Creation Site (Implementation) – Phase 1

Mandatory Pre-Proposal Meeting

October 22, 2026 2:00 PM

APA – Killian Room



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Housekeeping

- › Sign-in sheet – MANDATORY
- › Agendas are located next to sign in sheet
- › Presentation slides and agenda will be attached to the next addendum.

- › This meeting is for information only.
- › Verbal answers are non-binding.
- › Only answers and other information provided in addenda are binding.

Agenda

1. Administrative
2. Project Summary and Goals
3. Outline of Contract Documents
4. Plans and Specifications Overview
5. Questions and Closing Remarks

1. Administrative

RFP issuance and questions

- › RFP package issuance: APA Bid Notices webpage <https://alports.com/procurement/#rfq>
- › Questions – email to Wesley Jackson (Wesley.Jackson@alports.com) by **5:00 PM on October 29, 2026**
- › Addenda will be posted on the APA Bid Notices webpage. Final addendum will be Issued **November 2, 2026**. Email addresses written on the sign in sheet will receive an email when an addendum is uploaded.
- › **Make sure you have the correct contact information for receiving addenda notifications on the sign in sheet.**

Proposal submission details

- › Sealed proposals shall be submitted to the APA by **12:00 PM CDT on November 6, 2026.**
- › Mail/ shall deliver proposals to:
 - Alabama Port Authority
 - Attn: Wesley Jackson
 - 1400 Alabama State Docks Blvd
 - Administration Building, Engineering Departments, Room 216
 - Mobile, AL 36602
 - (251) 441-7255
- › Proposals may be hand delivered to the APA International Trade Center, Killian Room, between 11:00 AM and 11:30 AM on November 6, 2026.
- › Potential short-list interviews November 13, 2026

Contents of RFP Submission Package

- › There are 3 Schedules of Prices. **Offerors should submit a separate, complete submission package for each schedule.**
- › Offerors may submit a proposal for 1, 2, or all 3 Schedules of Prices.
- › Certain elements may be similar across schedules, but the APA requires fully independent, stand-alone packages for each schedule to support an efficient evaluation process.
- › Section 6.0 of Division I Proposal Documents contains requirements for the proposal package.
- › Section 9.0 of Division I Proposal Documents contains other requirements for proposal package.

Contents of RFP Submission Package – Cost Proposal (20%)

- › The cost proposal shall be fully filled out and completed for the relevant Schedule of Prices for that submission package.
- › The cost proposal includes the following that must be included in the proposal submission:
 - a) Schedule of Prices filled in ink and all spaces in the form shall be fully filled
 - b) Acknowledgement of Addenda
 - c) Bid Bond
 - d) Certificate of Compliance with Beason-Hammon Alabama Taxpayer & Citizen Protection Act
 - e) RESTORE required Subcontractor Listing Form
 - f) RESTORE required SF-LLL form
 - g) If the Offeror is a corporation organized in a state other than Alabama, a certificate from the Secretary of State showing the corporation is qualified to transact business in Alabama

Contents of RFP Submission Package – RESTORE Forms

Included in Division II; pg 42 of pdf

SUBCONTRACTOR LISTING FORM (v10/1/2026)

The Contractor must submit this form to the Alabama Port Authority prior to contract execution and must update it for each sub-contractor performing any work resulting from this contract. If additional lines are needed, this form may be duplicated.

Subcontractor Name and Contact Person	Subcontractor Address and Phone Number	Subcontractor Active UEI	On Site during this period (Y/N)

COMPLETED BY: _____ DATE: _____

Linked in Division II; pg 43 of pdf

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 OMB Number: 4040-0013
Expiration Date: 09/30/2028

Review Public Burden Disclosure Statement

1. * Type of Federal Action:

☐ a. contract

☒ b. grant

☐ c. cooperative agreement

☐ d. loan

☐ e. loan guarantee

☐ f. loan insurance

2. * Status of Federal Action:

☐ a. bid/offer/application

☒ b. initial award

☐ c. post-award

3. * Report Type:

☒ a. initial filing

☐ b. material change

4. Name and Address of Reporting Entity:

☒ Prime ☐ Subawardee

* Name: _____

* Street 1: _____ Street 2: _____

* City: _____ State: _____ Zip: _____

Congressional District, if known: _____

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency:

7. * Federal Program Name/Description:

Assistance Listing Number, if applicable: _____

8. Federal Action Number, if known:

9. Award Amount, if known: \$

10. a. Name and Address of Lobbying Registrant:

Prefix: ☒ * First Name: _____ Middle Name: _____

* Last Name: _____ Suffix: ☒

* Street 1: _____ Street 2: _____

* City: _____ State: _____ Zip: _____

b. Individual Performing Services (including address if different from No. 10a)

Prefix: ☒ * First Name: _____ Middle Name: _____

* Last Name: _____ Suffix: ☒

* Street 1: _____ Street 2: _____

* City: _____ State: _____ Zip: _____

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: _____

* Name:

Prefix: ☒ * First Name: _____ Middle Name: _____

* Last Name: _____ Suffix: ☒

Title: _____ Telephone No.: _____ Date: _____

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Contents of RFP Submission Package – Past Performance Information (30%)

- › Maximum of 10 pages
- › Up to 5 projects successfully completed of similar scope and schedule within the past 10 years.
- › May use subcontractor's experience if a significant portion of the work will be completed by that subcontractor.
- › Required information for each project:
 - a) Name of project
 - b) Location of project
 - c) Project Owner and contact information
 - d) General scope of project
 - e) Your role and construction type work your company self-performed on site other than construction management services
 - f) Construction cost of the single project
 - g) Extent and type of work subcontracted out
 - h) Construction period (month/year)

Contents of RFP Submission Package – Technical Approach (30%)

- › Maximum of 10 pages
- › Technical approach narrative and preliminary construction schedule
- › Minimum required information:
 - a) General work plan describing major items of work and means and methods. Discuss limitations and plans to work through limitations, types of work the contractor plans to self perform and subcontract, quality control measures to limit turbidity and sediment management.
 - Temporary containment/training dikes
 - Draft limitations
 - Order of work
 - b) Identify sources for sand and rock procurement
 - c) If submitting for Schedule C, approach must include methods for protecting geotextile tubes (see Division V specs)
 - d) Construction schedule; traditional CPM schedule will not count against the page limit.

Contents of RFP Submission Package – Overall Management Approach (20%)

- › Maximum of 5 pages
- › Narrative format
- › Required information:
 - a) Organizational structure and lines of authority. Management positions and project team composition. Resumes for key personnel including Principal-in-Charge, PM, General Superintendent, Quality Control Manager, and Safety Manager. Resumes do not count against the page limit.
 - b) List of subcontractors intended to be used for the project including the scope of work to be performed for each.
 - c) List of equipment required and available to complete the project.

2. Project Summary and Goals

Overall Upper Mobile Bay Project Summary

- › Site for the APA to beneficially use material dredged from their berths to create wetlands.
- › Planned 1,200-acres over ~20 years.
- › This current project is to construct the containment for the first 100-acres.
- › Expected to reach capacity in 3-5 years.
- › Flagship to demonstrate proof of concept.
- › Next phase of containment construction 2-3 years from now.



3. Outline of RFP Documents

Specifications

TABLE OF CONTENTS

DIVISION I PROPOSAL DOCUMENTS

DIVISION II CONTRACT DOCUMENTS

DIVISION III SPECIAL PROVISIONS

DIVISION IV GENERAL PROVISIONS

DIVISION V CONSTRUCTION SPECIFICATIONS

APPENDIX A GEOTECHNICAL INFORMATION

APPENDIX B PROJECT PERMITS

APPENDIX C USACE DISPOSAL AREA AGREEMENT

Contract Days

SP-03 COMMENCEMENT AND COMPLETION

The Contractor will be required to commence work under this contract in accordance with DIVISION IV GENERAL PROVISIONS Article 90-02 (NOTICE TO PROCEED), to prosecute said

work with faithfulness and energy, and to complete the entire project within **350 calendar days** after receipt of Notice to Proceed. The time stated for final completion shall include final clean- up of all work sites. Failure to complete work on schedule shall initiate liquidated damages, which will be assessed in accordance with the provisions of Paragraph 20-13 (LIQUIDATED DAMAGES) of DIVISION IV, GENERAL PROVISIONS. In addition, liquidated damages referenced in DIVISION V, CONSTRUCTION SPECIFICATIONS, shall also be initiated.

Weather

Monthly Anticipated Inclement Weather Days											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
5	5	4	4	4	5	7	7	5	3	3	4

- › Contractors should incorporate the anticipated monthly weather days into their baseline schedule and construction planning. Only weather impacts exceeding these baseline allowances may be considered for contract time relief.
- › No additional compensation will be provided for weather-related delays.
- › Contractor must document and submit weather delay claims for Engineer review.
- › Criteria for Counting Weather Days
 - › Must prevent work for $\geq 50\%$ of the workday.
 - › Must affect activities on the critical path.
 - › Only weather in excess of anticipated monthly values may be eligible for time extension.
 - › Low Water Condition Provision
 - › Abnormally low water levels may qualify as an adverse weather day.
 - › Water level at the nearest NOAA gauge less than -1.5 ft NAVD88 may be considered a weather delay if it impedes marine construction operations.

Construction Specifications

- › Section 501 – Section 517 apply to all Schedule of Prices
- › Section 520 – Section 523 apply to Schedule A and Schedule B
- › Section 530 – 533 apply to Schedule C
- › Sections that do not apply to the awarded Schedule of Prices will be cut in the IFC version.

CONSTRUCTION SPECIFICATIONS

DIVISION V INDEX

SECTION 501 SCOPE OF WORK.....	V-501
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SECTION 516 COATING OF STEEL STRUCTURES.....	V-516
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SECTION 521 CONSTRUCTION SURVEYING – SEGMENTED BREAKWATERS	V-521
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SECTION 523 ROCK RIPRAP BREAKWATERS.....	V-523
SECTION 530 SAND BERM – GEOTUBE REVETMENT	V-530
SECTION 531 CONSTRUCTION SURVEYING – GEOTUBE REVETMENT	V-531
SECTION 532 GEOTUBES	V-532
SECTION 533 ROCK RIPRAP REVETMENT	V-533

Construction Plans

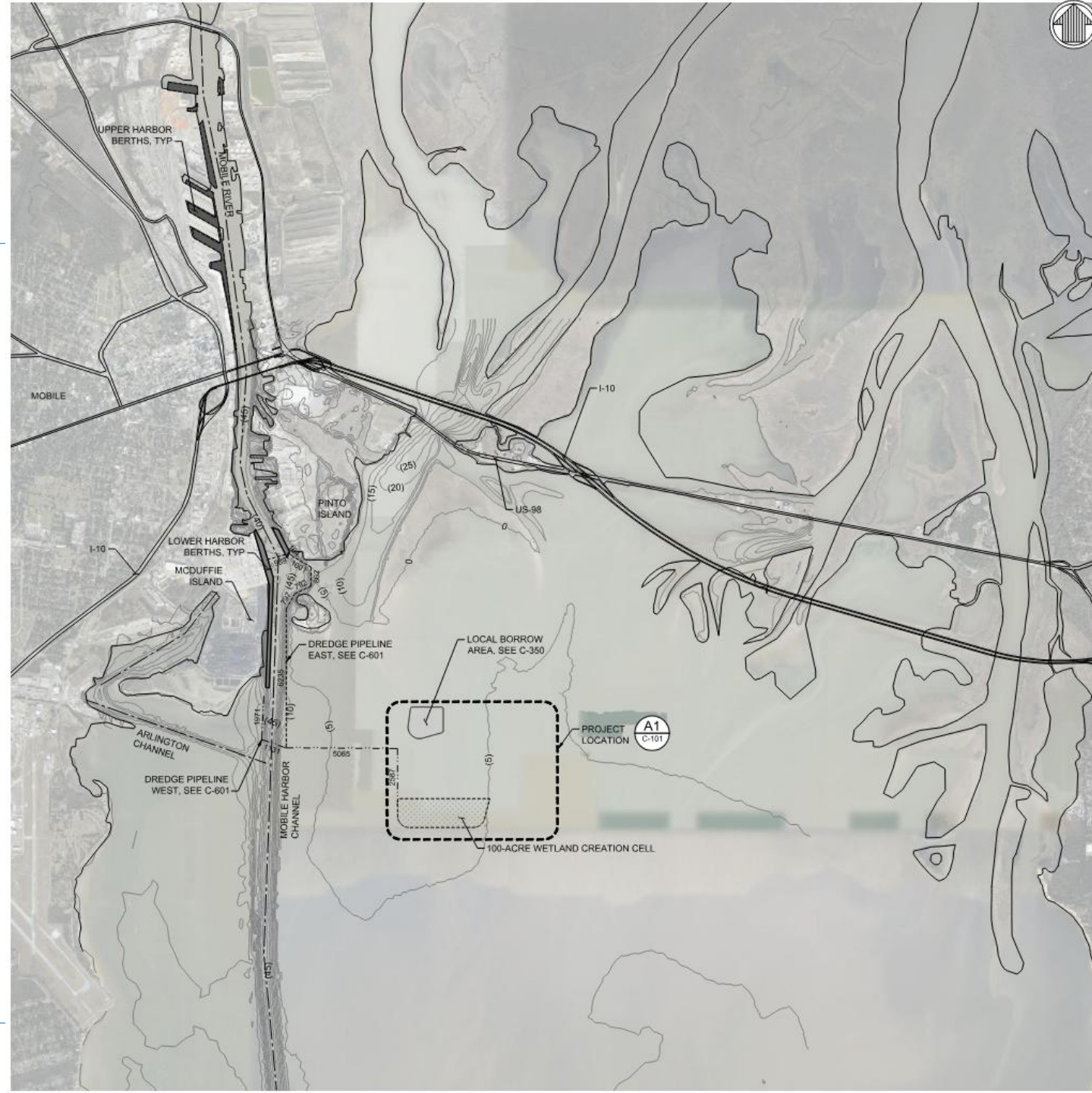
› 57 sheets

DRAWING INDEX		
INDEX NO.	SHEET NO.	SHEET TITLE
GENERAL SHEETS		
1	G-001	TITLE SHEET
2	G-002	INDEX SHEET & NOTES
3	G-003	GENERAL NOTES
SURVEY AND GEOTECHNICAL		
4	V-101	GENERAL CONDITIONS (1 OF 2)
5	V-102	GENERAL CONDITIONS (2 OF 2)
6	B-101	GENERAL SOIL BORING LOGS PLAN
CIVIL		
7	C-100	OVERALL CIVIL SITE PLAN
8	C-101	WETLAND CREATION, BREAKWATERS AND BORROW AREA SITE LAYOUT
9	C-102	WETLAND CREATION, GEOTUBES AND BORROW AREA SITE LAYOUT
10	C-301	WETLAND CREATION AREA TYPICAL SECTION
11	C-302	CONTAINMENT DIKE TYPICAL SECTIONS (1 OF 3)
12	C-303	CONTAINMENT DIKE TYPICAL SECTIONS (2 OF 3)
13	C-304	CONTAINMENT DIKE TYPICAL SECTIONS (3 OF 3)
14	C-320	BREAKWATER PLAN & SECTIONS (1 OF 5)
15	C-321	BREAKWATER PLAN & SECTIONS (2 OF 5)
16	C-322	BREAKWATER PLAN & SECTIONS (3 OF 5)
17	C-323	BREAKWATER PLAN & SECTIONS (4 OF 5)
18	C-324	BREAKWATER PLAN & SECTIONS (5 OF 5)
19	C-325	BREAKWATER SECTIONS (1 OF 5)
20	C-326	BREAKWATER SECTIONS (2 OF 5)
21	C-327	BREAKWATER SECTIONS (3 OF 5)
22	C-328	BREAKWATER SECTIONS (4 OF 5)
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24	C-330	GEOTUBE PLAN & SECTIONS (1 OF 5)
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37	C-344	NORTHERN DIKE & BORROW DITCH SECTIONS (4 OF 5)
38	C-345	NORTHERN DIKE & BORROW DITCH SECTIONS (5 OF 5)
39	C-350	LOCAL BORROW AREA PLAN
40	C-351	LOCAL BORROW AREA SECTIONS (1 OF 3)
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42	C-353	LOCAL BORROW AREA SECTIONS (3 OF 3)
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44	C-502	TURBIDITY CURTAIN DETAIL
45	C-601	GENERAL COORDINATES TABLES
46	C-602	BREAKWATER COORDINATES TABLES
47	C-603	GEOTUBES COORDINATES TABLES
STRUCTURAL		
48	S-001	STRUCTURAL NOTES
49	S-101	WEIR PLAN - BREAKWATER
50	S-102	WEIR PLAN - GEOTUBE
51	S-301	WEIR SECTION (1 OF 2)
52	S-302	WEIR SECTION (2 OF 2)
53	S-501	BOX RISER WEIR DETAILS (1 OF 2)
54	S-502	BOX RISER WEIR DETAILS (2 OF 2)
55	S-503	DECK CONNECTION DETAILS
56	S-504	PIPING CONNECTION
57	S-505	LADDER AND GUARDRAILS

4. Plans and Specifications Overview

RFP Overview

- › The Engineering Department of the Alabama Port Authority (APA) will receive sealed proposals from qualified Contractors to provide bonds, labor, equipment, materials, and supervision for the construction of a 100-acre wetland creation cell located in northern Mobile Bay.
- › The containment structures are proposed to consist of:
 - › Northern segment: an earthen dike to be constructed of in-situ material adjacent to the dike,
 - › Eastern, southern, western segments either:
 - › 1) sand berm with segmented rock riprap breakwater shoreline protection, or
 - › 2) sand berm with geotextile tube/rock riprap revetment shoreline protection.



Scope of Work

- › The work consists principally of providing bonds, plant, labor, materials, equipment, and supervision necessary to furnish and perform all work associated with the Upper Mobile Bay Beneficial Use Wetlands Creation Site (Implementation) – Phase 1 Project.
- › This project consists of constructing an overall containment structure, which generally includes:
 - › segmented rock riprap breakwaters / sand bermOR
 - › Geotextile tubes / rock riprap revetment / sand bermAND
 - › earthen containment dike
 - › weir box
 - › other ancillary work including surveys, turbidity control, and permanent signage

Price Schedules

- › Three (3) different schedules of prices are included with this solicitation. Contractors are encouraged to submit proposals for all three (3) schedules. However, Proposals for any individual schedule or combination of schedules will be considered.
- › Schedule "A" requires an offsite sand source with a minimum D50 of 0.2 mm.
- › Schedule "B" requires a sand sourced from the local borrow area as shown in the Drawings.
- › Schedule "C" requires the use of geotextile tubes and a sand source with a minimum D50 of 0.2 mm.

Schedule A

SCHEDULE OF PRICES					
FORM A - D50>0.2 MM SAND; SEGMENTED BREAKWATERS WITH SAND BERM					
LINE ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	Total Cost
001	MOBILIZATION	1	LS		
002	CONSTRUCTION SURVEYING	1	LS		
003	NORTH DIKE CONSTRUCTION	4,175	LF		
004	BEDDING LAYER	15,600	TN		
005	UNDERLAYER STONE - ALDOT CLASS 2	22,100	TN		
006	GRADED ROCK RIPRAP - ALDOT CLASS 5	62,270	TN		
007	GEOTEXTILE	46,000	SY		
008	SAND BERM CONSTRUCTION	207,000	CY		
009	ENVIRONMENTAL PROTECTION AND TURBIDITY CONTROL	1	LS		
010	WEIR BOX	1	LS		
011	PERMANENT WARNING SIGNS	24	EA		
012	SUPPLEMENTAL TURBIDITY – TYPE II	1	100 LF-MONTH		
013	SUPPLEMENTAL TURBIDITY – BOTTOM SEALING	1	100 LF-MONTH		
014	DEMOBILIZATION	1	LS		
PRICE SCHEDULE "A" TOTAL COST					

Schedule B

SCHEDULE OF PRICES					
FORM B – LOCAL BORROW AREA; SEGMENTED BREAKWATERS WITH SAND BERM					
line ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	Total Cost
101	MOBILIZATION	1	LS		
102	CONSTRUCTION SURVEYING	1	LS		
103	NORTH DIKE CONSTRUCTION	4,175	LF		
104	BEDDING LAYER	15,600	TN		
105	UNDERLAYER STONE - ALDOT CLASS 2	22,100	TN		
106	GRADED ROCK RIPRAP - ALDOT CLASS 5	62,270	TN		
107	GEOTEXTILE	46,000	SY		
108	SAND BERM CONSTRUCTION	207,000	CY		
109	ENVIRONMENTAL PROTECTION AND TURBIDITY CONTROL	1	LS		
110	WEIR BOX	1	LS		
111	PERMANENT WARNING SIGNS	24	EA		
112	SUPPLEMENTAL TURBIDITY – TYPE II	1	100 LF-MONTH		
113	SUPPLEMENTAL TURBIDITY – BOTTOM SEALING	1	100 LF-MONTH		
114	DEMOBILIZATION	1	LS		
PRICE SCHEDULE "B" TOTAL COST					

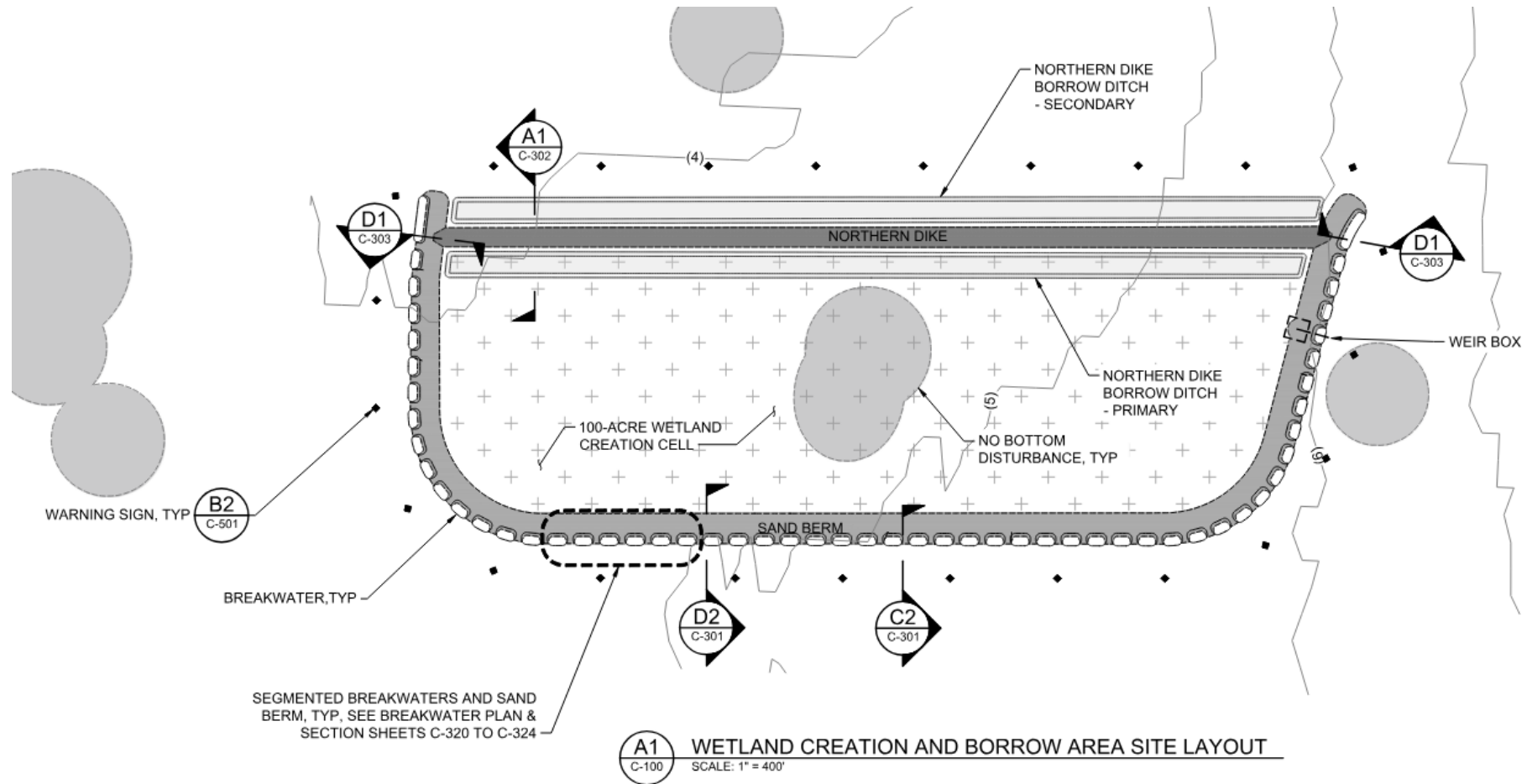
Schedule C

SCHEDULE OF PRICES					
FORM C - D50>0.2 MM; GEOTUBE REVETMENT					
LINE ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	Total Cost
201	MOBILIZATION	1	LS		
202	CONSTRUCTION SURVEYING	1	LS		
203	NORTH DIKE CONSTRUCTION	4,240	LF		
204	BEDDING LAYER	14,000	TN		
205	GEOTUBE	20,000	LF		
206	GRADED ROCK RIPRAP - ALDOT CLASS 5	74,787	TN		
207	GEOTEXTILE	45,000	SY		
208	SAND BERM CONSTRUCTION	124,000	CY		
209	ENVIRONMENTAL PROTECTION AND TURBIDITY CONTROL	1	LS		
210	WEIR BOX	1	LS		
211	PERMANENT WARNING SIGNS	24	EA		
212	SUPPLEMENTAL TURBIDITY – TYPE II	1	100 LF-MONTH		
213	SUPPLEMENTAL TURBIDITY – BOTTOM SEALING	1	100 LF-MONTH		
214	DEMOBILIZATION	1	LS		
PRICE SCHEDULE "C" TOTAL COST					

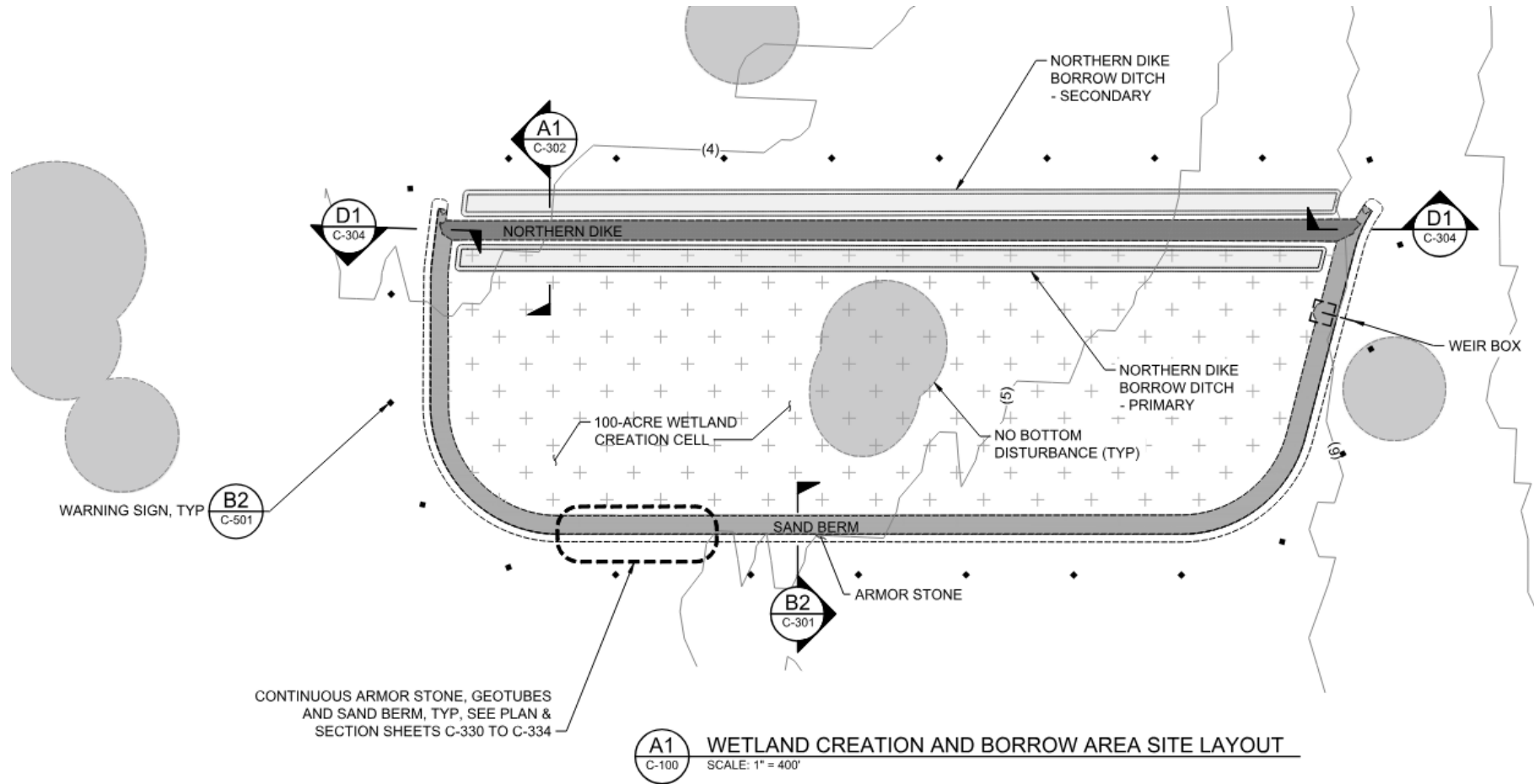
Estimated Quantities Notes

- › From Sheet G-002:
- › Northern dike fill quantity is the neat line quantity to design lines, grades, and elevations, not including horizontal or vertical tolerances.
- › Sand berm fill quantity is the neat line quantity to design lines, grades, and elevations, not including horizontal or vertical tolerances.
- › Bedding stone, ALDOT Class 2, and ALDOT Class 5 stone quantities are calculated as fill volume to design lines, grades, and elevations multiplied by a bulk density of 1.5 tons/cy.
- › Owner reserves and shall have the right to make such alterations in the work as may be necessary or desirable to complete the work originally intended in an acceptable manner. See Section 50-02 of Division IV - General Provisions, Clauses, Requirements, and Covenants.

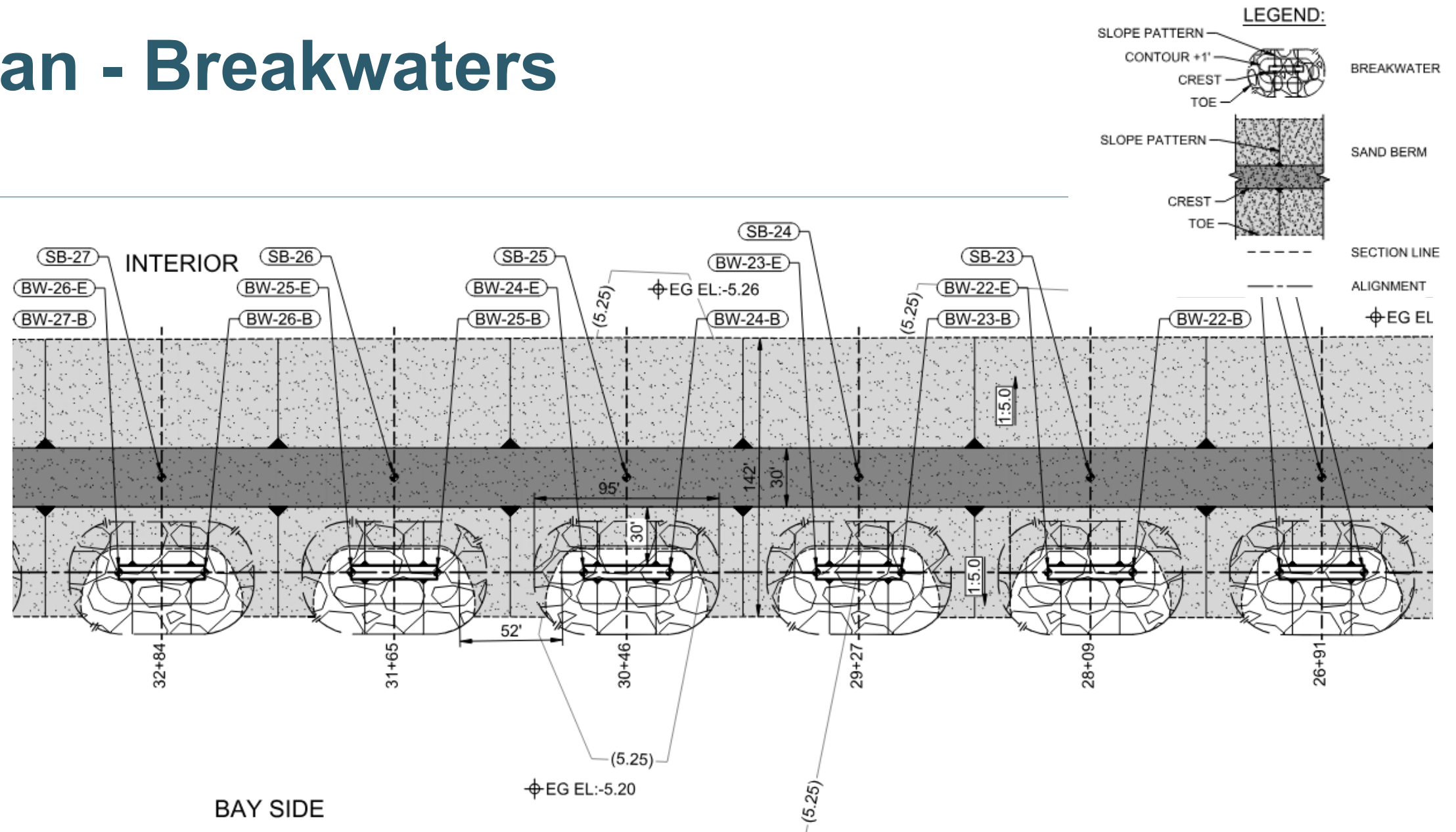
Price Schedule A and B – Containment Layout



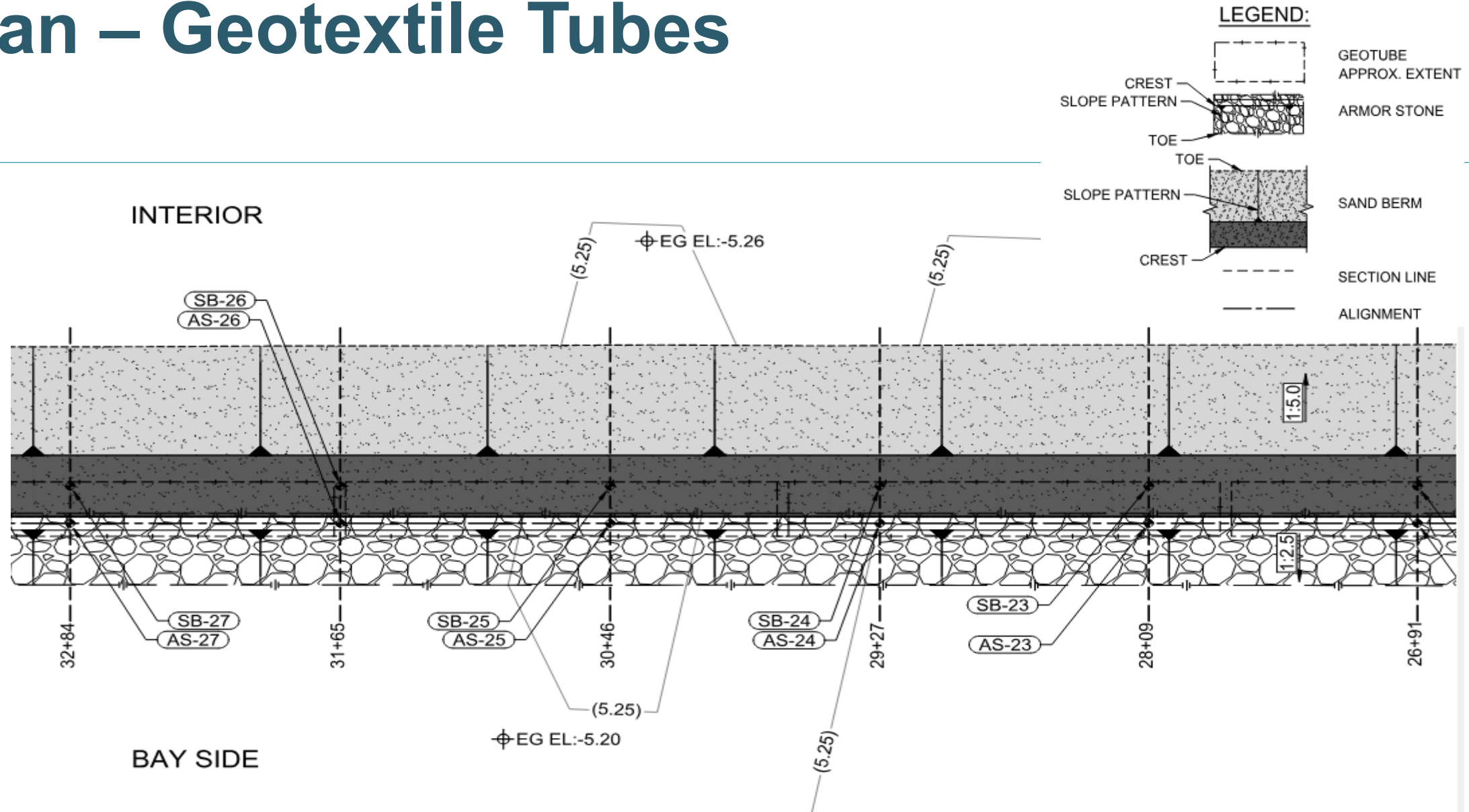
Price Schedule C – Containment Layout



Plan - Breakwaters

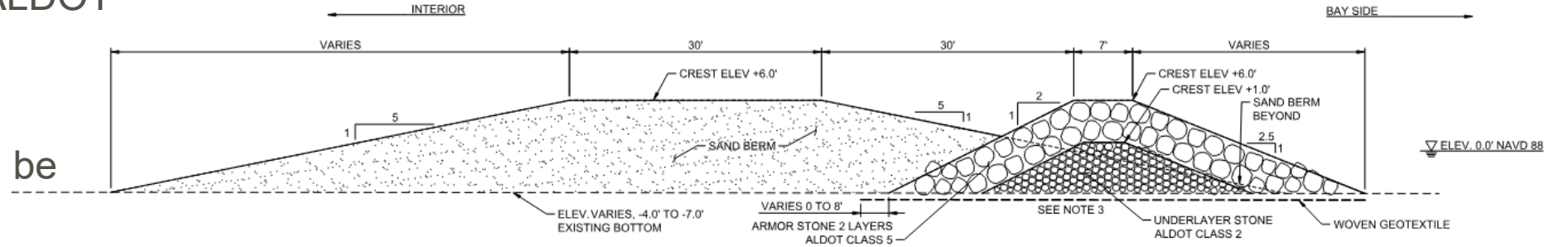


Plan – Geotextile Tubes

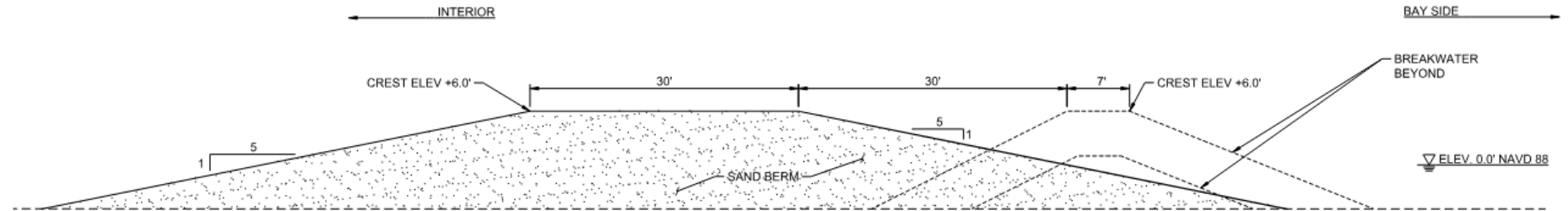


Section View - Breakwater

- › Armor stone shall be ALDOT Class 5.
- › Underlayer stone shall be ALDOT Class 2.



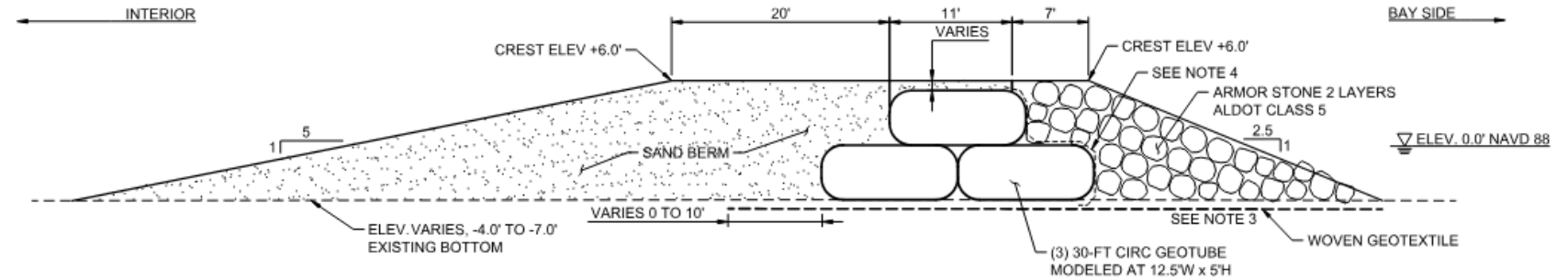
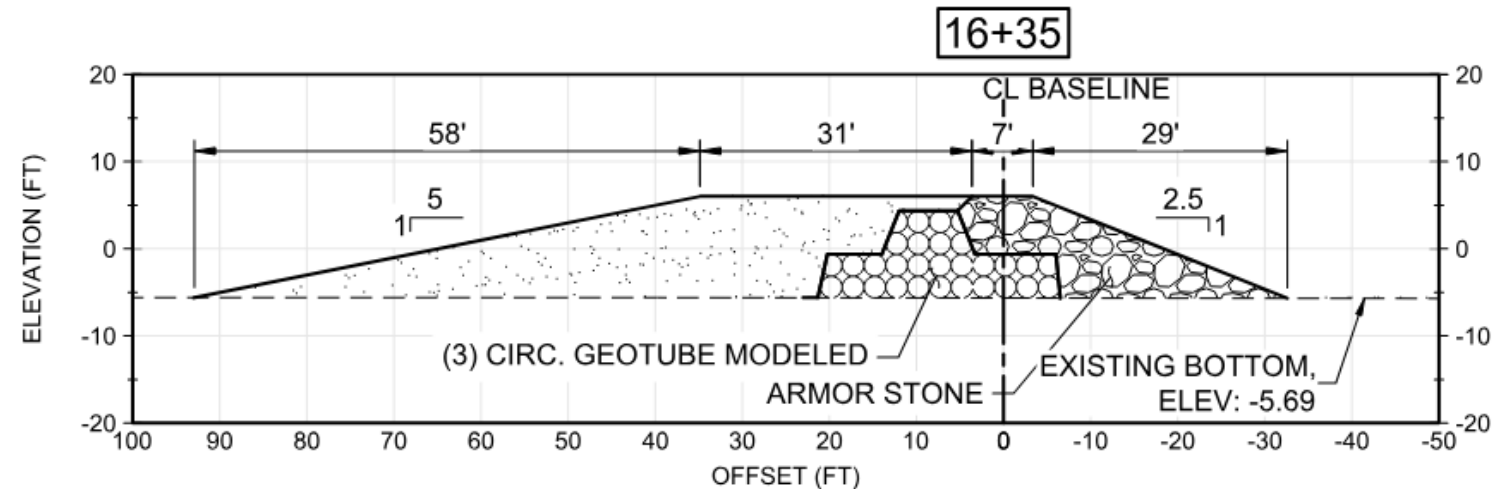
D2 SECTION VIEW - BREAKWATER
C-101 SCALE: 1" = 8'



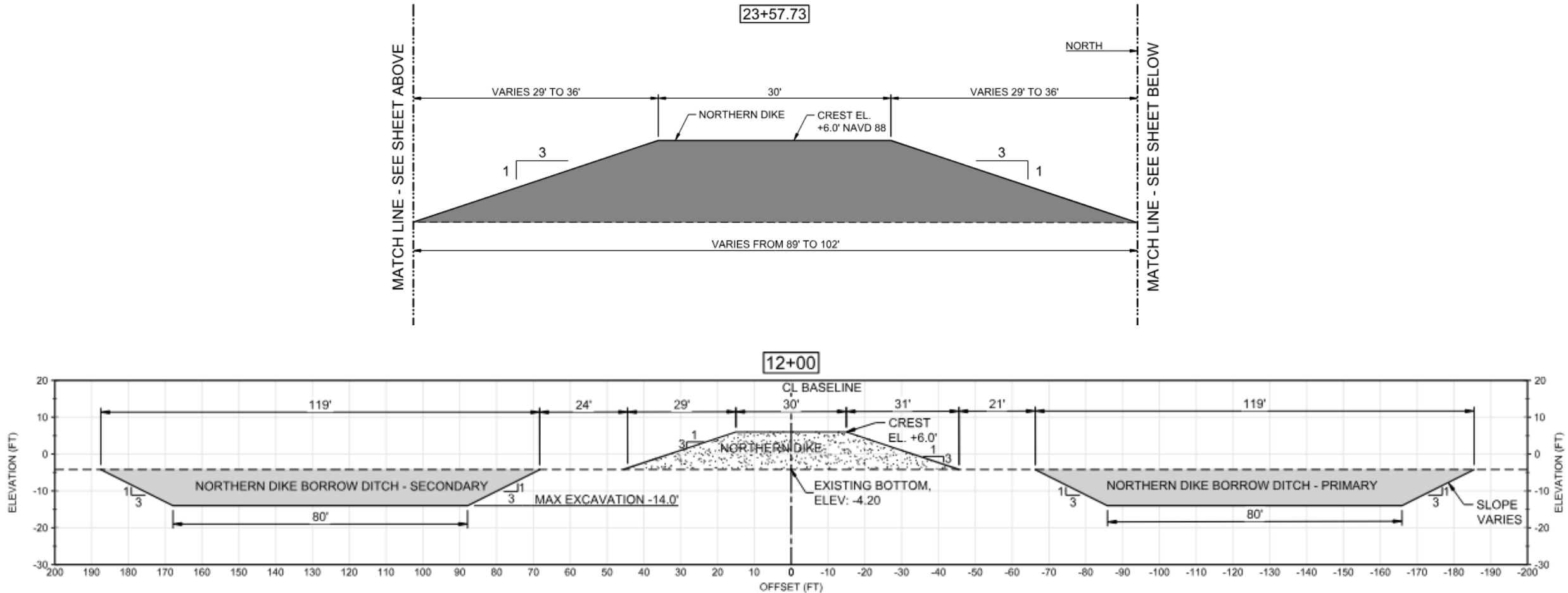
C2 SECTION VIEW - GAP
C-101 SCALE: 1" = 8'

Section View – Geotextile Tubes

- › Armor stone shall be ALDOT Class 5.
- › The geotextile tube envelope shown represents the approximate extents of the geotextile tubes and is based on a design volume of approximately 2 cy/lf per geotextile tube.
- › The depicted geometry is intended for conceptual and design representation only and does not reflect the exact as-constructed cross section of the geotextile tubes.



Section View – Northern Dike



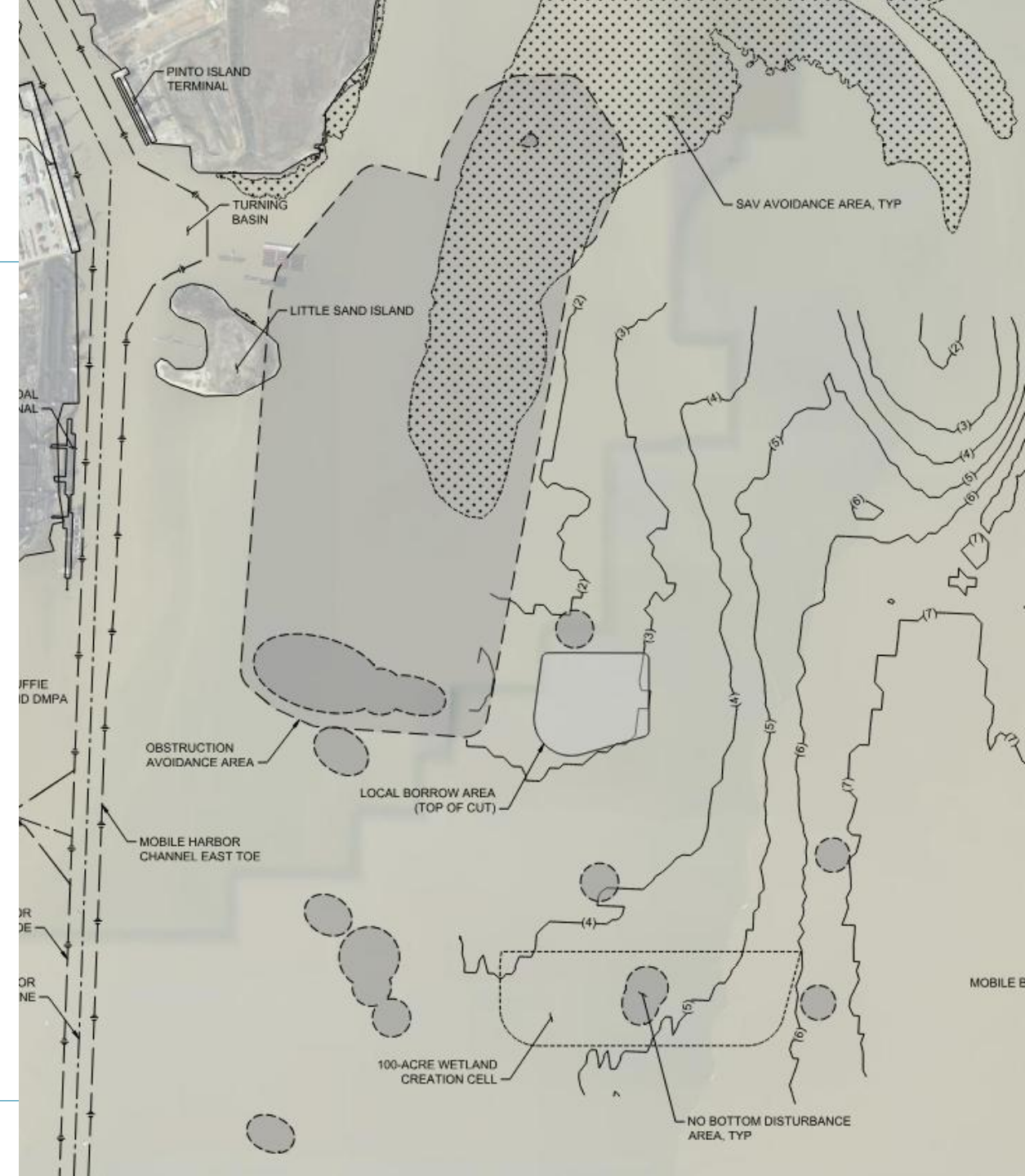
Existing Conditions

- › Changes to the existing conditions based on the 2021 design survey should be expected. Changes shall be determined by the pre-construction survey performed by the Contractor prior to construction.
- › Locations of existing features are based on available information and are not intended to represent all existing features.
- › Submerged features not detected during the survey may exist.



General Notes

- › On Sheet V-101 note that there are:
 - › NO BOTTOM DISTURBANCE AREAS, and
 - › AVOIDANCE AREAS
- › No construction equipment or activities may operate, transit, stage, or store within the avoidance areas as shown on Sheet V-101.
- › No bottom disturbance shall be made within identified avoidance areas, identified obstruction avoidance areas, or environmentally sensitive areas, including existing sav beds or existing wetlands, as shown on Sheet V-101.
- › Avoidance areas are no-work zones identified as containing cultural resources. Contractor personnel, materials, and equipment shall avoid these areas, and under no circumstances shall the contractor perform work activities within these areas.
- › No bottom disturbance areas are identified as containing potential buried cultural resources. The Contractor may perform work activities within these areas but shall not disturb the water bottom.



Survey Notes

- › Surveying work includes topographic, hydrographic, and magnetometer surveys.
- › Surveys include pre-construction, progress, and as-built surveys.
- › Require an Alabama-licensed independent Professional Land Surveyor.
- › Magnetometer surveys are required within dredging-related work areas, including the local borrow area and anticipated dredge pipeline corridors. Magnetometer surveys are not anticipated for the breakwater, dike, berm, or weir box footprints unless additional bottom-disturbing operations are proposed by the Contractor.
- › LiDAR explicitly allowed at the USACE Sunflower DMPA, and the Northern Dike for Lift 1 and 2
 - › Otherwise required Engineer approval

Rock Construction Notes

- › Rock riprap shall not be sedimentary rock. It shall have a minimum solid unit weight of at least 165 pounds per cubic foot.
- › Rock riprap breakwaters or revetment shall have a vertical tolerance of ± 0.5 ft for acceptance.
- › The rock riprap breakwaters or rock riprap revetment shall be underlain by woven geotextile.
- › Flotation access channels outside (bayward) of the breakwaters are not allowed per project permit
- › Flotation access channels inside of the breakwaters are allowed but must not impact project features
 - › Flotation access channels are not a pay item – they are solely the responsibility of the Contractor
 - › For example, no excavation within footprint of sand berm unless its filled back in prior to sand berm construction – any extra sand required as a result would be responsibility of the Contractor
 - › Turbidity from access channel spoil piles would also be the responsibility of the Contractor

Rock Construction Notes

- › Rock tonnage measurement shall be by barge
- › Breakwater acceptance is based on constructed lines, grades, elevations, and tolerances
- › Payment is for in-place rock with tonnage deductions for rock placed outside within lines, grades, elevations, and tolerances
- › Tonnage overrun is capped at 3,000 tons to incentivize placing rock to the target lines, grades, and elevations

Bedding Stone

- › The Contractor may place up to 1 foot of sacrificial foundation material consisting of the "least-cost suitable stone material available"
- › Progress surveys are required to demonstrate bedding stone placement and acceptance
- › Measurement and payment based on tonnage
- › Bedding Stone may be:
 - › Crushed concrete (free of rebar)
 - › Quarry run stone
 - › Gravel
 - › Other Engineer-approved material
- › If approved crushed concrete riprap has a demonstrated bulk density greater than 1.50 tons per cubic yard, the payable quantity shall be adjusted by the ratio of 1.50 tons per cubic yard divided by the approved crushed concrete bulk density (tons per cubic yard).

Local Borrow Area Dredging Notes

- › The local borrow area may be used to construct the sand berm feature.
- › The local borrow area materials may not be used to construct the northern dike or to fill geotextile tubes.
- › Borrow area volume is approximately 1.15 million cubic yards (neat line).
- › Dredging shall not occur below elevation -20.0 ft, which includes a 2-ft overdredge tolerance.
- › 24-hour dredging is allowable.
- › The contractor shall make their own determination of sediment characteristics within the local borrow area based on the soil data provided in Appendix A of the construction specifications.
- › The contractor alone is responsible for determining the cut volume required to construct the sand berm, which is paid based on the fill quantity.
- › There is no separate payment for dredging – costs shall be included in Contractor Price for Sand Berm.

Local Borrow Area Sediment Characteristics

PROJECT NAME: ASPA UPPER BAY
BENEFICIAL USE WETLAND CREATION
SITE
G.E.T. PROJ. NUMBER: 21-126
PROJECT LOCATION: MOBILE, ALABAMA
DRILL RIG: SIMCO 2400
DRILL METHOD: MUD ROTARY
REMARKS:

DATE DRILLED: 7/12/21
BORING DEPTH: 21 FT.
BORING ELEV.: -3.3 FT.
DATUM: MLLW
WATER DEPTH: 5'
BORING NUMBER: B-39
BORING LOCATION:
N30° 38.7912'
W88° 00.6986'

**GEOTECHNICAL
ENGINEERING
TESTING, INC.**

N: 235494 E: 1807607

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	W.C. %	ATTERBERG LIMITS		DRY UNIT WT. pcf	% MINUS #200	SHEAR STRENGTH tsf	UNIFIED CLASS
							L.L.	P.I.				
0	0			1	3							
-5	5		Very loose dark gray silty sand	2	4	35	NP	NP		18.1		SM
-10	10			3	2							
-15	15		Loose dark gray silty sand w/ trace shell	4	5	33	NP	NP		17.4		SM
-20	20			5	4							
-25	25		Very soft dark gray sandy clay w/ trace shell	6	2	39	38	16		58.2		CL
-30	30			7	2							
-35	35		Soft dark gray sandy clay	T-1								
-40	40			8	2							

B.T. @ 21 FT

PROJECT NAME: ASPA UPPER BAY
BENEFICIAL USE WETLAND CREATION
SITE
G.E.T. PROJ. NUMBER: 21-126
PROJECT LOCATION: MOBILE, ALABAMA
DRILL RIG: SIMCO 2400
DRILL METHOD: MUD ROTARY
REMARKS:

DATE DRILLED: 7/12/21
BORING DEPTH: 23.5 FT.
BORING ELEV.: -3.1 FT.
DATUM: MLLW
WATER DEPTH: 5'
BORING NUMBER: B-40
BORING LOCATION:
N30° 38.8689'
W88° 00.6981'

**GEOTECHNICAL
ENGINEERING
TESTING, INC.**

N: 235965 E: 1807611

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	W.C. %	ATTERBERG LIMITS		DRY UNIT WT. pcf	% MINUS #200	SHEAR STRENGTH tsf	UNIFIED CLASS
							L.L.	P.I.				
0	0			1	4	33	NP	NP		19.4		SM
-5	5		Loose dark gray silty sand w/ trace shell	2	4							
-10	10			3	5	34	NP	NP		19.0		SM
-15	15			4	5							
-20	20		Loose dark gray silty sand	5	4	31	NP	NP		18.0		SM
-25	25			6	4							
-30	30		Soft dark gray sandy clay	7	2	36	34	11		51.8		CL
-35	35			8	2						c*=0.07	
-40	40		Soft dark gray clay w/ trace shell	T-1		51	60	40	71	96.0	c*=0.14	CH
-45	45			9	2						c*=0.03	

B.T. @ 23.5 FT

Local Borrow Area Sediment Characteristics

PROJECT NAME: ASPA UPPER BAY
 BENEFICIAL USE WETLAND CREATION
 SITE
G.E.T. PROJ. NUMBER: 21-126
PROJECT LOCATION: MOBILE, ALABAMA
DRILL RIG: SIMCO 2400
DRILL METHOD: MUD ROTARY
REMARKS:

DATE DRILLED: 8/24/21
BORING DEPTH: 80 FT.
BORING ELEV.: -6.2 FT.
DATUM: MLLW
WATER DEPTH: 7'
DRILL CREW: ES, BT,
 CG(LOGGER)

**GEOTECHNICAL
ENGINEERING
TESTING, INC.**
BORING NUMBER: B-51
BORING LOCATION:
 N30° 38.9616'
 W88° 00.4189'
N: 236520 E: 1809076

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		W.C.		ATTERBERG LIMITS		DRY UNIT WT. pcf	% MINUS #200	SHEAR STRENGTH tsf	UNIFIED CLASS
					N _i		%		L.L.	P.I.				
			Very soft gray & brown silty clay w/ organics	1	2									
-10	5			2	WOH									
			Loose & very loose dark gray silty sand w/ traces of shell	3	4	32					24.1			
-15	10			4	10									
			Soft dark gray sandy silt	5	3	29					62.0			
-20	15		Very loose greenish gray silty clayey sand	6	WOH									
				7	WOH									
			Very soft greenish gray sandy clay	8	WOH									

PROJECT NAME: ASPA UPPER BAY
 BENEFICIAL USE WETLAND CREATION
 SITE
G.E.T. PROJ. NUMBER: 21-126
PROJECT LOCATION: MOBILE, ALABAMA
DRILL RIG: SIMCO 2400
DRILL METHOD: MUD ROTARY
REMARKS:

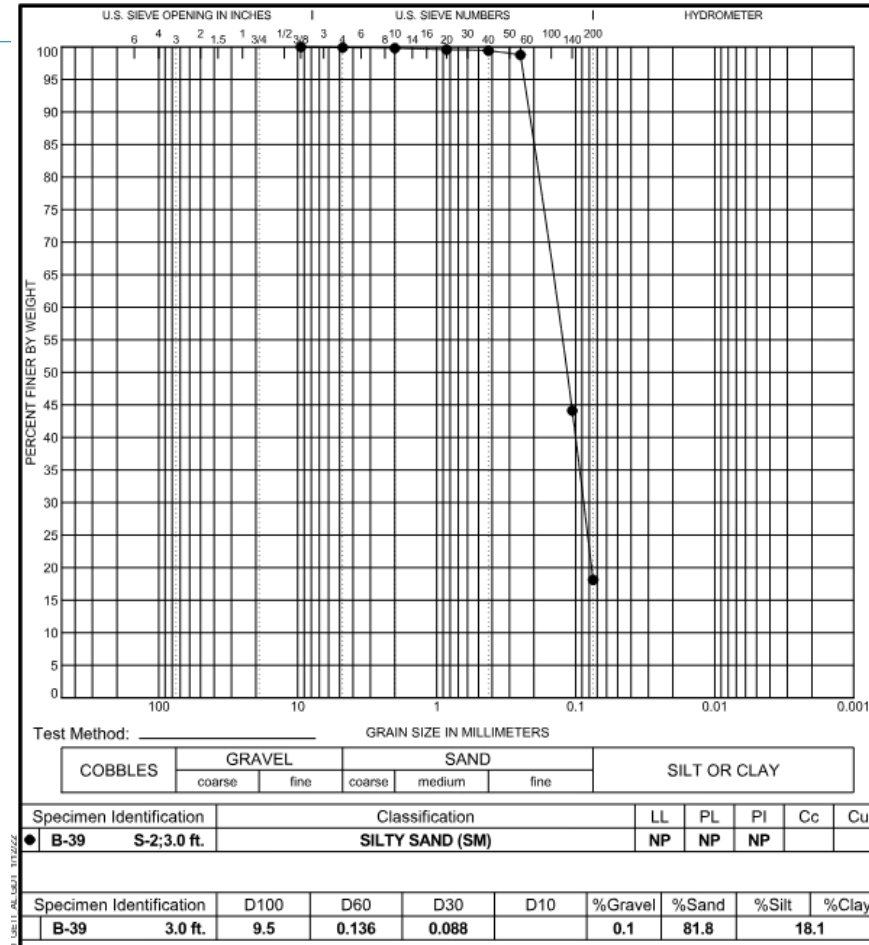
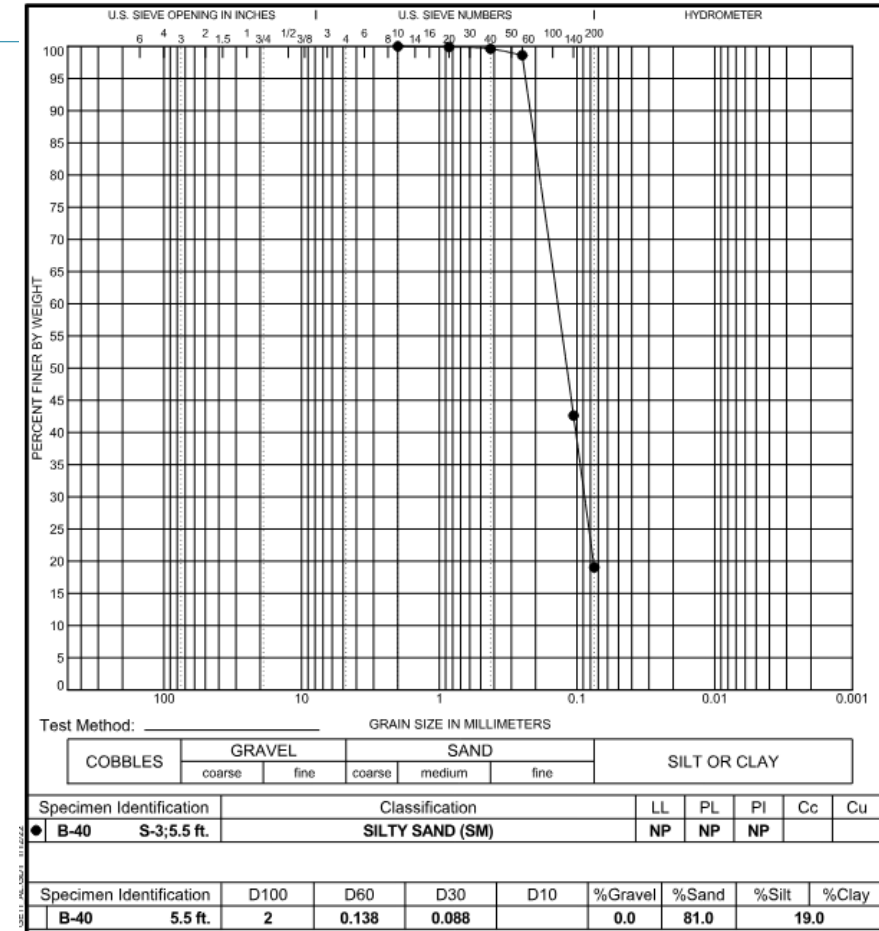
DATE DRILLED: 8/19/21
BORING DEPTH: 21 FT.
BORING ELEV.: -4.2 FT.
DATUM: MLLW
WATER DEPTH: 6'
DRILL CREW: ES, BT,
 CG(LOGGER)

**GEOTECHNICAL
ENGINEERING
TESTING, INC.**
BORING NUMBER: B-53
BORING LOCATION:
 N30° 38.7240'
 W88° 00.5308'
N: 235082 E: 1808483

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		W.C. %	ATTERBERG LIMITS		DRY UNIT WT. pcf	% MINUS #200	SHEAR STRENGTH tsf	UNIFIED CLASS
					N _i			L.L.	P.I.				
-5			Soft gray sandy clay	1	3								
			Very loose dark gray silty sand	2	2	34					28.4		
-10	5			3	2								
			Very loose dark gray silty sand w/ shell	4	2	28					25.4		
-15	10			T-1		32	30	7	87	34.7	c=0.56 φ=0°		SM
			Very loose dark gray silty sand w/ traces of shell	5	2								
-20	15			6	WOH								
				7	WOH	40					33.7		
			Very soft dark gray sandy clay	8	WOH								

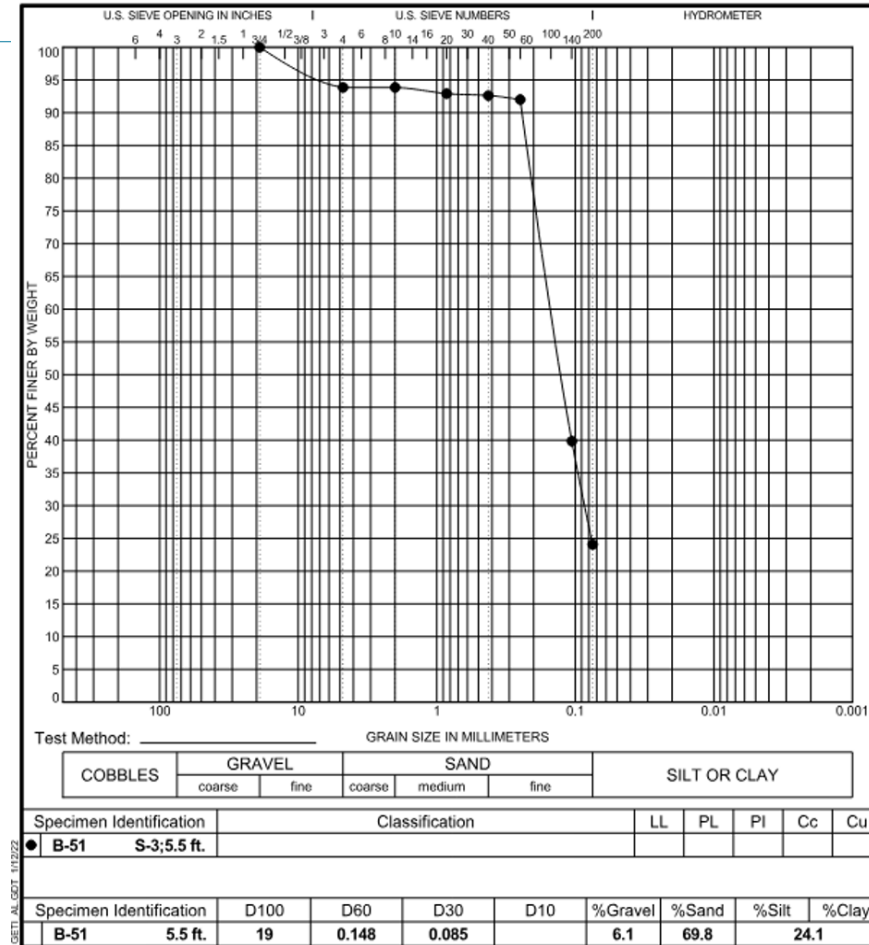
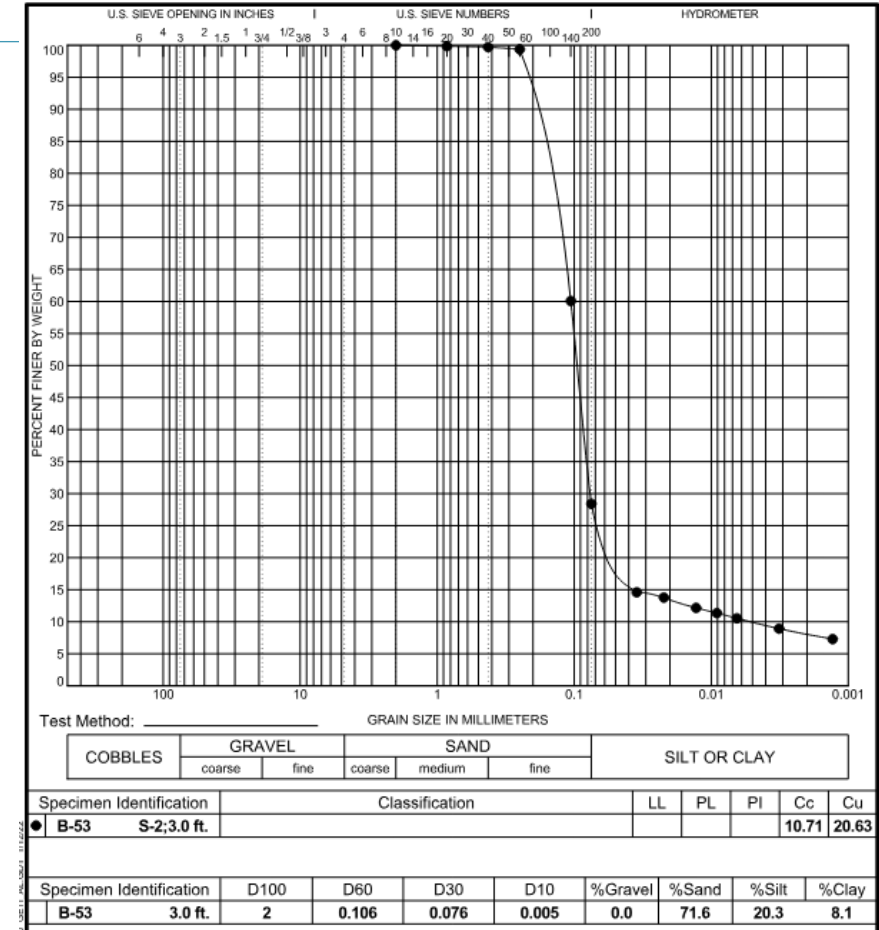
B-39 and B-40

- › B-39 Sample S-2 at 3.0 ft
- › D50 approx 0.12 mm
- › 82% sand
- › B-40 Sample S-3 at 5.5 ft
- › D50 approx 0.12 mm
- › 81% sand



B-51 and B-53

- › B-51 Sample S-3 at 5.5 ft
- › D50 approx 0.13 mm
- › 70% sand
- › B-53 Sample S-2 at 3.0 ft
- › D50 approx 0.10 mm
- › 72% sand

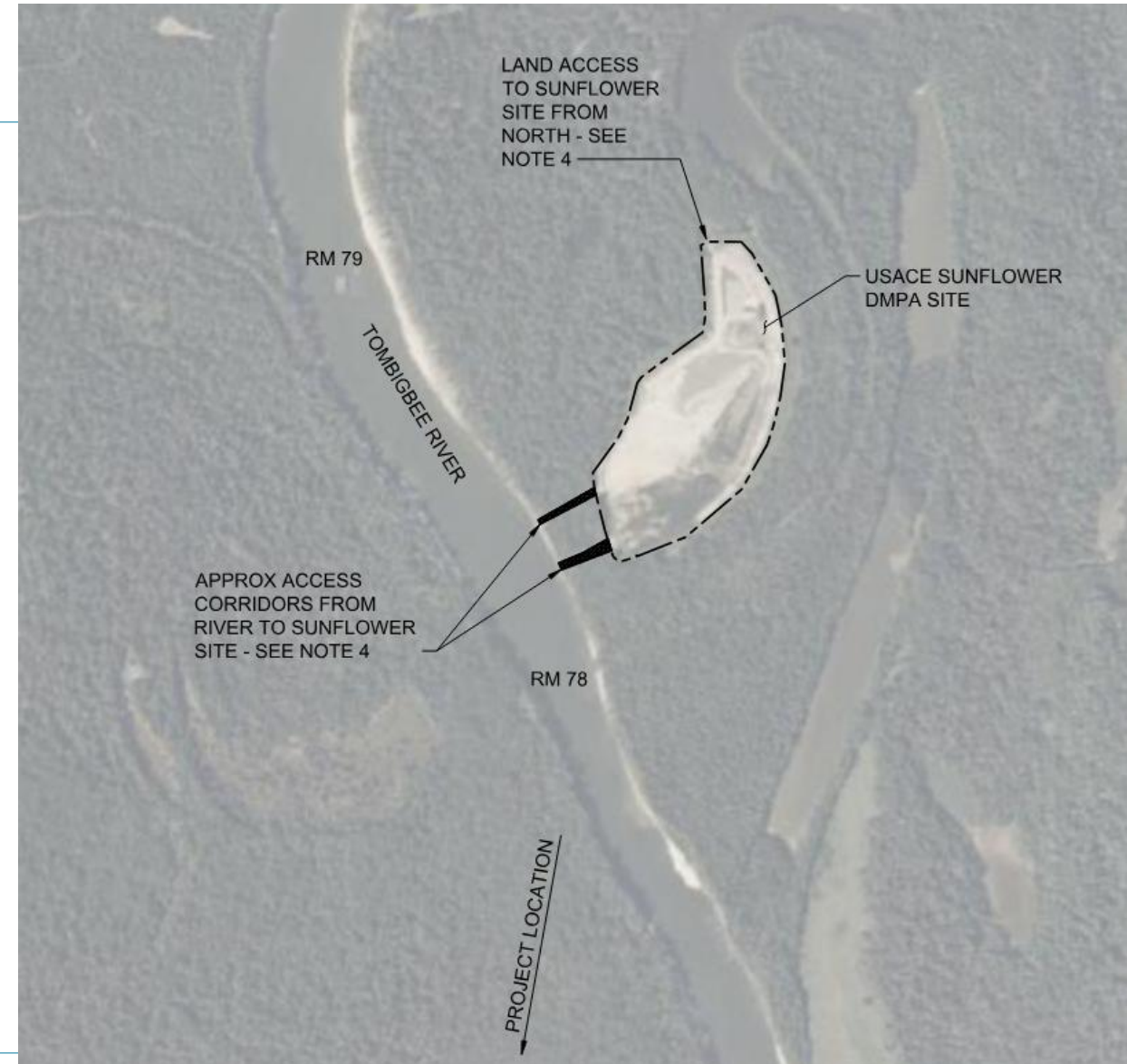


Alternative Sand Source Notes

- › Owner/Engineer will consider alternative sources of clean sand for construction of the sand berm and for filling geotextile tubes.
- › Sand shall have:
 - › minimum median grain size (D50) greater than 0.20 mm,
 - › fines content (percent passing the No. 200 sieve) of less than 10%
 - › shall be free of wood, trash, metal, roots, and clay lumps.
- › The USACE Sunflower Dredged Material Placement Area near River Mile 78 on the Tennessee-Tombigbee Waterway is a pre-approved source of sand for construction of the sand berm and filling geotextile tubes.

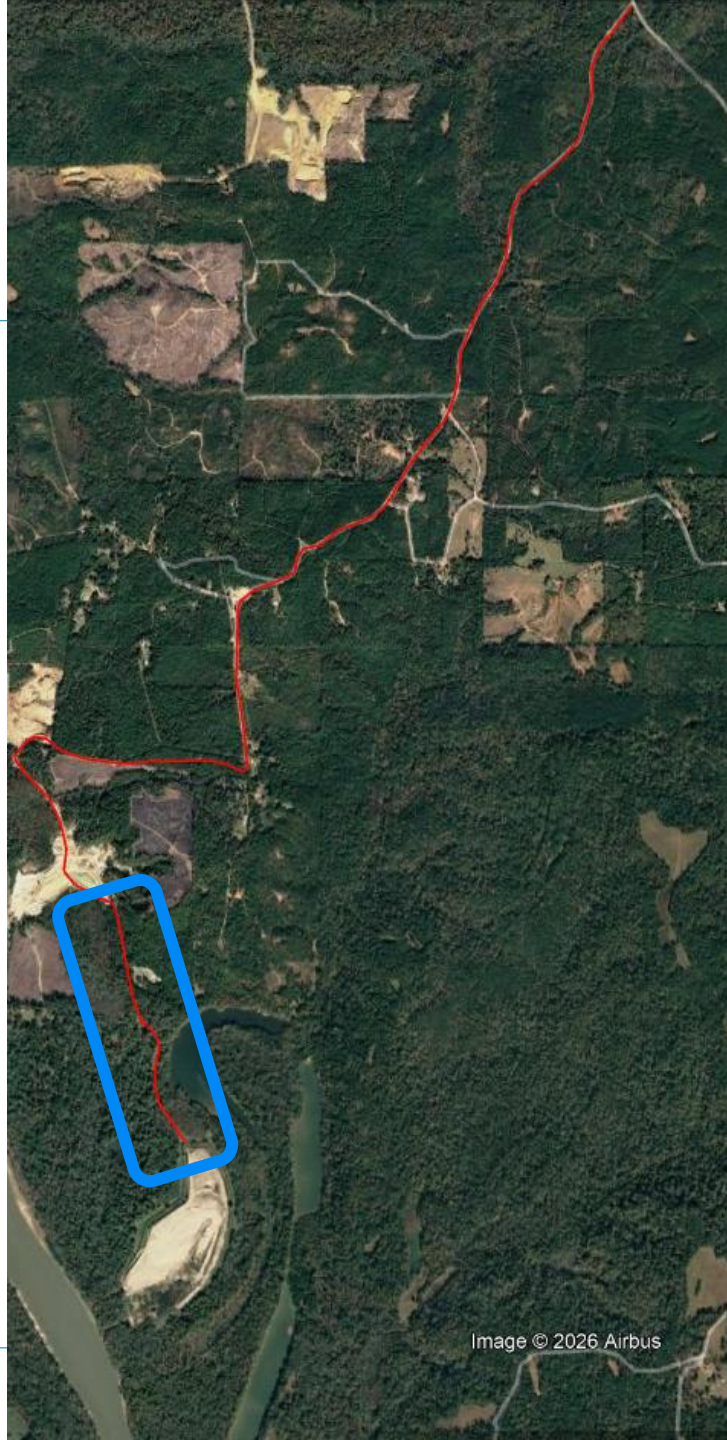
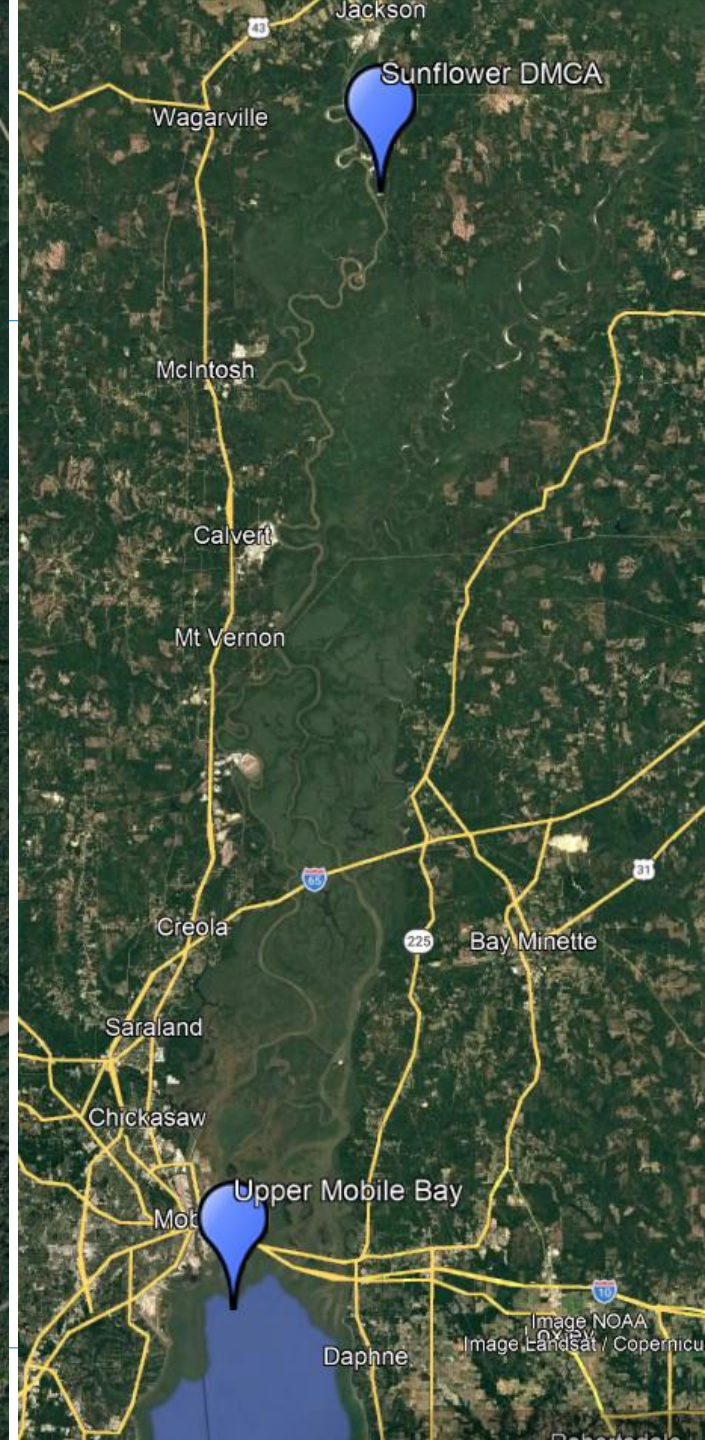
Sunflower DMPA

- › The USACE Sunflower Dredged Material Placement Area (DMPA) site is provided as an approved alternative sand source for use in the sand berm and/or for filling geotextile tubes.
- › The Contractor shall be solely responsible for all mobilizations and demobilizations, coordination and approvals, equipment, and other work required to obtain and transport sand from the Sunflower site, as well as any required site cleanup in accordance with USACE requirements.
- › The Engineer warrants that sufficient quantities of sand are available to construct the sand berm and fill the geotextile tubes.
- › The Contractor shall familiarize themselves with, and shall be solely responsible for, access by land and/or river to the Sunflower site. Access may be impacted during high- or low-water events. River access corridors shown are approximate and shall be coordinated with the USACE. Clearing and grubbing are permitted within the previously cleared extents of the corridor. Land access is contingent upon agreement with the landowner.
- › The bulk density of the sand is not known. The Contractor is encouraged to obtain this information prior to bidding and construction.
- › The Owner does not warrant the ease of operations at the Sunflower site, and the Contractor is encouraged to visit the site prior to bidding and construction.
- › There is no separate payment for excavation and transport from Sunflower – costs shall be included in Contractor Price for Sand Berm and/or Geotextile Tubes.



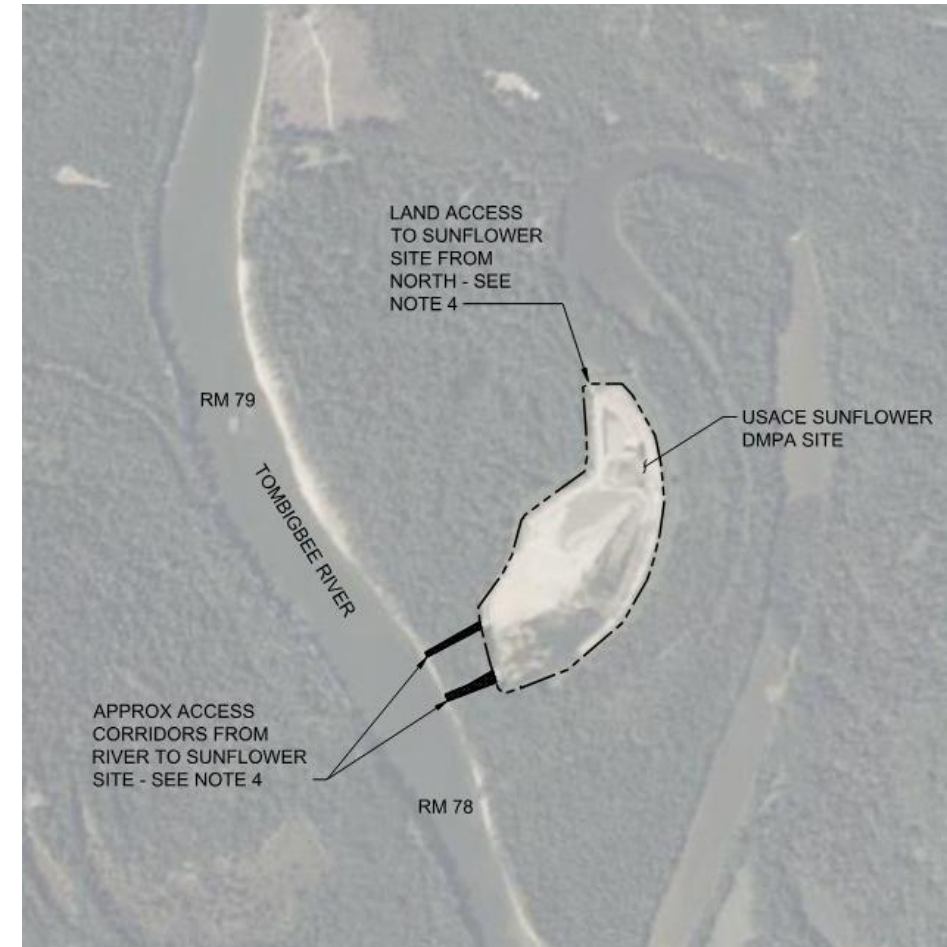
Sunflower DMPA Access

- › Contractor can enter into a no-cost agreement with the USACE to remove material from this pre-approved source.
- › USACE agreement covers water-based access.
- › There is a private landholder the contractor would need to make an agreement with for land-based access. The APA and USACE can help make contact.
- › Blue box portion of the road floods when Tombigbee river stage is > about 30 ft.



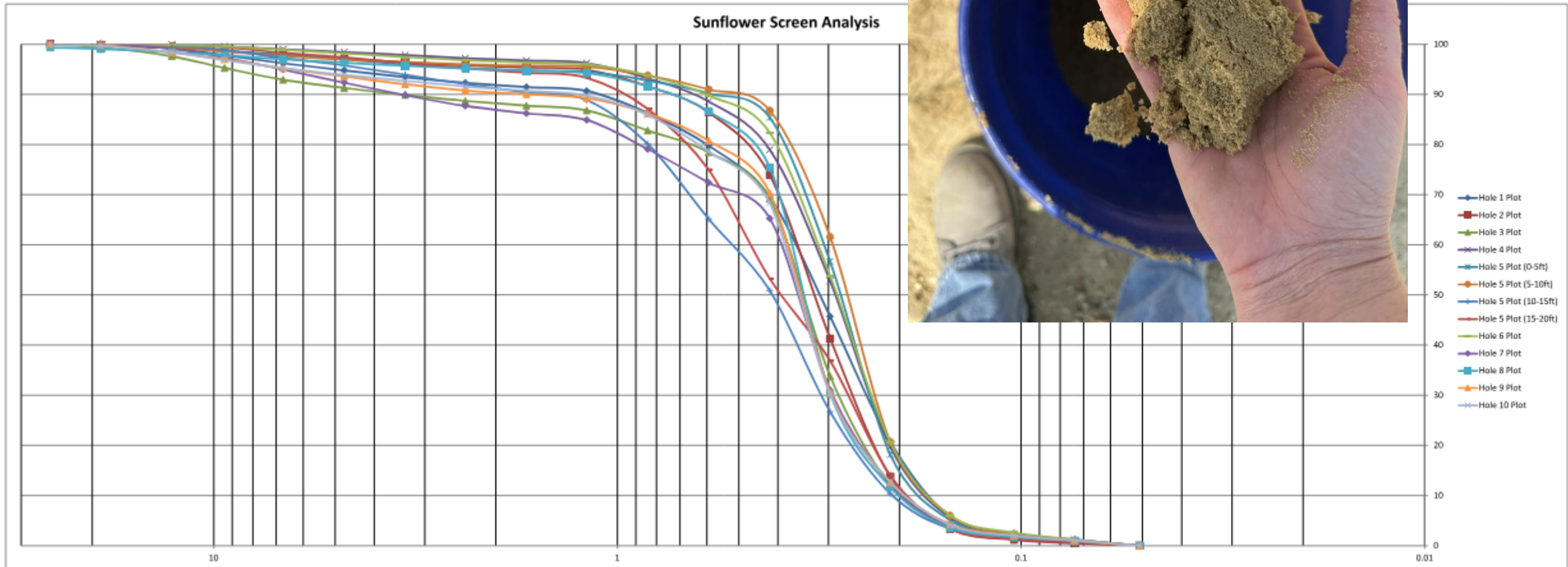
General Sunflower Rules

- › Contractor will be subject to the agreement they enter with the USACE.
- › Contractor will be allowed to clear and grub within the existing pipeline corridors.
- › Contractors may also put down sand excavated from within Sunflower to improve transit through the corridors.
- › Must maintain integrity of the containment of the site.
- › After excavation, site should maintain drainage towards the weir.



Sunflower DMPA Sand Characteristics

- › D50 approx. 0.3 to 0.4 mm
- › Approx. 1% fines







South
pipeline
corridor

North
pipeline
corridor

Weir
box





North
pipeline
corridor

South
pipeline
corridor

Weir
box

North pipeline corridor



South pipeline corridor



Sand Berm Notes

- › Sand berm construction may only proceed after approval of the adjacent segmented breakwaters or geotextile tubes such that the sand berm is not eroded by waves exterior to the site.
- › Work must proceed in construction acceptance segments of at least **500 LF** unless otherwise approved
 - › Engineer intends to be flexible with this, within reason
- › Contractor is responsible for selecting construction direction and sequence based on water depths, weather, seasonal conditions, and pumping distances
- › Contractor should review geotechnical information and adjust placement methods accordingly.
- ›

Sand Berm

Construction Considerations

- › Turbidity control must minimize sediment transport bayward of the breakwaters.
- › Contractor is responsible for temporary containment and training dikes.
- › Contractor bears all risk for losses due to inadequate containment.
- › Misplaced fill may require removal and replacement at Contractor expense within 5 days of Engineer direction.
- › Contractor is responsible for permit violations, fines, and associated corrective actions resulting from negligent operations.

Sand Berm Notes

Acceptance Timing

- › Acceptance surveys no sooner than 7 days after placement
- › Acceptance segment length 500 LF

Template Requirements

- › Elevation tolerance: ± 0.5 ft
- › Side slopes between 1V:3H and 1V:5H

Payment & Acceptance

- › Quantities determined from survey-to-survey volume calculations
- › Material outside the allowable template (including tolerance) is not payable

Northern Dike Notes

- › The northern dike shall be constructed mechanically.
- › Material for the northern dike shall be obtained from the primary and secondary borrow ditches shown on the Plans.
- › The northern dike shall be constructed in a minimum of three separate lifts.
- › It is expected that both the primary and secondary borrow ditches will be required to complete the northern dike.
 - › The primary borrow ditch shall be the principal source of material to the extent practical based on contractor equipment and means and methods.
 - › The Contractor may utilize the secondary borrow ditch, subject to approval by the Engineer, based on required borrow volumes and/or equipment reach or production limitations to minimize double handling of material.
- › The northern dike shall be constructed to elevation +6.0 ft with a vertical tolerance of ± 1.0 ft at the crest. The crest width shall be no less than the width shown on these drawings, and the side slopes shall be no steeper than those shown on these drawings.

Geotextile Tube Notes

- › Geotextile Tubes are a performance specification as outlined on Sheet G-003 and in the Specifications:
 - › 200-ft nominal length.
 - › 30-ft nominal circumference.
 - › Apparent opening size (AOS) shall be appropriately sized for material from the Sunflower borrow source or other approved source used to fill the geotextile tubes.
 - › Provide protection from rupture during rock placement.
 - › UV stabilized and warranted by the manufacturer for a minimum exposed service life of 10 years.
 - › Additional protective measures, such as non-woven geotextile, may be used to protect the geotextile tubes during rock riprap placement.
 - › The Contractor **shall be solely responsible** for repairing any geotextile tubes that rupture during construction prior to final acceptance.

Turbidity

- › Contractor is responsible for furnishing, installing, maintaining, monitoring, relocating, and removing all turbidity control measures required to comply with permits, regulations, and contractor means and methods.
- › Must be sufficient to maintain compliance with project water quality requirements.
- › A Turbidity Control & Environmental Protection Plan must be submitted within 7 calendar days of the pre-construction meeting.
- › Discharge from hydraulic dredging or hydraulic placement activities must be contained by:
 - › Containment dikes
 - › Breakwaters
 - › Turbidity curtains
 - › Other Engineer-approved methods
- › Environmental Compliance Highlights
- › Costs associated with permit exceedances, damaged controls, inadequate maintenance, or contractor-selected means and methods remain the Contractor's responsibility.

Turbidity

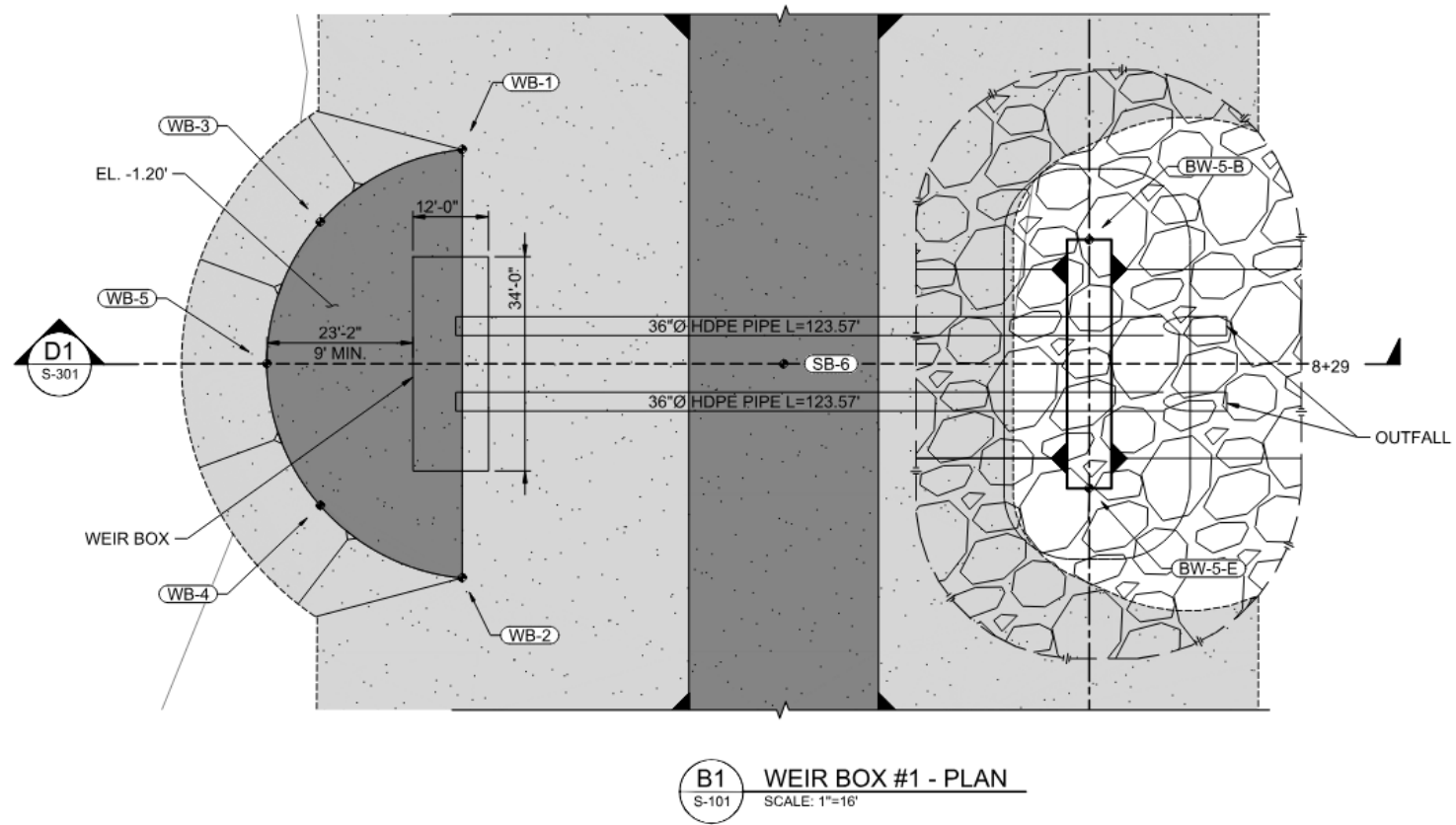
- › Compliance Point turbidity may not exceed Background turbidity by more than 50 NTU.
- › Monitoring Locations
 - › Background: Approximately 1,500 ft from activity and outside visible plume.
 - › Mixing Zone (DIZ): Within 400 ft of active dredging or placement operations.
 - › Compliance Point: 400-500 ft from active dredging or placement operations
- › Measure at:
 - › Surface
 - › Mid-depth
 - › Within 1 ft of bottom
- › If Turbidity Exceeds Standards
 - › Immediately stop dredging, excavation, or discharge activity causing the exceedance.
 - › Implement corrective actions (repair controls, reduce production rate, add BMPs, etc.).
 - › Work may resume only after a subsequent monitoring event confirms compliance

Supplemental Turbidity Control

› Supplemental Turbidity Control

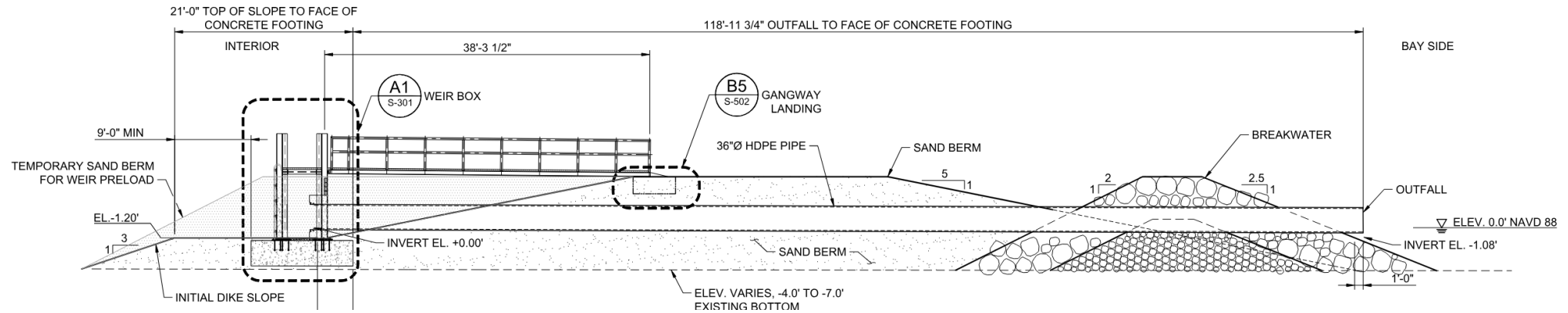
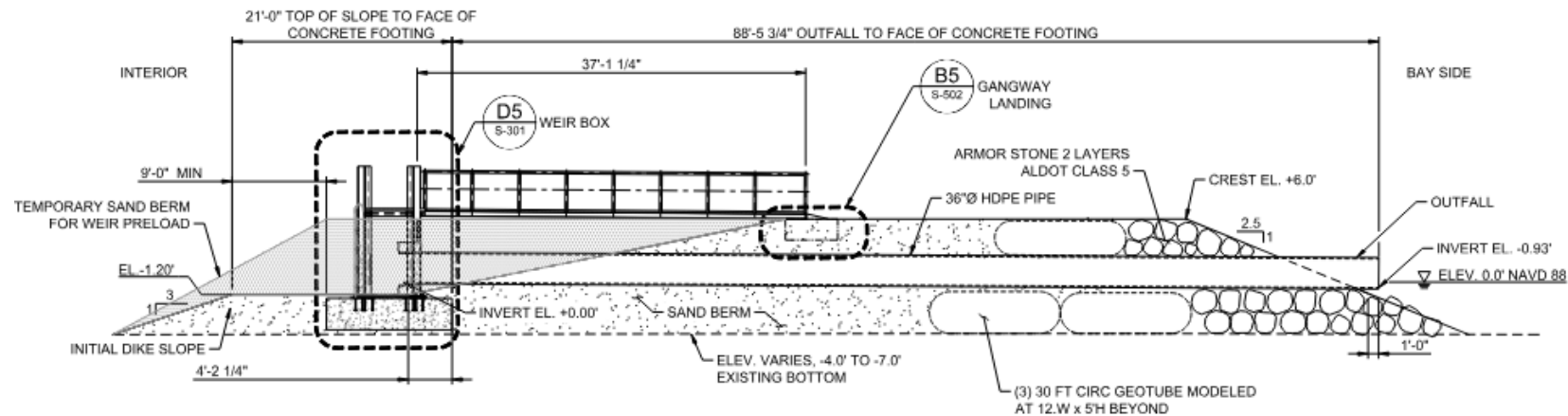
- › Supplemental turbidity control is intended for Owner-directed requirements beyond the base requirements. Contractors remain responsible for providing controls necessary to maintain compliance with permits and water quality standards.
- › Owner may direct additional Type II or bottom-sealing turbidity curtains beyond permit requirements.
- › Directed supplemental controls are paid under separate bid items for each 100-ft of curtain for each day it is in-place and working.
- › Supplemental controls required due to Contractor deficiencies are not compensable.

Plan - Weir Box



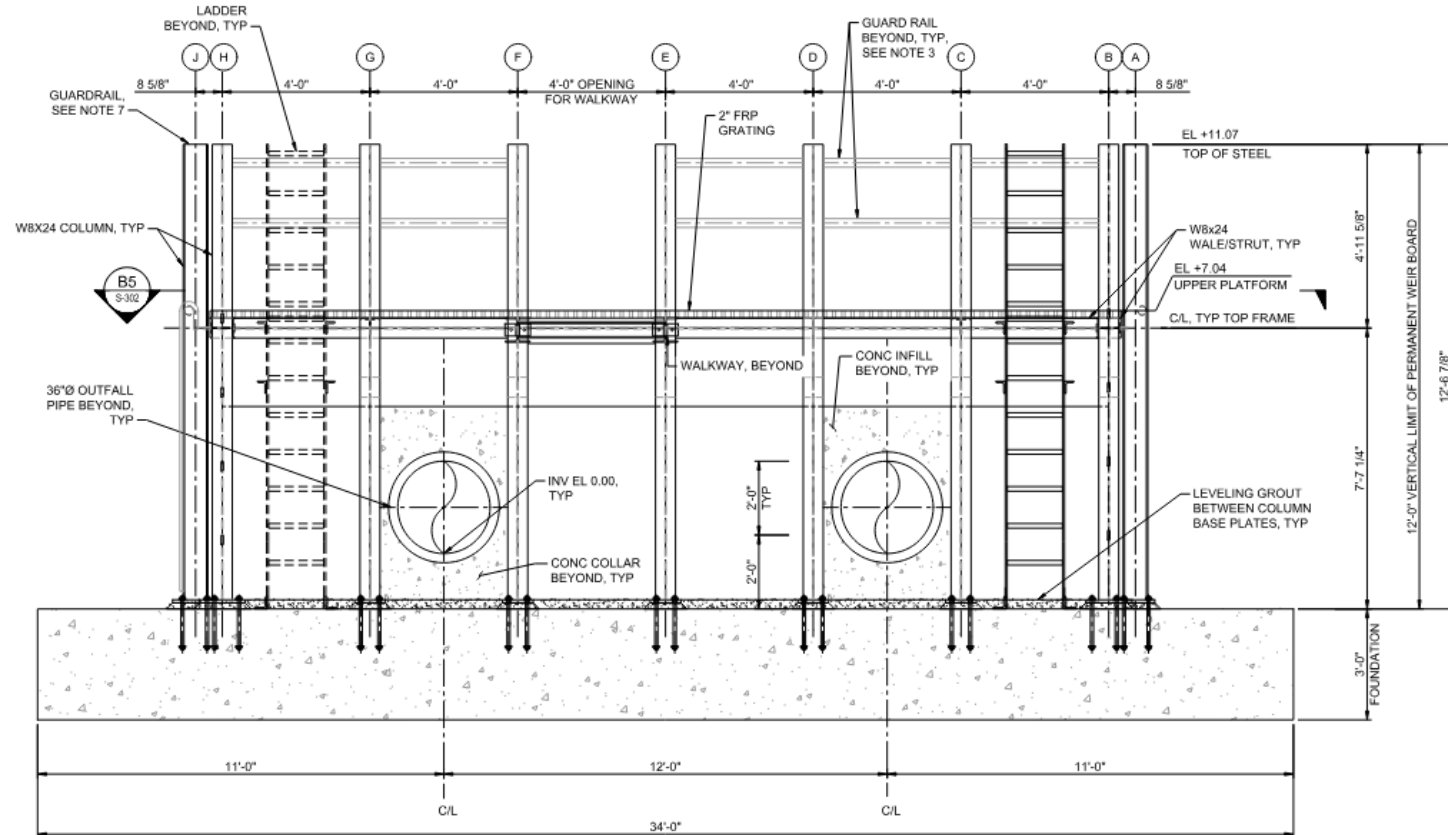
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Section – Weir Box



B3 WEIR BOX SECTION - GEOTUBES
S-301 SCALE: 1/8" = 1'-0"

Section – Weir Box



B1 SECTION - WEIR BOX
SCALE: 1/2" = 1'-0"

Weir Box Notes

› Materials:

- › Structural steel frame
- › Concrete foundation
- › Two (2) 36" diameter HDPE pipes approx 125' long
- › Pre-fabricated walkway with concrete pad for landing

› Construction Sequencing

- › Breakwater and sand berm features must be constructed first to allow for pre-loading
- › Additional sand berm area for pre-loading
- › Deconstruct necessary portions of breakwater / sand berm
- › Construct weir box
- › Reconstruct breakwater / sand berm

Site Access and Staging

Site Access

- › Site Access to the Local Borrow Area and 100-acre BU site are by open-water only
- › Contractor shall consider that tides, waves, currents, fog, and other weather or seasonal variations may impact construction

Staging

- › Staging and/or Laydown areas are the sole responsibility of the Contractor and are not provided by Owner

Thank You